CDD/CDF COMPLETE SDG FILE (CSF) INVENTORY SHEET

LABORATORY NAME ______

CITY/STATE ______

CASE NO. ______ SDG NO. 193 SDG NOS. TO FOLLOW ______

TASK ORDER NO. ______

CONTRACT NO. ______

SOW NO. DLM02.2

All documents delivered in the Complete SDG File must be original documents where possible.
(Reference - Exhibit B Section 2.6)

	PAGE NOs. FROM	PAGE NOs. TO	CHECK LAB	CHECK EPA
1. **Inventory Sheet** (DC-2) (Do not number)			✓	
2. **SDG Narrative**	1	3	✓	
3. **Traffic Report**	4	7	✓	
4. **CDD/CDF Data**	8	97	✓	
a. Sample Data				
Sample Data Summary (FORM I-HR CDD-1)	8	13	✓	
Toxicity Equivalence Summary (FORM I-HR CDD-2)	14	16	✓	
Second Column confirmation Summary (FORM I-HR CDD-3)	17	17	✓	
TEF Adjusted Concentration Mammal/Fish/Bird (FORM I-HR CDD-4)	NA	NA	✓	
Selected Ion Current Profile (SICP) for each sample	18	94	✓	
Quantitation Reports and Area Summaries	18	94	✓	
Total Homologue Concentration Summary (FORM II-HR CDD)	95	97	✓	
b. Quality Control Data	98	112	✓	
Lab Control Sample Summary (FORM III-HR CDD-1)	98	102	✓	
Method Blank Summary (FORM IV-HR CDD)	103	106	✓	
Window Defining Mix Summary (FORM V-HR CDD-1)	107	112	✓	
Chromatographic Resolution Summary (FORM V-HR CDD-2)	107	112	✓	
Analytical Sequence Summary (FORM V-HR CDD-3)	113	115	✓	
c. Calibration Data				
Initial Calibration Data (FORM VI-HR CDD-1 and FORM VI-HR CDD-2), PFK mass resolution, CDD/CDF standard(s) SICPs, Quantitation Reports, and Area Summaries for the initial (five-point) calibration	116	382	✓	
Continuing Calibration Data (FORM VII-HR CDD-1 and FORM VII-HR CDD-2), PFK mass resolution, SICPs, Quantitation Reports, and Area Summaries	383	527	✓	

	PAGE NOs. FROM	PAGE NOs. TO	CHECK LAB	CHECK EPA
d. Raw Quality Control Data	528	635		
Blank Data FORM I-HR CDD-1, CDD-2, CDD-3 (if applicable)	528	531		
Blank Data including SICPs, Quantitation Reports, and Area Summaries for each blank analyzed	532	567		
LCS FORM I-HR CDD-1 and CDD-2	568	623		
LCS Data including SICPs, Quantitation Reports, and Area Summaries				
5. **Miscellaneous Data**				
Original preparation and analysis forms or copies of preparation and analysis logbook pages	624	627		
Internal sample and sample extract transfer Chain of Custody Records	628	628		
Screening records	NA	NA		
All instrument output, including strip charts from screening activities (describe or list)	NA	NA		
6. **EPA Shipping/Receiving Documents**				
Airbills (No. of shipments ________)	629	633		
Chain of Custody Records	634	640		
Sample Tags	641	641		
Sample Log-In Sheet (Lab & DC-1)	642	642		
Traffic Report Cover Sheet	NA	NA		
Miscellaneous Shipping/Receiving Records (describe or list)	NA	NA		
7. **Internal Lab Sample Transfer Records and Tracking Sheets** (Describe or list)	643	666		
8. **Other Records** (describe or list) Telephone Communication Log	NA	NA		

9. **Comments:** ____________________

Completed by:
(Lab) ________ (Signature) ________ (Print Name & Title) ________ (Date)

Audited by:
(USEPA) ________ (Signature) ________ (Print Name & Title) ________ (Date)

Client:	US Environmental Protection Agency	**Service Request No.:**	
Case:	Dioxins/Furans/	**Date Received:**	5/9/12-5/11/12
Sample Matrix:	Water and Sediment	**Contract Number:**	

CASE NARRATIVE

All analyses were performed in adherence to the quality assurance program of
This report contains analytical results for samples designated for Tier IV. When appropriate to the method, method blank results have been reported with each analytical test.

Sample Receipt

One sediment and three water samples were received for analysis between 5/9/12 and 5/11/12. However sample 236 was cancelled per the region on 5/10/12 and never logged in.

The samples were received at 0 and 1°C in good condition and are consistent with the accompanying chain of custody form. The samples were stored in a refrigerator at 4°C upon receipt at the laboratory.

Re-extraction

Sample 584-001(193) was originally extracted on batch 1200314, but required re-extraction due to an inadequate sample amount used for the original extraction. The sample was re-extracted on batch 1200341, using an appropriate sample amount. The results from the first extraction are not included in this report.

Data Validation Notes and Discussion

Capillary Column

A 60 meter DB-5 column from J&W Scientific with an ID of 0.25mm and a 0.25 um film thickness was used for the primary analysis. A 30 meter DB-225 column from J&W Scientific with an ID of 0.25mm and a 0.25 um film thickness was used for the 2378-TCDF confirmation analysis.

B flags – Method Blanks

The Method Blank 1200313-01 contained low levels of OCDD at or below the Method Reporting Limit (MRL).

The Method Blank 1200341-01 contained low levels of 1234678-HpCDF at or below the Method Reporting Limit (MRL).

The associated compounds in the samples are flagged with ‘B’ flags.

MS/MSD

1200313: Laboratory Control Spike/Duplicate Laboratory Control Spike (LCS/DLCS) samples were analyzed and reported in lieu of an MS/MSD for this extraction batch. The batch quality control criteria were met.

1200341: Laboratory Control Spike/Duplicate Laboratory Control Spike (LCS/DLCS) samples were analyzed and reported in lieu of an MS/MSD for this extraction batch. The batch quality control criteria were met.

C flags – 2378-TCDF Confirmation

Confirmation of the TCDF compound: When 2378-TCDF is detected on the DB-5 column, confirmation analyses are performed on a second column (DB-225.) The results from both the DB-5 column and the DB-225 column are included in this data package.

The valid result for the 2378-TCDF compound is reported from the confirmation column.

The confirmation results have been included on form 1DF2.

Retention Times

The retention times in the data package are reported in standard minutes and second because our data system does not report retention times in decimal minutes.

Additional Notes

The fed ex way bill for the shipment on May 9, 2012 was discarded and not saved, however the custody seals were not discarded.

Detection Limits

Detection limits are calculated for each analyte in each sample by measuring the height of the noise level for each quantitation ion for the associated labeled standard. The concentration equivalent to 2.5 times the height of the noise is then calculated using the appropriate response factor and the weight of the sample. The calculated concentration equals the detection limit.

The TEQ Summary results for each sample have been calculated by to include:

- WHO-2005 TEFs, The 2005 World Health Organization Reevaluation of Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-Like Compounds (M. Van den Berg et al., Toxicological Sciences 93(2):223-241, 2006)
- 2378-TCDF from the DB-225 column, when confirmation required
- Non-detected compounds are not included in the 'Total'

Page 1 of 1

USEPA Organics COC (LAB COPY)

CHAIN OF CUSTODY RECORD

DateShipped: 5/8/2012
CarrierName: FedEx
AirbillNo: 13614

Case #:
Cooler #:

Organic Sample #	Matrix/Sampler	Coll. Method	Analysis/Turnaround	Tag/Preservative/Bottles	Station Location	Collected	Inorganic Sample #	For Lab Use Only
236		Grab	D/F(42), Cong(42)	1136 (ice), 1137 (ice) (2)	C0512- -A	05/08/2012 14:16	236	

Special Instructions: please disregard tag numbers PCB Congeners
Salinity 22.77ppt Dioxin Furans

Analysis Key: D/F=Dioxin/Furans, Cong=209 CBC-PCB Congeners

Shipment for Case Complete? N
Samples Transferred From Chain of Custody #

y	Date	Received by	Date	Time	Items/Reason	Relinquished By	Date	Received by	Date	Time
	5/8/12									
									5-9-12	1004/1109

no seals 1°C
wetice Bubblewrap
TR# 3614

USEPA Organics COC (LAB COPY)

CHAIN OF CUSTODY RECORD

DateShipped: 5/10/2012
CarrierName: FedEx
AirbillNo: 34795

Case #:
Cooler #:

Organic Sample #	Matrix/Sampler	Coll. Method	Analysis/Turnaround	Tag/Preservative/Bottles	Station Location	Collected	Inorganic Sample #	For Lab Use Only
240		Grab	D/F(42), Cong(42)	1155 (ice), 1156 (ice) (2)	C0512- A-RS	05/10/2012 14:04	240	

Special Instructions: please disregard tag numbers Salinity (ppt) NC046- 22.01	**Shipment for Case Complete? N** **Samples Transferred From Chain of Custody #**

Analysis Key: D/F=Dioxin/Furans Mod Cong=209 CBC-PCB Congeners Mod

Items/Reason	Relinquished by	Date	Received by	Date	Time	Items/Reason	Relinquished By	Date	Received by	Date	Time
		5/10/12								5/11/12	958

1013
0°c
2 seals
w/ice·bubblewrap·baggies
Fedex, 0584 193)

Page 1 of 1

USEPA [redacted] Organics COC (LAB COPY)

CHAIN OF CUSTODY RECORD

DateShipped: 5/9/2012
CarrierName: FedEx
AirbillNo: [redacted] 1948

Case #: [redacted]
Cooler #:

[redacted]

Organic Sample #	Matrix/Sampler	Coll. Method	Analysis/Turnaround	Tag/Preservative/Bottles	Station Location	Collected	Inorganic Sample #	For Lab Use Only
[redacted] 193	sediment/ [redacted]	Grab	Cong(42), D/F(42)	1192 (ice), 1193 (ice) (2)	C0512- [redacted] 000014	05/09/2012 11:13	[redacted] 193	opened @1023 wet ice bubblewrap two seals 1°C

Fedex

Shipment for Case Complete? N

Samples Transferred From Chain of Custody #

Special Instructions: please disregard tag numbers

Analysis Key: Cong= 209 CBC- PCB Congeners Mod [redacted], D/F=Dioxin/Furans Mod [redacted]

[redacted]d by	Date	Received by	Date	Time	Items/Reason	Relinquished By	Date	Received by	Date	Time
[redacted]	[redacted]/9/12							[redacted]	5/10/12	1004

Page 1 of 1

USEPA Organics COC (LAB COPY)

CHAIN OF CUSTODY RECORD

DateShipped: 5/9/2012
CarrierName: FedEx
AirbillNo: 1948

Case #:
Cooler #:

Organic Sample #	Matrix/Sampler	Coll. Method	Analysis/Turnaround	Tag/Preservative/Bottles	Station Location	Collected	Inorganic Sample #	For Lab Use Only
238		Grab	D/F(42), Cong(42)	1145 (ice), 1146 (ice) (4)	C0512- -A	05/09/2012 08:59	238	
								opened @ 1023 wet ice bubblewrap two seals X 1°C

Sample(s) to be used for Lab QC: 238 - Special Instructions: please disregard tag numbers salinity 21.95 ppt

Fedex

Shipment for Case Complete? N

Samples Transferred From Chain of Custody #

Analysis Key: D/F=Dioxin/Furans Mod , Cong=209 CBC-PCB Congeners

	Date	Received by	Date	Time	Items/Reason	Relinquished By	Date	Received by	Date	Time
	/9/12									
									5/10/12	1004

1DFA - FORM I-HR CDD-1
CDD/CDF SAMPLE DATA SUMMARY
HIGH RESOLUTION

EPA Sample No.: 193

Lab Name: ____ Contract: ____

Lab Code: ____ Case No.: ____ TO No.: ____ SDG No.: 193

Matrix: (Soil/Water/Ash/Tissue/Oil) Soil Lab Sample ID: 00584-001

Sample wt/vol: 30.272 (g/mL) g Lab File ID: 8294

Water Sample Prep: ____ (SEPF/SPE) Date Received: 05/10/2012

Concentrated Extract Volume: 20 (uL) Date Extracted: 06/12/2012

Injection Volume: 1 (uL) % Solids/Lipids: 33.3 Date Analyzed: 06/19/2012

GC Column: DB-5 ID: 0.25 (mm) Dilution Factor: 1.0

Instrument ID: E-HRMS-03

Concentration Units: (pg/L or ng/kg) ng/Kg

Target Analyte	Selected Ions	Peak RT	Ion Ratio	#	Concentration	Q	EMPC/EDL
2,3,7,8-TCDD	320/322	29.22	0.74		2.74		0.0494
1,2,3,7,8-PeCDD	356/358	33.90	1.60		1.14	J	0.108
1,2,3,4,7,8-HxCDD	390/392	37.12	1.23		1.34	J	0.104
1,2,3,6,7,8-HxCDD	390/392	37.18	1.31		5.29		0.111
1,2,3,7,8,9-HxCDD	390/392	37.45	1.10		2.91	J	0.102
1,2,3,4,6,7,8-HpCDD	424/426	40.00	1.08		97.7	B	0.417
OCDD	485/460	43.03	0.89		962		0.371
2,3,7,8-TCDF	304/306	28.37	0.76		9.75		0.0497
1,2,3,7,8-PeCDF	340/342	32.80	1.49		2.39	J	0.0440
2,3,4,7,8-PeCDF	340/342	33.55	1.52		3.09	J	0.0540
1,2,3,4,7,8-HxCDF	374/376	36.38	1.15		7.31		0.126
1,2,3,6,7,8-HxCDF	374/376	36.50	1.32	#	3.25	J	0.122
1,2,3,7,8,9-HxCDF	374/376	*				U	0.124
2,3,4,6,7,8-HxCDF	374/376	36.98	0.98		1.67	J	0.129
1,2,3,4,6,7,8-HpCDF	408/410	39.12	1.01		41.7		0.129
1,2,3,4,7,8,9-HpCDF	408/410	40.40	1.26		1.95	J	0.128
OCDF	442/444	43.18	0.86		64.1		0.271

NOTE: Concentrations, Estimated Maximum Possible Concentrations (EMPCs), and Estimated Detection Levels (EDLs) for solid samples are calculated on a dry weight basis (except tissues, which are reported on a wet weight basis with % Lipids).

Labeled Compounds	Selected Ions	Peak RT	Ion Ratio	#	Ion Ratio Limits	% Rec	#	Recovery Limits
13C-2,3,7,8-TCDD	332/334	29.18	0.79		0.65-0.89	67		25-164
13C-1,2,3,7,8-PeCDD	368/370	33.88	1.56		1.32-1.78	62		25-181
13C-1,2,3,4,7,8-HxCDD	402/404	37.10	1.29		1.05-1.43	74		32-141
13C-1,2,3,6,7,8-HxCDD	402/404	37.18	1.29		1.05-1.43	73		28-130
13C-1,2,3,4,6,7,8-HpCDD	436/438	40.00	1.07		0.88-1.20	75		23-140
13C-OCDD	470/472	43.02	0.90		0.76-1.02	56		17-157
13C-2,3,7,8-TCDF	316/318	28.33	0.80		0.65-0.89	51		24-169
13C-1,2,3,7,8-PeCDF	352/354	32.78	1.59		1.32-1.78	73		24-185
13C-2,3,4,7,8-PeCDF	352/354	33.53	1.60		1.32-1.78	63		21-178
13C-1,2,3,4,7,8-HxCDF	384/386	36.38	0.52		0.43-0.59	74		26-152
13C-1,2,3,6,7,8-HxCDF	384/386	36.48	0.54		0.43-0.59	76		26-123
13C-1,2,3,7,8,9-HxCDF	384/386	37.67	0.53		0.43-0.59	86		29-147
13C-2,3,4,6,7,8-HxCDF	384/386	36.98	0.53		0.43-0.59	78		28-136

Column to be used to flag values outside QC limits.

1DFA - FORM I-HR CDD-1
CDD/CDF SAMPLE DATA SUMMARY
HIGH RESOLUTION

EPA Sample No.: 193

Lab Name: ____________ ____________ Contract: __________ __________

Lab Code: ___ ___ Case No.: _______ _______ TO No.: ___ ___ SDG No.: ___ 193

Matrix: (Soil/Water/Ash/Tissue/Oil) Soil Lab Sample ID: ______ 00584-001

Sample wt/vol: 30.272 (g/mL) g Lab File ID: ______ 8294

Water Sample Prep: ____________ (SEPF/SPE) Date Received: 05/10/2012

Concentrated Extract Volume: 20 (uL) Date Extracted: 06/12/2012

Injection Volume: 1 (uL) % Solids/Lipids: 33.3 Date Analyzed: 06/19/2012

GC Column: DB-5 ID: 0.25 (mm) Dilution Factor: 1.0

Instrument ID: E-HRMS-03

Concentration Units: (pg/L or ng/kg) ng/Kg

13C-1,2,3,4,6,7,8-HpCDF	418/420	39.12	0.45		0.37-0.51	62	28-143
13C-1,2,3,4,7,8,9-HpCDF	418/420	40.40	0.46		0.37-0.51	85	26-138
37Cl-2,3,7,8-TCDD	328/NA	29.22	NA		NA	77	35-197

Column to be used to flag values outside QC limits.

1DFA - FORM I-HR CDD-1
CDD/CDF SAMPLE DATA SUMMARY
HIGH RESOLUTION

EPA Sample No. 238

Lab Name: ____ Contract: ____
Lab Code: ____ Case No.: ____ TO No.: ____ SDG No.: 193
Matrix: (Soil/Water/Ash/Tissue/Oil) Water Lab Sample ID: 00584-002
Sample wt/vol: 1040 (g/mL) mL Lab File ID: 8238
Water Sample Prep: ____ (SEPF/SPE) Date Received: 05/10/2012
Concentrated Extract Volume: 20 (uL) Date Extracted: 06/06/2012
Injection Volume: 1 (uL) % Solids/Lipids: ____ Date Analyzed: 07/06/2012
GC Column: DB-5 ID: 0.25 (mm) Dilution Factor: 1.0
Instrument ID: E-HRMS-04

Concentration Units: (pg/L or ng/kg) pg/L

Target Analyte	Selected Ions	Peak RT	Ion Ratio	#	Concentration	Q	EMPC/EDL
2,3,7,8-TCDD	320/322	*				U	0.426
1,2,3,7,8-PeCDD	356/358	*				U	0.238
1,2,3,4,7,8-HxCDD	390/392	*				U	0.274
1,2,3,6,7,8-HxCDD	390/392	*				U	0.305
1,2,3,7,8,9-HxCDD	390/392	*				U	0.284
1,2,3,4,6,7,8-HpCDD	424/426	41.07	1.20	#	7.17	J	0.875
OCDD	485/460	45.05	0.86		63.0	BJ	1.63
2,3,7,8-TCDF	304/306	*				U	0.325
1,2,3,7,8-PeCDF	340/342	*				U	0.310
2,3,4,7,8-PeCDF	340/342	*				U	0.349
1,2,3,4,7,8-HxCDF	374/376	*				U	0.262
1,2,3,6,7,8-HxCDF	374/376	36.78	1.28		0.835	J	0.233
1,2,3,7,8,9-HxCDF	374/376	*				U	0.354
2,3,4,6,7,8-HxCDF	374/376	*				U	0.263
1,2,3,4,6,7,8-HpCDF	408/410	39.87	1.00		3.29	J	0.531
1,2,3,4,7,8,9-HpCDF	408/410	*				U	0.763
OCDF	442/444	45.07	0.44	#	2.77	J	1.66

NOTE: Concentrations, Estimated Maximum Possible Concentrations (EMPCs), and Estimated Detection Levels (EDLs) for solid samples are calculated on a dry weight basis (except tissues, which are reported on a wet weight basis with % Lipids).

Labeled Compounds	Selected Ions	Peak RT	Ion Ratio	#	Ion Ratio Limits	% Rec	#	Recovery Limits
13C-2,3,7,8-TCDD	332/334	29.05	0.79		0.65-0.89	58		25-164
13C-1,2,3,7,8-PeCDD	368/370	33.93	1.59		1.32-1.78	57		25-181
13C-1,2,3,4,7,8-HxCDD	402/404	37.50	1.27		1.05-1.43	59		32-141
13C-1,2,3,6,7,8-HxCDD	402/404	37.60	1.27		1.05-1.43	53		28-130
13C-1,2,3,4,6,7,8-HpCDD	436/438	41.05	1.07		0.88-1.20	64		23-140
13C-OCDD	470/472	45.03	0.90		0.76-1.02	58		17-157
13C-2,3,7,8-TCDF	316/318	28.15	0.80		0.65-0.89	62		24-169
13C-1,2,3,7,8-PeCDF	352/354	32.77	1.58		1.32-1.78	69		24-185
13C-2,3,4,7,8-PeCDF	352/354	33.55	1.59		1.32-1.78	61		21-178
13C-1,2,3,4,7,8-HxCDF	384/386	36.67	0.54		0.43-0.59	55		26-152
13C-1,2,3,6,7,8-HxCDF	384/386	36.78	0.52		0.43-0.59	58		26-123
13C-1,2,3,7,8,9-HxCDF	384/386	38.12	0.53		0.43-0.59	57		29-147
13C-2,3,4,6,7,8-HxCDF	384/386	37.35	0.53		0.43-0.59	62		28-136

Column to be used to flag values outside QC limits.

1DFA - FORM I-HR CDD-1
CDD/CDF SAMPLE DATA SUMMARY
HIGH RESOLUTION

EPA Sample No.: 238

Lab Name: ____ ____ Contract: ____ 0W001071

Lab Code: ____ ____ Case No.: ____ ____ TO No.: ____ ____ SDG No.: ____ 193

Matrix: (Soil/Water/Ash/Tissue/Oil) Water Lab Sample ID: ____ 00584-002

Sample wt/vol: 1040 (g/mL) mL Lab File ID: ____ 8238

Water Sample Prep: ____ (SEPF/SPE) Date Received: 05/10/2012

Concentrated Extract Volume: 20 (uL) Date Extracted: 06/06/2012

Injection Volume: 1 (uL) % Solids/Lipids: ____ Date Analyzed: 07/06/2012

GC Column: DB-5 ID: 0.25 (mm) Dilution Factor: 1.0

Instrument ID: E-HRMS-04

Concentration Units: (pg/L or ng/kg) pg/L

13C-1,2,3,4,6,7,8-HpCDF	418/420	39.88	0.45	0.37-0.51	58	28-143
13C-1,2,3,4,7,8,9-HpCDF	418/420	41.45	0.45	0.37-0.51	67	26-138
37Cl-2,3,7,8-TCDD	328/NA	29.07	NA	NA	83	35-197

Column to be used to flag values outside QC limits.

1DFA - FORM I-HR CDD-1
CDD/CDF SAMPLE DATA SUMMARY
HIGH RESOLUTION

EPA Sample No. 240

Lab Name: ____________ ____________ Contract: ________ 0W001071
Lab Code: ___ ___ Case No.: ________ ________ TO No.: ___ ___ SDG No.: ___ 193
Matrix: (Soil/Water/Ash/Tissue/Oil) Water Lab Sample ID: 00584-003
Sample wt/vol: 1040 (g/mL) mL Lab File ID: 8239
Water Sample Prep: ____________ (SEPF/SPE) Date Received: 05/11/2012
Concentrated Extract Volume: 20 (uL) Date Extracted: 06/06/2012
Injection Volume: 1 (uL) % Solids/Lipids: ______ Date Analyzed: 07/06/2012
GC Column: DB-5 ID: 0.25 (mm) Dilution Factor: 1.0
Instrument ID: E-HRMS-04

Concentration Units: (pg/L or ng/kg) pg/L

Target Analyte	Selected Ions	Peak RT	Ion Ratio	#	Concentration	Q	EMPC/EDL
2,3,7,8-TCDD	320/322	*				U	0.416
1,2,3,7,8-PeCDD	356/358	*				U	0.348
1,2,3,4,7,8-HxCDD	390/392	*				U	0.281
1,2,3,6,7,8-HxCDD	390/392	*				U	0.323
1,2,3,7,8,9-HxCDD	390/392	*				U	0.296
1,2,3,4,6,7,8-HpCDD	424/426	41.07	0.97		2.85	J	0.710
OCDD	485/460	44.97	0.79		18.3	BJ	1.42
2,3,7,8-TCDF	304/306	*				U	0.377
1,2,3,7,8-PeCDF	340/342	*				U	0.331
2,3,4,7,8-PeCDF	340/342	*				U	0.389
1,2,3,4,7,8-HxCDF	374/376	36.65	1.13		0.689	J	0.314
1,2,3,6,7,8-HxCDF	374/376	*				U	0.291
1,2,3,7,8,9-HxCDF	374/376	*				U	0.428
2,3,4,6,7,8-HxCDF	374/376	*				U	0.344
1,2,3,4,6,7,8-HpCDF	408/410	*				U	0.558
1,2,3,4,7,8,9-HpCDF	408/410	*				U	0.825
OCDF	442/444	*				U	1.25

NOTE: Concentrations, Estimated Maximum Possible Concentrations (EMPCs), and Estimated Detection Levels (EDLs) for solid samples are calculated on a dry weight basis (except tissues, which are reported on a wet weight basis with % Lipids).

Labeled Compounds	Selected Ions	Peak RT	Ion Ratio	#	Ion Ratio Limits	% Rec	#	Recovery Limits
13C-2,3,7,8-TCDD	332/334	29.03	0.79		0.65-0.89	51		25-164
13C-1,2,3,7,8-PeCDD	368/370	33.93	1.60		1.32-1.78	51		25-181
13C-1,2,3,4,7,8-HxCDD	402/404	37.48	1.36		1.05-1.43	55		32-141
13C-1,2,3,6,7,8-HxCDD	402/404	37.58	1.17		1.05-1.43	49		28-130
13C-1,2,3,4,6,7,8-HpCDD	436/438	41.02	1.08		0.88-1.20	64		23-140
13C-OCDD	470/472	44.97	0.90		0.76-1.02	62		17-157
13C-2,3,7,8-TCDF	316/318	28.15	0.78		0.65-0.89	51		24-169
13C-1,2,3,7,8-PeCDF	352/354	32.75	1.59		1.32-1.78	63		24-185
13C-2,3,4,7,8-PeCDF	352/354	33.53	1.58		1.32-1.78	53		21-178
13C-1,2,3,4,7,8-HxCDF	384/386	36.65	0.52		0.43-0.59	53		26-152
13C-1,2,3,6,7,8-HxCDF	384/386	36.75	0.53		0.43-0.59	55		26-123
13C-1,2,3,7,8,9-HxCDF	384/386	38.12	0.52		0.43-0.59	55		29-147
13C-2,3,4,6,7,8-HxCDF	384/386	37.33	0.53		0.43-0.59	56		28-136

Column to be used to flag values outside QC limits.

1DFA - FORM I-HR CDD-1
CDD/CDF SAMPLE DATA SUMMARY
HIGH RESOLUTION

EPA Sample No.

240

Lab Name: ____________ Contract: 0W001071

Lab Code: ___ Case No.: ____ TO No.: ____ SDG No.: 193

Matrix: (Soil/Water/Ash/Tissue/Oil) Water Lab Sample ID: 00584-003

Sample wt/vol: 1040 (g/mL) mL Lab File ID: 8239

Water Sample Prep: ________ (SEPF/SPE) Date Received: 05/11/2012

Concentrated Extract Volume: 20 (uL) Date Extracted: 06/06/2012

Injection Volume: 1 (uL) % Solids/Lipids: ____ Date Analyzed: 07/06/2012

GC Column: DB-5 ID: 0.25 (mm) Dilution Factor: 1.0

Instrument ID: E-HRMS-04

Concentration Units: (pg/L or ng/kg) pg/L

13C-1,2,3,4,6,7,8-HpCDF	418/420	39.87	0.44	0.37-0.51	58	28-143
13C-1,2,3,4,7,8,9-HpCDF	418/420	41.42	0.45	0.37-0.51	65	26-138
37Cl-2,3,7,8-TCDD	328/NA	29.07	NA	NA	72	35-197

Column to be used to flag values outside QC limits.

1DFB - FORM I-HR CDD-2
CDD/CDF TOXICITY EQUIVALENCE SUMMARY
HIGH RESOLUTION

EPA Sample No.

193

Lab Name: ______ Contract: 0W001071
Lab Code: ______ Case No.: ______ TO No.: ______ SDG No.: 193
Matrix: (Soil/Water/Ash/Tissue/Oil) Soil
Lab Sample ID: 00584-001
Sample wt/vol: 30.272 (g/mL) g
Lab File ID: 8294
Water Sample Prep: ______ (SEPF/SPE)
Date Received: 05/10/2012
Concentrated Extract Volume: 20 (uL)
Date Extracted: 06/12/2012
Injection Volume: 1 (uL) % Solids/Lipids: 33.3
Date Analyzed: 06/19/2012
GC Column: DB-5 ID: 0.25 (mm)
Dilution Factor: 1
Instrument ID: E-HRMS-03

Concentration Units: (pg/L or ng/kg) ng/Kg

Target Analyte	Concentration	TEF*	TEF-Adjusted Concentration
2,3,7,8-TCDD	2.74	1	2.74
1,2,3,7,8-PeCDD	1.14	1	1.14
1,2,3,4,7,8-HxCDD	1.34	0.1	0.134
1,2,3,6,7,8-HxCDD	5.29	0.1	0.529
1,2,3,7,8,9-HxCDD	2.91	0.1	0.291
1,2,3,4,6,7,8-HpCDD	97.7	0.01	0.977
OCDD	962	0.0003	0.289
2,3,7,8-TCDF	9.75	0.1	0.975
1,2,3,7,8-PeCDF	2.39	0.03	0.0717
2,3,4,7,8-PeCDF	3.09	0.3	0.927
1,2,3,4,7,8-HxCDF	7.31	0.1	0.731
1,2,3,6,7,8-HxCDF	3.25	0.1	0.325
1,2,3,7,8,9-HxCDF	0.124	0.1	0
2,3,4,6,7,8-HxCDF	1.67	0.1	0.167
1,2,3,4,6,7,8-HpCDF	41.7	0.01	0.417
1,2,3,4,7,8,9-HpCDF	1.95	0.01	0.0195
OCDF	64.1	0.0003	0.0192
Total TEQ			9.30

* TEF - Toxicity Equivalent Factors from the World Health Organization (WHO), 2005.

1DFB - FORM I-HR CDD-2
CDD/CDF TOXICITY EQUIVALENCE SUMMARY
HIGH RESOLUTION

EPA Sample No.

238

Lab Name: ______________ ______________ Contract: ____________ 0W001071

Lab Code: ___ ___ Case No.: ________ ________ TO No.: ____ ____ SDG No.: ____ 193

Matrix: (Soil/Water/Ash/Tissue/Oil) Water Lab Sample ID: ______ 00584-002

Sample wt/vol: 1040 (g/mL) mL Lab File ID: ________ 8238

Water Sample Prep: ______________ (SEPF/SPE) Date Received: 05/10/2012

Concentrated Extract Volume: 20 (uL) Date Extracted: 06/06/2012

Injection Volume: 1 (uL) % Solids/Lipids: ______ Date Analyzed: 07/06/2012

GC Column: DB-5 ID: 0.25 (mm) Dilution Factor: 1

Instrument ID: E-HRMS-04

Concentration Units: (pg/L or ng/kg) pg/L

Target Analyte	Concentration	TEF*	TEF-Adjusted Concentration
2,3,7,8-TCDD	0.426	1	0
1,2,3,7,8-PeCDD	0.238	1	0
1,2,3,4,7,8-HxCDD	0.274	0.1	0
1,2,3,6,7,8-HxCDD	0.305	0.1	0
1,2,3,7,8,9-HxCDD	0.284	0.1	0
1,2,3,4,6,7,8-HpCDD	7.17	0.01	0.0717
OCDD	63.0	0.0003	0.0189
2,3,7,8-TCDF	0.325	0.1	0
1,2,3,7,8-PeCDF	0.310	0.03	0
2,3,4,7,8-PeCDF	0.349	0.3	0
1,2,3,4,7,8-HxCDF	0.262	0.1	0
1,2,3,6,7,8-HxCDF	0.835	0.1	0.0835
1,2,3,7,8,9-HxCDF	0.354	0.1	0
2,3,4,6,7,8-HxCDF	0.263	0.1	0
1,2,3,4,6,7,8-HpCDF	3.29	0.01	0.0329
1,2,3,4,7,8,9-HpCDF	0.763	0.01	0
OCDF	2.77	0.0003	0.000831
Total TEQ			0.208

* TEF - Toxicity Equivalent Factors from the World Health Organization (WHO), 2005.

1DFB - FORM I-HR CDD-2
CDD/CDF TOXICITY EQUIVALENCE SUMMARY
HIGH RESOLUTION

EPA Sample No.: 240

Lab Name:
Lab Code: Case No.:
Matrix: (Soil/Water/Ash/Tissue/Oil) Water
Sample wt/vol: 1040 (g/mL) mL
Water Sample Prep: (SEPF/SPE)
Concentrated Extract Volume: 20 (uL)
Injection Volume: 1 (uL) % Solids/Lipids:
GC Column: DB-5 ID: 0.25 (mm)
Instrument ID: E-HRMS-04

Contract: 0W001071
TO No.: SDG No.: 193
Lab Sample ID: 00584-003
Lab File ID: 8239
Date Received: 05/11/2012
Date Extracted: 06/06/2012
Date Analyzed: 07/06/2012
Dilution Factor: 1

Concentration Units: (pg/L or ng/kg) pg/L

Target Analyte	Concentration	TEF*	TEF-Adjusted Concentration
2,3,7,8-TCDD	0.416	1	0
1,2,3,7,8-PeCDD	0.348	1	0
1,2,3,4,7,8-HxCDD	0.281	0.1	0
1,2,3,6,7,8-HxCDD	0.323	0.1	0
1,2,3,7,8,9-HxCDD	0.296	0.1	0
1,2,3,4,6,7,8-HpCDD	2.85	0.01	0.0285
OCDD	18.3	0.0003	0.00549
2,3,7,8-TCDF	0.377	0.1	0
1,2,3,7,8-PeCDF	0.331	0.03	0
2,3,4,7,8-PeCDF	0.389	0.3	0
1,2,3,4,7,8-HxCDF	0.689	0.1	0.0689
1,2,3,6,7,8-HxCDF	0.291	0.1	0
1,2,3,7,8,9-HxCDF	0.428	0.1	0
2,3,4,6,7,8-HxCDF	0.344	0.1	0
1,2,3,4,6,7,8-HpCDF	0.558	0.01	0
1,2,3,4,7,8,9-HpCDF	0.825	0.01	0
OCDF	1.25	0.0003	0
Total TEQ			0.103

* TEF - Toxicity Equivalent Factors from the World Health Organization (WHO), 2005.

1DFC - FORM I-HR CDD-3
CDF SECOND COLUMN CONFIRMATION
HIGH RESOLUTION

EPA Sample No.: 193

Lab Name: ______ Contract: 0W001071

Lab Code: ______ Case No.: ______ TO No.: ______ SDG No.: 193

Matrix: (Soil/Water/Ash/Tissue/Oil) Soil Lab Sample ID: 00584-001

Sample wt/vol: 30.272 (g/mL) g Lab File ID: 7979

Water Sample Prep: ______ (SEPF/SPE) Date Received: 05/10/2012

Concentrated Extract Volume: 20 (uL) Date Extracted: 06/12/2012

Injection Volume: 1 (uL) % Solids/Lipids: 33.3 Date Analyzed: 06/21/2012

GC Column: DB-225 ID: 0.25 (mm) Dilution Factor: 1

Instrument ID: E-HRMS-04

Concentration Units: (pg/L or ng/kg) ng/Kg

Analyte	Selected Ions	Peak RT	Ion Ratio #	Concentration	Q	EMPC/EDL
2,3,7,8-TCDF	304/306	23.25	0.68	5.22		0.233

NOTE: Concentrations, Estimated Maximum Possible Concentrations (EMPCs), and Estimated Detection Levels (EDLs) for solid samples are calculated on a dry weight basis (except tissues, which are reported on a wet weight basis with % Lipids).

Labeled Compounds	Selected Ions	Peak RT	Ion Ratio #	Ion Ratio Limits	% Rec #	Recovery Limits
13C-2,3,7,8-TCDF	316/318	23.23	0.80	0.65-0.89	47	24-169
37Cl-2,3,7,8-TCDD	328/NA	21.35	NA	NA	71	35-197

Column to be used to flag values outside Quality Control (QC) limits.

Client:	US Environmental Protection Agency	**Service Request:**	00584
Project:	Dioxins/Furans/	**Date Collected:**	5/ 9/12 1113
Sample Matrix:	Sediment	**Date Received:**	5/10/12
Sample Name:	193	**Units:**	ng/Kg
Lab Code:	00584-001	**Basis:**	Dry
		Percent Solids:	33.3

Chlorinated Dibenzo-p-dioxins (CDDs) and Chlorinated Dibenzofurans (CDFs) by HRGC/HRMS

Analytical Method:		**Date Analyzed:**	6/19/12 1525
Prep Method:	Method	**Date Extracted:**	6/12/12
Sample Amount:	30.272g	**Instrument Name:**	E-HRMS-03
		GC Column:	DB-5
Data File Name:	8294	**Blank File Name:**	8291
ICAL Date:	04/23/12	**Cal Ver. File Name:**	8290

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
2,3,7,8-TCDD	**2.74**		0.0494	0.992	0.74	1.001	1
1,2,3,7,8-PeCDD	**1.14**	J	0.108	4.96	1.60	1.000	1
1,2,3,4,7,8-HxCDD	**1.34**	J	0.104	4.96	1.23	1.000	1
1,2,3,6,7,8-HxCDD	**5.29**		0.111	4.96	1.31	1.000	1
1,2,3,7,8,9-HxCDD	**2.91**	J	0.102	4.96	1.10	1.007	1
1,2,3,4,6,7,8-HpCDD	**97.7**	B	0.417	4.96	1.08	1.000	1
OCDD	**962**		0.371	9.92	0.89	1.000	1
2,3,7,8-TCDF	**9.75**		0.0497	0.992	0.76	1.001	1
1,2,3,7,8-PeCDF	**2.39**	J	0.0440	4.96	1.49	1.001	1
2,3,4,7,8-PeCDF	**3.09**	J	0.0540	4.96	1.52	1.000	1
1,2,3,4,7,8-HxCDF	**7.31**		0.126	4.96	1.15	1.000	1
1,2,3,6,7,8-HxCDF	**3.25**	J	0.122	4.96	1.32	1.000	1
1,2,3,7,8,9-HxCDF	ND	U	0.124	4.96			1
2,3,4,6,7,8-HxCDF	**1.67**	J	0.129	4.96	0.98	1.000	1
1,2,3,4,6,7,8-HpCDF	**41.7**		0.129	4.96	1.01	1.000	1
1,2,3,4,7,8,9-HpCDF	**1.95**	J	0.128	4.96	1.26	1.000	1
OCDF	**64.1**		0.271	9.92	0.86	1.004	1
Total Tetra-Dioxins	**15.7**		0.0494	0.992	0.77		1
Total Penta-Dioxins	**14.7**		0.108	4.96	1.61		1
Total Hexa-Dioxins	**69.5**		0.104	4.96	1.27		1
Total Hepta-Dioxins	**312**		0.417	4.96	1.06		1
Total Tetra-Furans	**68.4**		0.0497	0.992	0.79		1
Total Penta-Furans	**43.8**		0.0540	4.96	1.61		1
Total Hexa-Furans	**41.8**		0.126	4.96	1.13		1
Total Hepta-Furans	**81.2**		0.129	4.96	1.01		1

Analytical Report

Client:	US Environmental Protection Agency	**Service Request:**	00584
Project:	Dioxins/Furans/	**Date Collected:**	5/ 9/12 1113
Sample Matrix:	Sediment	**Date Received:**	5/10/12
Sample Name:	193	**Units:**	Percent
Lab Code:	00584-001	**Basis:**	Dry
		Percent Solids:	33.3

Chlorinated Dibenzo-p-dioxins (CDDs) and Chlorinated Dibenzofurans (CDFs) by HRGC/HRMS

Analytical Method:	/F DLM02.2	**Date Analyzed:**	6/19/12 1525
Prep Method:	Method	**Date Extracted:**	6/12/12
Sample Amount:	30.272g	**Instrument Name:**	E-HRMS-03
		GC Column:	DB-5
Data File Name:	8294	**Blank File Name:**	8291
ICAL Date:	04/23/12	**Cal Ver. File Name:**	8290

Labeled Compounds	Spike Conc.(pg)	Conc. Found (pg)	%Rec	Q	Control Limits	Ion Ratio	RRT
13C-2,3,7,8-TCDD	2000	1335.591	67		25-164	0.79	1.007
13C-1,2,3,7,8-PeCDD	2000	1243.335	62		25-181	1.56	1.170
13C-1,2,3,4,7,8-HxCDD	2000	1471.036	74		32-141	1.29	0.991
13C-1,2,3,6,7,8-HxCDD	2000	1461.565	73		28-130	1.29	0.993
13C-1,2,3,4,6,7,8-HpCDD	2000	1496.418	75		23-140	1.07	1.069
13C-OCDD	4000	2220.304	56		17-157	0.90	1.149
13C-2,3,7,8-TCDF	2000	1022.168	51		24-169	0.80	0.978
13C-1,2,3,7,8-PeCDF	2000	1467.038	73		24-185	1.59	1.132
13C-2,3,4,7,8-PeCDF	2000	1264.094	63		21-178	1.60	1.158
13C-1,2,3,4,7,8-HxCDF	2000	1488.324	74		26-152	0.52	0.972
13C-1,2,3,6,7,8-HxCDF	2000	1521.599	76		26-123	0.54	0.975
13C-1,2,3,7,8,9-HxCDF	2000	1727.466	86		29-147	0.53	1.006
13C-2,3,4,6,7,8-HxCDF	2000	1569.974	78		28-136	0.53	0.988
13C-1,2,3,4,6,7,8-HpCDF	2000	1238.703	62		28-143	0.45	1.045
13C-1,2,3,4,7,8,9-HpCDF	2000	1698.353	85		26-138	0.46	1.079
37Cl-2,3,7,8-TCDD	800	619.209	77		35-197	NA	1.009

Analytical Report

Client:	US Environmental Protection Agency	**Service Request:**	00584
Project:	Dioxins/Furans/	**Date Collected:**	5/ 9/12 1113
Sample Matrix:	Sediment	**Date Received:**	5/10/12
Sample Name:	193	**Units:**	ng/Kg
Lab Code:	00584-001	**Basis:**	Dry
		Percent Solids:	33.3

Chlorinated Dibenzo-p-dioxins (CDDs) and Chlorinated Dibenzofurans (CDFs) by HRGC/HRMS

Analytical Method:	/F DLM02.2	**Date Analyzed:**	6/21/12 0844
Prep Method:	Method	**Date Extracted:**	6/12/12
Sample Amount:	30.272g	**Instrument Name:**	E-HRMS-04
		GC Column:	DB-225
Data File Name:	7979	**Blank File Name:**	7978
ICAL Date:	09/09/11	**Cal Ver. File Name:**	7977

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
2,3,7,8-TCDF	**5.22**		0.233	0.992	0.68	1.001	1

Labeled Compounds	Spike Conc.(pg)	Conc. Found (pg)	%Rec	Q	Control Limits	Ion Ratio	RRT
13C-2,3,7,8-TCDF	2000	936.948	47		24-169	0.80	1.077
37Cl-2,3,7,8-TCDD	800	570.309	71		35-197	NA	0.990

Sample Response Summary CLIENT ID.
.93

Run #11 Filename 8294 Samp: 1 Inj: 1 Acquired: 19-JUN-12 15:25:50
Processed: 20-JUN-12 11:09:21 Sample ID: 00584-001RE

	Typ	Name	RT-1	Resp 1	Resp 2	Ratio	Meet	Mod?	RRF
1	Unk	2,3,7,8-TCDF	28:22	1.764e+03	2.306e+03	0.76	yes	no	0.929
2	Unk	1,2,3,7,8-PeCDF	32:48	7.922e+02	5.319e+02	1.49	yes	no	1.002
3	Unk	2,3,4,7,8-PeCDF	33:33	8.269e+02	5.456e+02	1.52	yes	no	0.963
4	Unk	1,2,3,4,7,8-HxCDF	36:23	1.835e+03	1.600e+03	1.15	yes	no	1.221
5	Unk	1,2,3,6,7,8-HxCDF	36:30	9.290e+02	7.026e+02	1.32	yes	no	1.139
6	Unk	2,3,4,6,7,8-HxCDF	36:59	4.421e+02	4.506e+02	0.98	no	yes	1.139
7	Unk	1,2,3,7,8,9-HxCDF	NotFnd	*	*	*	no	yes	1.165
8	Unk	1,2,3,4,6,7,8-HpCDF	39:07	7.394e+03	7.288e+03	1.01	yes	no	1.394
9	Unk	1,2,3,4,7,8,9-HpCDF	40:24	4.714e+02	3.738e+02	1.26	no	no	1.334
10	Unk	OCDF	43:11	5.840e+03	6.807e+03	0.86	yes	no	1.227
11	Unk	2,3,7,8-TCDD	29:13	5.244e+02	7.073e+02	0.74	yes	no	0.980
12	Unk	1,2,3,7,8-PeCDD	33:54	2.238e+02	1.400e+02	1.60	yes	no	0.915
13	Unk	1,2,3,4,7,8-HxCDD	37:07	2.470e+02	2.009e+02	1.23	yes	no	1.001
14	Unk	1,2,3,6,7,8-HxCDD	37:11	9.794e+02	7.469e+02	1.31	yes	no	0.978
15	Unk	1,2,3,7,8,9-HxCDD	37:27	5.284e+02	4.802e+02	1.10	yes	yes	1.041
16	Unk	1,2,3,4,6,7,8-HpCDD	40:00	1.514e+04	1.401e+04	1.08	yes	no	1.002
17	Unk	OCDD	43:02	7.675e+04	8.623e+04	0.89	yes	no	1.054
18	IS	13C-2,3,7,8-TCDF	28:20	3.964e+04	4.952e+04	0.80	yes	no	1.282
19	IS	13C-1,2,3,7,8-PeCDF	32:47	6.721e+04	4.236e+04	1.59	yes	no	1.098
20	IS	13C-2,3,4,7,8-PeCDF	33:32	5.637e+04	3.523e+04	1.60	yes	no	1.065
21	IS	13C-1,2,3,4,7,8-HxCDF	36:23	2.615e+04	5.021e+04	0.52	yes	no	1.062
22	IS	13C-1,2,3,6,7,8-HxCDF	36:29	3.057e+04	5.699e+04	0.54	yes	no	1.191
23	IS	13C-2,3,4,6,7,8-HxCDF	36:59	2.885e+04	5.446e+04	0.53	yes	no	1.098
24	IS	13C-1,2,3,7,8,9-HxCDF	37:40	2.843e+04	5.335e+04	0.53	yes	no	0.980
25	IS	13C-1,2,3,4,6,7,8-HpCDF	39:07	1.566e+04	3.447e+04	0.45	yes	no	0.837
26	IS	13C-1,2,3,4,7,8,9-HpCDF	40:24	1.819e+04	3.991e+04	0.46	yes	no	0.708
27	IS	13C-2,3,7,8-TCDD	29:11	4.016e+04	5.083e+04	0.79	yes	no	1.002
28	IS	13C-1,2,3,7,8-PeCDD	33:53	4.225e+04	2.701e+04	1.56	yes	no	0.819
29	IS	13C-1,2,3,4,7,8-HxCDD	37:06	3.726e+04	2.878e+04	1.29	yes	no	0.929
30	IS	13C-1,2,3,6,7,8-HxCDD	37:11	3.721e+04	2.894e+04	1.29	yes	no	0.937
31	IS	13C-1,2,3,4,6,7,8-HpCDD	40:00	3.048e+04	2.859e+04	1.07	yes	no	0.817
32	IS	13C-OCDD	43:01	3.014e+04	3.366e+04	0.90	yes	no	0.595
33	RS/RT	13C-1,2,3,4-TCDD	28:58	6.038e+04	7.566e+04	0.80	yes	no	-
34	RS/RT	13C-1,2,3,7,8,9-HxCDD	37:26	5.354e+04	4.310e+04	1.24	yes	no	-
35	C/Up	37Cl-2,3,7,8-TCDD	29:13	4.378e+04				no	1.039

$$\text{OCDD} = \frac{(7.675e{+}04 + 8.623e{+}04)\ \times 4000\ \text{pg} \times 1}{(3.014e{+}04 + 3.366e{+}04) \times 30.272\ \text{g} \times 33.3 / 100 \times 1.054} = 961.717\ \text{ng/kg}$$

6/20/12

Signal/Noise Height Ratio Summary CLIENT ID.
193

Run #11 Filename 8294 Samp: 1 Inj: 1 Acquired: 19-JUN-12 15:25:50
Processed: 20-JUN-12 11:09:211 LAB. ID: 00584-001RE

	Name	Signal 1	Noise 1	S/N Rat.1	Signal 2	Noise 2	S/N Rat.2
1	2,3,7,8-TCDF	2.37e+05	6.72e+02	3.5e+02	3.09e+05	7.36e+02	4.2e+02
2	1,2,3,7,8-PeCDF	1.47e+05	1.00e+03	1.5e+02	1.02e+05	9.40e+02	1.1e+02
3	2,3,4,7,8-PeCDF	1.53e+05	1.00e+03	1.5e+02	1.01e+05	9.40e+02	1.1e+02
4	1,2,3,4,7,8-HxCDF	3.27e+05	2.34e+03	1.4e+02	2.90e+05	2.90e+03	1.0e+02
5	1,2,3,6,7,8-HxCDF	1.98e+05	2.34e+03	8.5e+01	1.45e+05	2.90e+03	5.0e+01
6	2,3,4,6,7,8-HxCDF	1.12e+05	2.34e+03	4.8e+01	9.76e+04	2.90e+03	3.4e+01
7	1,2,3,7,8,9-HxCDF	*	2.34e+03	*	*	2.90e+03	*
8	1,2,3,4,6,7,8-HpCDF	1.54e+06	2.55e+03	6.0e+02	1.53e+06	1.38e+03	1.1e+03
9	1,2,3,4,7,8,9-HpCDF	8.07e+04	2.55e+03	3.2e+01	7.10e+04	1.38e+03	5.2e+01
10	OCDF	7.94e+05	7.56e+02	1.0e+03	9.34e+05	1.90e+03	4.9e+02
11	2,3,7,8-TCDD	6.98e+04	6.28e+02	1.1e+02	8.74e+04	9.64e+02	9.1e+01
12	1,2,3,7,8-PeCDD	4.75e+04	1.39e+03	3.4e+01	3.00e+04	1.38e+03	2.2e+01
13	1,2,3,4,7,8-HxCDD	6.50e+04	1.82e+03	3.6e+01	5.05e+04	1.50e+03	3.4e+01
14	1,2,3,6,7,8-HxCDD	2.25e+05	1.82e+03	1.2e+02	1.74e+05	1.50e+03	1.2e+02
15	1,2,3,7,8,9-HxCDD	1.25e+05	1.82e+03	6.8e+01	1.13e+05	1.50e+03	7.6e+01
16	1,2,3,4,6,7,8-HpCDD	3.17e+06	4.59e+03	6.9e+02	2.93e+06	5.73e+03	5.1e+02
17	OCDD	9.55e+06	1.95e+03	4.9e+03	1.08e+07	1.18e+03	9.1e+03
18	13C-2,3,7,8-TCDF	6.71e+06	6.44e+02	1.0e+04	8.37e+06	1.12e+03	7.5e+03
19	13C-1,2,3,7,8-PeCDF	1.33e+07	3.10e+03	4.3e+03	8.45e+06	3.20e+03	2.6e+03
20	13C-2,3,4,7,8-PeCDF	1.14e+07	3.10e+03	3.7e+03	7.10e+06	3.20e+03	2.2e+03
21	13C-1,2,3,4,7,8-HxCDF	5.81e+06	1.66e+03	3.5e+03	1.11e+07	2.42e+03	4.6e+03
22	13C-1,2,3,6,7,8-HxCDF	6.52e+06	1.66e+03	3.9e+03	1.21e+07	2.42e+03	5.0e+03
23	13C-2,3,4,6,7,8-HxCDF	6.18e+06	1.66e+03	3.7e+03	1.15e+07	2.42e+03	4.7e+03
24	13C-1,2,3,7,8,9-HxCDF	6.28e+06	1.66e+03	3.8e+03	1.18e+07	2.42e+03	4.9e+03
25	13C-1,2,3,4,6,7,8-HpCDF	3.41e+06	1.66e+03	2.1e+03	7.44e+06	2.71e+03	2.7e+03
26	13C-1,2,3,4,7,8,9-HpCDF	3.57e+06	1.66e+03	2.2e+03	7.80e+06	2.71e+03	2.9e+03
27	13C-2,3,7,8-TCDD	7.19e+06	1.78e+03	4.0e+03	9.08e+06	5.16e+02	1.8e+04
28	13C-1,2,3,7,8-PeCDD	8.39e+06	1.64e+03	5.1e+03	5.46e+06	1.08e+03	5.0e+03
29	13C-1,2,3,4,7,8-HxCDD	8.99e+06	1.59e+03	5.6e+03	6.88e+06	1.30e+03	5.3e+03
30	13C-1,2,3,6,7,8-HxCDD	8.51e+06	1.59e+03	5.3e+03	6.66e+06	1.30e+03	5.1e+03
31	13C-1,2,3,4,6,7,8-HpCDD	6.33e+06	2.61e+03	2.4e+03	5.88e+06	1.90e+03	3.1e+03
32	13C-OCDD	3.76e+06	7.36e+02	5.1e+03	4.15e+06	8.52e+02	4.9e+03
33	13C-1,2,3,4-TCDD	1.07e+07	1.78e+03	6.0e+03	1.34e+07	5.16e+02	2.6e+04
34	13C-1,2,3,7,8,9-HxCDD	1.08e+07	1.59e+03	6.8e+03	8.89e+06	1.30e+03	6.8e+03
35	37Cl-2,3,7,8-TCDD	7.75e+06	6.96e+02	1.1e+04			

Peak List Summary

CLIENT ID.

L93

Entry: 36 Totals Name: Total Tetra-Furans

Run: 11 File: 3294 Sample:1 Injection:1 Function:1

Acquired: 19-JUN-12 15:25:50 Processed: 20-JUN-12 11:09:21

Mass: 303.9016 305.8987 Response:

#	RT	Resp	Resp	Ratio	Meet	Tot Resp	Name	Mod1?	Mod2
1	24:15	3.47e+02	4.41e+02	0.79	yes	7.88e+02		n	n
2	24:55	6.07e+02	7.26e+02	0.84	yes	1.33e+03		n	n
3	25:14	7.57e+02	9.91e+02	0.76	yes	1.75e+03		n	n
4	25:45	1.19e+03	1.59e+03	0.75	yes	2.79e+03		n	n
5	25:54	4.88e+02	6.41e+02	0.76	yes	1.13e+03		n	n
6	26:13	1.86e+03	2.36e+03	0.79	yes	4.22e+03		n	n
7	26:36	4.39e+02	5.33e+02	0.82	yes	9.72e+02		n	n
8	26:42	1.53e+03	2.13e+03	0.72	yes	3.66e+03		n	n
9	27:04	9.55e+02	1.26e+03	0.76	yes	2.22e+03		n	n
10	27:21	2.66e+02	3.84e+02	0.69	yes	6.50e+02		n	n
11	27:26	5.49e+02	6.49e+02	0.85	yes	1.20e+03		n	n
12	27:35	2.74e+02	3.98e+02	0.69	yes	6.73e+02		n	n
13	28:07	4.08e+02	4.96e+02	0.82	yes	9.05e+02		n	n
14	28:22	1.76e+03	2.31e+03	0.76	yes	4.07e+03	2,3,7,8-TCDF	n	n
15	28:51	5.80e+02	7.71e+02	0.75	yes	1.35e+03		n	n
16	29:08	3.74e+02	4.78e+02	0.78	yes	8.52e+02		n	n

Peak List Summary

CLIENT ID.

193

Entry: 37 Totals Name: Total Tetra-Dioxins

Run: 11 File: 8294 Sample:1 Injection:1 Function:1

Acquired: 19-JUN-12 15:25:50 Processed: 20-JUN-12 11:09:21

Mass: 319.8965 321.8936 Response:

#	RT	Resp	Resp	Ratio	Meet	Tot Resp	Name	Mod1?	Mod2
1	26:04	3.44e+02	4.48e+02	0.77	yes	7.93e+02		n	n
2	28:12	5.42e+01	7.21e+01	0.75	yes	1.26e+02		n	n
3	28:36	3.86e+01	5.18e+01	0.75	yes	9.04e+01		n	n
4	29:06	2.08e+03	2.72e+03	0.77	yes	4.81e+03		n	n
5	29:13	5.24e+02	7.07e+02	0.74	yes	1.23e+03	2,3,7,8-TCDD	n	n

Peak List Summary

CLIENT ID.

193

Entry: 38 Totals Name: Total Penta-Furans

Run: 11 File: 8294 Sample:1 Injection:1 Function:2

Acquired: 19-JUN-12 15:25:50 Processed: 20-JUN-12 11:09:21

Mass: 339.8597 341.8567 Response:

#	RT	Resp	Resp	Ratio	Meet	Tot Resp	Name	Mod1?	Mod2
1	30:39	3.65e+03	2.26e+03	1.61	yes	5.91e+03		n	n
2	31:45	4.29e+02	2.87e+02	1.50	yes	7.15e+02		n	n
3	31:53	3.95e+03	2.52e+03	1.57	yes	6.48e+03		n	n
4	32:03	4.68e+02	3.05e+02	1.54	yes	7.73e+02		n	n
5	32:18	1.06e+02	7.88e+01	1.35	yes	1.85e+02		n	n
6	32:24	1.05e+03	6.05e+02	1.73	yes	1.65e+03		n	n
7	32:30	4.79e+02	3.27e+02	1.47	yes	8.05e+02		n	n
8	32:43	3.02e+02	2.03e+02	1.49	yes	5.04e+02		n	n
9	32:48	7.92e+02	5.32e+02	1.49	yes	1.32e+03	1,2,3,7,8-PeCDF	n	n
10	33:06	4.70e+02	3.12e+02	1.51	yes	7.82e+02		n	n
11	33:33	8.27e+02	5.46e+02	1.52	yes	1.37e+03	2,3,4,7,8-PeCDF	n	n
12	33:41	4.74e+02	3.35e+02	1.41	yes	8.09e+02		y	y
13	33:44	2.58e+02	1.59e+02	1.62	yes	4.17e+02		y	y
14	34:31	4.48e+01	3.07e+01	1.46	yes	7.55e+01		y	y

Peak List Summary

CLIENT ID.

ι93

Entry: 39 Totals Name: Total Penta-Dioxins

Run: 11 File: 3294 Sample:1 Injection:1 Function:2

Acquired: 19-JUN-12 15:25:50 Processed: 20-JUN-12 11:09:21

Mass: 355.8546 357.8517 Response:

#	RT	Resp	Resp	Ratio	Meet	Tot Resp	Name	Mod1?	Mod2
1	32:01	1.03e+03	6.38e+02	1.61	yes	1.67e+03		n	n
2	32:31	1.97e+02	1.16e+02	1.70	yes	3.13e+02		n	n
3	32:47	4.32e+02	3.02e+02	1.43	yes	7.34e+02		n	n
4	32:56	2.81e+02	2.02e+02	1.40	yes	4.83e+02		n	n
5	33:07	2.82e+02	1.64e+02	1.72	yes	4.45e+02		n	n
6	33:17	8.50e+01	5.00e+01	1.70	yes	1.35e+02		n	n
7	33:23	1.95e+02	1.32e+02	1.48	yes	3.28e+02		n	n
8	33:35	1.30e+02	8.05e+01	1.62	yes	2.11e+02		n	n
9	33:54	2.24e+02	1.40e+02	1.60	yes	3.64e+02	1,2,3,7,8-PeCDD	n	n

Peak List Summary

CLIENT ID.

193

Entry: 40 Totals Name: Total Hexa-Furans

Run: 11 File: 3294 Sample:1 Injection:1 Function:3

Acquired: 19-JUN-12 15:25:50 Processed: 20-JUN-12 11:09:21

Mass: 373.8208 375.8178 Response:

#	RT	Resp	Resp	Ratio	Meet	Tot Resp	Name	Mod1?	Mod2
1	35:25	1.17e+03	1.04e+03	1.13	yes	2.20e+03		n	n
2	35:33	4.37e+03	3.66e+03	1.20	yes	8.03e+03		n	n
3	35:43	8.74e+01	7.42e+01	1.18	yes	1.62e+02		n	n
4	35:51	2.32e+02	1.99e+02	1.17	yes	4.31e+02		n	n
5	36:01	2.13e+03	1.79e+03	1.19	yes	3.92e+03		n	n
6	36:23	1.83e+03	1.60e+03	1.15	yes	3.44e+03	1,2,3,4,7,8-HxCDF	n	n
7	36:30	9.29e+02	7.03e+02	1.32	yes	1.63e+03	1,2,3,6,7,8-HxCDF	n	n
8	36:35	5.98e+01	5.12e+01	1.17	yes	1.11e+02		n	n
9	37:44	1.31e+02	1.14e+02	1.15	yes	2.44e+02		y	y

Peak List Summary

CLIENT ID.

193

Entry: 41 Totals Name: Total Hexa-Dioxins

Run: 11 File: 8294 Sample:1 Injection:1 Function:3

Acquired: 19-JUN-12 15:25:50 Processed: 20-JUN-12 11:09:21

Mass: 389.8157 391.8127 Response:

#	RT	Resp	Resp	Ratio	Meet	Tot Resp	Name	Mod1?	Mod2
1	35:55	3.83e+03	3.02e+03	1.27	yes	6.85e+03		n	n
2	36:12	1.39e+03	1.10e+03	1.26	yes	2.49e+03		n	n
3	36:22	1.09e+03	8.81e+02	1.23	yes	1.97e+03		n	n
4	36:35	4.35e+03	3.49e+03	1.25	yes	7.84e+03		n	n
5	36:44	3.19e+02	2.71e+02	1.18	yes	5.90e+02		n	n
6	37:07	2.47e+02	2.01e+02	1.23	yes	4.48e+02	1,2,3,4,7,8-HxCDD	n	n
7	37:11	9.79e+02	7.47e+02	1.31	yes	1.73e+03	1,2,3,6,7,8-HxCDD	n	n
8	37:26	1.95e+02	1.78e+02	1.09	yes	3.73e+02		y	y
9	37:27	5.28e+02	4.80e+02	1.10	yes	1.01e+03	1,2,3,7,8,9-HxCDD	y	y

Peak List Summary

CLIENT ID.

193

Entry: 42 Totals Name: Total Hepta-Furans

Run: 11 File: 8294 Sample:1 Injection:1 Function:4

Acquired: 19-JUN-12 15:25:50 Processed: 20-JUN-12 11:09:21

Mass: 407.7818 409.7789 Response:

#	RT	Resp	Resp	Ratio	Meet	Tot Resp	Name	Mod1?	Mod2
1	39:07	7.39e+03	7.29e+03	1.01	yes	1.47e+04	1,2,3,4,6,7,8-HpCDF	n	n
2	39:28	6.61e+03	6.62e+03	1.00	yes	1.32e+04		n	n
3	40:30	8.97e+02	8.82e+02	1.02	yes	1.78e+03		n	n

Peak List Summary

CLIENT ID.

193

Entry: 43 Totals Name: Total Hepta-Dioxins

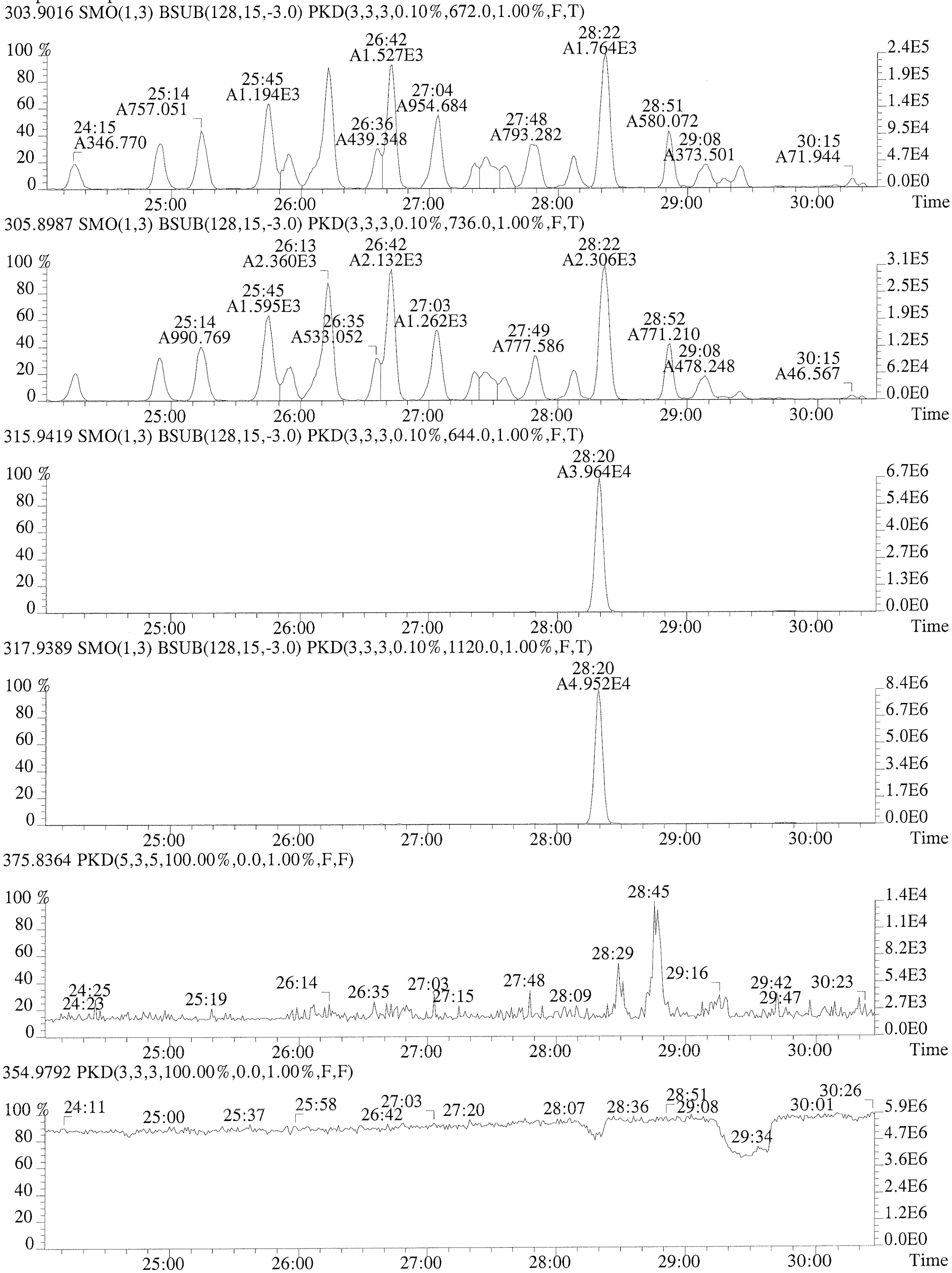
Run: 11 File: 8294 Sample:1 Injection:1 Function:4

Acquired: 19-JUN-12 15:25:50 Processed: 20-JUN-12 11:09:21

Mass: 423.7766 425.7737 Response:

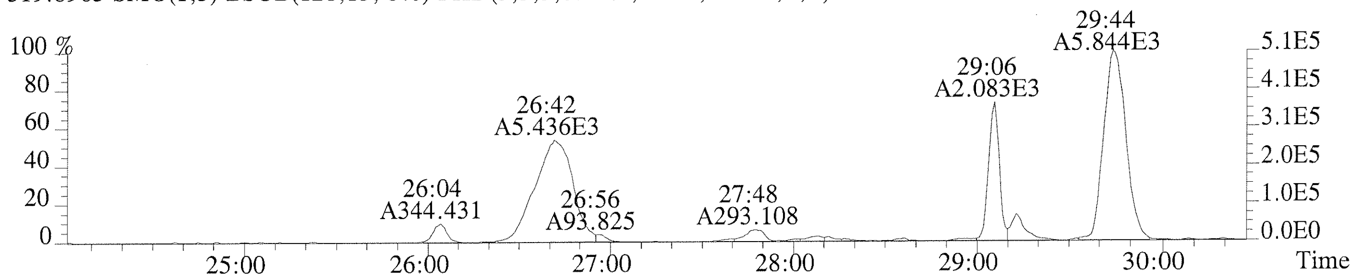
#	RT	Resp	Resp	Ratio	Meet	Tot Resp	Name	Mod1?	Mod2
1	39:22	3.30e+04	3.10e+04	1.06	yes	6.40e+04		n	n
2	40:00	1.51e+04	1.40e+04	1.08	yes	2.91e+04	1,2,3,4,6,7,8-HpCDD	n	n

File: 3294 #1-535 Acq:19-JUN-2012 15:25:50 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp 00584-001RE 193

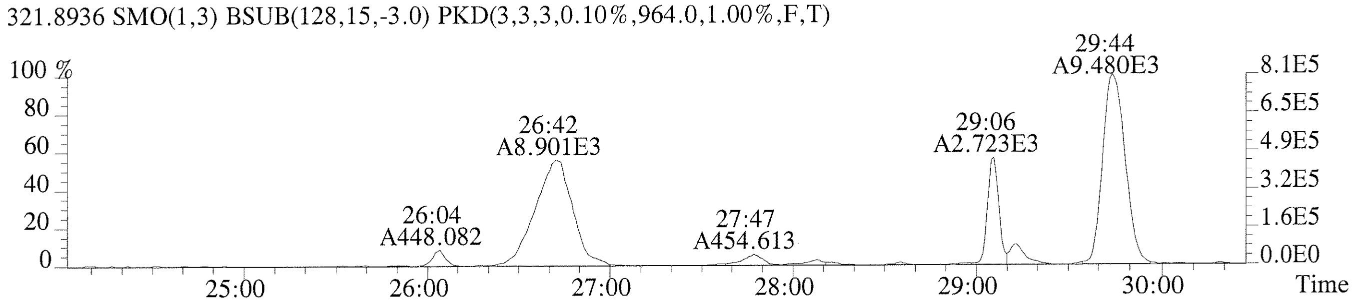


File: 8294 #1-535 Acq:19-JUN-2012 15:25:50 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp: 00584-001RE 193

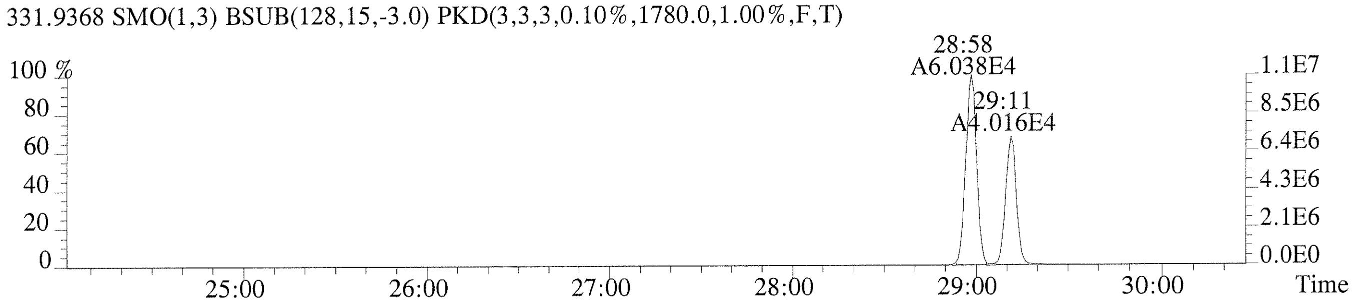
319.8965 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,628.0,1.00%,F,T)



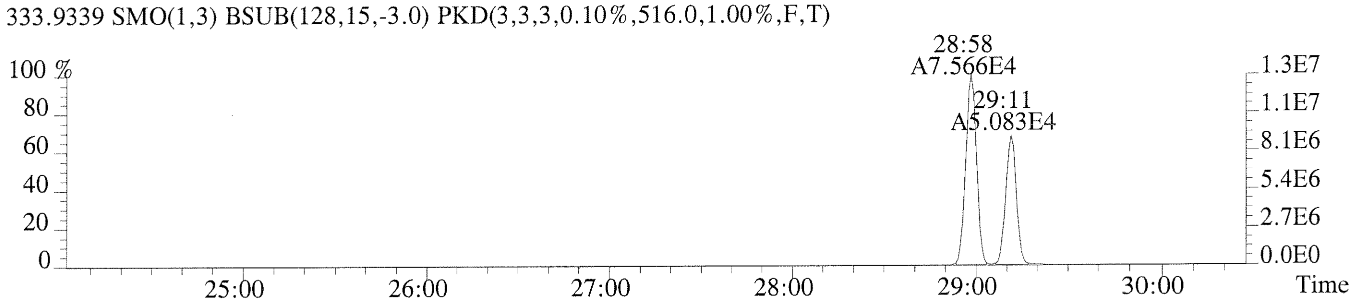
321.8936 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,964.0,1.00%,F,T)



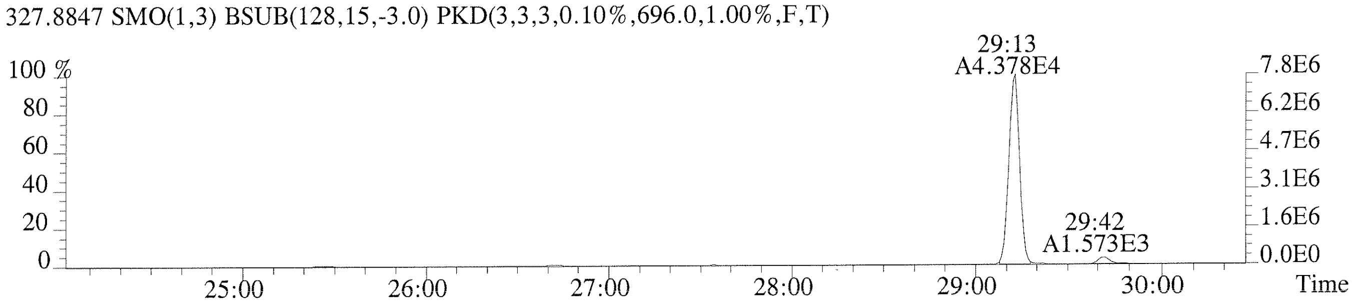
331.9368 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,1780.0,1.00%,F,T)



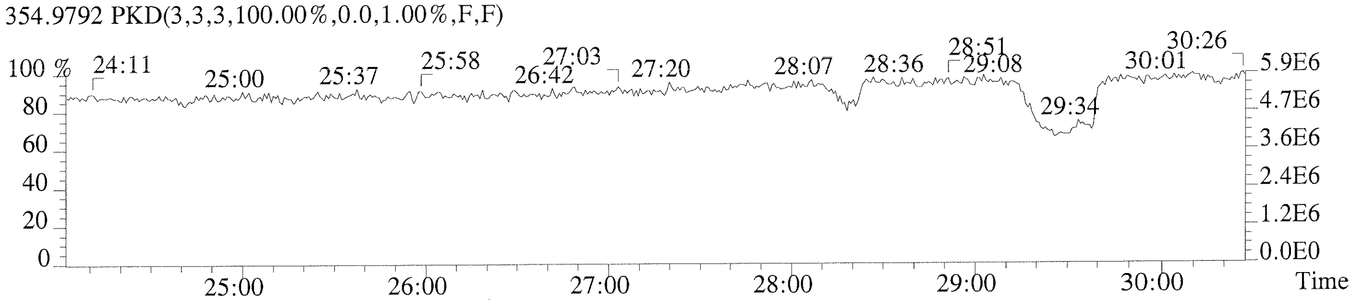
333.9339 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,516.0,1.00%,F,T)



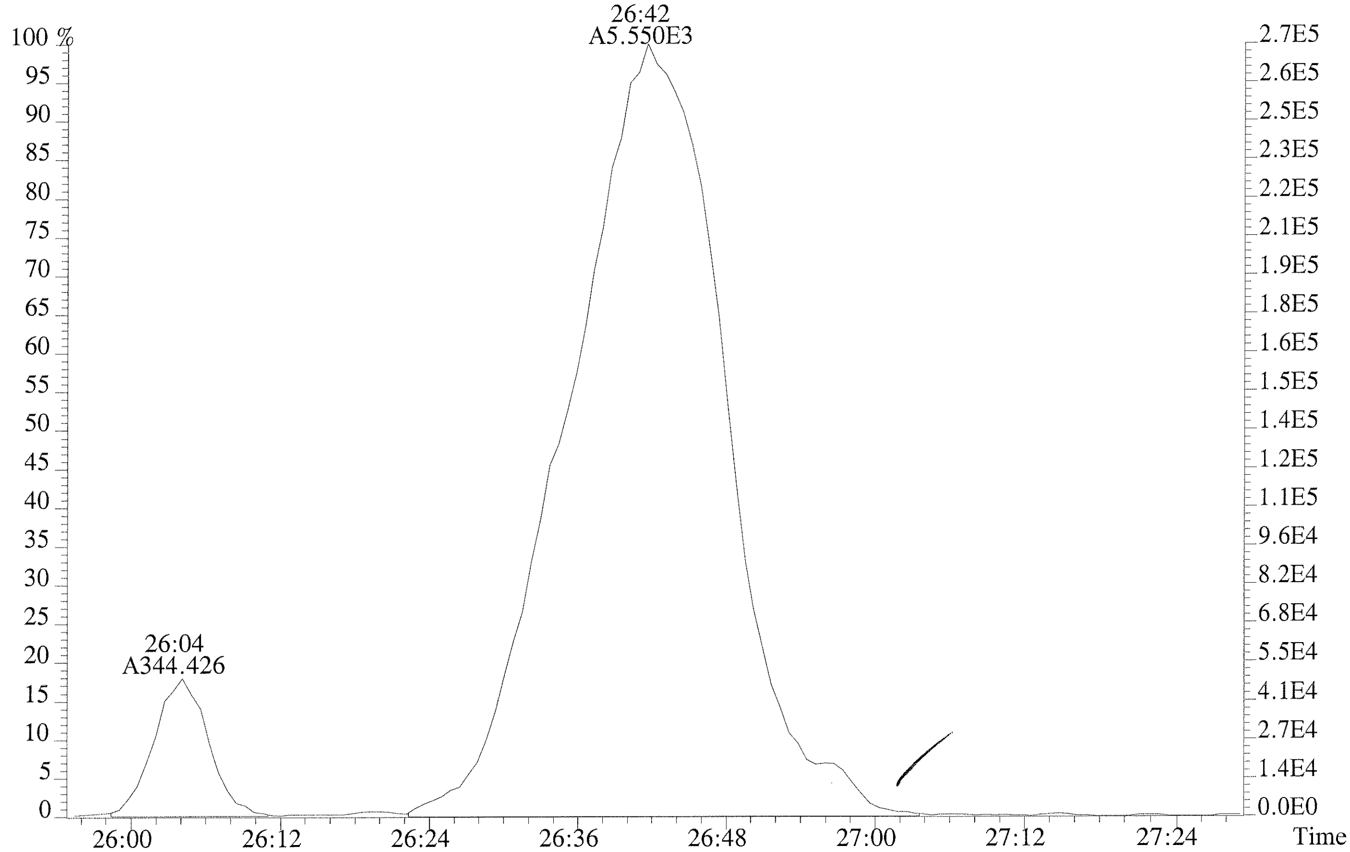
327.8847 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,696.0,1.00%,F,T)



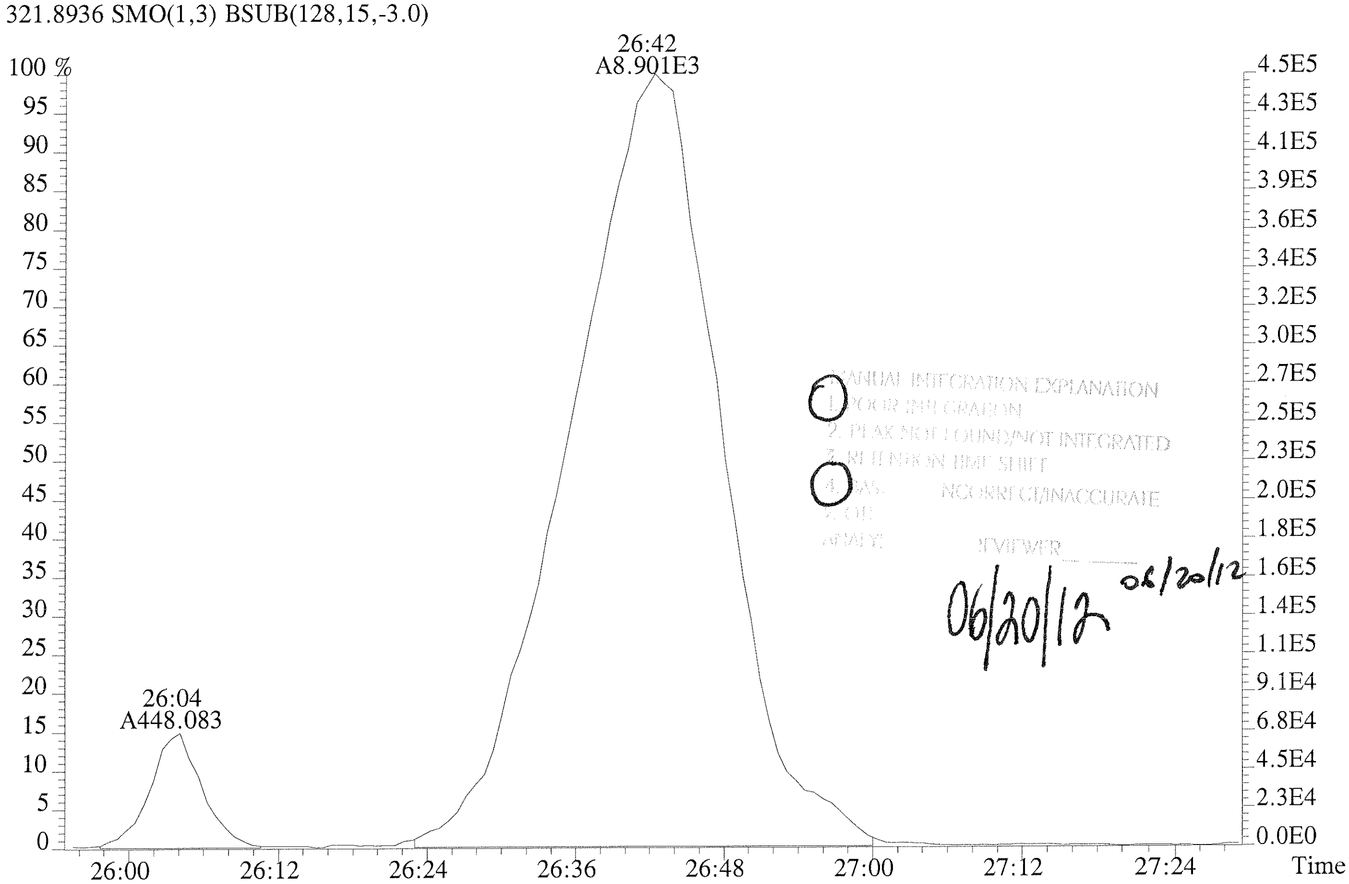
354.9792 PKD(3,3,3,100.00%,0.0,1.00%,F,F)



File: 8294 #1-535 Acq:19-JUN-2012 15:25:50 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:)0584-001RE 193
319.8965 SMO(1,3) BSUB(128,15,-3.0)

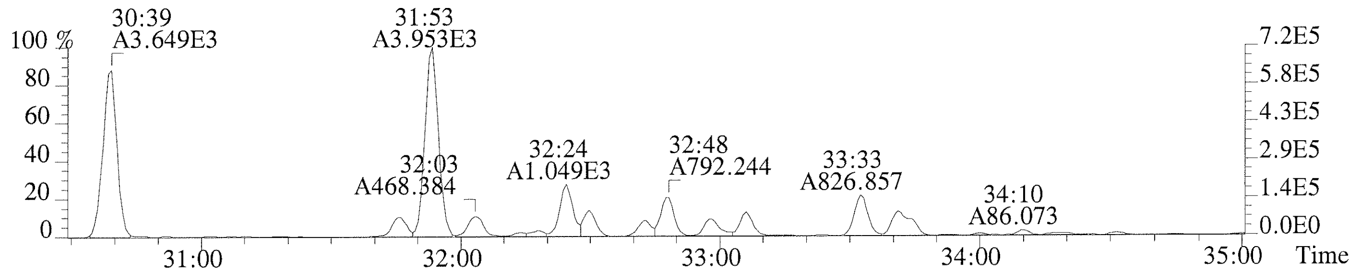


321.8936 SMO(1,3) BSUB(128,15,-3.0)

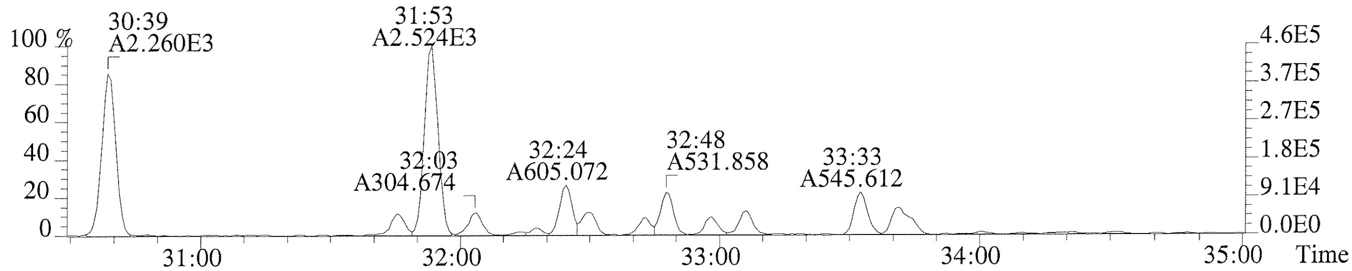


File: 8294 #1-411 Acq:19-JUN-2012 15:25:50 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp: 00584-001RE 193

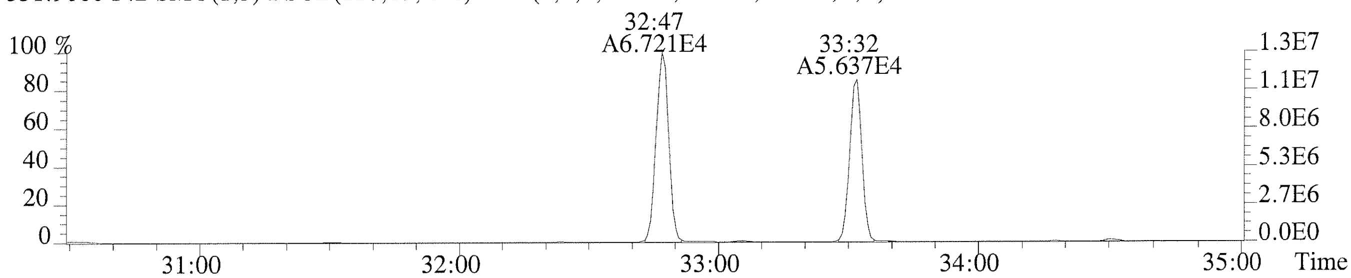
339.8597 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,1000.0,1.00%,F,T)



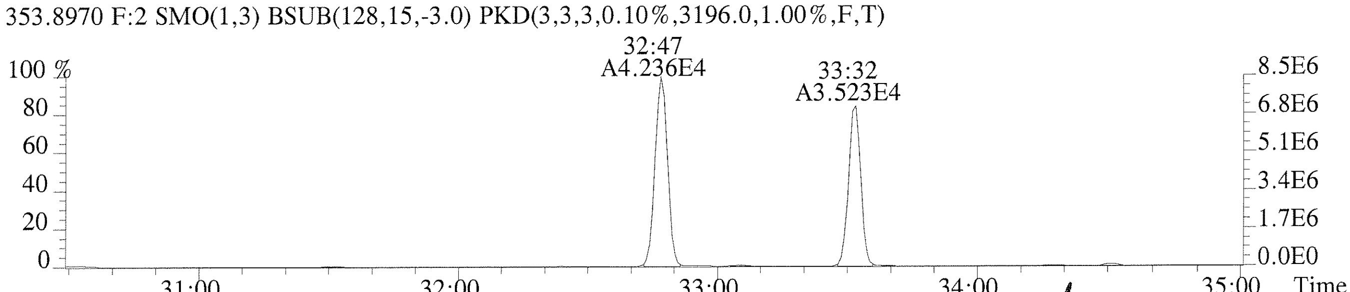
341.8567 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,940.0,1.00%,F,T)



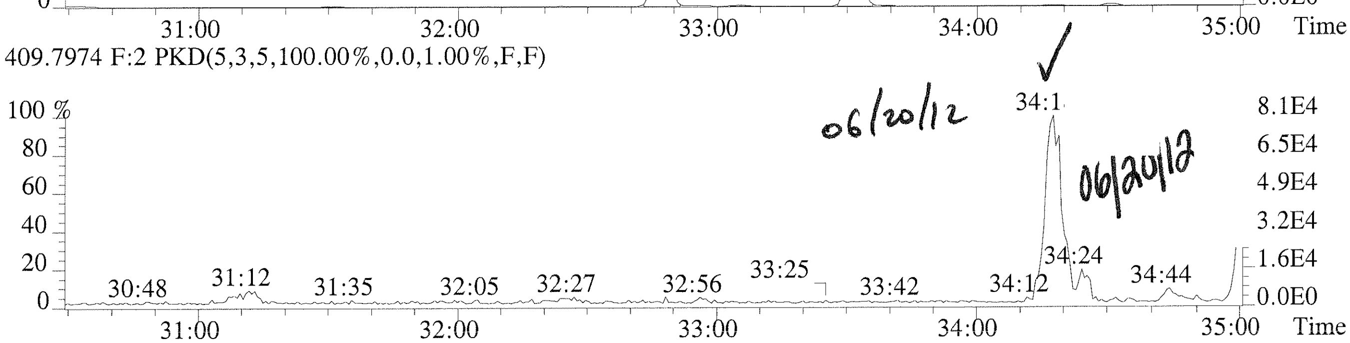
351.9000 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,3100.0,1.00%,F,T)



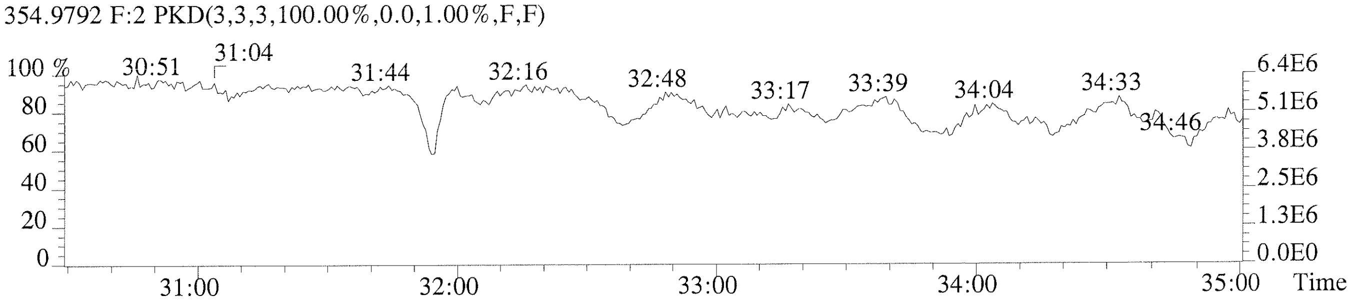
353.8970 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,3196.0,1.00%,F,T)



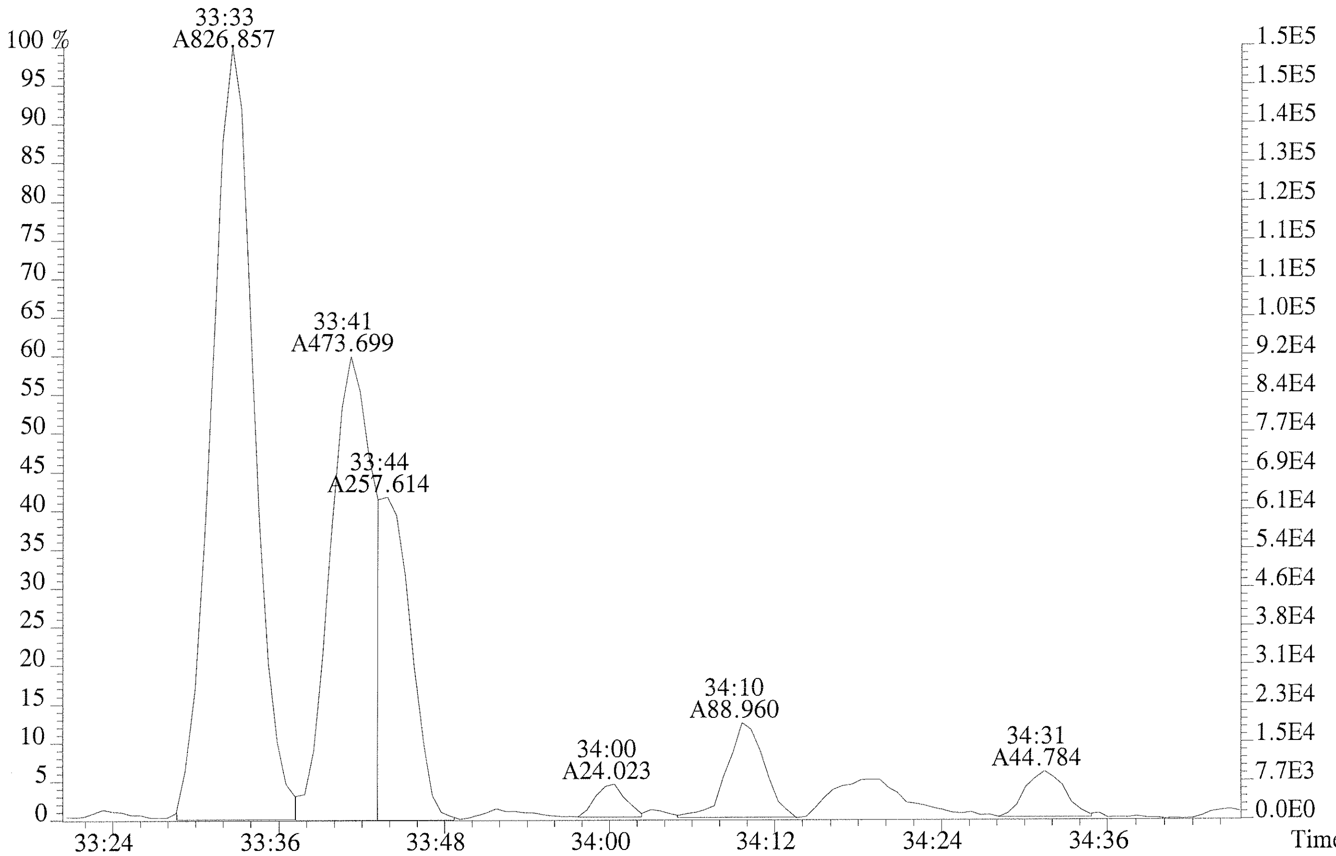
409.7974 F:2 PKD(5,3,5,100.00%,0.0,1.00%,F,F)



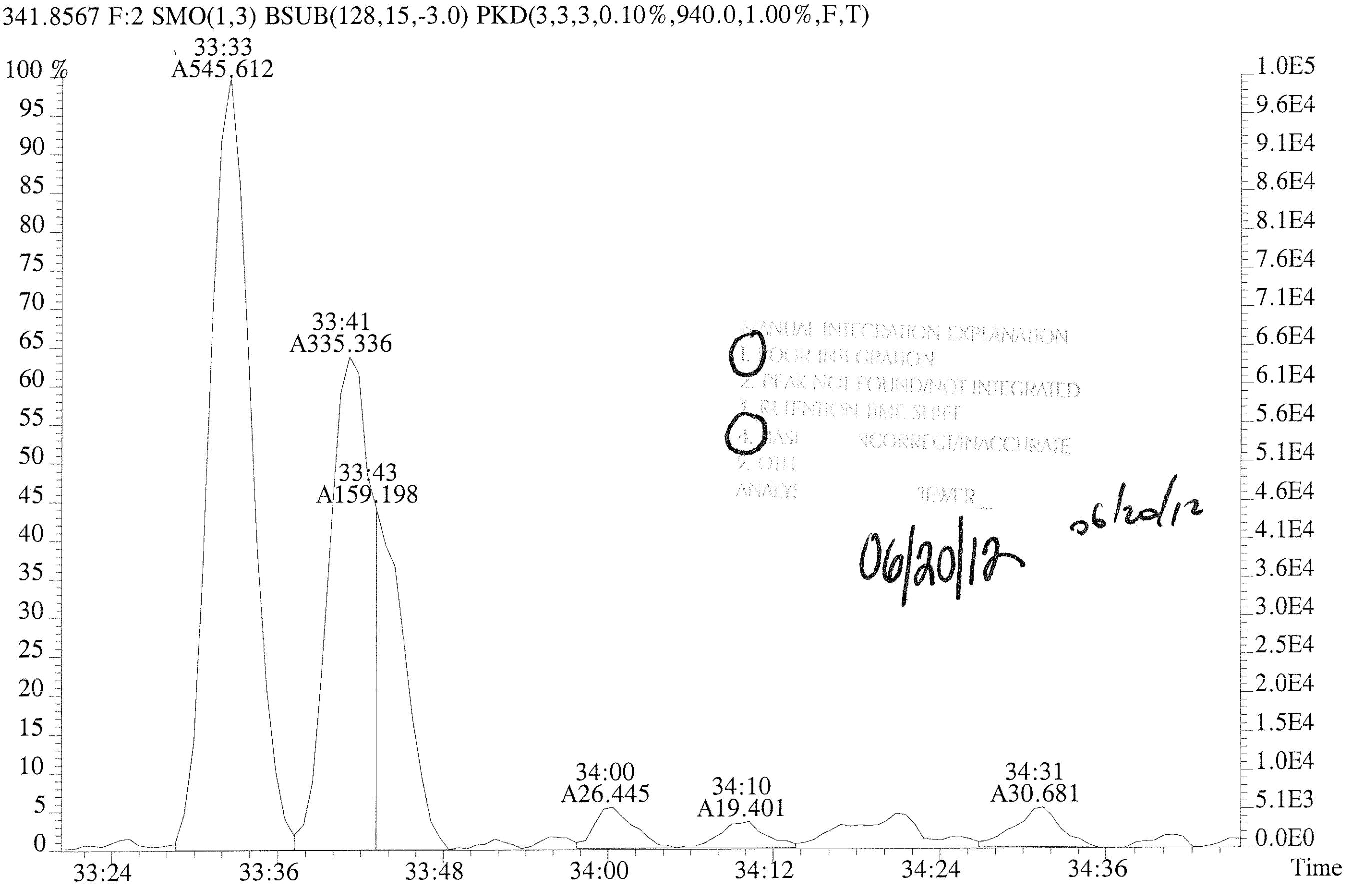
354.9792 F:2 PKD(3,3,3,100.00%,0.0,1.00%,F,F)



File:_ _ 8294 #1-411 Acq:19-JUN-2012 15:25:50 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:)0584-001RE .193
339.8597 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,1000.0,1.00%,F,T)



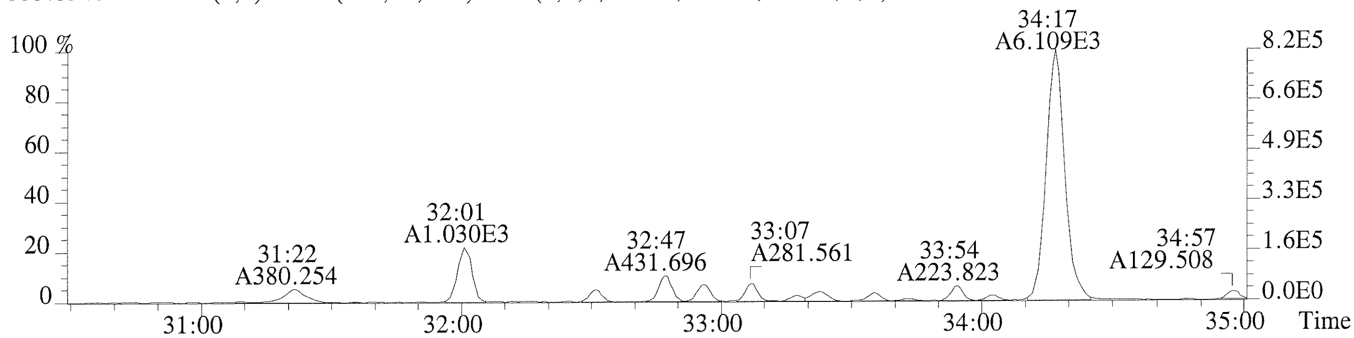
341.8567 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,940.0,1.00%,F,T)



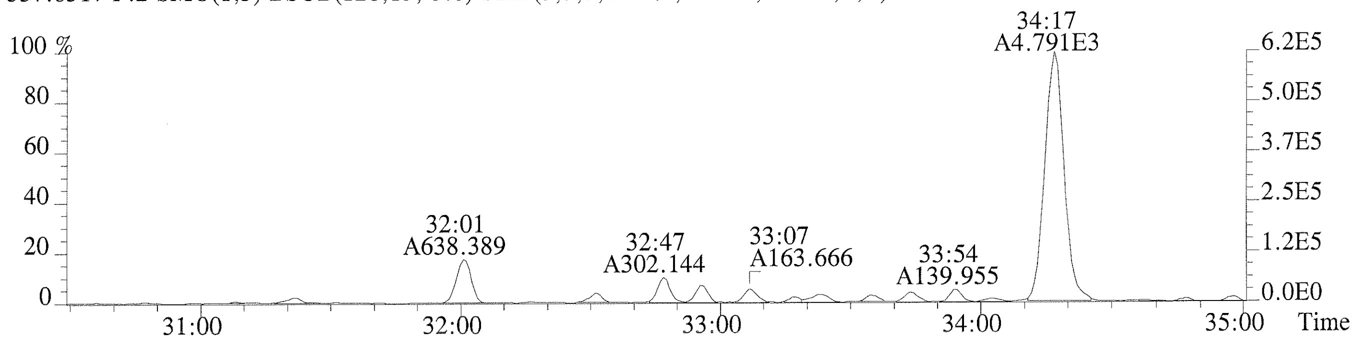
MANUAL INTEGRATION EXPLANATION
1. POOR INTEGRATION
2. PEAK NOT FOUND/NOT INTEGRATED
3. RETENTION TIME SHIFT
4. BASE INCORRECT/INACCURATE
5. OTH
ANALYS REVIEWER

06/20/12 06/20/12

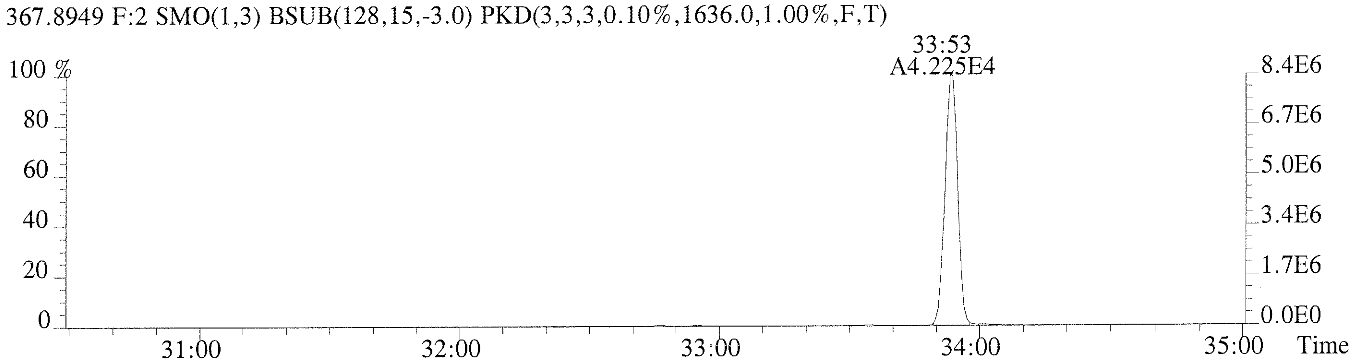
File: 8294 #1-411 Acq:19-JUN-2012 15:25:50 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp: 00584-001RE 193
355.8546 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,1392.0,1.00%,F,T)



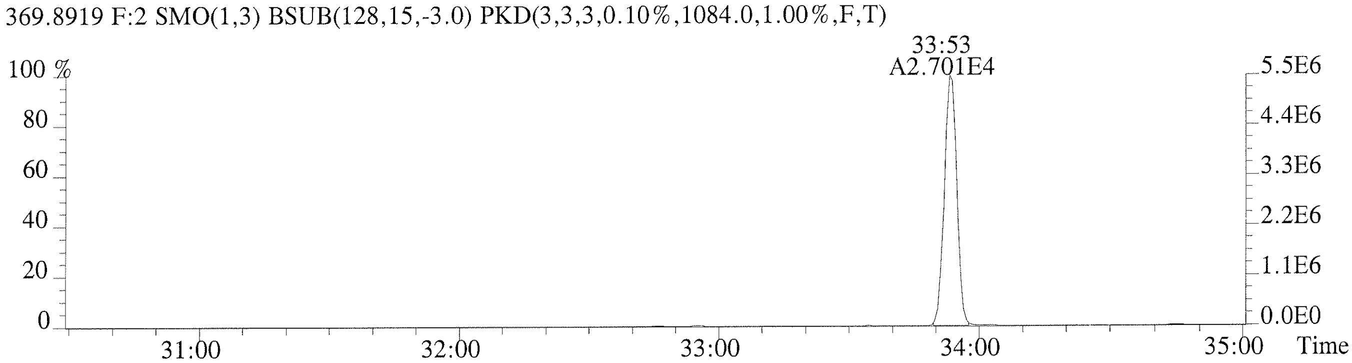
357.8517 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,1380.0,1.00%,F,T)



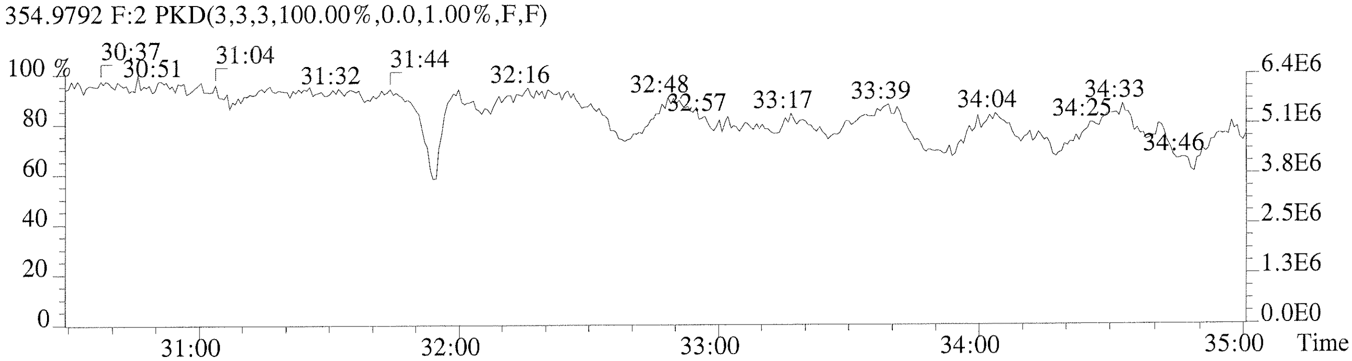
367.8949 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,1636.0,1.00%,F,T)



369.8919 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,1084.0,1.00%,F,T)

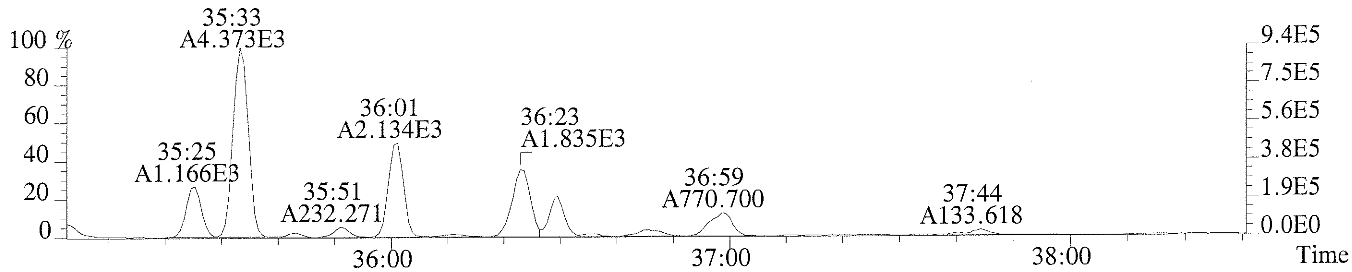


354.9792 F:2 PKD(3,3,3,100.00%,0.0,1.00%,F,F)

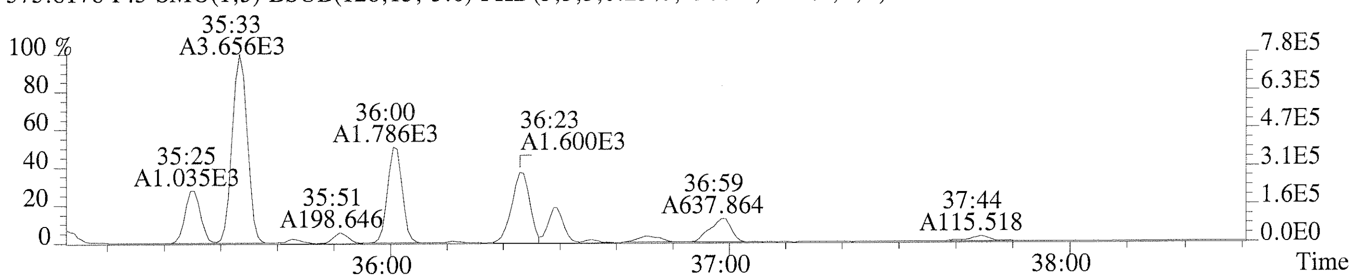


File: 3294 #1-315 Acq:19-JUN-2012 15:25:50 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp)0584-001RE 193

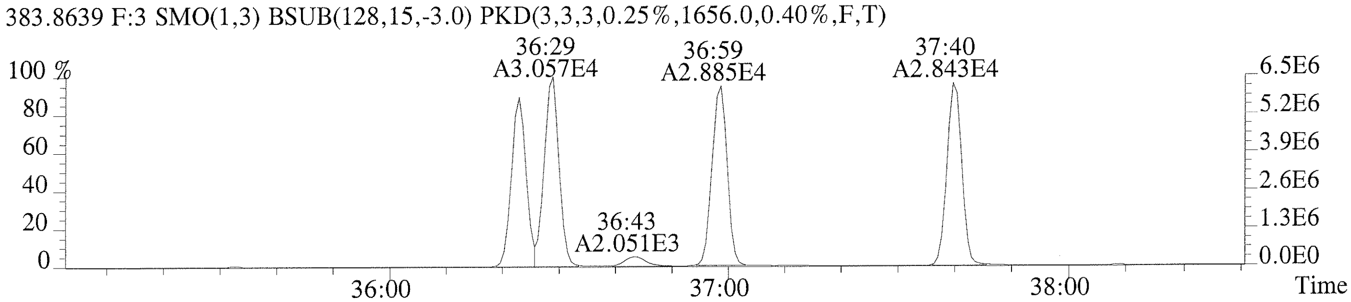
373.8208 F:3 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,2340.0,0.40%,F,T)



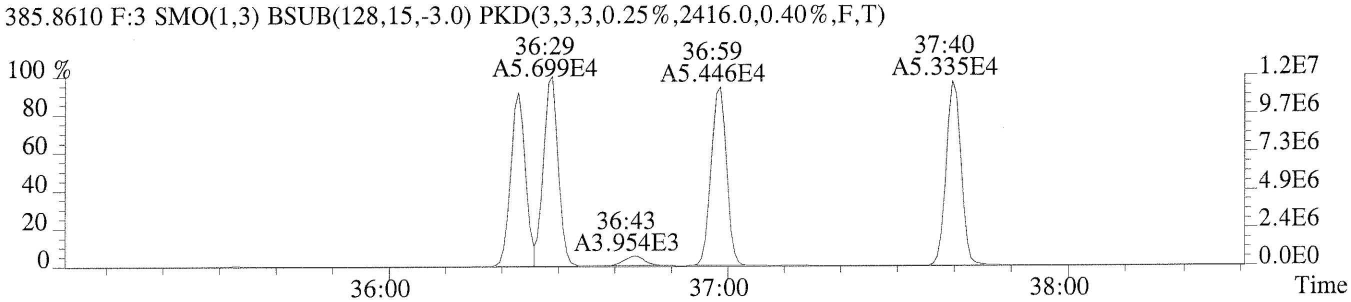
375.8178 F:3 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,2900.0,0.40%,F,T)



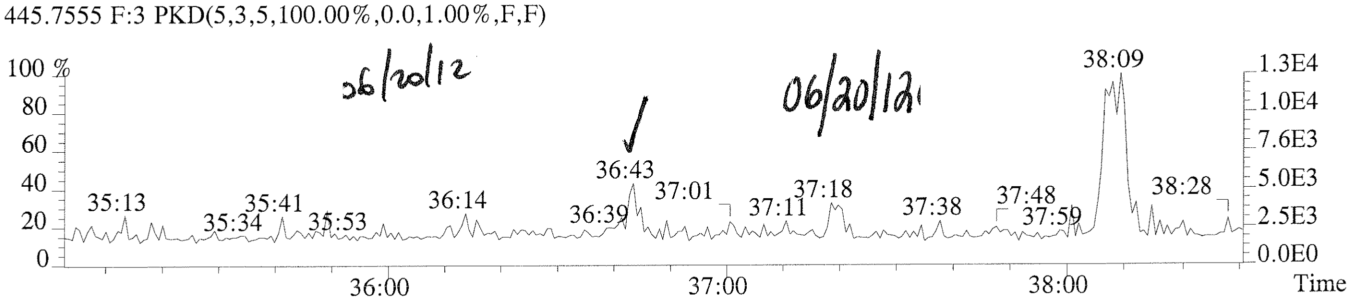
383.8639 F:3 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,1656.0,0.40%,F,T)



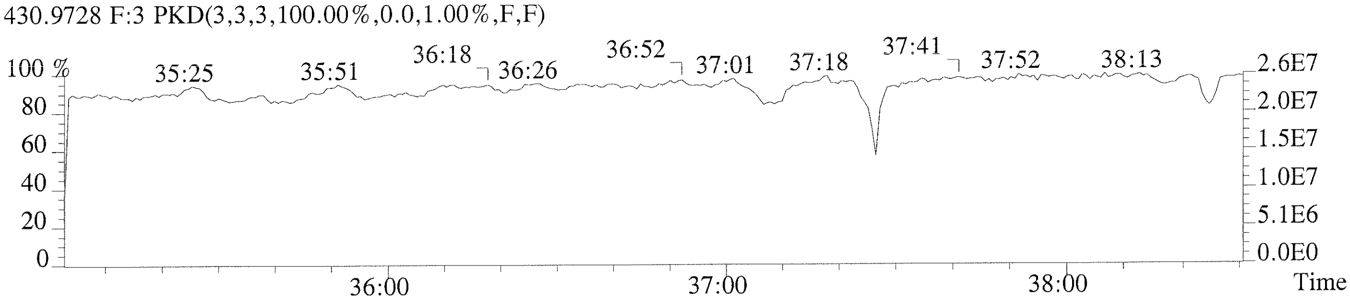
385.8610 F:3 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,2416.0,0.40%,F,T)



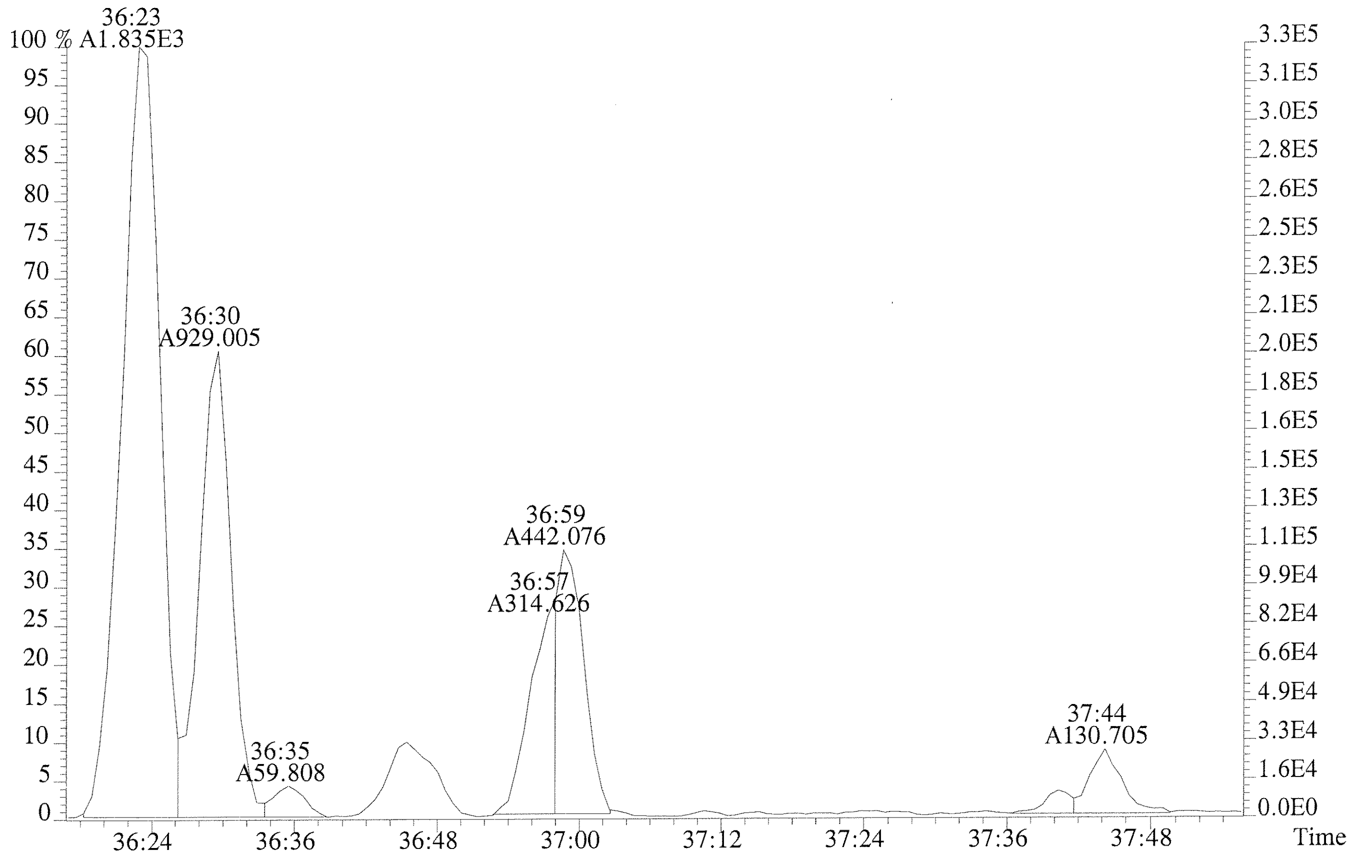
445.7555 F:3 PKD(5,3,5,100.00%,0.0,1.00%,F,F)



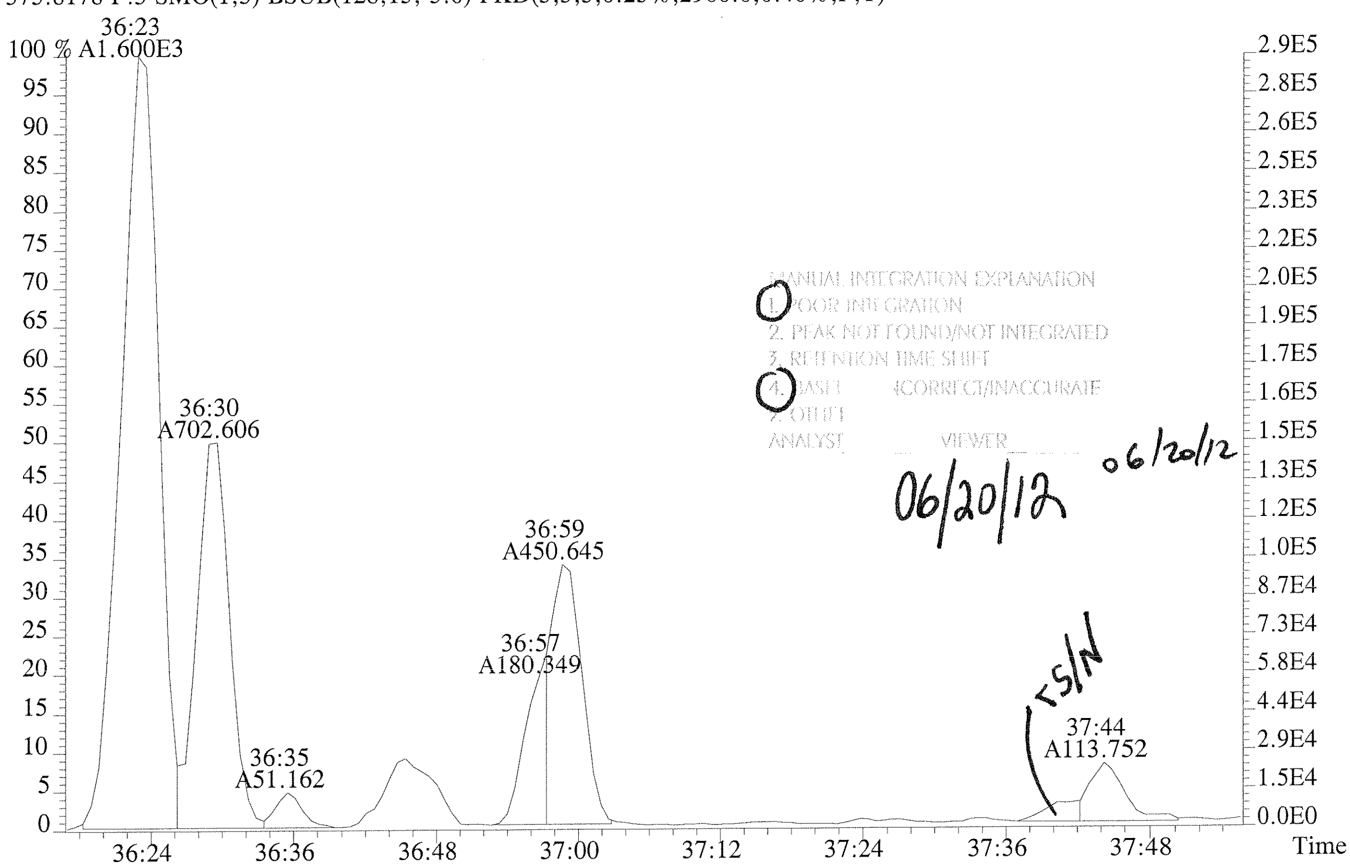
430.9728 F:3 PKD(3,3,3,100.00%,0.0,1.00%,F,F)



File: 3294 #1-315 Acq:19-JUN-2012 15:25:50 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp: 00584-001RE 193
373.8208 F:3 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,2340.0,0.40%,F,T)



375.8178 F:3 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,2900.0,0.40%,F,T)

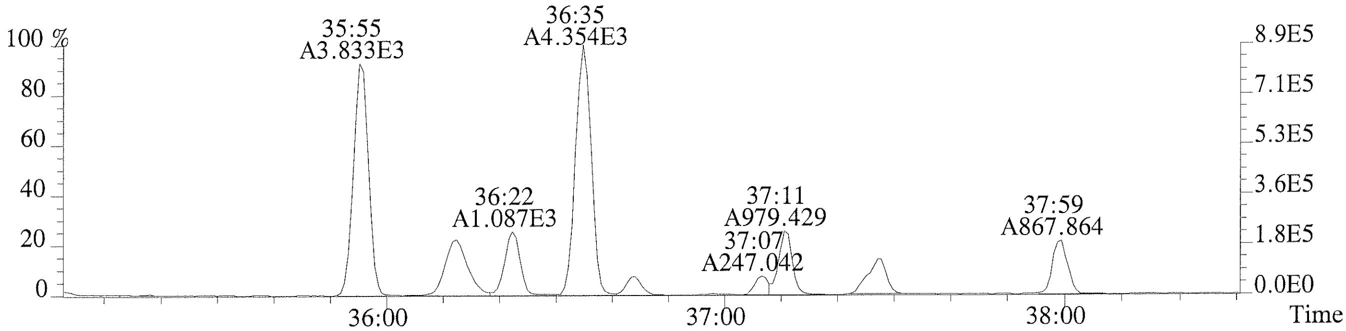


MANUAL INTEGRATION EXPLANATION
1. POOR INTEGRATION
2. PEAK NOT FOUND/NOT INTEGRATED
3. RETENTION TIME SHIFT
4. BASELINE INCORRECT/INACCURATE
7. OTHER
ANALYST 06/20/12 VIEWER 06/20/12

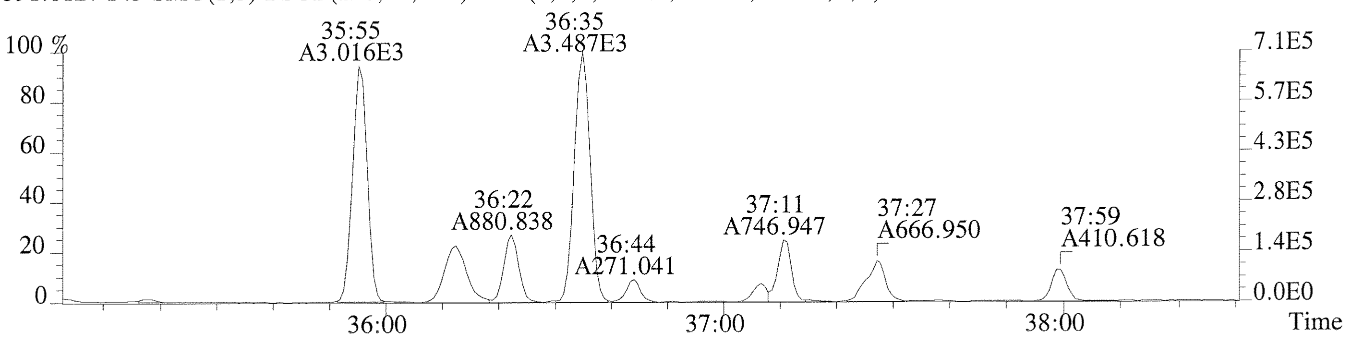
<S/N

File: 8294 #1-315 Acq:19-JUN-2012 15:25:50 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp: 00584-001RE 193

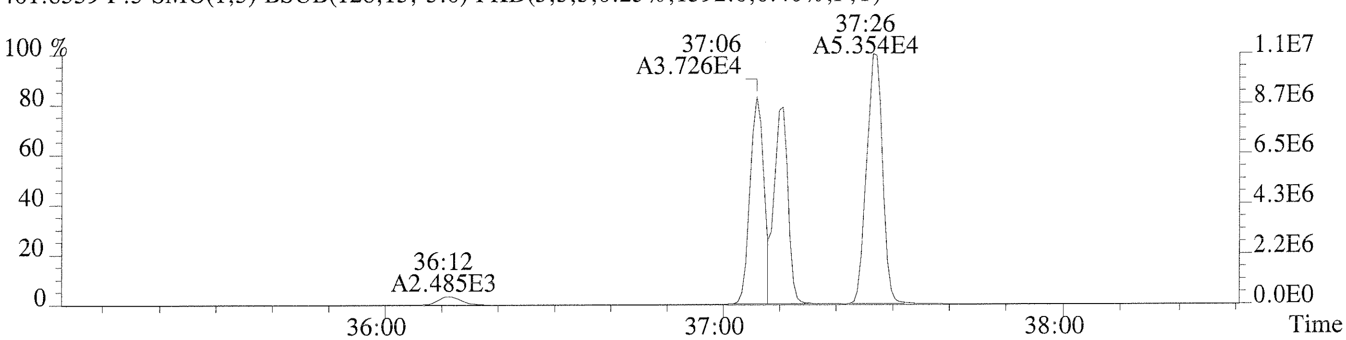
389.8157 F:3 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,1820.0,0.40%,F,T)



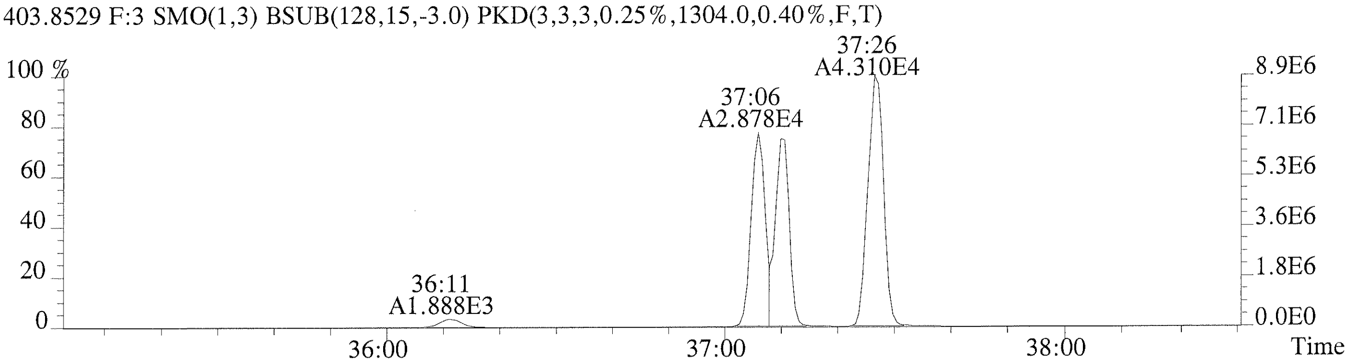
391.8127 F:3 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,1496.0,0.40%,F,T)



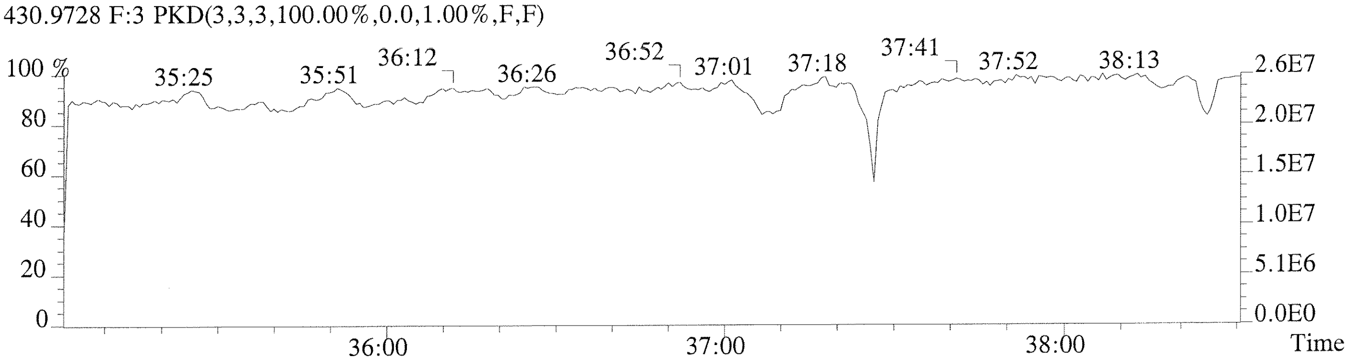
401.8559 F:3 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,1592.0,0.40%,F,T)



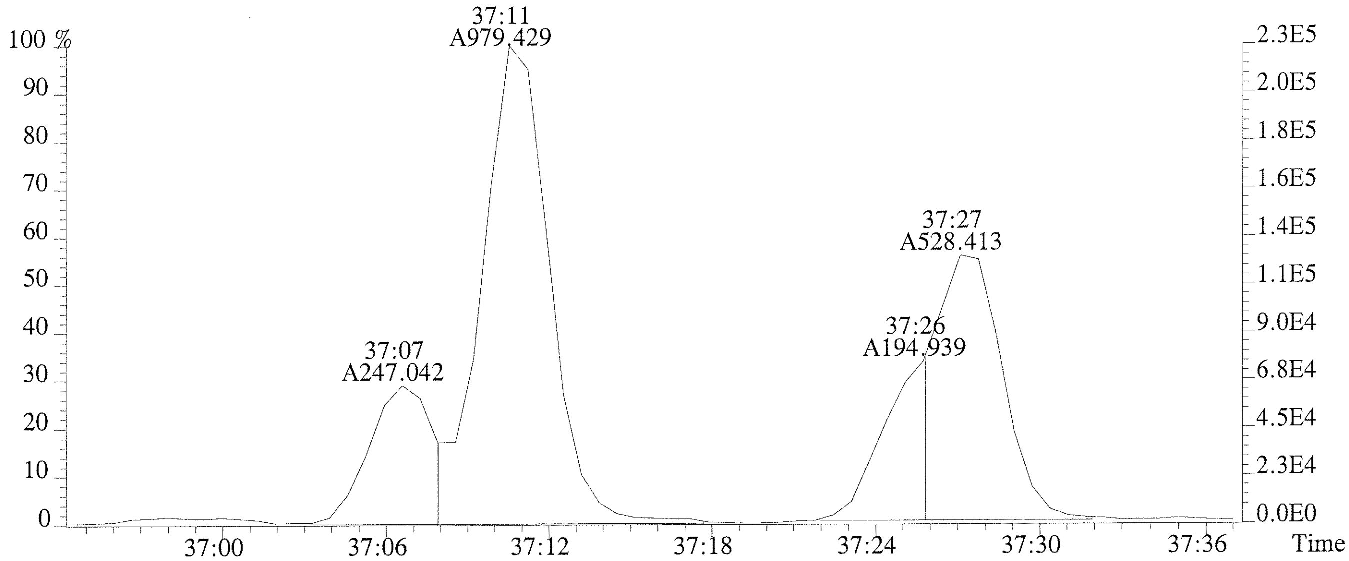
403.8529 F:3 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,1304.0,0.40%,F,T)



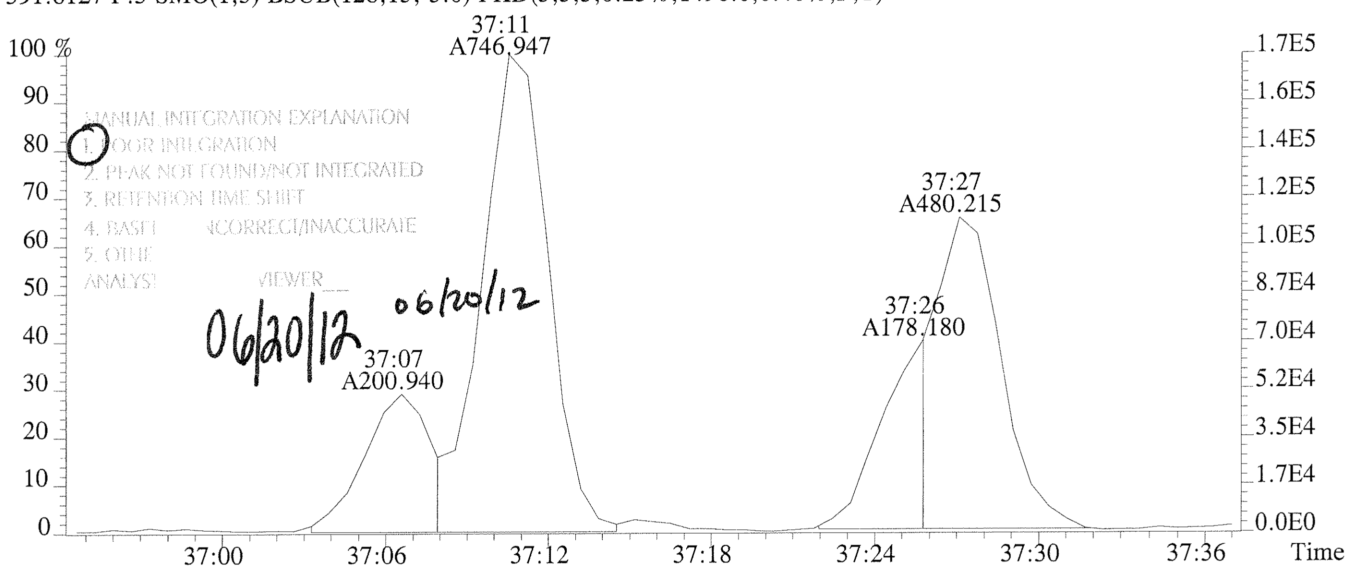
430.9728 F:3 PKD(3,3,3,100.00%,0.0,1.00%,F,F)



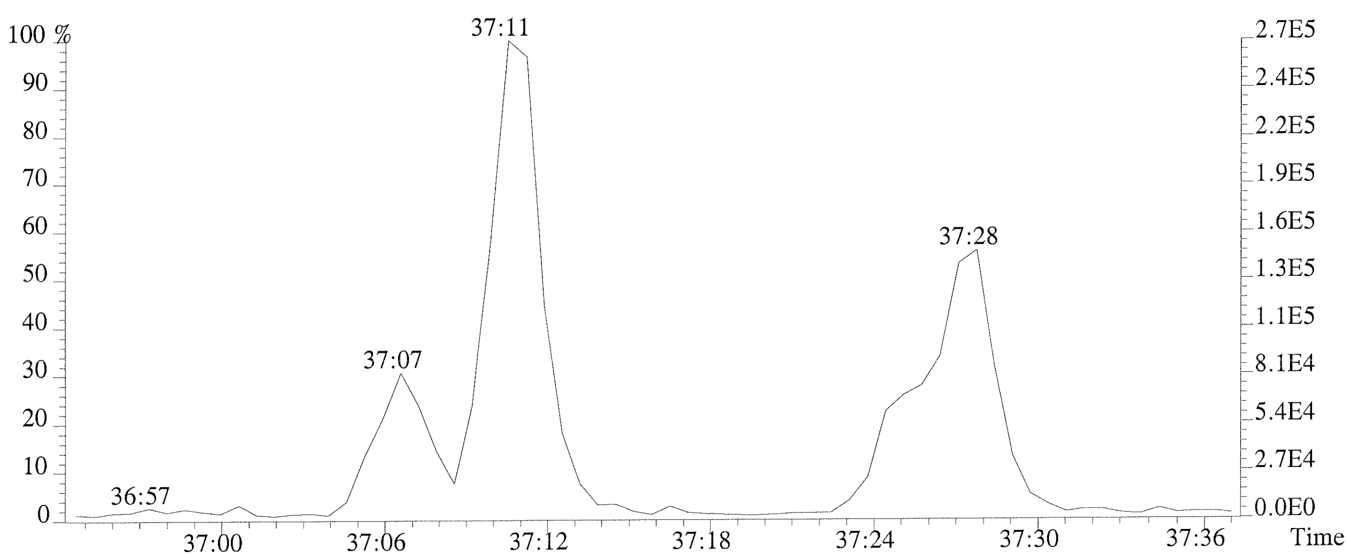
File: 8294 #1-315 Acq:19-JUN-2012 15:25:50 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp: 00584-001RE 193
389.8157 F:3 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,1820.0,0.40%,F,T)



391.8127 F:3 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,1496.0,0.40%,F,T)

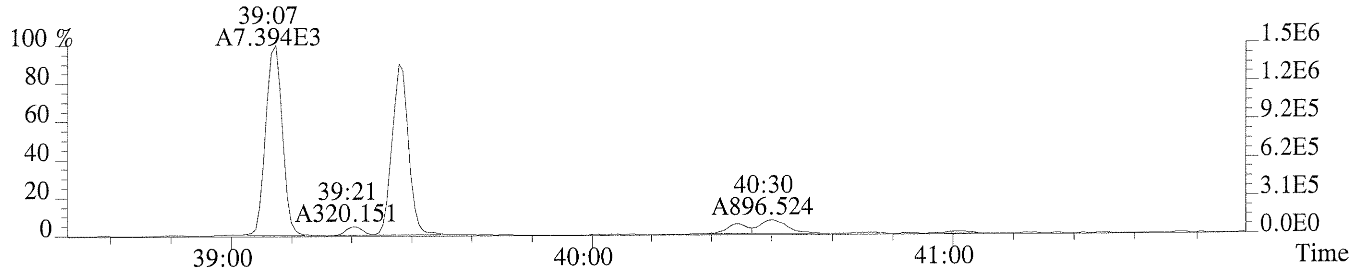


389.8157 F:3

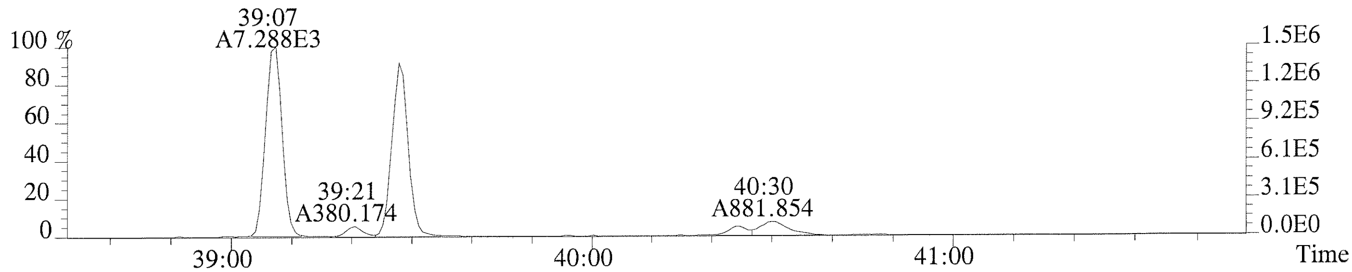


File: 8294 #1-296 Acq:19-JUN-2012 15:25:50 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp: 00584-001RE 193

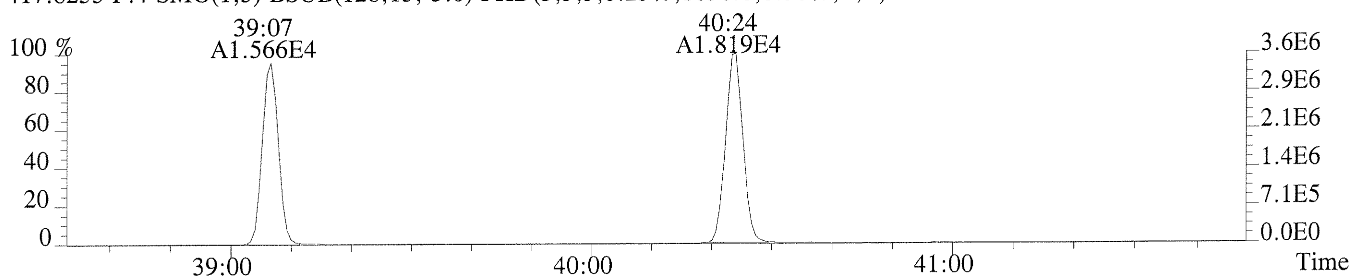
407.7818 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,2552.0,0.50%,F,T)



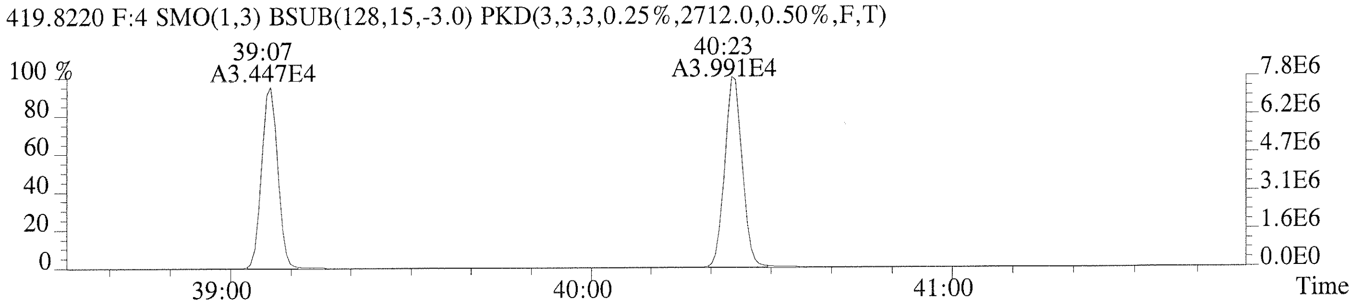
409.7789 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,1376.0,0.50%,F,T)



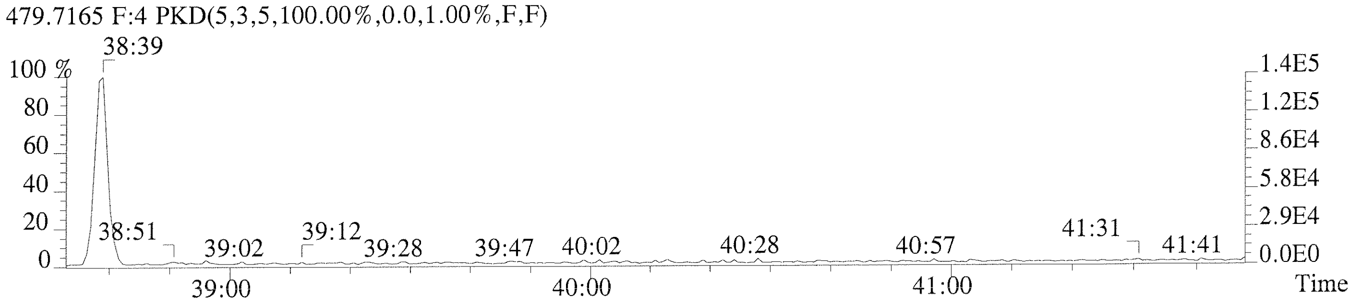
417.8253 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,1656.0,0.50%,F,T)



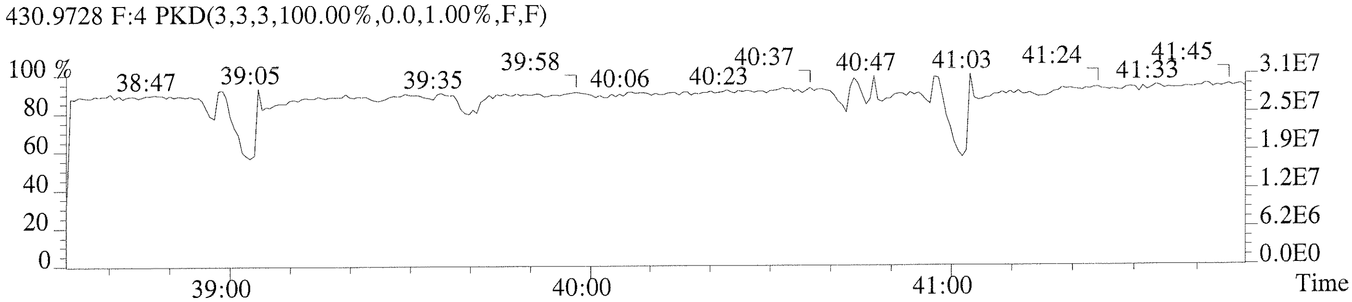
419.8220 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,2712.0,0.50%,F,T)



479.7165 F:4 PKD(5,3,5,100.00%,0.0,1.00%,F,F)

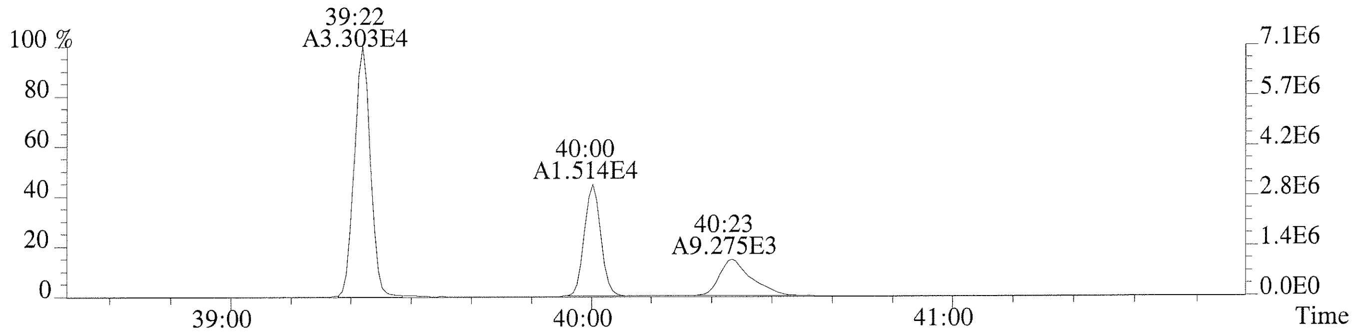


430.9728 F:4 PKD(3,3,3,100.00%,0.0,1.00%,F,F)

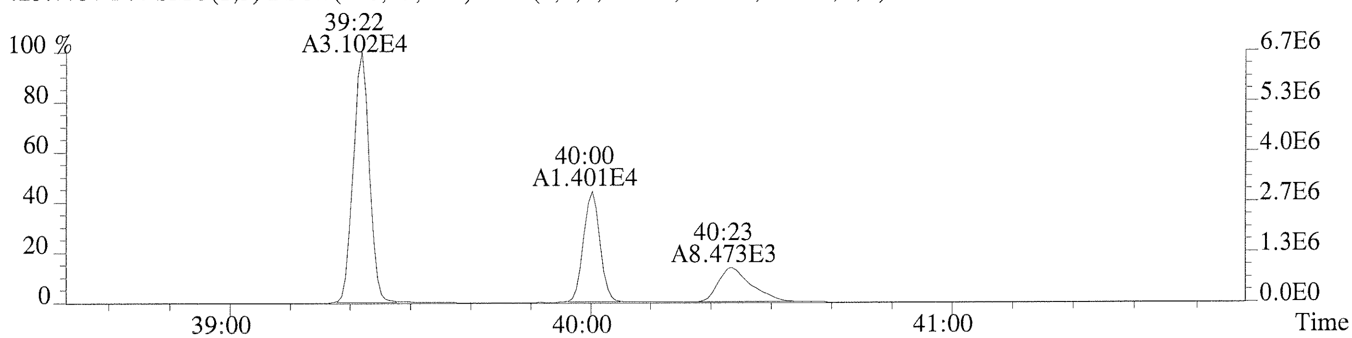


File: 3294 #1-296 Acq:19-JUN-2012 15:25:50 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp: 00584-001RE 193

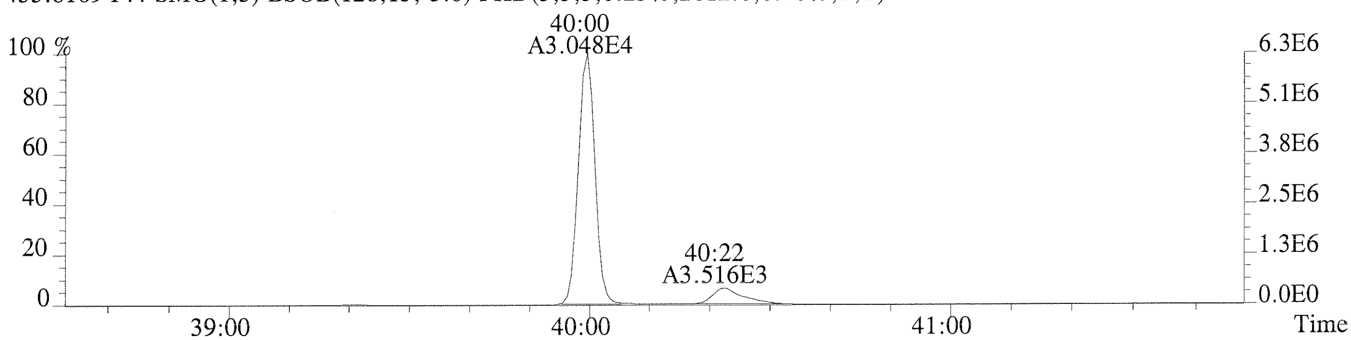
423.7766 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,4592.0,0.40%,F,T)



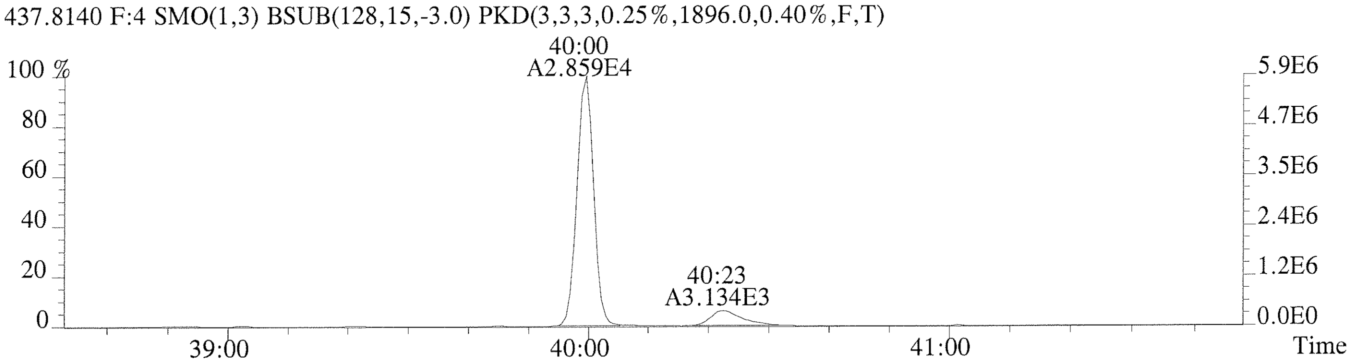
425.7737 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,5732.0,0.40%,F,T)



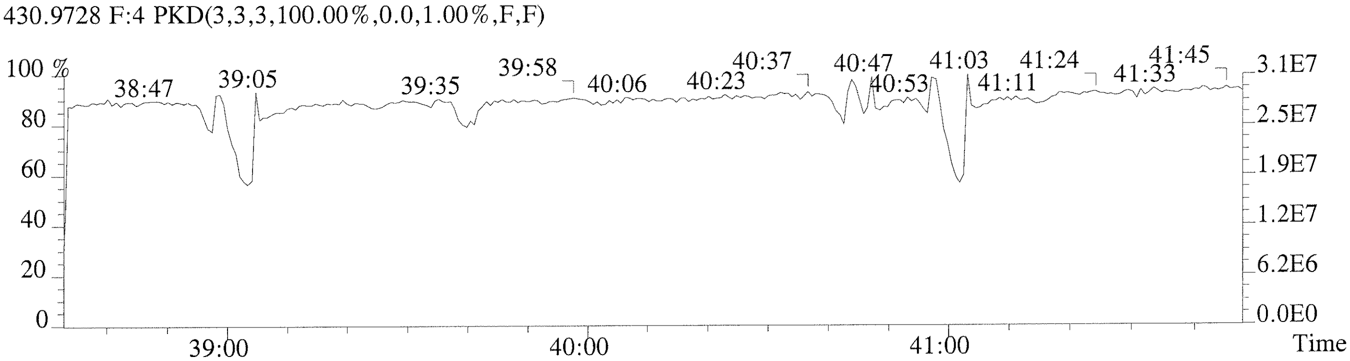
435.8169 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,2612.0,0.40%,F,T)



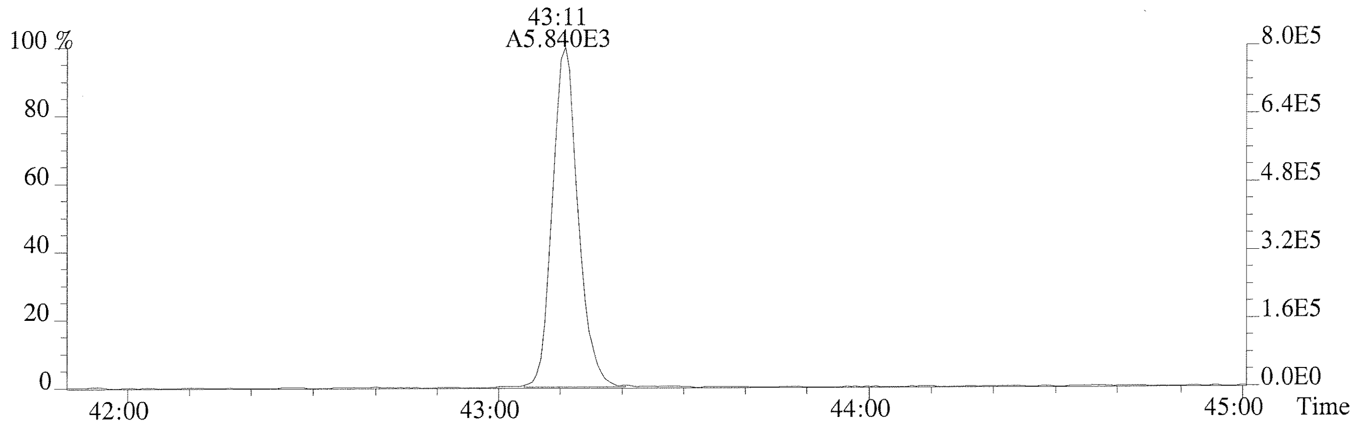
437.8140 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,1896.0,0.40%,F,T)



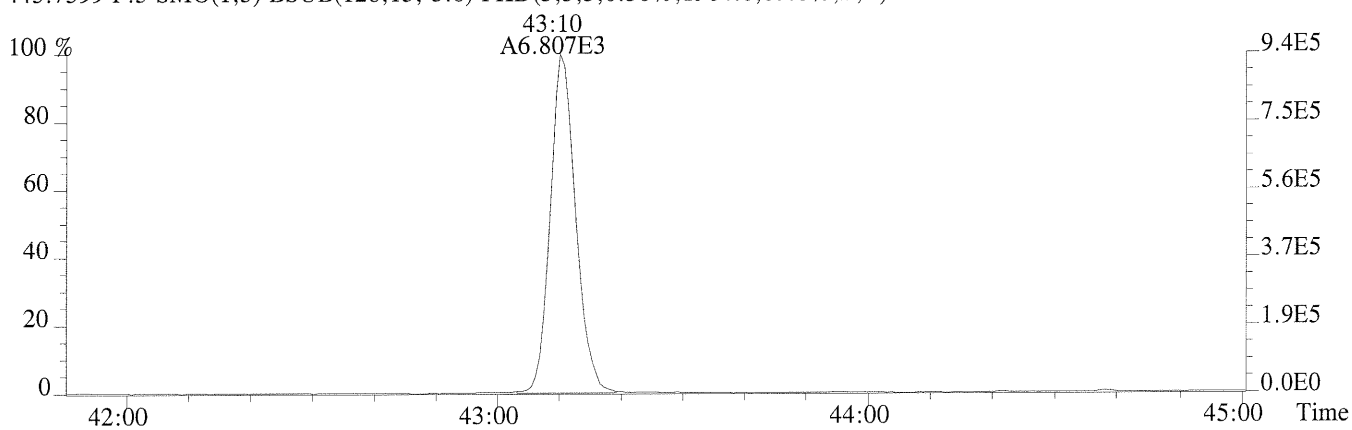
430.9728 F:4 PKD(3,3,3,100.00%,0.0,1.00%,F,F)



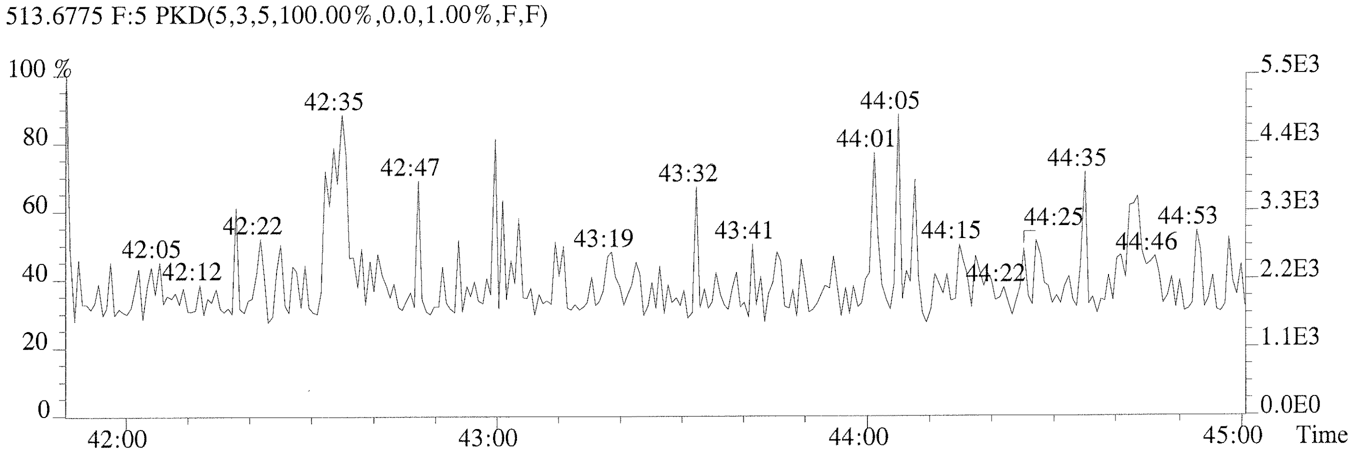
File: 8294 #1-292 Acq:19-JUN-2012 15:25:50 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp: 00584-001RE .193
441.7428 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(5,3,5,0.30%,756.0,0.40%,F,T)



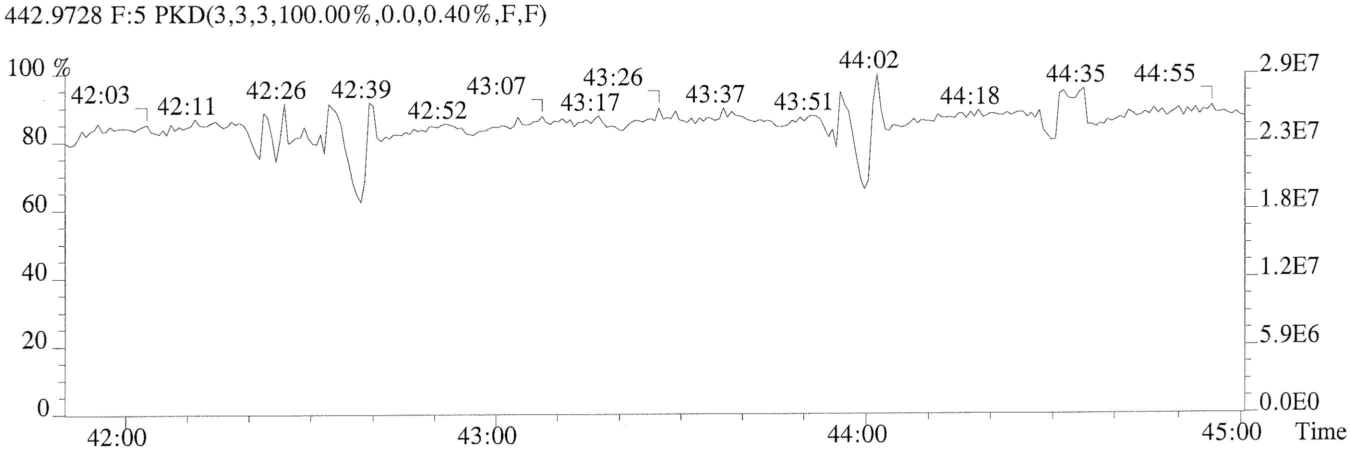
443.7399 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(5,3,5,0.30%,1904.0,0.40%,F,T)



513.6775 F:5 PKD(5,3,5,100.00%,0.0,1.00%,F,F)

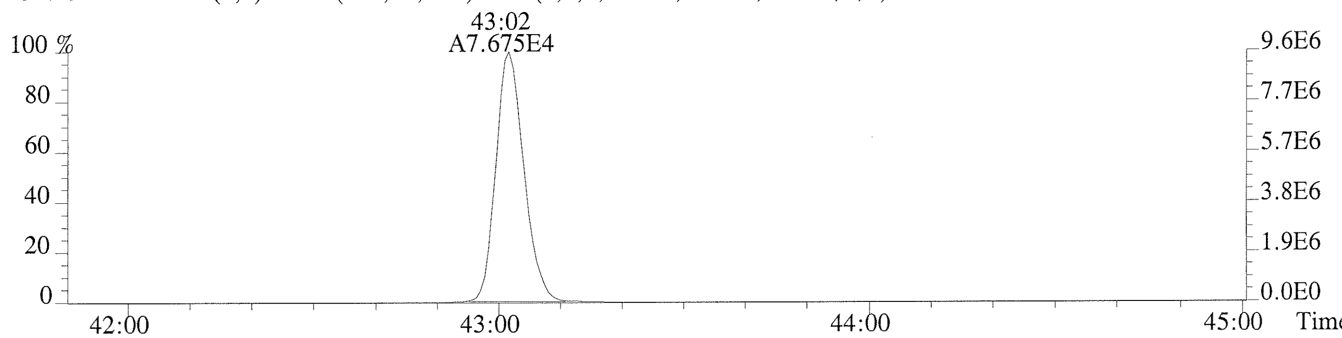


442.9728 F:5 PKD(3,3,3,100.00%,0.0,0.40%,F,F)

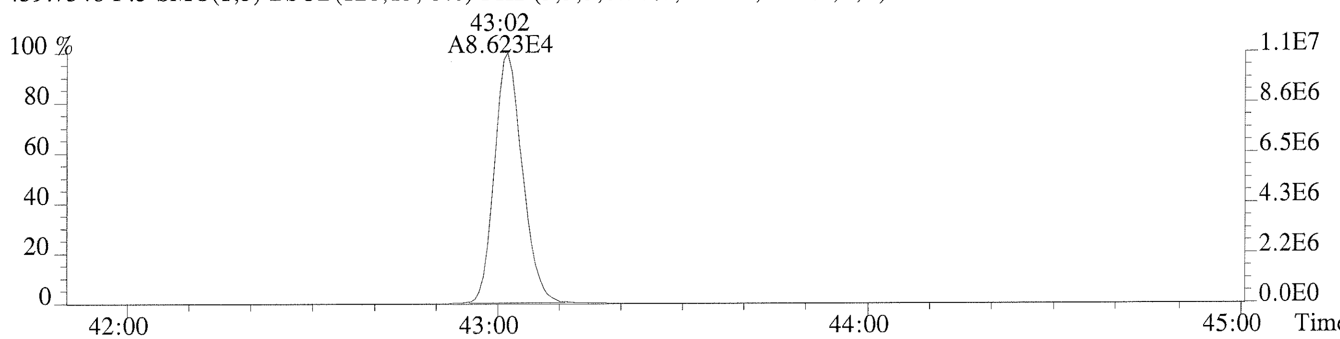


File: 8294 #1-292 Acq:19-JUN-2012 15:25:50 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp: 00584-001RE 193

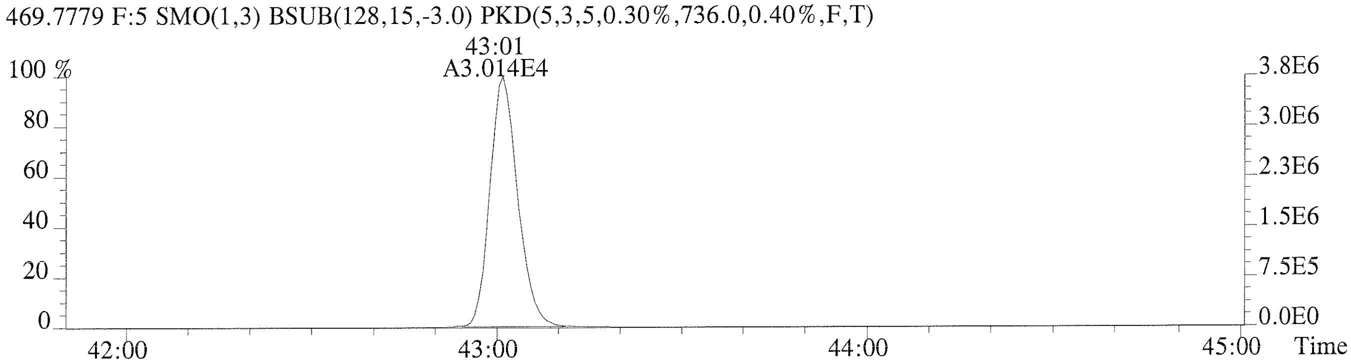
457.7377 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(5,3,5,0.30%,1952.0,0.40%,F,T)



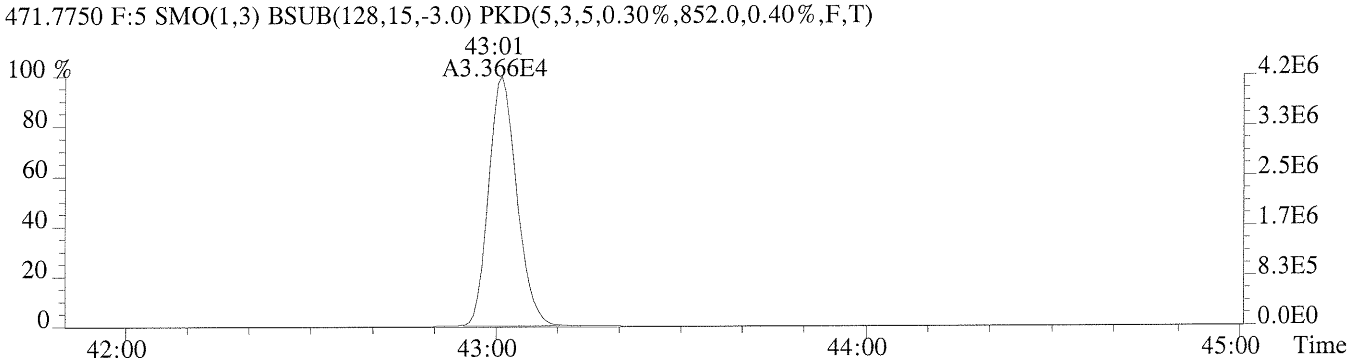
459.7348 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(5,3,5,0.30%,1180.0,0.40%,F,T)



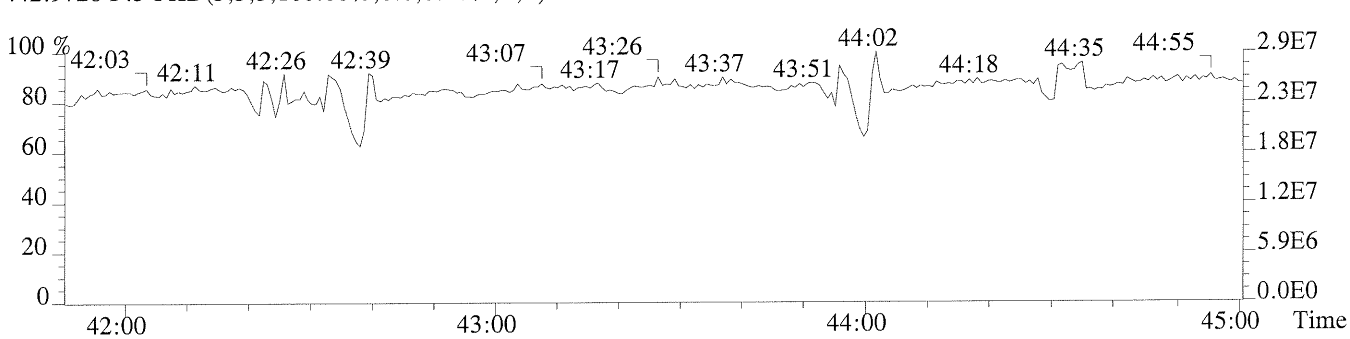
469.7779 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(5,3,5,0.30%,736.0,0.40%,F,T)



471.7750 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(5,3,5,0.30%,852.0,0.40%,F,T)



442.9728 F:5 PKD(3,3,3,100.00%,0.0,0.40%,F,F)



Sample Response Summary

EPA SAMPLE NO.
193

Run #9 Filename 7979 Samp: 1 Inj: 1 Acquired: 21-JUN-12 08:44:39
Processed: 21-JUN-12 10:51:14 Sample ID: 00584-001RE

	Typ	Name	RT-1	Resp 1	Resp 2	Ratio	Meet	Mod?	
1	Unk	2,3,7,8-TCDF	23:15	1.027e+03	1.513e+03	0.68	yes	n	n
2	IS	13C-2,3,7,8-TCDF	23:14	4.869e+04	6.108e+04	0.80	yes	n	n
3	RS/RT	13C-1,2,3,4-TCDD	21:34	8.033e+04	1.009e+05	0.80	yes	n	n
4	C/Up	37Cl-2,3,7,8-TCDD	21:21	5.023e+04				n	

Signal/Noise Height Ratio Summary

	Name	Signal 1	Noise 1	S/N Rat.1	Signal 2	Noise 2	S/N
1	2,3,7,8-TCDF	1.17e+05	2.81e+03	4.2e+01	1.68e+05	2.27e+03	7.4e+01
2	13C-2,3,7,8-TCDF	5.41e+06	9.10e+03	5.9e+02	6.85e+06	7.63e+03	9.0e+02
3	13C-1,2,3,4-TCDD	1.07e+07	7.81e+03	1.4e+03	1.34e+07	5.14e+03	2.6e+03
4	37Cl-2,3,7,8-TCDD	6.62e+06	4.34e+03	1.5e+03			

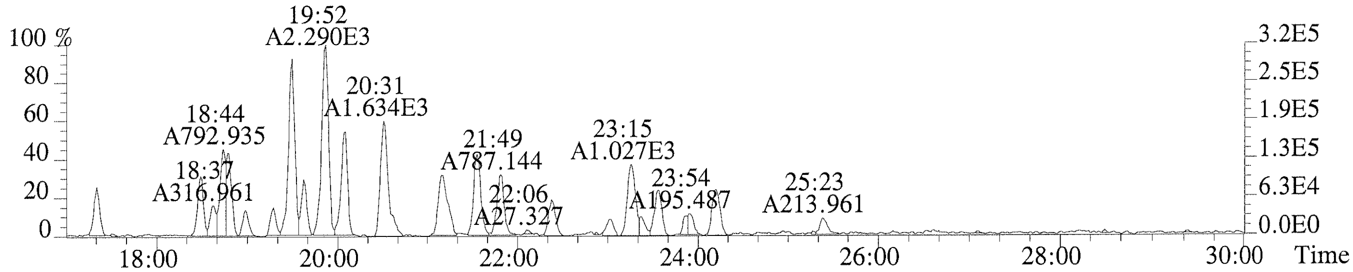
--- 2378-TCDF EDL Calculation---

$$EDL = \frac{(2.808e+03 + 2.272e+03\quad) \times 2000 \times 2.5\ pg}{(5.410e+06 + 6.849e+06) \times (\cancel{0.000}\ 30.272\quad g) \times \cancel{0.00}\ 33.3\ /100 \times 0.88} = 0.233\ ng/kg$$

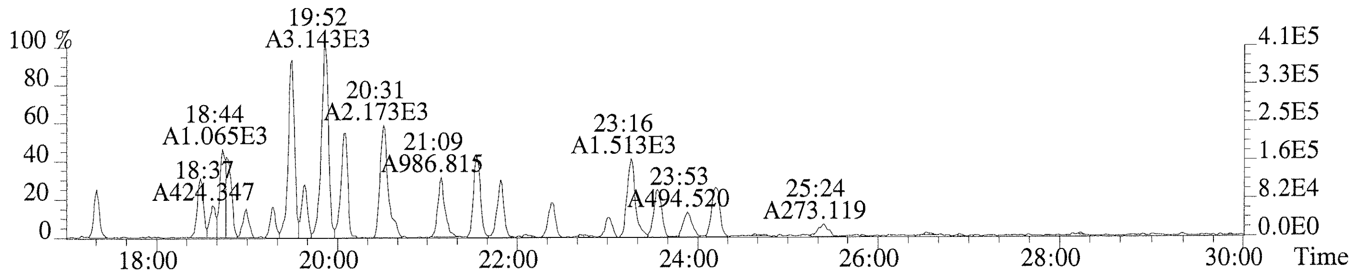
06/21/12

File: 7979 #1-1084 Acq:21-JUN-2012 08:44:39 Probe EI+ Magnet SIR VG BioTech Mass spec£
Sample#1 Exp: 00584-001RE 193

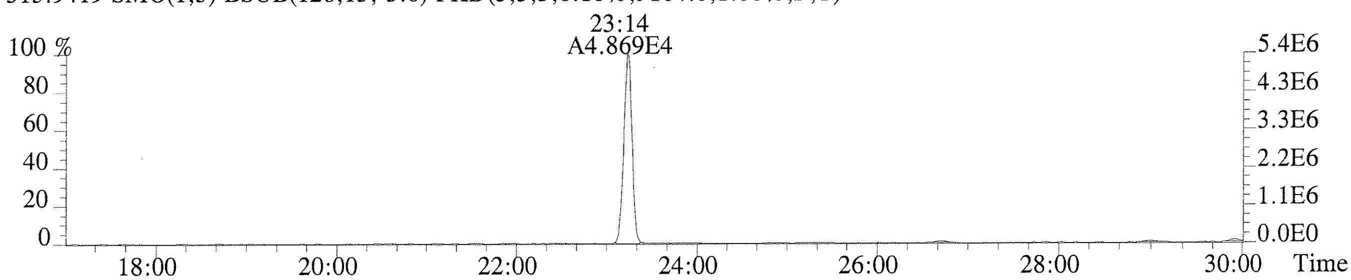
303.9016 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,2808.0,1.00%,F,T)



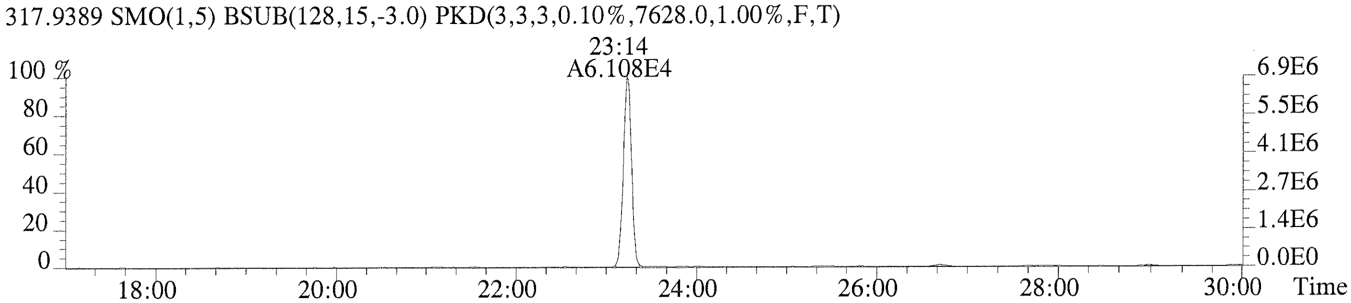
305.8987 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,2272.0,1.00%,F,T)



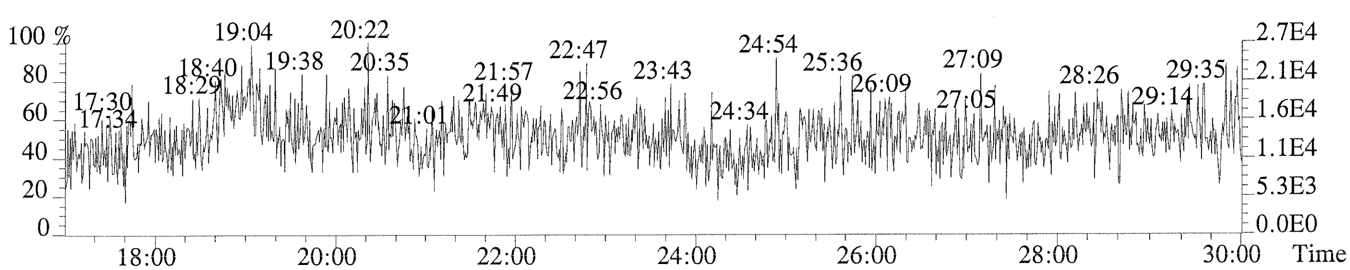
315.9419 SMO(1,5) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,9104.0,1.00%,F,T)



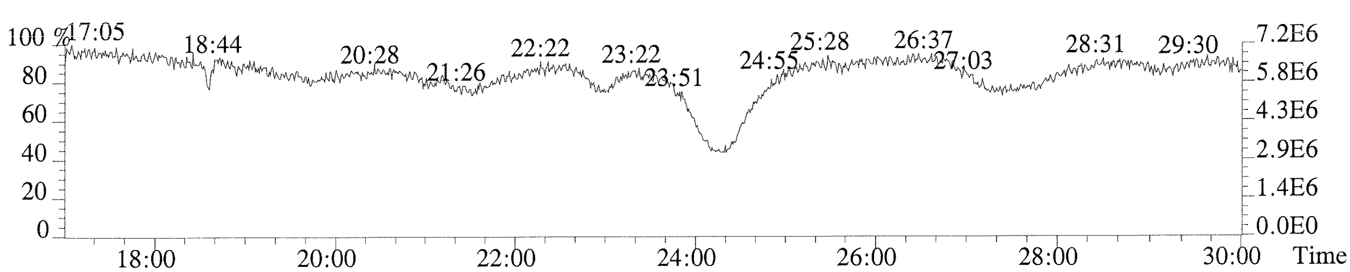
317.9389 SMO(1,5) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,7628.0,1.00%,F,T)



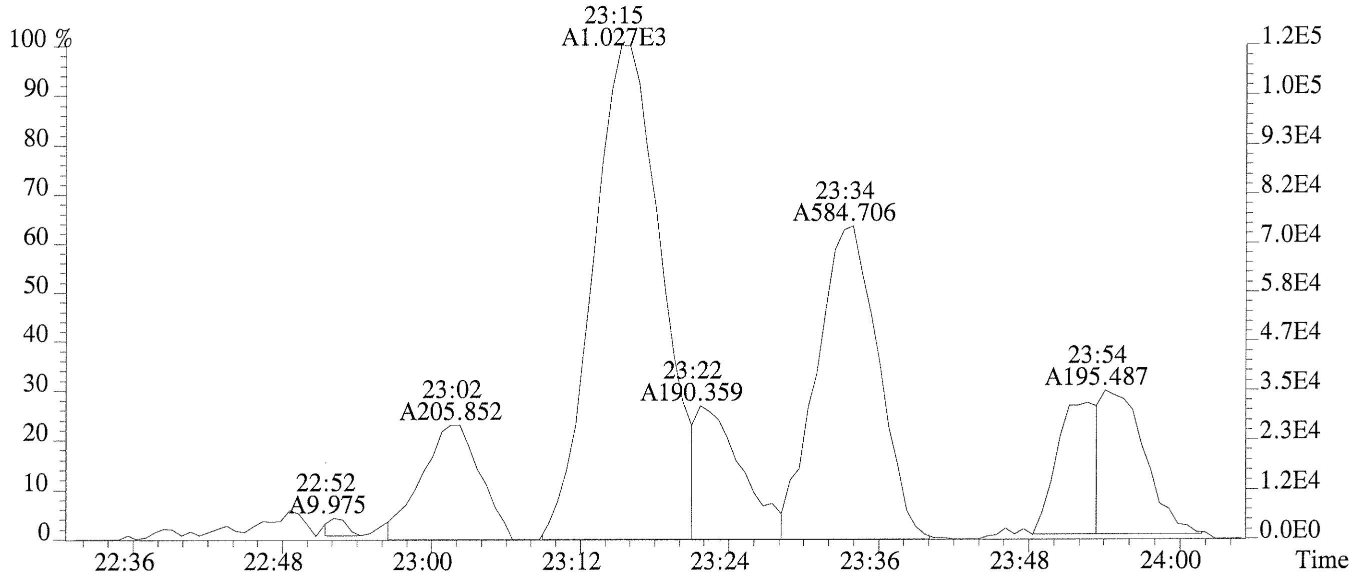
375.8364 PKD(5,3,5,100.00%,0.0,1.00%,F,F)



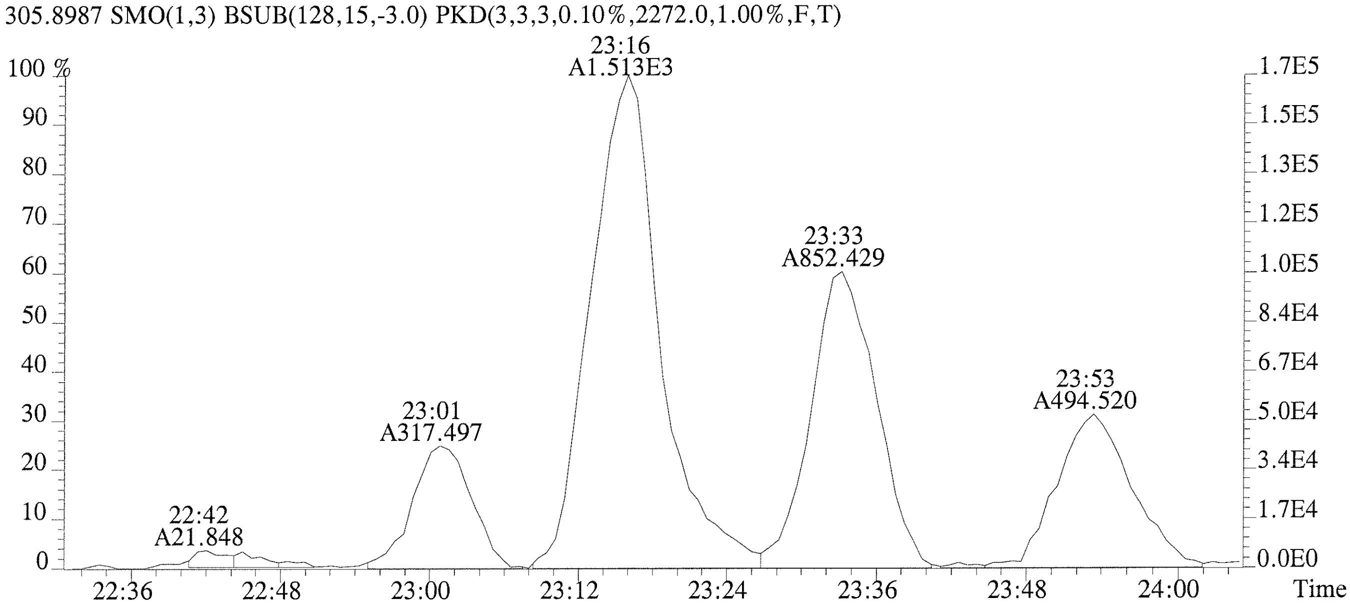
354.9792 PKD(3,3,3,100.00%,0.0,1.00%,F,F)



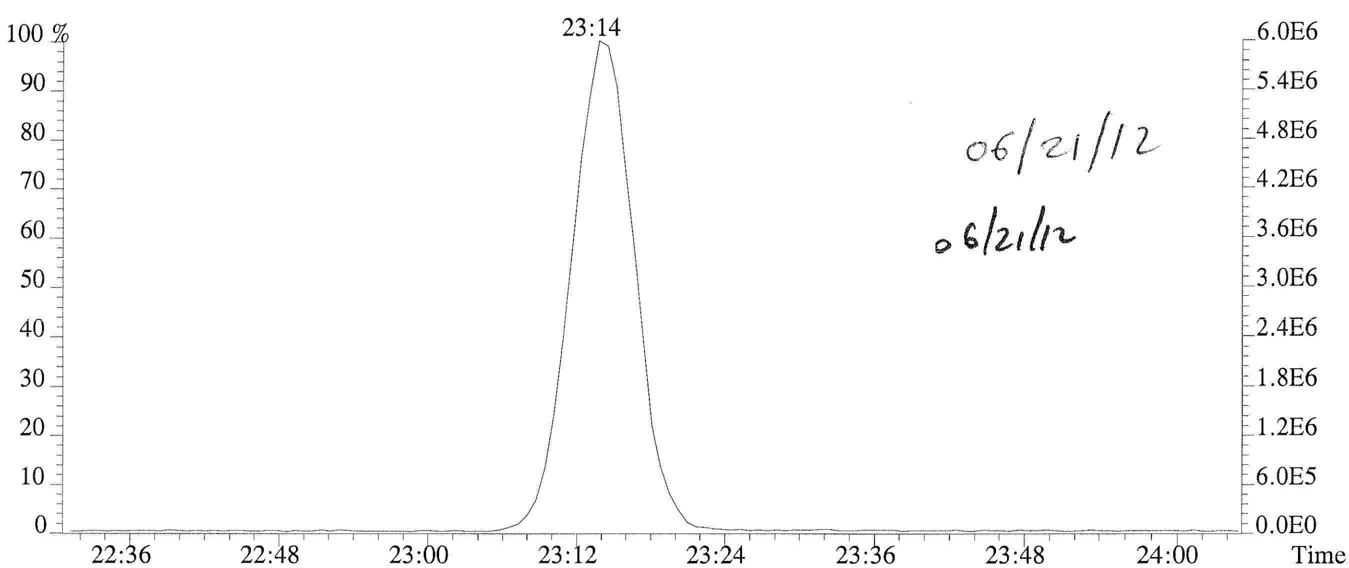
File: 7979 #1-1084 Acq:21-JUN-2012 08:44:39 Probe EI+ Magnet SIR VG BioTech Mass spec£
Sample#1 Exp: 00584-001RE 193
303.9016 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,2808.0,1.00%,F,T)



305.8987 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,2272.0,1.00%,F,T)

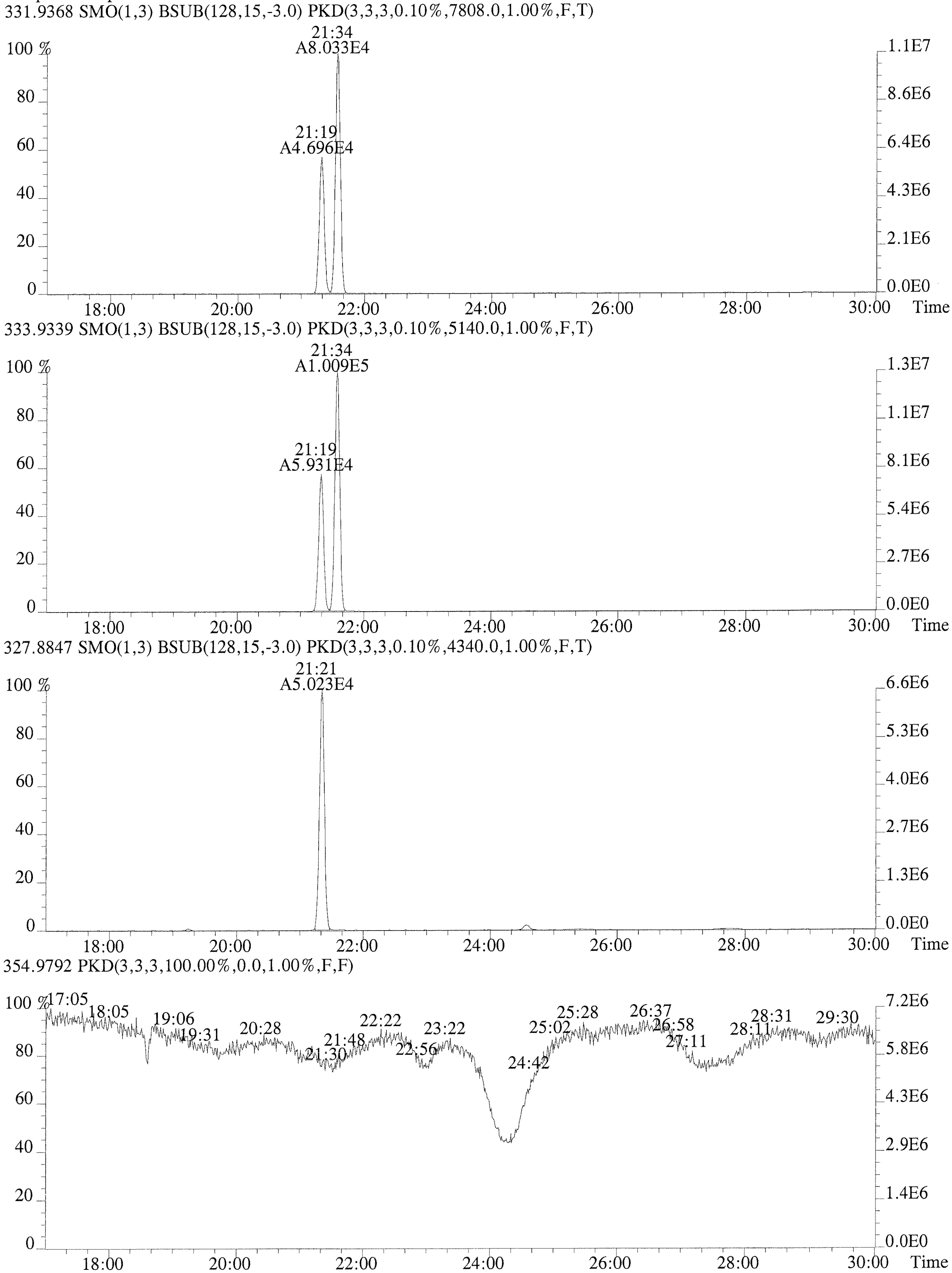


315.9419



06/21/12
06/21/12

File: 7979 #1-1084 Acq:21-JUN-2012 08:44:39 Probe EI+ Magnet SIR VG BioTech Mass spec£
Sample#1 Exp:)0584-001RE 193



Client:	US Environmental Protection Agency	**Service Request:**	00584
Project:	Dioxins/Furans/	**Date Collected:**	5/ 9/12 0859
Sample Matrix:	Water	**Date Received:**	5/10/12
Sample Name:	238	**Units:**	pg/L
Lab Code:	00584-002	**Basis:**	NA

Chlorinated Dibenzo-p-dioxins (CDDs) and Chlorinated Dibenzofurans (CDFs) by HRGC/HRMS

Analytical Method:		**Date Analyzed:**	7/6/12 1253
Prep Method:	Method	**Date Extracted:**	6/6/12
Sample Amount:	1040mL	**Instrument Name:**	E-HRMS-04
		GC Column:	DB-5
Data File Name:	8238	**Blank File Name:**	8236
ICAL Date:	05/03/12	**Cal Ver. File Name:**	8231

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
2,3,7,8-TCDD	ND	U	0.426	9.62			1
1,2,3,7,8-PeCDD	ND	U	0.238	48.1			1
1,2,3,4,7,8-HxCDD	ND	U	0.274	48.1			1
1,2,3,6,7,8-HxCDD	ND	U	0.305	48.1			1
1,2,3,7,8,9-HxCDD	ND	U	0.284	48.1			1
1,2,3,4,6,7,8-HpCDD	**7.17**	J	0.875	48.1	1.20	1.000	1
OCDD	**63.0**	BJ	1.63	96.2	0.86	1.000	1
2,3,7,8-TCDF	ND	U	0.325	9.62			1
1,2,3,7,8-PeCDF	ND	U	0.310	48.1			1
2,3,4,7,8-PeCDF	ND	U	0.349	48.1			1
1,2,3,4,7,8-HxCDF	ND	U	0.262	48.1			1
1,2,3,6,7,8-HxCDF	**0.835**	J	0.233	48.1	1.28	1.000	1
1,2,3,7,8,9-HxCDF	ND	U	0.354	48.1			1
2,3,4,6,7,8-HxCDF	ND	U	0.263	48.1			1
1,2,3,4,6,7,8-HpCDF	**3.29**	J	0.531	48.1	1.00	1.000	1
1,2,3,4,7,8,9-HpCDF	ND	U	0.763	48.1			1
OCDF	**2.77**	J	1.66	96.2	0.44	1.001	1
Total Tetra-Dioxins	ND	U	0.426	9.62			1
Total Penta-Dioxins	ND	U	0.238	48.1			1
Total Hexa-Dioxins	ND	U	0.274	48.1			1
Total Hepta-Dioxins	**5.70**	J	0.875	48.1	1.17		1
Total Tetra-Furans	ND	U	0.325	9.62			1
Total Penta-Furans	ND	U	0.349	48.1			1
Total Hexa-Furans	**0.835**	J	0.262	48.1	1.28		1
Total Hepta-Furans	**5.78**	J	0.531	48.1	1.00		1

Client:	US Environmental Protection Agency	**Service Request:**	00584
Project:	Dioxins/Furans/	**Date Collected:**	5/ 9/12 0859
Sample Matrix:	Water	**Date Received:**	5/10/12
Sample Name:	238	**Units:**	Percent
Lab Code:	00584-002	**Basis:**	NA

Chlorinated Dibenzo-p-dioxins (CDDs) and Chlorinated Dibenzofurans (CDFs) by HRGC/HRMS

Analytical Method:		**Date Analyzed:**	7/6/12 1253
Prep Method:	Method	**Date Extracted:**	6/6/12
Sample Amount:	1040mL	**Instrument Name:**	E-HRMS-04
		GC Column:	DB-5
Data File Name:	8238	**Blank File Name:**	8236
ICAL Date:	05/03/12	**Cal Ver. File Name:**	8231

Labeled Compounds	Spike Conc.(pg)	Conc. Found (pg)	%Rec	Q	Control Limits	Ion Ratio	RRT
13C-2,3,7,8-TCDD	2000	1155.382	58		25-164	0.79	1.008
13C-1,2,3,7,8-PeCDD	2000	1136.860	57		25-181	1.59	1.177
13C-1,2,3,4,7,8-HxCDD	2000	1172.856	59		32-141	1.27	0.989
13C-1,2,3,6,7,8-HxCDD	2000	1052.372	53		28-130	1.27	0.992
13C-1,2,3,4,6,7,8-HpCDD	2000	1279.612	64		23-140	1.07	1.083
13C-OCDD	4000	2302.049	58		17-157	0.90	1.188
13C-2,3,7,8-TCDF	2000	1232.097	62		24-169	0.80	0.976
13C-1,2,3,7,8-PeCDF	2000	1387.316	69		24-185	1.58	1.136
13C-2,3,4,7,8-PeCDF	2000	1219.571	61		21-178	1.59	1.164
13C-1,2,3,4,7,8-HxCDF	2000	1106.322	55		26-152	0.54	0.967
13C-1,2,3,6,7,8-HxCDF	2000	1162.927	58		26-123	0.52	0.970
13C-1,2,3,7,8,9-HxCDF	2000	1136.061	57		29-147	0.53	1.005
13C-2,3,4,6,7,8-HxCDF	2000	1238.790	62		28-136	0.53	0.985
13C-1,2,3,4,6,7,8-HpCDF	2000	1161.381	58		28-143	0.45	1.052
13C-1,2,3,4,7,8,9-HpCDF	2000	1336.223	67		26-138	0.45	1.093
37Cl-2,3,7,8-TCDD	800	660.794	83		35-197	NA	1.008

Sample Response Summary   CLIENT ID.
238

Run #14   Filename   8238   Samp: 1   Inj: 1   Acquired: 6-JUL-12 12:53:25
Processed: 14-JUL-12 09:23:10   Sample ID: 00584-002

	Typ	Name	RT-1	Resp 1	Resp 2	Ratio	Meet	Mod?	RRF
1	Unk	2,3,7,8-TCDF	NotFnd	*	*	*	no	no	0.948
2	Unk	1,2,3,7,8-PeCDF	NotFnd	*	*	*	no	yes	0.987
3	Unk	2,3,4,7,8-PeCDF	NotFnd	*	*	*	no	no	0.954
4	Unk	1,2,3,4,7,8-HxCDF	NotFnd	*	*	*	no	yes	1.240
5	Unk	1,2,3,6,7,8-HxCDF	36:47	1.914e+01	1.500e+01	1.28	yes	no	1.165
6	Unk	2,3,4,6,7,8-HxCDF	NotFnd	*	*	*	no	yes	1.161
7	Unk	1,2,3,7,8,9-HxCDF	NotFnd	*	*	*	no	yes	1.186
8	Unk	1,2,3,4,6,7,8-HpCDF	39:52	5.756e+01	5.781e+01	1.00	yes	yes	1.404
9	Unk	1,2,3,4,7,8,9-HpCDF	NotFnd	*	*	*	no	no	1.336
10	Unk	OCDF	45:04	2.793e+01	6.321e+01	0.44	no	yes	1.303
11	Unk	2,3,7,8-TCDD	NotFnd	*	*	*	no	yes	1.015
12	Unk	1,2,3,7,8-PeCDD	NotFnd	*	*	*	no	yes	0.961
13	Unk	1,2,3,4,7,8-HxCDD	NotFnd	*	*	*	no	yes	1.074
14	Unk	1,2,3,6,7,8-HxCDD	NotFnd	*	*	*	no	yes	1.038
15	Unk	1,2,3,7,8,9-HxCDD	NotFnd	*	*	*	no	yes	1.075
16	Unk	1,2,3,4,6,7,8-HpCDD	41:04	1.135e+02	9.472e+01	1.20	no	yes	1.053
17	Unk	OCDD	45:03	5.670e+02	6.630e+02	0.86	yes	no	1.188
18	IS	13C-2,3,7,8-TCDF	28:09	2.917e+04	3.642e+04	0.80	yes	no	1.275
19	IS	13C-1,2,3,7,8-PeCDF	32:46	4.540e+04	2.881e+04	1.58	yes	no	1.281
20	IS	13C-2,3,4,7,8-PeCDF	33:33	4.037e+04	2.547e+04	1.59	yes	no	1.293
21	IS	13C-1,2,3,4,7,8-HxCDF	36:40	1.952e+04	3.592e+04	0.54	yes	no	1.157
22	IS	13C-1,2,3,6,7,8-HxCDF	36:47	2.306e+04	4.444e+04	0.52	yes	no	1.340
23	IS	13C-2,3,4,6,7,8-HxCDF	37:21	2.190e+04	4.153e+04	0.53	yes	no	1.182
24	IS	13C-1,2,3,7,8,9-HxCDF	38:07	1.721e+04	3.275e+04	0.53	yes	no	1.015
25	IS	13C-1,2,3,4,6,7,8-HpCDF	39:53	1.499e+04	3.297e+04	0.45	yes	no	0.953
26	IS	13C-1,2,3,4,7,8,9-HpCDF	41:27	1.412e+04	3.108e+04	0.45	yes	no	0.781
27	IS	13C-2,3,7,8-TCDD	29:03	1.983e+04	2.515e+04	0.79	yes	no	0.932
28	IS	13C-1,2,3,7,8-PeCDD	33:56	2.699e+04	1.697e+04	1.59	yes	no	0.926
29	IS	13C-1,2,3,4,7,8-HxCDD	37:30	2.683e+04	2.119e+04	1.27	yes	no	0.945
30	IS	13C-1,2,3,6,7,8-HxCDD	37:36	2.579e+04	2.034e+04	1.27	yes	no	1.012
31	IS	13C-1,2,3,4,6,7,8-HpCDD	41:03	2.541e+04	2.377e+04	1.07	yes	no	0.887
32	IS	13C-OCDD	45:02	2.997e+04	3.321e+04	0.90	yes	no	0.634
33	RS/RT	13C-1,2,3,4-TCDD	28:50	3.701e+04	4.649e+04	0.80	yes	no	-
34	RS/RT	13C-1,2,3,7,8,9-HxCDD	37:55	4.842e+04	3.821e+04	1.27	yes	no	-
35	C/Up	37Cl-2,3,7,8-TCDD	29:04	2.637e+04				no	0.956

For Manual OCDD Calculation, Use mean

```
        (5.670e+02 + 6.630e+02 ) x 4000 pg x 1
OCDD =------------------------------------------------------ =   63.0  pg/L
        (2.997e+04 + 3.321e+04) x 1040  mL x 1L/1000ml x 1.188
=======================================================================   07/16/12
   Quadratic Coeff: 77.878        = Mean
        7.788e+01  - -              x 1
 [OCDD]  =------------------------------------------------------ =
       ( -          * [OCDD] +  -          ) *        L.
                       Where d[OCDD] = 0.0001
```

Signal/Noise Height Ratio Summary CLIENT ID.
238

Run #14 Filename 8238 Samp: 1 Inj: 1 Acquired: 6-JUL-12 12:53:25
Processed: 14-JUL-12 09:23:101 LAB. ID: 00584-002

	Name	Signal 1	Noise 1	S/N Rat.1	Signal 2	Noise 2	S/N Rat.2
1	2,3,7,8-TCDF	*	2.36e+02	*	*	4.76e+02	*
2	1,2,3,7,8-PeCDF	*	2.84e+02	*	*	6.32e+02	*
3	2,3,4,7,8-PeCDF	*	2.84e+02	*	*	6.32e+02	*
4	1,2,3,4,7,8-HxCDF	*	2.48e+02	*	*	4.20e+02	*
5	1,2,3,6,7,8-HxCDF	3.72e+03	2.48e+02	1.5e+01	3.38e+03	4.20e+02	8.1e+00
6	2,3,4,6,7,8-HxCDF	*	2.48e+02	*	*	4.20e+02	*
7	1,2,3,7,8,9-HxCDF	*	2.48e+02	*	*	4.20e+02	*
8	1,2,3,4,6,7,8-HpCDF	7.34e+03	5.32e+02	1.4e+01	6.70e+03	3.44e+02	1.9e+01
9	1,2,3,4,7,8,9-HpCDF	*	5.32e+02	*	*	3.44e+02	*
10	OCDF	3.27e+03	3.72e+02	8.8e+00	6.29e+03	3.56e+02	1.8e+01
11	2,3,7,8-TCDD	*	2.12e+02	*	*	5.16e+02	*
12	1,2,3,7,8-PeCDD	*	1.80e+02	*	*	2.36e+02	*
13	1,2,3,4,7,8-HxCDD	*	2.64e+02	*	*	2.20e+02	*
14	1,2,3,6,7,8-HxCDD	*	2.64e+02	*	*	2.20e+02	*
15	1,2,3,7,8,9-HxCDD	*	2.64e+02	*	*	2.20e+02	*
16	1,2,3,4,6,7,8-HpCDD	9.50e+03	4.48e+02	2.1e+01	8.96e+03	4.36e+02	2.1e+01
17	OCDD	3.39e+04	3.80e+02	8.9e+01	3.79e+04	2.72e+02	1.4e+02
18	13C-2,3,7,8-TCDF	4.92e+06	1.25e+03	3.9e+03	6.14e+06	4.68e+02	1.3e+04
19	13C-1,2,3,7,8-PeCDF	8.74e+06	1.48e+02	5.9e+04	5.60e+06	1.72e+02	3.3e+04
20	13C-2,3,4,7,8-PeCDF	8.10e+06	1.48e+02	5.5e+04	5.10e+06	1.72e+02	3.0e+04
21	13C-1,2,3,4,7,8-HxCDF	3.41e+06	5.16e+02	6.6e+03	6.52e+06	9.36e+02	7.0e+03
22	13C-1,2,3,6,7,8-HxCDF	4.11e+06	5.16e+02	8.0e+03	7.63e+06	9.36e+02	8.1e+03
23	13C-2,3,4,6,7,8-HxCDF	3.62e+06	5.16e+02	7.0e+03	6.86e+06	9.36e+02	7.3e+03
24	13C-1,2,3,7,8,9-HxCDF	2.61e+06	5.16e+02	5.1e+03	5.03e+06	9.36e+02	5.4e+03
25	13C-1,2,3,4,6,7,8-HpCDF	1.77e+06	1.01e+03	1.7e+03	3.85e+06	1.77e+03	2.2e+03
26	13C-1,2,3,4,7,8,9-HpCDF	1.29e+06	1.01e+03	1.3e+03	2.83e+06	1.77e+03	1.6e+03
27	13C-2,3,7,8-TCDD	3.56e+06	1.54e+03	2.3e+03	4.50e+06	8.32e+02	5.4e+03
28	13C-1,2,3,7,8-PeCDD	5.36e+06	1.64e+02	3.3e+04	3.36e+06	1.72e+02	2.0e+04
29	13C-1,2,3,4,7,8-HxCDD	4.46e+06	8.68e+02	5.1e+03	3.44e+06	5.56e+02	6.2e+03
30	13C-1,2,3,6,7,8-HxCDD	4.09e+06	8.68e+02	4.7e+03	3.24e+06	5.56e+02	5.8e+03
31	13C-1,2,3,4,6,7,8-HpCDD	2.37e+06	2.92e+02	8.1e+03	2.23e+06	2.40e+02	9.3e+03
32	13C-OCDD	1.54e+06	2.44e+02	6.3e+03	1.69e+06	1.28e+02	1.3e+04
33	13C-1,2,3,4-TCDD	6.41e+06	1.54e+03	4.2e+03	8.00e+06	8.32e+02	9.6e+03
34	13C-1,2,3,7,8,9-HxCDD	7.50e+06	8.68e+02	8.6e+03	5.88e+06	5.56e+02	1.1e+04
35	37Cl-2,3,7,8-TCDD	4.59e+06	3.00e+02	1.5e+04			

Peak List Summary

CLIENT ID.

238

Entry: 40 Totals Name: Total Hexa-Furans

Run: 14 File: 8238 Sample:1 Injection:1 Function:3

Acquired: 6-JUL-12 12:53:25 Processed: 14-JUL-12 09:23:10

Mass: 373.8210 375.8180 Response:

#	RT	Resp	Resp	Ratio	Meet	Tot Resp	Name	Mod1?	Mod2
1	36:47	1.91e+01	1.50e+01	1.28	yes	3.41e+01	1,2,3,6,7,8-HxCDF	n	n

Peak List Summary

CLIENT ID.

238

Entry: 42 Totals Name: Total Hepta-Furans

Run: 14 File: 8238 Sample:1 Injection:1 Function:4

Acquired: 6-JUL-12 12:53:25 Processed: 14-JUL-12 09:23:10

Mass: 407.7820 409.7790 Response:

#	RT	Resp	Resp	Ratio	Meet	Tot Resp	Name	Mod1?	Mod2
1	39:52	5.76e+01	5.78e+01	1.00	yes	1.15e+02	1,2,3,4,6,7,8-HpCDF	y	y
2	40:20	3.94e+01	4.09e+01	0.96	yes	8.03e+01		y	n

Peak List Summary

CLIENT ID.

238

Entry: 43 Totals Name: Total Hepta-Dioxins

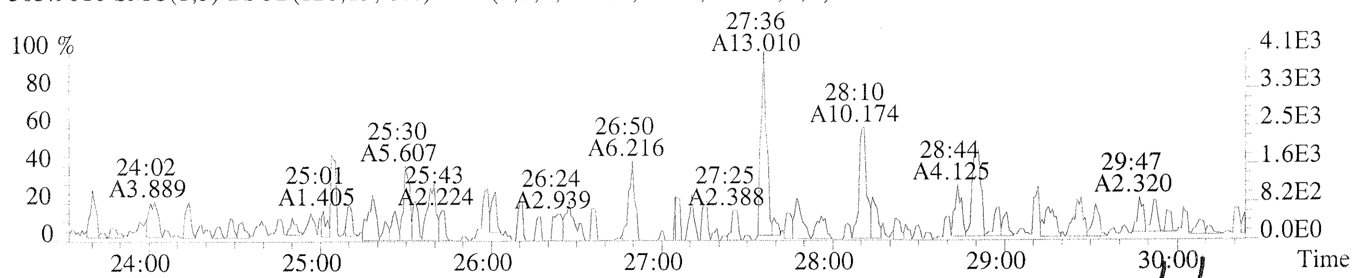
Run: 14 File: 8238 Sample:1 Injection:1 Function:4

Acquired: 6-JUL-12 12:53:25 Processed: 14-JUL-12 09:23:10

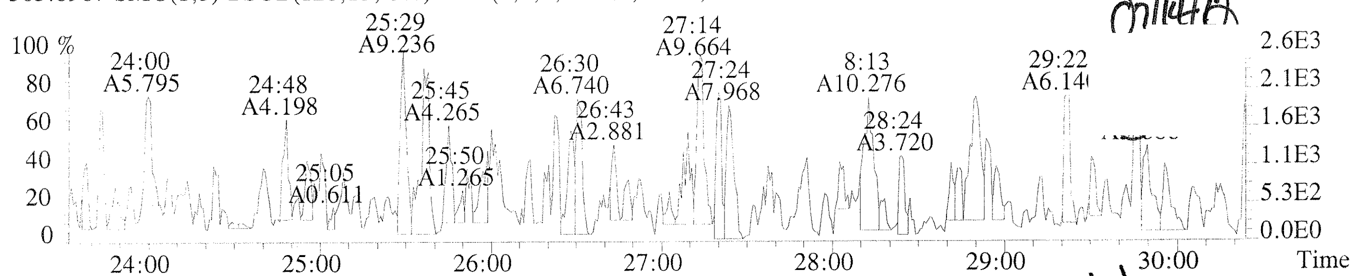
Mass: 423.7770 425.7740 Response:

#	RT	Resp	Resp	Ratio	Meet	Tot Resp	Name	Mod1?	Mod2
1	40:15	8.27e+01	7.08e+01	1.17	yes	1.54e+02		n	y

File: 8238 #1-572 Acq: 6-JUL-2012 12:53:25 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp: 00584-002 238
303.9016 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,236.0,1.00%,F,T)

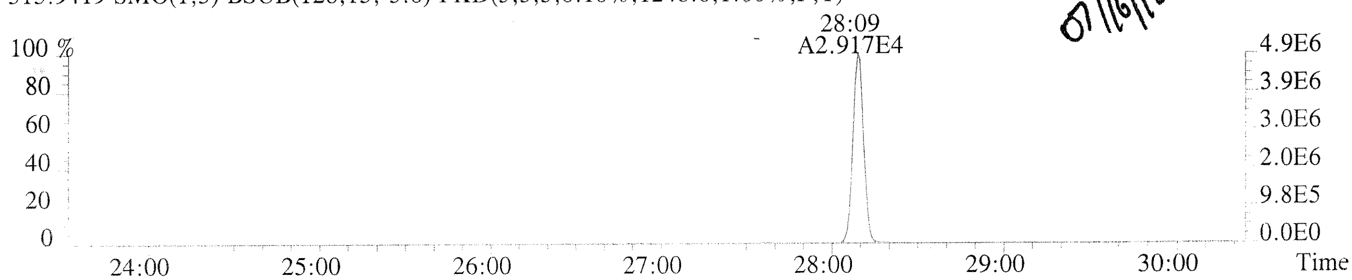


305.8987 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,476.0,1.00%

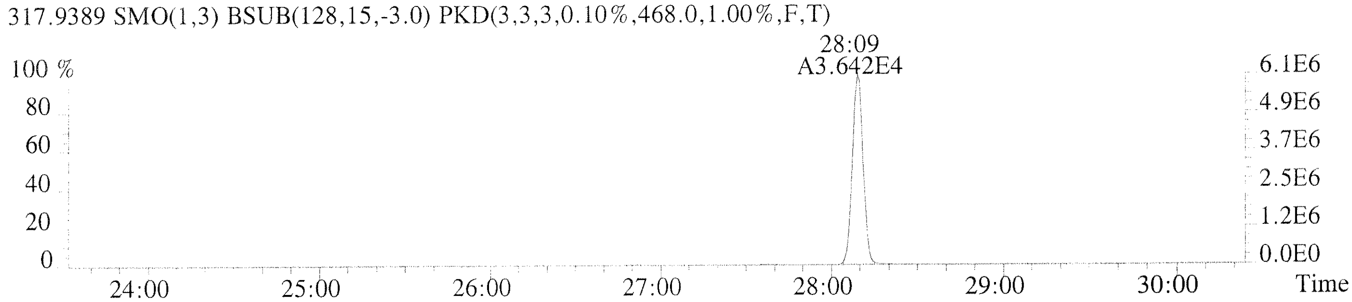


07/16/12

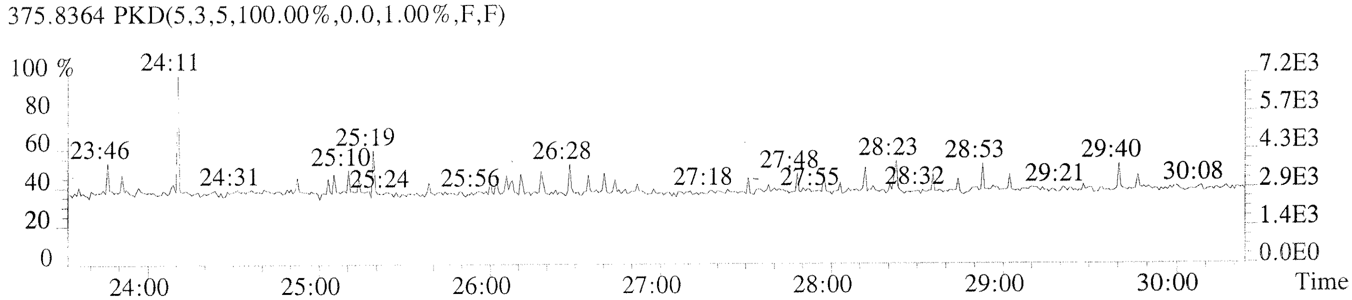
315.9419 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,1248.0,1.00%,F,T)



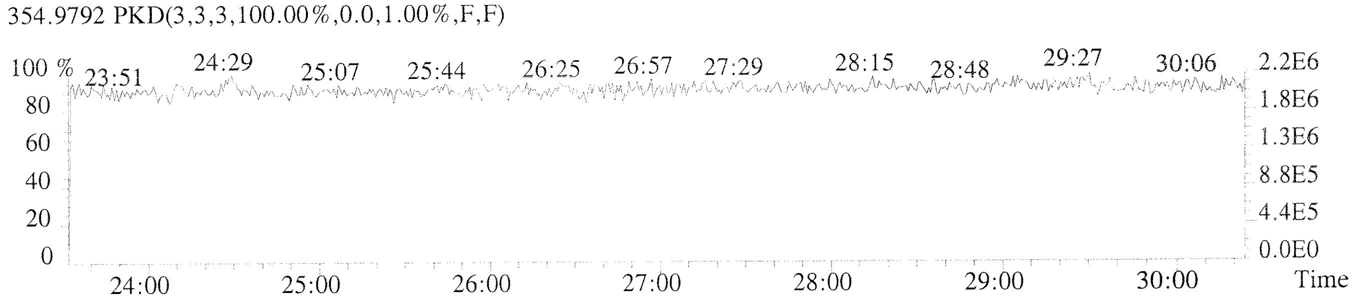
317.9389 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,468.0,1.00%,F,T)



375.8364 PKD(5,3,5,100.00%,0.0,1.00%,F,F)



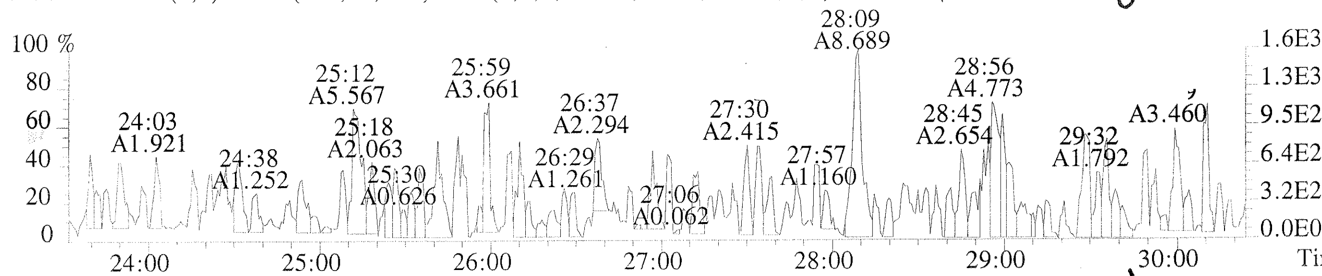
354.9792 PKD(3,3,3,100.00%,0.0,1.00%,F,F)



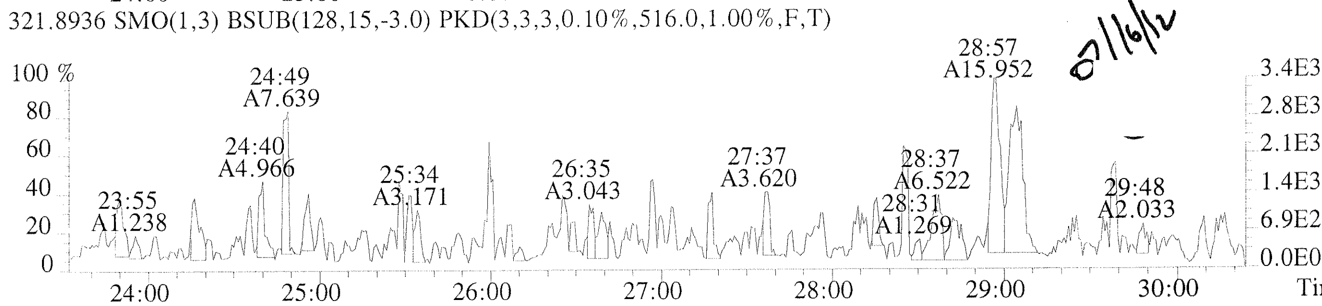
File: 8238 #1-572 Acq: 6-JUL-2012 12:53:25 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp: 00584-002 238

07/14/12

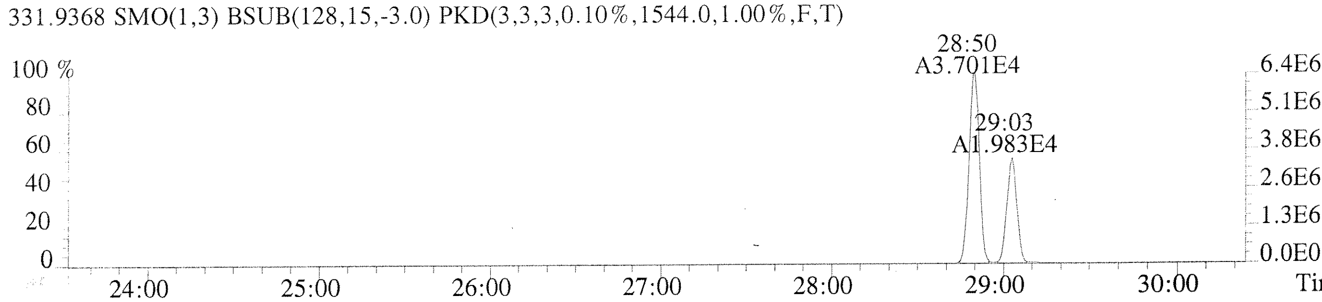
319.8965 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,212.0,1.00%,F,T)



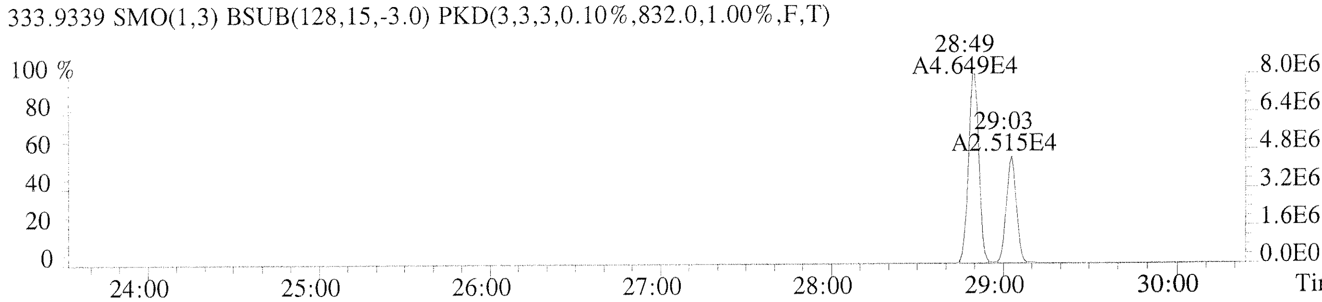
321.8936 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,516.0,1.00%,F,T)



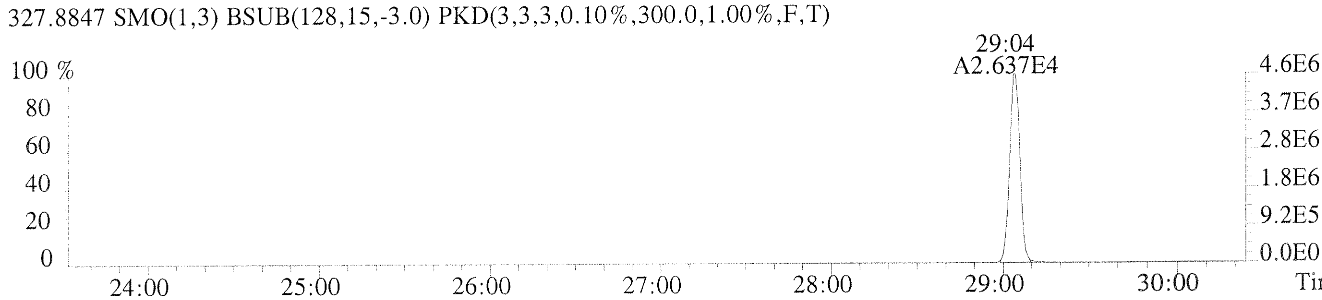
331.9368 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,1544.0,1.00%,F,T)



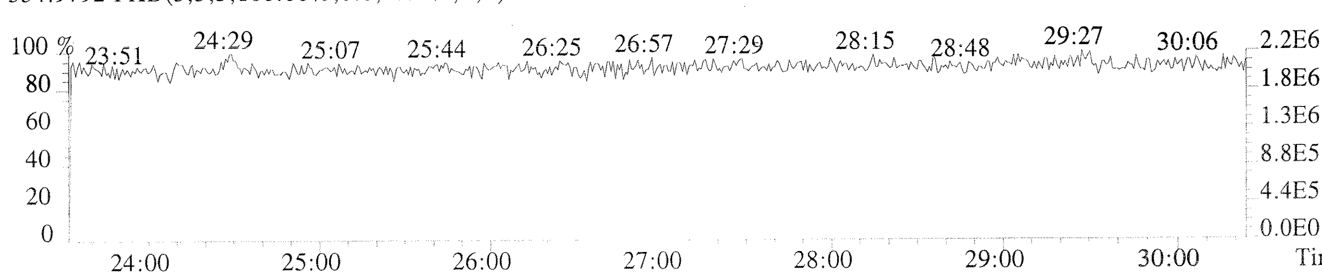
333.9339 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,832.0,1.00%,F,T)



327.8847 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,300.0,1.00%,F,T)

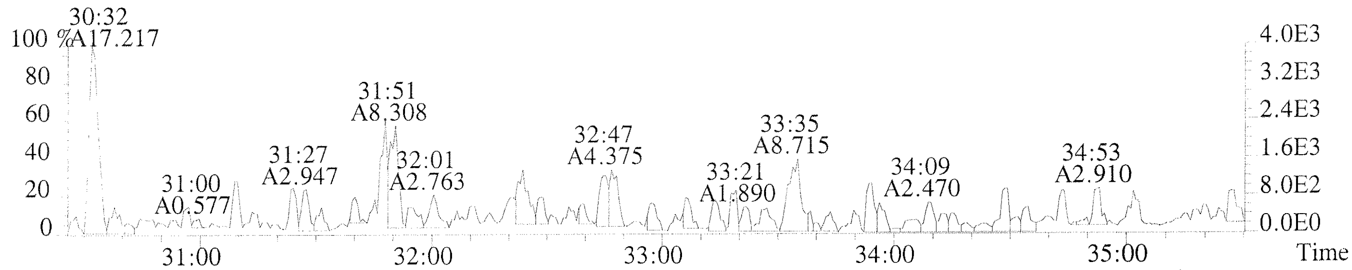


354.9792 PKD(3,3,3,100.00%,0.0,1.00%,F,F)

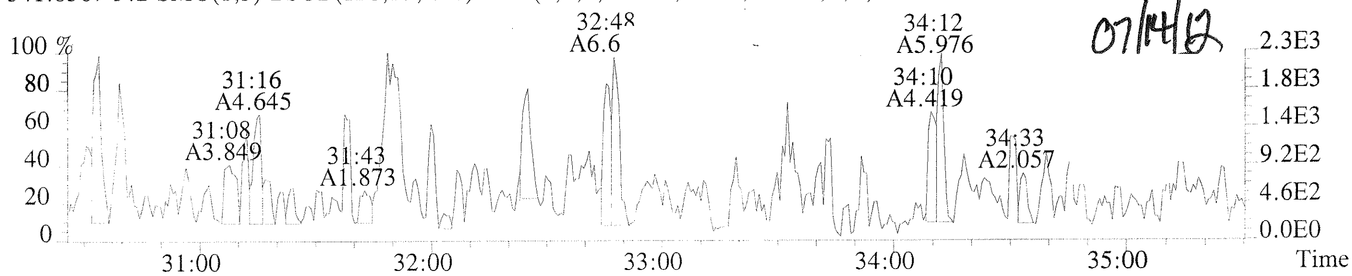


File 8238 #1-461 Acq: 6-JUL-2012 12:53:25 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp: 00584-002 238

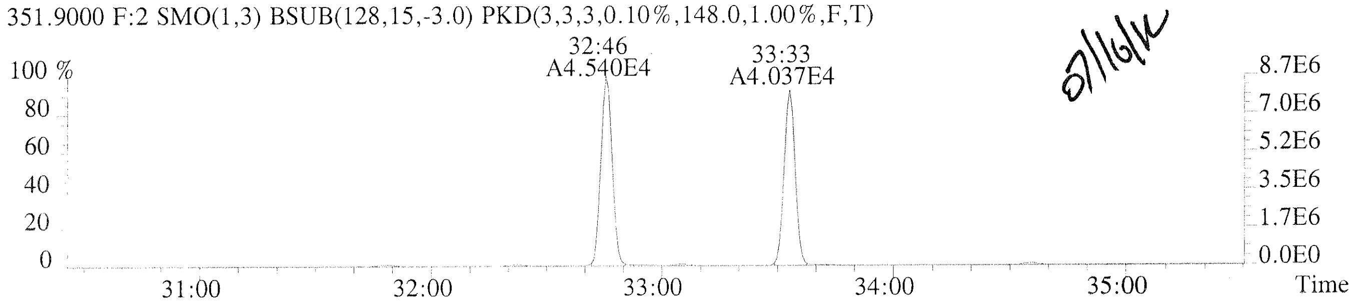
339.8597 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,284.0,1.00%,F,T)



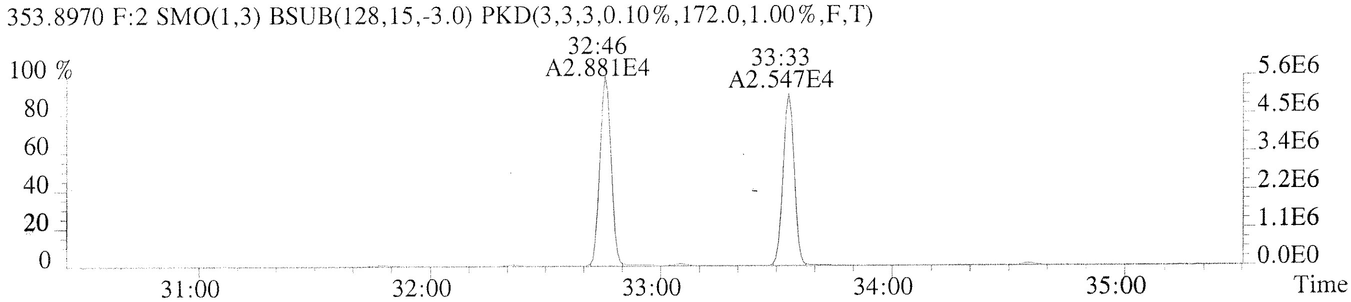
341.8567 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,632.0,1.00%,F,T)



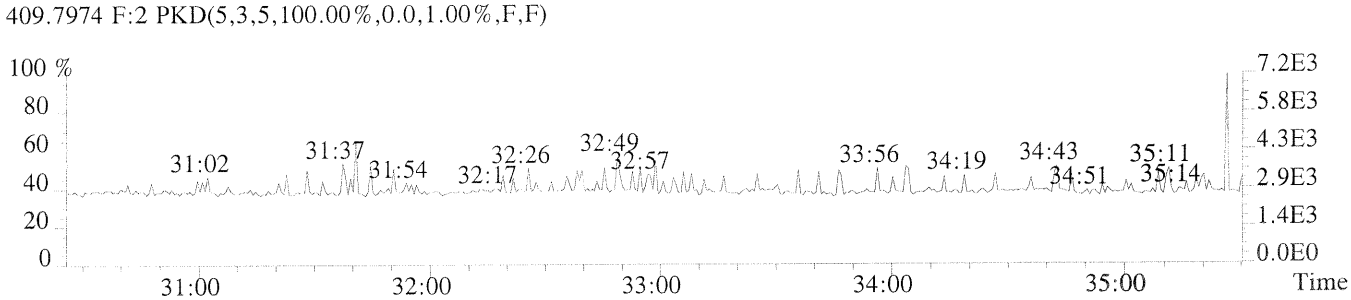
351.9000 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,148.0,1.00%,F,T)



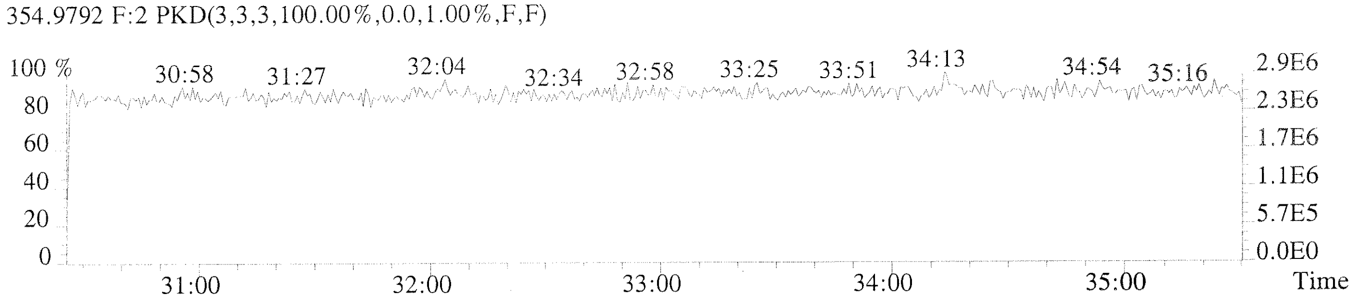
353.8970 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,172.0,1.00%,F,T)



409.7974 F:2 PKD(5,3,5,100.00%,0.0,1.00%,F,F)

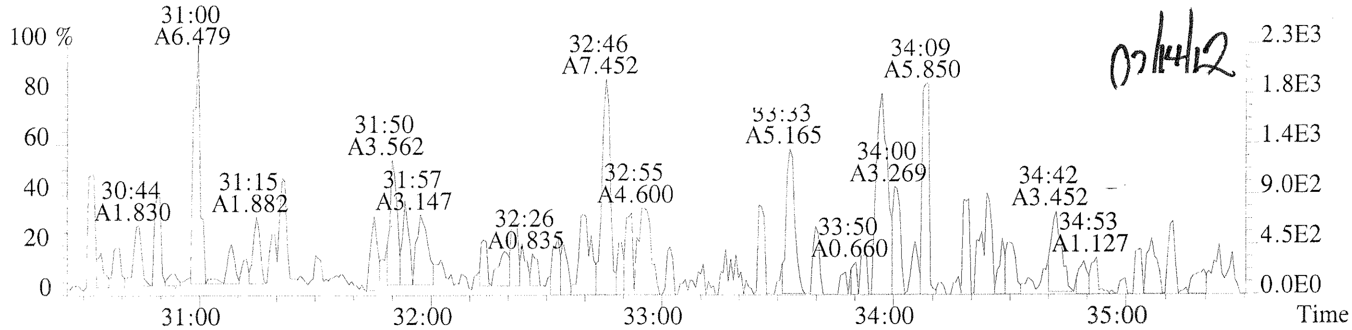


354.9792 F:2 PKD(3,3,3,100.00%,0.0,1.00%,F,F)

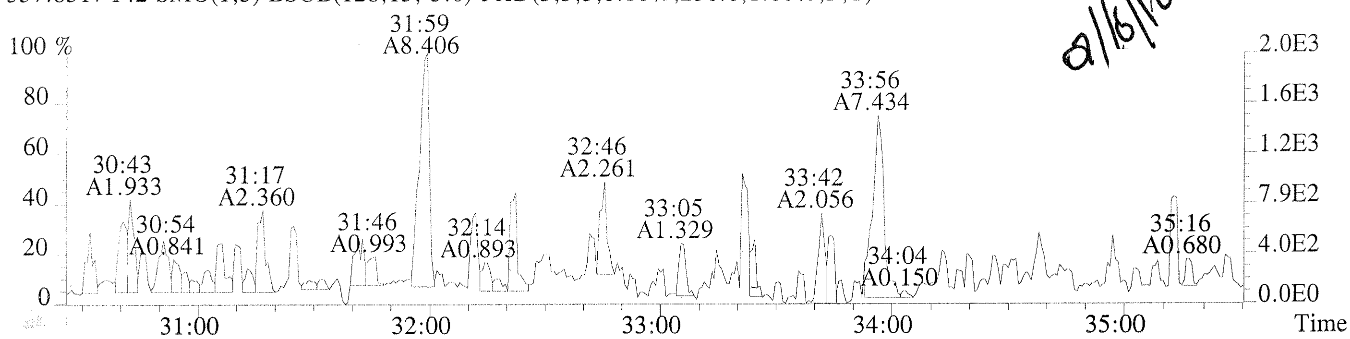


File: 3238 #1-461 Acq: 6-JUL-2012 12:53:25 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp: 00584-002 238

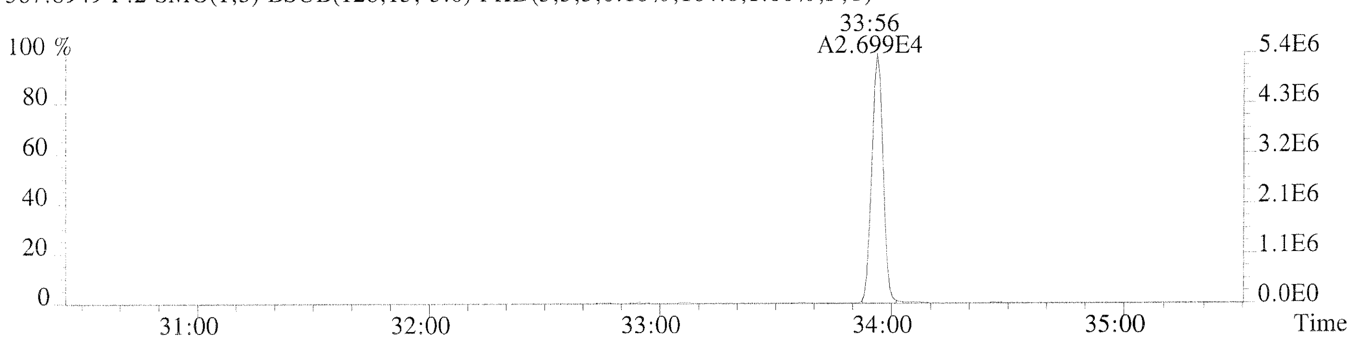
355.8546 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,180.0,1.00%,F,T)



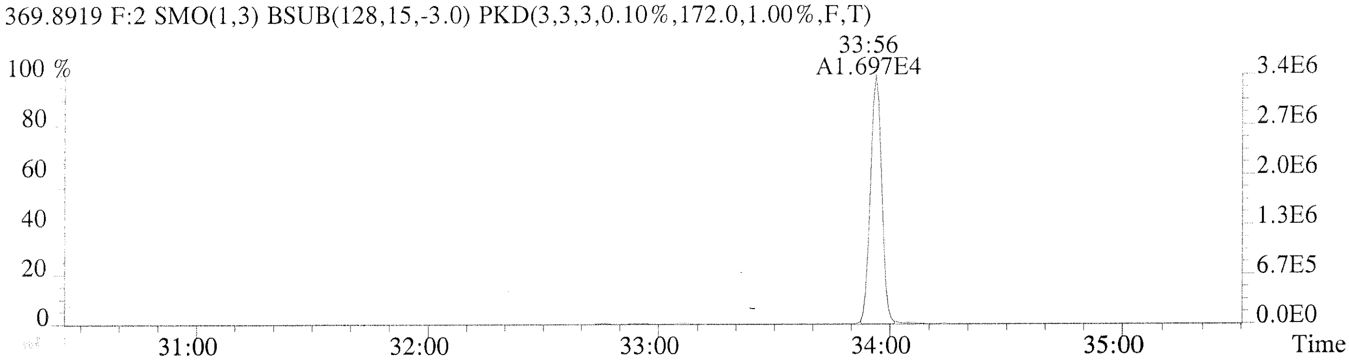
357.8517 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,236.0,1.00%,F,T)



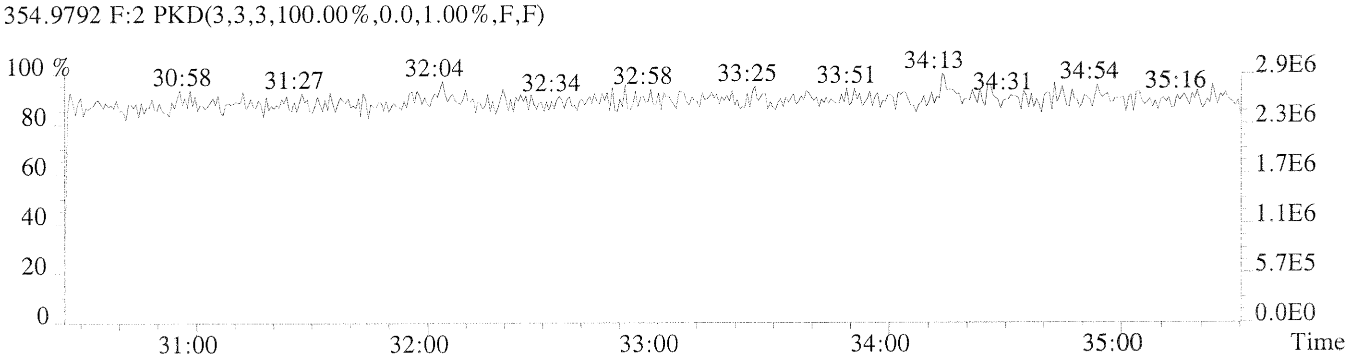
367.8949 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,164.0,1.00%,F,T)



369.8919 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,172.0,1.00%,F,T)

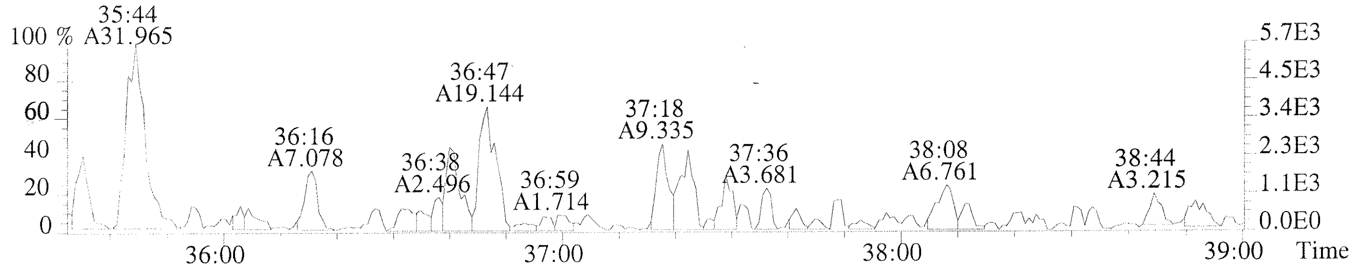


354.9792 F:2 PKD(3,3,3,100.00%,0.0,1.00%,F,F)

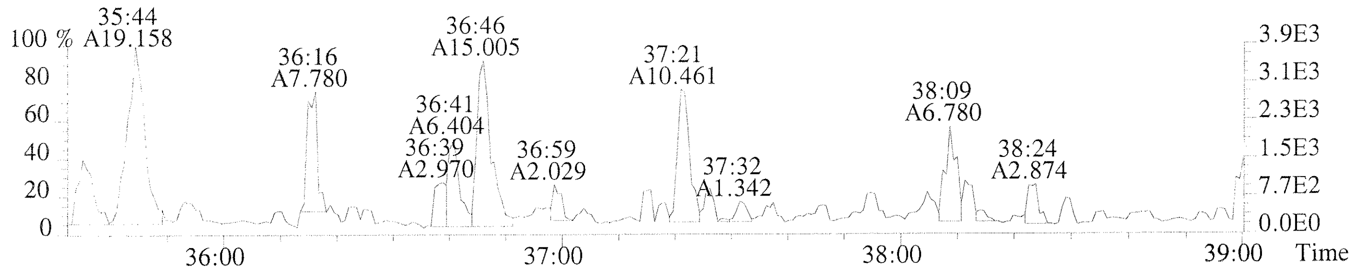


File: 8238 #1-315 Acq: 6-JUL-2012 12:53:25 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp: 00584-002 238

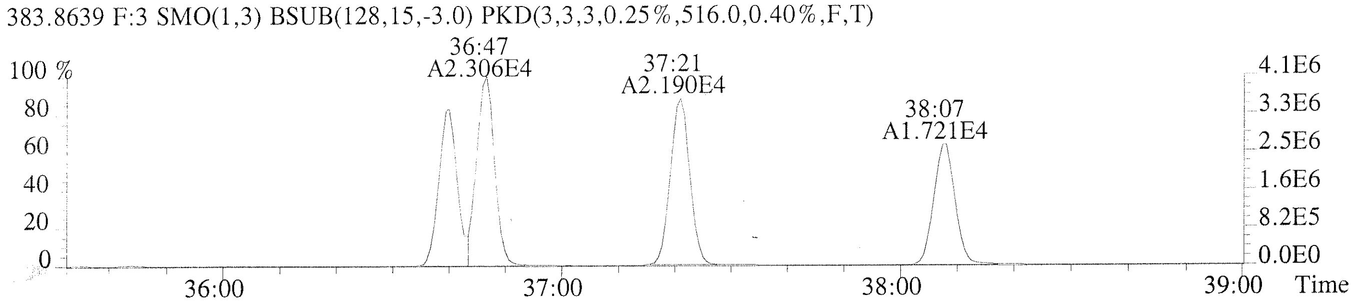
373.8208 F:3 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,248.0,0.40%,F,T)



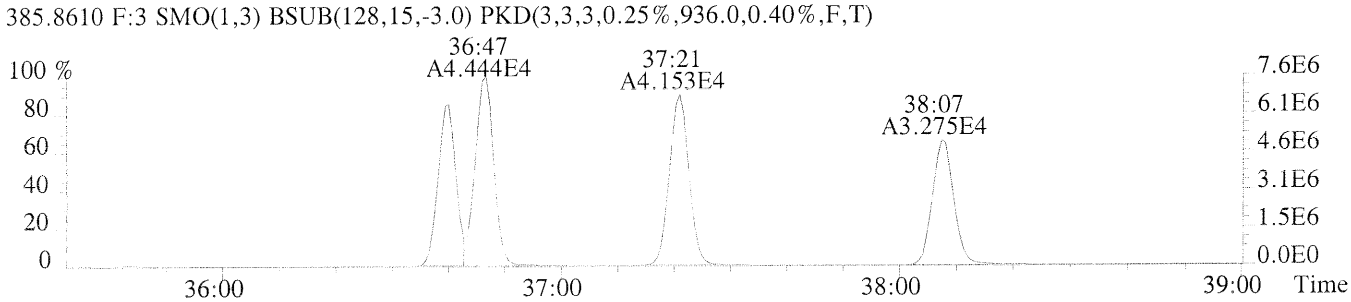
375.8178 F:3 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,420.0,0.40%,F,T)



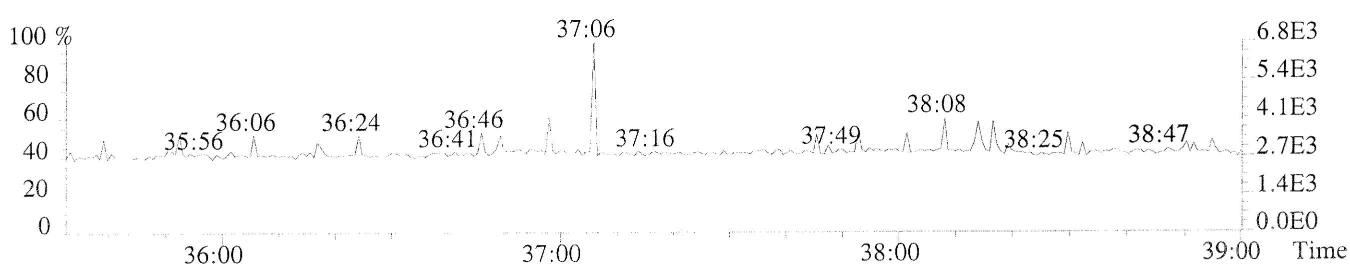
383.8639 F:3 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,516.0,0.40%,F,T)



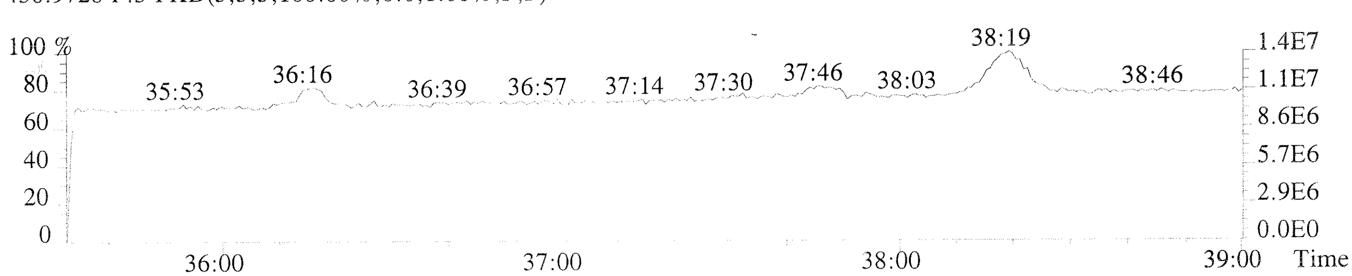
385.8610 F:3 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,936.0,0.40%,F,T)



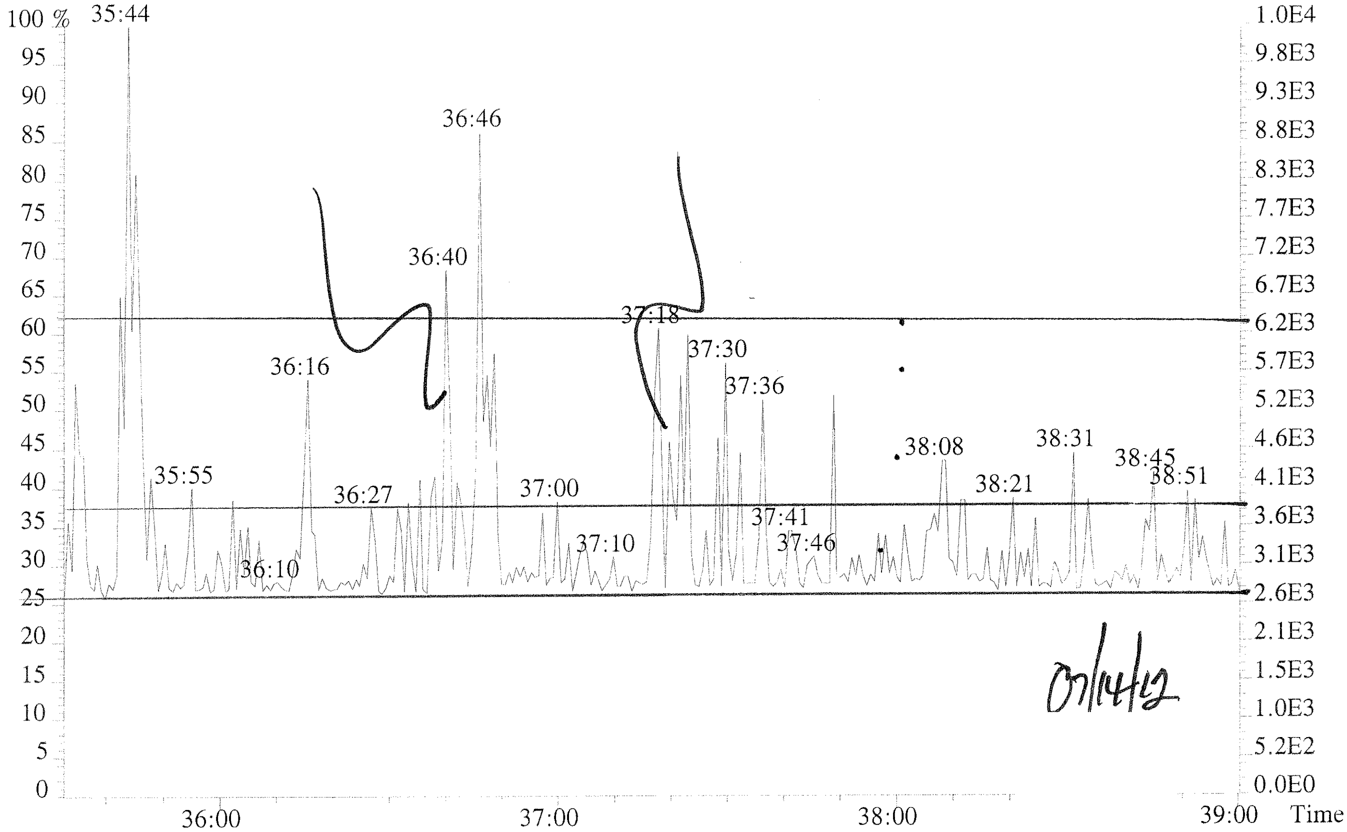
445.7555 F:3 PKD(5,3,5,100.00%,0.0,1.00%,F,F)



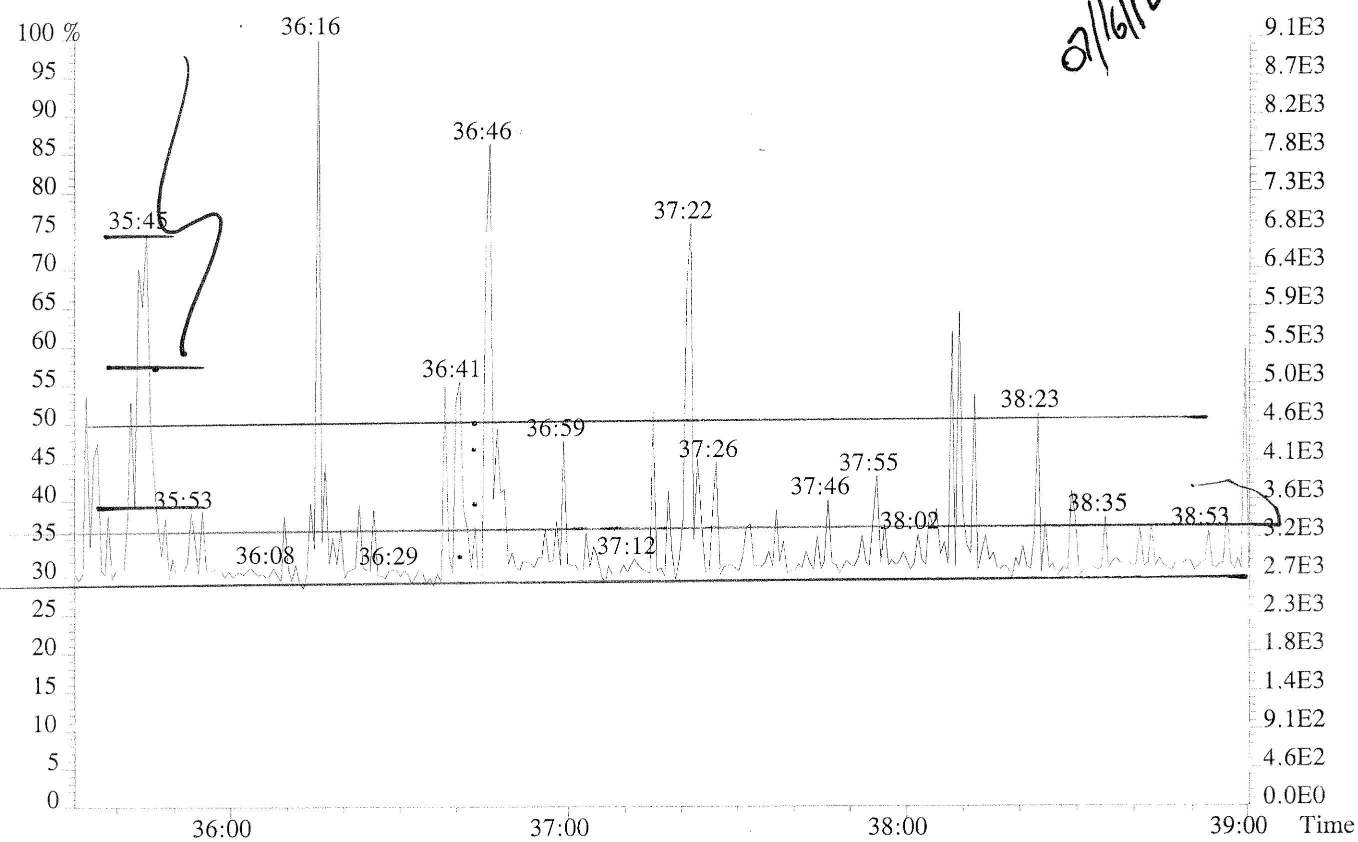
430.9728 F:3 PKD(3,3,3,100.00%,0.0,1.00%,F,F)



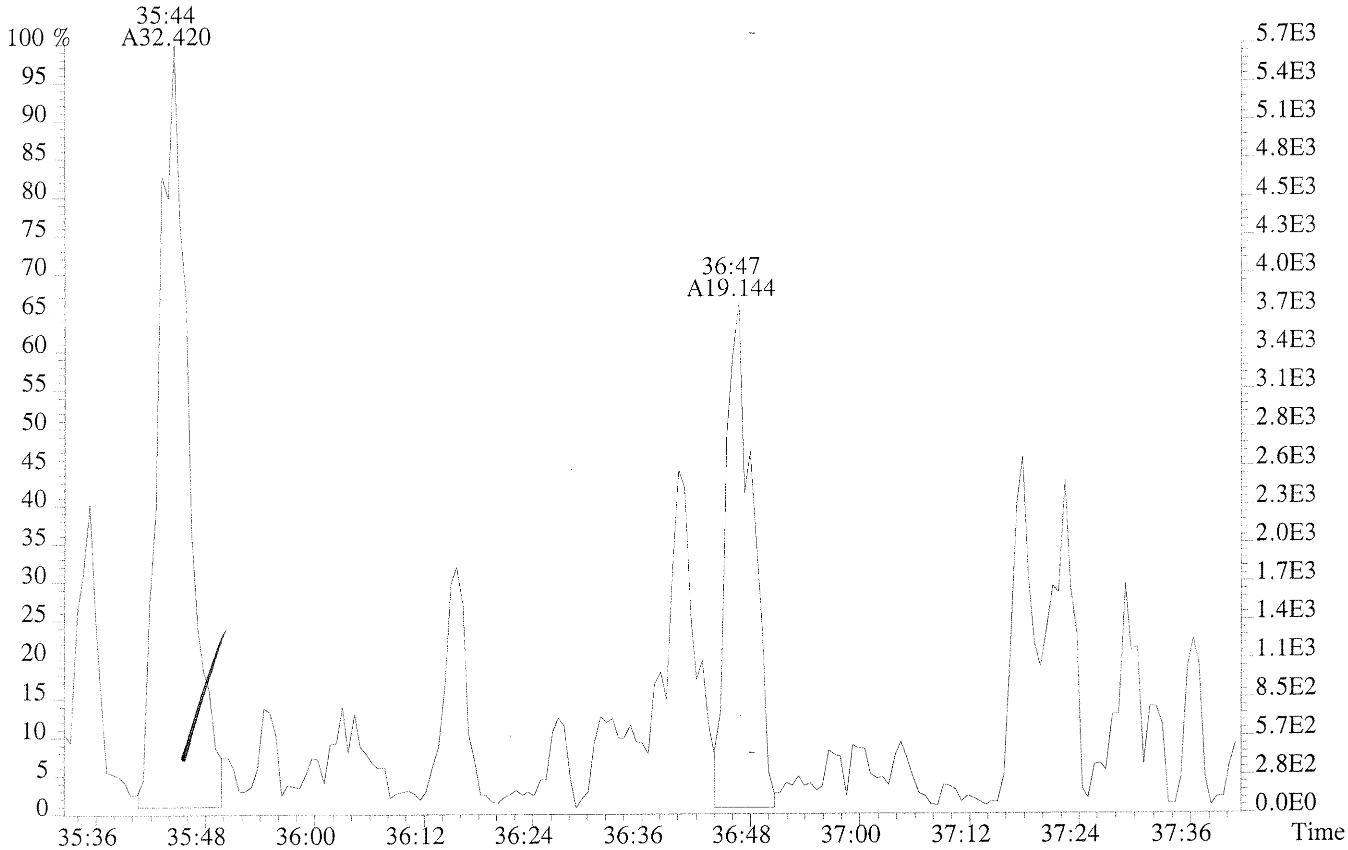
File: 8238 #1-315 Acq: 6-JUL-2012 12:53:25 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp: 00584-002 238
373.8208 F:3



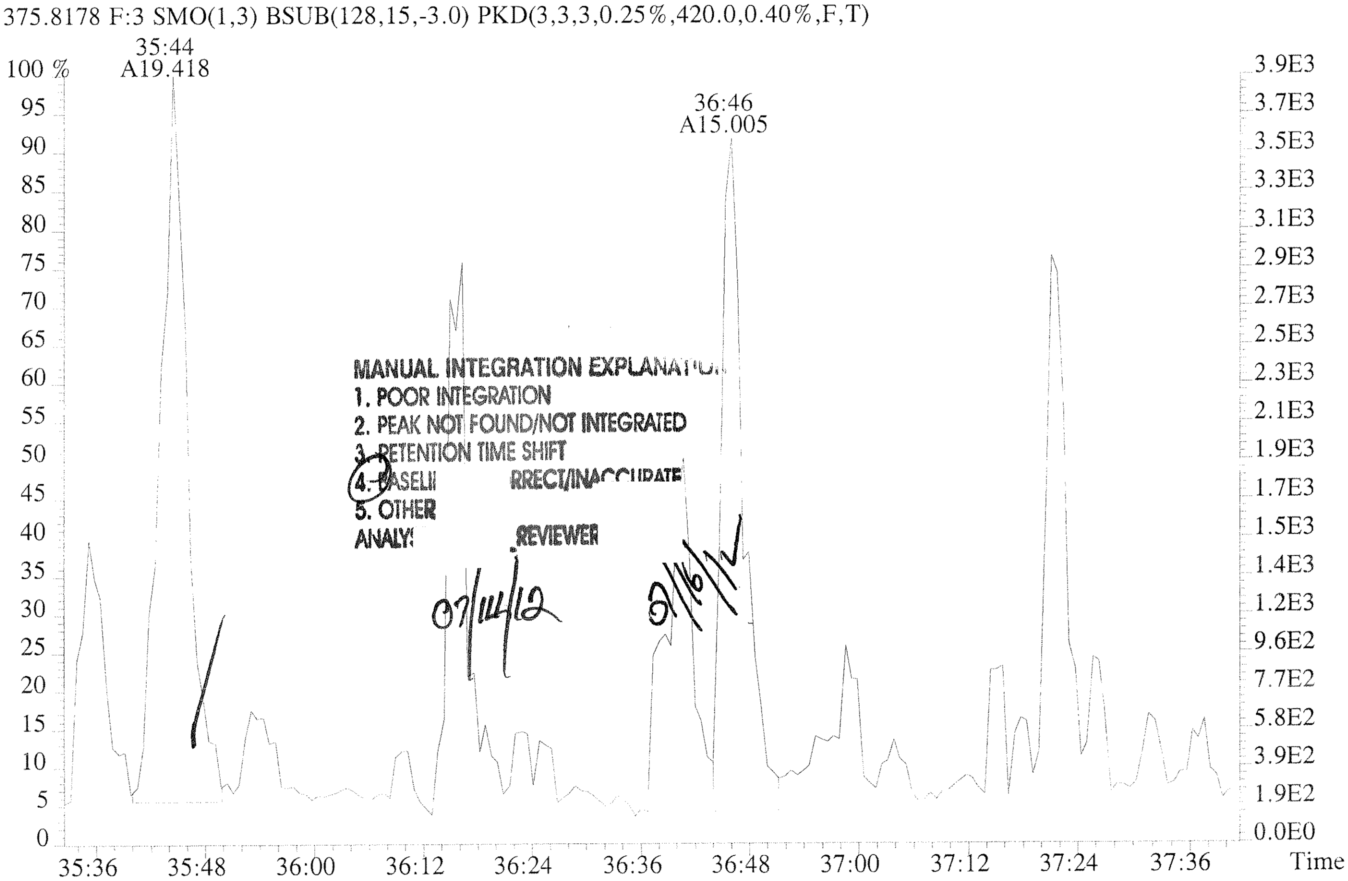
375.8178 F:3



File: 8238 #1-315 Acq: 6-JUL-2012 12:53:25 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp 00584-002 238
373.8208 F:3 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,248.0,0.40%,F,T)



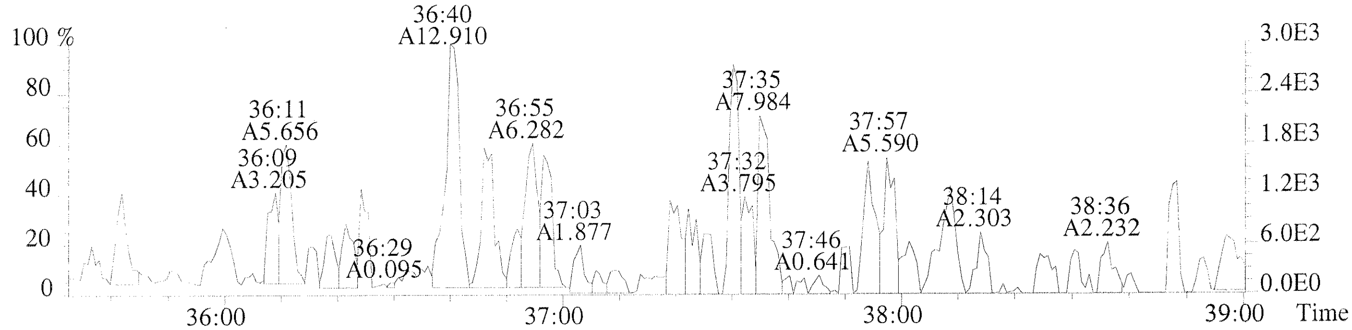
375.8178 F:3 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,420.0,0.40%,F,T)



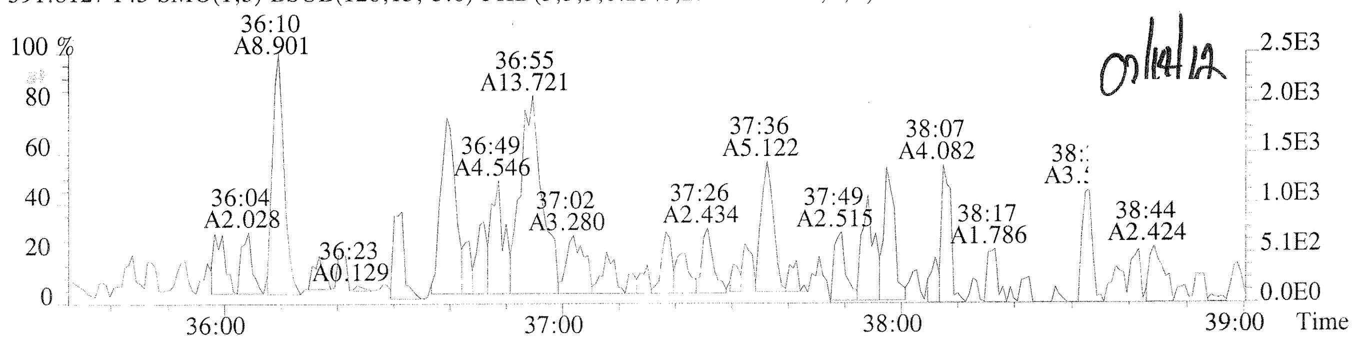
MANUAL INTEGRATION EXPLANAT...
1. POOR INTEGRATION
2. PEAK NOT FOUND/NOT INTEGRATED
3. RETENTION TIME SHIFT
4. BASELI... RRECT/INACCURATE
5. OTHER
ANALY... REVIEWER

07/14/12 7/16/12

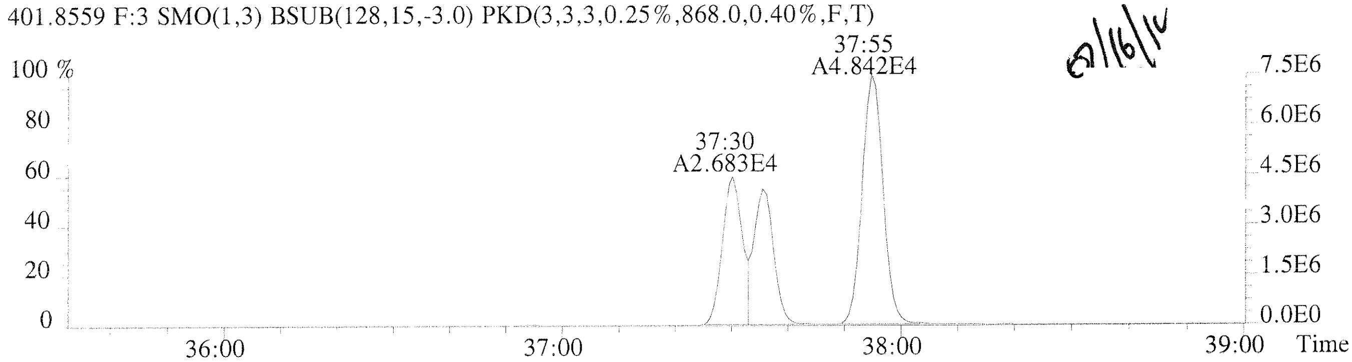
File: 8238 #1-315 Acq: 6-JUL-2012 12:53:25 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:)0584-002 238
389.8157 F:3 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,264.0,0.40%,F,T)



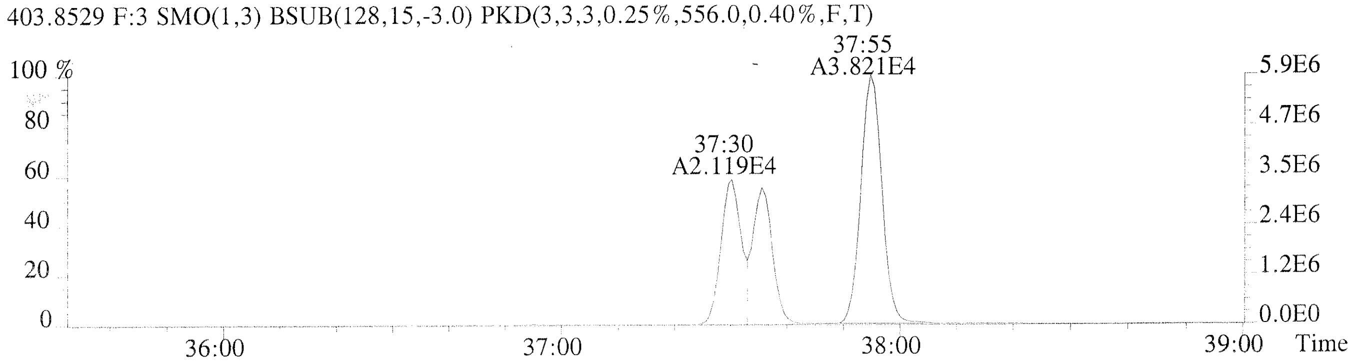
391.8127 F:3 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,220.0,0.40%,F,T)



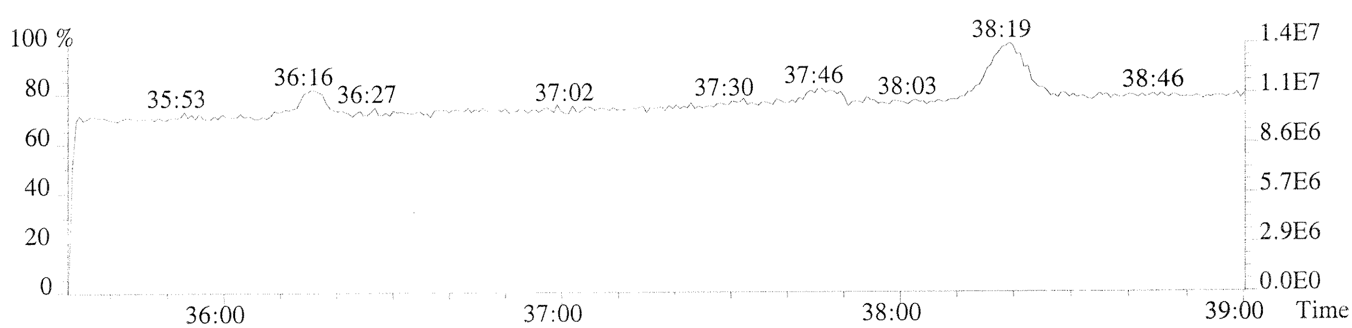
401.8559 F:3 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,868.0,0.40%,F,T)



403.8529 F:3 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,556.0,0.40%,F,T)

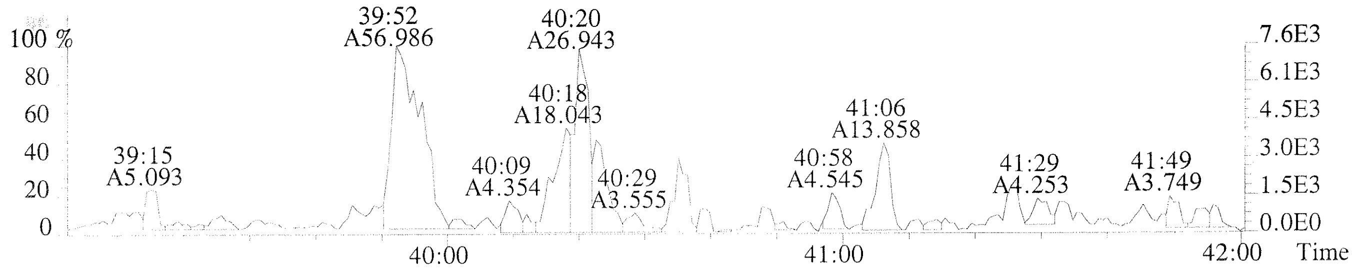


430.9728 F:3 PKD(3,3,3,100.00%,0.0,1.00%,F,F)

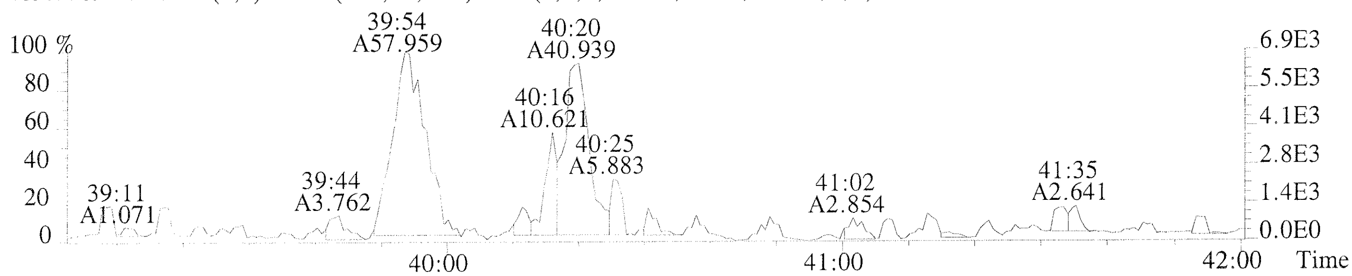


File: 8238 #1-270 Acq: 6-JUL-2012 12:53:25 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp: 00584-002 238

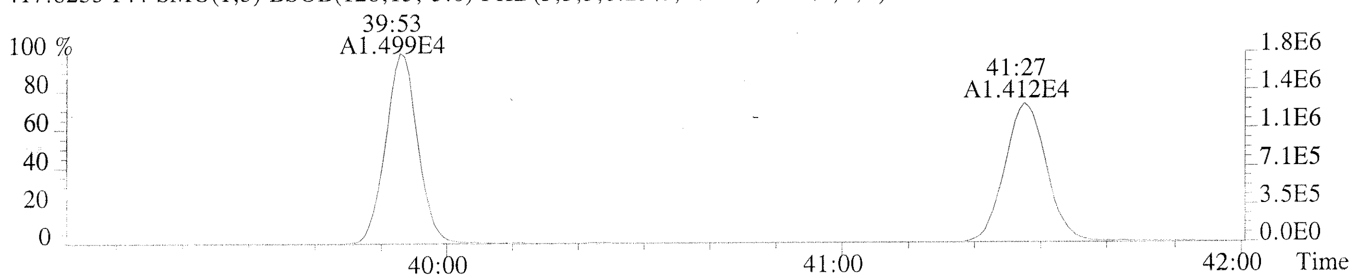
407.7818 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,532.0,0.50%,F,T)



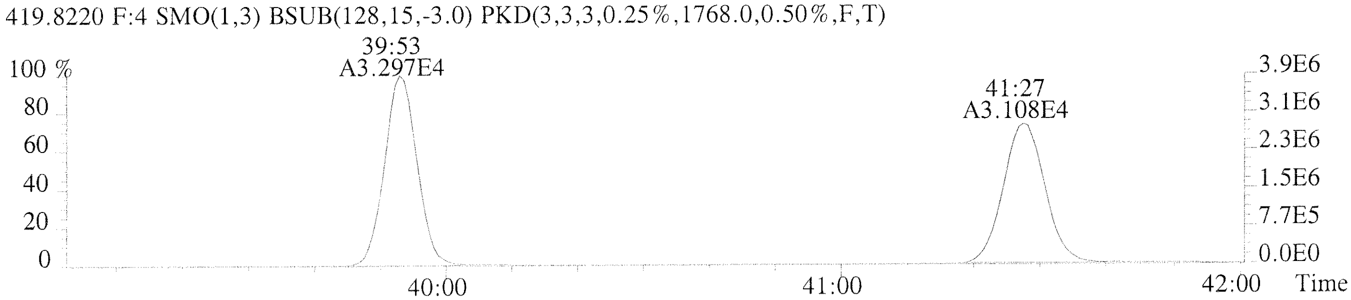
409.7789 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,344.0,0.50%,F,T)



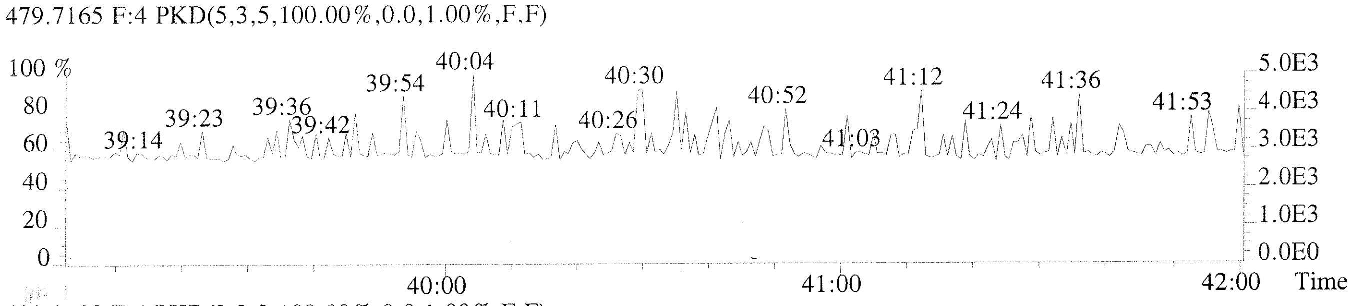
417.8253 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,1012.0,0.50%,F,T)



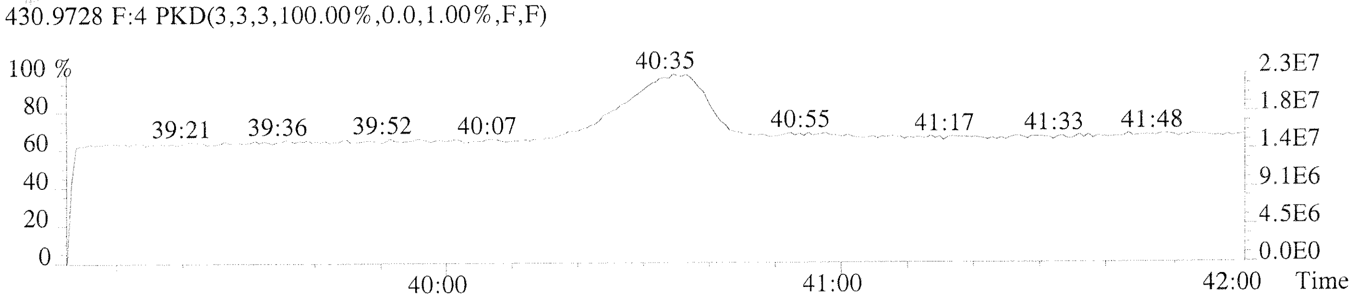
419.8220 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,1768.0,0.50%,F,T)



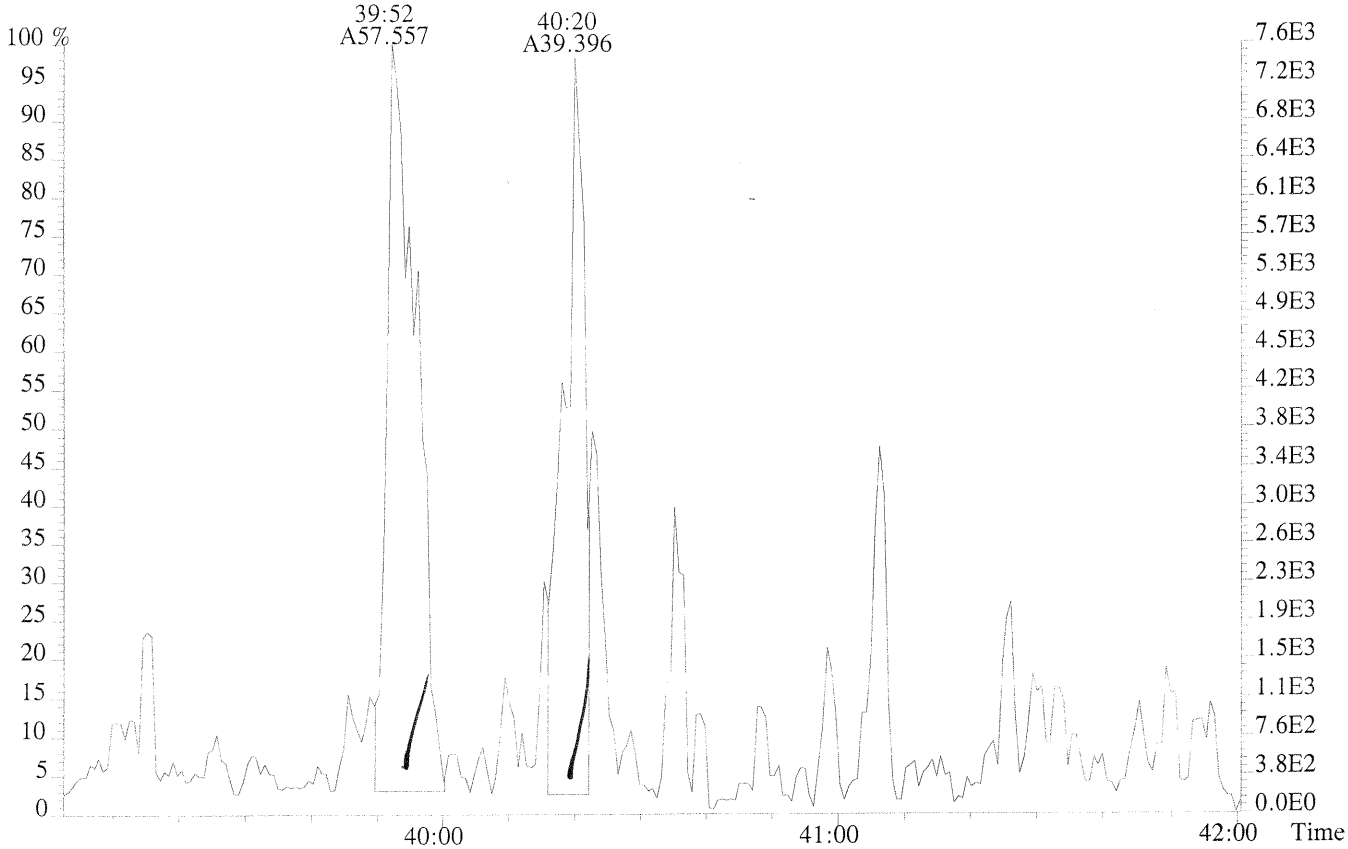
479.7165 F:4 PKD(5,3,5,100.00%,0.0,1.00%,F,F)



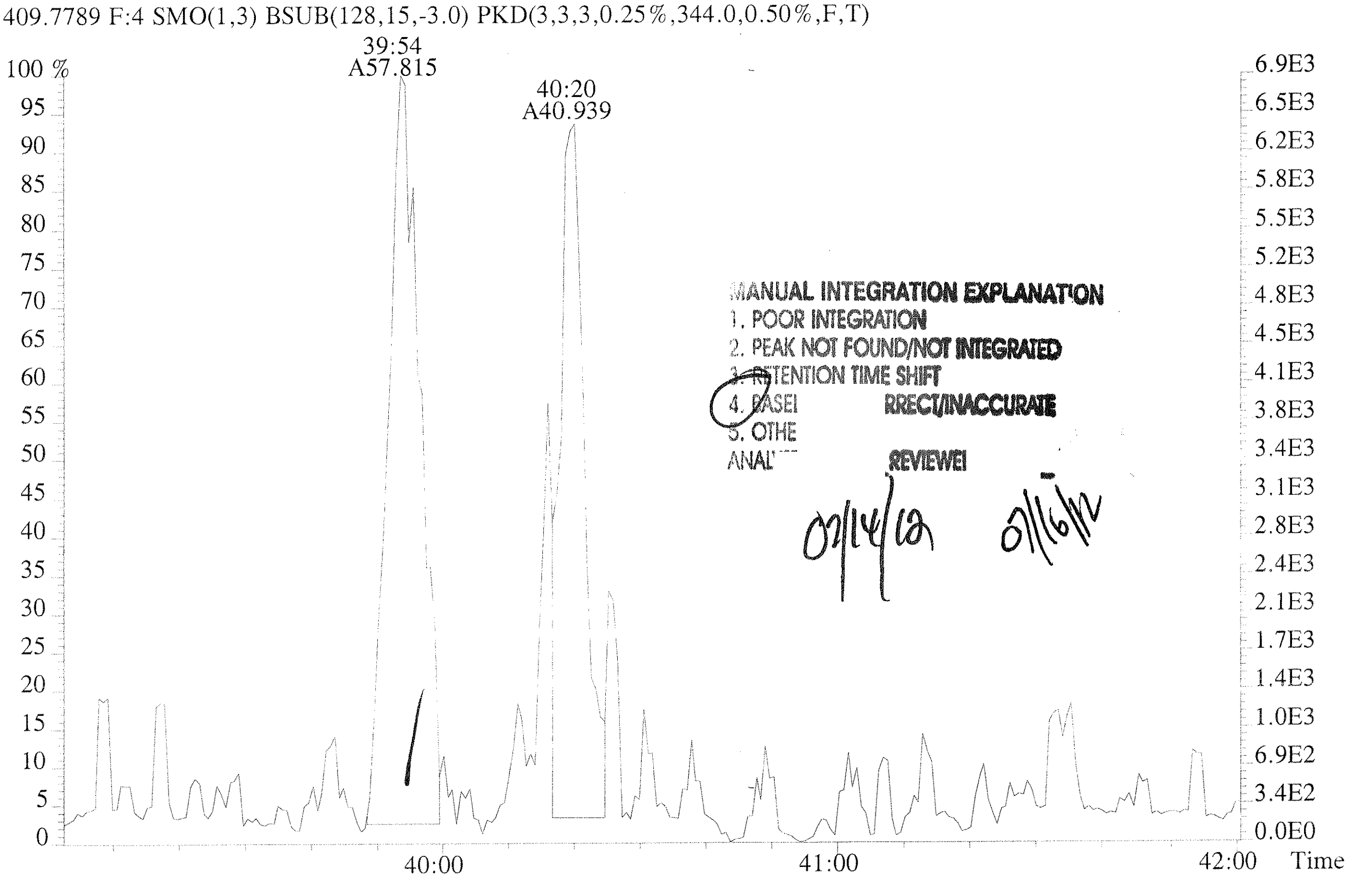
430.9728 F:4 PKD(3,3,3,100.00%,0.0,1.00%,F,F)



File: 3238 #1-270 Acq: 6-JUL-2012 12:53:25 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:)0584-002 238
407.7818 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,532.0,0.50%,F,T)

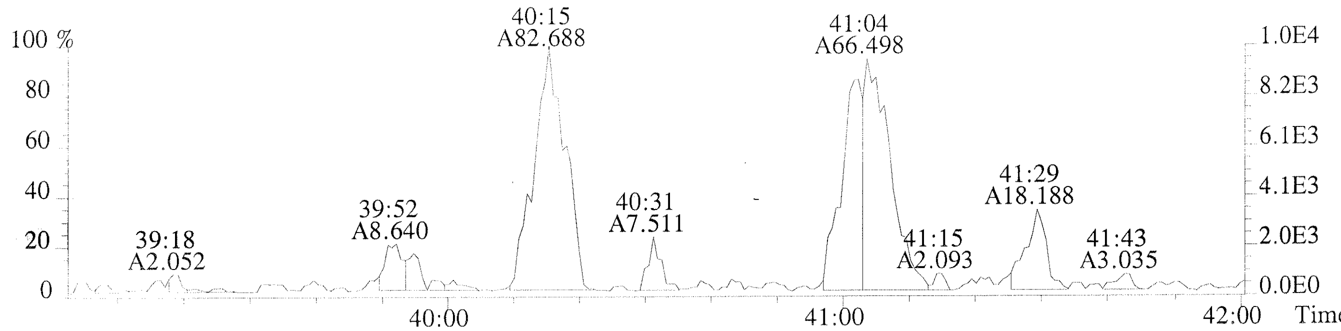


409.7789 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,344.0,0.50%,F,T)

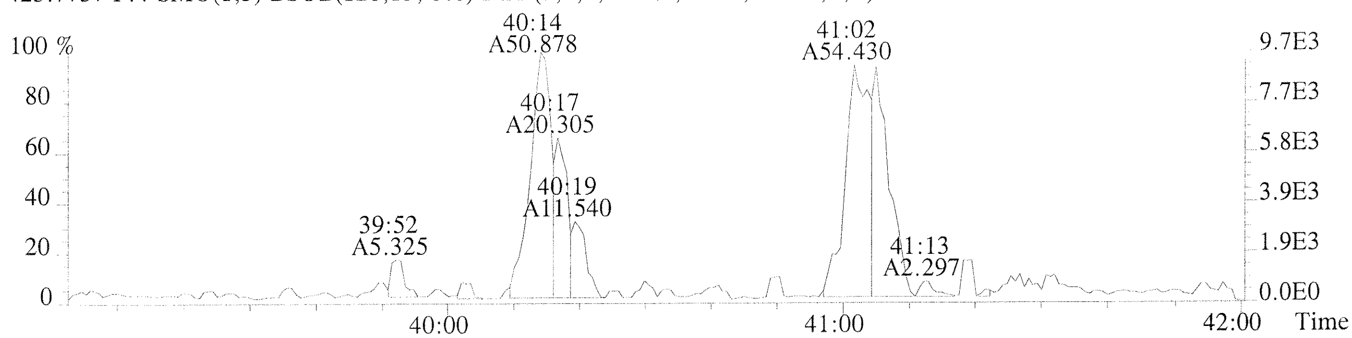


MANUAL INTEGRATION EXPLANATION
1. POOR INTEGRATION
2. PEAK NOT FOUND/NOT INTEGRATED
3. RETENTION TIME SHIFT
4. BASEI RRECT/INACCURATE
5. OTHE
ANAL REVIEWEI
07/14/12 07/16/12

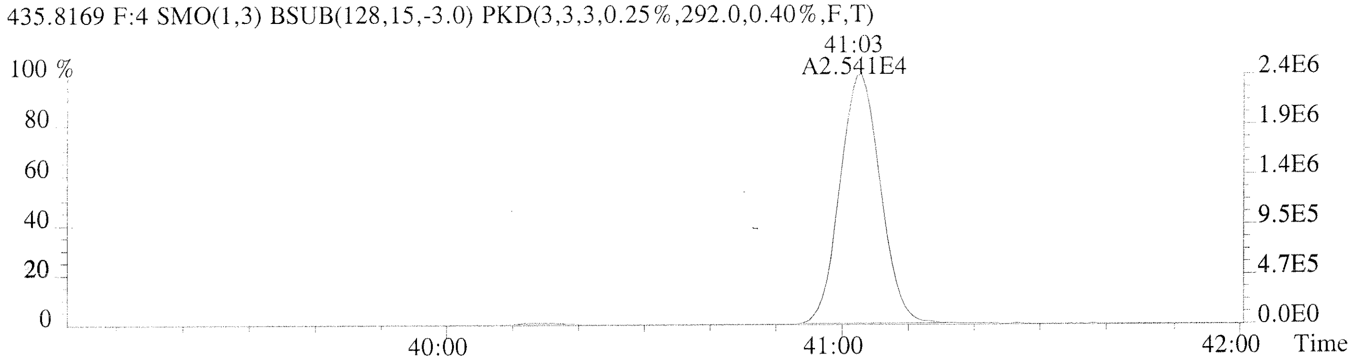
File 8238 #1-270 Acq: 6-JUL-2012 12:53:25 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp: 00584-002 238
423.7766 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,448.0,0.40%,F,T)



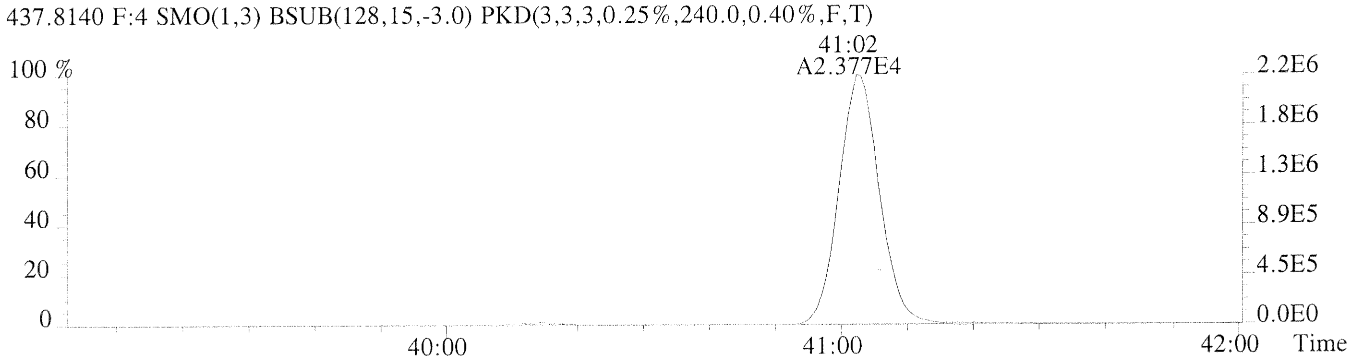
425.7737 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,436.0,0.40%,F,T)



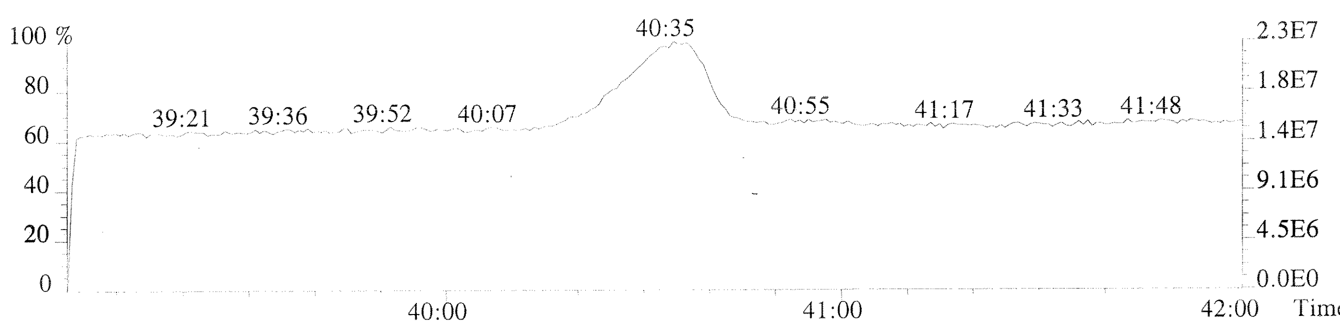
435.8169 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,292.0,0.40%,F,T)



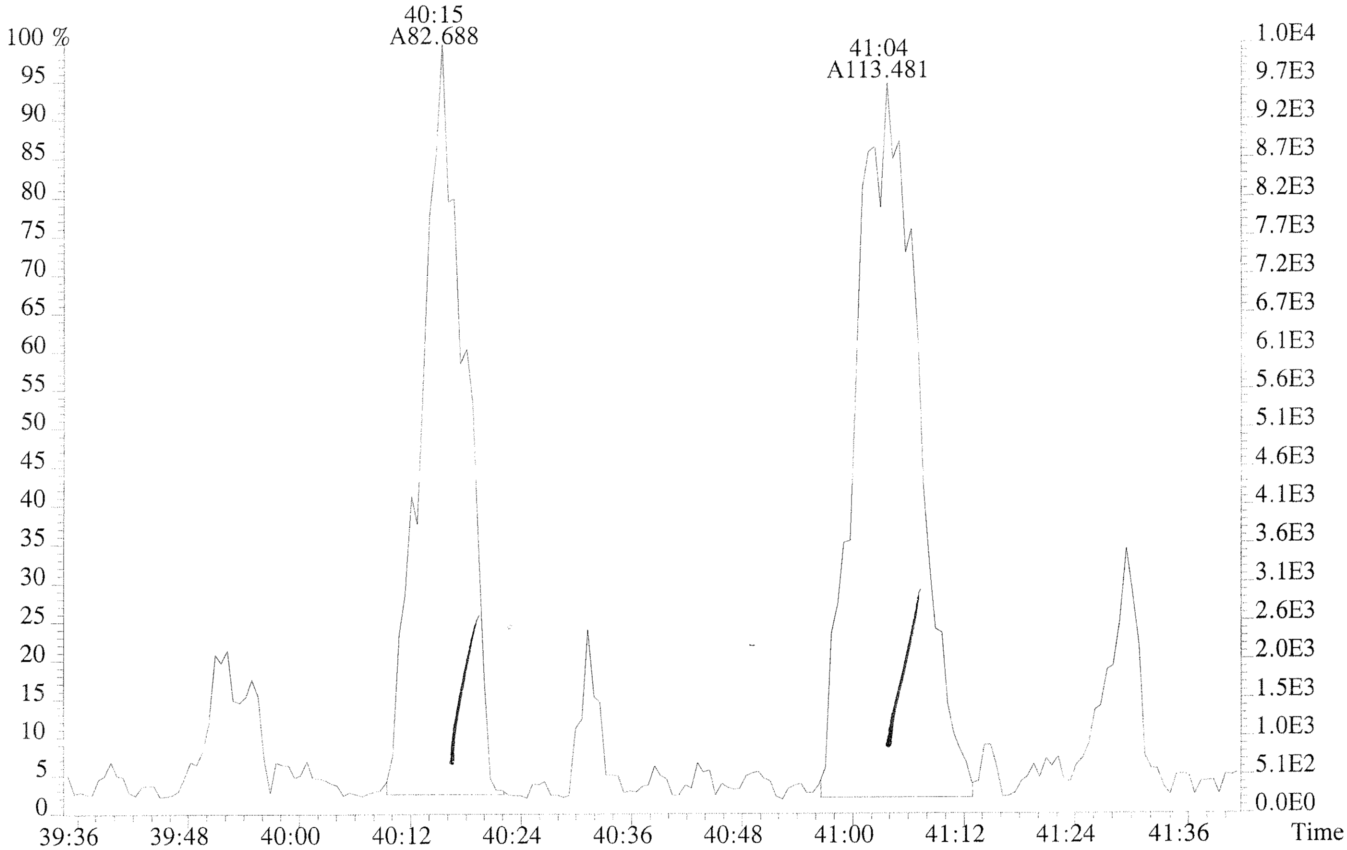
437.8140 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,240.0,0.40%,F,T)



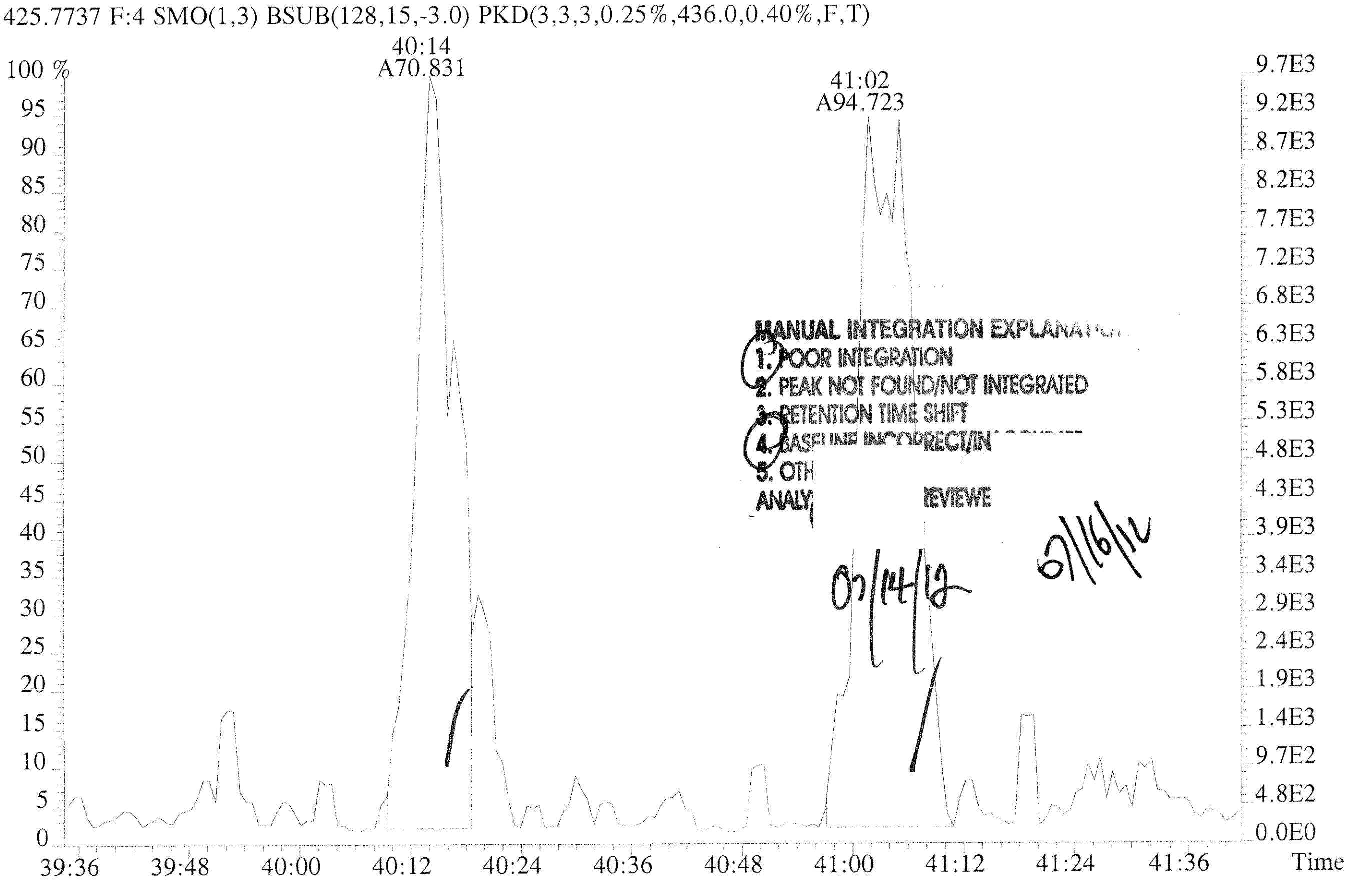
430.9728 F:4 PKD(3,3,3,100.00%,0.0,1.00%,F,F)



File: 3238 #1-270 Acq: 6-JUL-2012 12:53:25 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp: :00584-002 238
423.7766 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,448.0,0.40%,F,T)

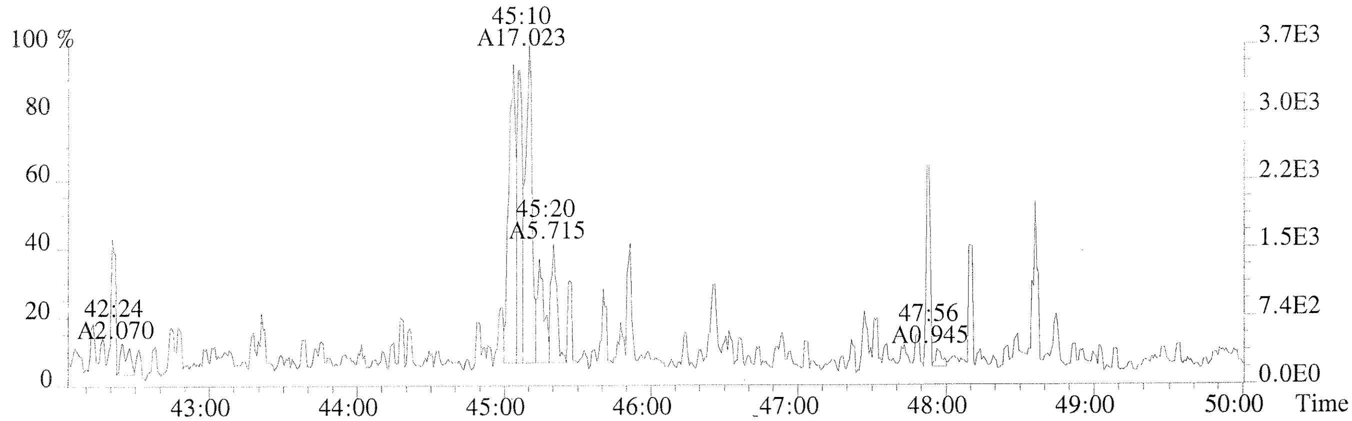


425.7737 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,436.0,0.40%,F,T)

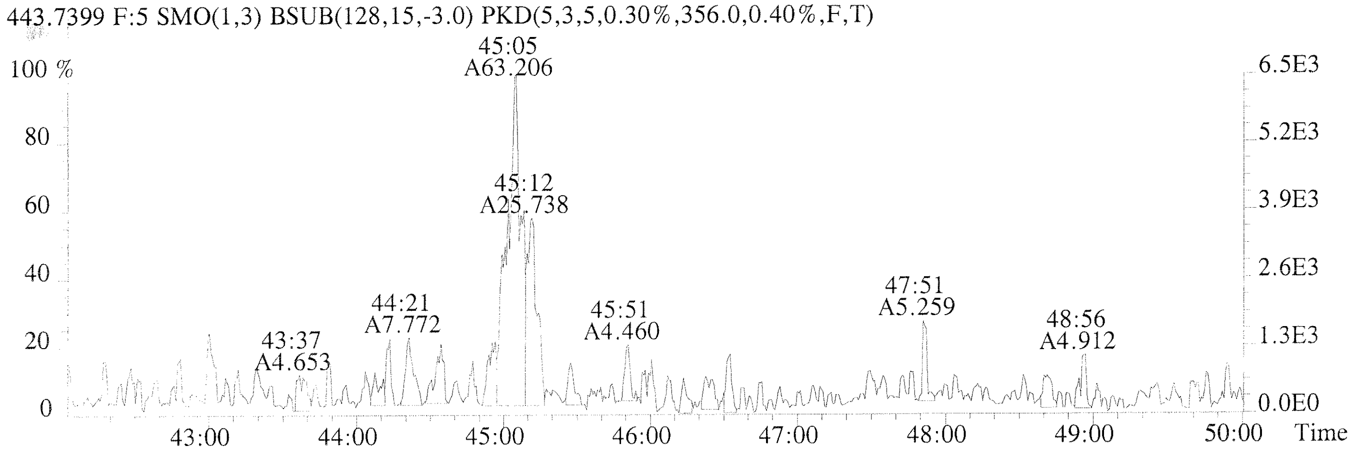


MANUAL INTEGRATION EXPLANA...
1. POOR INTEGRATION
2. PEAK NOT FOUND/NOT INTEGRATED
3. RETENTION TIME SHIFT
4. BASELINE INCORRECT/IN...
5. OTH...
ANALY... REVIEWE...
07/14/12 07/16/12

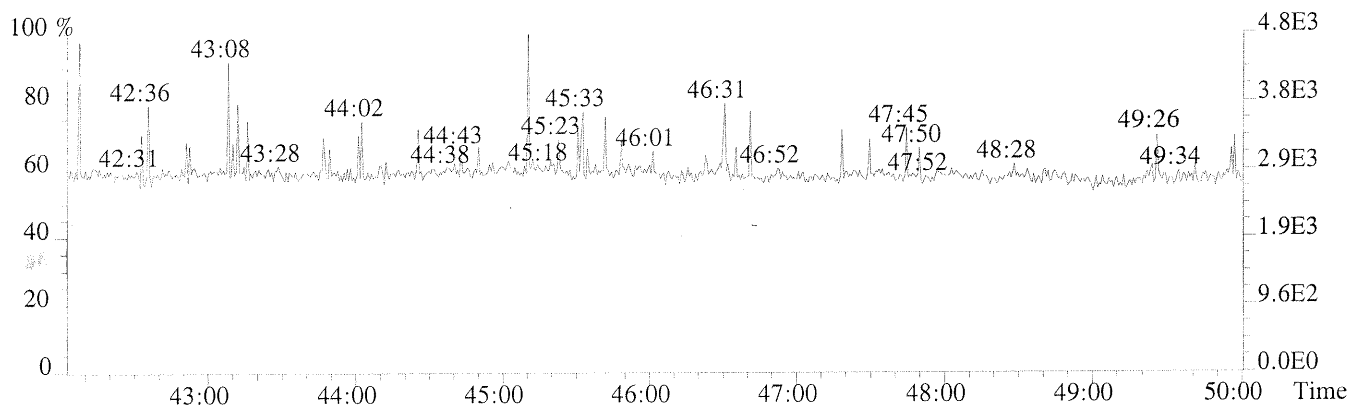
File: 8238 #1-732 Acq: 6-JUL-2012 12:53:25 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp 00584-002 238
441.7428 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(5,3,5,0.30%,372.0,0.40%,F,T)



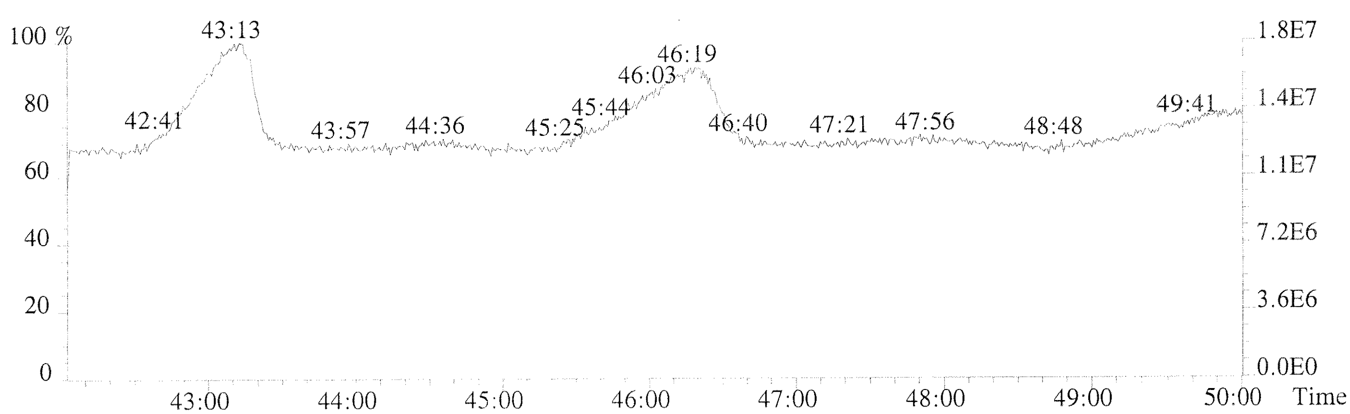
443.7399 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(5,3,5,0.30%,356.0,0.40%,F,T)



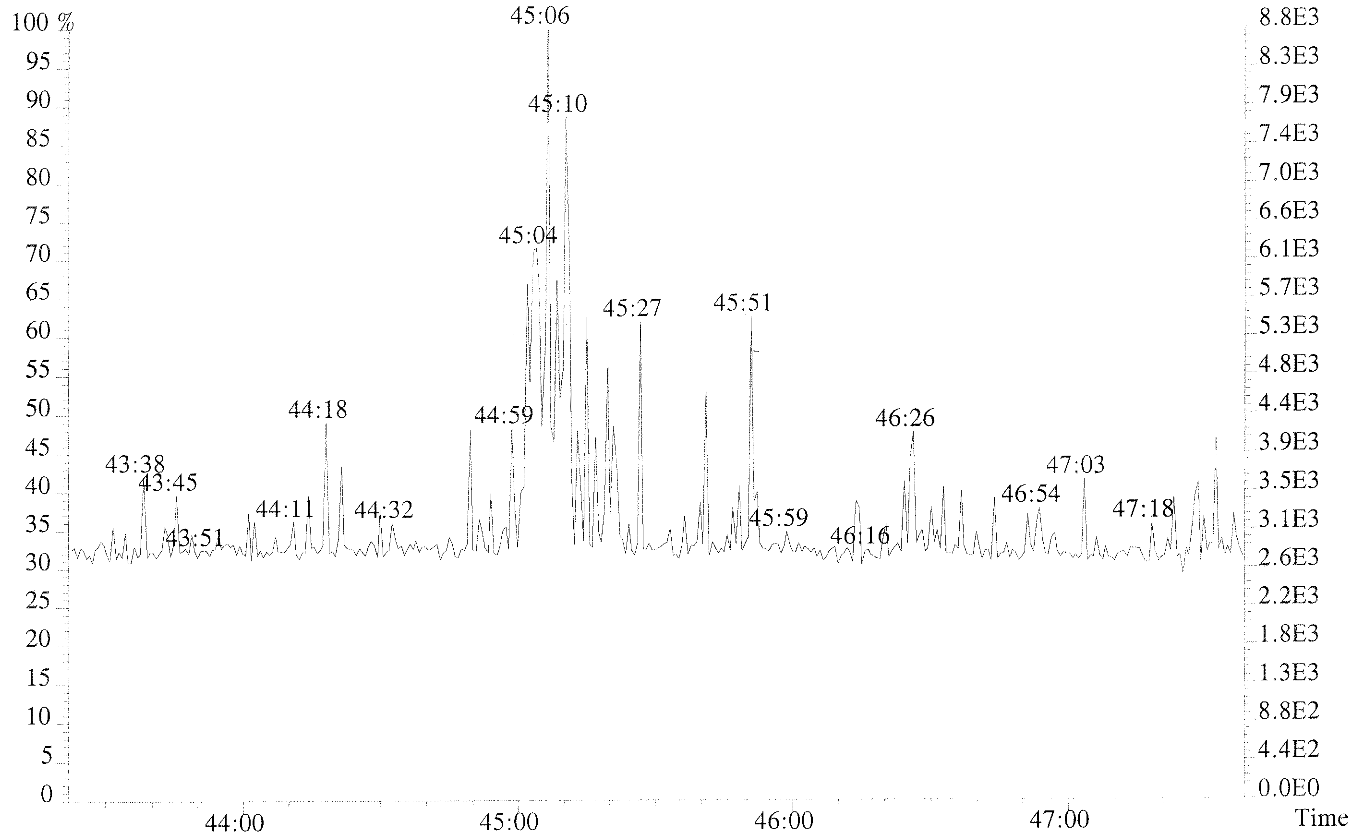
513.6775 F:5 PKD(5,3,5,100.00%,0.0,1.00%,F,F)



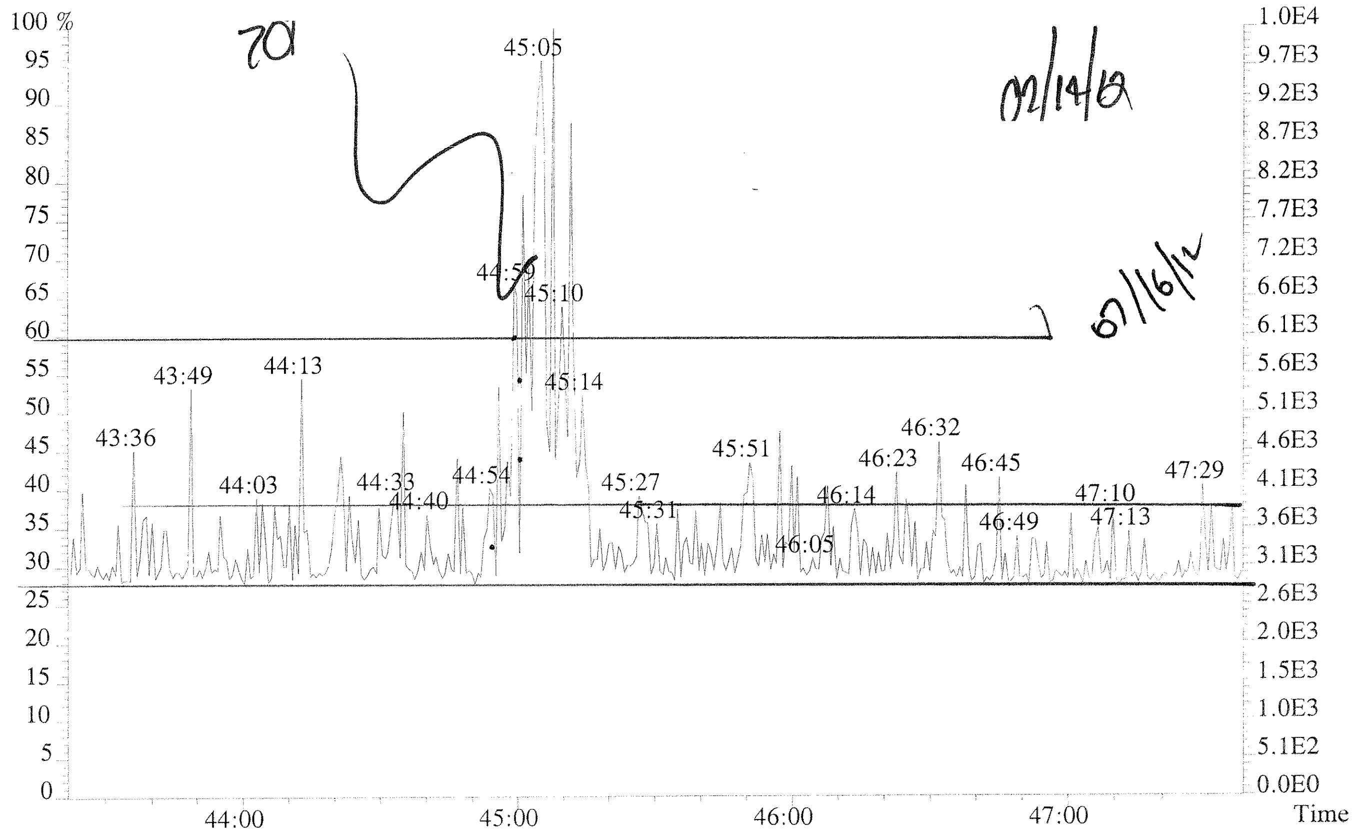
442.9728 F:5 PKD(3,3,3,100.00%,0.0,0.40%,F,F)



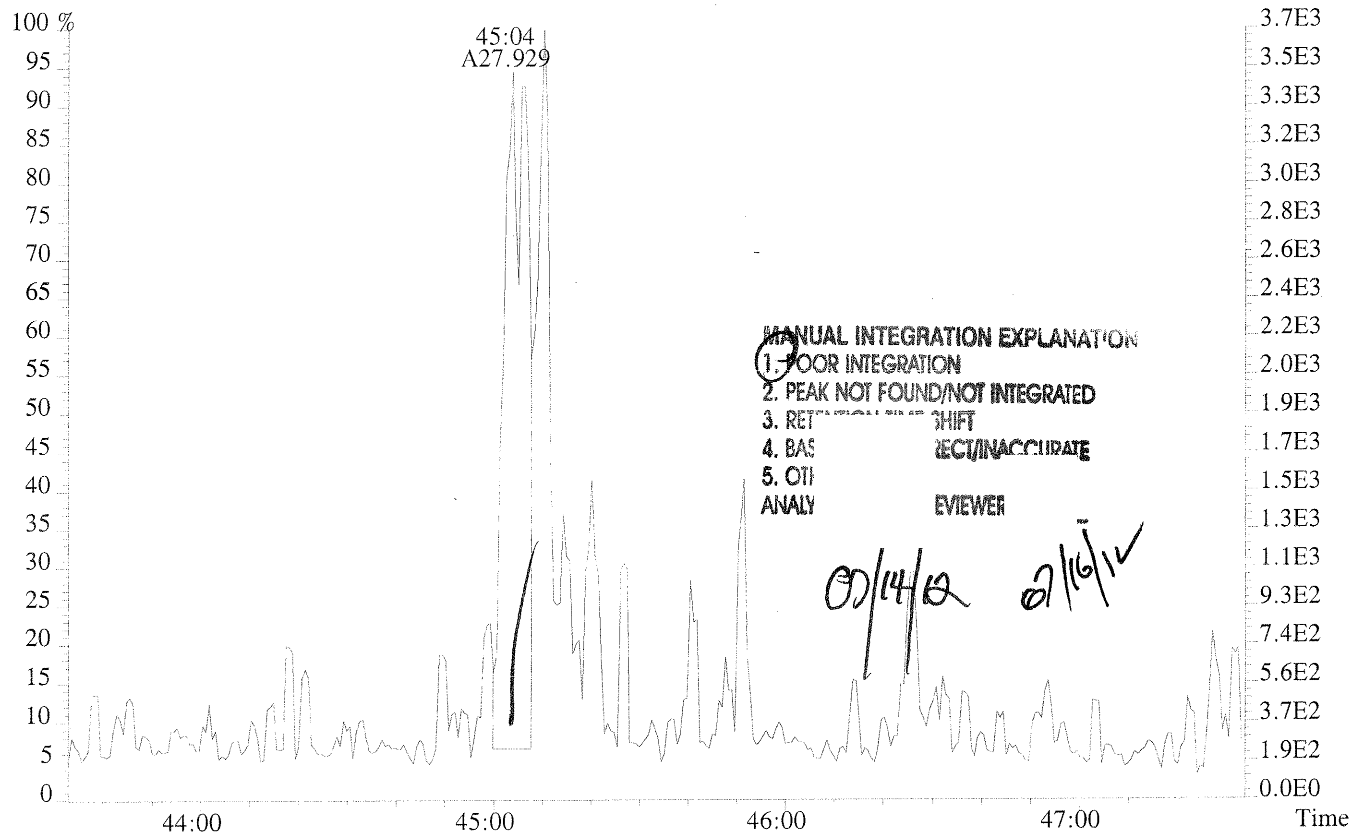
File: 8238 #1-732 Acq: 6-JUL-2012 12:53:25 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp: 00584-002 238
441.7428 F:5



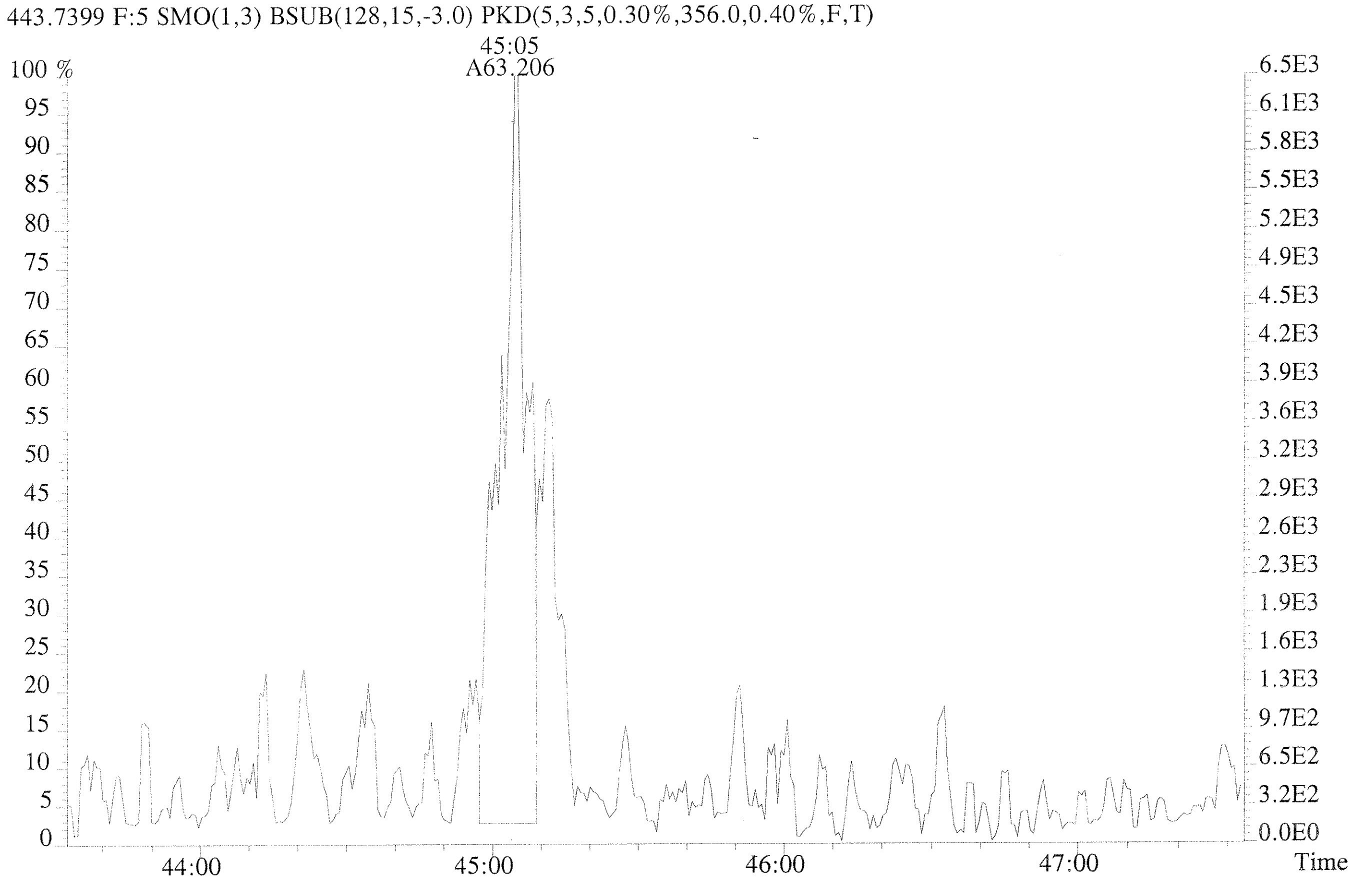
443.7399 F:5



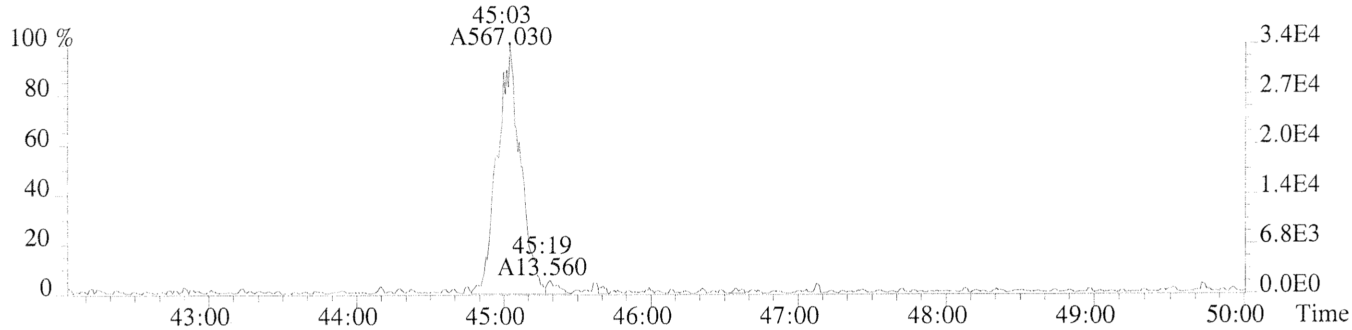
File: 8238 #1-732 Acq: 6-JUL-2012 12:53:25 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:)0584-002 238
441.7428 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(5,3,5,0.30%,372.0,0.40%,F,T)



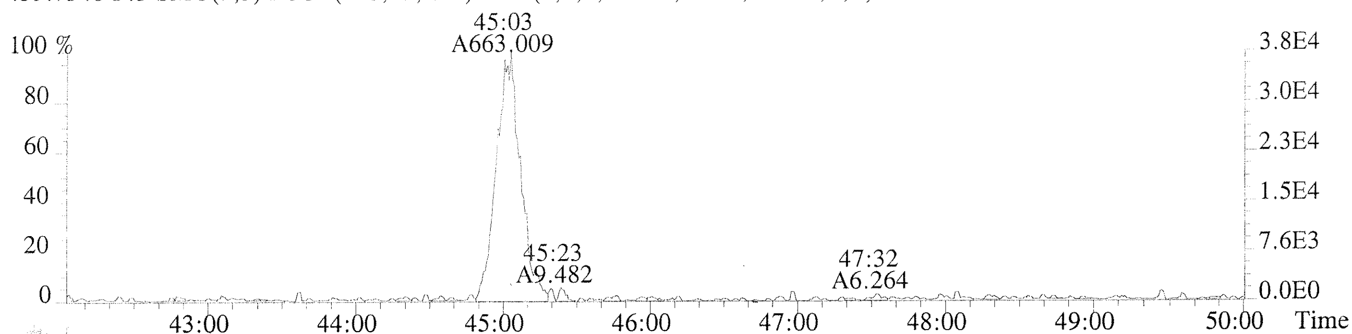
443.7399 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(5,3,5,0.30%,356.0,0.40%,F,T)



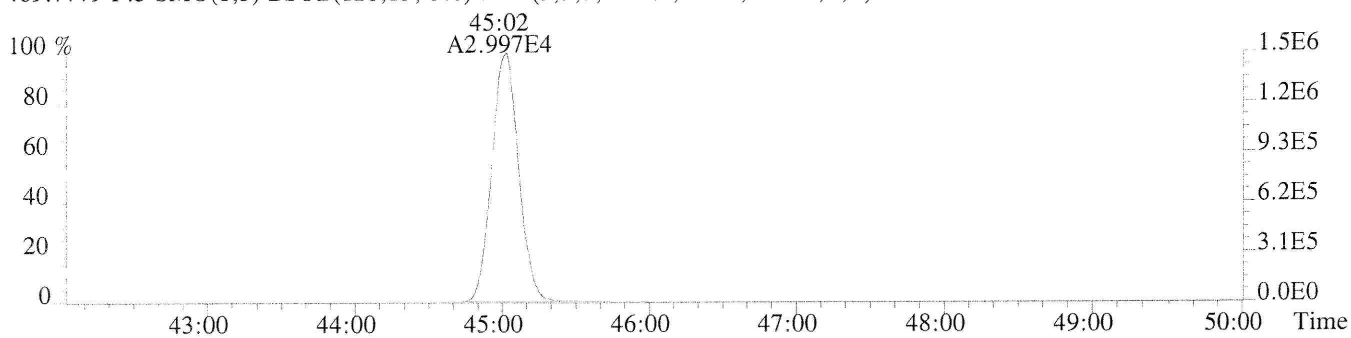
File: 3238 #1-732 Acq: 6-JUL-2012 12:53:25 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:)0584-002 238
457.7377 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(5,3,5,0.30%,380.0,0.40%,F,T)



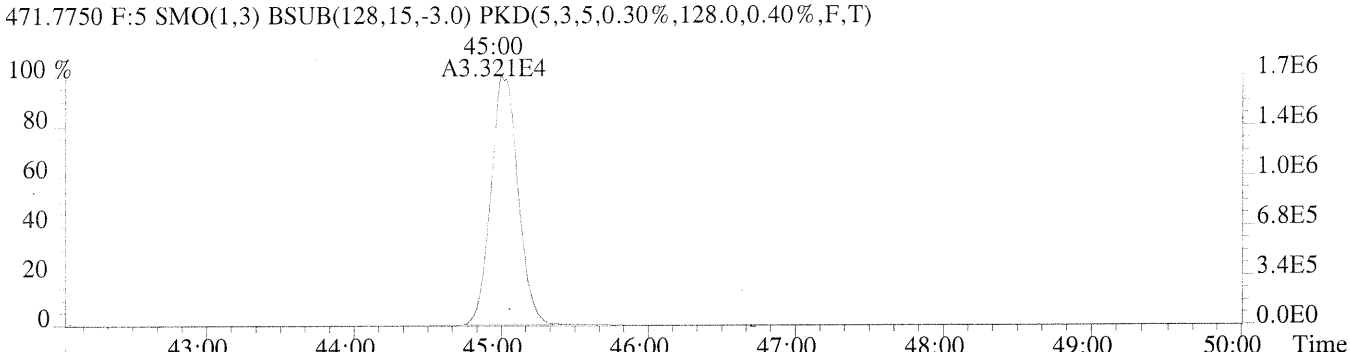
459.7348 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(5,3,5,0.30%,272.0,0.40%,F,T)



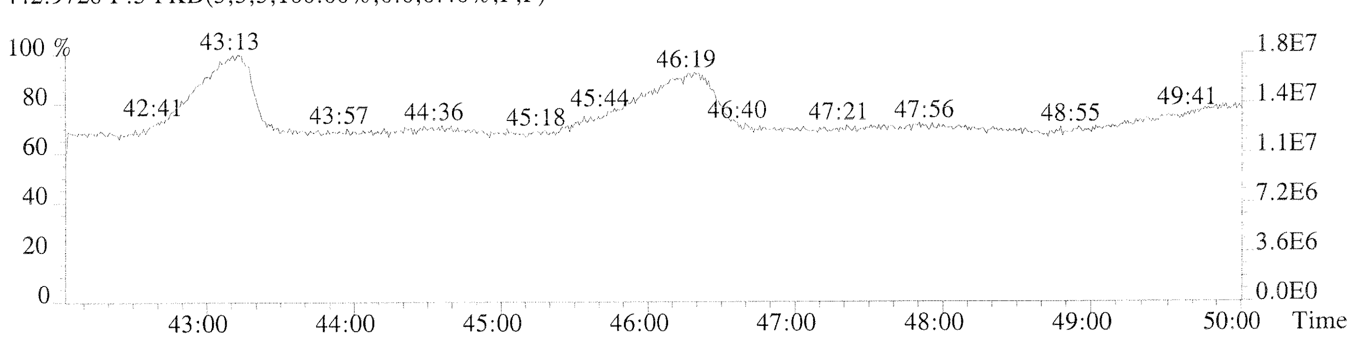
469.7779 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(5,3,5,0.30%,244.0,0.40%,F,T)



471.7750 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(5,3,5,0.30%,128.0,0.40%,F,T)



442.9728 F:5 PKD(3,3,3,100.00%,0.0,0.40%,F,F)



Client:	US Environmental Protection Agency	**Service Request:**	00584
Project:	Dioxins/Furans/	**Date Collected:**	5/10/12 1404
Sample Matrix:	Water	**Date Received:**	5/11/12
Sample Name:	240	**Units:**	pg/L
Lab Code:	00584-003	**Basis:**	NA

Chlorinated Dibenzo-p-dioxins (CDDs) and Chlorinated Dibenzofurans (CDFs) by HRGC/HRMS

Analytical Method:		**Date Analyzed:**	7/6/12 1344
Prep Method:	Method	**Date Extracted:**	6/6/12
Sample Amount:	1040mL	**Instrument Name:**	E-HRMS-04
		GC Column:	DB-5
Data File Name:	8239	**Blank File Name:**	8236
ICAL Date:	05/03/12	**Cal Ver. File Name:**	8231

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
2,3,7,8-TCDD	ND	U	0.416	9.62			1
1,2,3,7,8-PeCDD	ND	U	0.348	48.1			1
1,2,3,4,7,8-HxCDD	ND	U	0.281	48.1			1
1,2,3,6,7,8-HxCDD	ND	U	0.323	48.1			1
1,2,3,7,8,9-HxCDD	ND	U	0.296	48.1			1
1,2,3,4,6,7,8-HpCDD	**2.85**	J	0.710	48.1	0.97	1.001	1
OCDD	**18.3**	BJ	1.42	96.2	0.79	1.000	1
2,3,7,8-TCDF	ND	U	0.377	9.62			1
1,2,3,7,8-PeCDF	ND	U	0.331	48.1			1
2,3,4,7,8-PeCDF	ND	U	0.389	48.1			1
1,2,3,4,7,8-HxCDF	**0.689**	J	0.314	48.1	1.13	1.000	1
1,2,3,6,7,8-HxCDF	ND	U	0.291	48.1			1
1,2,3,7,8,9-HxCDF	ND	U	0.428	48.1			1
2,3,4,6,7,8-HxCDF	ND	U	0.344	48.1			1
1,2,3,4,6,7,8-HpCDF	ND	U	0.558	48.1			1
1,2,3,4,7,8,9-HpCDF	ND	U	0.825	48.1			1
OCDF	ND	U	1.25	96.2			1
Total Tetra-Dioxins	ND	U	0.416	9.62			1
Total Penta-Dioxins	ND	U	0.348	48.1			1
Total Hexa-Dioxins	ND	U	0.281	48.1			1
Total Hepta-Dioxins	**5.92**	J	0.710	48.1	0.99		1
Total Tetra-Furans	ND	U	0.377	9.62			1
Total Penta-Furans	ND	U	0.389	48.1			1
Total Hexa-Furans	**0.689**	J	0.314	48.1	1.13		1
Total Hepta-Furans	ND	U	0.558	48.1			1

Client:	US Environmental Protection Agency	**Service Request:**	00584
Project:	Dioxins/Furans/	**Date Collected:**	5/10/12 1404
Sample Matrix:	Water	**Date Received:**	5/11/12
Sample Name:	240	**Units:**	Percent
Lab Code:	00584-003	**Basis:**	NA

Chlorinated Dibenzo-p-dioxins (CDDs) and Chlorinated Dibenzofurans (CDFs) by HRGC/HRMS

Analytical Method:	-D/F DLM02.2	**Date Analyzed:**	7/6/12 1344
Prep Method:	Method	**Date Extracted:**	6/6/12
Sample Amount:	1040mL	**Instrument Name:**	E-HRMS-04
		GC Column:	DB-5
Data File Name:	8239	**Blank File Name:**	8236
ICAL Date:	05/03/12	**Cal Ver. File Name:**	8231

Labeled Compounds	Spike Conc.(pg)	Conc. Found (pg)	%Rec	Q	Control Limits	Ion Ratio	RRT
13C-2,3,7,8-TCDD	2000	1025.460	51		25-164	0.79	1.008
13C-1,2,3,7,8-PeCDD	2000	1026.744	51		25-181	1.60	1.178
13C-1,2,3,4,7,8-HxCDD	2000	1100.768	55		32-141	1.36	0.989
13C-1,2,3,6,7,8-HxCDD	2000	984.193	49		28-130	1.17	0.992
13C-1,2,3,4,6,7,8-HpCDD	2000	1278.473	64		23-140	1.08	1.082
13C-OCDD	4000	2481.859	62		17-157	0.90	1.186
13C-2,3,7,8-TCDF	2000	1021.295	51		24-169	0.78	0.977
13C-1,2,3,7,8-PeCDF	2000	1266.224	63		24-185	1.59	1.136
13C-2,3,4,7,8-PeCDF	2000	1064.702	53		21-178	1.58	1.164
13C-1,2,3,4,7,8-HxCDF	2000	1058.005	53		26-152	0.52	0.967
13C-1,2,3,6,7,8-HxCDF	2000	1104.833	55		26-123	0.53	0.970
13C-1,2,3,7,8,9-HxCDF	2000	1102.260	55		29-147	0.52	1.006
13C-2,3,4,6,7,8-HxCDF	2000	1120.382	56		28-136	0.53	0.985
13C-1,2,3,4,6,7,8-HpCDF	2000	1162.985	58		28-143	0.44	1.052
13C-1,2,3,4,7,8,9-HpCDF	2000	1292.820	65		26-138	0.45	1.093
37Cl-2,3,7,8-TCDD	800	572.025	72		35-197	NA	1.009

Sample Response Summary

CLIENT ID.
240

Run #15 Filename 3239 Samp: 1 Inj: 1 Acquired: 6-JUL-12 13:44:34
Processed: 14-JUL-12 09:23:12 Sample ID: 00584-003

	Typ	Name	RT-1	Resp 1	Resp 2	Ratio	Meet	Mod?	RRF
1	Unk	2,3,7,8-TCDF	NotFnd	*	*	*	no	yes	0.948
2	Unk	1,2,3,7,8-PeCDF	NotFnd	*	*	*	no	yes	0.987
3	Unk	2,3,4,7,8-PeCDF	NotFnd	*	*	*	no	no	0.954
4	Unk	1,2,3,4,7,8-HxCDF	36:39	1.390e+01	1.232e+01	1.13	yes	yes	1.240
5	Unk	1,2,3,6,7,8-HxCDF	NotFnd	*	*	*	no	yes	1.165
6	Unk	2,3,4,6,7,8-HxCDF	NotFnd	*	*	*	no	no	1.161
7	Unk	1,2,3,7,8,9-HxCDF	NotFnd	*	*	*	no	no	1.186
8	Unk	1,2,3,4,6,7,8-HpCDF	NotFnd	*	*	*	no	yes	1.404
9	Unk	1,2,3,4,7,8,9-HpCDF	NotFnd	*	*	*	no	no	1.336
10	Unk	OCDF	NotFnd	*	*	*	no	yes	1.303
11	Unk	2,3,7,8-TCDD	NotFnd	*	*	*	no	yes	1.015
12	Unk	1,2,3,7,8-PeCDD	NotFnd	*	*	*	no	no	0.961
13	Unk	1,2,3,4,7,8-HxCDD	NotFnd	*	*	*	no	yes	1.074
14	Unk	1,2,3,6,7,8-HxCDD	NotFnd	*	*	*	no	yes	1.038
15	Unk	1,2,3,7,8,9-HxCDD	NotFnd	*	*	*	no	yes	1.075
16	Unk	1,2,3,4,6,7,8-HpCDD	41:04	4.198e+01	4.335e+01	0.97	yes	yes	1.053
17	Unk	OCDD	44:58	1.894e+02	2.384e+02	0.79	yes	yes	1.188
18	IS	13C-2,3,7,8-TCDF	28:09	2.672e+04	3.436e+04	0.78	yes	no	1.275
19	IS	13C-1,2,3,7,8-PeCDF	32:45	4.672e+04	2.936e+04	1.59	yes	no	1.281
20	IS	13C-2,3,4,7,8-PeCDF	33:32	3.954e+04	2.502e+04	1.58	yes	no	1.293
21	IS	13C-1,2,3,4,7,8-HxCDF	36:39	2.012e+04	3.889e+04	0.52	yes	no	1.157
22	IS	13C-1,2,3,6,7,8-HxCDF	36:45	2.466e+04	4.672e+04	0.53	yes	no	1.340
23	IS	13C-2,3,4,6,7,8-HxCDF	37:20	2.199e+04	4.188e+04	0.53	yes	no	1.182
24	IS	13C-1,2,3,7,8,9-HxCDF	38:07	1.838e+04	3.558e+04	0.52	yes	no	1.015
25	IS	13C-1,2,3,4,6,7,8-HpCDF	39:52	1.645e+04	3.701e+04	0.44	yes	no	0.953
26	IS	13C-1,2,3,4,7,8,9-HpCDF	41:25	1.501e+04	3.367e+04	0.45	yes	no	0.781
27	IS	13C-2,3,7,8-TCDD	29:02	1.972e+04	2.512e+04	0.79	yes	no	0.932
28	IS	13C-1,2,3,7,8-PeCDD	33:56	2.743e+04	1.717e+04	1.60	yes	no	0.926
29	IS	13C-1,2,3,4,7,8-HxCDD	37:29	2.891e+04	2.126e+04	1.36	yes	no	0.945
30	IS	13C-1,2,3,6,7,8-HxCDD	37:35	2.593e+04	2.210e+04	1.17	yes	no	1.012
31	IS	13C-1,2,3,4,6,7,8-HpCDD	41:01	2.834e+04	2.636e+04	1.08	yes	no	0.887
32	IS	13C-OCDD	44:58	3.591e+04	3.991e+04	0.90	yes	no	0.634
33	RS/RT	13C-1,2,3,4-TCDD	28:49	4.142e+04	5.239e+04	0.79	yes	no	-
34	RS/RT	13C-1,2,3,7,8,9-HxCDD	37:54	5.365e+04	4.277e+04	1.25	yes	no	-
35	C/Up	37Cl-2,3,7,8-TCDD	29:04	2.564e+04				no	0.956

For Manual OCDD Calculation, Use mean

$$\text{OCDD} = \frac{(1.894e+02 + 2.384e+02) \times 4000 \text{ pg} \times 1}{(3.591e+04 + 3.991e+04) \times 1010 \text{ mL} \times 1L/1000ml \times 1.188} = 18.3 \text{ pg/L}$$

07/16/12

Quadratic Coeff: 22.575 = Mean

$$[\text{OCDD}] = \frac{2.257e+01 \ - \ - \qquad \times 1}{(- \quad * [\text{OCDD}] + - \quad) * \quad L.} =$$

Where d[OCDD] = 0.0001

Signal/Noise Height Ratio Summary CLIENT ID.
240

Run #15 Filename 8239 Samp: 1 Inj: 1 Acquired: 6-JUL-12 13:44:34
Processed: 14-JUL-12 09:23:121 LAB. ID: 00584-003

	Name	Signal 1	Noise 1	S/N Rat.1	Signal 2	Noise 2	S/N Rat.2
1	2,3,7,8-TCDF	*	1.48e+02	*	*	6.12e+02	*
2	1,2,3,7,8-PeCDF	*	2.00e+02	*	*	8.04e+02	*
3	2,3,4,7,8-PeCDF	*	2.00e+02	*	*	8.04e+02	*
4	1,2,3,4,7,8-HxCDF	2.40e+03	5.00e+02	4.8e+00	2.19e+03	3.76e+02	5.8e+00
5	1,2,3,6,7,8-HxCDF	*	5.00e+02	*	*	3.76e+02	*
6	2,3,4,6,7,8-HxCDF	*	5.00e+02	*	*	3.76e+02	*
7	1,2,3,7,8,9-HxCDF	*	5.00e+02	*	*	3.76e+02	*
8	1,2,3,4,6,7,8-HpCDF	*	5.64e+02	*	*	4.68e+02	*
9	1,2,3,4,7,8,9-HpCDF	*	5.64e+02	*	*	4.68e+02	*
10	OCDF	*	2.52e+02	*	*	4.20e+02	*
11	2,3,7,8-TCDD	*	2.20e+02	*	*	4.80e+02	*
12	1,2,3,7,8-PeCDD	*	4.76e+02	*	*	1.44e+02	*
13	1,2,3,4,7,8-HxCDD	*	3.08e+02	*	*	2.20e+02	*
14	1,2,3,6,7,8-HxCDD	*	3.08e+02	*	*	2.20e+02	*
15	1,2,3,7,8,9-HxCDD	*	3.08e+02	*	*	2.20e+02	*
16	1,2,3,4,6,7,8-HpCDD	4.74e+03	6.92e+02	6.8e+00	5.90e+03	1.16e+02	5.1e+01
17	OCDD	1.41e+04	3.04e+02	4.6e+01	1.92e+04	3.96e+02	4.9e+01
18	13C-2,3,7,8-TCDF	4.42e+06	1.48e+03	3.0e+03	5.77e+06	4.80e+02	1.2e+04
19	13C-1,2,3,7,8-PeCDF	9.01e+06	1.80e+02	5.0e+04	5.69e+06	7.00e+02	8.1e+03
20	13C-2,3,4,7,8-PeCDF	7.90e+06	1.80e+02	4.4e+04	5.04e+06	7.00e+02	7.2e+03
21	13C-1,2,3,4,7,8-HxCDF	3.68e+06	5.92e+03	6.2e+02	7.10e+06	9.48e+02	7.5e+03
22	13C-1,2,3,6,7,8-HxCDF	4.29e+06	5.92e+03	7.3e+02	8.09e+06	9.48e+02	8.5e+03
23	13C-2,3,4,6,7,8-HxCDF	3.59e+06	5.92e+03	6.1e+02	6.97e+06	9.48e+02	7.4e+03
24	13C-1,2,3,7,8,9-HxCDF	2.82e+06	5.92e+03	4.8e+02	5.46e+06	9.48e+02	5.8e+03
25	13C-1,2,3,4,6,7,8-HpCDF	1.95e+06	1.48e+03	1.3e+03	4.34e+06	2.88e+03	1.5e+03
26	13C-1,2,3,4,7,8,9-HpCDF	1.39e+06	1.48e+03	9.3e+02	3.10e+06	2.88e+03	1.1e+03
27	13C-2,3,7,8-TCDD	3.50e+06	2.26e+03	1.5e+03	4.45e+06	5.84e+02	7.6e+03
28	13C-1,2,3,7,8-PeCDD	5.43e+06	1.52e+02	3.6e+04	3.46e+06	3.92e+02	8.8e+03
29	13C-1,2,3,4,7,8-HxCDD	4.65e+06	6.36e+02	7.3e+03	3.71e+06	7.92e+02	4.7e+03
30	13C-1,2,3,6,7,8-HxCDD	4.25e+06	6.36e+02	6.7e+03	3.34e+06	7.92e+02	4.2e+03
31	13C-1,2,3,4,6,7,8-HpCDD	2.69e+06	3.08e+02	8.7e+03	2.49e+06	1.36e+02	1.8e+04
32	13C-OCDD	1.88e+06	4.48e+02	4.2e+03	2.10e+06	3.44e+02	6.1e+03
33	13C-1,2,3,4-TCDD	7.38e+06	2.26e+03	3.3e+03	9.31e+06	5.84e+02	1.6e+04
34	13C-1,2,3,7,8,9-HxCDD	8.38e+06	6.36e+02	1.3e+04	6.65e+06	7.92e+02	8.4e+03
35	37Cl-2,3,7,8-TCDD	4.54e+06	1.64e+02	2.8e+04			

Peak List Summary

CLIENT ID.

:40

Entry: 40 Totals Name: Total Hexa-Furans

Run: 15 File: 3239 Sample:1 Injection:1 Function:3

Acquired: 6-JUL-12 13:44:34 Processed: 14-JUL-12 09:23:12

Mass: 373.8210 375.8180 Response:

#	RT	Resp	Resp	Ratio	Meet	Tot Resp	Name	Mod1?	Mod2
1	36:39	1.39e+01	1.23e+01	1.13	yes	2.62e+01	1,2,3,4,7,8-HxCDF	y	y

Peak List Summary

CLIENT ID.

240

Entry: 43 Totals Name: Total Hepta-Dioxins

Run: 15 File: 8239 Sample:1 Injection:1 Function:4

Acquired: 6-JUL-12 13:44:34 Processed: 14-JUL-12 09:23:12

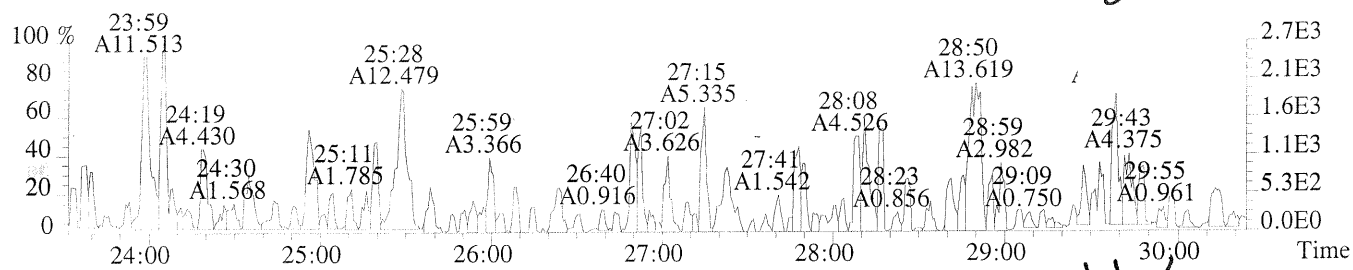
Mass: 423.7770 425.7740 Response:

#	RT	Resp	Resp	Ratio	Meet	Tot Resp	Name	Mod1?	Mod2
1	40:13	4.58e+01	4.62e+01	0.99	yes	9.21e+01		y	n
2	41:04	4.20e+01	4.33e+01	0.97	yes	8.53e+01	1,2,3,4,6,7,8-HpCDD	y	y

File 8239 #1-572 Acq: 6-JUL-2012 13:44:34 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp: 00584-003 240

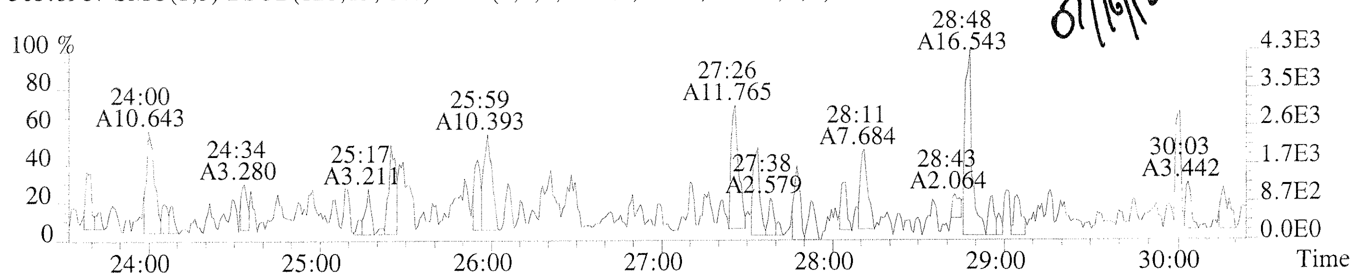
07/14/12

303.9016 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,148.0,1.00%

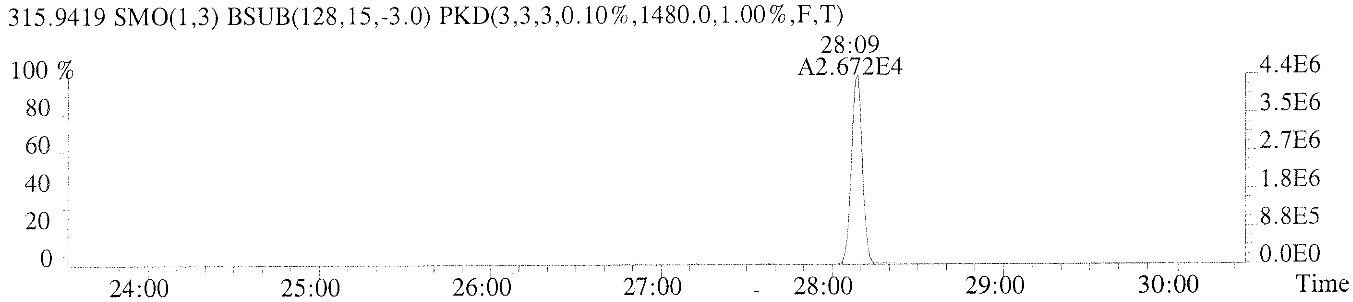


07/16/12

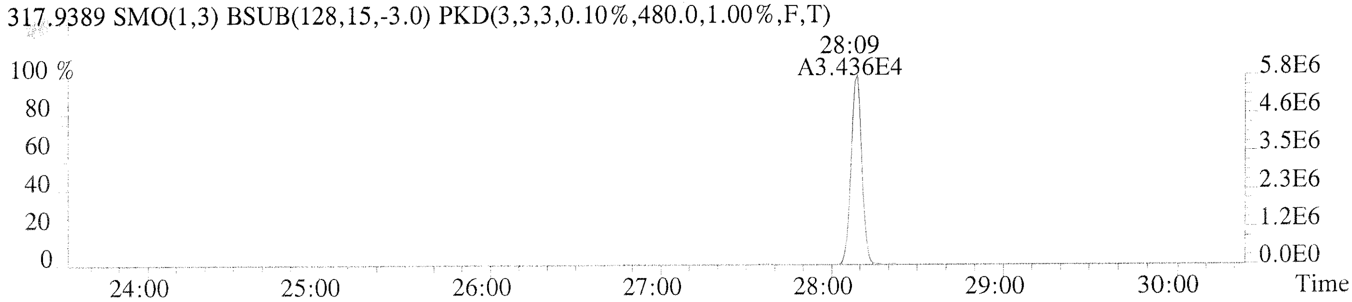
305.8987 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,612.0,1.00%,F,T)



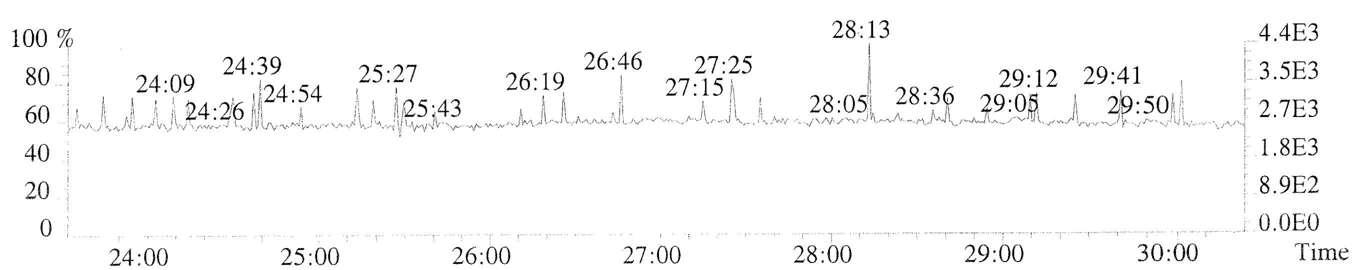
315.9419 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,1480.0,1.00%,F,T)



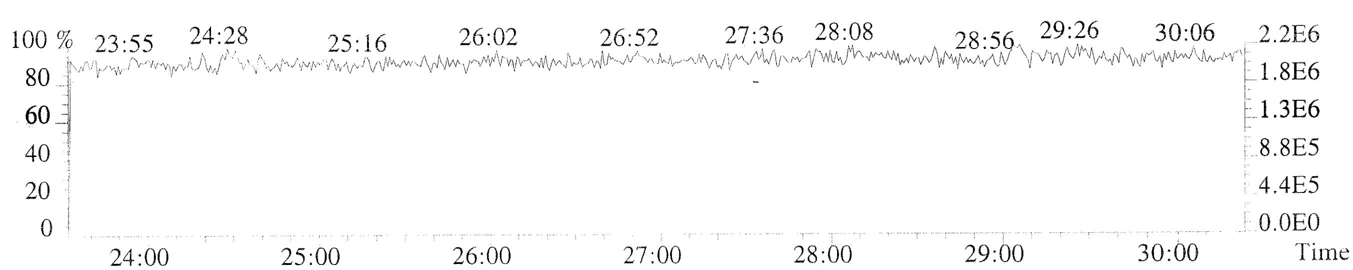
317.9389 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,480.0,1.00%,F,T)



375.8364 PKD(5,3,5,100.00%,0.0,1.00%,F,F)

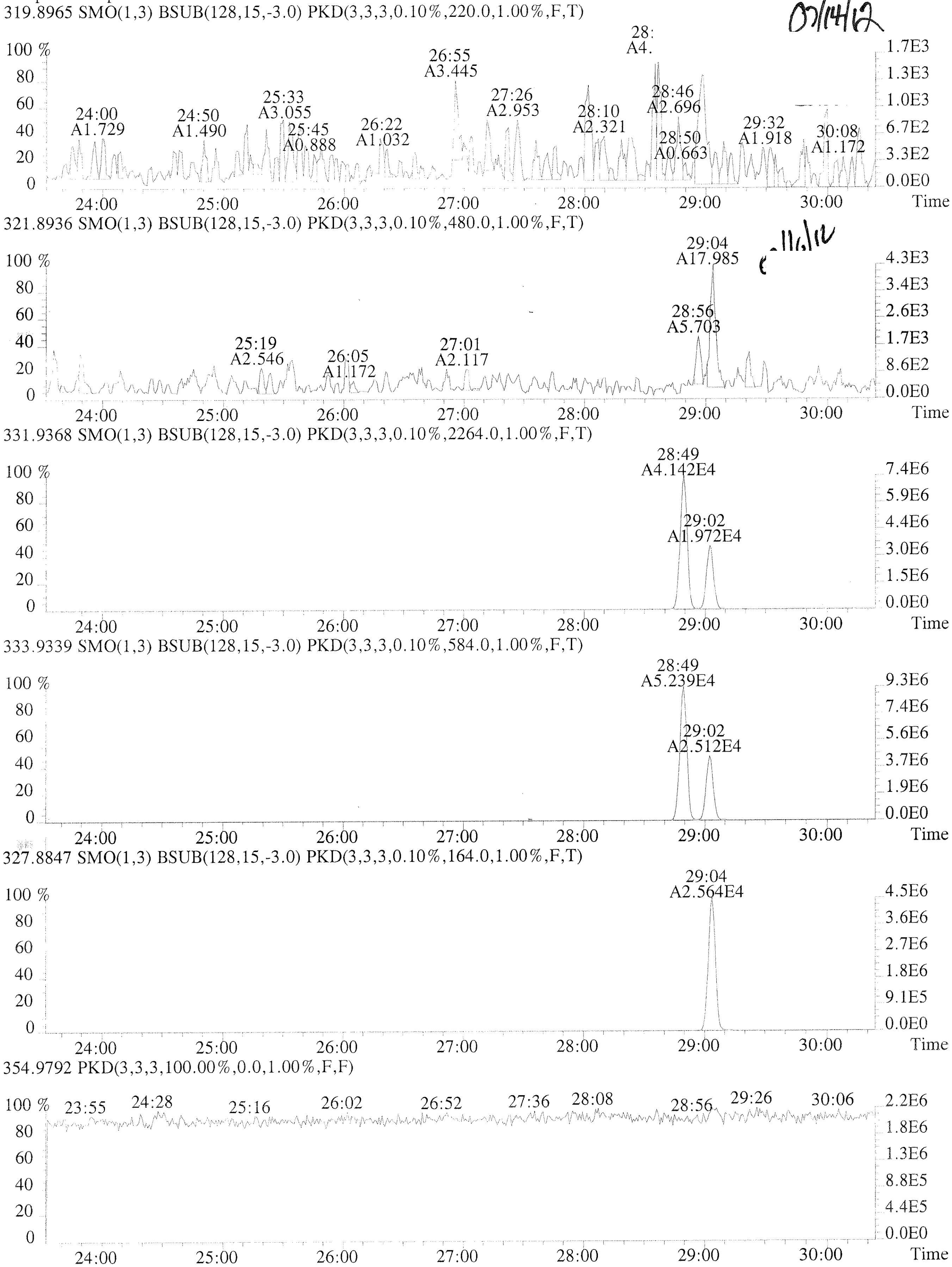


354.9792 PKD(3,3,3,100.00%,0.0,1.00%,F,F)

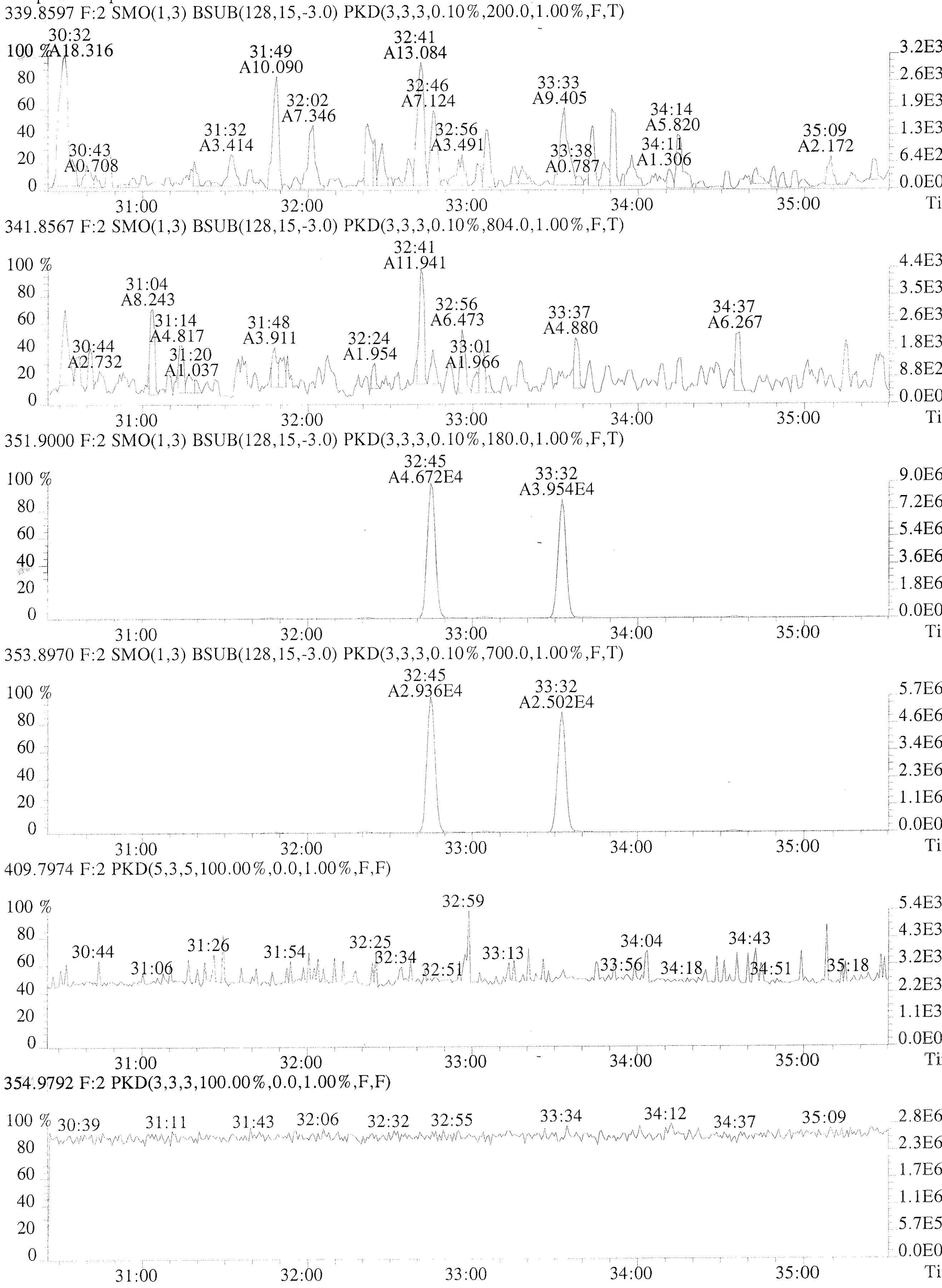


File: 3239 #1-572 Acq: 6-JUL-2012 13:44:34 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:)0584-003 240

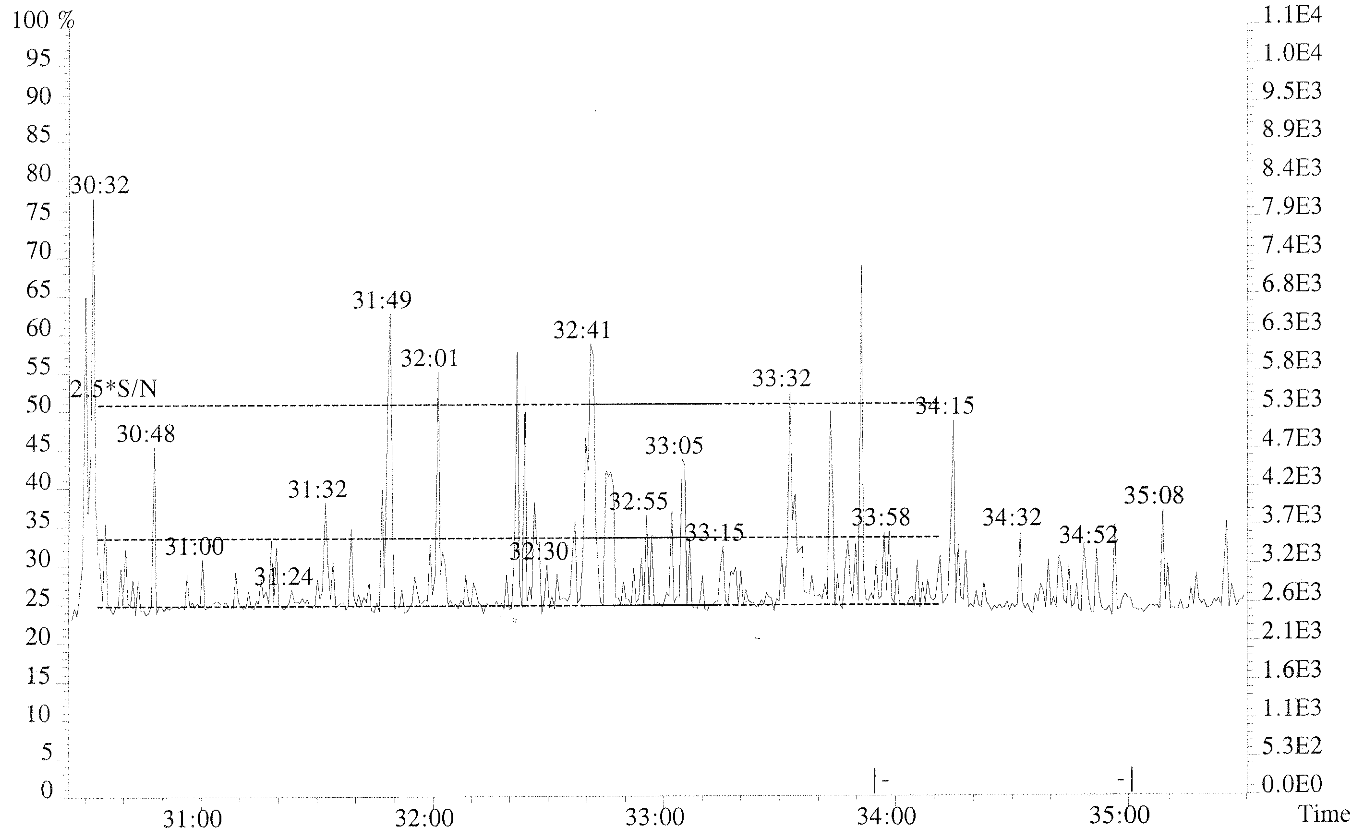
07/14/12



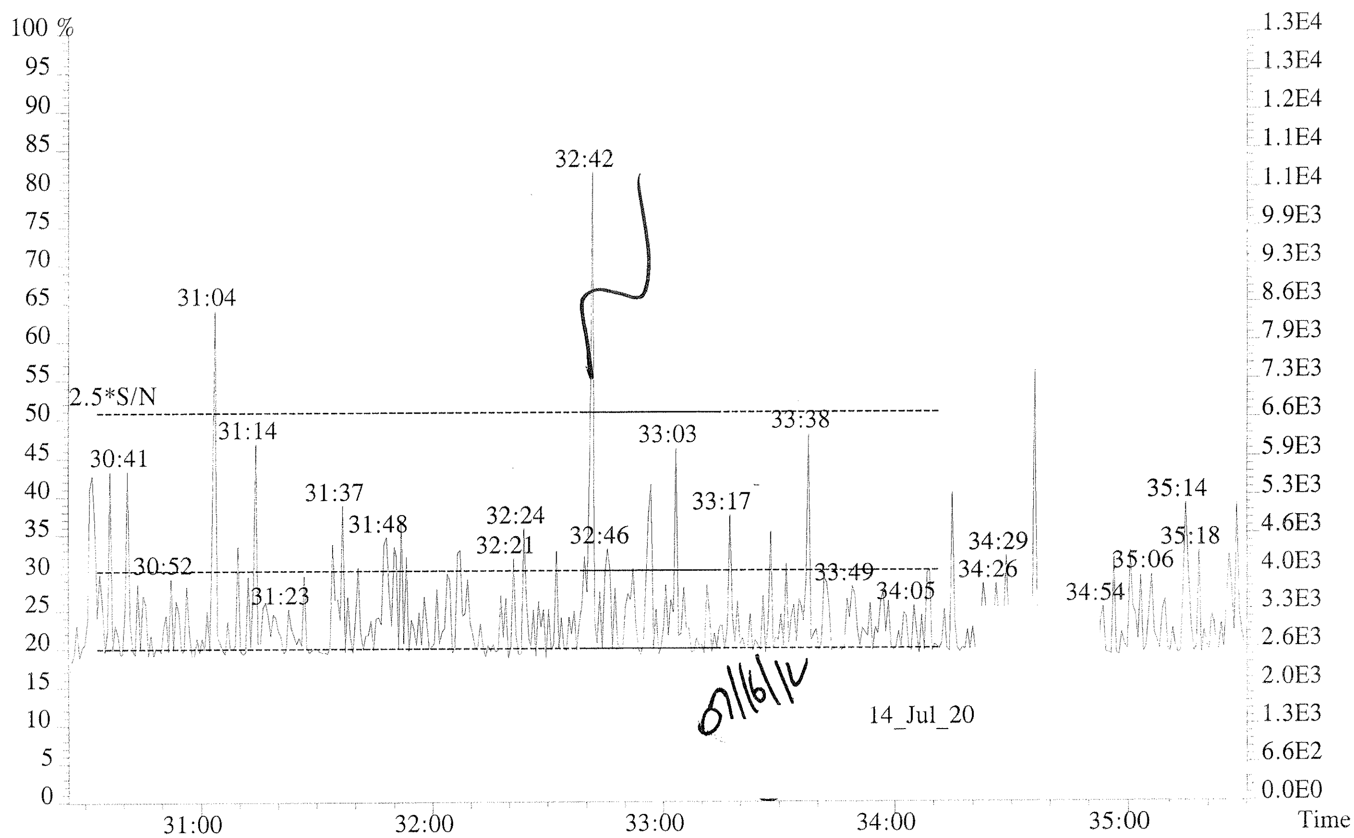
File: 8239 #1-461 Acq: 6-JUL-2012 13:44:34 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:)0584-003 240



File: 8239 #1-461 Acq: 6-JUL-2012 13:44:34 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:)0584-003 240
339.8597 F:2

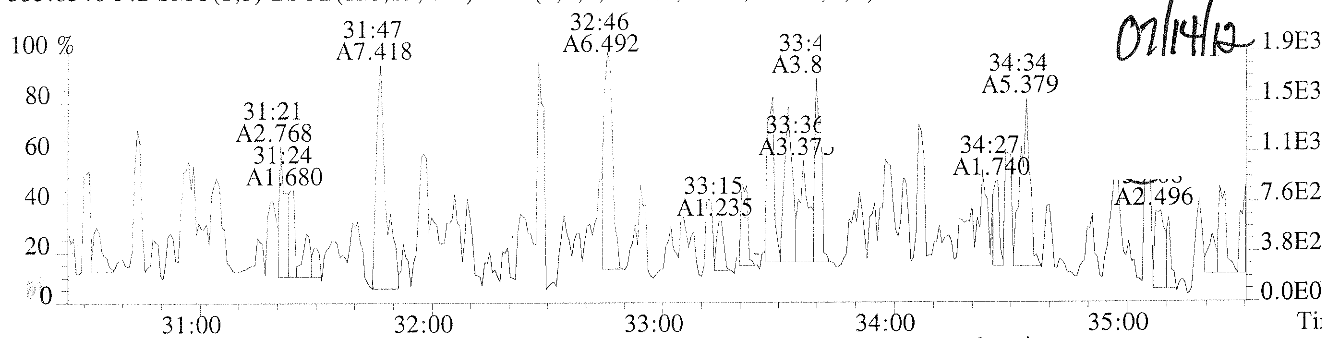


341.8567 F:2

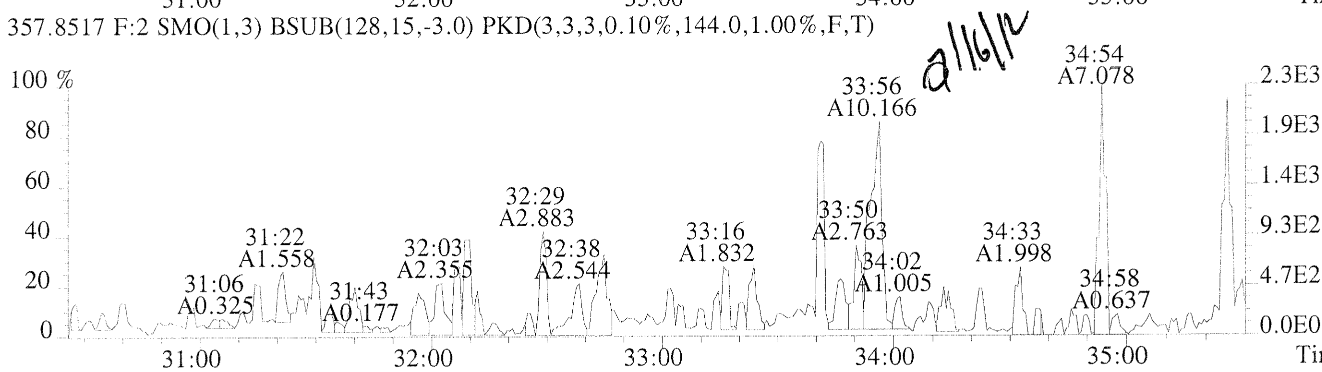


File: 8239 #1-461 Acq: 6-JUL-2012 13:44:34 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp: 00584-003 240

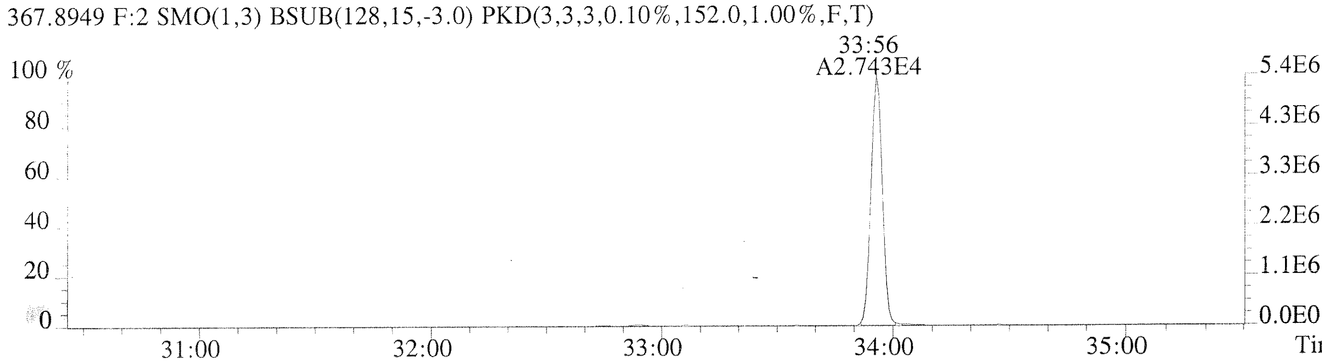
355.8546 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,476.0,1.00%,F,T)



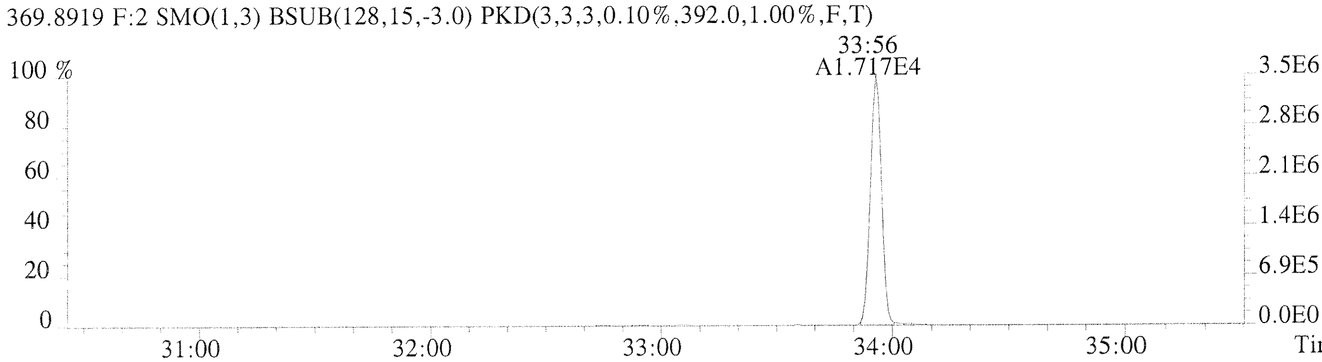
357.8517 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,144.0,1.00%,F,T)



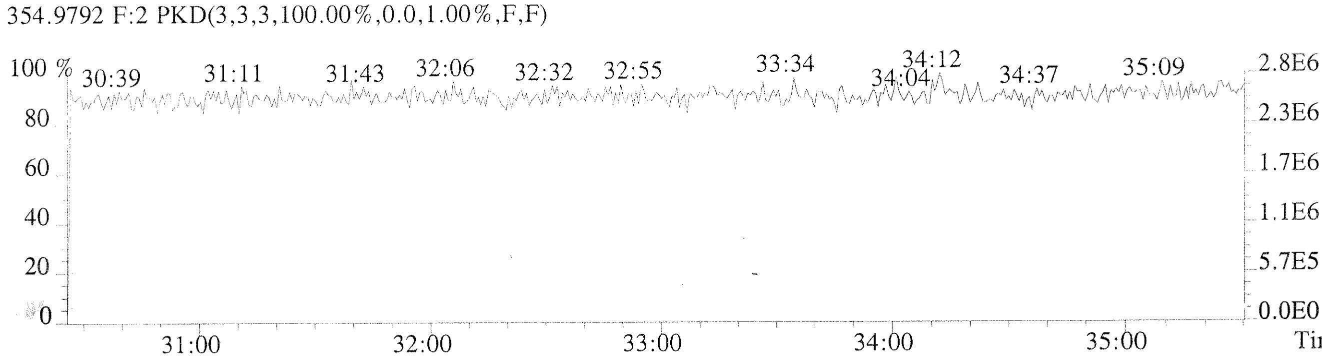
367.8949 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,152.0,1.00%,F,T)



369.8919 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,392.0,1.00%,F,T)

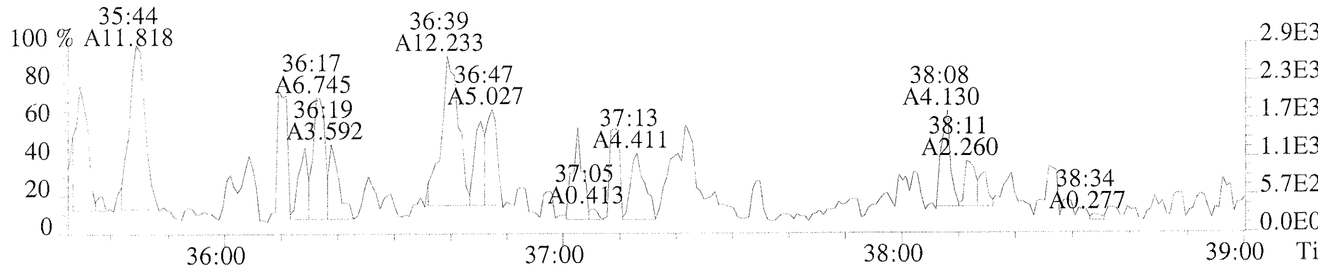


354.9792 F:2 PKD(3,3,3,100.00%,0.0,1.00%,F,F)

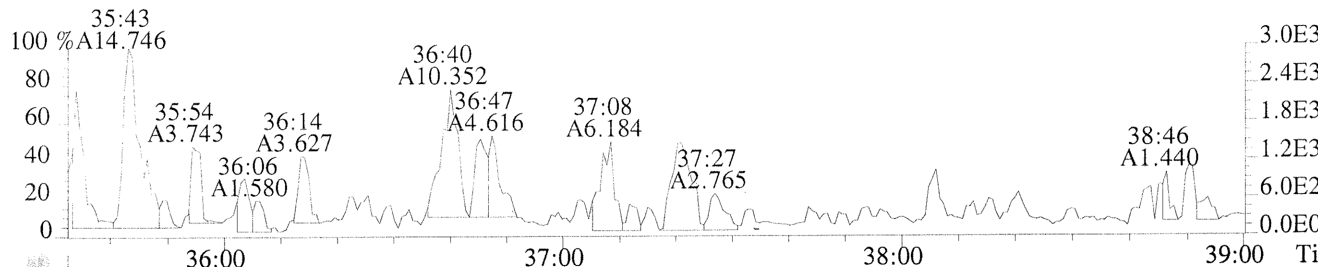


File: 8239 #1-315 Acq: 6-JUL-2012 13:44:34 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp: 00584-003 240

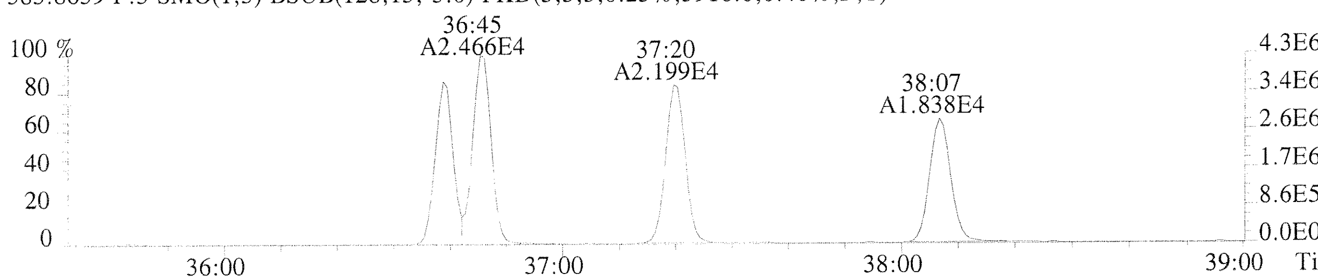
373.8208 F:3 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,500.0,0.40%,F,T)



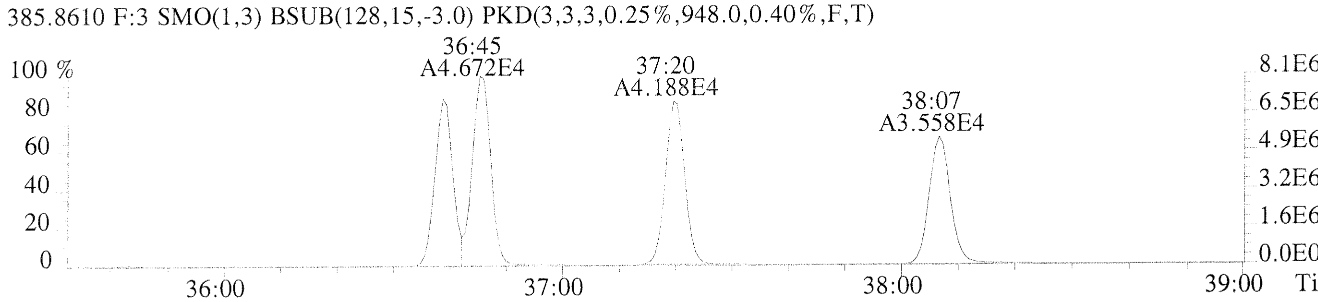
375.8178 F:3 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,376.0,0.40%,F,T)



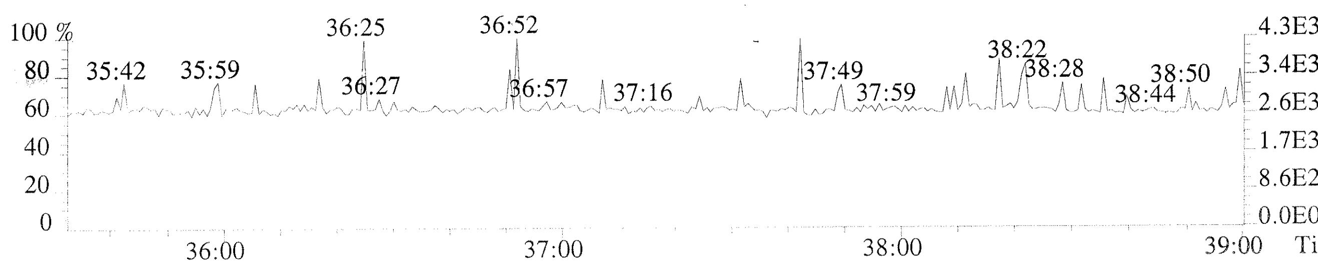
383.8639 F:3 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,5916.0,0.40%,F,T)



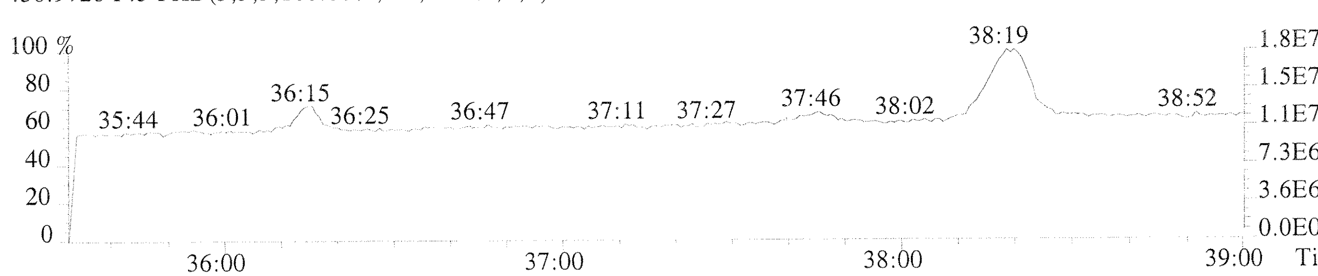
385.8610 F:3 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,948.0,0.40%,F,T)



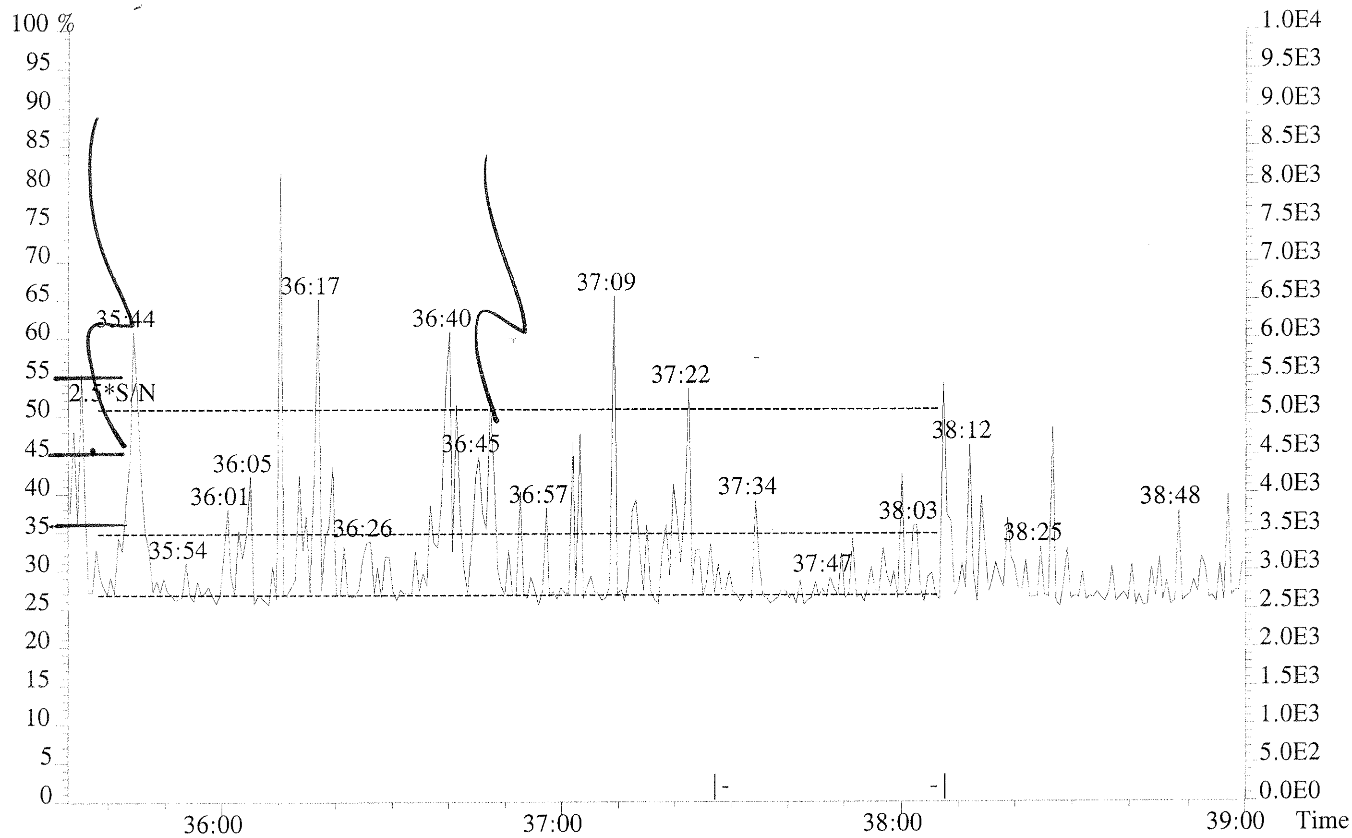
445.7555 F:3 PKD(5,3,5,100.00%,0.0,1.00%,F,F)



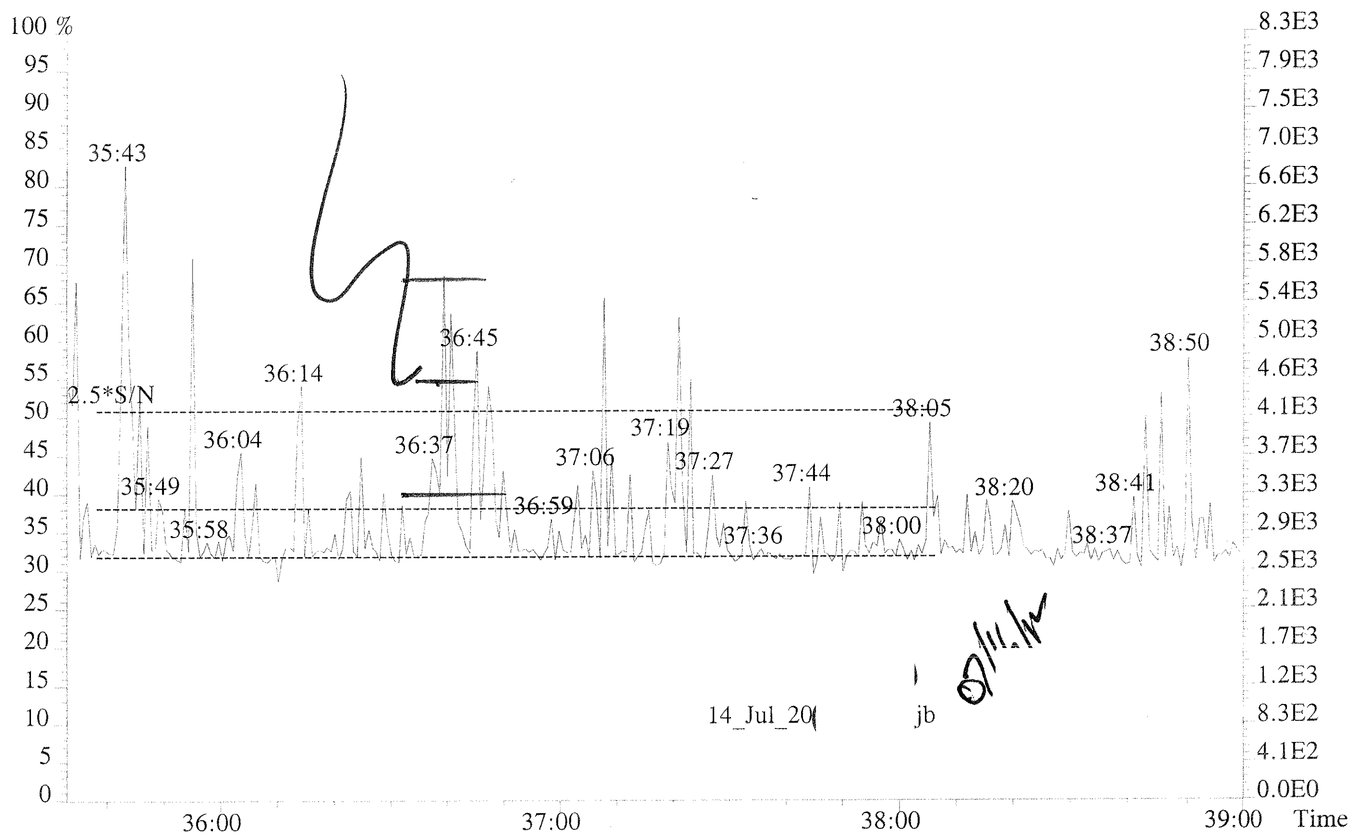
430.9728 F:3 PKD(3,3,3,100.00%,0.0,1.00%,F,F)



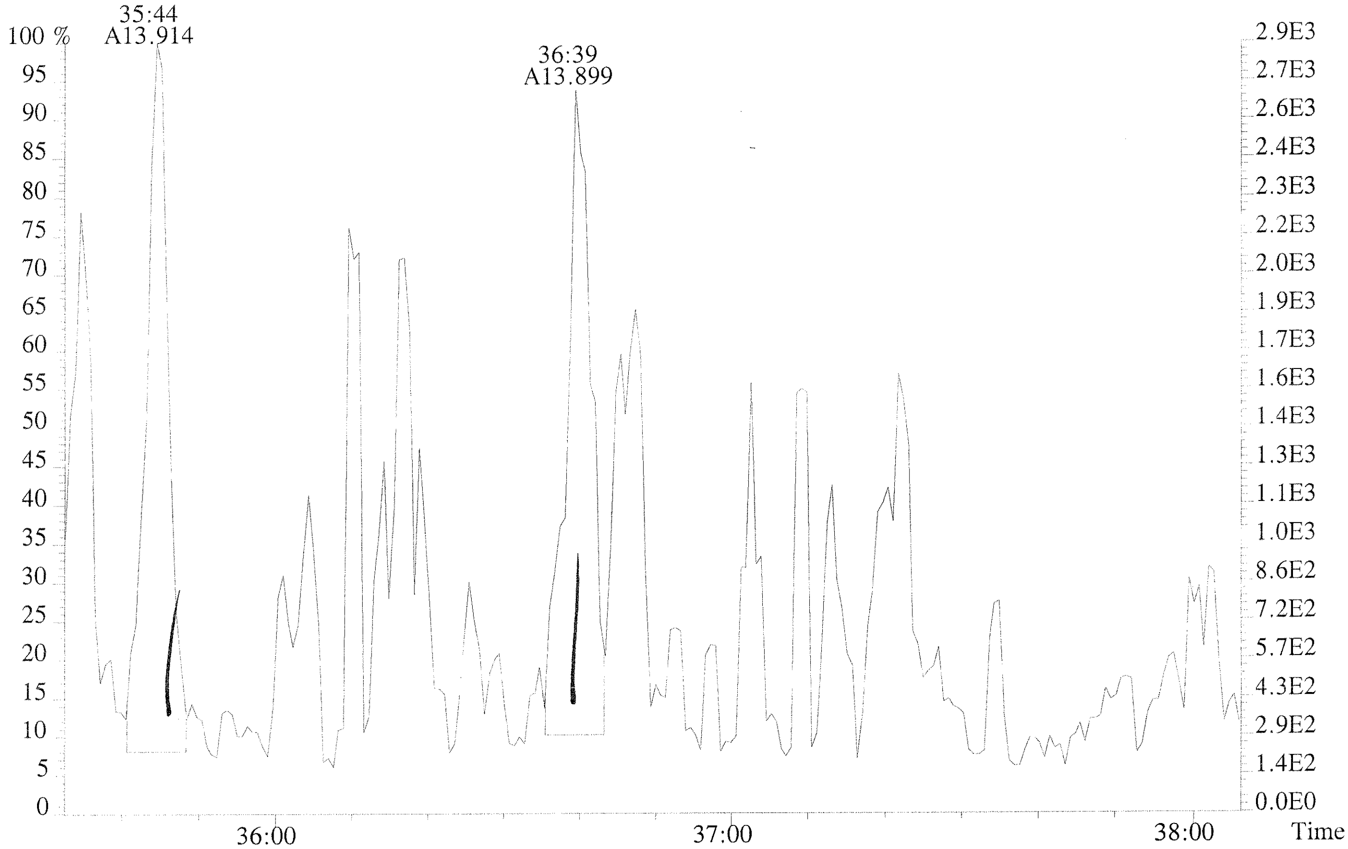
File: 8239 #1-315 Acq: 6-JUL-2012 13:44:34 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp: 00584-003 240
373.8208 F:3



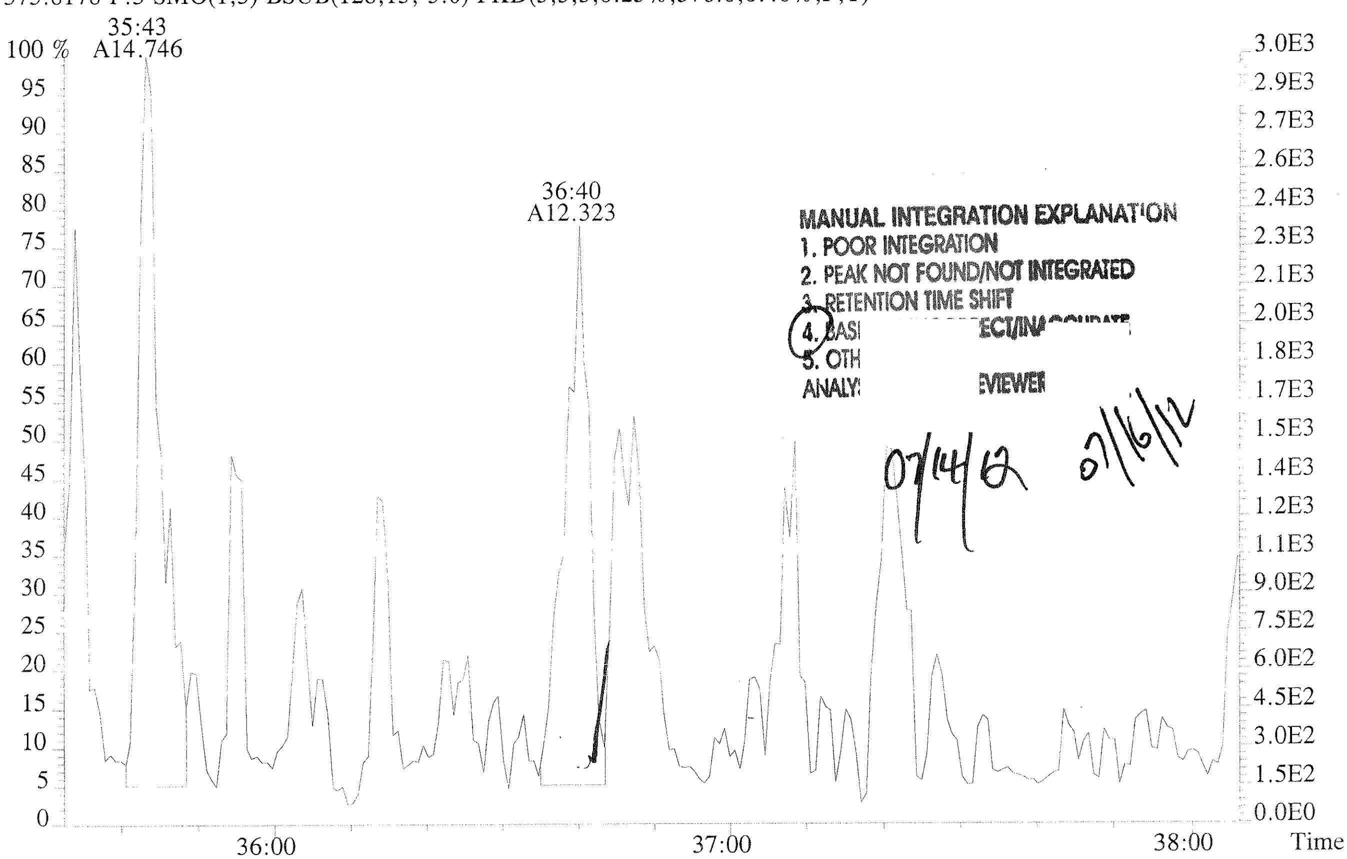
375.8178 F:3



File 8239 #1-315 Acq: 6-JUL-2012 13:44:34 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp)0584-003 240
373.8208 F:3 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,500.0,0.40%,F,T)

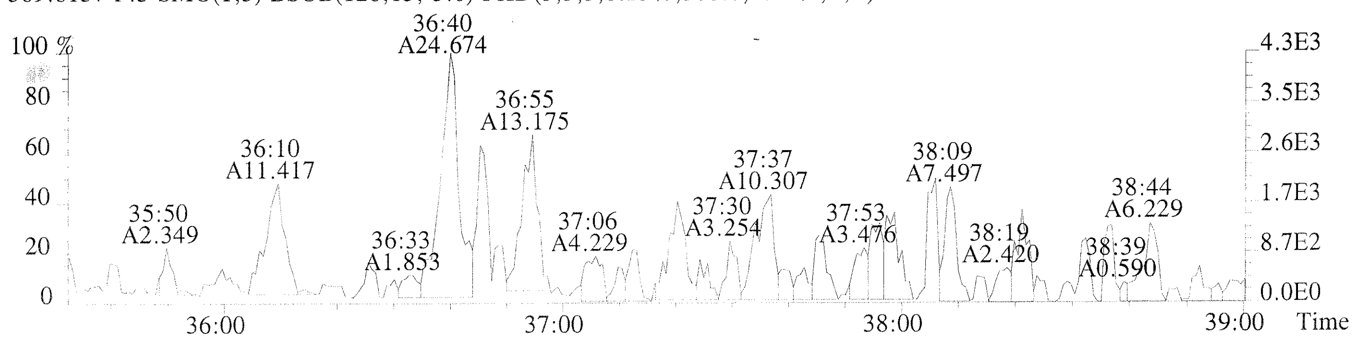


375.8178 F:3 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,376.0,0.40%,F,T)

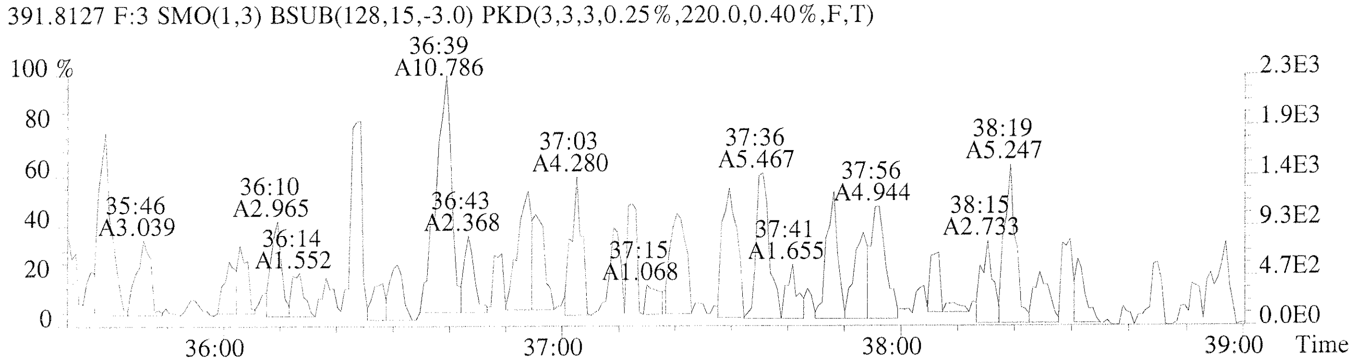


File: 8239 #1-315 Acq: 6-JUL-2012 13:44:34 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:)0584-003 240

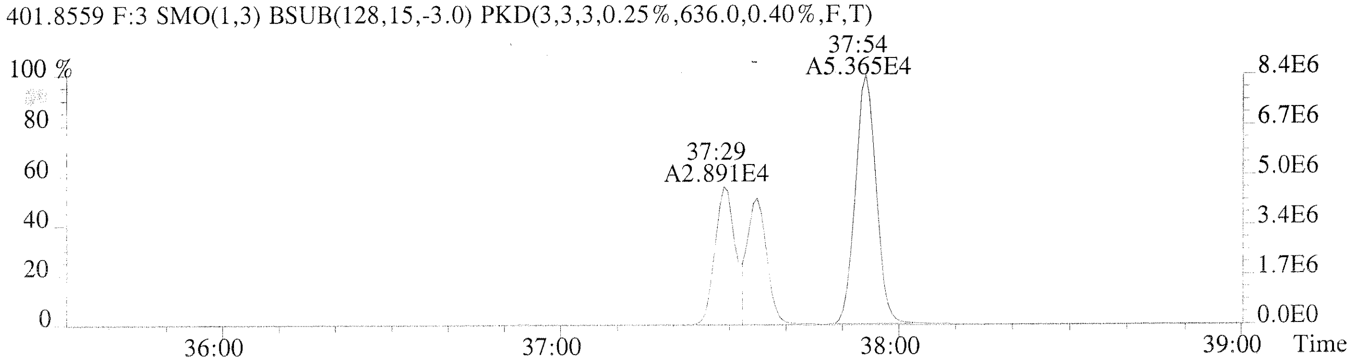
389.8157 F:3 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,308.0,0.40%,F,T)



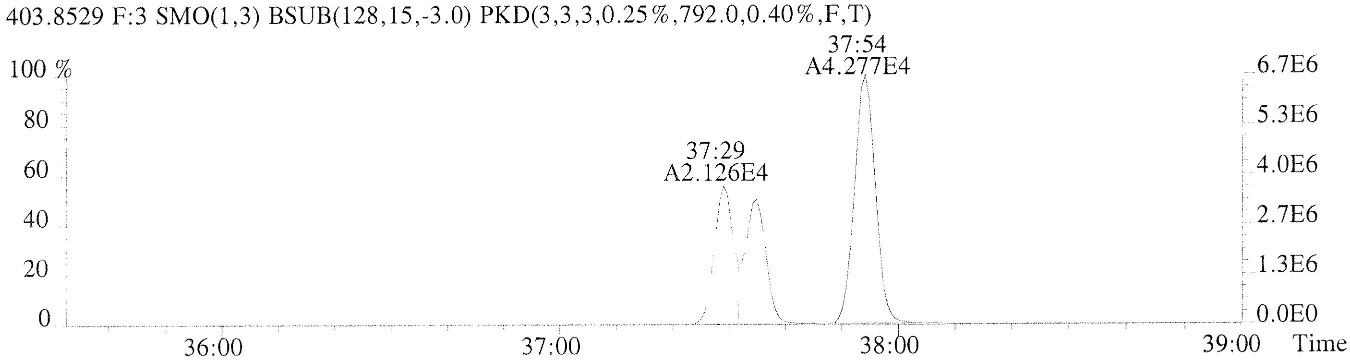
391.8127 F:3 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,220.0,0.40%,F,T)



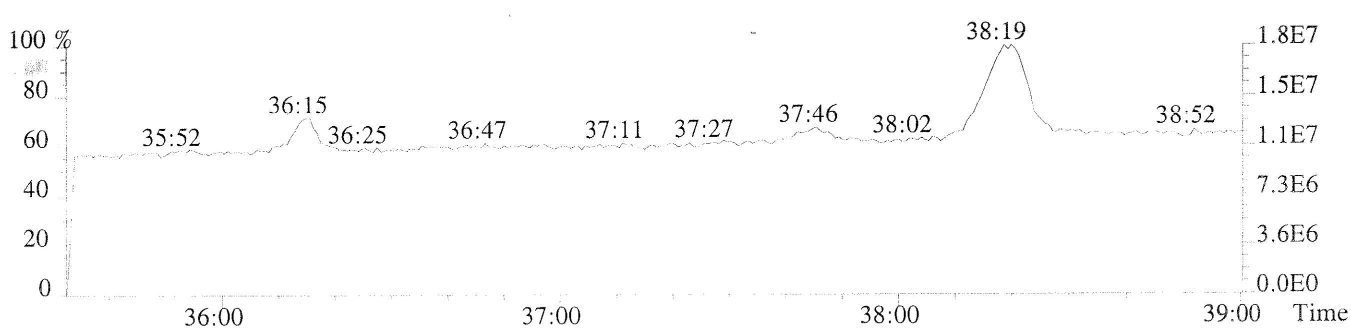
401.8559 F:3 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,636.0,0.40%,F,T)



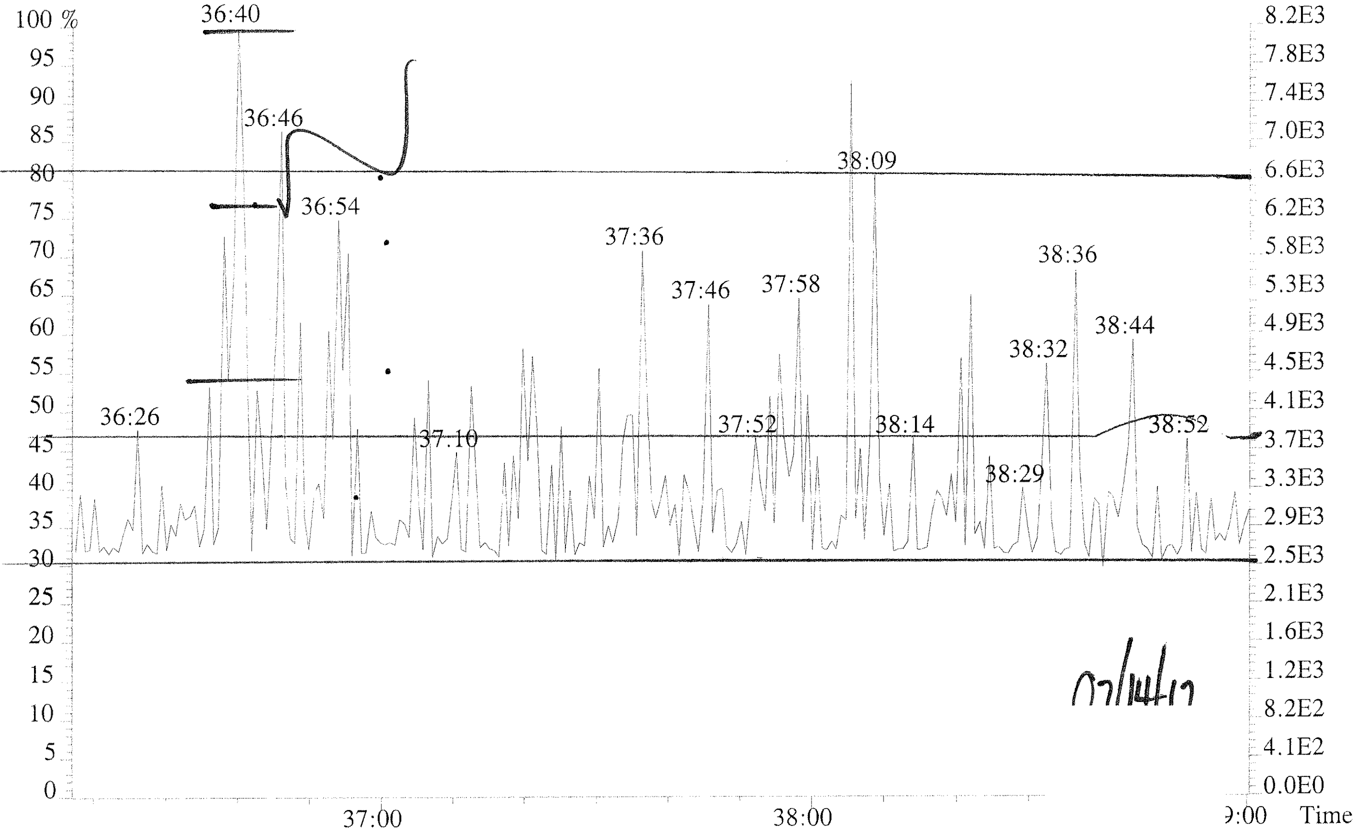
403.8529 F:3 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,792.0,0.40%,F,T)



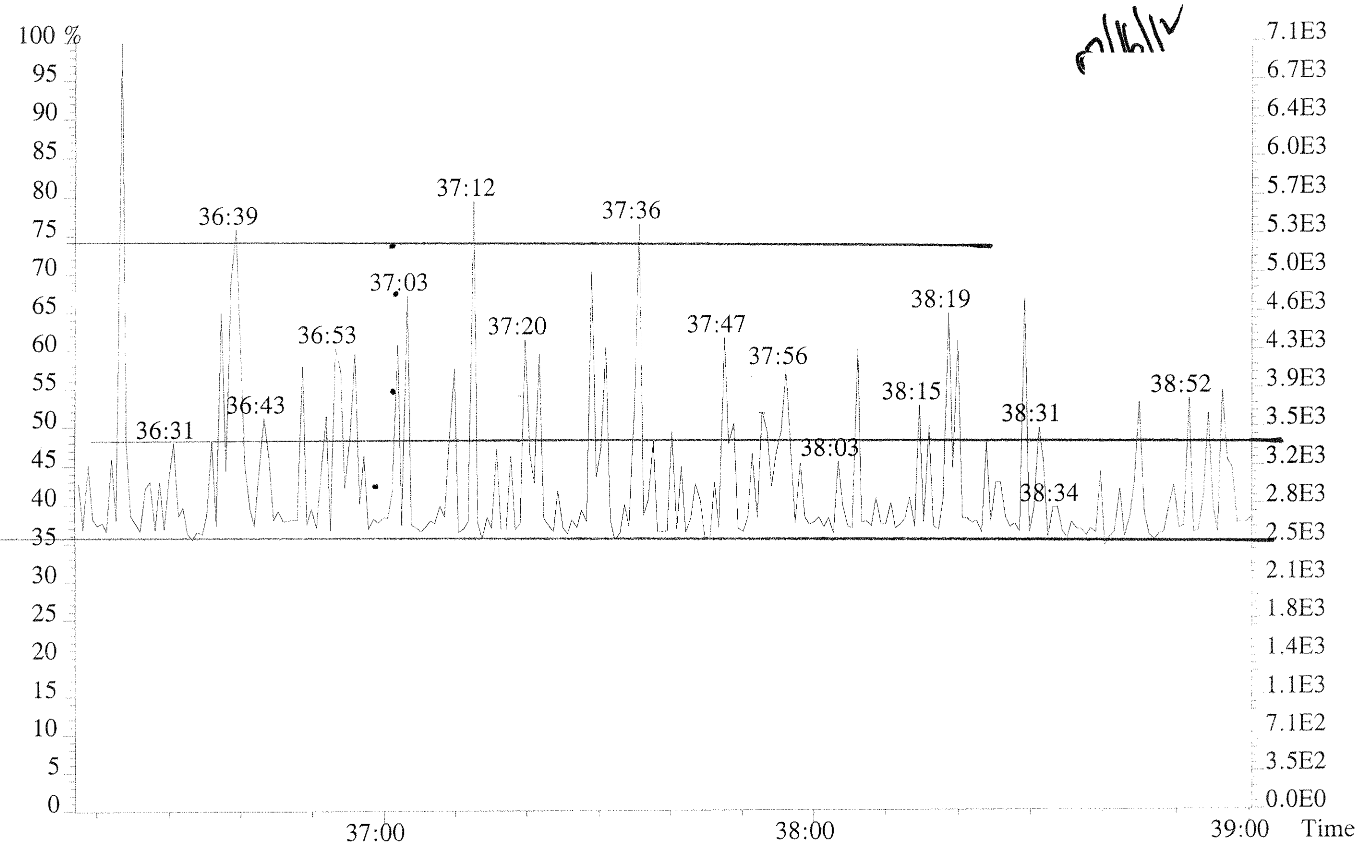
430.9728 F:3 PKD(3,3,3,100.00%,0.0,1.00%,F,F)



File: 8239 #1-315 Acq: 6-JUL-2012 13:44:34 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:)0584-003 240
389.8157 F:3

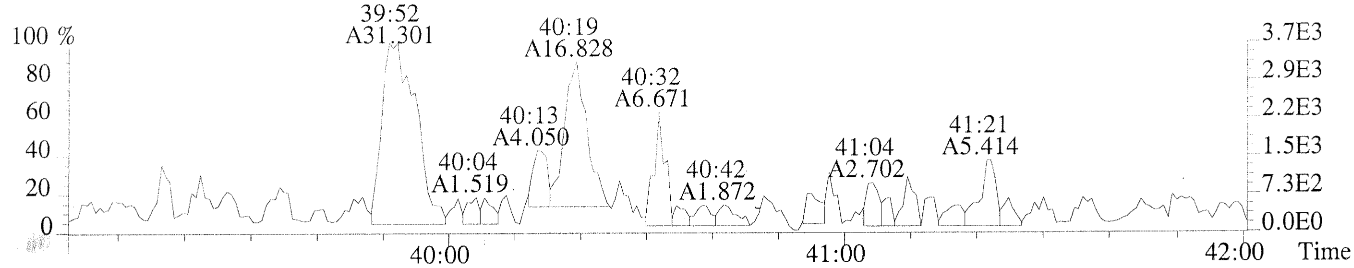


391.8127 F:3

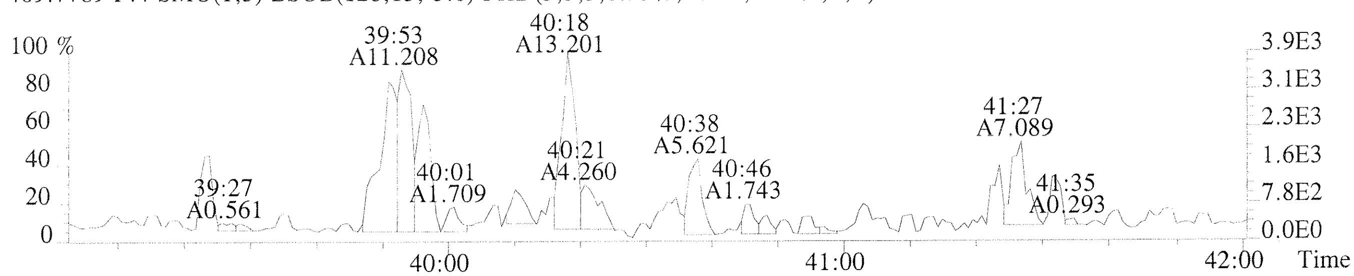


File: 8239 #1-270 Acq: 6-JUL-2012 13:44:34 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:)0584-003 240

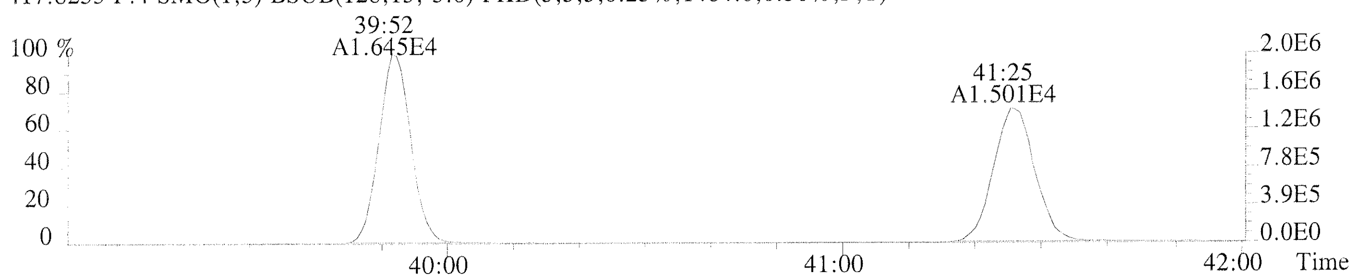
407.7818 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,564.0,0.50%,F,T)



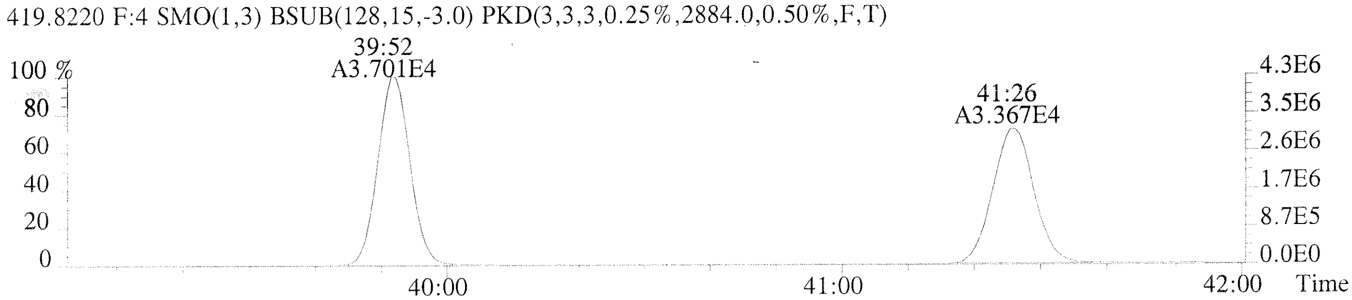
409.7789 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,468.0,0.50%,F,T)



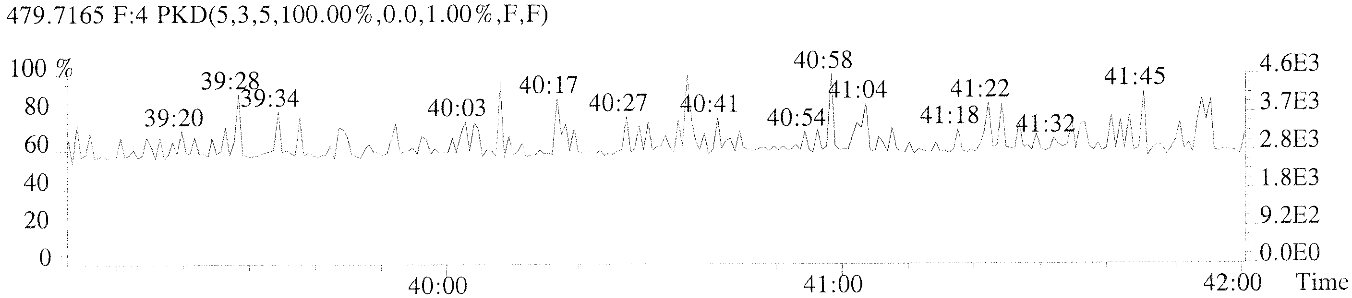
417.8253 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,1484.0,0.50%,F,T)



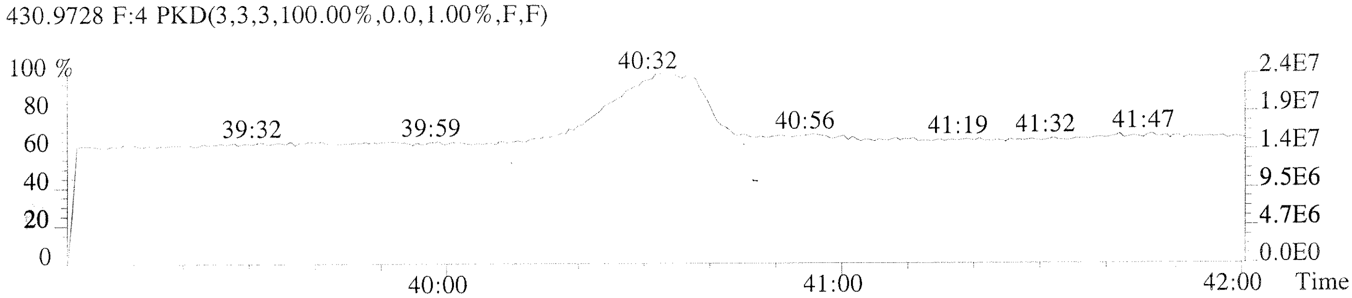
419.8220 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,2884.0,0.50%,F,T)



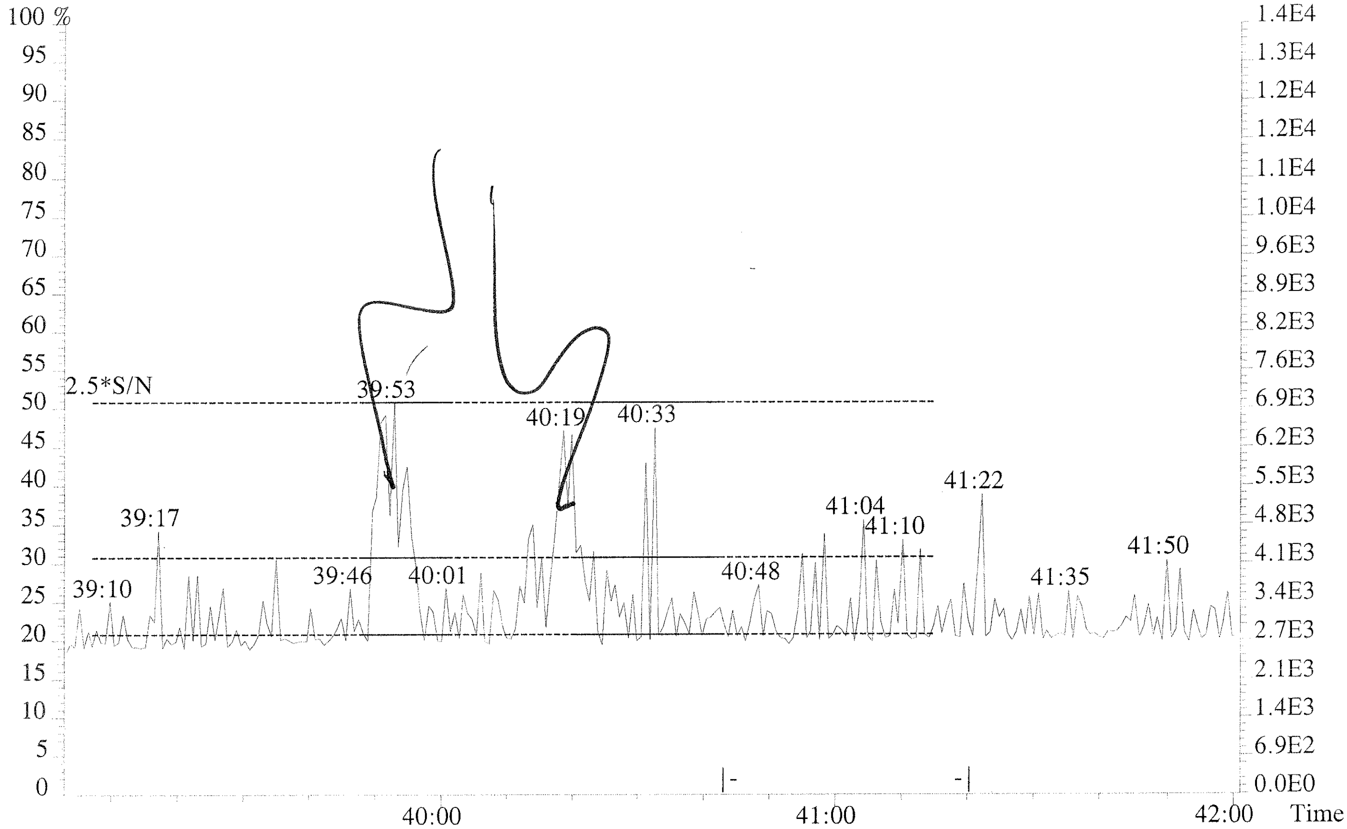
479.7165 F:4 PKD(5,3,5,100.00%,0.0,1.00%,F,F)



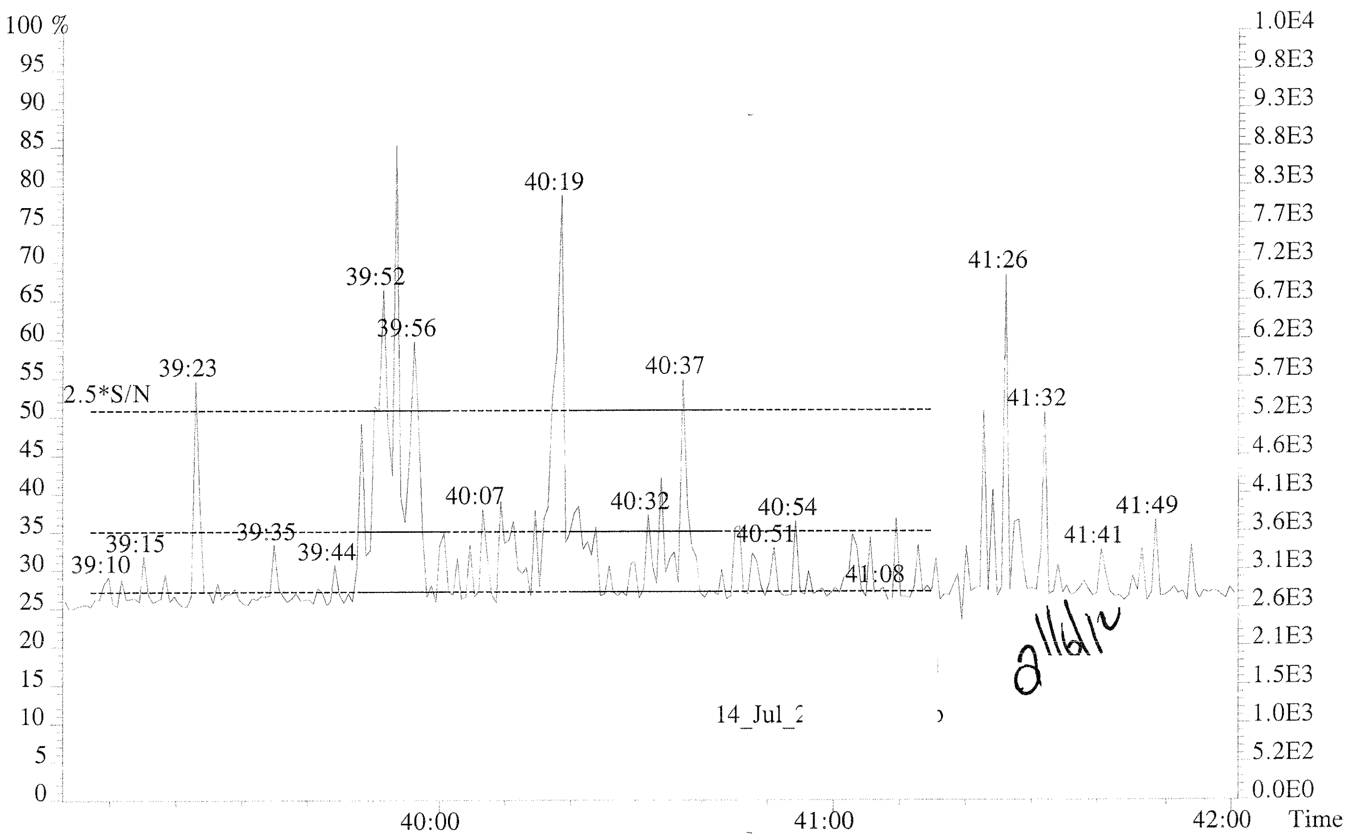
430.9728 F:4 PKD(3,3,3,100.00%,0.0,1.00%,F,F)



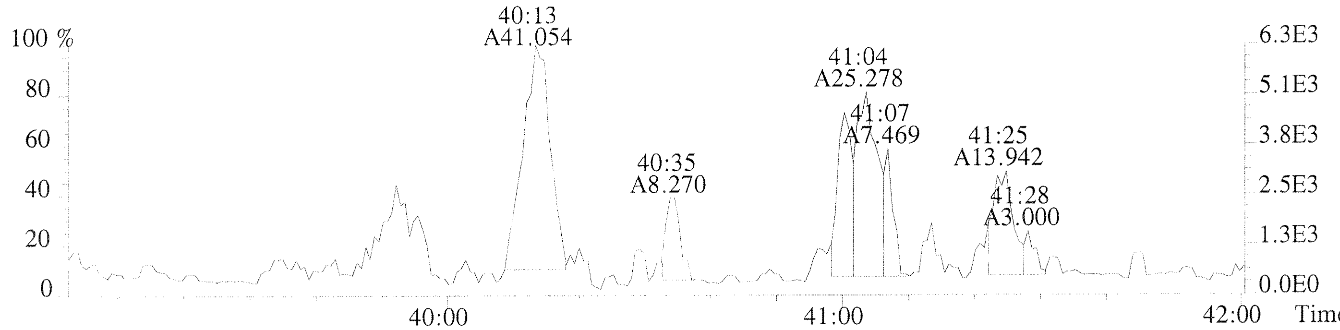
File: 8239 #1-270 Acq: 6-JUL-2012 13:44:34 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp: 00584-003 240
407.7818 F:4



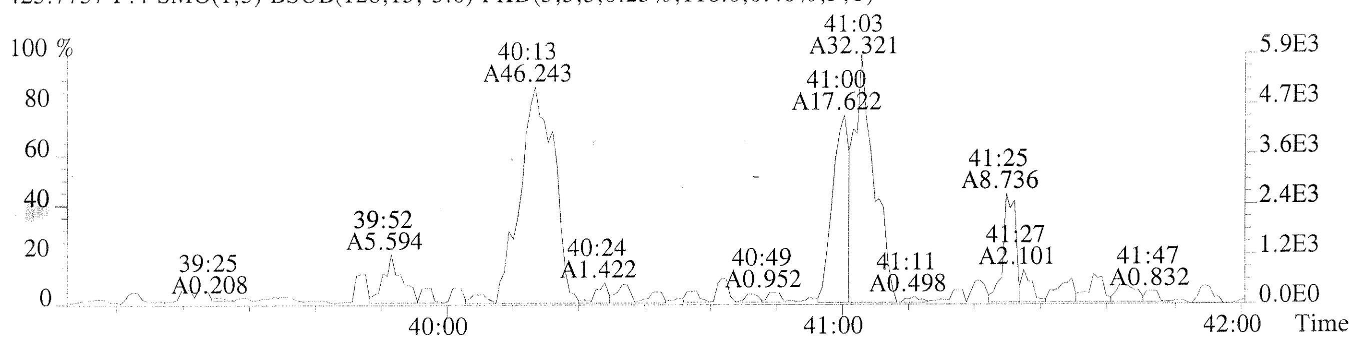
409.7789 F:4



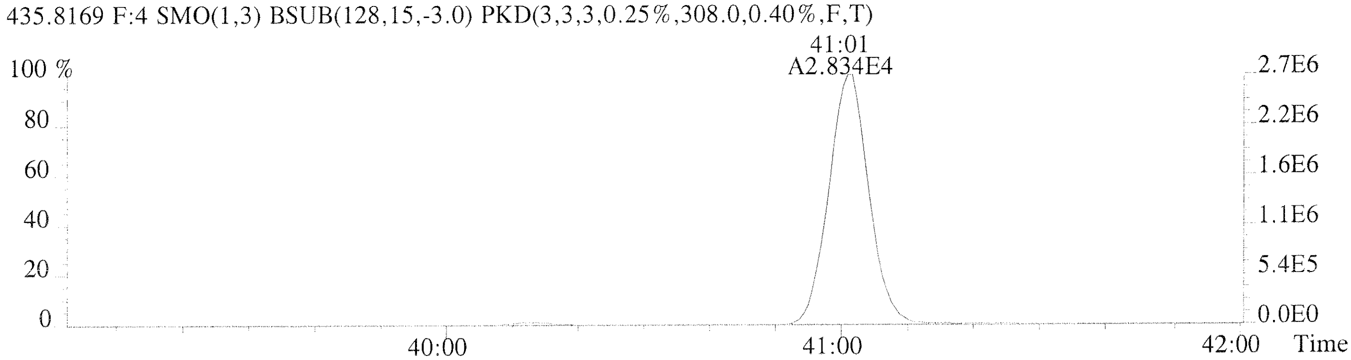
File: 8239 #1-270 Acq: 6-JUL-2012 13:44:34 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp: 00584-003 240
423.7766 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,692.0,0.40%,F,T)



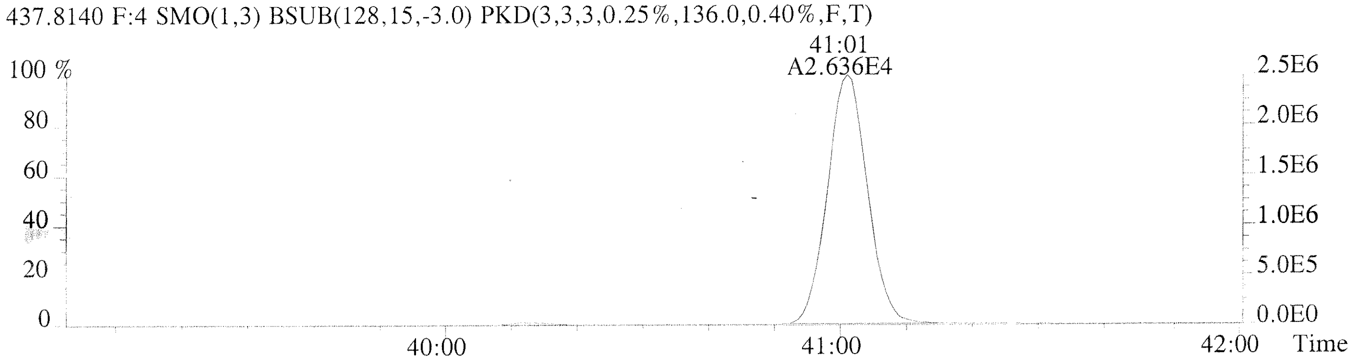
425.7737 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,116.0,0.40%,F,T)



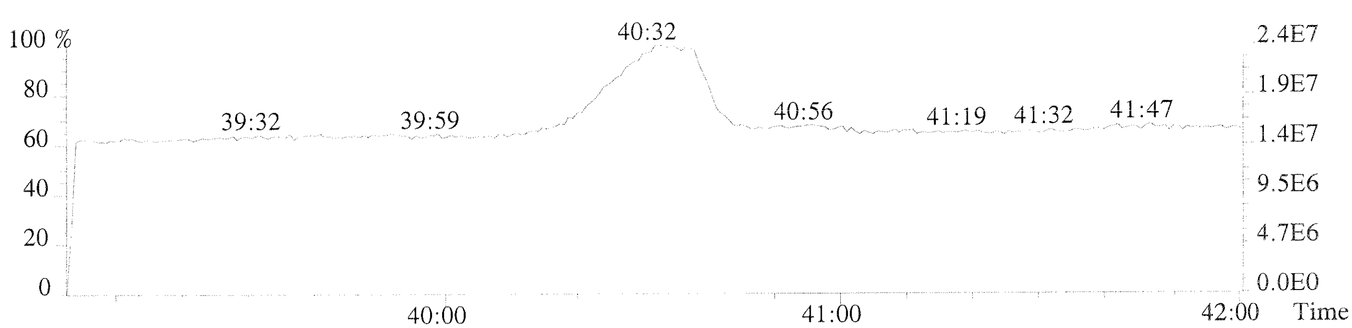
435.8169 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,308.0,0.40%,F,T)



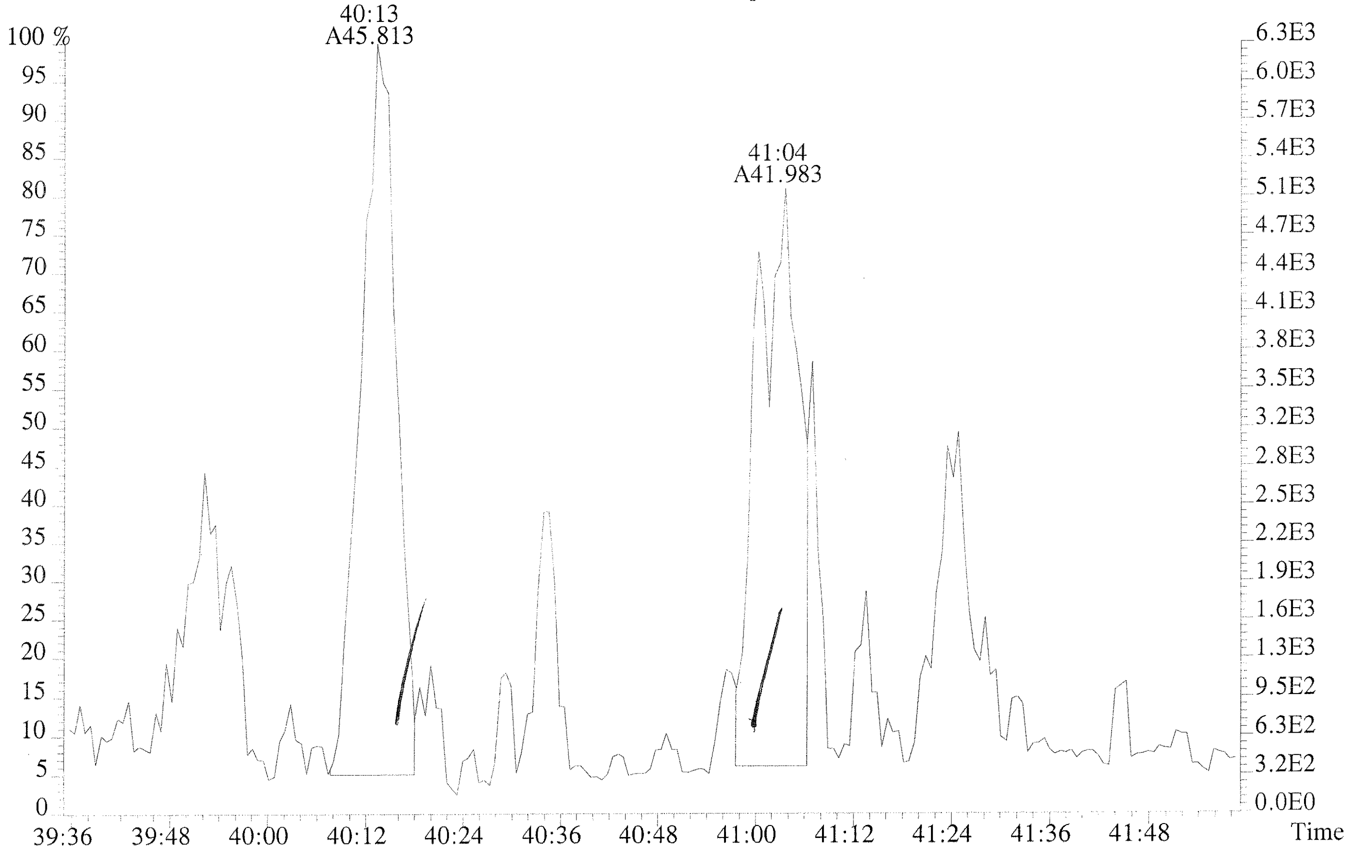
437.8140 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,136.0,0.40%,F,T)



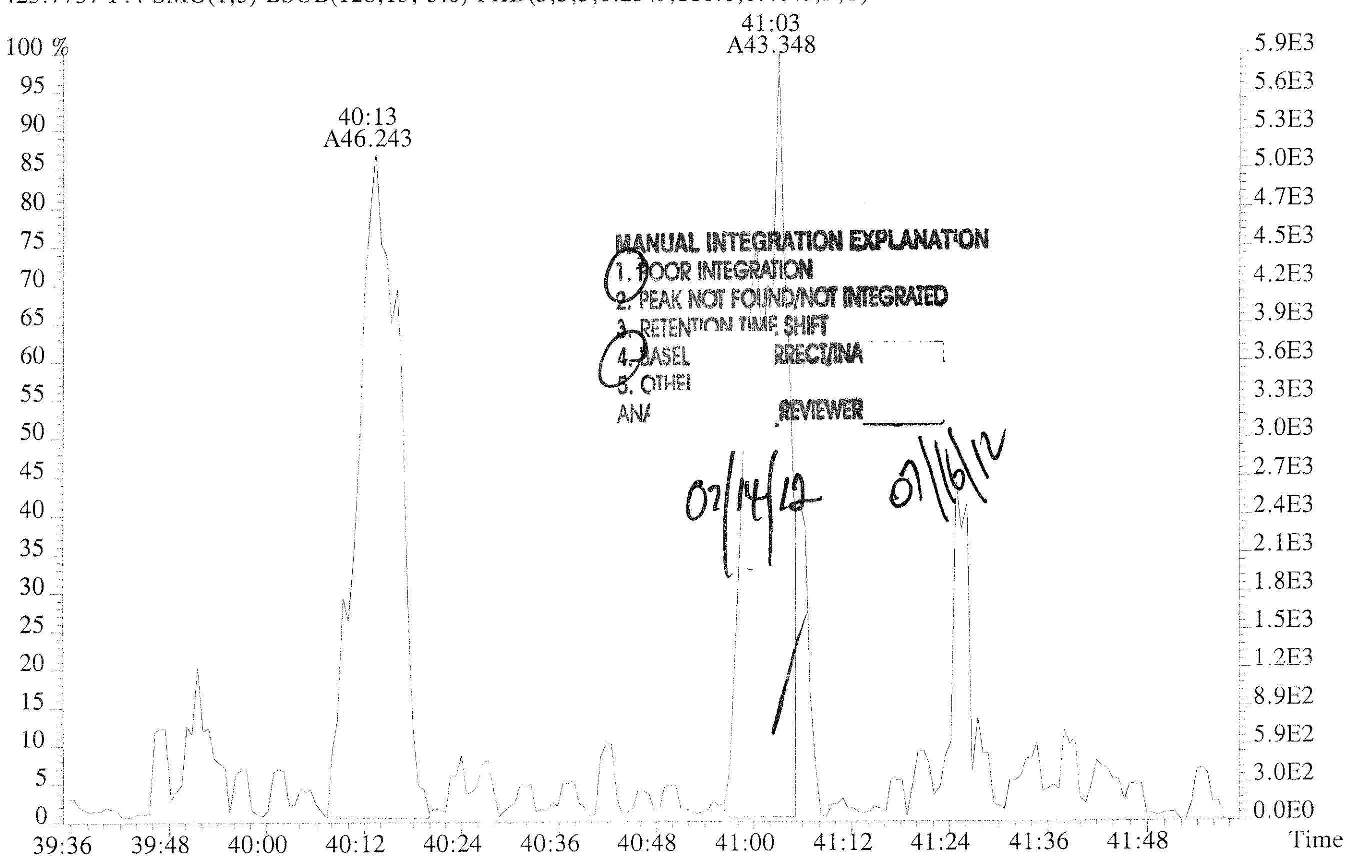
430.9728 F:4 PKD(3,3,3,100.00%,0.0,1.00%,F,F)



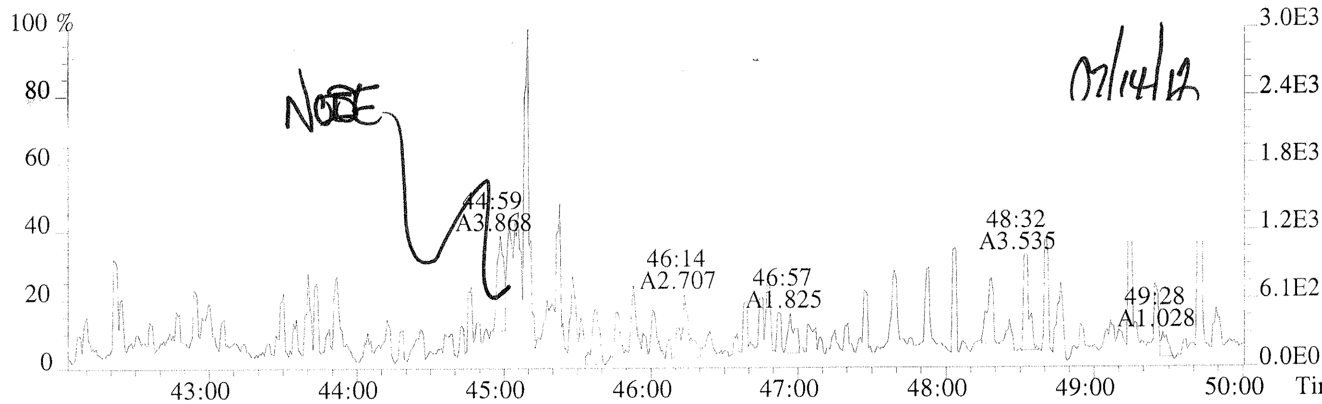
File: 8239 #1-270 Acq: 6-JUL-2012 13:44:34 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:)0584-003 240
423.7766 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,692.0,0.40%,F,T)



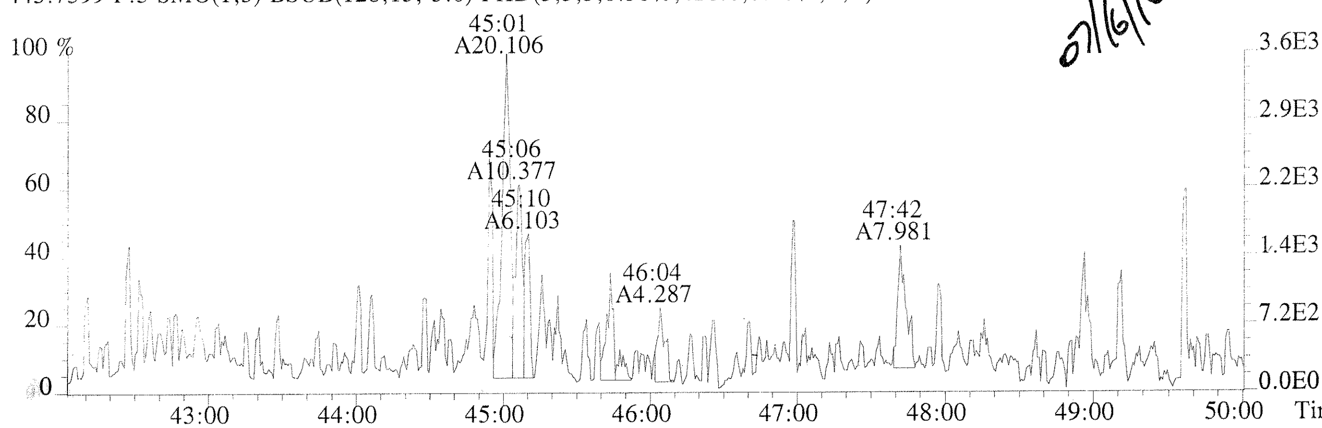
425.7737 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,116.0,0.40%,F,T)



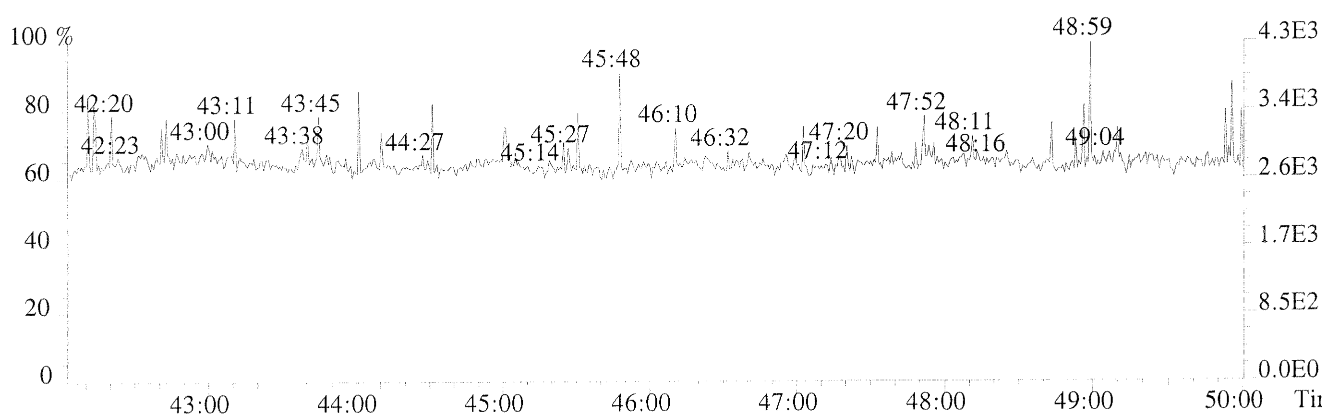
File 3239 #1-732 Acq: 6-JUL-2012 13:44:34 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp: 00584-003 240
441.7428 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(5,3,5,0.30%,252.0,0.40%,F,T)



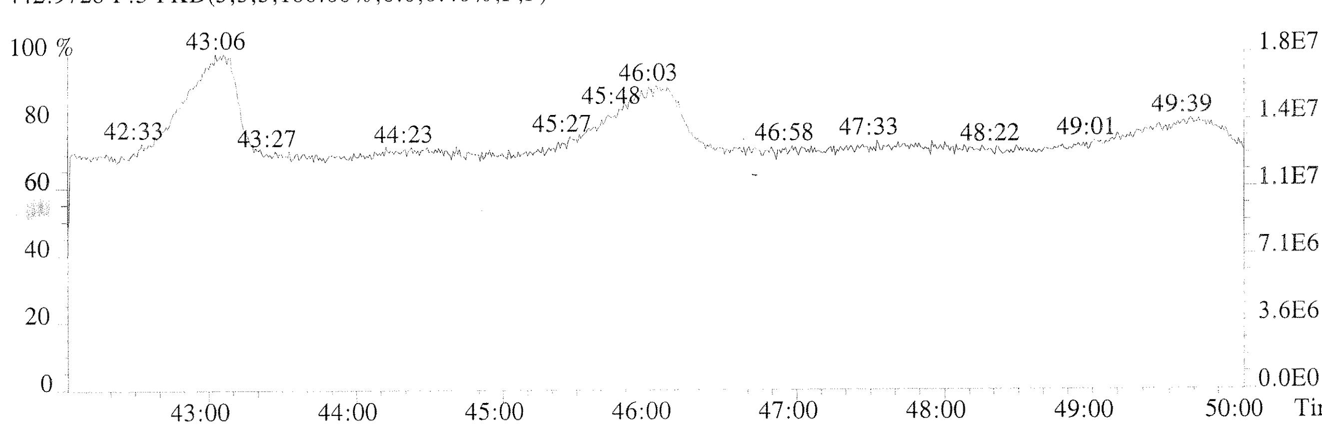
443.7399 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(5,3,5,0.30%,420.0,0.40%,F,T)



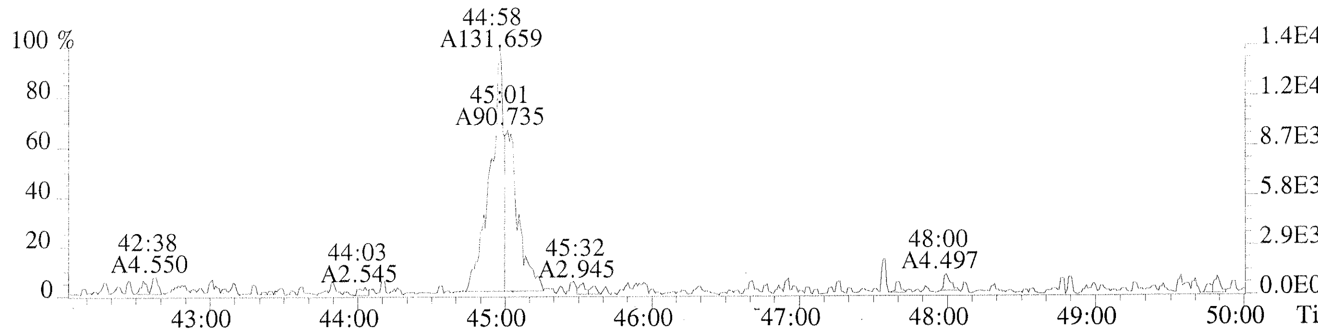
513.6775 F:5 PKD(5,3,5,100.00%,0.0,1.00%,F,F)



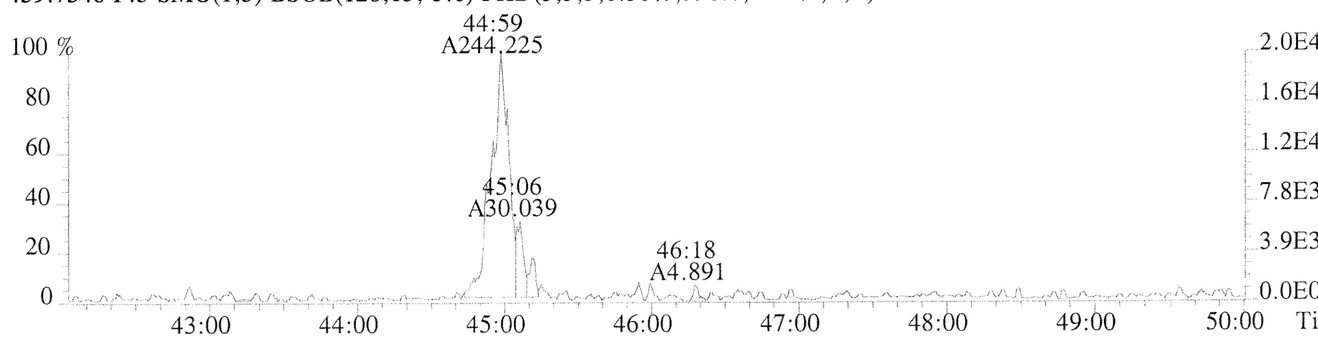
442.9728 F:5 PKD(3,3,3,100.00%,0.0,0.40%,F,F)



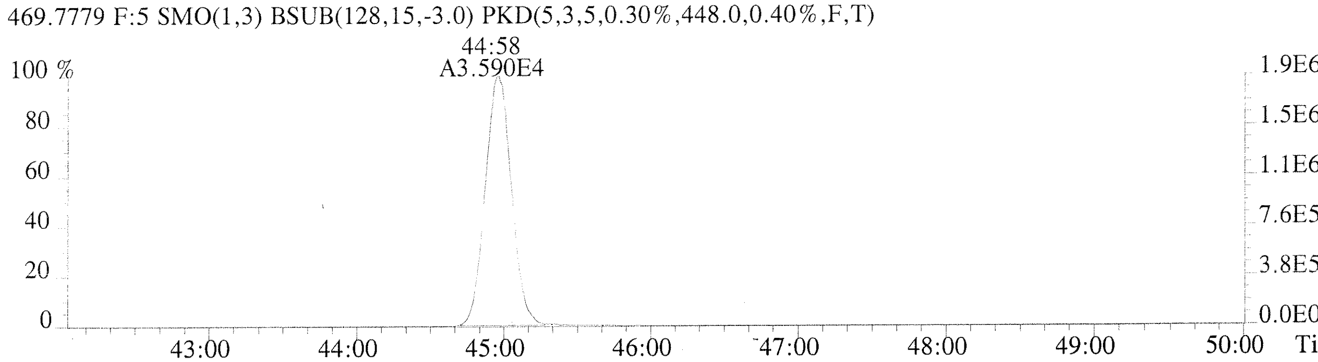
File: 8239 #1-732 Acq: 6-JUL-2012 13:44:34 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:)0584-003 240
457.7377 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(5,3,5,0.30%,304.0,0.40%,F,T)



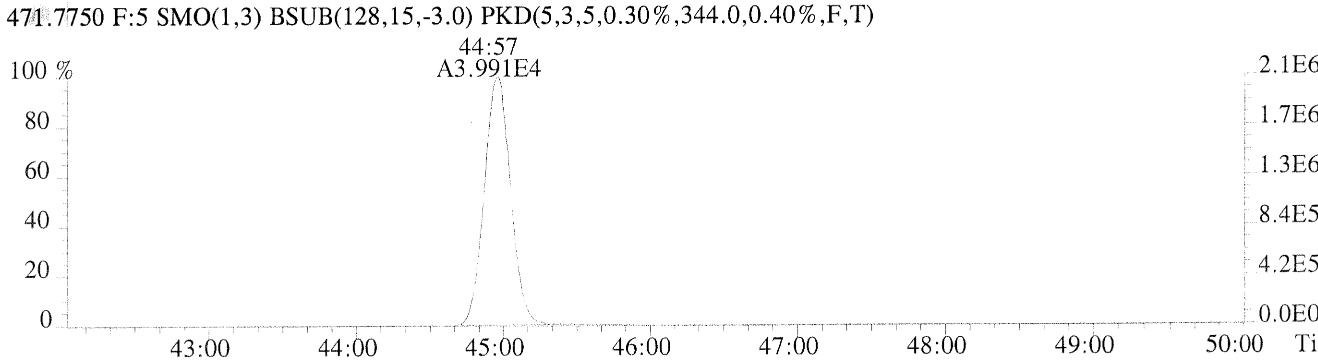
459.7348 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(5,3,5,0.30%,396.0,0.40%,F,T)



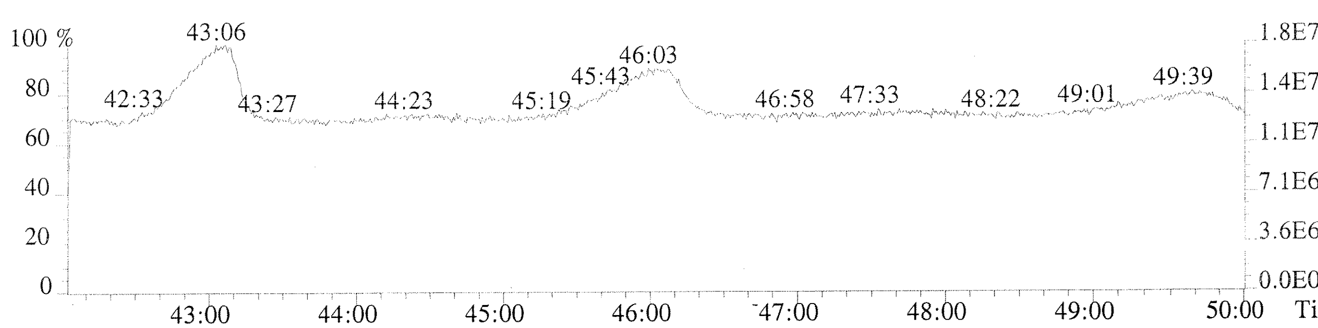
469.7779 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(5,3,5,0.30%,448.0,0.40%,F,T)



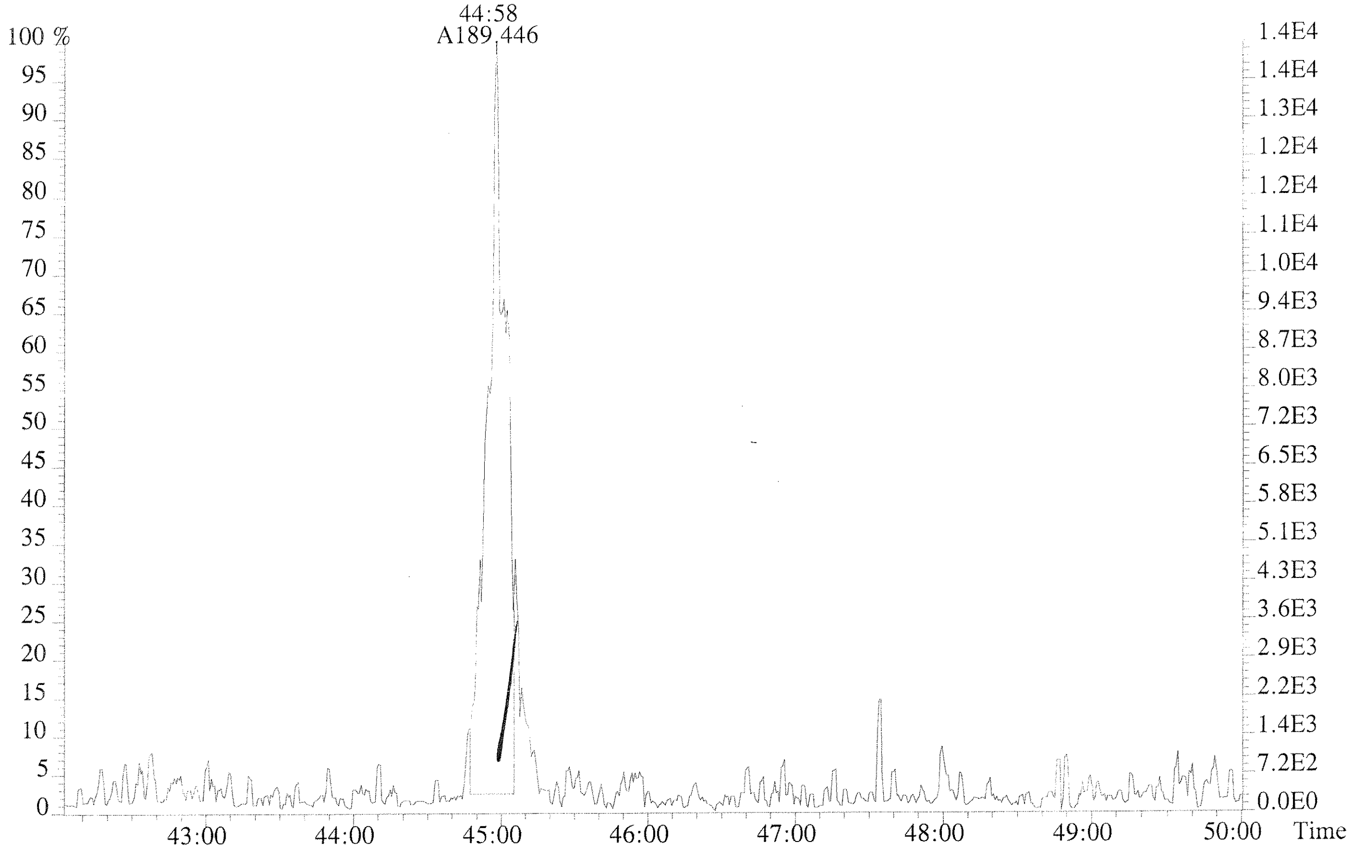
471.7750 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(5,3,5,0.30%,344.0,0.40%,F,T)



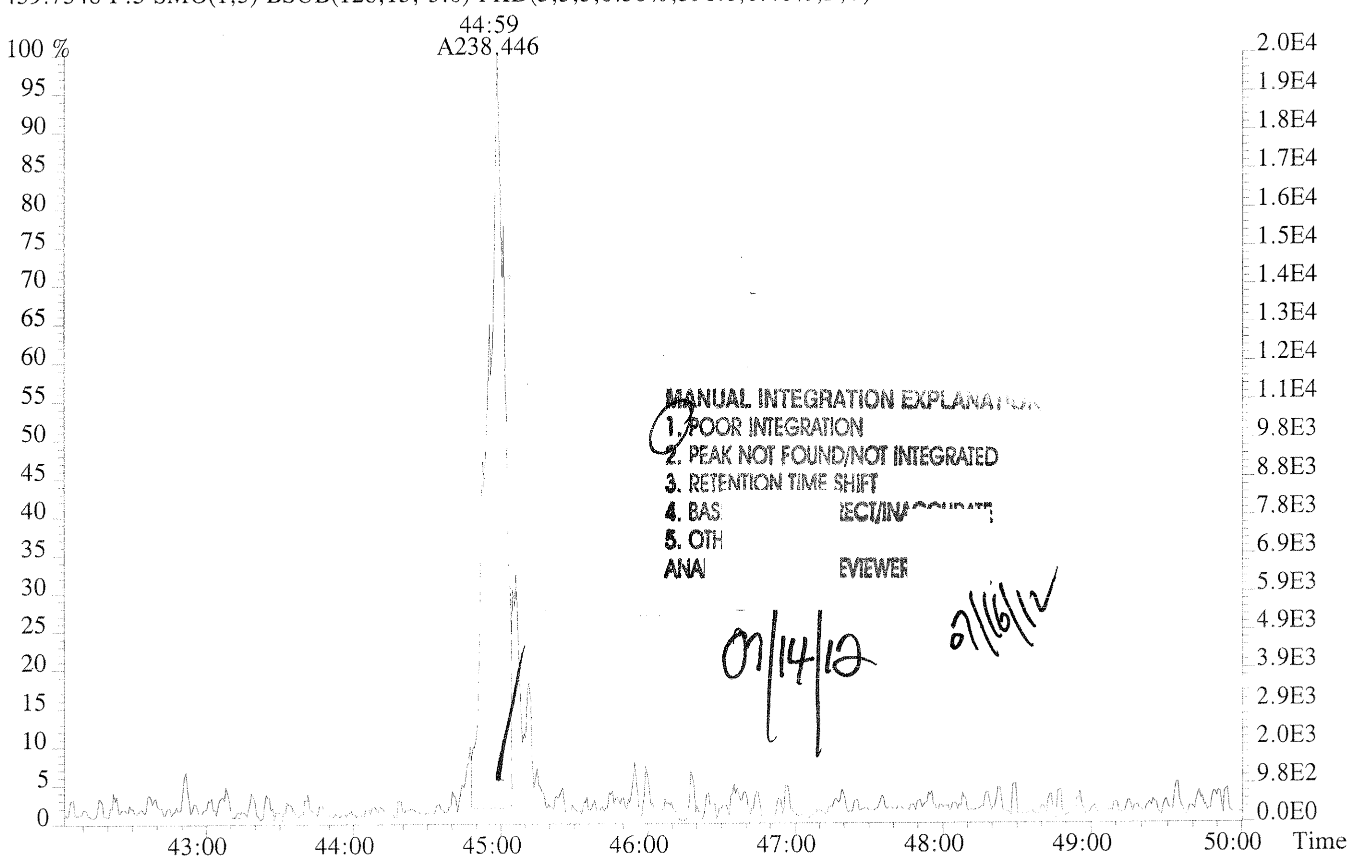
442.9728 F:5 PKD(3,3,3,100.00%,0.0,0.40%,F,F)



File 8239 #1-732 Acq: 6-JUL-2012 13:44:34 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:)0584-003 240
457.7377 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(5,3,5,0.30%,304.0,0.40%,F,T)



459.7348 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(5,3,5,0.30%,396.0,0.40%,F,T)



MANUAL INTEGRATION EXPLANAT
1. POOR INTEGRATION
2. PEAK NOT FOUND/NOT INTEGRATED
3. RETENTION TIME SHIFT
4. BAS ECT/INA
5. OTH
ANA EVIEWER

07/14/12 07/16/12

2DF - FORM II-HR CDD
CDD/CDF TOTAL HOMOLOGUE CONCENTRATION SUMMARY
HIGH RESOLUTION

EPA Sample No. 193

Lab Name: ______________ Contract: ______________
Lab Code: ___ Case No.: ___ TO No.: ___ SDG No.: 193
Matrix: (Soil/Water/Ash/Tissue/Oil) Soil
Lab Sample ID: 00584-001
Sample wt/vol: 30.272 (g/mL) g
Lab File ID: 8294
Water Sample Prep: ______ (SEPF/SPE)
Date Received: 05/10/2012
Concentrated Extract Volume: 20 (uL)
Date Extracted: 06/12/2012
Injection Volume: 1 (uL) % Solids/Lipids: ______
Date Analyzed: 06/19/2012
GC Column: DB-5 ID: 0.25 (mm)
Dilution Factor: 1
Instrument ID: E-HRMS-03

Concentration Units: (pg/L or ng/kg) ng/Kg

Homologue	Peaks	Concentration	Q	EMPC/EDL
Dioxins				
Total Tetra-Dioxins	5	15.7		
Total Penta-Dioxins	9	14.7		
Total Hexa-Dioxins	9	69.5		
Total Hepta-Dioxins	2	312		
Furans				
Total Tetra-Furans	16	68.4		
Total Penta-Furans	14	43.8		
Total Hexa-Furans	9	41.8		
Total Hepta-Furans	3	81.2		

2DF - FORM II-HR CDD
CDD/CDF TOTAL HOMOLOGUE CONCENTRATION SUMMARY
HIGH RESOLUTION

EPA Sample No. 238

Lab Name: ____________ Contract: ____________
Lab Code: ____ Case No.: ____ TO No.: ____ SDG No.: 193
Matrix: (Soil/Water/Ash/Tissue/Oil) Water
Lab Sample ID: 00584-002
Sample wt/vol: 1040 (g/mL) mL
Lab File ID: 8238
Water Sample Prep: ____________ (SEPF/SPE)
Date Received: 05/10/2012
Concentrated Extract Volume: 20 (uL)
Date Extracted: 06/06/2012
Injection Volume: 1 (uL) % Solids/Lipids: ____
Date Analyzed: 07/06/2012
GC Column: DB-5 ID: 0.25 (mm)
Dilution Factor: 1
Instrument ID: E-HRMS-04

Concentration Units: (pg/L or ng/kg) pg/L

Homologue	Peaks	Concentration	Q	EMPC/EDL
Dioxins				
Total Tetra-Dioxins			U	0.426
Total Penta-Dioxins			U	0.238
Total Hexa-Dioxins			U	0.274
Total Hepta-Dioxins	1	5.70	J	

Homologue	Peaks	Concentration	Q	EMPC/EDL
Furans				
Total Tetra-Furans			U	0.325
Total Penta-Furans			U	0.349
Total Hexa-Furans	1	0.835	J	
Total Hepta-Furans	2	5.78	J	

2DF - FORM II-HR CDD
CDD/CDF TOTAL HOMOLOGUE CONCENTRATION SUMMARY
HIGH RESOLUTION

EPA Sample No.

240

Lab Name: ____________ Contract: ____________

Lab Code: ___ Case No.: ___ TO No.: ___ SDG No.: 193

Matrix: (Soil/Water/Ash/Tissue/Oil) Water
Lab Sample ID: 00584-003

Sample wt/vol: 1040 (g/mL) mL
Lab File ID: 8239

Water Sample Prep: ____________ (SEPF/SPE)
Date Received: 05/11/2012

Concentrated Extract Volume: 20 (uL)
Date Extracted: 06/06/2012

Injection Volume: 1 (uL) % Solids/Lipids: ______
Date Analyzed: 07/06/2012

GC Column: DB-5 ID: 0.25 (mm)
Dilution Factor: 1

Instrument ID: E-HRMS-04

Concentration Units: (pg/L or ng/kg) pg/L

Homologue	Peaks	Concentration	Q	EMPC/EDL
Dioxins				
Total Tetra-Dioxins			U	0.416
Total Penta-Dioxins			U	0.348
Total Hexa-Dioxins			U	0.281
Total Hepta-Dioxins	2	5.92	J	
Furans				
Total Tetra-Furans			U	0.377
Total Penta-Furans			U	0.389
Total Hexa-Furans	1	0.689	J	
Total Hepta-Furans			U	0.558

3DFA - FORM III-HR CDD
CDD/CDF LAB CONTROL SAMPLE SUMMARY
HIGH RESOLUTION

EPA Sample No.: DLCS

Lab Name: ______ ______ Contract: ______ 0W001071

Lab Code: ___ ___ Case No.: ______ ______ TO No.: ___ ___ SDG No.: ___ 193

Matrix: (Soil/Water/Ash/Tissue/Oil) Water Lab Sample ID: ______ 00313-02

Sample wt/vol: 1000 (g/mL) mL Lab File ID: ______ 8232

Water Sample Prep: ______ (SEPF/SPE) Date Received: ______

Concentrated Extract Volume: 20 (uL) Date Extracted: 06/06/2012

Injection Volume: 1 (uL) Date Analyzed: 07/06/2012

GC Column: DB-5 ID: 0.25 (mm) Dilution Factor: 1.0

Instrument ID: E-HRMS-04

Concentration Units: (pg/L or ng/kg) pg/L

Spike Analyte	Spike Added	Amount Recovered	Percent Recovery	#	QC Limits
2,3,7,8-TCDD	200	222	111		67-158
1,2,3,7,8-PeCDD	1000	1120	112		70-142
1,2,3,4,7,8-HxCDD	1000	1040	104		70-164
1,2,3,6,7,8-HxCDD	1000	1100	110		76-134
1,2,3,7,8,9-HxCDD	1000	1070	107		64-162
1,2,3,4,6,7,8-HpCDD	1000	1060	106		70-140
OCDD	2000	1990	99		78-144
2,3,7,8-TCDF	200	236	118		75-158
1,2,3,7,8-PeCDF	1000	1130	113		80-134
2,3,4,7,8-PeCDF	1000	1190	119		68-160
1,2,3,4,7,8-HxCDF	1000	1170	117		72-134
1,2,3,6,7,8-HxCDF	1000	1070	107		84-130
1,2,3,7,8,9-HxCDF	1000	1070	107		78-130
2,3,4,6,7,8-HxCDF	1000	1040	104		70-156
1,2,3,4,6,7,8-HpCDF	1000	1110	111		82-122
1,2,3,4,7,8,9-HpCDF	1000	1000	100		78-138
OCDF	2000	2010	100		63-170

Column to be used to flag values outside Quality Control (QC) limits.
Laboratory Control Sample Recovery: 0 Outside limits out of 17 total.

3DFA - FORM III-HR CDD
CDD/CDF LAB CONTROL SAMPLE SUMMARY
HIGH RESOLUTION

EPA Sample No.: DLCS

Lab Name: ______ Contract: W001071
Lab Code: ______ Case No.: ______ TO No.: ______ SDG No.: 193
Matrix: (Soil/Water/Ash/Tissue/Oil) Water Lab Sample ID: 00313-03
Sample wt/vol: 1000 (g/mL) mL Lab File ID: 8233
Water Sample Prep: ______ (SEPF/SPE) Date Received: ______
Concentrated Extract Volume: 20 (uL) Date Extracted: 06/06/2012
Injection Volume: 1 (uL) Date Analyzed: 07/06/2012
GC Column: DB-5 ID: 0.25 (mm) Dilution Factor: 1.0
Instrument ID: E-HRMS-04

Concentration Units: (pg/L or ng/kg) pg/L

Spike Analyte	Spike Added	Amount Recovered	Percent Recovery	#	QC Limits
2,3,7,8-TCDD	200	225	113		67-158
1,2,3,7,8-PeCDD	1000	1090	109		70-142
1,2,3,4,7,8-HxCDD	1000	1000	100		70-164
1,2,3,6,7,8-HxCDD	1000	1080	108		76-134
1,2,3,7,8,9-HxCDD	1000	1080	108		64-162
1,2,3,4,6,7,8-HpCDD	1000	1020	102		70-140
OCDD	2000	1960	98		78-144
2,3,7,8-TCDF	200	236	118		75-158
1,2,3,7,8-PeCDF	1000	1090	109		80-134
2,3,4,7,8-PeCDF	1000	1150	115		68-160
1,2,3,4,7,8-HxCDF	1000	1100	110		72-134
1,2,3,6,7,8-HxCDF	1000	1050	105		84-130
1,2,3,7,8,9-HxCDF	1000	1050	105		78-130
2,3,4,6,7,8-HxCDF	1000	1010	101		70-156
1,2,3,4,6,7,8-HpCDF	1000	1200	120		82-122
1,2,3,4,7,8,9-HpCDF	1000	990	99		78-138
OCDF	2000	1860	93		63-170

Column to be used to flag values outside Quality Control (QC) limits.
Laboratory Control Sample Recovery: 0 Outside limits out of 17 total.

4DF - FORM IV-HR CDD
CDD/CDF METHOD BLANK SUMMARY
HIGH RESOLUTION

EPA Sample No.: DFBLK

Lab Name: ____________ ____________ Contract: ____________ ____________
Lab Code: ___ ___ Case No.: ________ ________ TO No.: ___ ___ SDG No.: ___ 193
Matrix: (Soil/Water/Ash/Tissue/Oil) Soil
Lab Sample ID: 00341-01
Sample wt/vol: 10.554 (g/mL) g
Lab File ID: 8291
Water Sample Prep: ____________ (SEPF/SPE)
Date Received: ____________
GC Column: DB-5 ID: 0.25 (mm)
Date Extracted: 06/12/2012
Instrument ID: E-HRMS-03
Date Analyzed: 06/19/2012

EPA Sample No.	Lab Sample ID	Lab File ID	Date Analyzed
DFBLK	00341-01	8291	06/19/2012
DLCS	00341-02	8292	06/19/2012
DLCS	00341-03	8293	06/19/2012
193	00584-001	8294	06/19/2012

3DFA - FORM III-HR CDD
CDD/CDF LAB CONTROL SAMPLE SUMMARY
HIGH RESOLUTION

EPA Sample No.: DLCS

Lab Name: ______ Contract: ______
Lab Code: ___ Case No.: ______ TO No.: ___ SDG No.: 193
Matrix: (Soil/Water/Ash/Tissue/Oil) Soil
Lab Sample ID: 00341-02
Sample wt/vol: 10.692 (g/mL) g
Lab File ID: 8292
Water Sample Prep: ______ (SEPF/SPE)
Date Received: ______
Concentrated Extract Volume: 20 (uL)
Date Extracted: 06/12/2012
Injection Volume: 1 (uL)
Date Analyzed: 06/19/2012
GC Column: DB-5 ID: 0.25 (mm)
Dilution Factor: 1.0
Instrument ID: E-HRMS-03

Concentration Units: (pg/L or ng/kg) ng/Kg

Spike Analyte	Spike Added	Amount Recovered	Percent Recovery	#	QC Limits
2,3,7,8-TCDD	18.7	20.8	111		67-158
1,2,3,7,8-PeCDD	93.5	104	111		70-142
1,2,3,4,7,8-HxCDD	93.5	95.5	102		70-164
1,2,3,6,7,8-HxCDD	93.5	101	108		76-134
1,2,3,7,8,9-HxCDD	93.5	99.5	106		64-162
1,2,3,4,6,7,8-HpCDD	93.5	95.1	102		70-140
OCDD	187	198	106		78-144
2,3,7,8-TCDF	18.7	19.7	106		75-158
1,2,3,7,8-PeCDF	93.5	98.3	105		80-134
2,3,4,7,8-PeCDF	93.5	103	110		68-160
1,2,3,4,7,8-HxCDF	93.5	106	113		72-134
1,2,3,6,7,8-HxCDF	93.5	100	107		84-130
1,2,3,7,8,9-HxCDF	93.5	99.6	106		78-130
2,3,4,6,7,8-HxCDF	93.5	96.2	103		70-156
1,2,3,4,6,7,8-HpCDF	93.5	101	108		82-122
1,2,3,4,7,8,9-HpCDF	93.5	95.2	102		78-138
OCDF	187	213	114		63-170

Column to be used to flag values outside Quality Control (QC) limits.
Laboratory Control Sample Recovery: 0 Outside limits out of 17 total.

3DFA - FORM III-HR CDD
CDD/CDF LAB CONTROL SAMPLE SUMMARY
HIGH RESOLUTION

EPA Sample No.: DLCS

Lab Name: ______ Contract: ______
Lab Code: ___ Case No.: ______ TO No.: ___ SDG No.: 193
Matrix: (Soil/Water/Ash/Tissue/Oil) Soil
Lab Sample ID: 00341-03
Sample wt/vol: 11.376 (g/mL) g
Lab File ID: 8293
Water Sample Prep: ______ (SEPF/SPE)
Date Received: ______
Concentrated Extract Volume: 20 (uL)
Date Extracted: 06/12/2012
Injection Volume: 1 (uL)
Date Analyzed: 06/19/2012
GC Column: DB-5 ID: 0.25 (mm)
Dilution Factor: 1.0
Instrument ID: E-HRMS-03

Concentration Units: (pg/L or ng/kg) ng/Kg

Spike Analyte	Spike Added	Amount Recovered	Percent Recovery	#	QC Limits
2,3,7,8-TCDD	17.6	19.0	108		67-158
1,2,3,7,8-PeCDD	87.9	97.0	110		70-142
1,2,3,4,7,8-HxCDD	87.9	88.6	101		70-164
1,2,3,6,7,8-HxCDD	87.9	93.7	107		76-134
1,2,3,7,8,9-HxCDD	87.9	90.1	102		64-162
1,2,3,4,6,7,8-HpCDD	87.9	90.5	103		70-140
OCDD	176	183	104		78-144
2,3,7,8-TCDF	17.6	18.4	104		75-158
1,2,3,7,8-PeCDF	87.9	93.1	106		80-134
2,3,4,7,8-PeCDF	87.9	96.6	110		68-160
1,2,3,4,7,8-HxCDF	87.9	99.0	113		72-134
1,2,3,6,7,8-HxCDF	87.9	95.7	109		84-130
1,2,3,7,8,9-HxCDF	87.9	93.0	106		78-130
2,3,4,6,7,8-HxCDF	87.9	90.9	103		70-156
1,2,3,4,6,7,8-HpCDF	87.9	95.3	108		82-122
1,2,3,4,7,8,9-HpCDF	87.9	88.6	101		78-138
OCDF	176	196	112		63-170

Column to be used to flag values outside Quality Control (QC) limits.
Laboratory Control Sample Recovery: 0 Outside limits out of 17 total.

4DF - FORM IV-HR CDD
CDD/CDF METHOD BLANK SUMMARY
HIGH RESOLUTION

EPA Sample No.: DFBLK

Lab Name: ______ Contract: ______

Lab Code: ______ Case No.: ______ TO No.: ______ SDG No.: 193

Matrix: (Soil/Water/Ash/Tissue/Oil) Water Lab Sample ID: 00313-01

Sample wt/vol: 1000 (g/mL) mL Lab File ID: 8236

Water Sample Prep: ______ (SEPF/SPE) Date Received: ______

GC Column: DB-5 ID: 0.25 (mm) Date Extracted: 06/06/2012

Instrument ID: E-HRMS-04 Date Analyzed: 07/06/2012

EPA Sample No.	Lab Sample ID	Lab File ID	Date Analyzed
DFBLK	00313-01	8236	07/06/2012
DLCS	00313-02	8232	07/06/2012
DLCS	00313-03	8233	07/06/2012
ZZZZZ	00360-02	8234	07/06/2012
ZZZZZ	00360-03	8235	07/06/2012
ZZZZZ	00360-01	8237	07/06/2012
238	00584-002	8238	07/06/2012
240	00584-003	8239	07/06/2012

3DFA - FORM III-HR CDD
CDD/CDF LAB CONTROL SAMPLE SUMMARY
HIGH RESOLUTION

EPA Sample No.: DLCS

Lab Name: ______ Contract: 0W001071
Lab Code: ______ Case No.: ______ TO No.: ______ SDG No.: 193
Matrix: (Soil/Water/Ash/Tissue/Oil) Water
Lab Sample ID: 00313-02
Sample wt/vol: 1000 (g/mL) mL
Lab File ID: 8232
Water Sample Prep: ______ (SEPF/SPE)
Date Received: ______
Concentrated Extract Volume: 20 (uL)
Date Extracted: 06/06/2012
Injection Volume: 1 (uL)
Date Analyzed: 07/06/2012
GC Column: DB-5 ID: 0.25 (mm)
Dilution Factor: 1.0
Instrument ID: E-HRMS-04

Concentration Units: (pg/L or ng/kg) pg/L

Spike Analyte	Spike Added	Amount Recovered	Percent Recovery	#	QC Limits
2,3,7,8-TCDD	200	222	111		67-158
1,2,3,7,8-PeCDD	1000	1120	112		70-142
1,2,3,4,7,8-HxCDD	1000	1040	104		70-164
1,2,3,6,7,8-HxCDD	1000	1100	110		76-134
1,2,3,7,8,9-HxCDD	1000	1070	107		64-162
1,2,3,4,6,7,8-HpCDD	1000	1060	106		70-140
OCDD	2000	1990	99		78-144
2,3,7,8-TCDF	200	236	118		75-158
1,2,3,7,8-PeCDF	1000	1130	113		80-134
2,3,4,7,8-PeCDF	1000	1190	119		68-160
1,2,3,4,7,8-HxCDF	1000	1170	117		72-134
1,2,3,6,7,8-HxCDF	1000	1070	107		84-130
1,2,3,7,8,9-HxCDF	1000	1070	107		78-130
2,3,4,6,7,8-HxCDF	1000	1040	104		70-156
1,2,3,4,6,7,8-HpCDF	1000	1110	111		82-122
1,2,3,4,7,8,9-HpCDF	1000	1000	100		78-138
OCDF	2000	2010	100		63-170

Column to be used to flag values outside Quality Control (QC) limits.
Laboratory Control Sample Recovery: 0 Outside limits out of 17 total.

3DFA - FORM III-HR CDD
CDD/CDF LAB CONTROL SAMPLE SUMMARY
HIGH RESOLUTION

EPA Sample No.: DLCS

Lab Name: ____ Contract: ____
Lab Code: ____ Case No.: ____ TO No.: ____ SDG No.: 193
Matrix: (Soil/Water/Ash/Tissue/Oil) Water Lab Sample ID: 00313-03
Sample wt/vol: 1000 (g/mL) mL Lab File ID: 8233
Water Sample Prep: ____ (SEPF/SPE) Date Received: ____
Concentrated Extract Volume: 20 (uL) Date Extracted: 06/06/2012
Injection Volume: 1 (uL) Date Analyzed: 07/06/2012
GC Column: DB-5 ID: 0.25 (mm) Dilution Factor: 1.0
Instrument ID: E-HRMS-04

Concentration Units: (pg/L or ng/kg) pg/L

Spike Analyte	Spike Added	Amount Recovered	Percent Recovery	#	QC Limits
2,3,7,8-TCDD	200	225	113		67-158
1,2,3,7,8-PeCDD	1000	1090	109		70-142
1,2,3,4,7,8-HxCDD	1000	1000	100		70-164
1,2,3,6,7,8-HxCDD	1000	1080	108		76-134
1,2,3,7,8,9-HxCDD	1000	1080	108		64-162
1,2,3,4,6,7,8-HpCDD	1000	1020	102		70-140
OCDD	2000	1960	98		78-144
2,3,7,8-TCDF	200	236	118		75-158
1,2,3,7,8-PeCDF	1000	1090	109		80-134
2,3,4,7,8-PeCDF	1000	1150	115		68-160
1,2,3,4,7,8-HxCDF	1000	1100	110		72-134
1,2,3,6,7,8-HxCDF	1000	1050	105		84-130
1,2,3,7,8,9-HxCDF	1000	1050	105		78-130
2,3,4,6,7,8-HxCDF	1000	1010	101		70-156
1,2,3,4,6,7,8-HpCDF	1000	1200	120		82-122
1,2,3,4,7,8,9-HpCDF	1000	990	99		78-138
OCDF	2000	1860	93		63-170

Column to be used to flag values outside Quality Control (QC) limits.
Laboratory Control Sample Recovery: 0 Outside limits out of 17 total.

4DF - FORM IV-HR CDD
CDD/CDF METHOD BLANK SUMMARY
HIGH RESOLUTION

EPA Sample No.: DFBLK

Lab Name: ____________________ Contract: W001071

Lab Code: ______ Case No.: ______ TO No.: ______ SDG No.: 193

Matrix: (Soil/Water/Ash/Tissue/Oil) Soil

Lab Sample ID: 00341-01

Sample wt/vol: 10.554 (g/mL) g

Lab File ID: 8291

Water Sample Prep: ______ (SEPF/SPE)

Date Received: ______

GC Column: DB-5 ID: 0.25 (mm)

Date Extracted: 06/12/2012

Instrument ID: E-HRMS-03

Date Analyzed: 06/19/2012

EPA Sample No.	Lab Sample ID	Lab File ID	Date Analyzed
DFBLK	00341-01	8291	06/19/2012
DLCS	00341-02	8292	06/19/2012
DLCS	00341-03	8293	06/19/2012
193	00584-001	8294	06/19/2012

5DFA

WINDOW DEFINING MIX SUMMARY

CLIENT ID:

WDM

Lab Name: Contract No:
Lab Code: Case No.: TO No: SDG No: 193
GC Column: DB-5 ID: 0.25 (mm) Lab File ID: 8289
Date Analyzed: 19-JUN-2012
Time Analyzed: 07:55:52

Congener	Retention Time First Eluting	Retention Time Last Eluting
TCDF	24:16	30:21
TCDD	26:04	30:21
PeCDF	30:39	34:32
PeCDD	32:01	34:23
HxCDF	35:26	37:45
HxCDD	35:56	37:26
HpCDF	39:08	40:25
HpCDD	39:23	40:02

% Valley 2378-TCDD: 5 %

5DFA

WINDOW DEFINING MIX SUMMARY

CLIENT ID:

WDM

Lab Name: Contract No:

Lab Code: Case No.: TO No.: SDG No.: 193

GC Column: DB-5 ID: 0.25 (mm) Lab File ID: 8296

Date Analyzed: 19-JUN-2012

Time Analyzed: 17:41:15

Congener	Retention Time First Eluting	Retention Time Last Eluting
TCDF	24:17	30:22
TCDD	26:05	30:21
PeCDF	30:39	34:32
PeCDD	32:02	34:23
HxCDF	35:26	37:46
HxCDD	35:56	37:26
HpCDF	39:08	40:25
HpCDD	39:23	40:02

% Valley 2378-TCDD: 3 %

5DFA

WINDOW DEFINING MIX SUMMARY

CLIENT ID:

WDM

Lab Name: Contract No.:
Lab Code: Case No.: To No.: Sdg No.: 193
Gc Column: Db-5 Id: 0.25 (Mm) Lab File ID: 8230
Date Analyzed: 6-JUL-2012
Time Analyzed: 05:14:35

Congener	Retention Time First Eluting	Retention Time Last Eluting
TCDF	24:03	30:16
TCDD	25:51	30:15
PeCDF	30:33	34:37
PeCDD	31:59	34:28
HxCDF	35:35	38:13
HxCDD	36:10	37:52
HpCDF	39:54	41:29
HpCDD	40:15	41:03

% Valley 2378-TCDD: 6 %

WINDOW DEFINING MIX SUMMARY

CLIENT ID:

WDM

Lab Name: Contract No.:
Lab Code: Case No.: TO No.: SDG No.: 193
GC Column: DB-5 ID: 0.25 (mm) Lab File ID: 8241
Date Analyzed: 6-JUL-2012
Time Analyzed: 15:36:26

Congener	Retention Time First Eluting	Retention Time Last Eluting
TCDF	24:02	30:14
TCDD	25:50	30:14
PeCDF	30:33	34:37
PeCDD	31:59	34:28
HxCDF	35:36	38:13
HxCDD	36:10	37:53
HpCDF	39:54	41:27
HpCDD	40:15	41:02

% Valley 2378-TCDD: 4 %

5DFA

WINDOW DEFINING MIX SUMMARY

CLIENT ID:

WDM

Lab Name: Contract No.:
Lab Code: Case No.: TO No.: SDG No.: 193
GC Column: DB-5 ID: 0.25 (mm) Lab File ID: 8342
Date Analyzed: 12-JUL-2012
Time Analyzed: 05:31:22

Congener	Retention Time First Eluting	Retention Time Last Eluting
TCDF	24:03	30:16
TCDD	25:52	30:15
PeCDF	30:34	34:38
PeCDD	32:00	34:30
HxCDF	35:37	38:19
HxCDD	36:12	37:58
HpCDF	40:03	41:41
HpCDD	40:26	41:16

% Valley 2378-TCDD: 7 %

5DFA

WINDOW DEFINING MIX SUMMARY

CLIENT ID:

WDM

Lab Name: Contract No.:

Lab Code: Case No.: TO No.: SDG No.: 193

GC Column: DB-5 ID: 0.25 (mm) Lab File ID: 8349

Date Analyzed: 12-JUL-2012

Time Analyzed: 16:15:34

Congener	Retention Time First Eluting	Retention Time Last Eluting
TCDF	28:10	
TCDD	29:04	
PeCDF	32:48	33:36
PeCDD	33:59	
HxCDF	36:44	36:51
HxCDD	37:36	37:42
HpCDF	40:04	41:41
HpCDD	41:16	

% Valley 2378-TCDD: 0 %

5DFC - FORM V-HR CDD-3 CDD/CDF
ANALYTICAL SEQUENCE SUMMARY
HIGH RESOLUTION

Lab Name: Contract:

Lab Code: Case No.: TO No.: SDG No.: 193

GC Column: DB-5 ID: 0.25 (mm) Instrument ID: E-HMS-04

Init. Calib. Date(s): 05/03/2012

Initial Calib. Times: 05:17am

The Analytical Sequence of standards, samples, blanks, and Laboratory Control Samples(LCSs) is as follows:

EPA SampleNo.	Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed
Window Define		8230	6-JUL-12	05:14:35
CCAL CS3		8231	6-JUL-12	06:10:10
DLCS-	00313-01	8232	6-JUL-12	07:18:59
DLCS-	00313-02	8233	6-JUL-12	08:09:46
XXXXXXXXX	XXXXXXXXXX	8234	6-JUL-12	09:00:56
XXXXXXXXX	XXXXXXXXXX	8235	6-JUL-12	09:52:12
DFBLK-	00313-01	8236	6-JUL-12	11:11:40
XXXXXXXXX	XXXXXXXXXX	8237	6-JUL-12	12:02:09
238	00584-002	8238	6-JUL-12	12:53:25
240	00584-003	8239	6-JUL-12	13:44:34
CCAL CS3		8240	6-JUL-12	14:38:40

5DFC - FORM V-HR CDD-3 CDD/CDF
ANALYTICAL SEQUENCE SUMMARY
HIGH RESOLUTION

Lab Name: Contract:

Lab Code: Case No.: TO No.: SDG No.: 193

GC Column: DB-5 ID: 0.25 (mm) Instrument ID: E-HMS-04

Init. Calib. Date(s): 05/03/2012

Initial Calib. Times: 05:17am

The Analytical Sequence of standards, samples, blanks, and Laboratory Control Samples(LCSs) is as follows:

EPA SampleNo.	Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed
Window Define		8230	6-JUL-12	05:14:35
CCAL CS3		8231	6-JUL-12	06:10:10
DLCS-	00313-01	8232	6-JUL-12	07:18:59
DLCS-	00313-02	8233	6-JUL-12	08:09:46
XXXXXXXXX	XXXXXXXXXX	8234	6-JUL-12	09:00:56
XXXXXXXXX	XXXXXXXXXX	8235	6-JUL-12	09:52:12
DFBLK-	00313-01	8236	6-JUL-12	11:11:40
XXXXXXXXX	XXXXXXXXXX	8237	6-JUL-12	12:02:09
238	00584-002	8238	6-JUL-12	12:53:25
240	00584-003	8239	6-JUL-12	13:44:34
CCAL CS3		8240	6-JUL-12	14:38:40

5DFC - FORM V-HR CDD-3 CDD/CDF
ANALYTICAL SEQUENCE SUMMARY
HIGH RESOLUTION

Lab Name: Contract:

Lab Code: Case No.: TO No.: SDG No.: 193

GC Column: DB-5 ID: 0.25 (mm) Instrument ID: E-HMS-04

Init. Calib. Date(s): 05/03/2011

Initial Calib. Times: 05:17am

The Analytical Sequence of standards, samples, blanks, and Laboratory Control Samples(LCSs) is as follows:

EPA SampleNo.	Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed
COL. PERFORM		8342	12-JUL-12	06:41:55
CCAL CS3	-83-1	8344	12-JUL-12	07:20:49
INST BLANK	INST BLANK	7977	12-JUL-12	08:13:02
193	00584-001RE	7979	12-JUL-12	08:44:39
XXXXXXX	XXXXXXX	7980	12-JUL-12	09:19:02
XXXXXXX	XXXXXXX	7981	12-JUL-12	09:53:24
XXXXXXX	XXXXXXX	7982	12-JUL-12	10:27:46
XXXXXXX	XXXXXXX	7983	12-JUL-12	11:02:09
XXXXXXX	XXXXXXX	7984	12-JUL-12	11:36:31
XXXXXXX	XXXXXXX	7985	12-JUL-12	12:10:54
XXXXXXX	XXXXXXX	7986	12-JUL-12	12:45:19
XXXXXXX	XXXXXXX	7987	12-JUL-12	13:19:42
XXXXXXX	XXXXXXX	7988	12-JUL-12	14:04:24
XXXXXXX	XXXXXXX	7989	12-JUL-12	14:35:06
CCAL CS3	-83-1	7990	12-JUL-12	15:14:58
COL. PERFORM		7991	12-JUL-12	16:23:09

USEPA -
6DFA6
CDD/CDF INITIAL CALIBRATION RESPONSE FACTOR SUMMARY
HIGH RESOLUTION

Lab Name: - Contract No.:
Lab Code: Case No.: TO No.: SDG No.: 193
GC Column: DB-5 ID: 0.25(mm) Instrument ID: E-HRMS-03
Init. Calib. Date(s).: 04/23/12
Init. Calib. Time.: 05:13

	RR/RRF							MEAN	
Target Analytes	CS0.5	CS1	CS2	CS3	CS4	CS5	RR/RRF	%RSD	QC LIMITS
2,3,7,8-TCDD	0.92	0.99	0.99	0.96	1.01	1.01	0.98	3.29	+/-20%
2,3,7,8-TCDF	0.93	0.94	0.93	0.91	0.93	0.93	0.93	0.96	+/-20%
1,2,3,7,8-PeCDF	0.96	1.02	1.02	0.93	1.04	1.04	1.00	4.37	+/-20%
1,2,3,7,8-PeCDD	0.85	0.92	0.91	0.92	0.94	0.94	0.91	3.60	+/-20%
2,3,4,7,8-PeCDF	0.90	0.96	0.96	1.00	0.97	0.98	0.96	3.40	+/-20%
1,2,3,4,7,8-HxCDF	1.16	1.26	1.26	1.19	1.25	1.21	1.22	3.41	+/-20%
1,2,3,6,7,8-HxCDF	1.09	1.14	1.16	1.15	1.15	1.14	1.14	2.08	+/-20%
1,2,3,4,7,8-HxCDD	0.93	0.99	1.02	1.06	1.01	1.00	1.00	4.40	+/-20%
1,2,3,6,7,8-HxCDD	0.95	1.03	1.01	0.88	1.01	1.00	0.98	5.84	+/-20%
1,2,3,7,8,9-HxCDD	1.01	1.05	1.04	1.04	1.05	1.05	1.04	1.62	+/-20%
2,3,4,6,7,8-HxCDF	1.09	1.18	1.16	1.12	1.16	1.12	1.14	3.13	+/-20%
1,2,3,7,8,9-HxCDF	1.13	1.20	1.18	1.13	1.19	1.16	1.16	2.56	+/-20%
1,2,3,4,6,7,8-HpCDF	1.33	1.44	1.41	1.34	1.43	1.41	1.39	3.46	+/-20%
1,2,3,4,6,7,8-HpCDD	0.95	1.02	1.02	0.97	1.03	1.02	1.00	3.14	+/-20%
1,2,3,4,7,8,9-HpCDF	1.28	1.34	1.33	1.37	1.36	1.34	1.33	2.38	+/-20%
OCDD	1.00	1.08	1.06	0.99	1.09	1.11	1.05	4.75	+/-20%
OCDF	1.19	1.23	1.24	1.09	1.29	1.32	1.23	6.52	+/-20%
Labeled Compounds									
13C-2,3,7,8-TCDD	1.05	0.99	0.98	0.99	0.98	1.02	1.00	2.93	+/-35%
13C-1,2,3,7,8-PeCDD	0.81	0.78	0.76	0.82	0.87	0.87	0.82	5.66	+/-35%
13C-1,2,3,4,7,8-HxCDD	0.92	0.96	0.95	0.92	0.93	0.91	0.93	1.94	+/-35%
13C-1,2,3,6,7,8-HxCDD	0.93	0.93	0.93	1.01	0.92	0.91	0.94	3.63	+/-35%
13C-1,2,3,4,6,7,8-HpCDD	0.78	0.81	0.81	0.86	0.82	0.82	0.82	2.99	+/-35%
13C-OCDD	0.53	0.58	0.57	0.67	0.60	0.62	0.59	7.92	+/-35%
13C-2,3,7,8-TCDF	1.28	1.28	1.28	1.27	1.27	1.31	1.28	1.23	+/-35%
13C-1,2,3,7,8-PeCDF	1.08	1.03	1.02	1.12	1.16	1.19	1.10	6.11	+/-35%
13C-2,3,4,7,8-PeCDF	1.06	0.99	1.00	1.04	1.14	1.15	1.07	6.38	+/-35%
13C-1,2,3,4,7,8-HxCDF	1.05	1.05	1.07	1.10	1.05	1.05	1.06	1.88	+/-35%
13C-1,2,3,6,7,8-HxCDF	1.18	1.21	1.24	1.18	1.17	1.17	1.19	2.39	+/-35%
13C-2,3,4,6,7,8-HxCDF	1.09	1.10	1.12	1.12	1.08	1.08	1.10	1.75	+/-35%
13C-1,2,3,7,8,9-HxCDF	0.97	0.99	0.99	1.01	0.96	0.97	0.98	2.08	+/-35%
13C-1,2,3,4,6,7,8-HpCDF	0.80	0.84	0.85	0.85	0.83	0.85	0.84	2.54	+/-35%
13C-1,2,3,4,7,8,9-HpCDF	0.67	0.71	0.72	0.71	0.71	0.73	0.71	2.95	+/-35%
37Cl-2,3,7,8-TCDD	1.05	1.04	1.01	1.02	1.04	1.07	1.04	2.03	+/-35%

1.123789-HxCDD Relative Response (RR) is calculated based on the labeled analog of the other two HxCDDs.
2. OCDF RR is calculated based on the labeled analog of OCDD

USEPA -
6DFB6

CDD/CDF INITIAL CALIBRATION ION ABUNDANCE RATIO SUMMARY
HIGH RESOLUTION

Lab Name: Contract No.:
Lab Code: Case No.: TO No.: SDG No.: 193
GC Column: DB-5 ID: 0.25(mm) Instrument ID: E-HRMS-03
Init. Calib. Date(s).: 04/23/12
Init. Calib. Time.: 05:13

Target Analytes	SELECTED IONS	ION ABUNDANCE RATIO CS0.5	CS1	CS2	CS3	CS4	CS5	FLAG	ION RATIO QC lIMITS
2,3,7,8-TCDF	304/306	0.77	0.72	0.76	0.77	0.79	0.79		0.65-0.89
1,2,3,7,8-PeCDF	340/342	1.51	1.59	1.53	1.56	1.56	1.57		0.65-0.89
2,3,4,7,8-PeCDF	340/342	1.51	1.55	1.56	1.55	1.57	1.56		1.32-1.78
1,2,3,4,7,8-HxCDF	374/376	1.24	1.24	1.31	1.30	1.27	1.26		1.32-1.78
1,2,3,6,7,8-HxCDF	374/376	1.23	1.23	1.21	1.22	1.29	1.28		1.32-1.78
2,3,4,6,7,8-HxCDF	374/376	1.24	1.19	1.25	1.25	1.26	1.28		1.05-1.43
1,2,3,7,8,9-HxCDF	374/376	1.30	1.27	1.25	1.25	1.27	1.27		1.05-1.43
1,2,3,4,6,7,8-HpCDF	408/410	1.04	1.03	1.03	1.03	1.04	1.04		1.05-1.43
1,2,3,4,7,8,9-HpCDF	408/410	1.09	1.03	1.03	1.05	1.04	1.04		1.05-1.43
OCDF	442/444	0.89	0.91	0.91	0.90	0.91	0.91		1.05-1.43
2,3,7,8-TCDD	320/322	0.87	0.76	0.76	0.76	0.78	0.77		1.05-1.43
1,2,3,7,8-PeCDD	356/358	1.53	1.59	1.53	1.57	1.56	1.55		1.05-1.43
1,2,3,4,7,8-HxCDD	390/392	1.22	1.21	1.24	1.24	1.24	1.21		0.88-1.20
1,2,3,6,7,8-HxCDD	390/392	1.18	1.23	1.26	1.27	1.24	1.24		0.88-1.20
1,2,3,7,8,9-HxCDD	390/392	1.31	1.23	1.22	1.24	1.24	1.23		0.88-1.20
1,2,3,4,6,7,8-HpCDD	424/426	1.00	1.02	1.04	1.04	1.04	1.04		0.76-1.02
OCDD	458/460	0.92	0.89	0.88	0.90	0.89	0.89		0.76-1.02
13C-2,3,7,8-TCDF	316/318	0.77	0.78	0.77	0.77	0.77	0.77		0.65-0.89
13C-1,2,3,7,8-PeCDF	352/354	1.56	1.57	1.55	1.56	1.56	1.56		1.32-1.78
13C-2,3,4,7,8-PeCDF	352/354	1.57	1.57	1.56	1.56	1.55	1.57		1.05-1.43
13C-1,2,3,4,7,8-Hx╗	384/385	0.52	0.53	0.54	0.54	0.52	0.52		1.05-1.43
13C-1,2,3,6,7,8-Hx╗	384/385	0.53	0.51	0.51	0.50	0.52	0.52		0.88-1.20
13C-2,3,4,6,7,8-Hx╗	384/385	0.52	0.52	0.52	0.52	0.52	0.52		0.76-1.02
13C-1,2,3,7,8,9-Hx╗	384/385	0.52	0.52	0.52	0.52	0.52	0.52		0.65-0.89
13C-1,2,3,4,6,7,8-╗	418/420	0.45	0.45	0.45	0.45	0.44	0.45		1.32-1.78
13C-1,2,3,4,7,8,9-╗	418/420	0.45	0.45	0.45	0.45	0.45	0.45		1.32-1.78
13C-2,3,7,8-TCDD	332/334	0.79	0.78	0.78	0.79	0.78	0.79		0.43-0.59
13C-1,2,3,7,8-PeCDD	368/370	1.58	1.58	1.57	1.58	1.56	1.56		0.43-0.59
13C-1,2,3,4,7,8-Hx╗	402/404	1.26	1.25	1.26	1.26	1.24	1.24		0.43-0.59
13C-1,2,3,6,7,8-Hx╗	402/404	1.25	1.26	1.25	1.25	1.24	1.25		0.43-0.59
13C-1,2,3,4,6,7,8-╗	436/438	1.06	1.06	1.05	1.04	1.04	1.05		0.37-0.51
13C-OCDD	470/472	0.90	0.90	0.89	0.90	0.89	0.89		0.37-0.51
13C-1,2,3,4-TCDD	332/334	0.79	0.79	0.80	0.79	0.79	0.79		0.65-0.89
13C-1,2,3,7,8,9-Hx╗	402/404	1.26	1.25	1.23	1.24	1.23	1.24		1.05-1.43
37Cl-2,3,7,8-TCDD	328								

Quality Control (QC) limits represent +/- 15% window around the theoretical ion abundance ratio. The laboratory must flag any analyte in any calibration solution which does not meet the ion abundance ratio QC limit by placing an asterisk in the flag column.

USEPA -
6DFA6
CDD/CDF INITIAL CALIBRATION RESPONSE FACTOR SUMMARY
HIGH RESOLUTION

Lab Name: Contract No.:
Lab Code: Case No.: TO No.: SDG No.: 193
GC Column: DB-5 ID: 0.25(mm) Instrument ID: E-HRMS-04
Init. Calib. Date(s).: 05/03/12
Init. Calib. Time.: 05:17

Target Analytes	CS0.5	CS1	CS2	CS3	CS4	CS5	RR/RRF	MEAN %RSD	QC LIMITS
	RR/RRF								
2,3,7,8-TCDD	1.18	0.94	0.97	1.01	0.99	1.00	1.01	8.31	+/-20%
2,3,7,8-TCDF	1.09	0.89	0.87	0.95	0.93	0.95	0.95	8.25	+/-20%
1,2,3,7,8-PeCDF	0.93	0.97	0.97	0.98	1.02	1.05	0.99	3.96	+/-20%
1,2,3,7,8-PeCDD	0.97	0.93	0.91	1.05	0.95	0.97	0.96	5.07	+/-20%
2,3,4,7,8-PeCDF	0.89	0.93	0.91	1.04	0.97	0.98	0.95	5.60	+/-20%
1,2,3,4,7,8-HxCDF	1.32	1.19	1.21	1.21	1.25	1.26	1.24	3.95	+/-20%
1,2,3,6,7,8-HxCDF	1.22	1.12	1.12	1.20	1.16	1.17	1.17	3.43	+/-20%
1,2,3,4,7,8-HxCDD	1.11	1.03	1.02	1.16	1.06	1.07	1.07	5.07	+/-20%
1,2,3,6,7,8-HxCDD	1.15	1.03	1.00	0.95	1.05	1.06	1.04	6.29	+/-20%
1,2,3,7,8,9-HxCDD	1.21	1.03	0.99	1.03	1.08	1.11	1.07	7.24	+/-20%
2,3,4,6,7,8-HxCDF	1.27	1.15	1.13	1.10	1.16	1.17	1.16	4.84	+/-20%
1,2,3,7,8,9-HxCDF	1.31	1.15	1.13	1.17	1.17	1.19	1.19	5.38	+/-20%
1,2,3,4,6,7,8-HpCDF	1.55	1.36	1.35	1.37	1.39	1.41	1.40	5.18	+/-20%
1,2,3,4,6,7,8-HpCDD	1.17	1.04	0.98	1.05	1.04	1.05	1.05	6.15	+/-20%
1,2,3,4,7,8,9-HpCDF	1.43	1.28	1.27	1.39	1.31	1.34	1.34	4.75	+/-20%
OCDD	1.44	1.20	1.11	1.09	1.13	1.14	1.19	10.96	+/-20%
OCDF	1.44	1.26	1.25	1.21	1.30	1.35	1.30	6.18	+/-20%
Labeled Compounds									
13C-2,3,7,8-TCDD	0.90	0.90	0.90	0.91	0.95	1.03	0.93	5.70	+/-35%
13C-1,2,3,7,8-PeCDD	0.91	0.89	0.89	0.67	1.07	1.12	0.93	17.17	+/-35%
13C-1,2,3,4,7,8-HxCDD	0.94	0.96	0.97	1.00	0.91	0.89	0.95	4.12	+/-35%
13C-1,2,3,6,7,8-HxCDD	0.96	1.05	1.06	1.08	0.99	0.93	1.01	6.07	+/-35%
13C-1,2,3,4,6,7,8-HpCDD	0.84	0.86	0.94	0.96	0.86	0.86	0.89	5.69	+/-35%
13C-OCDD	0.54	0.56	0.64	0.85	0.60	0.61	0.63	17.64	+/-35%
13C-2,3,7,8-TCDF	1.24	1.23	1.24	1.32	1.28	1.34	1.28	3.47	+/-35%
13C-1,2,3,7,8-PeCDF	1.19	1.21	1.17	1.18	1.40	1.54	1.28	12.04	+/-35%
13C-2,3,4,7,8-PeCDF	1.23	1.22	1.21	1.09	1.45	1.55	1.29	13.26	+/-35%
13C-1,2,3,4,7,8-HxCDF	1.11	1.13	1.14	1.41	1.09	1.08	1.16	10.70	+/-35%
13C-1,2,3,6,7,8-HxCDF	1.30	1.38	1.39	1.43	1.30	1.25	1.34	5.16	+/-35%
13C-2,3,4,6,7,8-HxCDF	1.12	1.22	1.23	1.18	1.19	1.16	1.18	3.31	+/-35%
13C-1,2,3,7,8,9-HxCDF	0.99	0.98	1.00	1.09	1.02	1.01	1.02	4.02	+/-35%
13C-1,2,3,4,6,7,8-HpCDF	0.89	0.95	0.99	1.04	0.93	0.92	0.95	5.63	+/-35%
13C-1,2,3,4,7,8,9-HpCDF	0.72	0.75	0.82	0.87	0.77	0.76	0.78	7.02	+/-35%
37Cl-2,3,7,8-TCDD	0.96	0.94	0.86	0.93	0.97	1.08	0.96	7.51	+/-35%

1.123789-HxCDD Relative Response (RR) is calculated based on the labeled analog of the other two HxCDDs.
2. OCDF RR is calculated based on the labeled analog of OCDD

USEPA -
6DFB6
CDD/CDF INITIAL CALIBRATION ION ABUNDANCE RATIO SUMMARY
HIGH RESOLUTION

Lab Name: - Contract No.:
Lab Code: Case No.: TO No.: SDG No.: 193
GC Column: DB-5 ID: 0.25(mm) Instrument ID: E-HRMS-04
Init. Calib. Date(s).: 05/03/12
Init. Calib. Time.: 05:17

Target Analytes	SELECTED IONS	ION ABUNDANCE RATIO CS0.5	CS1	CS2	CS3	CS4	CS5	FLAG	ION RATIO QC lIMITS
2,3,7,8-TCDF	304/306	0.85	0.84	0.77	0.77	0.77	0.77		0.65-0.89
1,2,3,7,8-PeCDF	340/342	1.59	1.61	1.60	1.56	1.56	1.56		0.65-0.89
2,3,4,7,8-PeCDF	340/342	1.52	1.54	1.55	1.55	1.58	1.56		1.32-1.78
1,2,3,4,7,8-HxCDF	374/376	1.21	1.20	1.25	1.25	1.25	1.25		1.32-1.78
1,2,3,6,7,8-HxCDF	374/376	1.25	1.24	1.22	1.26	1.26	1.25		1.32-1.78
2,3,4,6,7,8-HxCDF	374/376	1.23	1.24	1.26	1.26	1.24	1.25		1.05-1.43
1,2,3,7,8,9-HxCDF	374/376	1.24	1.31	1.26	1.26	1.25	1.25		1.05-1.43
1,2,3,4,6,7,8-HpCDF	408/410	1.04	0.99	1.04	1.03	1.03	1.03		1.05-1.43
1,2,3,4,7,8,9-HpCDF	408/410	0.98	1.05	1.00	1.03	1.03	1.04		1.05-1.43
OCDF	442/444	0.91	0.89	0.90	0.90	0.90	0.90		1.05-1.43
2,3,7,8-TCDD	320/322	0.70	0.84	0.72	0.77	0.78	0.77		1.05-1.43
1,2,3,7,8-PeCDD	356/358	1.65	1.60	1.63	1.59	1.56	1.57		1.05-1.43
1,2,3,4,7,8-HxCDD	390/392	1.16	1.20	1.27	1.27	1.25	1.24		0.88-1.20
1,2,3,6,7,8-HxCDD	390/392	1.25	1.28	1.24	1.27	1.27	1.25		0.88-1.20
1,2,3,7,8,9-HxCDD	390/392	1.18	1.24	1.30	1.27	1.25	1.26		0.88-1.20
1,2,3,4,6,7,8-HpCDD	424/426	1.01	1.01	1.04	1.06	1.05	1.03		0.76-1.02
OCDD	458/460	0.83	0.86	0.91	0.89	0.90	0.89		0.76-1.02
13C-2,3,7,8-TCDF	316/318	0.78	0.78	0.78	0.78	0.78	0.78		0.65-0.89
13C-1,2,3,7,8-PeCDF	352/354	1.56	1.57	1.58	1.60	1.56	1.56		1.32-1.78
13C-2,3,4,7,8-PeCDF	352/354	1.58	1.57	1.58	1.59	1.57	1.56		1.05-1.43
13C-1,2,3,4,7,8-Hx╗	384/386	0.52	0.52	0.51	0.53	0.52	0.52		1.05-1.43
13C-1,2,3,6,7,8-Hx╗	384/386	0.52	0.53	0.52	0.52	0.52	0.52		0.88-1.20
13C-2,3,4,6,7,8-Hx╗	384/386	0.52	0.52	0.52	0.53	0.52	0.52		0.76-1.02
13C-1,2,3,7,8,9-Hx╗	384/386	0.52	0.52	0.52	0.53	0.52	0.50		0.65-0.89
13C-1,2,3,4,6,7,8-╗	418/420	0.44	0.44	0.44	0.45	0.44	0.44		1.32-1.78
13C-1,2,3,4,7,8,9-╗	418/420	0.44	0.44	0.45	0.44	0.44	0.44		1.32-1.78
13C-2,3,7,8-TCDD	332/334	0.79	0.78	0.78	0.79	0.79	0.79		0.43-0.59
13C-1,2,3,7,8-PeCDD	368/370	1.57	1.55	1.59	1.59	1.57	1.55		0.43-0.59
13C-1,2,3,4,7,8-Hx╗	402/404	1.26	1.26	1.26	1.26	1.27	1.26		0.43-0.59
13C-1,2,3,6,7,8-Hx╗	402/404	1.28	1.26	1.27	1.27	1.25	1.26		0.43-0.59
13C-1,2,3,4,6,7,8-╗	436/438	1.06	1.05	1.07	1.06	1.05	1.06		0.37-0.51
13C-OCDD	470/472	0.91	0.91	0.91	0.91	0.90	0.90		0.37-0.51
13C-1,2,3,4-TCDD	332/334	0.79	0.79	0.78	0.80	0.79	0.78		0.65-0.89
13C-1,2,3,7,8,9-Hx╗	402/404	1.26	1.26	1.25	1.28	1.26	1.25		1.05-1.43
37Cl-2,3,7,8-TCDD	328								

Quality Control (QC) limits represent +/- 15% window around the theoretical ion abundance ratio. The laboratory must flag any analyte in any calibration solution which does not meet the ion abundance ratio QC limit by placing an asterisk in the flag column.

USEPA -
6DFA6
CDD/CDF INITIAL CALIBRATION RESPONSE FACTOR SUMMARY
HIGH RESOLUTION

Lab Name: Contract No.:
Lab Code: Case No.: TO No.: SDG No.:
GC Column: db5 ID: 0.25(mm) Instrument ID: E-HRMS-04
Init. Calib. Date(s).: 09/09/11
Init. Calib. Time.: 10:55

	RR/RRF						MEAN		QC
Target Analytes	CS1	CS2	CS3	CS4	CS5	CS6	RR/RRF	%RSD	LIMITS
2,3,7,8-TCDF	0.99	0.88	0.81	0.79	0.76	1.05	0.88	13.34	+/-20%
13C-2,3,7,8-TCDF	1.29	1.31	1.29	1.31	1.26	1.30	1.29	1.41	+/-35%
37Cl-2,3,7,8-TCDD	1.04	1.01	0.87	0.91	0.86	1.13	0.97	11.15	+/-35%

USEPA -
6DFB6
CDD/CDF INITIAL CALIBRATION ION ABUNDANCE RATIO SUMMARY
HIGH RESOLUTION

Lab Name: Contract No.:
Lab Code: Case No.: TO No.: SDG No.:
GC Column: db5 ID: 0.25(mm) Instrument ID: E-HRMS-04
Init. Calib. Date(s).: 09/09/11
Init. Calib. Time.: 10:55

		ION ABUNDANCE RATIO							ION RATIO
Target Analytes	SELECTED IONS	CS1	CS2	CS3	CS4	CS5	CS6	FLAG	QC lIMITS
2,3,7,8-TCDF	304/306	0.82	0.73	0.76	0.77	0.78	0.78		0.65-0.89
13C-2,3,7,8-TCDF	316/318	0.77	0.78	0.77	0.78	0.77	0.77		0.65-0.89
37Cl-2,3,7,8-TCDD									

Initial Calibration QC Checklist

ICAL Name: 0909 TCDFI

Date: 9 Sep 11

Method: 1613 / 8290 / Tetra / TCDD Only / TCDF Conf / 8280 / 613 / M23 / TO-9

Retention Window/Column Performance Check	Analyst	Second Check
Windows in and first and last eluters labeled	NA	N/A
Column Performance shows less than or equal to 25% valley between column specific 2378 isomer and it's closest eluters	✓	✓
No QC ion deflections affect column specific 2378 isomer or it's closest eluters	✓	✓

Initial Calibration	Analyst	Second Check
Percent RSD within method criteria	✓	✓
All relative abundance ratios meet method criteria	✓	✓
No QC ion deflections of greater than 20%	✓	✓
Mass spectrometer resolution greater than or equal to 10,000 and documented	✓	✓
2378-TCDD elutes at 25 minutes or later on the DB-5 column	NA	N/A
Signal-to-noise of all target analytes and their labeled standards at least 10:1	✓	✓
Valley between labeled 123478 and 123678 HxCDD peaks less than or equal to 50%	NA	N/A
All Manual Intergrations signed and dated and first and final copies of Ical summary included	✓	✓

Analyst: ____ ________________ Second QC: ________ ________

icalqc.xls 02-23-00

5DFC

PCDD/PCDF/PCB ANALYTICAL SEQUENCE SUMMARY

Lab Name: Contract:

Lab Code: Case No.: SDG No.:

GC Column: DB-225 ID: 0.25 (mm) Instrument ID: E-HRMS-04

Init. Calib. Date: 09/09/11

Init. Calib.Times: 10:55:41

THE ANALYTICAL SEQUENCE OF STANDARDS, SAMPLES, BLANKS, AND LABORATORY CONTROL SAMPLES (LCSs) IS AS FOLLOWS:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
COLUMN PERFORMANCE		4393	9-SEP-11	10:55:41
D12-2-1BA	ICAL CS1	4395	9-SEP-11	12:19:16
D12-2-1BB	ICAL CS2	4396	9-SEP-11	13:39:43
D12-2-1BC	ICAL CS3	4397	9-SEP-11	14:16:37
D12-2-1BD	ICAL CS4	4398	9-SEP-11	14:52:45
D12-2-1BE	ICAL CS5	4399	9-SEP-11	15:30:10
D10-83-1B	ICAL CS6	4402	9-SEP-11	18:07:26

Sample List Report MassLynx 4.1

Sample List: (
Last Modified: Monday, September 12, 2011 07:34:42 Central Daylight Time
Printed: Monday, September 12, 2011 07:36:27 Central Daylight Time

C:

	Date	Time	File Name	Sample ID	Client ID	Analyst	Comments	GC Met	Acq Met
1	09/09/11	10:55	1393	COLUMN PERFORMANCE	D4-51-9		HRMS Check 10:50	TCDF	tcdf
2		11:46	1394	CCAL CS3	D12-21-1B			TCDF	tcdf
3		12:19	1395	ICAL CS1	---			TCDF	tcdf
4		13:39	1396	ICAL CS2	---			TCDF	tcdf
5		14:16	1397	ICAL CS3	---			TCDF	tcdf
6		14:52	1398	ICAL CS4	---			TCDF	tcdf
7		15:30	1399	ICAL CS5	---			TCDF	tcdf
8		16:06	1400	ICAL CS6	---			TCDF	tcdf
9		16:45	1401	CCAL CS3 (2ND REF)	---			TCDF	tcdf
10		18:07	1402	ICAL CS6	---		HRMS Check 19:47	TCDF	tcdf
11			---	---	---			TCDF	tcdf
12			---	---	---			TCDF	tcdf
13			---	---	---			TCDF	tcdf
14			---	---	---			TCDF	tcdf
15			---	---	---			TCDF	tcdf
16			---	---	---			TCDF	tcdf
17			---	---	---			TCDF	tcdf
18			---	---	---			TCDF	tcdf
19			---	---	---			TCDF	tcdf
20			---	---	---			TCDF	tcdf
21			---	---	---			TCDF	tcdf
22			---	---	---			TCDF	tcdf
23			---	---	---			---	---
24			---	---	---			---	---
25	---	---	---	---	---	---	---	---	---
26	---	---	---	---	---	---	---	---	---
27	---	---	---	---	---	---	---		
28	---	---	---	---	---	---	---		
29	---	---	---	---	---	---	---		
30	---	---	---	---	---	---	---		
31	---	---	---	---	---	---	---	TCDF	tcdf
32	---	---	---	---	---	---	---	TCDF	tcdf
33	---	---	---	---	---	---	---	TCDF	tcdf
34	---	---	---	---	---	---	---	---	---
35	---	---	---	---	---	---	---		
36	---	---	---	---	---	---	---	---	---
37	---	---	---	---	---	---		---	---

Reviewed by: _

064

USEPA -
5DFB

EPA SAMPLE NO.

PCDD/PCDF WINDOW DEFINING MIX SUMMARY

Column Perform

Lab Name: ______________ Contract: ______________

Lab Code: ______________ Case No.: ______________ Client No.: ______________ SDG No.: ______________

GC Column: 30m DB-225 ID: 0.25 (mm) Lab File ID: 4393

Instrument ID: E-HRMS-04 Date Analyzed: 9 Sep 11

Time Analyzed: 10:55;41

Percent Valley deterimation for DB-5 (or equivalent) Column -
For the Column Performance Solution beginning the 12-hour period:

1478-TCDD/2378-TCDD: ______________

QUALITY COTROL (QC) LIMITS: ______________

Percent Valley between the TCDD isomers must be less than or equal to 25%.

Percent Valley deterimation for DB-225 (or equivalent) Column -
For the Column Performance Solution beginning the 12-hour period:

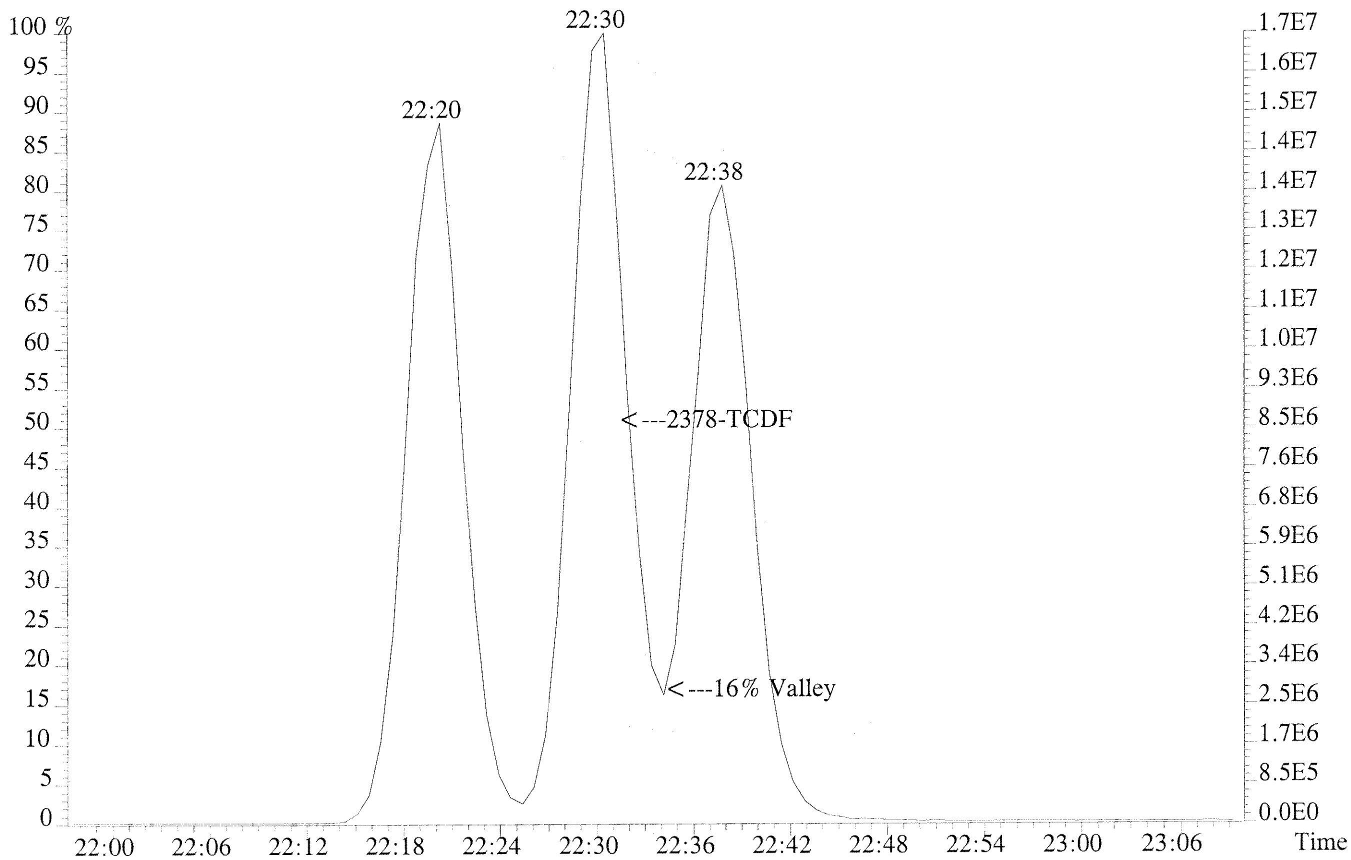
2347-TCDF/2378-TCDF: 16 %

QUALITY COTROL (QC) LIMITS:

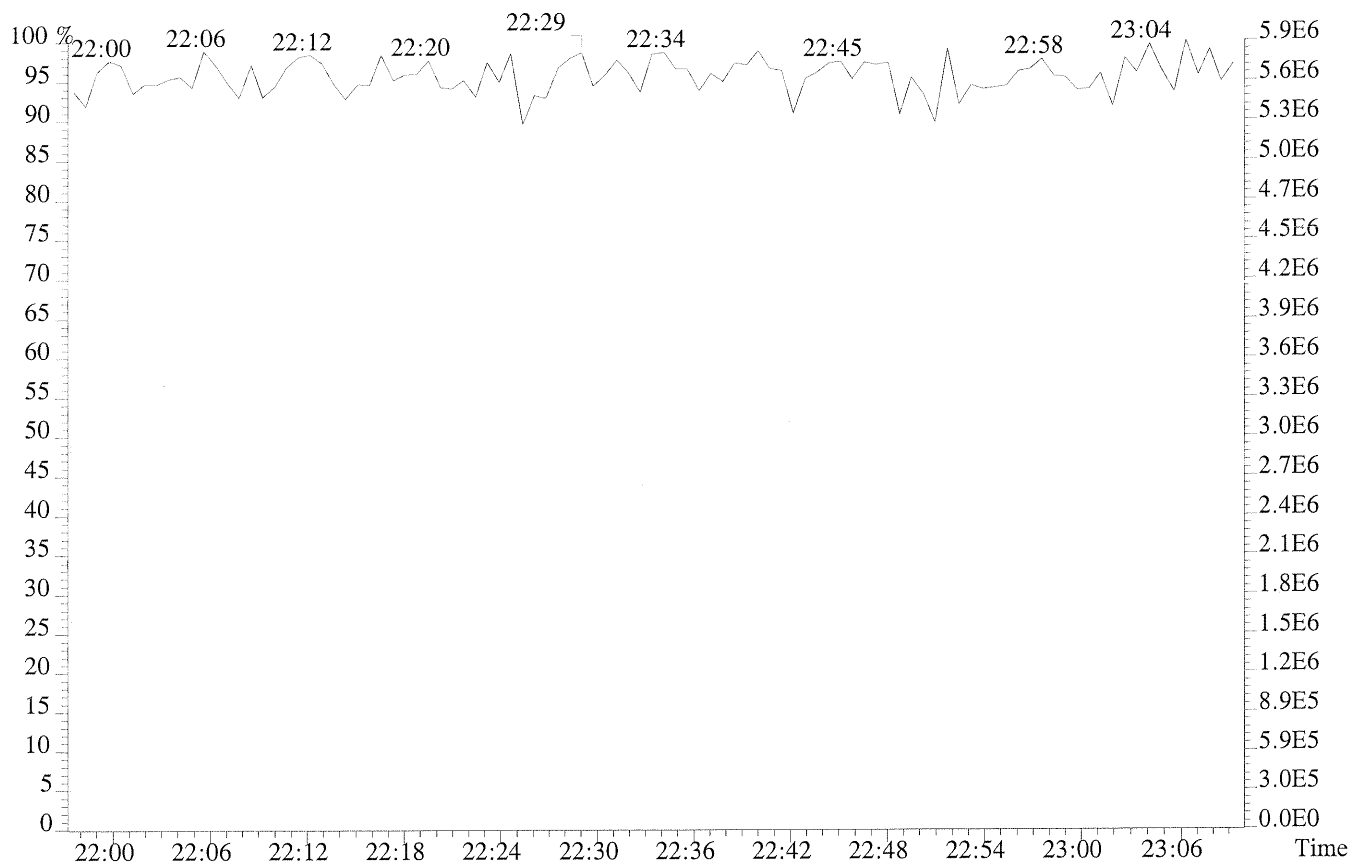
Percent Valley between the TCDF/TCDF isomers must be less than or equal to 25%.

Analyst Init FORM V-HR CDD-2 DLM02.0

File: 4393 #1-657 Acq: 9-SEP-2011 10:55:41 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:D4-59-1
303.9016



354.9792



USEPA -
6DFA6
CDD/CDF INITIAL CALIBRATION RESPONSE FACTOR SUMMARY
HIGH RESOLUTION

Lab Name: Contract No.:
Lab Code: Case No.: TO No.: SDG No.:
GC Column: db5 ID: 0.25(mm) Instrument ID: E-HRMS-04
Init. Calib. Date(s).: 09/09/11
Init. Calib. Time.: 10:55

	RR/RRF						MEAN		QC
Target Analytes	CS1	CS2	CS3	CS4	CS5	CS6	RR/RRF	%RSD	LIMITS
2,3,7,8-TCDF	0.99	0.88	0.81	0.79	0.76	1.05	0.88	13.34	+/-20%
13C-2,3,7,8-TCDF	1.29	1.31	1.29	1.31	1.26	1.30	1.29	1.41	+/-35%
37Cl-2,3,7,8-TCDD	1.04	1.01	0.87	0.91	0.86	1.13	0.97	11.15	+/-35%

USEPA -
6DFB6
CDD/CDF INITIAL CALIBRATION ION ABUNDANCE RATIO SUMMARY
HIGH RESOLUTION

Lab Name: Contract No.:
Lab Code: Case No.: TO No.: SDG No.:
GC Column: db5 ID: 0.25(mm) Instrument ID: E-HRMS-04
Init. Calib. Date(s).: 09/09/11
Init. Calib. Time.: 10:55

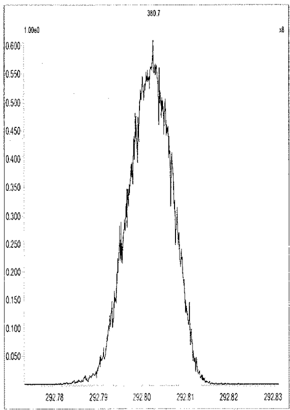
Target Analytes	SELECTED IONS	ION ABUNDANCE RATIO CS1	CS2	CS3	CS4	CS5	CS6	FLAG	ION RATIO QC lIMITS
2,3,7,8-TCDF	304/306	0.82	0.73	0.76	0.77	0.78	0.78		0.65-0.89
13C-2,3,7,8-TCDF	316/318	0.77	0.78	0.77	0.78	0.77	0.77		0.65-0.89
37Cl-2,3,7,8-TCDD									

Experiment Calibration Report **MassLynx 4.1**

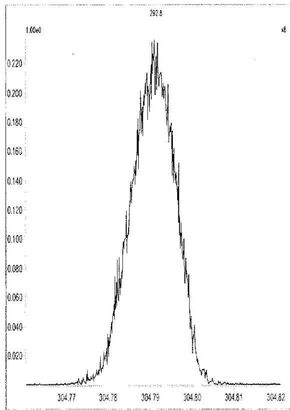
File: Experiment: tcdf .exp Reference: pfk.ref Function: 1 @ 200 (ppm)

Printed: Friday, September 09, 2011 10:50:33 Central Daylight Time

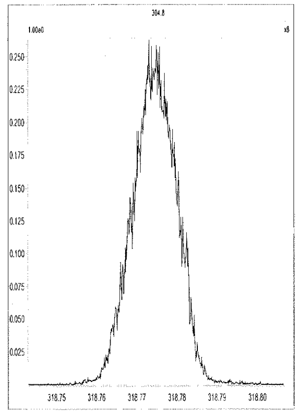
M 292.9824 R 13088



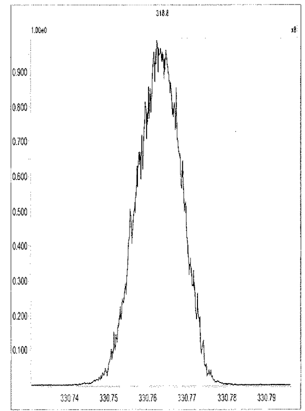
M 304.9824 R 13017



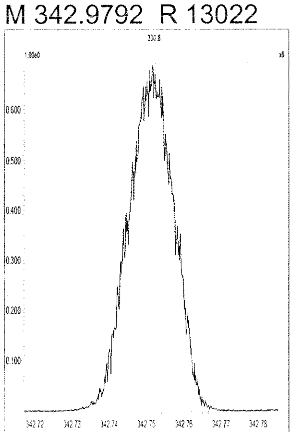
M 318.9792 R 12821



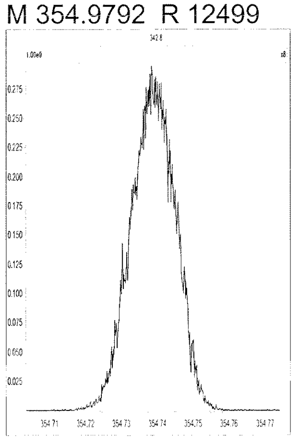
M 330.9792 R 13162



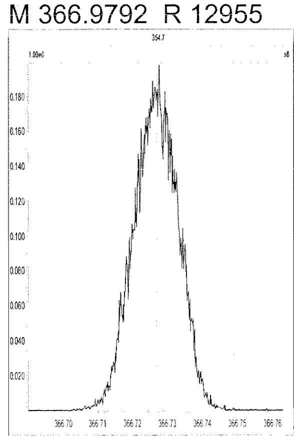
M 342.9792 R 13022



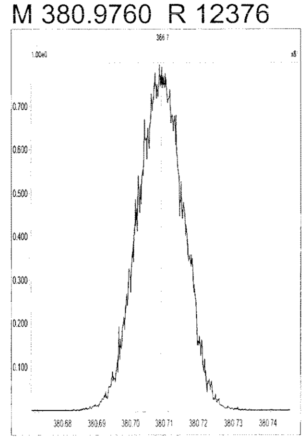
M 354.9792 R 12499



M 366.9792 R 12955



M 380.9760 R 12376

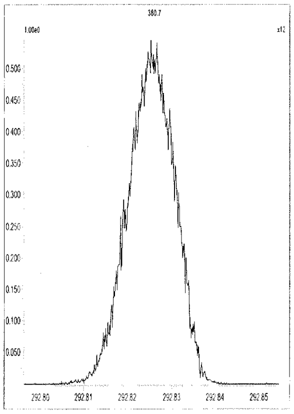


Experiment Calibration Report **MassLynx 4.1**

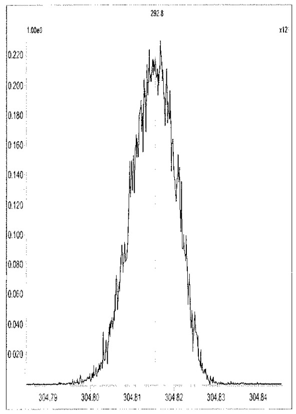
File: Experiment: tcdf .exp Reference: pfk.ref Function: 1 @ 200 (ppm)

Printed: Friday, September 09, 2011 18:06:01 Central Daylight Time

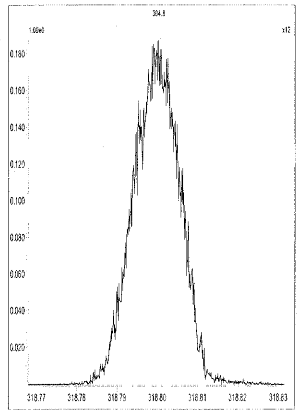
M 292.9824 R 12376



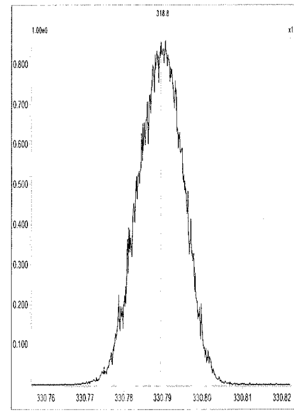
M 304.9824 R 12688



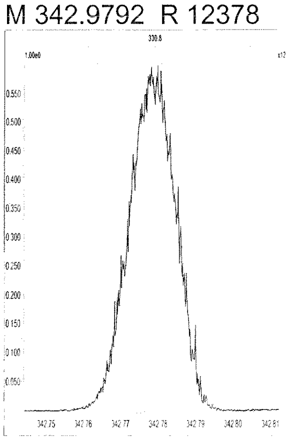
M 318.9792 R 12948



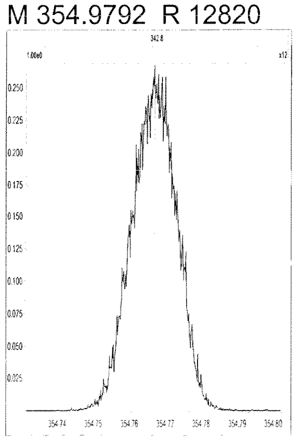
M 330.9792 R 12437



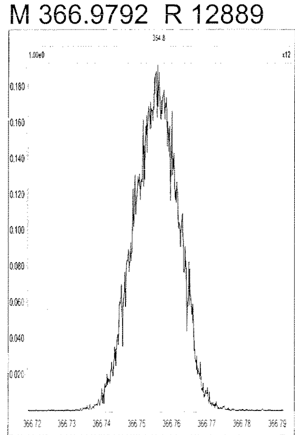
M 342.9792 R 12378



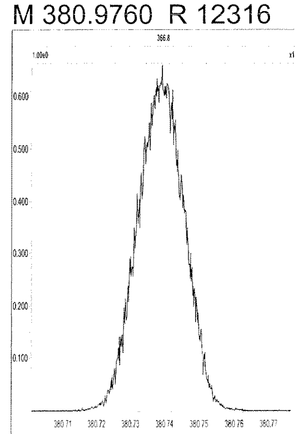
M 354.9792 R 12820



M 366.9792 R 12889

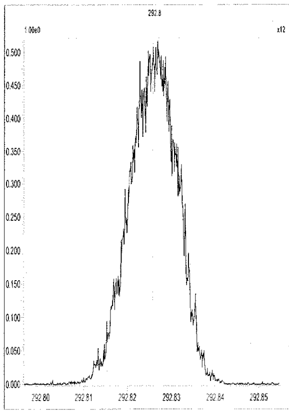


M 380.9760 R 12316

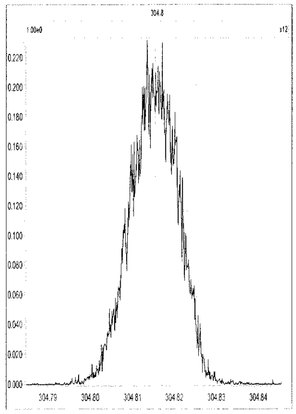


Printed: Friday, September 09, 2011 19:47:56 Central Daylight Time

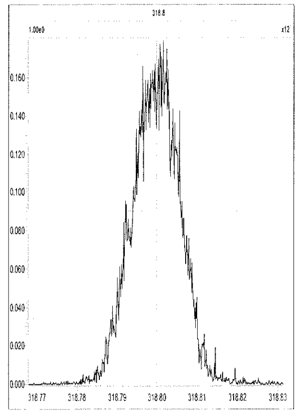
M 292.9824 R 12165



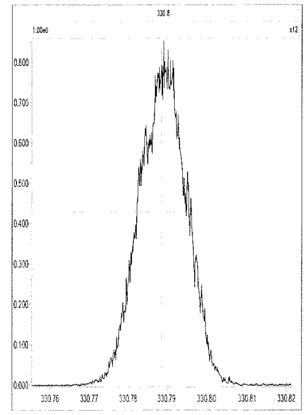
M 304.9824 R 12259



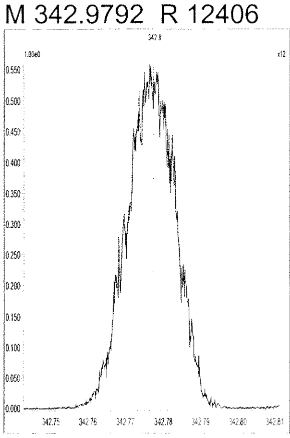
M 318.9792 R 12077



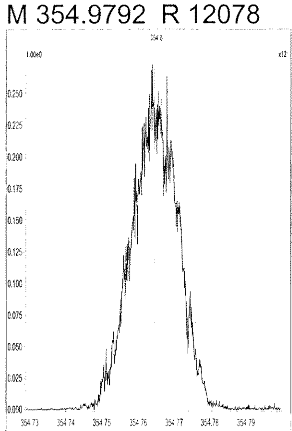
M 330.9792 R 11961



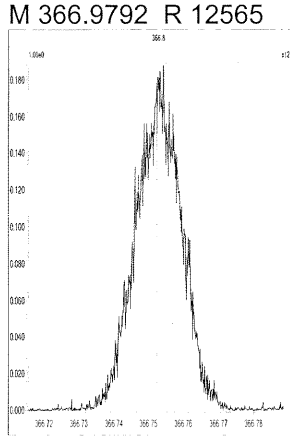
M 342.9792 R 12406



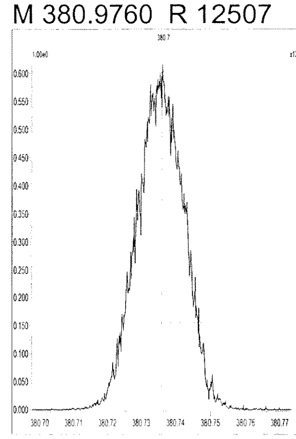
M 354.9792 R 12078



M 366.9792 R 12565



M 380.9760 R 12507



Sample Response Summary

EPA SAMPLE NO.
-2-1BA

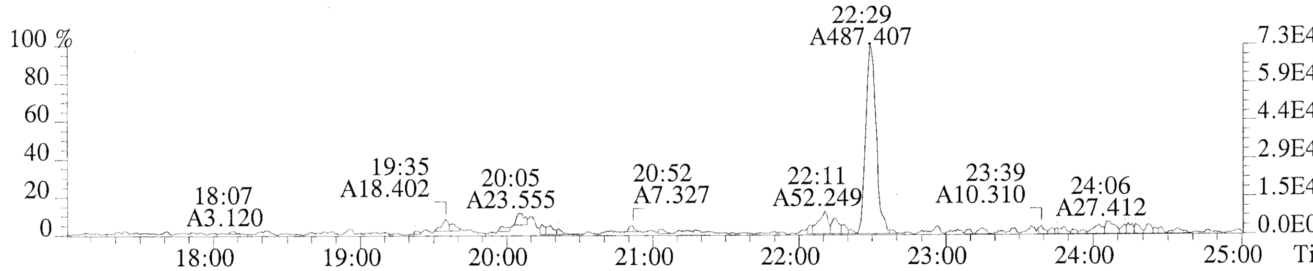
Run #1 Filename 4395 Samp: 1 Inj: 1 Acquired: 9-SEP-11 12:19:16
Processed: 12-SEP-11 08:31:20 Sample ID: ICAL CS1

	Typ	Name	RT-1	Resp 1	Resp 2	Ratio	Meet	Mod?
1	Unk	2,3,7,8-TCDF	22:29	4.874e+02	5.931e+02	0.82	yes	no
2	IS	13C-2,3,7,8-TCDF	22:28	9.469e+04	1.227e+05	0.77	yes	no
3	RS/RT	13C-1,2,3,4-TCDD	21:11	7.393e+04	9.460e+04	0.78	yes	no
4	C/Up	37Cl-2,3,7,8-TCDD	20:59	8.777e+02				

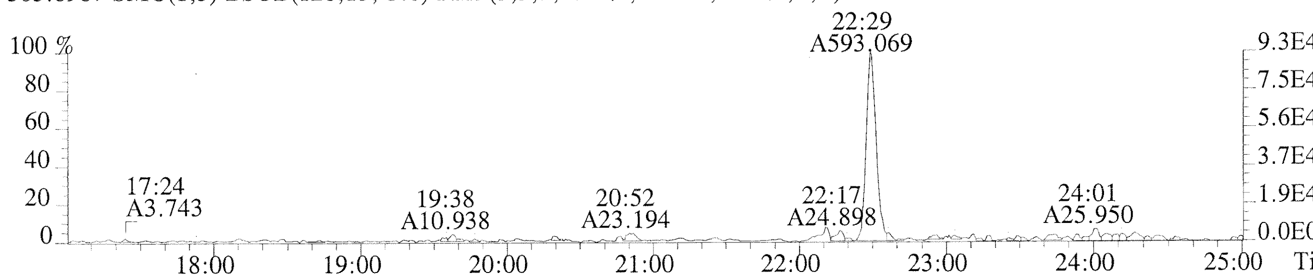
Signal/Noise Height Ratio Summary

	Name	Signal 1	Noise 1	S/N Rat.1	Signal 2	Noise 2	S/N
1	2,3,7,8-TCDF	7.31e+04	1.03e+03	7.1e+01	9.32e+04	1.07e+03	8.7e+01
2	13C-2,3,7,8-TCDF	1.37e+07	1.13e+03	1.2e+04	1.78e+07	1.30e+03	1.4e+04
3	13C-1,2,3,4-TCDD	1.19e+07	2.37e+03	5.0e+03	1.53e+07	1.45e+03	1.1e+04
4	37Cl-2,3,7,8-TCDD	1.46e+05	1.53e+03	9.5e+01			

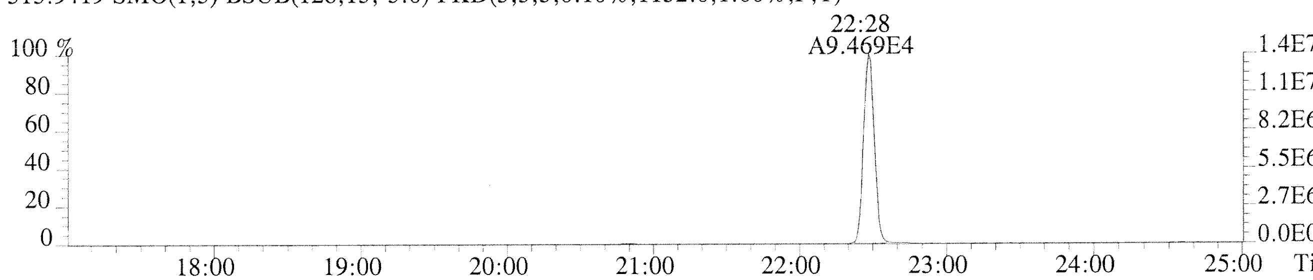
File: 4395 #1-657 Acq: 9-SEP-2011 12:19:16 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp: :-2-1
303.9016 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,1032.0,1.00%,F,T)



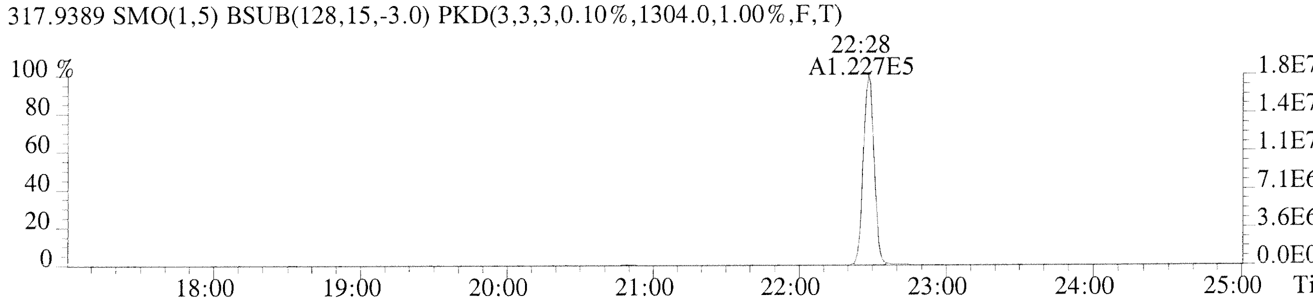
305.8987 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,1068.0,1.00%,F,T)



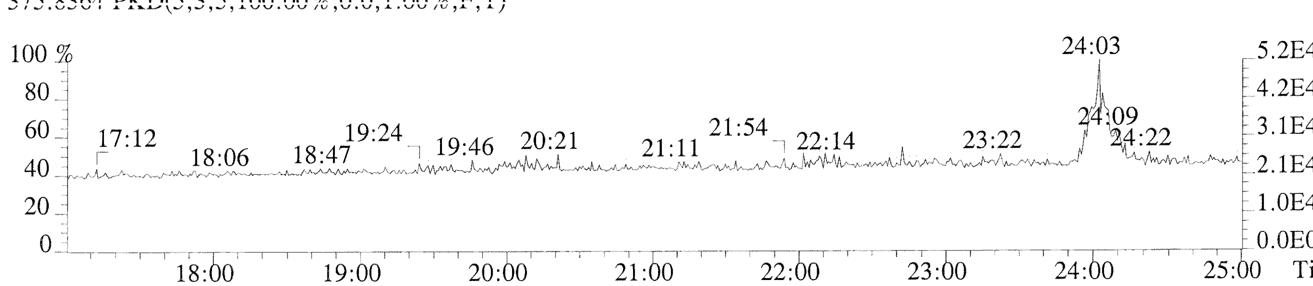
315.9419 SMO(1,5) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,1132.0,1.00%,F,T)



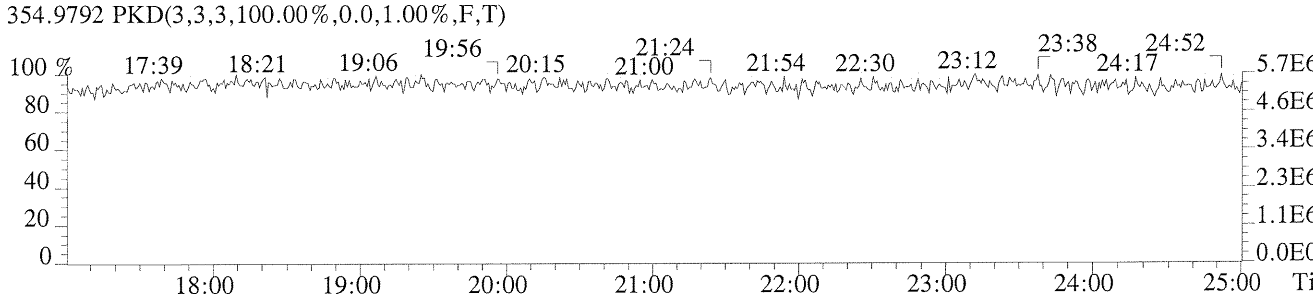
317.9389 SMO(1,5) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,1304.0,1.00%,F,T)



375.8364 PKD(5,3,5,100.00%,0.0,1.00%,F,T)

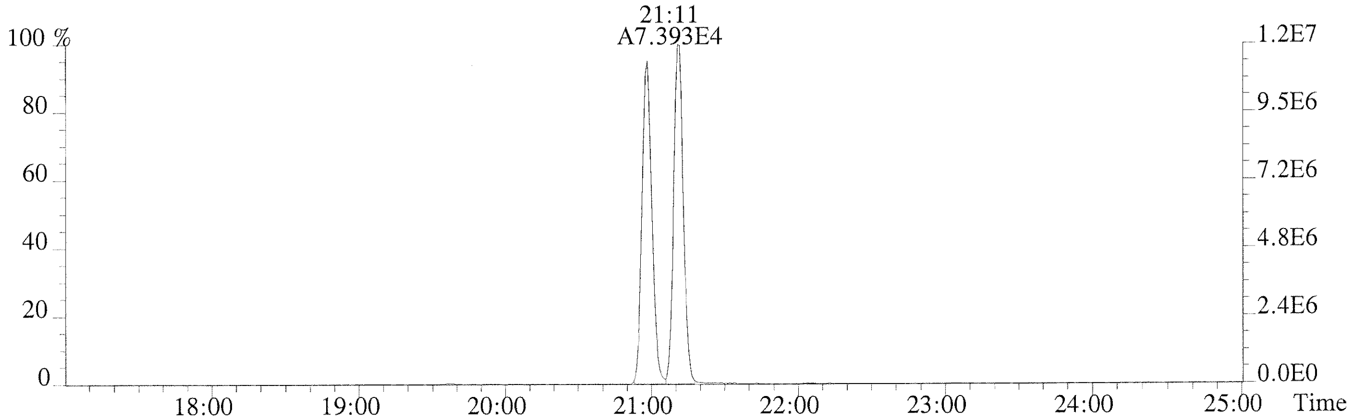


354.9792 PKD(3,3,3,100.00%,0.0,1.00%,F,T)

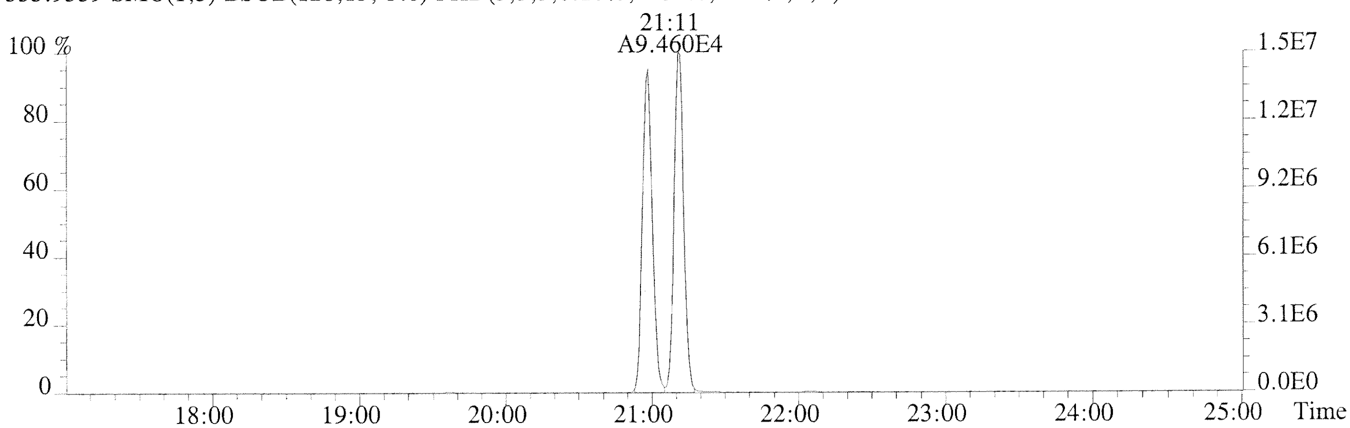


File 4395 #1-657 Acq: 9-SEP-2011 12:19:16 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp: -2-1

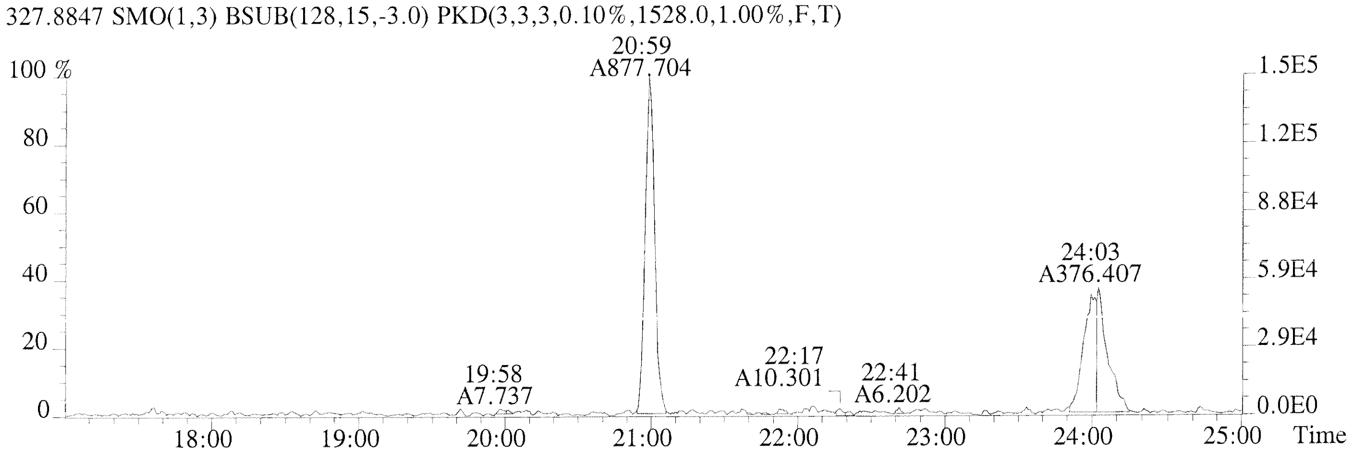
331.9368 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,2372.0,1.00%,F,T)



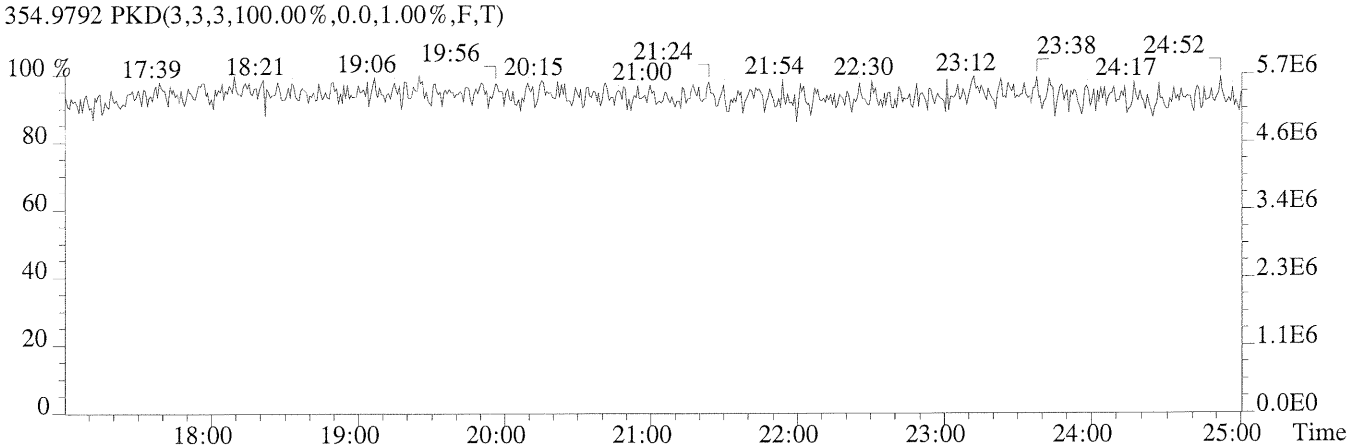
333.9339 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,1452.0,1.00%,F,T)



327.8847 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,1528.0,1.00%,F,T)



354.9792 PKD(3,3,3,100.00%,0.0,1.00%,F,T)



Sample Response Summary

EPA SAMPLE NO.
-2-1BB

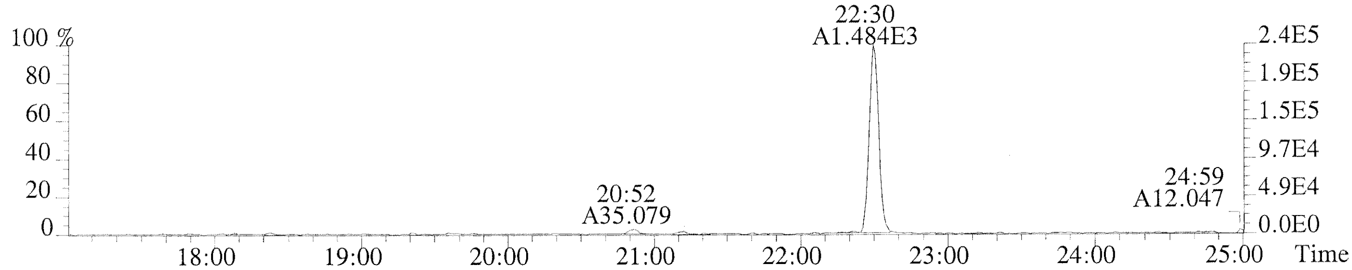
Run #2 Filename 4396 Samp: 1 Inj: 1 Acquired: 9-SEP-11 13:39:43
Processed: 12-SEP-11 08:31:25 Sample ID: ICAL CS2

	Typ	Name	RT-1	Resp 1	Resp 2	Ratio	Meet	Mod?
1	Unk	2,3,7,8-TCDF	22:30	1.484e+03	2.030e+03	0.73	yes	no
2	IS	13C-2,3,7,8-TCDF	22:29	8.728e+04	1.117e+05	0.78	yes	no
3	RS/RT	13C-1,2,3,4-TCDD	21:12	6.664e+04	8.572e+04	0.78	yes	no
4	C/Up	37Cl-2,3,7,8-TCDD	21:00	3.078e+03				

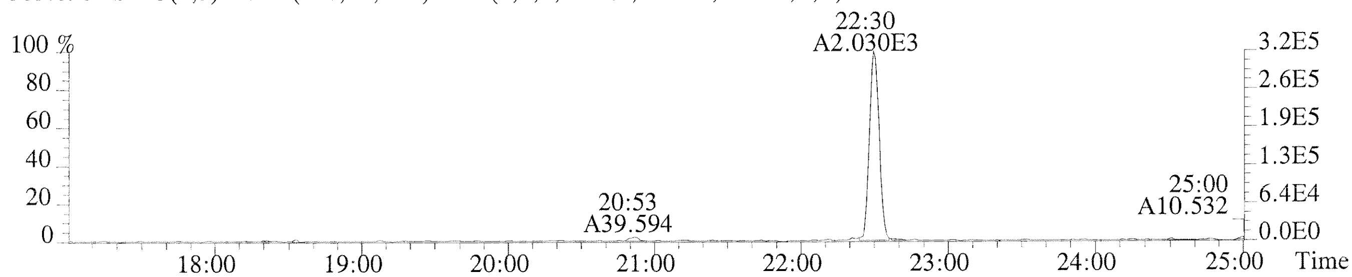
Signal/Noise Height Ratio Summary

	Name	Signal 1	Noise 1	S/N Rat.1	Signal 2	Noise 2	S/N
1	2,3,7,8-TCDF	2.41e+05	9.40e+02	2.6e+02	3.20e+05	1.40e+03	2.3e+02
2	13C-2,3,7,8-TCDF	1.26e+07	1.40e+03	9.0e+03	1.62e+07	2.19e+03	7.4e+03
3	13C-1,2,3,4-TCDD	1.10e+07	2.38e+03	4.6e+03	1.42e+07	1.24e+03	1.2e+04
4	37Cl-2,3,7,8-TCDD	5.07e+05	1.59e+03	3.2e+02			

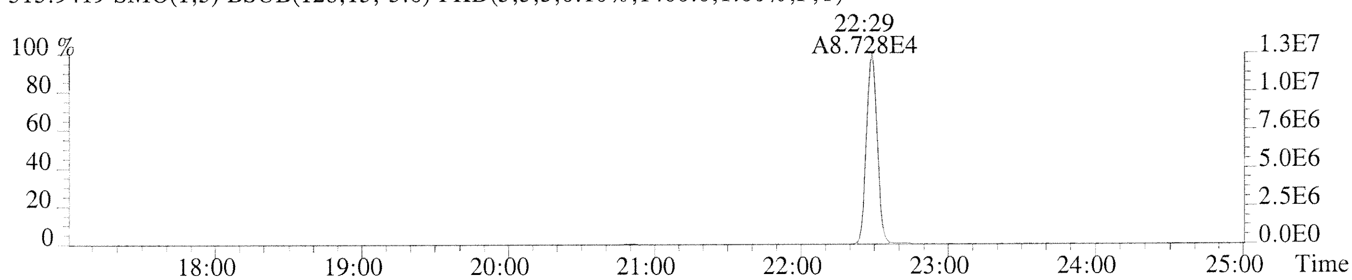
File 4396 #1-657 Acq: 9-SEP-2011 13:39:43 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp: -2-1BB
303.9016 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,940.0,1.00%,F,T)



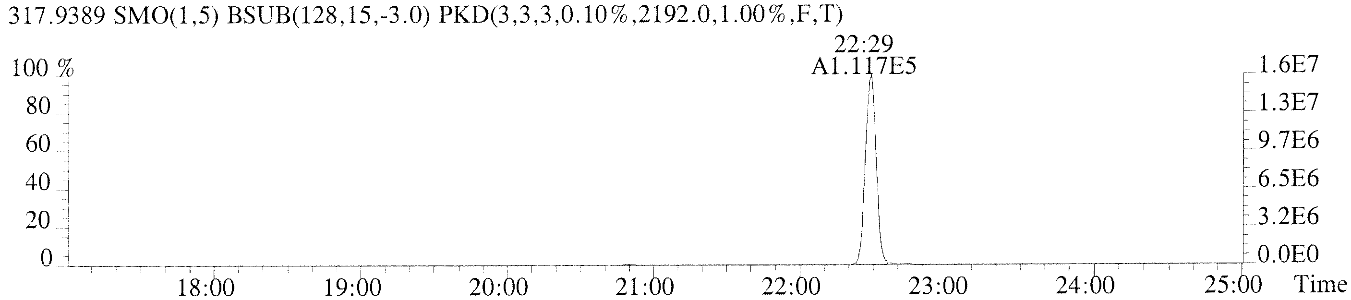
305.8987 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,1396.0,1.00%,F,T)



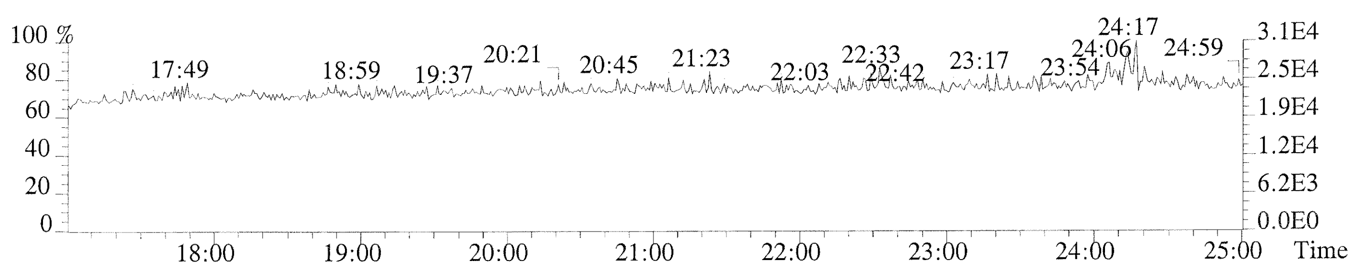
315.9419 SMO(1,5) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,1400.0,1.00%,F,T)



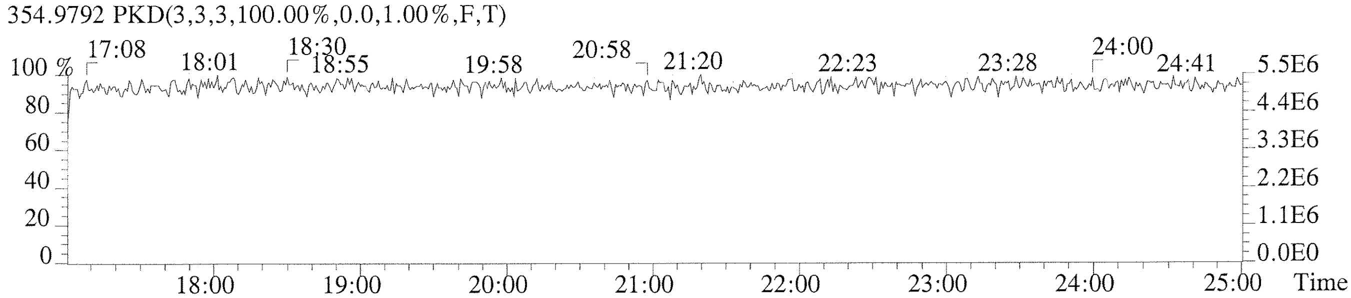
317.9389 SMO(1,5) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,2192.0,1.00%,F,T)



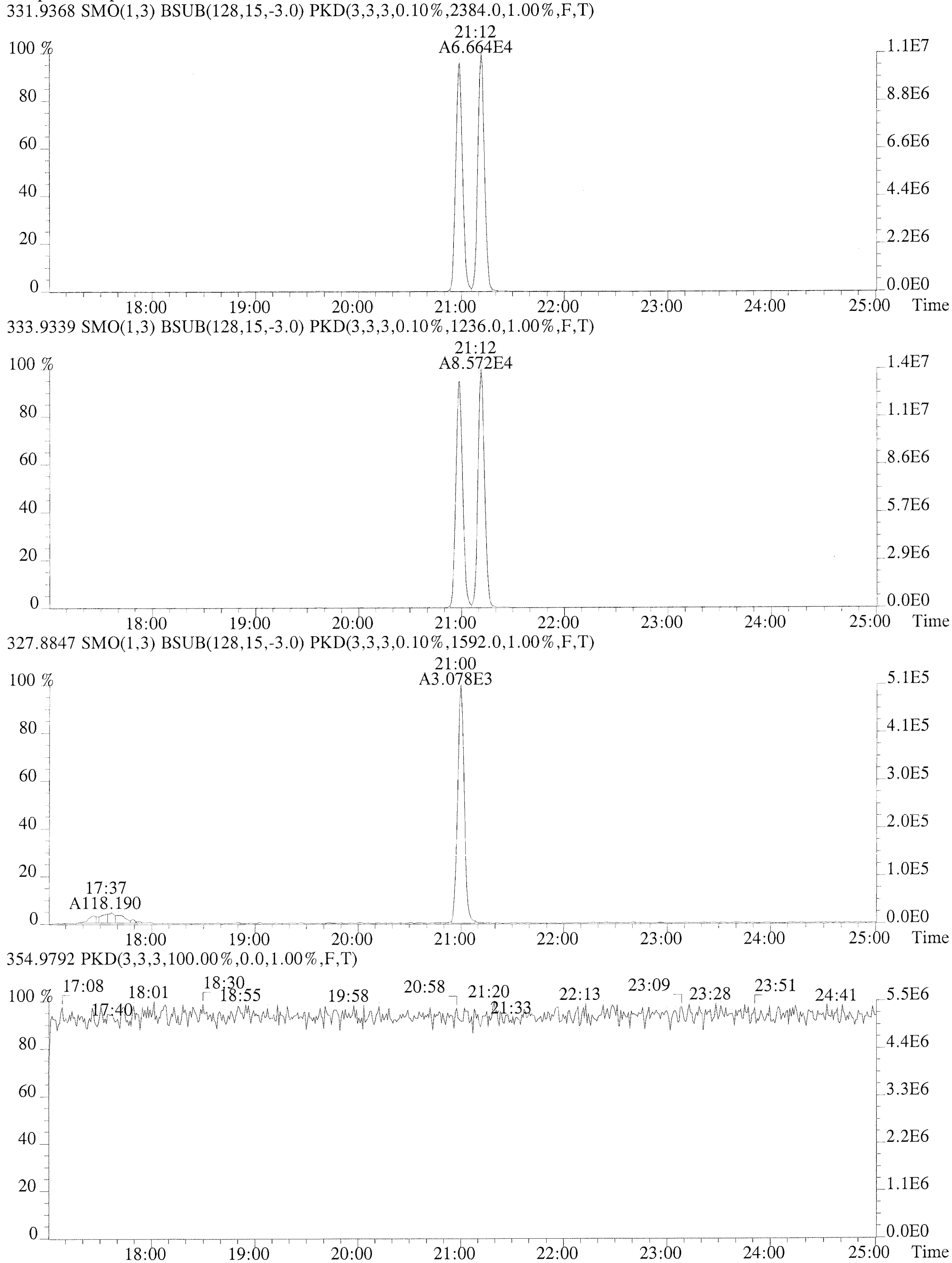
375.8364 PKD(5,3,5,100.00%,0.0,1.00%,F,T)



354.9792 PKD(3,3,3,100.00%,0.0,1.00%,F,T)



File: 4396 #1-657 Acq: 9-SEP-2011 13:39:43 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp: -2-1



Sample Response Summary

EPA SAMPLE NO.
-2-1BC

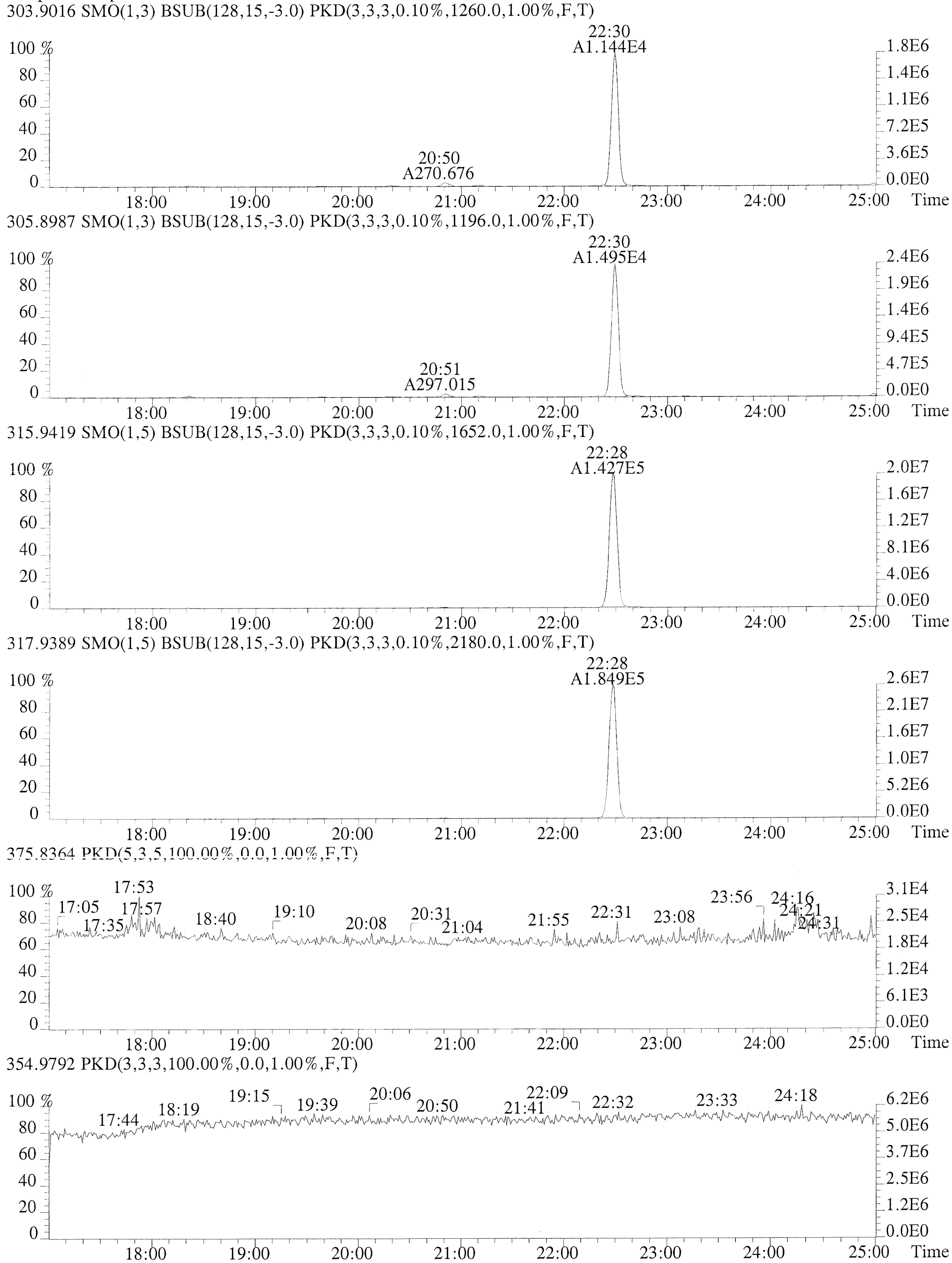
Run #3 Filename 4397 Samp: 1 Inj: 1 Acquired: 9-SEP-11 14:16:37
Processed: 12-SEP-11 08:31:29 Sample ID: ICAL CS3

	Typ	Name	RT-1	Resp 1	Resp 2	Ratio	Meet	Mod?
1	Unk	2,3,7,8-TCDF	22:30	1.144e+04	1.495e+04	0.76	yes	no
2	IS	13C-2,3,7,8-TCDF	22:28	1.427e+05	1.849e+05	0.77	yes	no
3	RS/RT	13C-1,2,3,4-TCDD	21:12	1.112e+05	1.430e+05	0.78	yes	no
4	C/Up	37Cl-2,3,7,8-TCDD	20:59	2.214e+04				

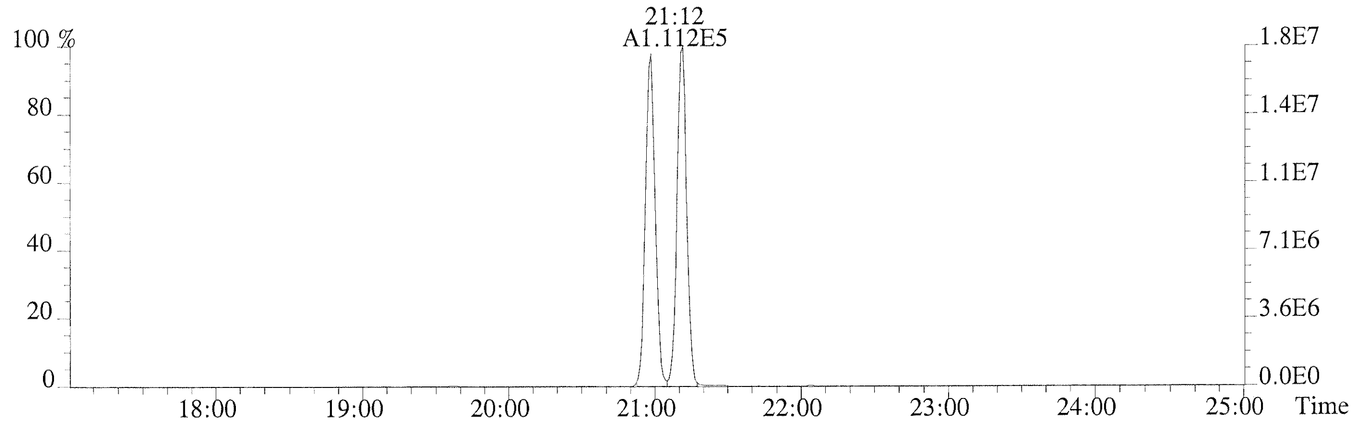
Signal/Noise Height Ratio Summary

Name	Signal 1	Noise 1	S/N Rat.1	Signal 2	Noise 2	S/N
2,3,7,8-TCDF	1.79e+06	1.26e+03	1.4e+03	2.35e+06	1.20e+03	2.0e+03
13C-2,3,7,8-TCDF	2.01e+07	1.65e+03	1.2e+04	2.62e+07	2.18e+03	1.2e+04
13C-1,2,3,4-TCDD	1.77e+07	2.80e+03	6.3e+03	2.27e+07	1.60e+03	1.4e+04
37Cl-2,3,7,8-TCDD	3.44e+06	1.93e+03	1.8e+03			

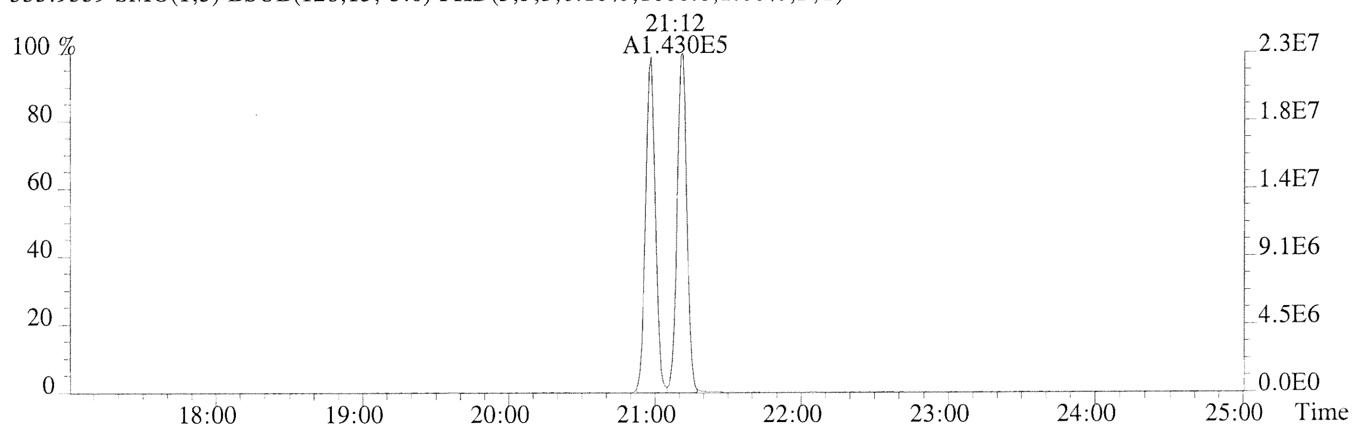
File 4397 #1-657 Acq: 9-SEP-2011 14:16:37 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp: -2-1BC



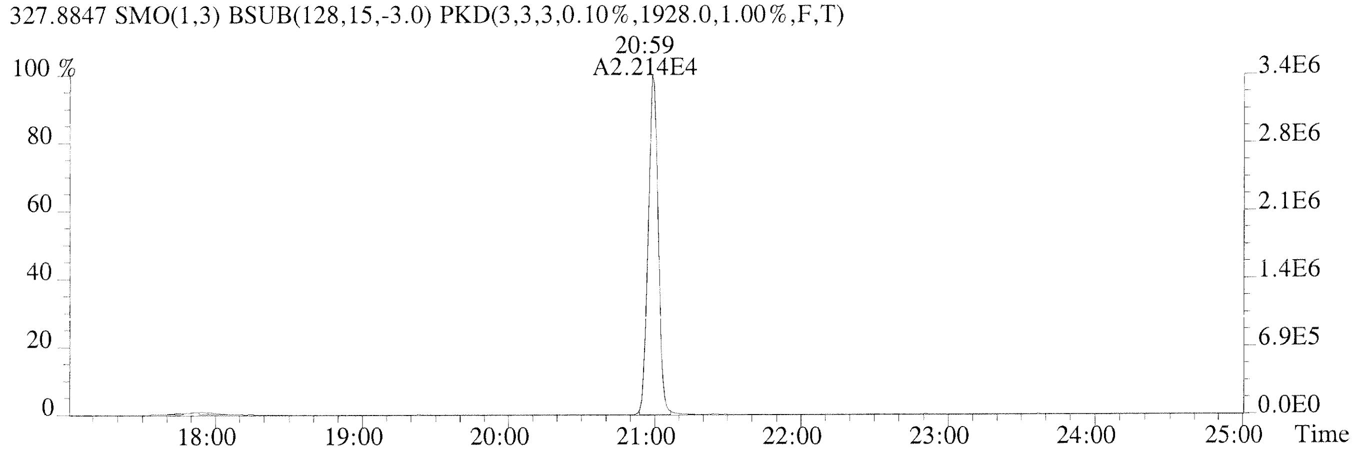
File: 4397 #1-657 Acq: 9-SEP-2011 14:16:37 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp: -2-1BC
331.9368 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,2800.0,1.00%,F,T)



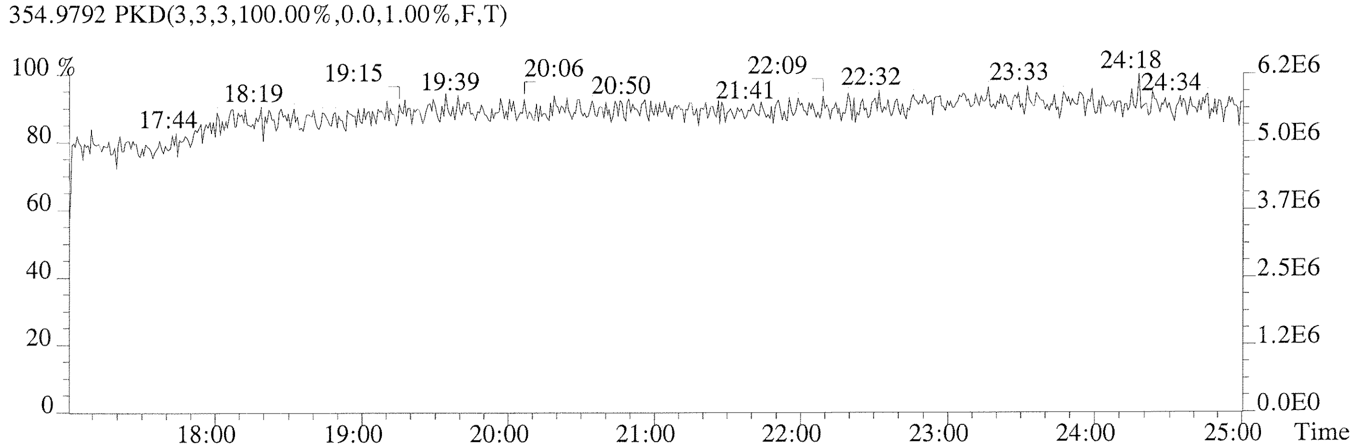
333.9339 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,1600.0,1.00%,F,T)



327.8847 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,1928.0,1.00%,F,T)



354.9792 PKD(3,3,3,100.00%,0.0,1.00%,F,T)



Sample Response Summary

EPA SAMPLE NO.
-2-1BD

Run #4 Filename 4398 Samp: 1 Inj: 1 Acquired: 9-SEP-11 14:52:45
Processed: 12-SEP-11 08:31:33 Sample ID: ICAL CS4

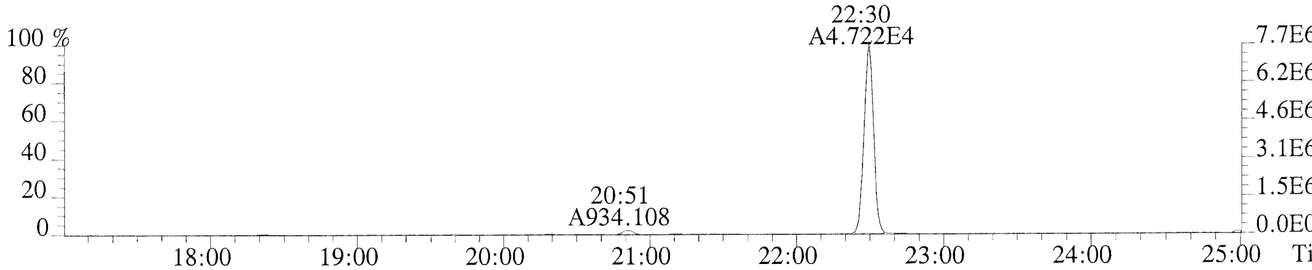
	Typ	Name	RT-1	Resp 1	Resp 2	Ratio	Meet	Mod?
1	Unk	2,3,7,8-TCDF	22:30	4.722e+04	6.099e+04	0.77	yes	no
2	IS	13C-2,3,7,8-TCDF	22:28	1.504e+05	1.940e+05	0.78	yes	no
3	RS/RT	13C-1,2,3,4-TCDD	21:12	1.153e+05	1.472e+05	0.78	yes	no
4	C/Up	37Cl-2,3,7,8-TCDD	20:59	9.580e+04				

Signal/Noise Height Ratio Summary

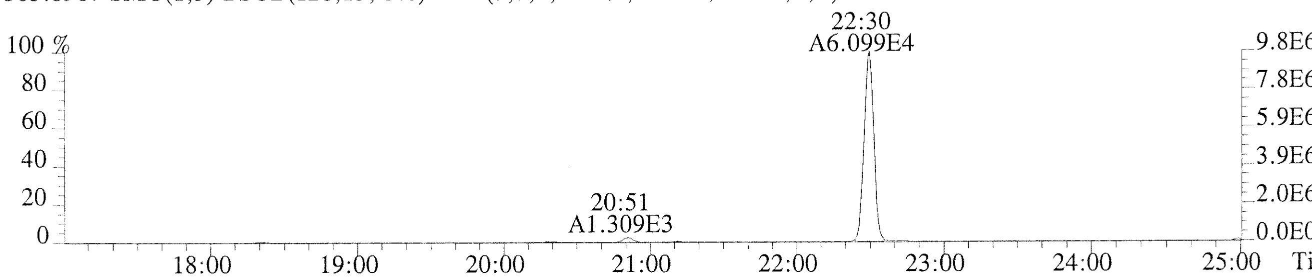
	Name	Signal 1	Noise 1	S/N Rat.1	Signal 2	Noise 2	S/N
1	2,3,7,8-TCDF	7.69e+06	2.57e+03	3.0e+03	9.76e+06	1.82e+03	5.4e+03
2	13C-2,3,7,8-TCDF	2.15e+07	1.71e+03	1.3e+04	2.76e+07	2.41e+03	1.1e+04
3	13C-1,2,3,4-TCDD	1.82e+07	2.70e+03	6.7e+03	2.32e+07	1.59e+03	1.5e+04
4	37Cl-2,3,7,8-TCDD	1.49e+07	1.36e+03	1.1e+04			

File: 4398 #1-657 Acq: 9-SEP-2011 14:52:45 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp: -2-1BD

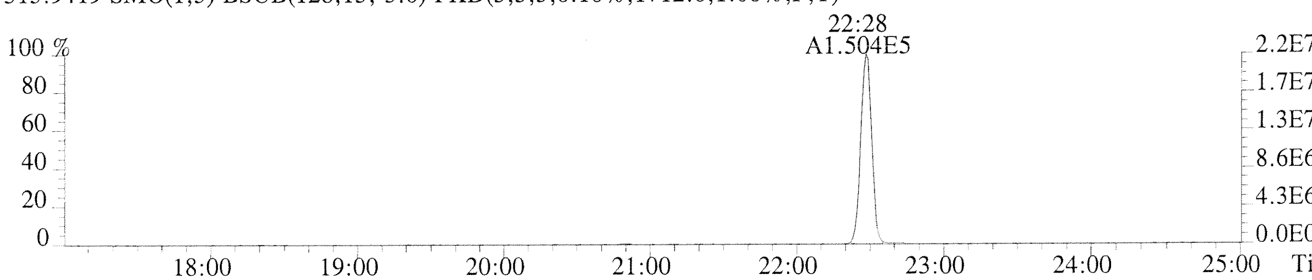
303.9016 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,2572.0,1.00%,F,T)



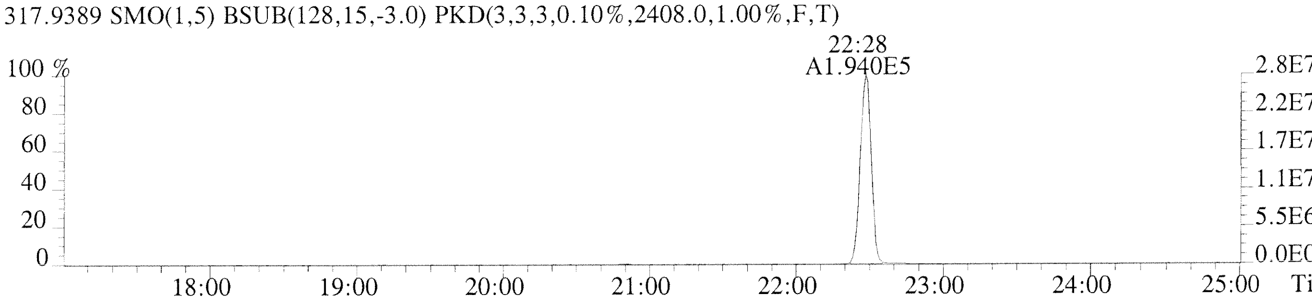
305.8987 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,1816.0,1.00%,F,T)



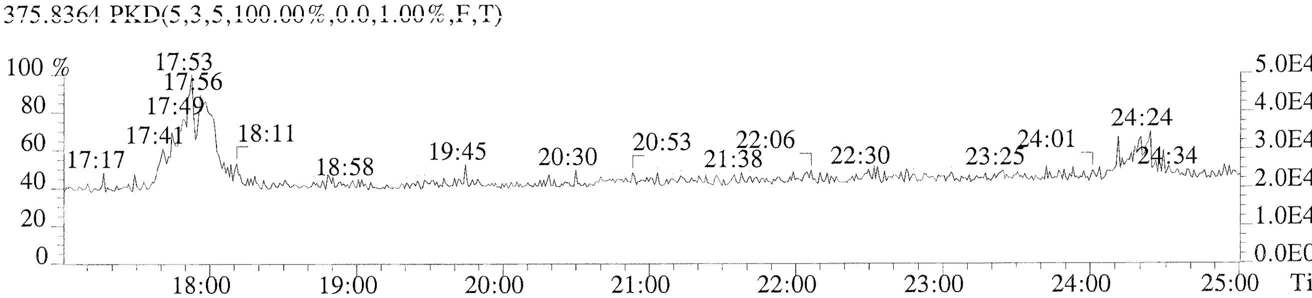
315.9419 SMO(1,5) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,1712.0,1.00%,F,T)



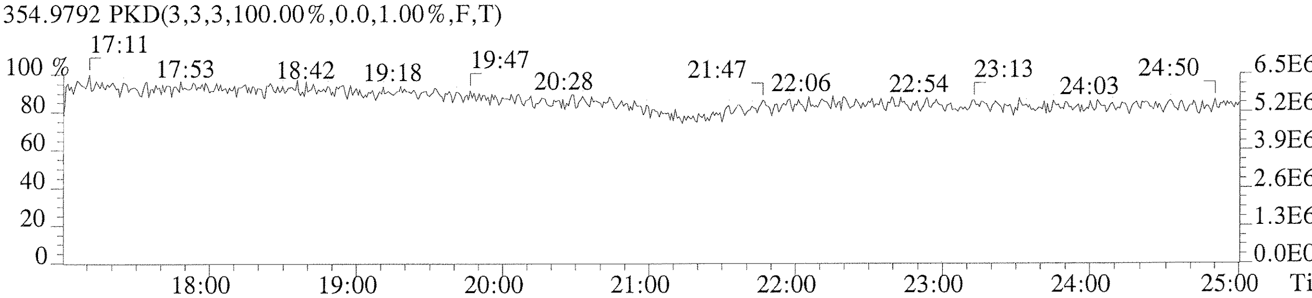
317.9389 SMO(1,5) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,2408.0,1.00%,F,T)



375.8364 PKD(5,3,5,100.00%,0.0,1.00%,F,T)

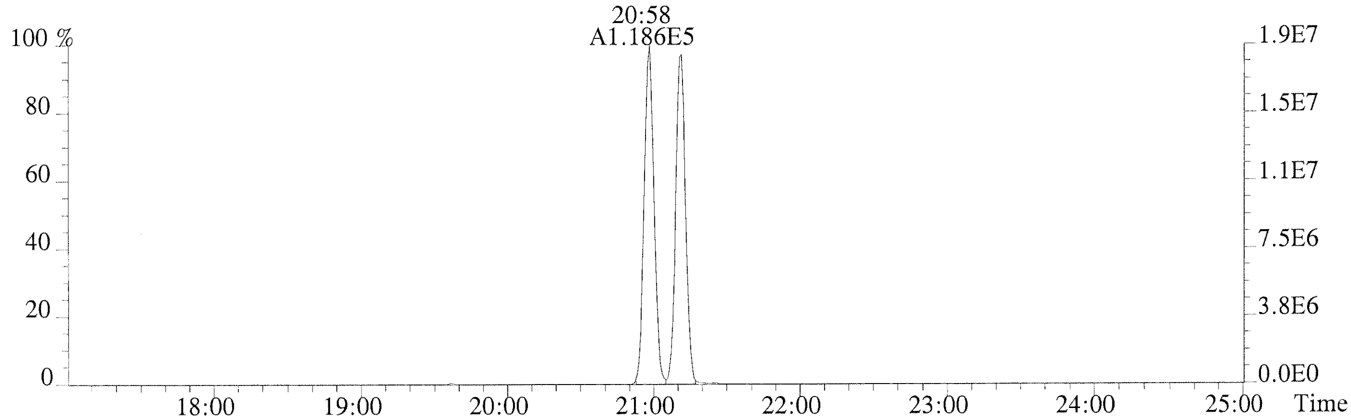


354.9792 PKD(3,3,3,100.00%,0.0,1.00%,F,T)

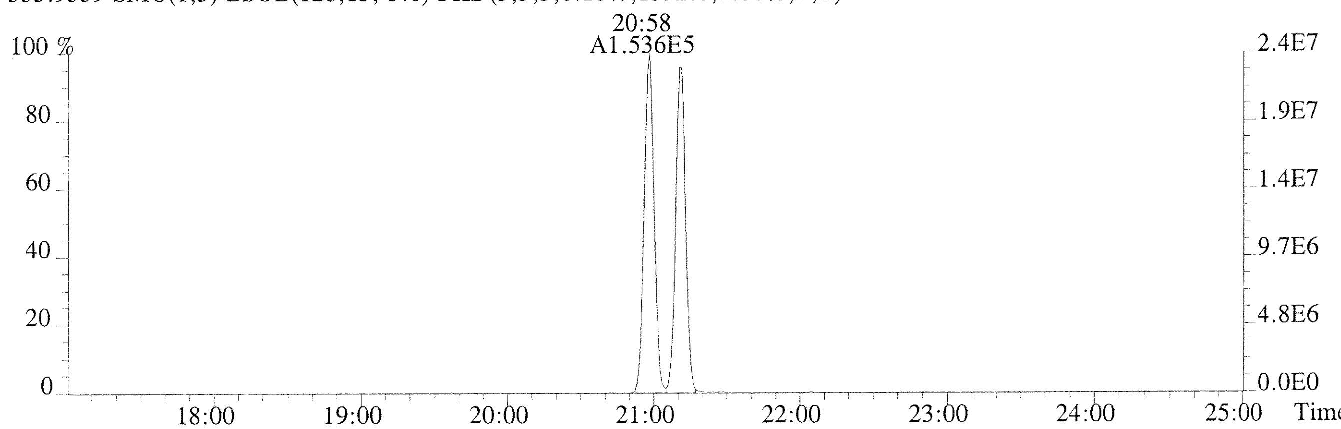


File 4398 #1-657 Acq: 9-SEP-2011 14:52:45 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp: -2-1BD

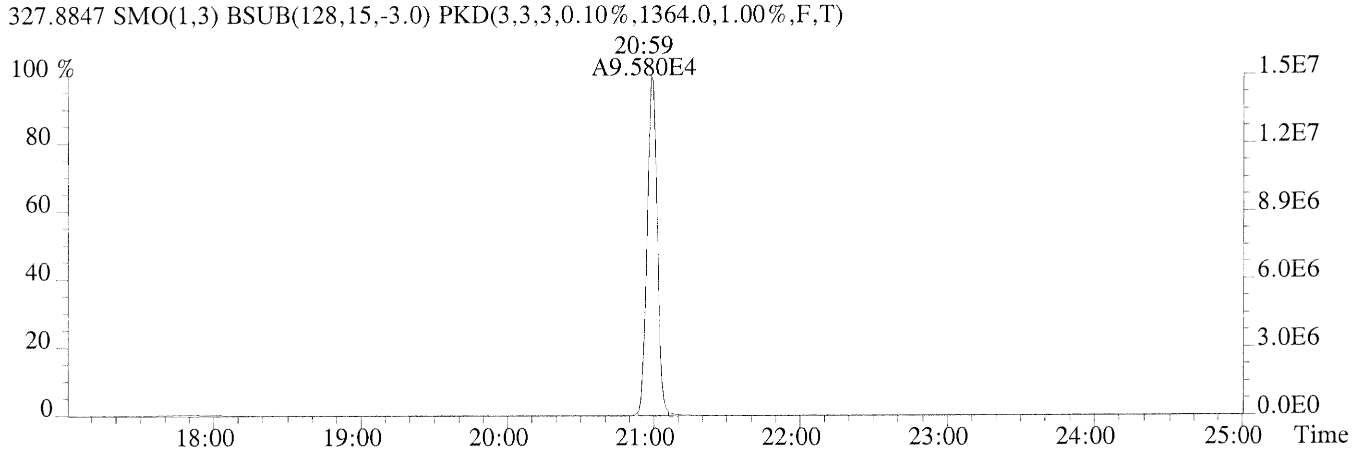
331.9368 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,2704.0,1.00%,F,T)



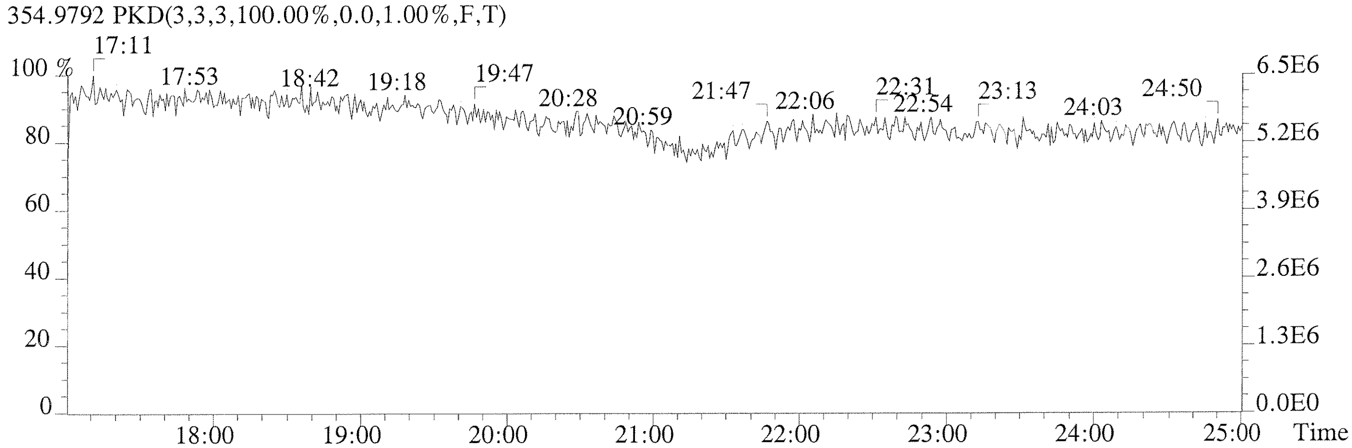
333.9339 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,1592.0,1.00%,F,T)



327.8847 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,1364.0,1.00%,F,T)



354.9792 PKD(3,3,3,100.00%,0.0,1.00%,F,T)



Sample Response Summary

EPA SAMPLE NO.
-2-1BE

Run #5 Filename 1399 Samp: 1 Inj: 1 Acquired: 9-SEP-11 15:30:10
Processed: 12-SEP-11 08:31:37 Sample ID: ICAL CS5

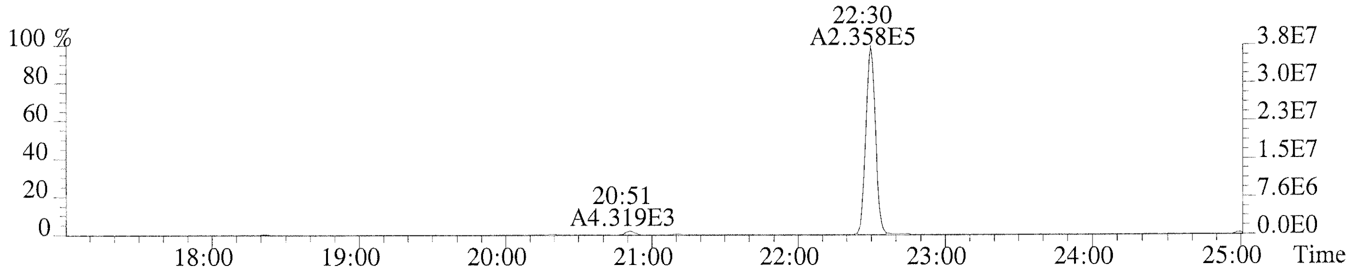
	Typ	Name	RT-1	Resp 1	Resp 2	Ratio	Meet	Mod?
1	Unk	2,3,7,8-TCDF	22:30	2.358e+05	3.025e+05	0.78	yes	no
2	IS	13C-2,3,7,8-TCDF	22:28	1.532e+05	1.988e+05	0.77	yes	no
3	RS/RT	13C-1,2,3,4-TCDD	21:12	1.226e+05	1.566e+05	0.78	yes	no
4	C/Up	37Cl-2,3,7,8-TCDD	20:59	4.811e+05				

Signal/Noise Height Ratio Summary

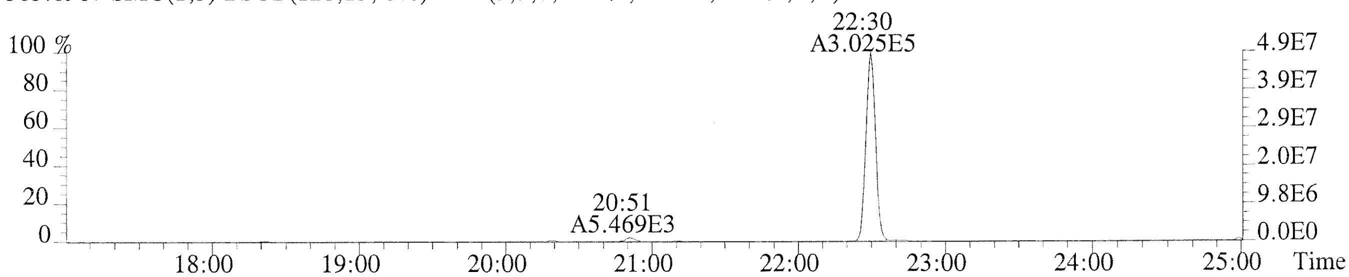
	Name	Signal 1	Noise 1	S/N Rat.1	Signal 2	Noise 2	S/N
1	2,3,7,8-TCDF	3.81e+07	3.33e+03	1.1e+04	4.89e+07	3.29e+03	1.5e+04
2	13C-2,3,7,8-TCDF	2.19e+07	2.10e+03	1.0e+04	2.85e+07	1.96e+03	1.5e+04
3	13C-1,2,3,4-TCDD	1.99e+07	3.09e+03	6.4e+03	2.52e+07	1.85e+03	1.4e+04
4	37Cl-2,3,7,8-TCDD	7.57e+07	1.87e+03	4.0e+04			

File: 4399 #1-657 Acq: 9-SEP-2011 15:30:10 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp: -2-1BE

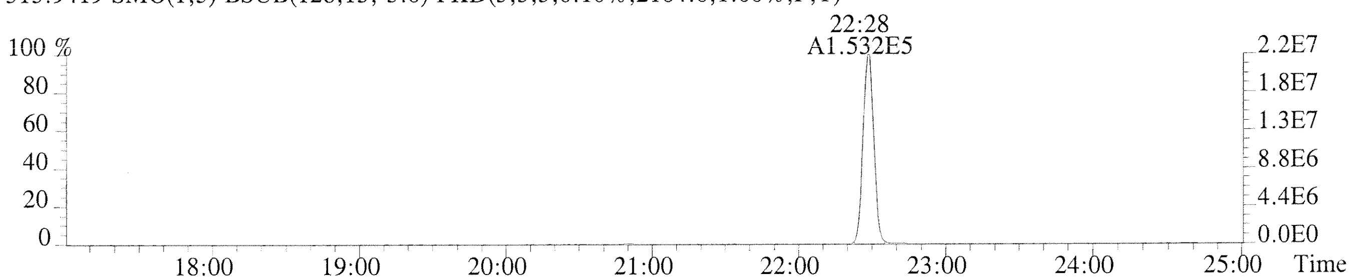
303.9016 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,3332.0,1.00%,F,T)



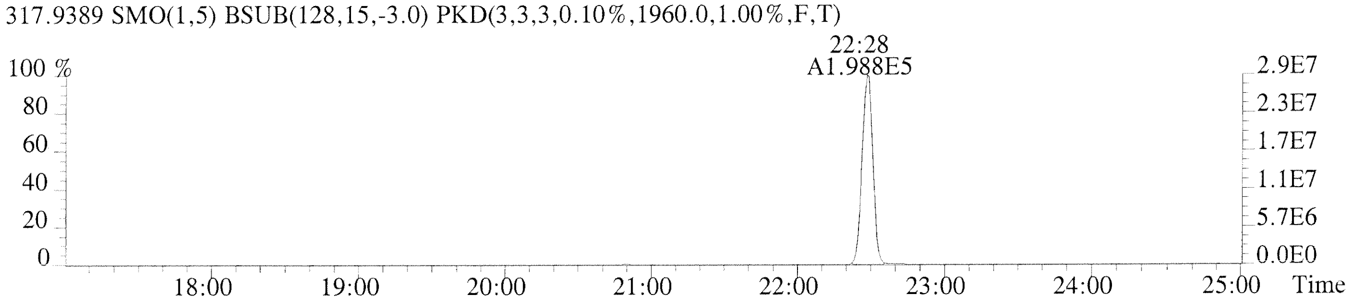
305.8987 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,3288.0,1.00%,F,T)



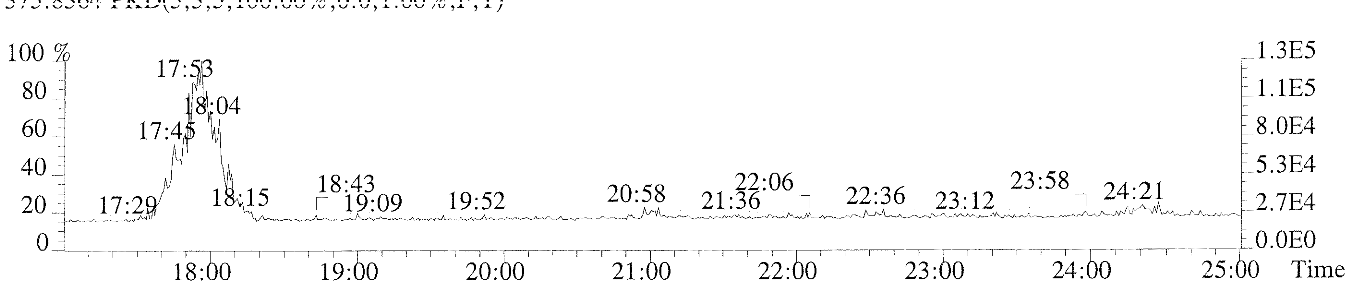
315.9419 SMO(1,5) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,2104.0,1.00%,F,T)



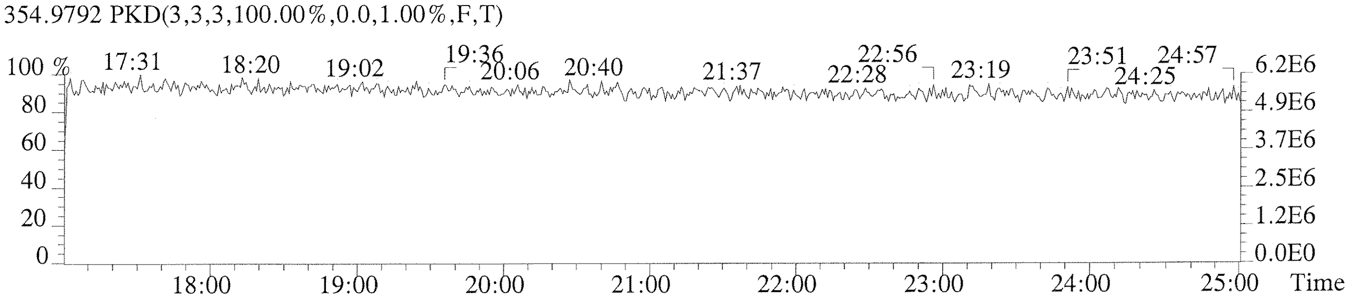
317.9389 SMO(1,5) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,1960.0,1.00%,F,T)



375.8364 PKD(5,3,5,100.00%,0.0,1.00%,F,T)

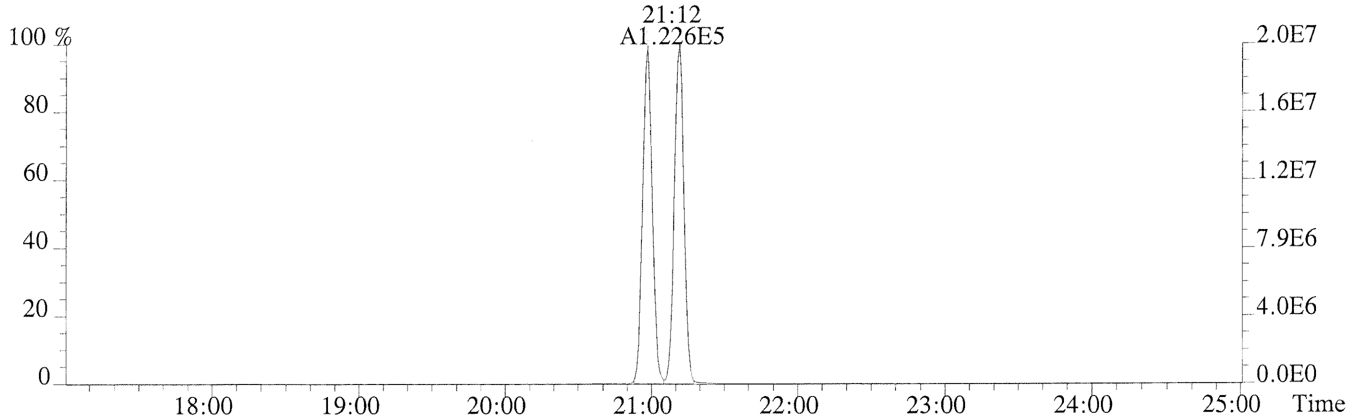


354.9792 PKD(3,3,3,100.00%,0.0,1.00%,F,T)

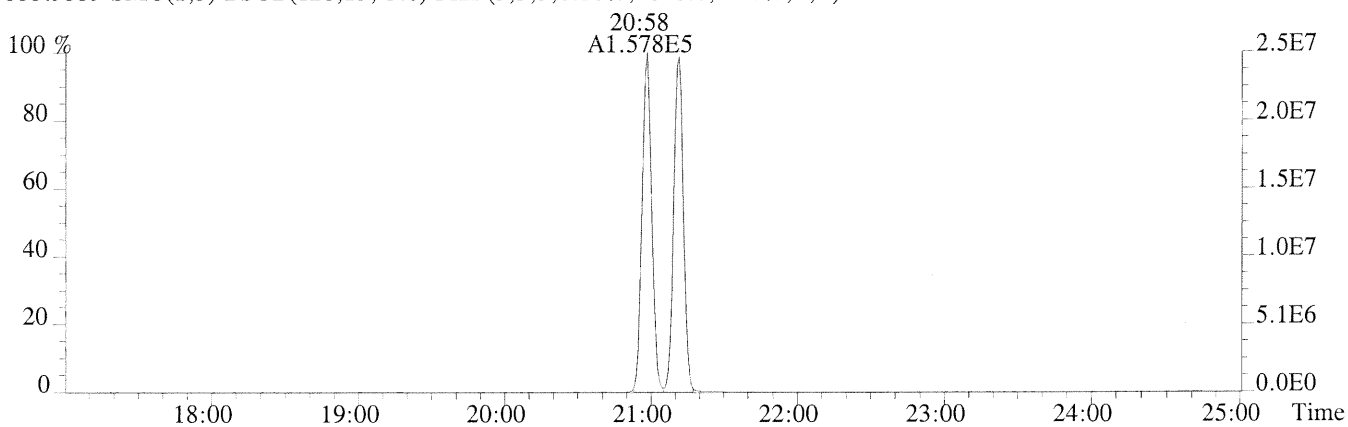


File: 4399 #1-657 Acq: 9-SEP-2011 15:30:10 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp: -2-1BE

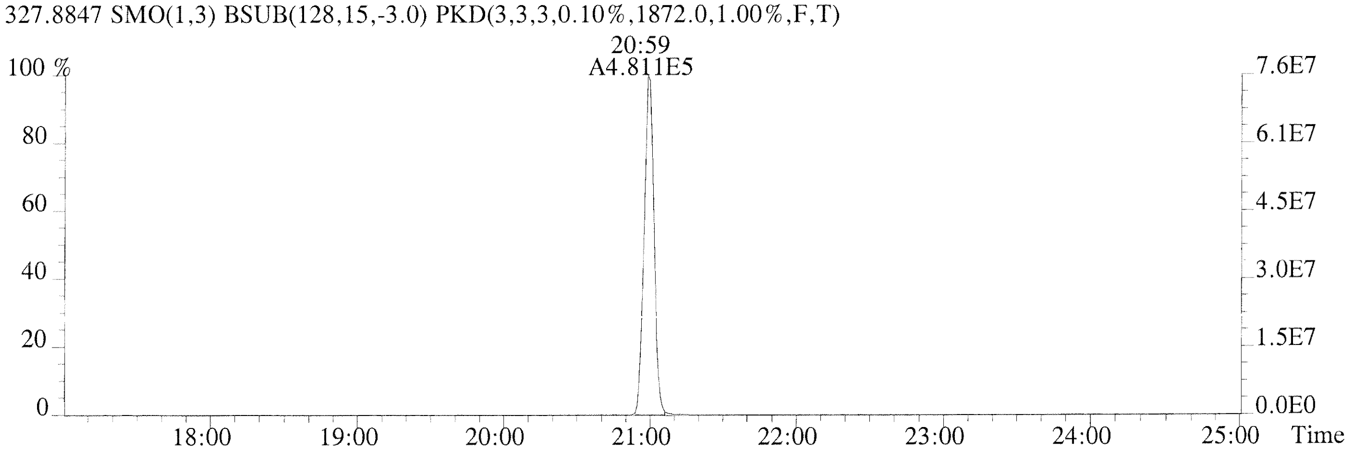
331.9368 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,3088.0,1.00%,F,T)



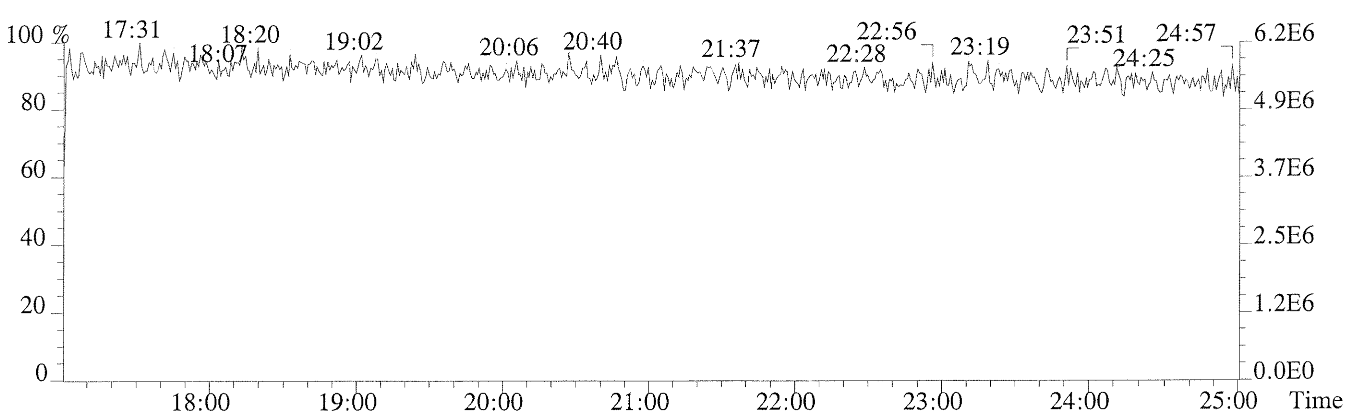
333.9339 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,1848.0,1.00%,F,T)



327.8847 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,1872.0,1.00%,F,T)



354.9792 PKD(3,3,3,100.00%,0.0,1.00%,F,T)



Sample Response Summary

EPA SAMPLE NO.
-83-1B

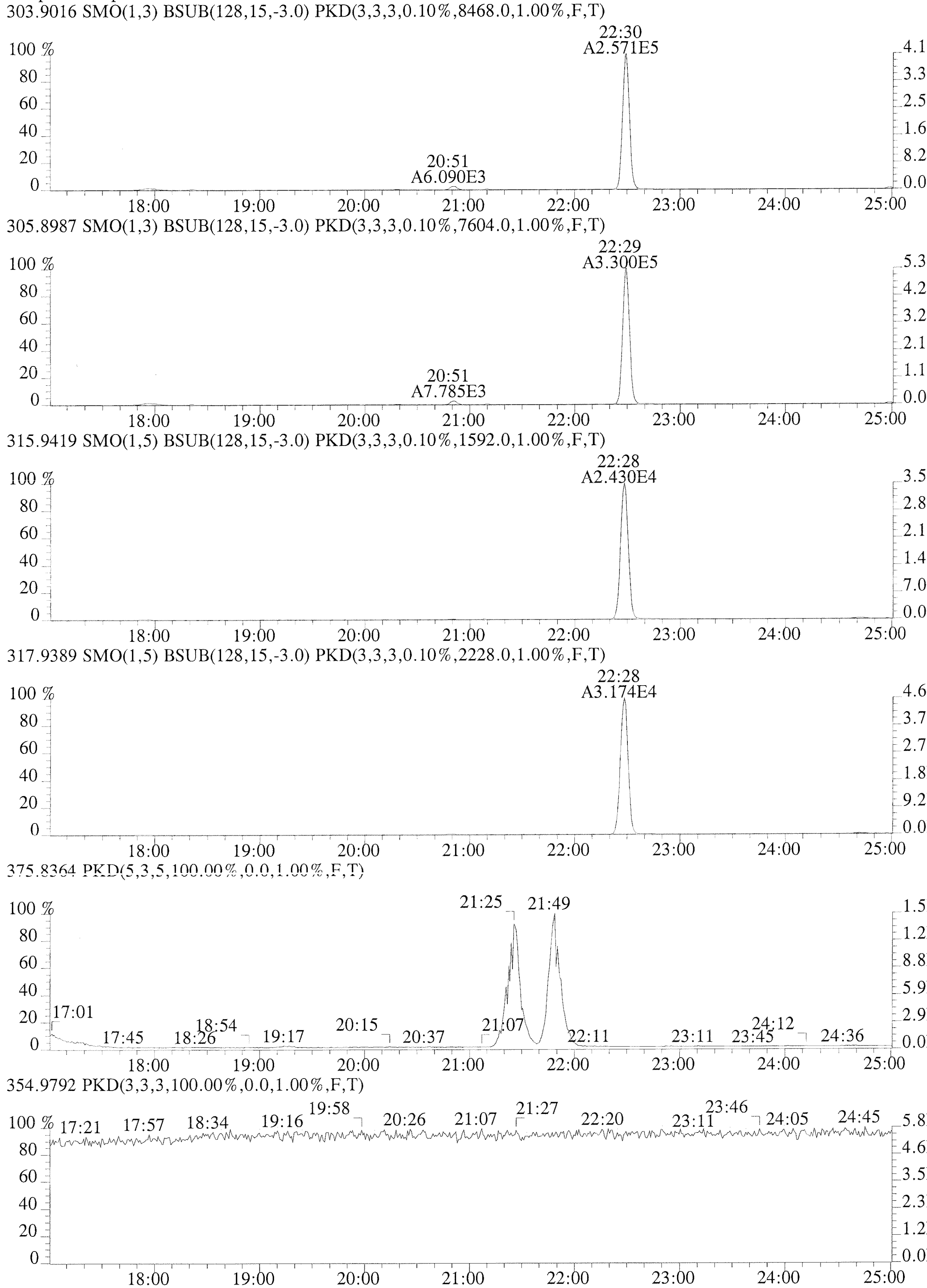
Run #6 Filename 4402 Samp: 1 Inj: 1 Acquired: 9-SEP-11 18:07:26
Processed: 12-SEP-11 08:31:42 Sample ID: ICAL CS6

	Typ	Name	RT-1	Resp 1	Resp 2	Ratio	Meet	Mod?
1	Unk	2,3,7,8-TCDF	22:30	2.571e+05	3.300e+05	0.78	yes	no
2	IS	13C-2,3,7,8-TCDF	22:28	2.430e+04	3.174e+04	0.77	yes	no
3	RS/RT	13C-1,2,3,4-TCDD	21:12	1.879e+04	2.435e+04	0.77	yes	no
4	C/Up	37Cl-2,3,7,8-TCDD	20:59	4.894e+05				

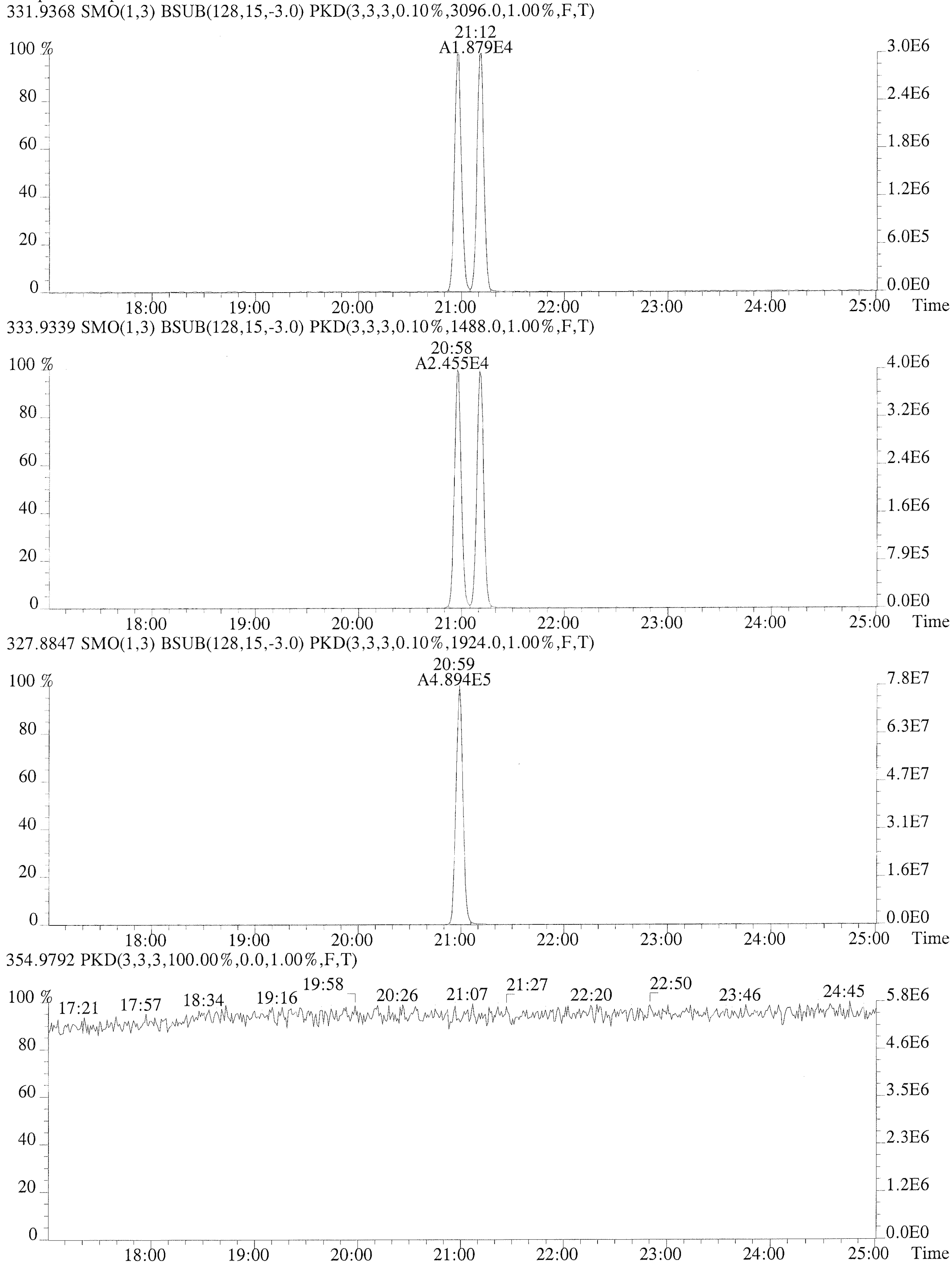
Signal/Noise Height Ratio Summary

Name	Signal 1	Noise 1	S/N Rat.1	Signal 2	Noise 2	S/N
2,3,7,8-TCDF	4.12e+07	8.47e+03	4.9e+03	5.27e+07	7.60e+03	6.9e+03
13C-2,3,7,8-TCDF	3.52e+06	1.59e+03	2.2e+03	4.57e+06	2.23e+03	2.1e+03
13C-1,2,3,4-TCDD	3.01e+06	3.10e+03	9.7e+02	3.93e+06	1.49e+03	2.6e+03
37Cl-2,3,7,8-TCDD	7.82e+07	1.92e+03	4.1e+04			

File: 4402 #1-657 Acq: 9-SEP-2011 18:07:26 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp: -83-1B



File: 4402 #1-657 Acq: 9-SEP-2011 18:07:26 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp: -83-1B



USEPA - ITD

FORM 4A
TCDF CALIBRATION VERIFICATION

Lab Name: Contract No.:

Lab Code: Case No.: Client No: SDG No.:

Initial Calibration Date: 09/09/11

Instrument ID.: AutoSpec_Premier GC COLUMN ID: DB-225

VER Data Filename: 4408 Analysis Date: 12-SEP-11 Time: 12:10:50

NATIVE ANALYTES	M/Z'S FORMING RATIO (1)	ION ABUND. RATIO	QC LIMITS (2)	CCAL. RRF	MEAN RRF	%D (3)
2,3,7,8-TCDF	M/M+2	0.76	0.65-0.89	0.93	0.88	6.22
Labeled Compounds						
13C-2,3,7,8-TCDF	M/M+2	0.73	0.65-0.89	1.39	1.29	7.44
Cleanup Standard						
37Cl-2,3,7,8-TCDD				1.10	0.97	13.15

Sample Response Summary

EPA SAMPLE NO.
CCAL CS3

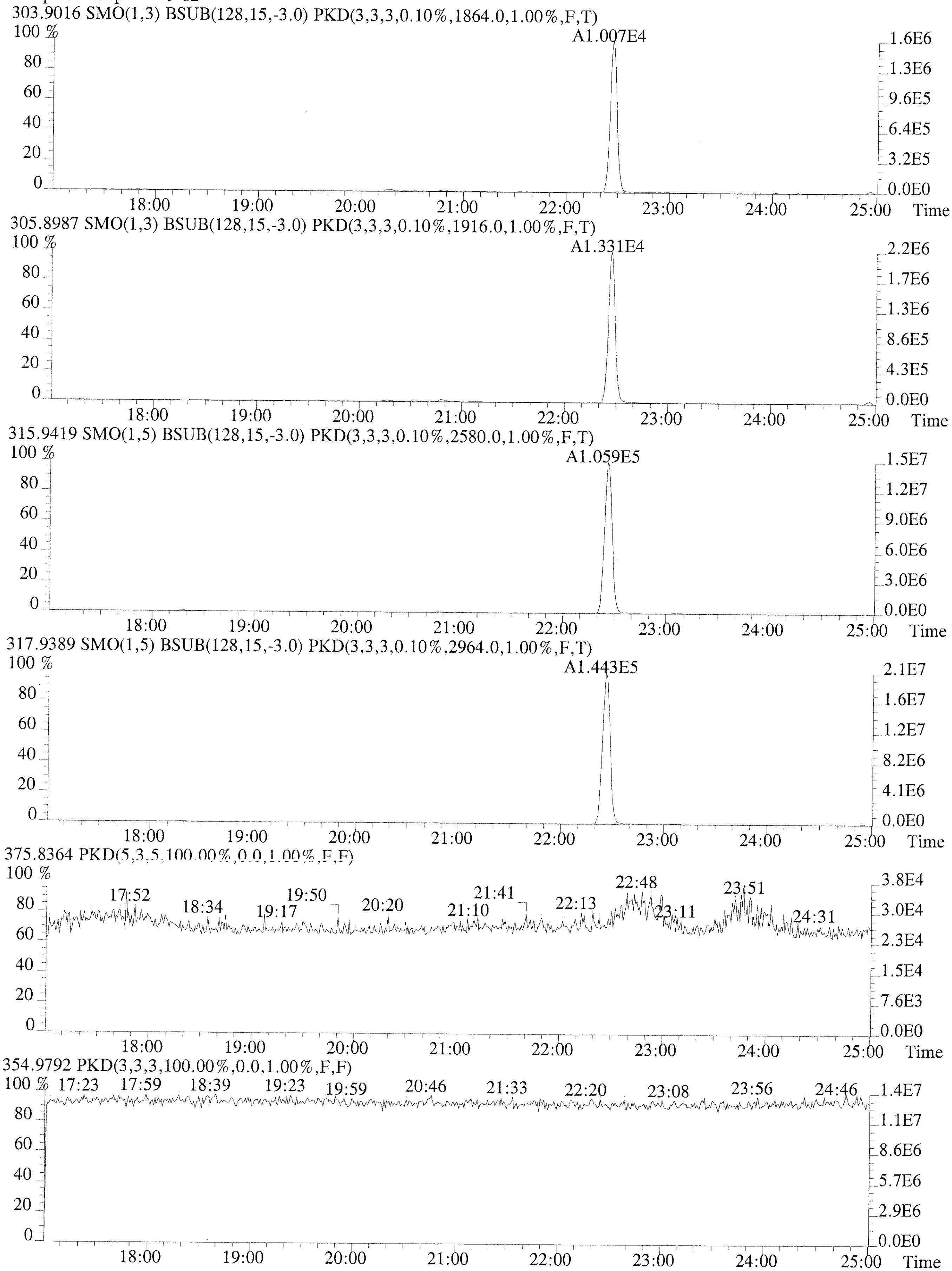
Run #7 Filename 4408 Samp: 1 Inj: 1 Acquired: 12-SEP-11 12:10:50
Processed: 23-SEP-11 13:33:58 Sample ID: CCAL CS3

	Typ	Name	RT-1	Resp 1	Resp 2	Ratio	Meet	Mod?	
1	Unk	2,3,7,8-TCDF	22:28	1.007e+04	1.331e+04	0.76	yes	n	n
2	IS	13C-2,3,7,8-TCDF	22:26	1.059e+05	1.443e+05	0.73	yes	n	n
3	RS/RT	13C-1,2,3,4-TCDD	21:09	7.902e+04	1.011e+05	0.78	yes	n	n
4	C/Up	37Cl-2,3,7,8-TCDD	20:57	1.980e+04				n	

Signal/Noise Height Ratio Summary

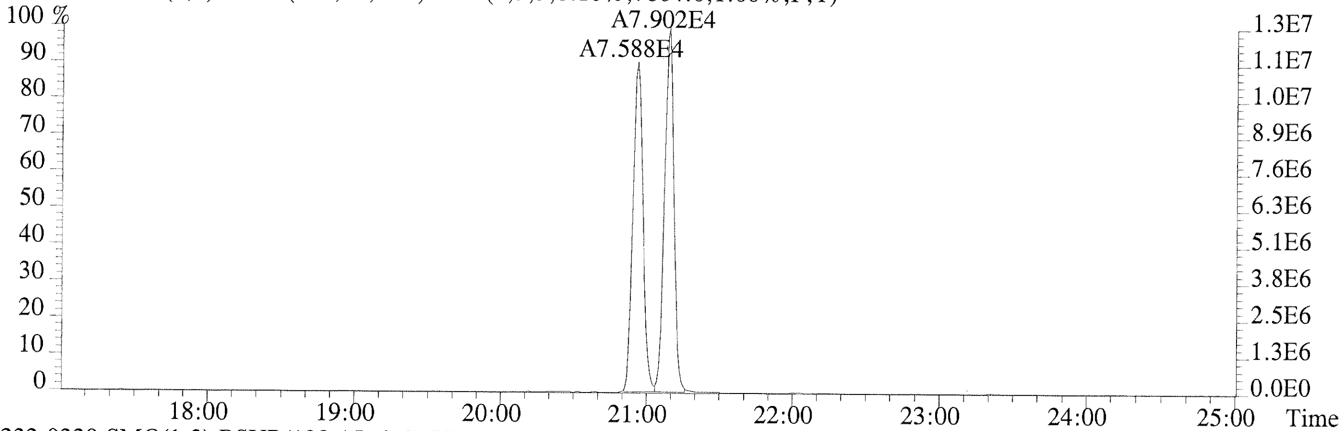
	Name	Signal 1	Noise 1	S/N Rat.1	Signal 2	Noise 2	S/N
1	2,3,7,8-TCDF	1.61e+06	1.86e+03	8.6e+02	2.15e+06	1.92e+03	1.1e+03
2	13C-2,3,7,8-TCDF	1.51e+07	2.58e+03	5.8e+03	2.06e+07	2.96e+03	6.9e+03
3	13C-1,2,3,4-TCDD	1.27e+07	7.80e+03	1.6e+03	1.61e+07	3.55e+03	4.5e+03
4	37Cl-2,3,7,8-TCDD	2.94e+06	1.94e+03	1.5e+03			

File: 4408 #1-657 Acq:12-SEP-2011 12:10:50 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp -5-1B

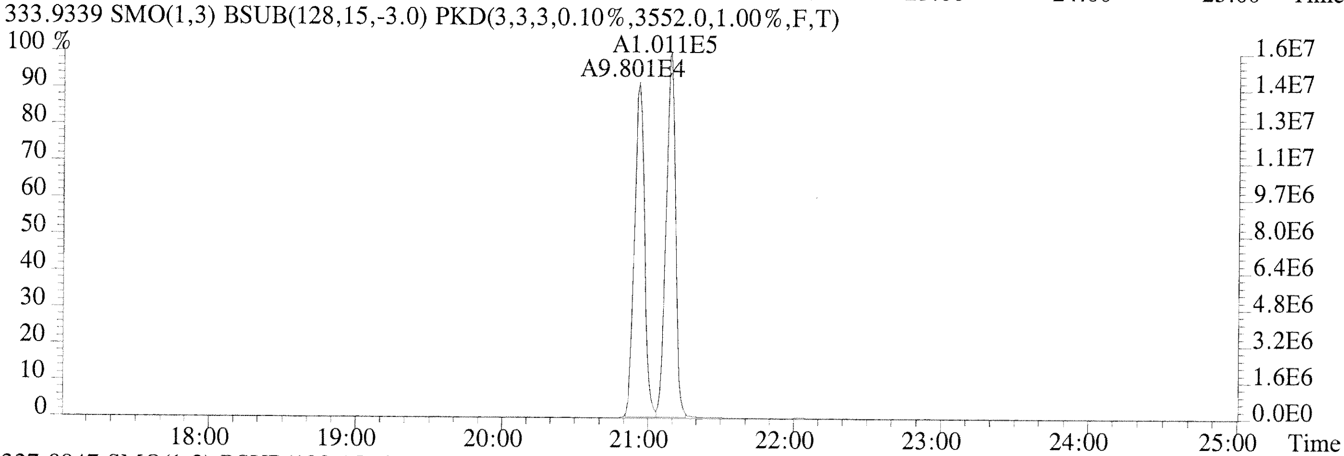


File: 4408 #1-657 Acq:12-SEP-2011 12:10:50 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp: -5-1B

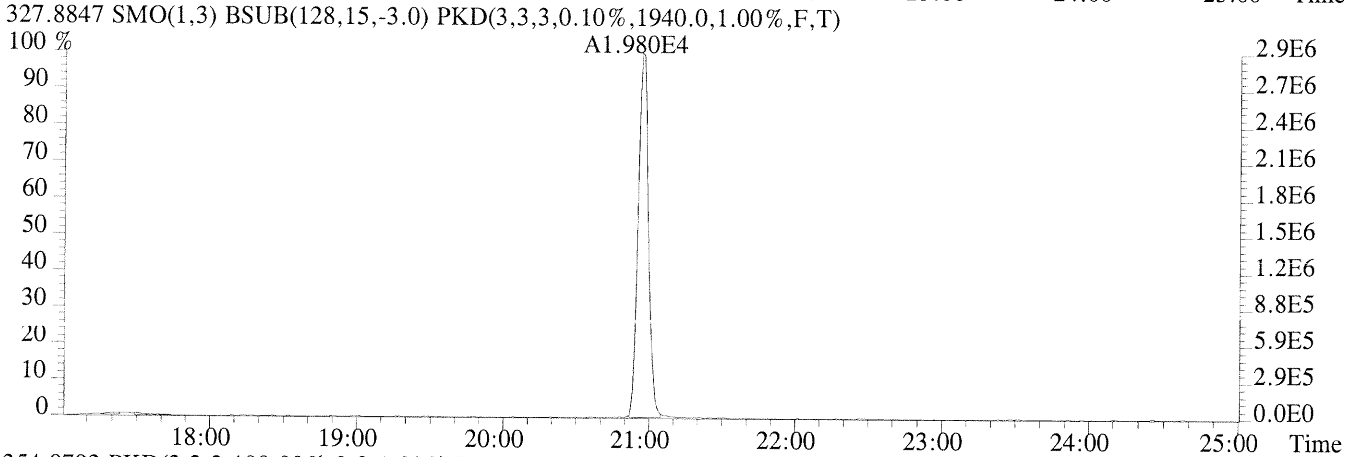
331.9368 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,7804.0,1.00%,F,T)



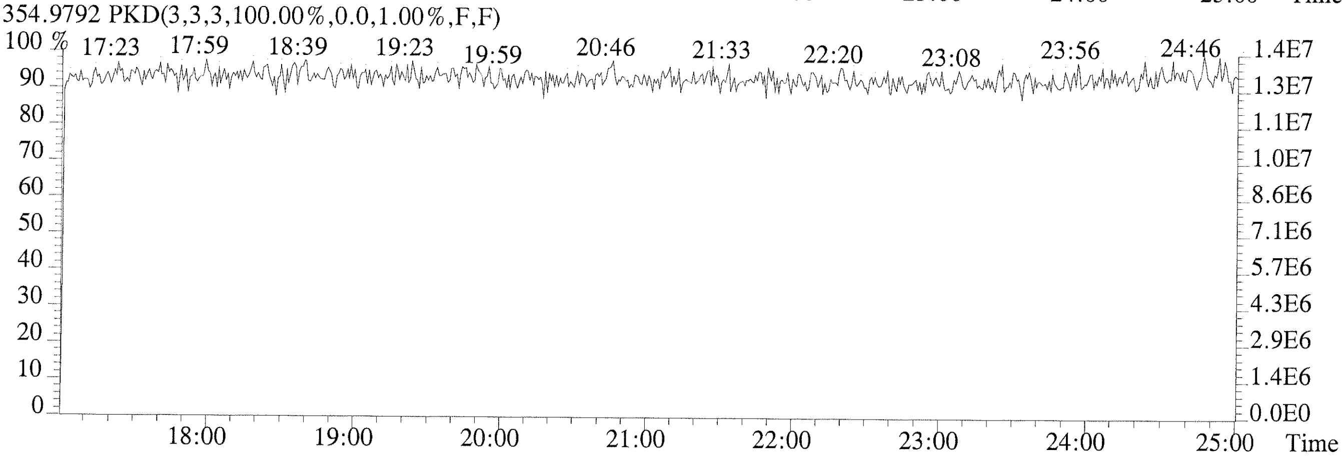
333.9339 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,3552.0,1.00%,F,T)



327.8847 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,1940.0,1.00%,F,T)



354.9792 PKD(3,3,3,100.00%,0.0,1.00%,F,F)



Initial Calibration QC Checklist

ICAL Nam 3423I613I

Date: 23 APR. '12

Method: 1613 / 8290 / Tetra / TCDD Only / TCDF Conf / 8280 / 613 / M23 / TO-9

Retention Window/Column Performance Check	Analyst	Second Check
Windows in and first and last eluters labeled	✓	✓
Column Performance shows less than or equal to 25% valley between column specific 2378 isomer and it's closest eluters	✓	✓
No QC ion deflections affect column specific 2378 isomer or it's closest eluters	✓	✓

Initial Calibration	Analyst	Second Check
Percent RSD within method criteria	✓	✓
All relative abundance ratios meet method criteria	✓	✓
No QC ion deflections of greater than 20%	✓	✓
Mass spectrometer resolution greater than or equal to 10,000 and documented	✓	✓
2378-TCDD elutes at 25 minutes or later on the DB-5 column	✓	✓
Signal-to-noise of all target analytes and their labeled standards at least 10:1	✓	✓
Valley between labeled 123478 and 123678 HxCDD peaks less than or equal to 50%	✓	✓
All Manual Intergrations signed and dated and first and fina [redacted] l summary included	✓	✓

Analyst: ___ [redacted] ___________________ Second QC: ____________ [redacted] ___

icalqc.xls 02-23-00

5DFC
PCDD/PCDF ANALYTICAL SEQUENCE SUMMARY
HIGH RESOLUTION

Name: Contract

Lab Code: CASE No.: Client No: SDG No.:

GC Column: DB-5 ID: 0.25 (mm) Instrument ID: AutoSpec-Premier

Init. Calib. Date: 04/23/12

Init. Calib.Times: 05:13:56

THE ANALYTICAL SEQUENCE OF STANDARDS, SAMPLES, BLANKS, SPIKES AND DUPLICATES IS AS FOLLOWS:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
WINDOW DEFINE	ICAL CS5	7201	23-APR-12	05:13:56
ICAL CS0.5	ICAL CS0.5	7202	23-APR-12	06:03:22
ICAL CS1	ICAL CS1	7203	23-APR-12	07:12:38
ICAL CS2	ICAL CS2	7204	23-APR-12	08:03:38
ICAL CS3	ICAL CS3	7205	23-APR-12	08:56:23
ICAL CS4	ICAL CS4	7206	23-APR-12	09:57:19
ICAL CS5	ICAL CS5	7207	23-APR-12	10:51:12

Sample List Report

MassLynx 4.1

Sample List:

Page 1 of 2

Last Modified: Monday, April 23, 2012 15:16:22 Central Daylight Time

Printed: Monday. April 23, 2012 15:16:39 Central Daylight Time

Page Position (1, 1)

D: 04231613I D: 1208RES-VER D: 0423M23I D: 208RES-VERM23

	Date	Time	File Name	Sample ID	Client ID		Comments	GC Met	Acq Met	Column
1	04/23/12	05:13	7201	WINDOW DEFINE	D12-56-2		HRMS Check 05:11	8290	8290_	DB-5
2		06:03	7202	ICAL CS0.5	D13-8-2			8290	8290_	DB-5
3		07:19	7203	ICAL CS1	D12-90-3A			8290	8290_	DB-5
4		08:03	7204	ICAL CS2	D12-90-3B			8290	8290_	DB-5
5		08:56	7205	ICAL CS3	D12-83-1			8290	8290_	DB-5
6		09:57	7206	ICAL CS4	D12-90-3D			8290	8290_	DB-5
7		10:51	7207	ICAL CS5	D12-90-3E			8290	8290_	DB-5
8		11:54	7208	2ND SOURCE VERIFICATION	D12-5-1B		HRMS Check 15:03	8290	8290_	DB-5
9			---	---	---			8290	8290_	DB-5
10			---	---	---			8290	8290_	DB-5
11			---	---	---			8290	8290_	DB-5
12			---	---	---			8290	8290_	DB-5
13			---	---	---			8290	8290_	DB-5
14			---	---	---			8290	8290_	DB-5
15			---	---	---			8290	8290_	DB-5
16			---	---	---			8290	8290_	DB-5
17			---	---	---			8290	8290_	DB-5
18			---	---	---			8290	8290_	DB-5
19			---	---	---			8290	8290_	DB-5
20			---	---	---			8290	8290_	---
21			---	---	---			8290	8290_	---
22			---	---	---			8290	8290_	---
23			---	---	---			8290	8290_	---
24			---	---	---			8290	8290_	---
25			---	---	---			8290	8290_	---
26			---	---	---			8290	8290_	---
27			---	---	---			8290	8290_	---
28	---	---	---	---	---	---	---	8290	8290_	---
29	---	---	---	---	---	---	---	8290	8290_	---
30	---	---	---	---	---	---	---	8290	8290_	---
31	---	---	---	---	---	---	---	8290	8290_	---
32	---	---	---	---	---	---	---	8290	8290_	---
33	---	---	---	---	---	---	---	8290	8290	---
34	---	---	---	---	---	---	---	8290	8290	---
35	---	---	---	---	---	---		8290	8290	---
36	---	---	---	---	---	---	---	8290	8290	---
37	---	---	---	---	---	---	---	8290	8290	---
38	---	---	---	---	---	---	---	8290	8290	---
39	---	---	---	---	---	---	---	8290	8290	---

098

Reviewed By

04/24/12

New Ical

Sample List: Page 1 of 4

Last Modified: Monday, April 23, 2012 15:16:22 Central Daylight Time

Printed: Monday, April 23, 2012 15:16:28 Central Daylight Time Page Position (1, 1)

	File Name	File Text	CAS ID	Client ID	MS File	Inlet File	Column	Process Options
1	201	WINDOW DEFINE	WINDOW DEFINE	D12-56-2	8290_	8290	DB-5	---
2	202	ICAL CS0.5	ICAL CS0.5	D13-8-2	8290_	8290	DB-5	---
3	203	ICAL CS1	ICAL CS1	D12-90-3A	8290_	8290	DB-5	---
4	204	ICAL CS2	ICAL CS2	D12-90-3B	8290_	8290	DB-5	---
5	205	ICAL CS3	ICAL CS3	D12-83-1	8290_	8290	DB-5	---
6	206	ICAL CS4	ICAL CS4	D12-90-3D	8290_	8290	DB-5	---
7	207	ICAL CS5	ICAL CS5	D12-90-3E	8290_	8290	DB-5	---
8	208	2ND SOURCE VERIFICATION	2ND SOURCE VERIFICATION	D12-5-1B	8290_	8290	DB-5	C:\MassLynx\8290_ dat
9	---	---	---	---	8290_	8290	DB-5	---
10	---	---	---	---	8290_	8290	DB-5	---
11	---	---	---	---	8290_	8290	DB-5	---
12	---	---	---	---	8290_	8290	DB-5	---
13	---	---	---	---	8290_	8290	DB-5	---
14	---	---	---	---	8290_	8290	DB-5	---
15	---	---	---	---	8290_	8290	DB-5	C:\MassLynx\8290_ dat
16	---	---	---	---	8290_	8290	DB-5	---
17	---	---	---	---	8290_	8290	DB-5	---
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19	---	---	---	---	8290_	8290	DB-5	---
20	---	---	---	---	8290_	8290	---	---
21	---	---	---	---	8290_	8290	---	---
22	---	---	---	---	8290_	8290	---	C:\MassLynx\8290_ .dat
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25	---	---	---	---	8290_	8290	---	C:\MassLynx\8290_ .dat
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27	---	---	---	---	8290_	8290	---	---
28	---	---	---	---	8290_	8290	---	---
29	---	---	---	---	8290_	8290	---	---
30	---	---	---	---	8290	8290	---	---
31	---	---	---	---	8290	8290	---	C:\MassLynx\8290 dat
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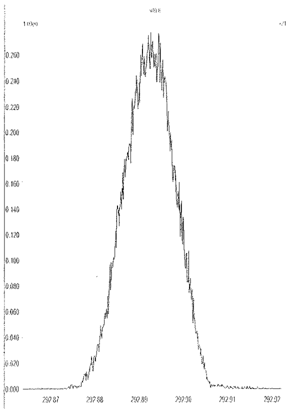
37	---	---	---	---	8290	8290	---	C:\MassLynx\429 dat
38	---	---	---	---	8290	8290	---	---
39	---	---	---	---	8290	8290	---	---

Experiment Calibration Report **MassLynx 4.1** Page 1 of 1

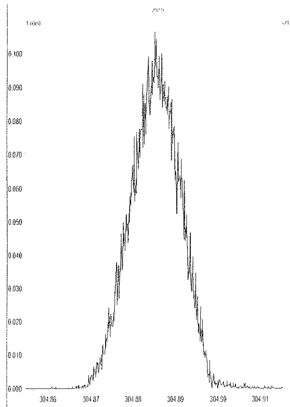
File: Experiment: 8290_ exp Reference: Pfk.ref Function: 1 @ 200 (ppm)

Printed: Monday, April 23, 2012 05:11:40 Central Daylight Time

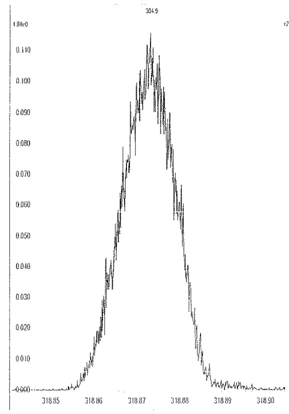
M 292.9824 R 11113



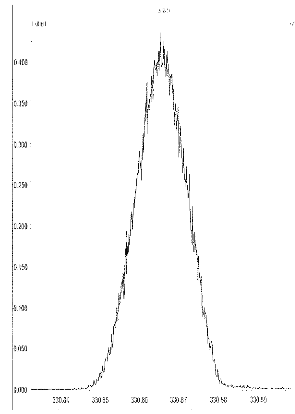
M 304.9824 R 11848



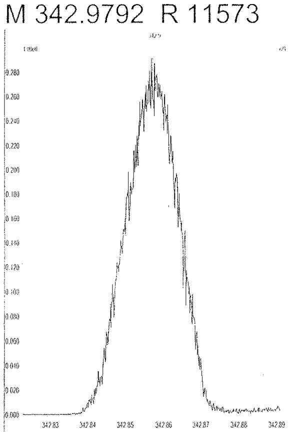
M 318.9792 R 11735



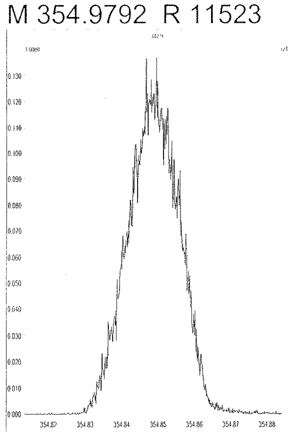
M 330.9792 R 11575



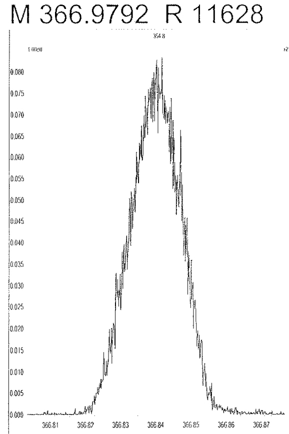
M 342.9792 R 11573



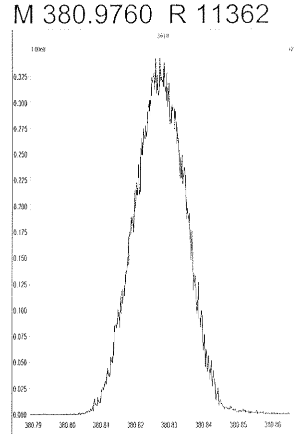
M 354.9792 R 11523



M 366.9792 R 11628



M 380.9760 R 11362



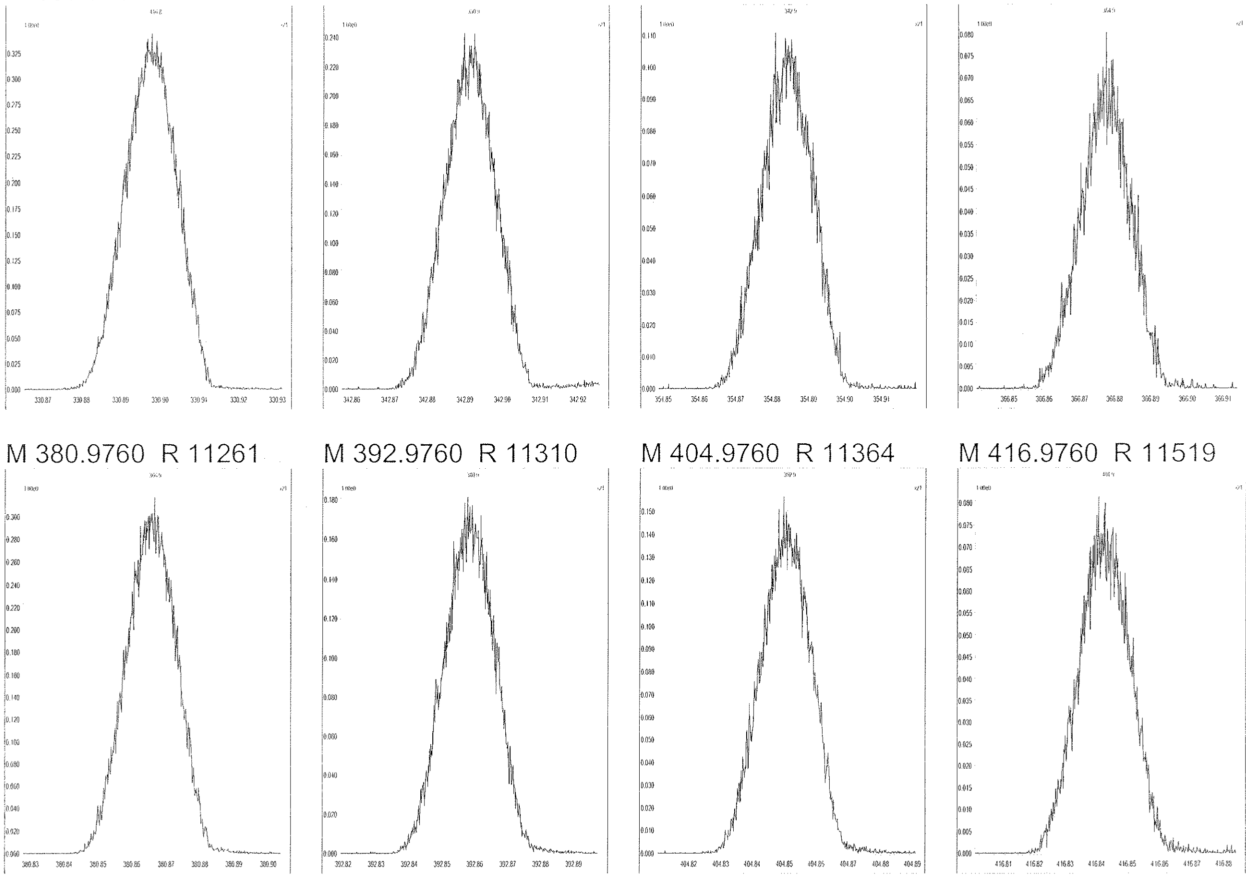
Experiment Calibration Report **MassLynx 4.1**

File: Experiment: 8290_ exp Reference: Pfk.ref Function: 2 @ 200 (ppm)

Printed: Monday, April 23, 2012 05:12:02 Central Daylight Time

M 330.9792 R 11259 M 342.9792 R 11359 M 354.9792 R 11626 M 366.9792 R 12137

M 380.9760 R 11261 M 392.9760 R 11310 M 404.9760 R 11364 M 416.9760 R 11519

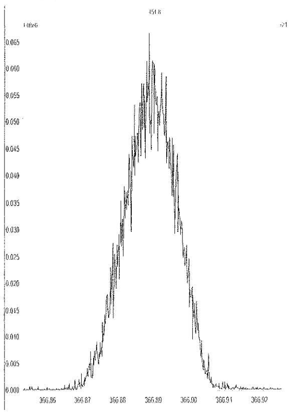


Experiment Calibration Report **MassLynx 4.1**

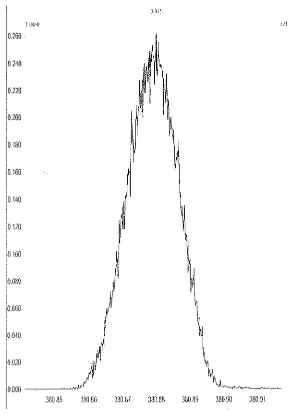
File: Experiment: 8290_ exp Reference: Pfk.ref Function: 3 @ 200 (ppm)

Printed: Monday, April 23, 2012 05:12:25 Central Daylight Time

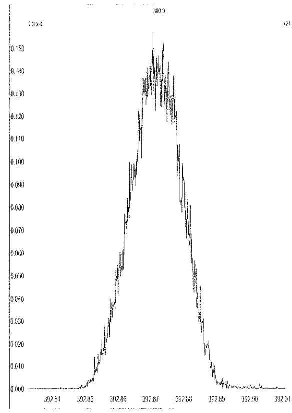
M 366.9792 R 10727



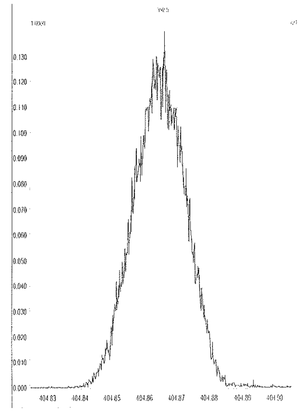
M 380.9760 R 11206



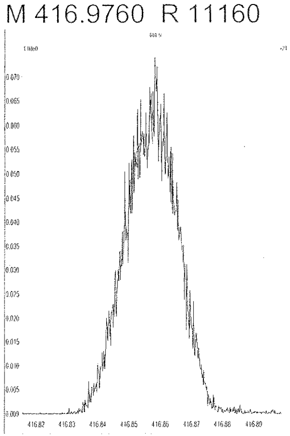
M 392.9760 R 11109



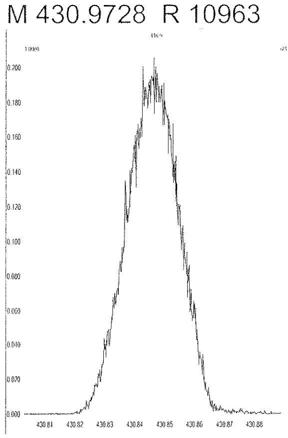
M 404.9760 R 11112



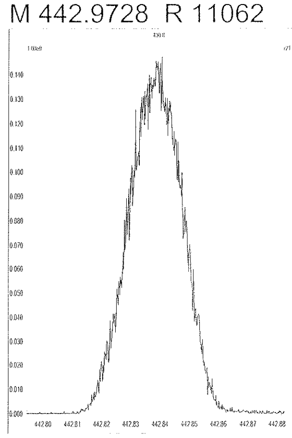
M 416.9760 R 11160



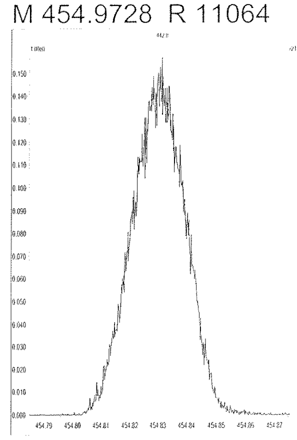
M 430.9728 R 10963



M 442.9728 R 11062



M 454.9728 R 11064

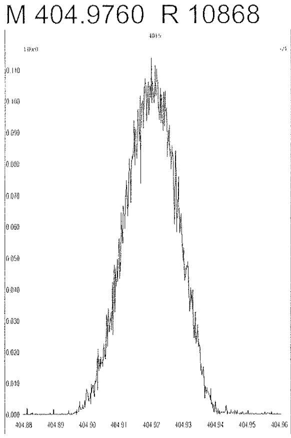


Experiment Calibration Report **MassLynx 4.1**

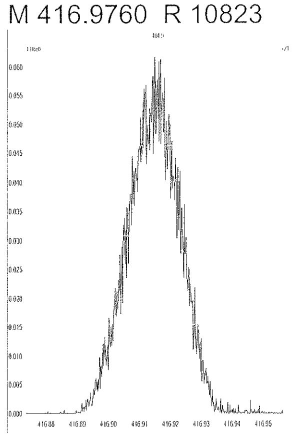
File: Experiment: 8290_ exp Reference: Pfk.ref Function: 4 @ 200 (ppm)

Printed: Monday, April 23, 2012 05:12:49 Central Daylight Time

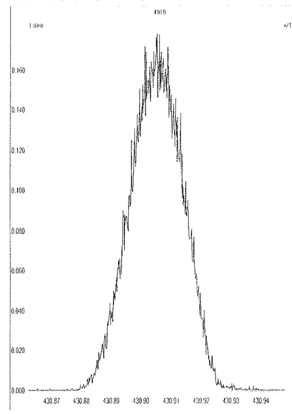
M 404.9760 R 10868



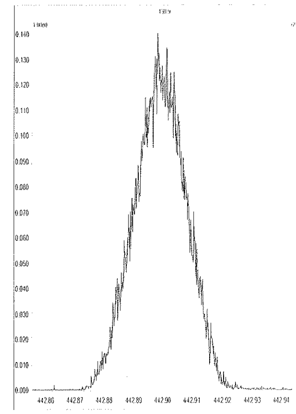
M 416.9760 R 10823



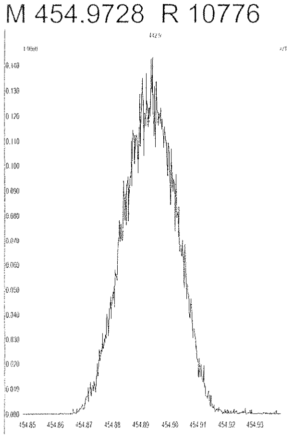
M 430.9728 R 10683



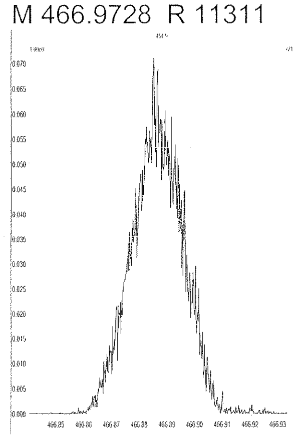
M 442.9728 R 10820



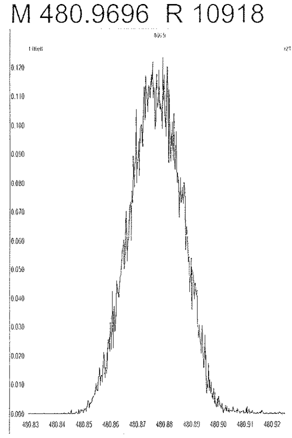
M 454.9728 R 10776



M 466.9728 R 11311



M 480.9696 R 10918

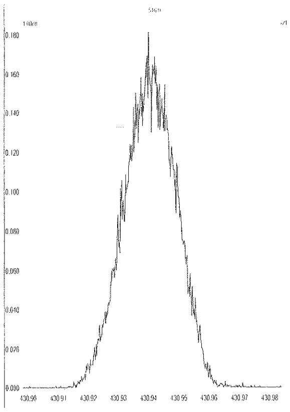


Experiment Calibration Report **MassLynx 4.1** Page 1 of 1

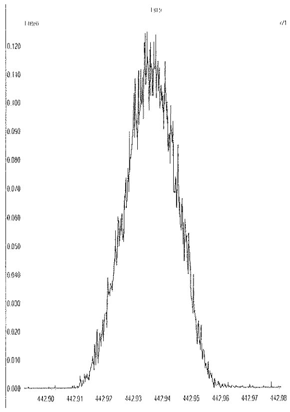
File: Experiment: 8290_ .exp Reference: Pfk.ref Function: 5 @ 200 (ppm)

Printed: Monday, April 23, 2012 05:13:11 Central Daylight Time

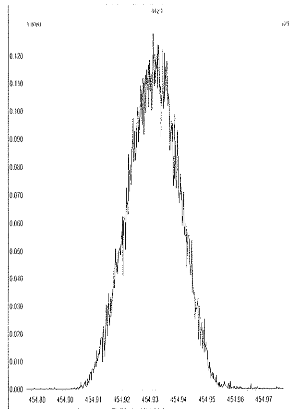
M 430.9728 R 10965



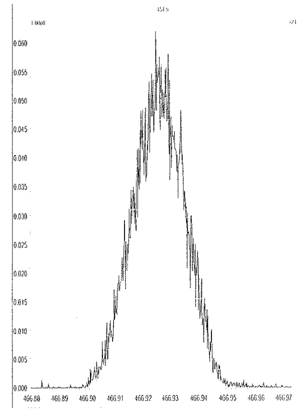
M 442.9728 R 10916



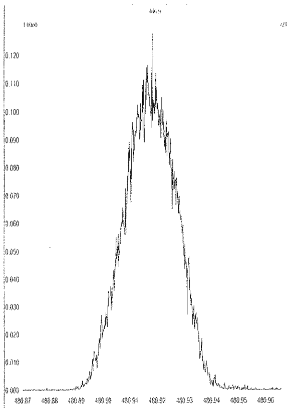
M 454.9728 R 10820



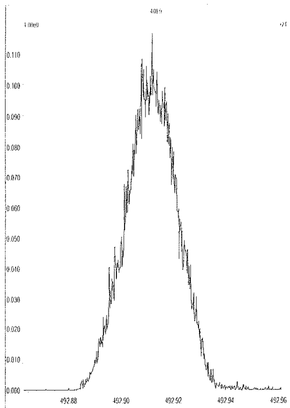
M 466.9728 R 11520



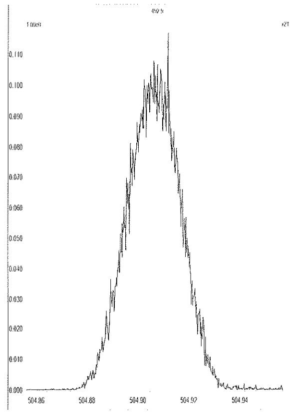
M 480.9696 R 11015



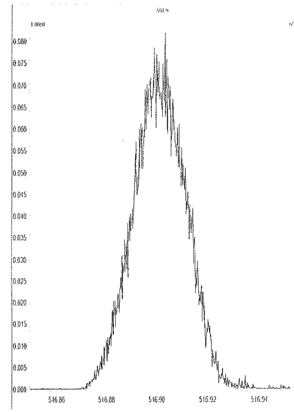
M 492.9696 R 11063



M 504.9696 R 11110



M 516.9697 R 10963

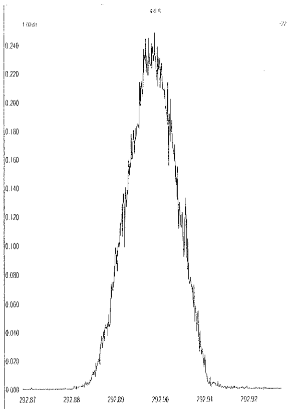


Experiment Calibration Report **MassLynx 4.1**

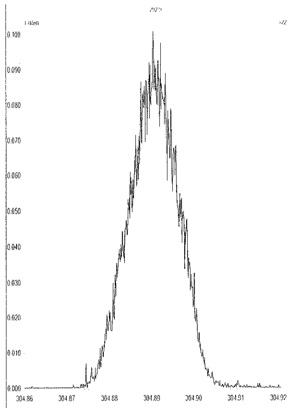
File: Experiment: 8290_ exp Reference: Pfk.ref Function: 1 @ 200 (ppm)

Printed: Monday, April 23, 2012 11:47:15 Central Daylight Time

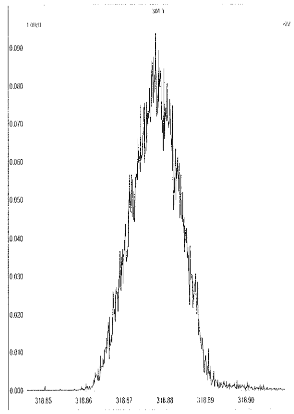
M 292.9824 R 11734



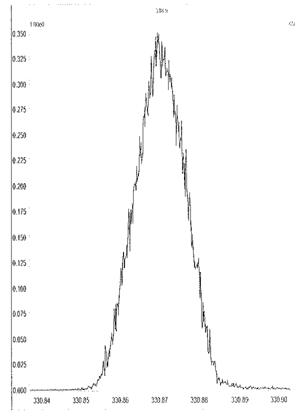
M 304.9824 R 11622



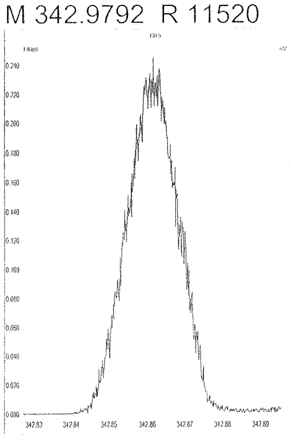
M 318.9792 R 12561



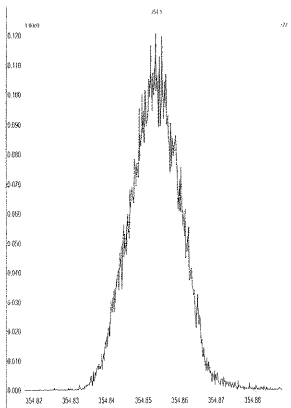
M 330.9792 R 11678



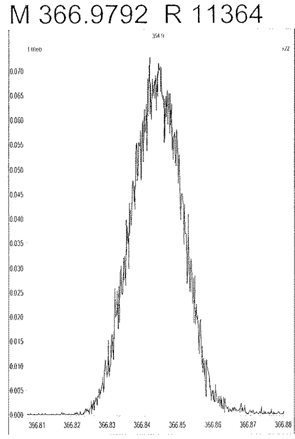
M 342.9792 R 11520



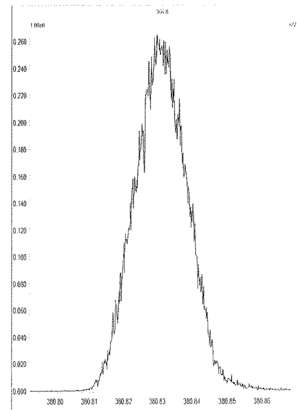
M 354.9792 R 11361



M 366.9792 R 11364



M 380.9760 R 10920



Experiment Calibration Report **MassLynx 4.1**

File: Experiment: 8290_ .exp Reference: Pfk.ref Function: 2 @ 200 (ppm)

Printed: Monday, April 23, 2012 11:47:41 Central Daylight Time

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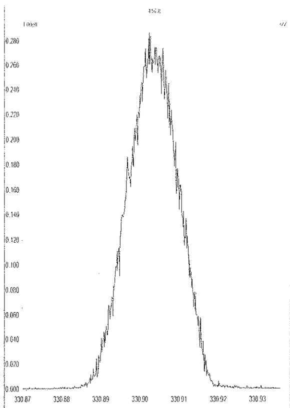
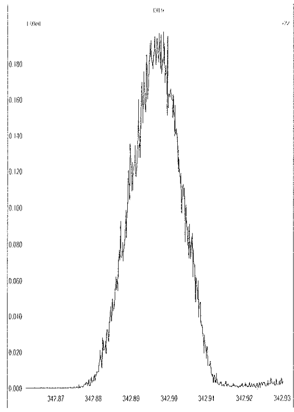
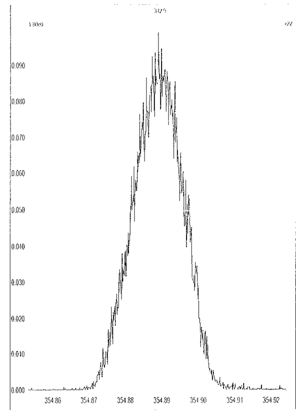


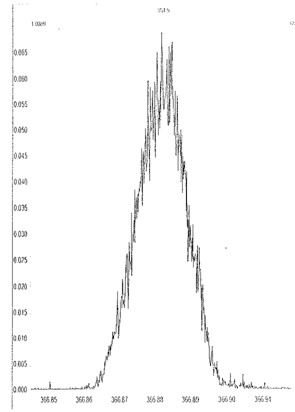
M 342.9792 R 11359



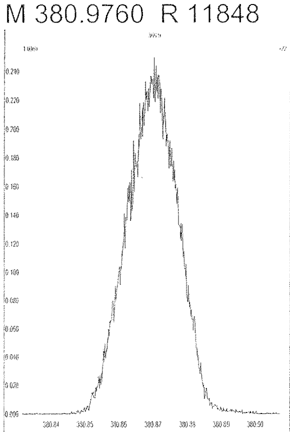
M 354.9792 R 11903



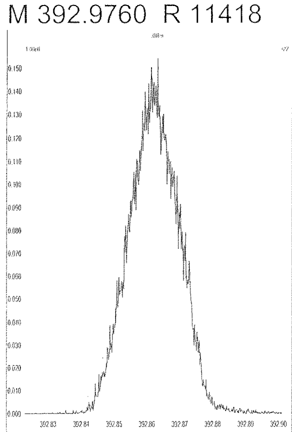
M 366.9792 R 11963



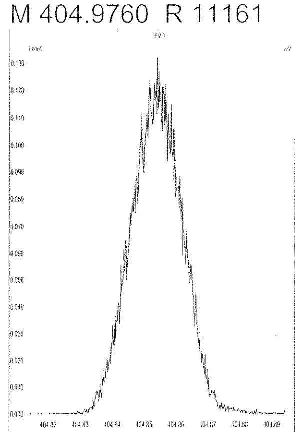
M 380.9760 R 11848



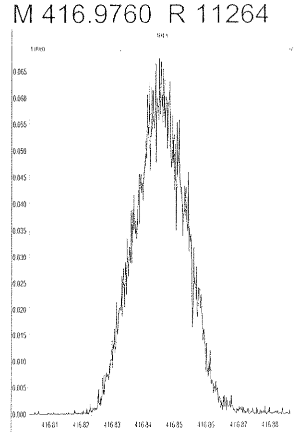
M 392.9760 R 11418



M 404.9760 R 11161



M 416.9760 R 11264

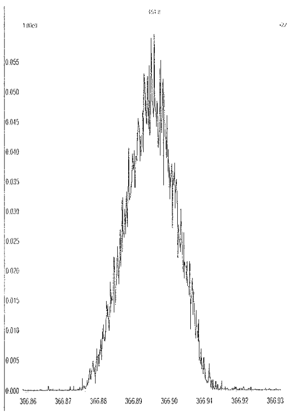


Experiment Calibration Report **MassLynx 4.1** Page 1 of 1

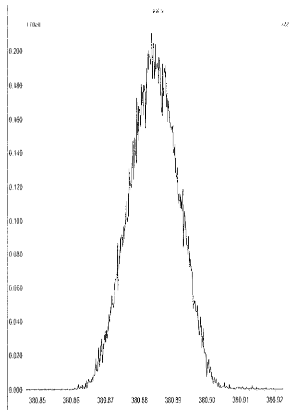
File: Experiment: 8290_ .exp Reference: Pfk.ref Function: 3 @ 200 (ppm)

Printed: Monday, April 23, 2012 11:48:08 Central Daylight Time

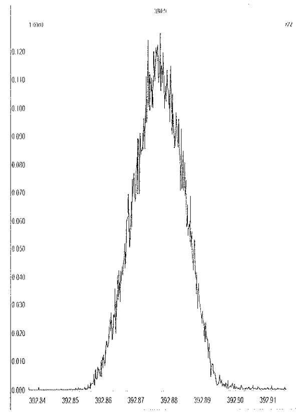
M 366.9792 R 12079



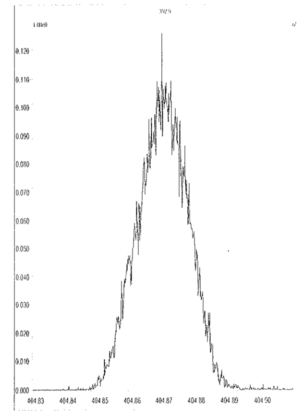
M 380.9760 R 11574



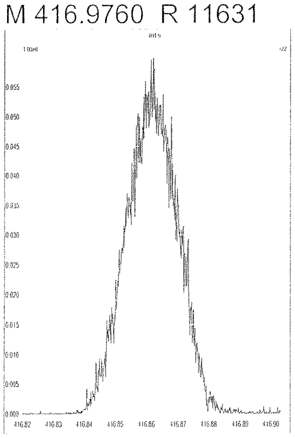
M 392.9760 R 11903



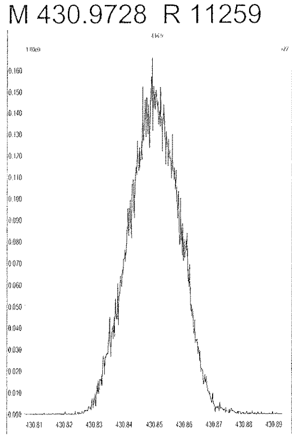
M 404.9760 R 11522



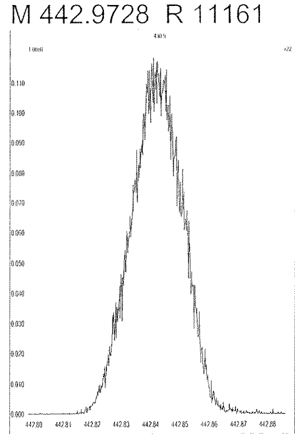
M 416.9760 R 11631



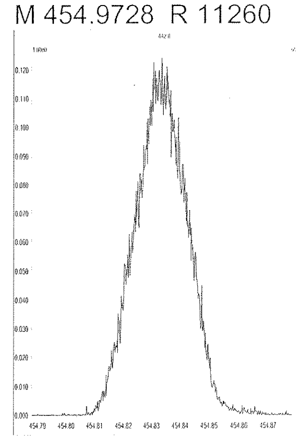
M 430.9728 R 11259



M 442.9728 R 11161



M 454.9728 R 11260

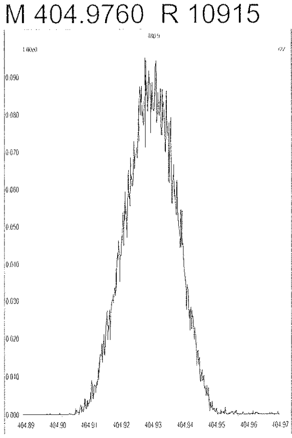


Experiment Calibration Report **MassLynx 4.1**

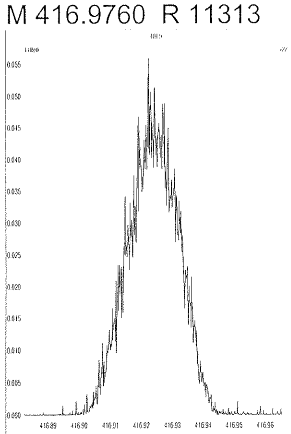
File: Experiment: 8290_ .exp Reference: Pfk.ref Function: 4 @ 200 (ppm)

Printed: Monday, April 23, 2012 11:48:33 Central Daylight Time

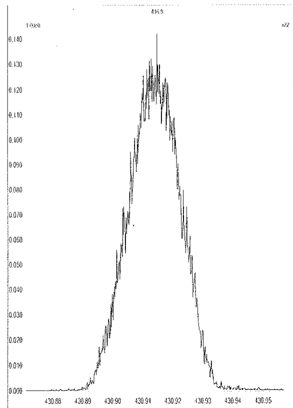
M 404.9760 R 10915



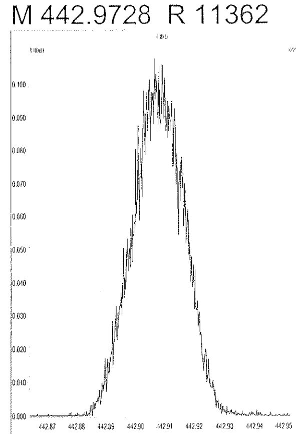
M 416.9760 R 11313



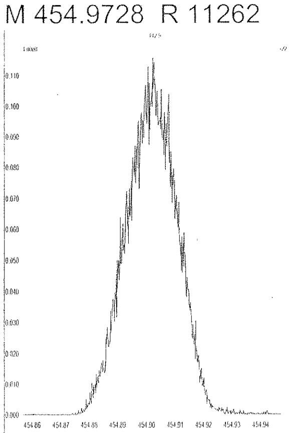
M 430.9728 R 11160



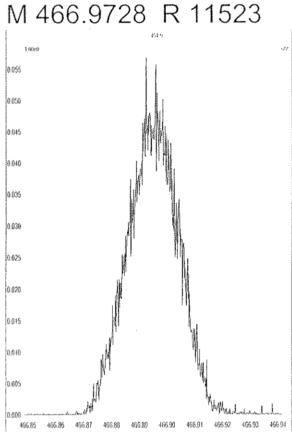
M 442.9728 R 11362



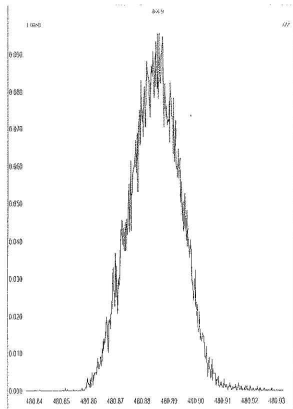
M 454.9728 R 11262



M 466.9728 R 11523



M 480.9696 R 11365

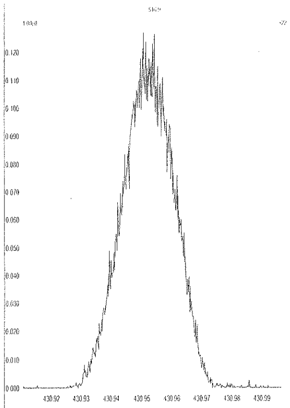


Experiment Calibration Report **MassLynx 4.1**

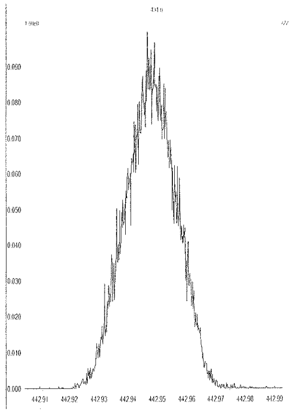
File: Experiment: 8290_ exp Reference: Pfk.ref Function: 5 @ 200 (ppm)

Printed: Monday, April 23, 2012 11:48:55 Central Daylight Time

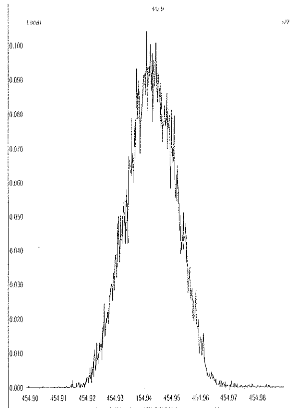
M 430.9728 R 11059



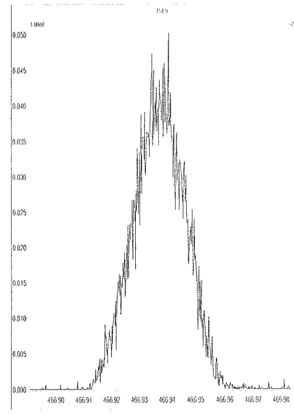
M 442.9728 R 11260



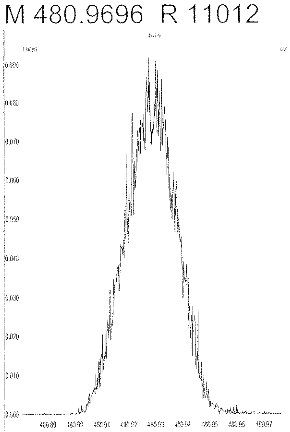
M 454.9728 R 11413



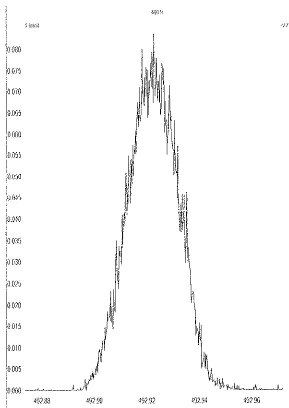
M 466.9728 R 11574



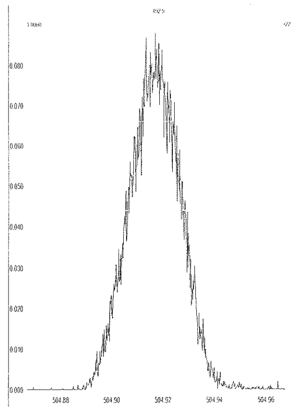
M 480.9696 R 11012



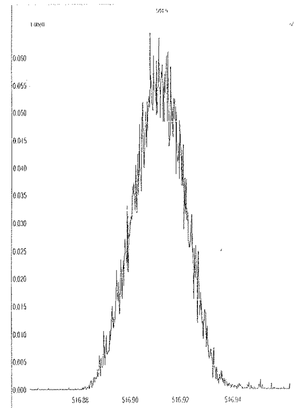
M 492.9696 R 11313



M 504.9696 R 11627



M 516.9697 R 11735

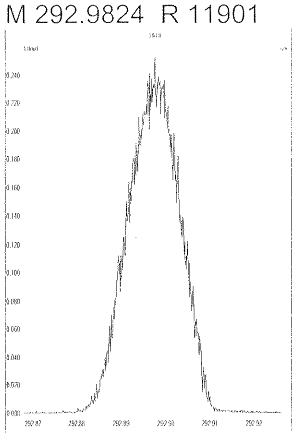


Experiment Calibration Report **MassLynx 4.1** Page 1 of 1

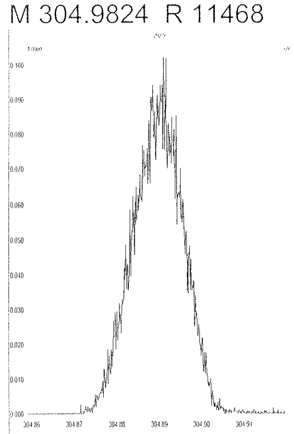
File: Experiment: 8290_ .exp Reference: Pfk.ref Function: 1 @ 200 (ppm)

Printed: Monday, April 23, 2012 15:03:23 Central Daylight Time

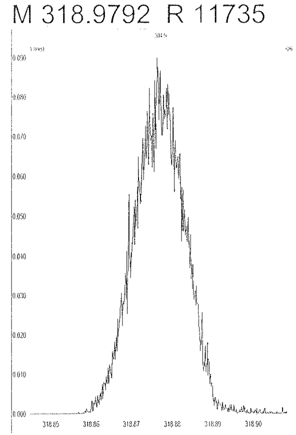
M 292.9824 R 11901



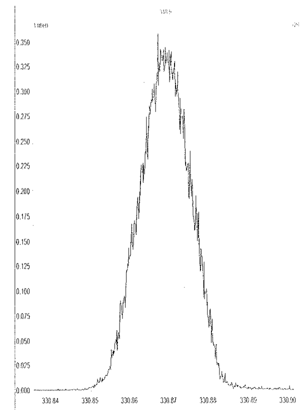
M 304.9824 R 11468



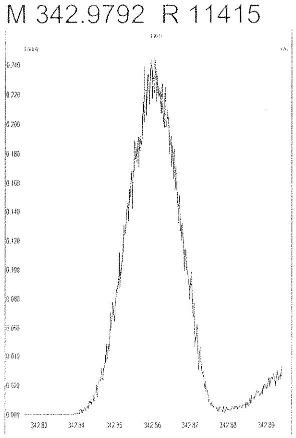
M 318.9792 R 11735



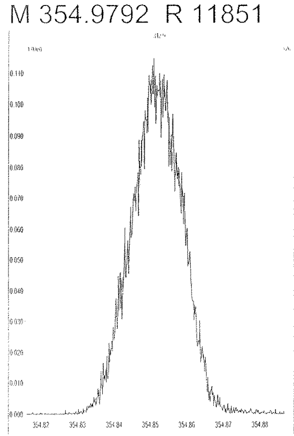
M 330.9792 R 11684



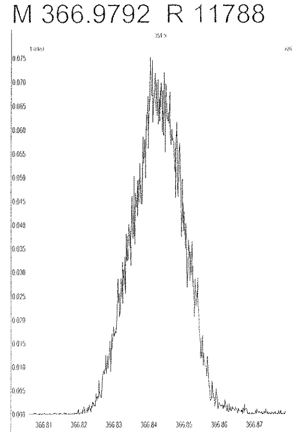
M 342.9792 R 11415



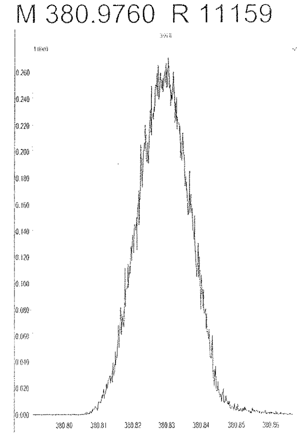
M 354.9792 R 11851



M 366.9792 R 11788



M 380.9760 R 11159

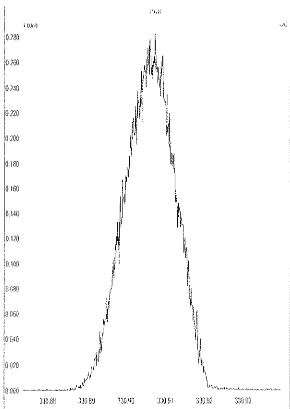


Experiment Calibration Report **MassLynx 4.1**

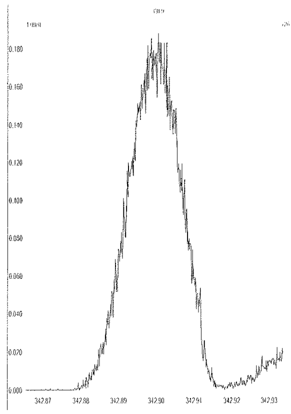
File: Experiment: 8290_ .exp Reference: Pfk.ref Function: 2 @ 200 (ppm)

Printed: Monday, April 23, 2012 15:04:24 Central Daylight Time

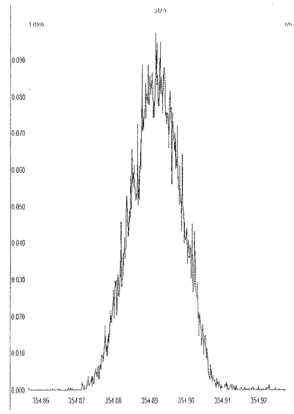
M 330.9792 R 11315



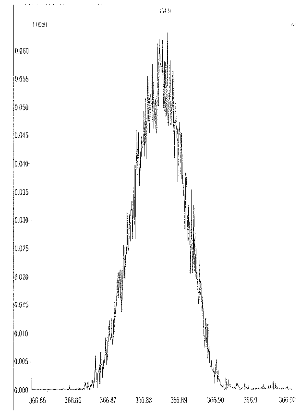
M 342.9792 R 11364



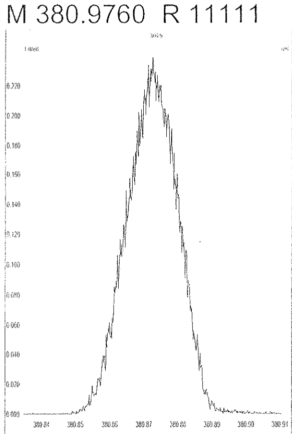
M 354.9792 R 11791



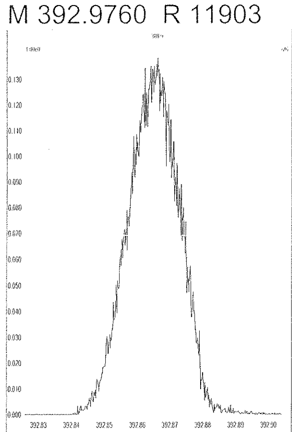
M 366.9792 R 11684



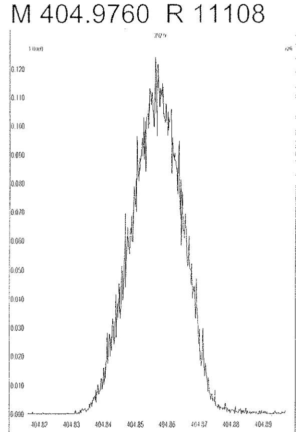
M 380.9760 R 11111



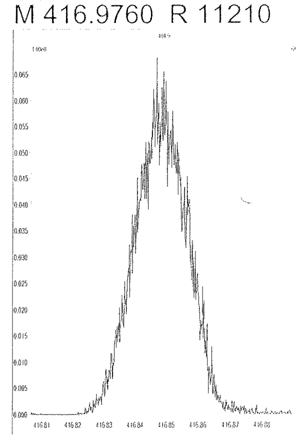
M 392.9760 R 11903



M 404.9760 R 11108



M 416.9760 R 11210

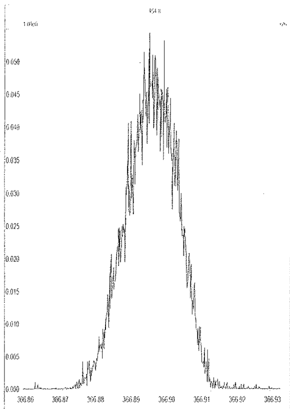


Experiment Calibration Report **MassLynx 4.1**

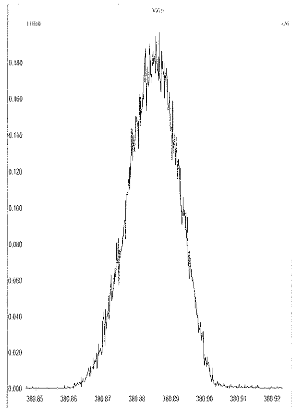
File: Experiment: 8290_ .exp Reference: Pfk.ref Function: 3 @ 200 (ppm)

Printed: Monday, April 23, 2012 15:05:16 Central Daylight Time

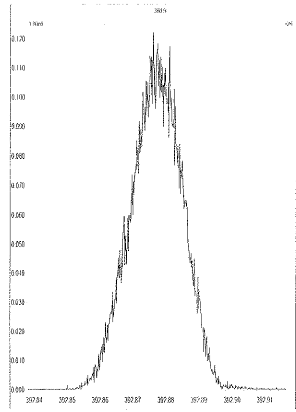
M 366.9792 R 11263



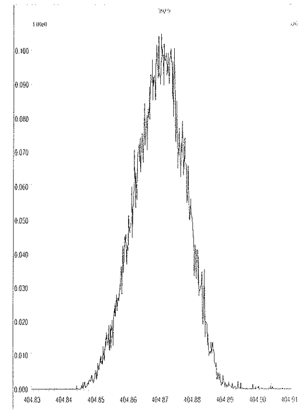
M 380.9760 R 10823



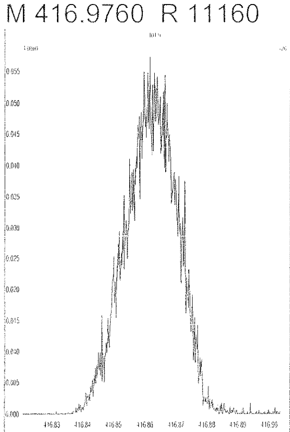
M 392.9760 R 11209



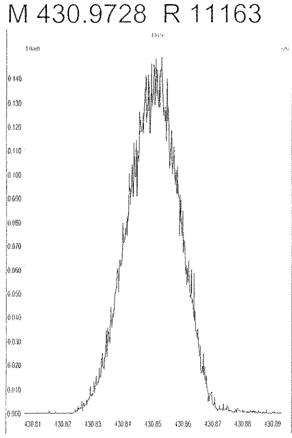
M 404.9760 R 10966



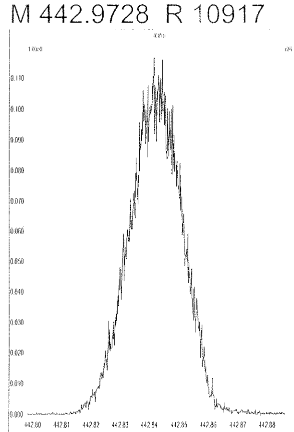
M 416.9760 R 11160



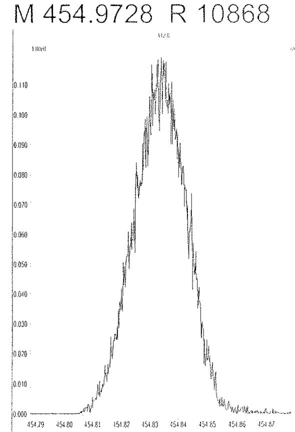
M 430.9728 R 11163



M 442.9728 R 10917



M 454.9728 R 10868

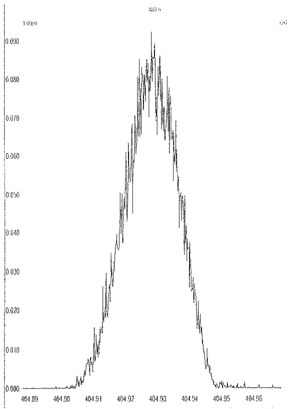


Experiment Calibration Report **MassLynx 4.1** Page 1 of 1

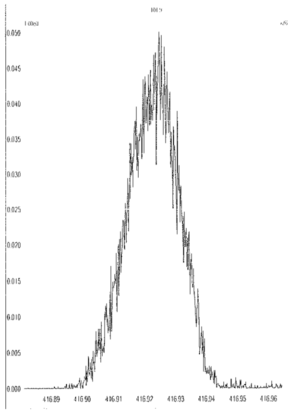
File: Experiment: 8290_ .exp Reference: Pfk.ref Function: 4 @ 200 (ppm)

Printed: Monday, April 23, 2012 15:06:16 Central Daylight Time

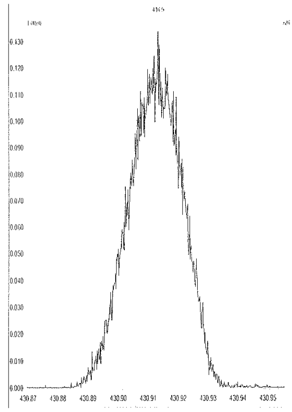
M 404.9760 R 11159



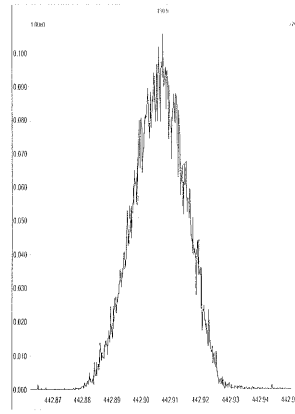
M 416.9760 R 11365



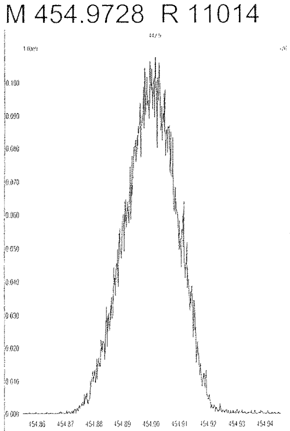
M 430.9728 R 11009



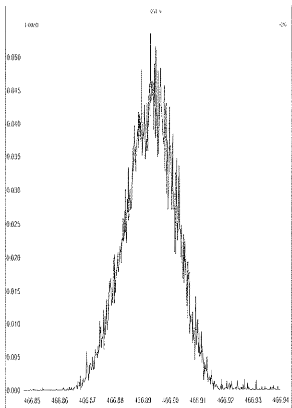
M 442.9728 R 10915



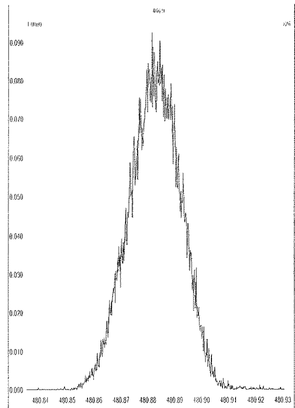
M 454.9728 R 11014



M 466.9728 R 11311



M 480.9696 R 11060

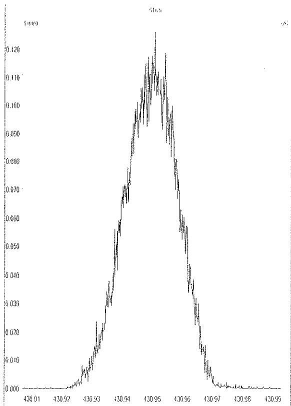


Experiment Calibration Report **MassLynx 4.1**

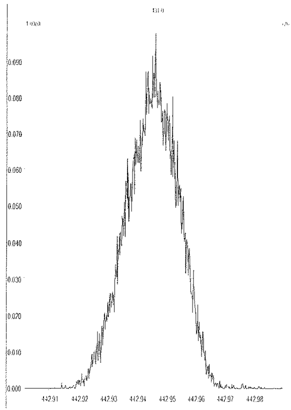
File: Experiment: 8290_ .exp Reference: Pfk.ref Function: 5 @ 200 (ppm)

Printed: Monday, April 23, 2012 15:07:45 Central Daylight Time

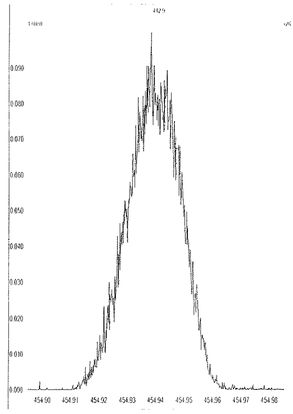
M 430.9728 R 11014



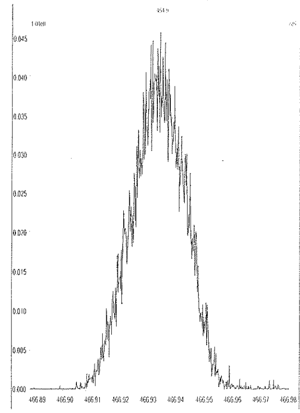
M 442.9728 R 11061



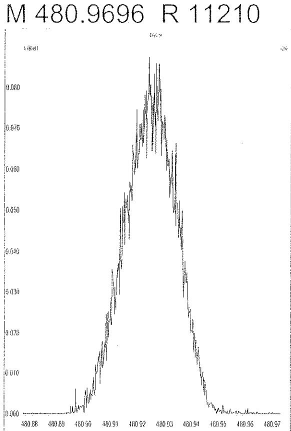
M 454.9728 R 10731



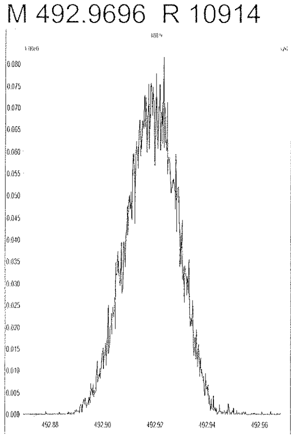
M 466.9728 R 11628



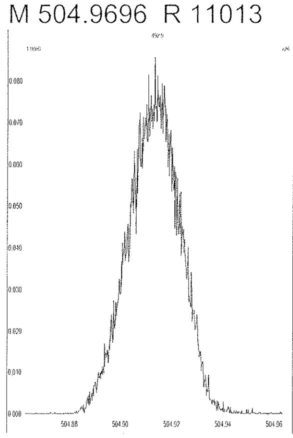
M 480.9696 R 11210



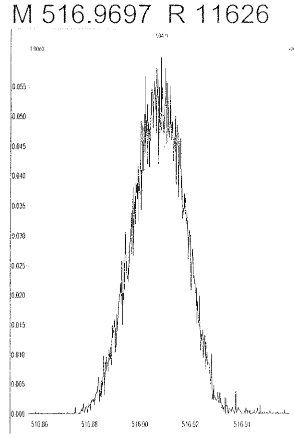
M 492.9696 R 10914



M 504.9696 R 11013



M 516.9697 R 11626



5DFA

WINDOW DEFINING MIX SUMMARY

CLIENT ID:

WDM

Lab Name:
Lab Code:
GC Column: DB-5

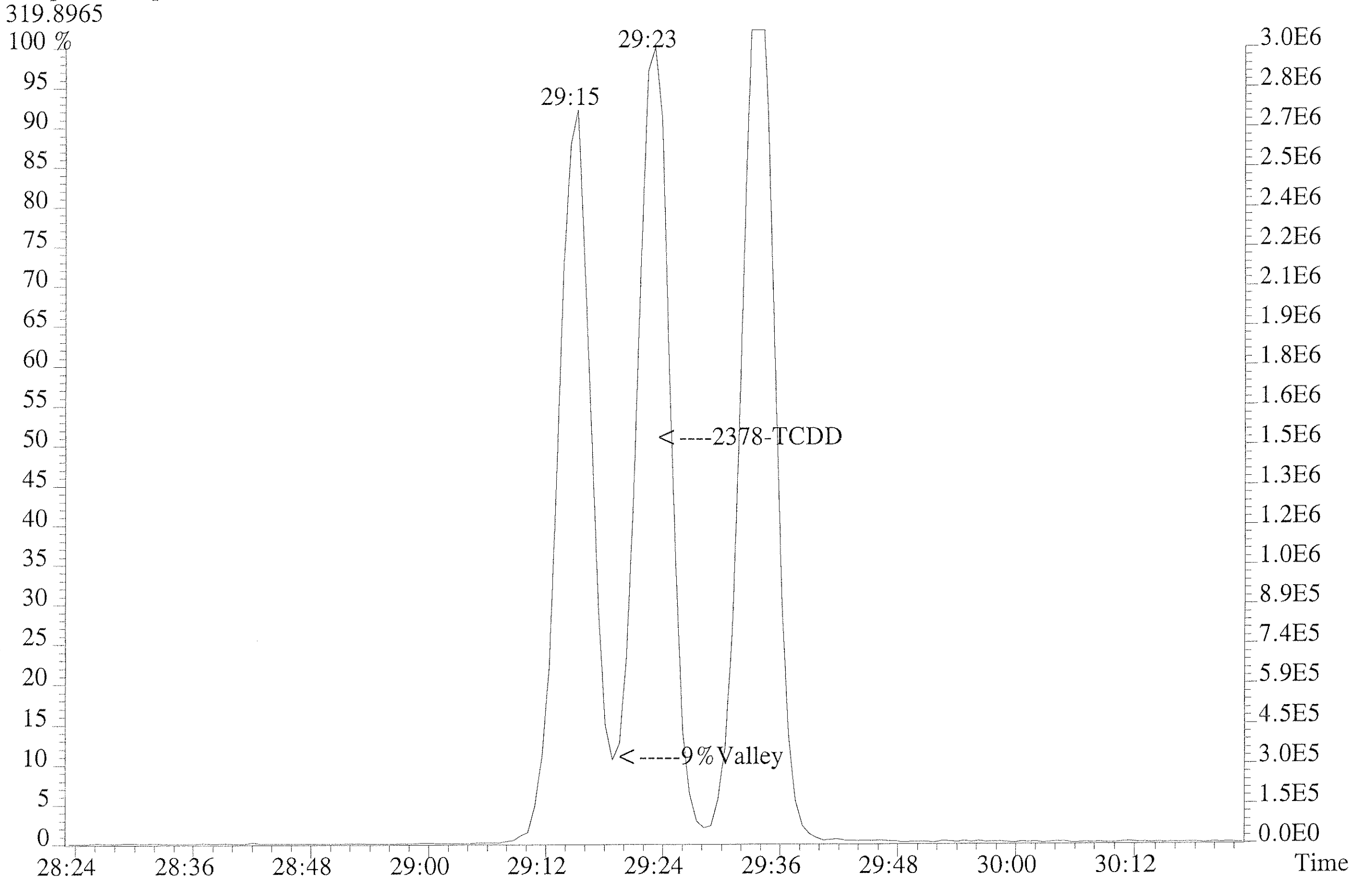
Case No.: ______________
ID: 0.25 (mm)

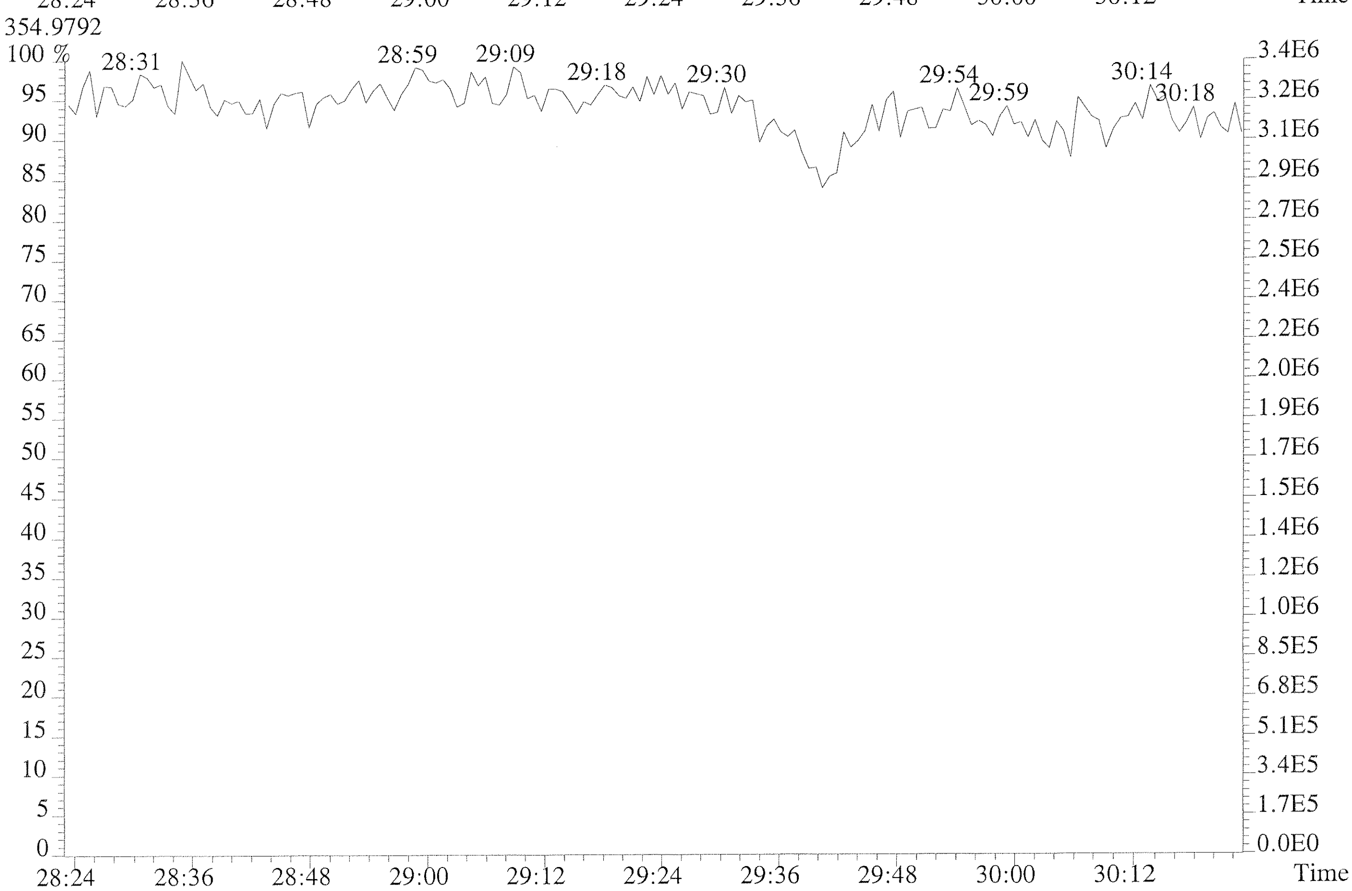
SDG No.:
Lab File ID: 7201
Date Analyzed: 23-APR-2012
Time Analyzed: 05:13:56

Congener	Retention Time First Eluting	Retention Time Last Eluting
TCDF	24:29	30:31
TCDD	26:17	30:29
PeCDF	30:47	34:39
PeCDD	32:09	34:30
HxCDF	35:31	37:50
HxCDD	36:02	37:31
HpCDF	39:13	40:31
HpCDD	39:27	40:06

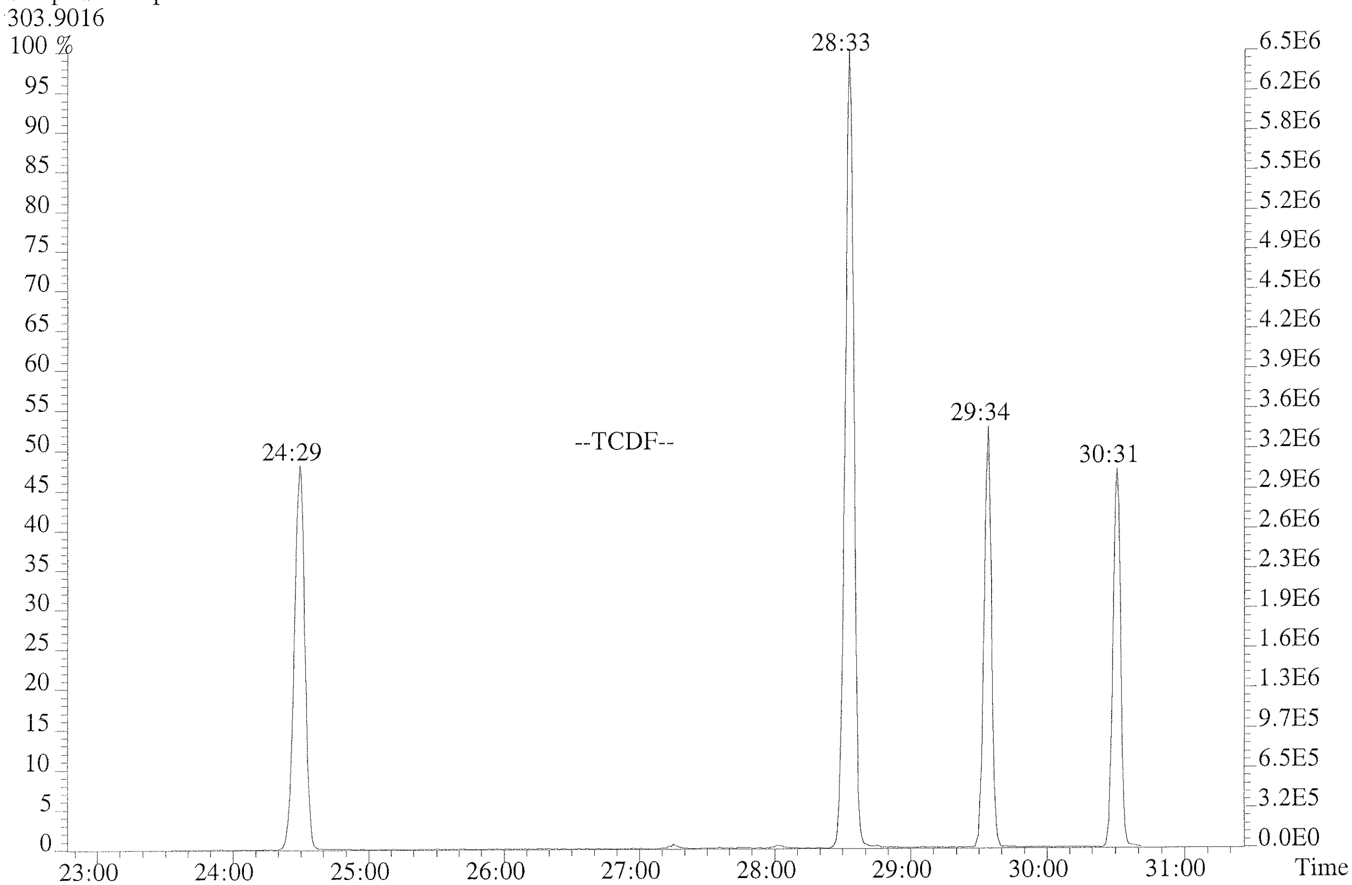
% Valley 2378-TCDD: 9 %

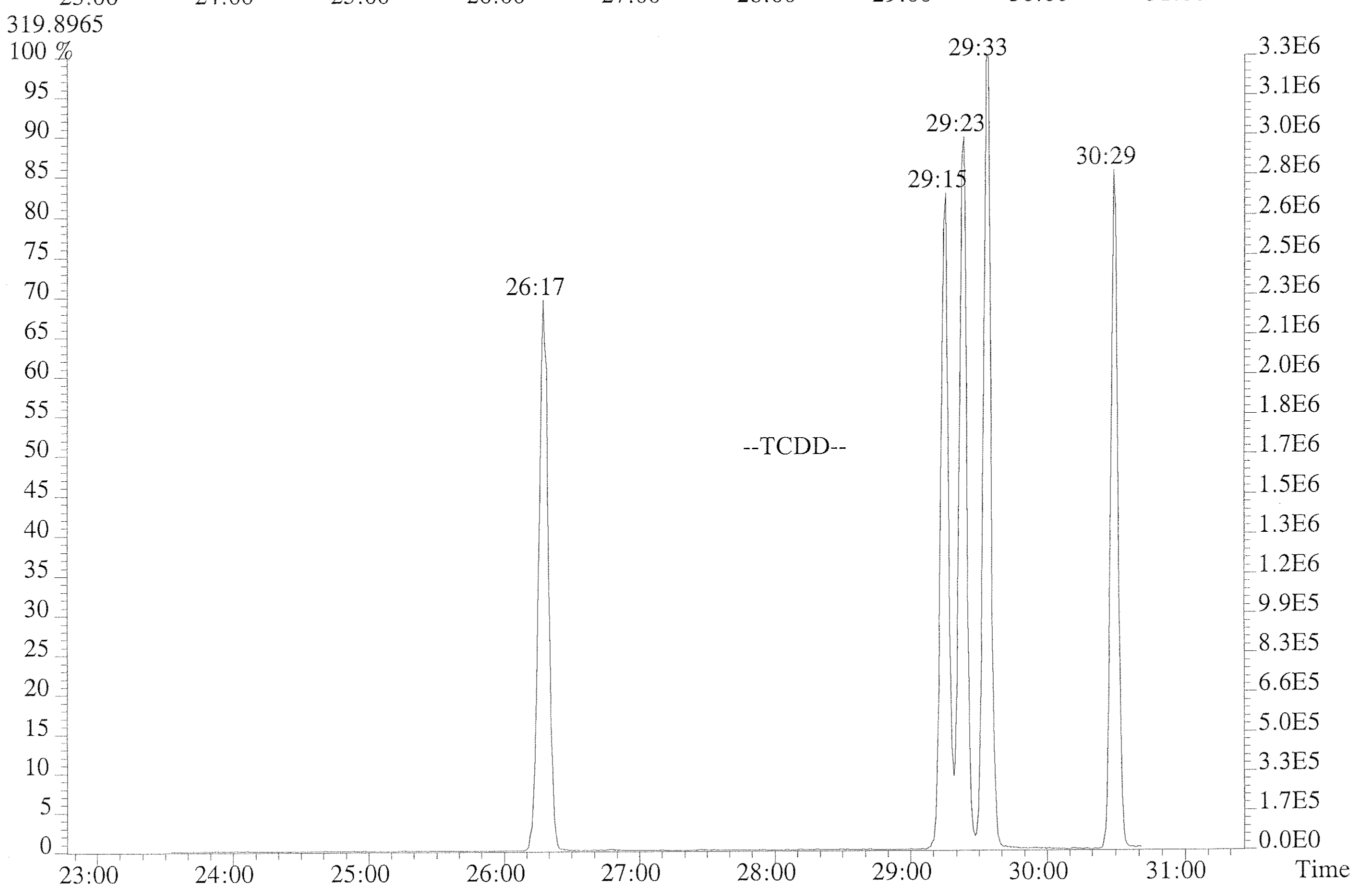
File: 7201 #1-596 Acq:23-APR-2012 05:13:56 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:WINDOW DEFINE





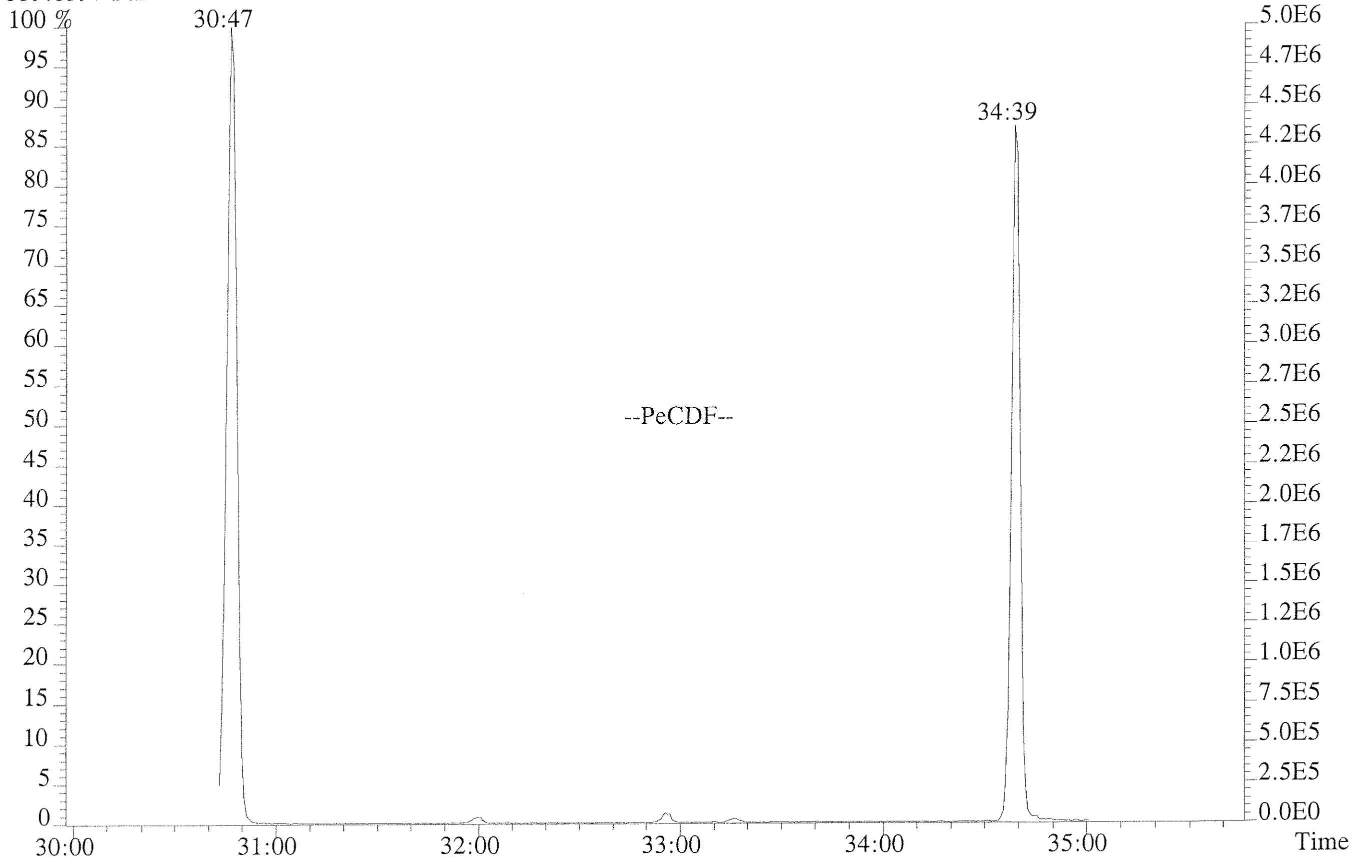
File: 7201 #1-596 Acq:23-APR-2012 05:13:56 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:WINDOW DEFINE



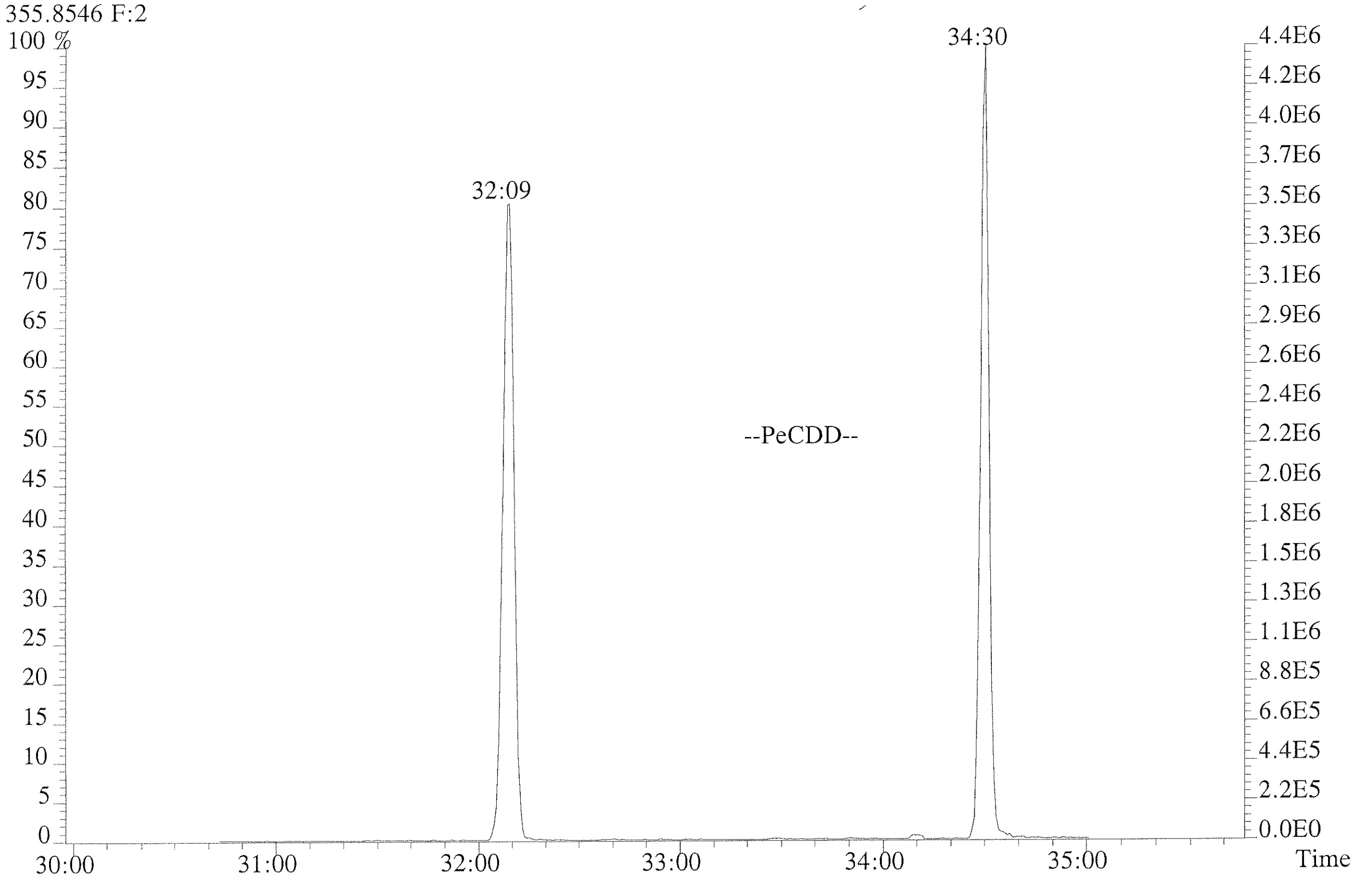


File: 7201 #1-390 Acq:23-APR-2012 05:13:56 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:WINDOW DEFINE

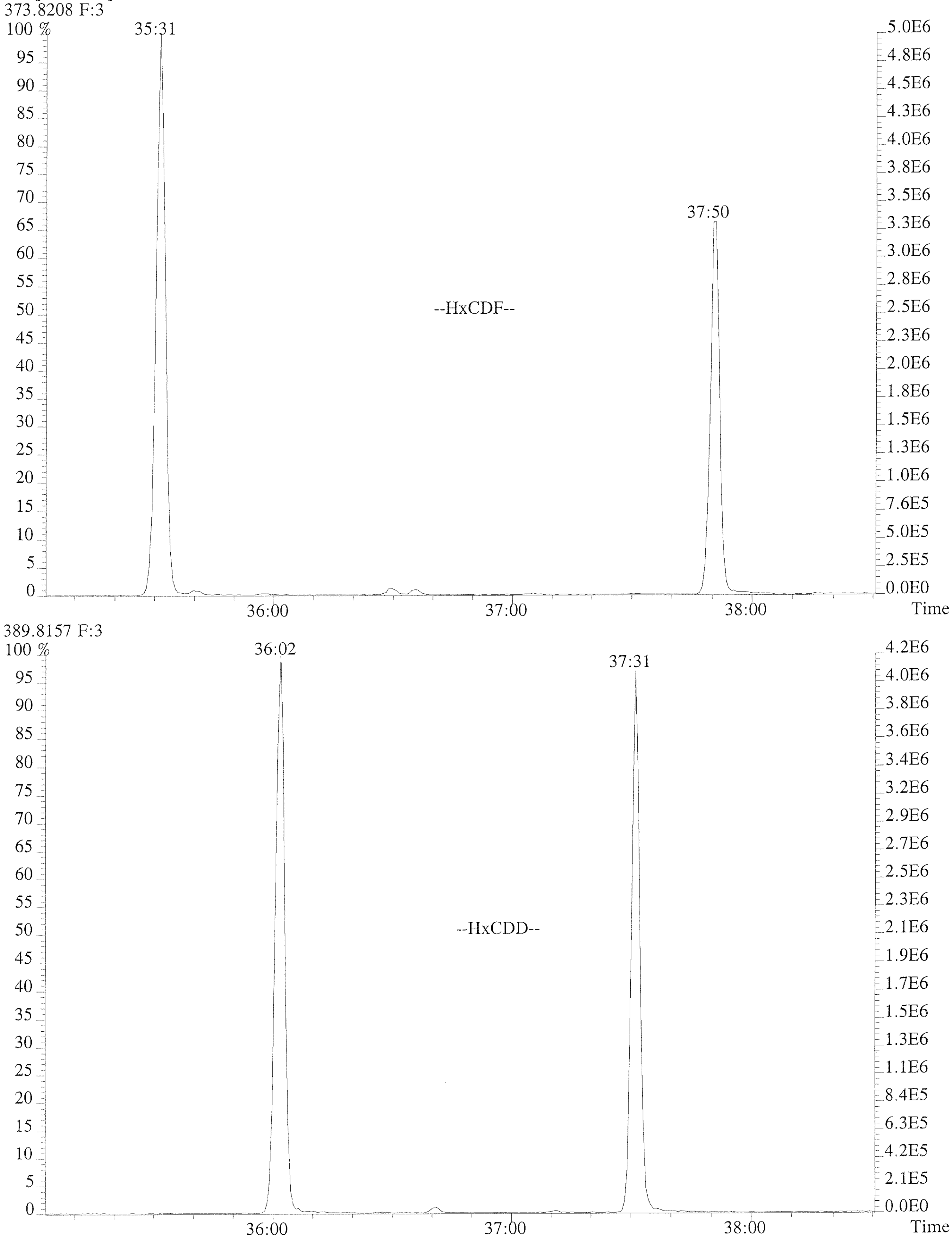
339.8597 F:2



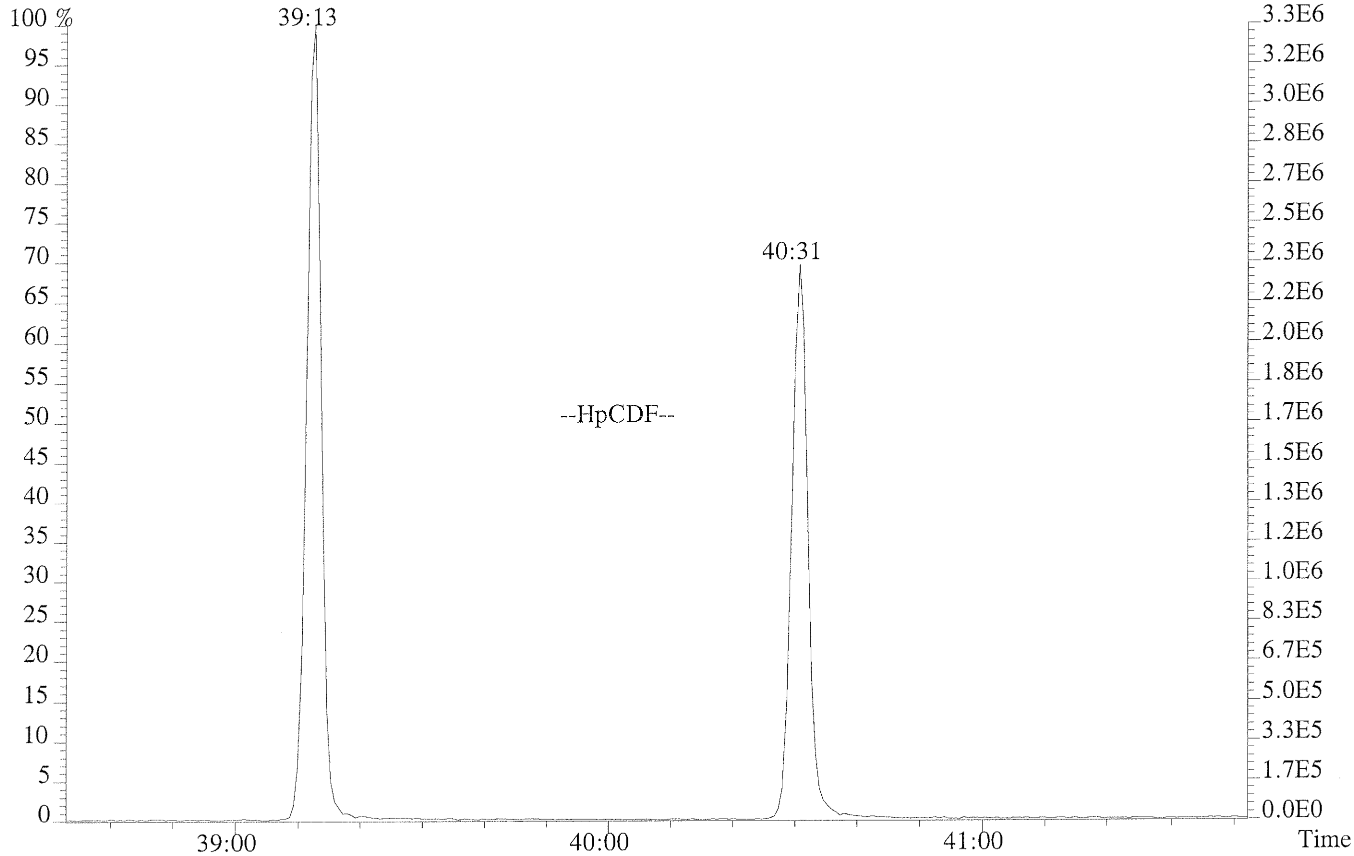
355.8546 F:2



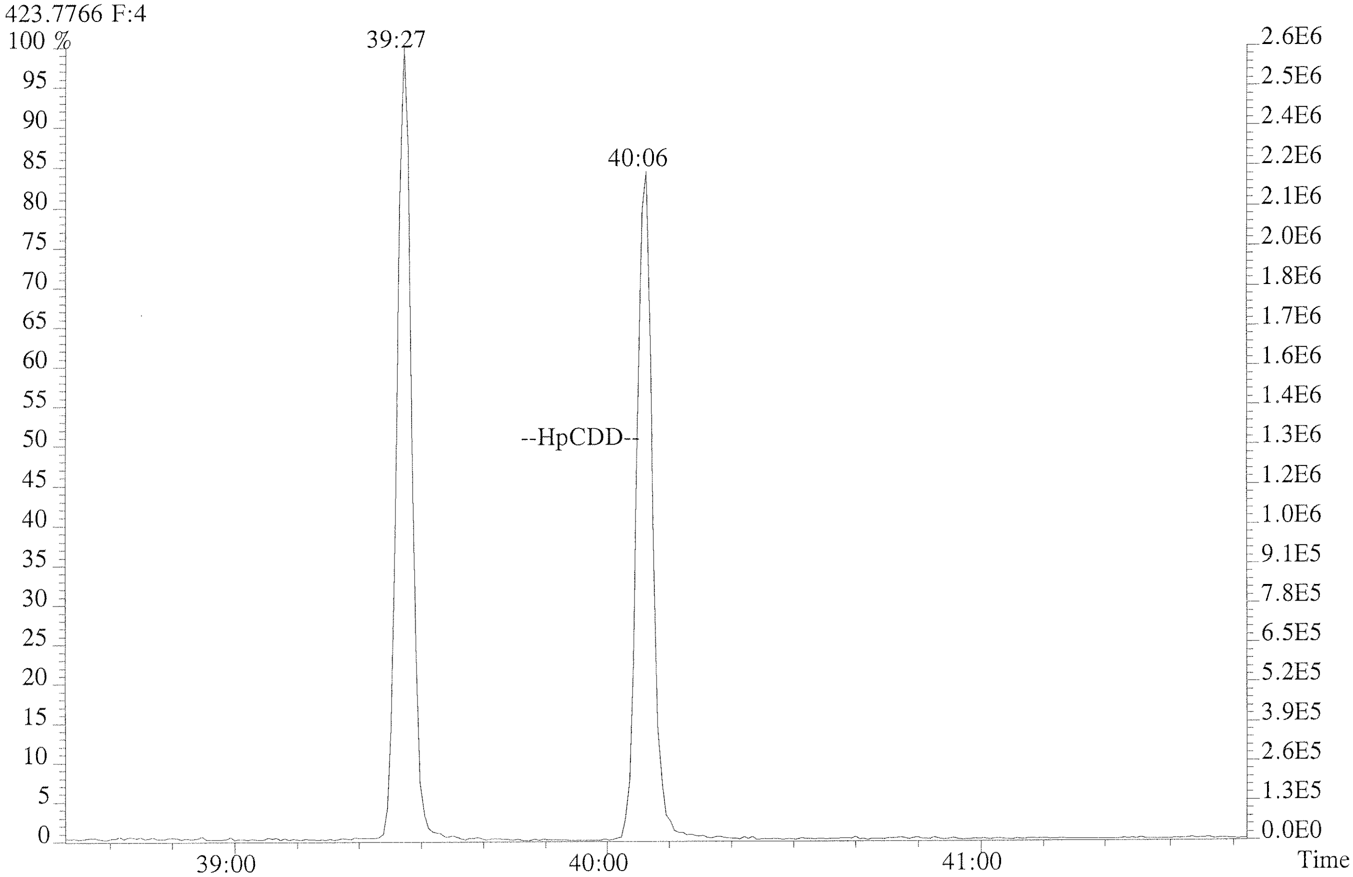
File: 7201 #1-315 Acq:23-APR-2012 05:13:56 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:WINDOW DEFINE



File: 7201 #1-287 Acq:23-APR-2012 05:13:56 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:WINDOW DEFINE
407.7818 F:4



423.7766 F:4



USEPA -
6DFB6
CDD/CDF INITIAL CALIBRATION ION ABUNDANCE RATIO SUMMARY
HIGH RESOLUTION

Lab Name: Contract No.:
Lab Code: Case No.: TO No.: SDG No.: 3
GC Column: DB-5 ID: 0.25(mm) Instrument ID: E-HRMS-03
Init. Calib. Date(s).: 04/23/12
Init. Calib. Time.: 05:13

Target Analytes	SELECTED IONS	ION ABUNDANCE RATIO CS0.5	CS1	CS2	CS3	CS4	CS5	FLAG	ION RATIO QC lIMITS
2,3,7,8-TCDD	320/322	0.87	0.76	0.76	0.76	0.78	0.77		0.65-0.89
2,3,7,8-TCDF	304/306	0.77	0.72	0.76	0.77	0.79	0.79		0.65-0.89
1,2,3,7,8-PeCDF	340/342	1.51	1.59	1.53	1.56	1.56	1.57		1.32-1.78
1,2,3,7,8-PeCDD	356/358	1.53	1.59	1.53	1.57	1.56	1.55		1.32-1.78
2,3,4,7,8-PeCDF	340/342	1.51	1.55	1.56	1.55	1.57	1.56		1.32-1.78
1,2,3,4,7,8-HxCDF	374/376	1.24	1.24	1.31	1.30	1.27	1.26		1.05-1.43
1,2,3,6,7,8-HxCDF	374/376	1.23	1.23	1.21	1.22	1.29	1.28		1.05-1.43
1,2,3,4,7,8-HxCDD	390/392	1.22	1.21	1.24	1.24	1.24	1.21		1.05-1.43
1,2,3,6,7,8-HxCDD	390/392	1.18	1.23	1.26	1.27	1.24	1.24		1.05-1.43
1,2,3,7,8,9-HxCDD	390/392	1.31	1.23	1.22	1.24	1.24	1.23		1.05-1.43
2,3,4,6,7,8-HxCDF	374/376	1.24	1.19	1.25	1.25	1.26	1.28		1.05-1.43
1,2,3,7,8,9-HxCDF	374/376	1.30	1.27	1.25	1.25	1.27	1.27		1.05-1.43
1,2,3,4,6,7,8-HpCDF	408/410	1.04	1.03	1.03	1.03	1.04	1.04		0.88-1.20
1,2,3,4,6,7,8-HpCDD	424/426	1.00	1.02	1.04	1.04	1.04	1.04		0.88-1.20
1,2,3,4,7,8,9-HpCDF	408/410	1.09	1.03	1.03	1.05	1.04	1.04		0.88-1.20
OCDD	458/460	0.92	0.89	0.88	0.90	0.89	0.89		0.76-1.02
OCDF	442/444	0.89	0.91	0.91	0.90	0.91	0.91		0.76-1.02
13C-2,3,7,8-TCDD	332/334	0.79	0.78	0.78	0.79	0.78	0.79		0.65-0.89
13C-1,2,3,7,8-PeCDD	368/370	1.58	1.58	1.57	1.58	1.56	1.56		1.32-1.78
13C-1,2,3,4,7,8-HxCDD	402/404	1.26	1.25	1.26	1.26	1.24	1.24		1.05-1.43
13C-1,2,3,6,7,8-HxCDD	402/404	1.25	1.26	1.25	1.25	1.24	1.25		1.05-1.43
13C-1,2,3,4,6,7,8-HpCDD	436/438	1.06	1.06	1.05	1.04	1.04	1.05		0.88-1.20
13C-OCDD	470/472	0.90	0.90	0.89	0.90	0.89	0.89		0.76-1.02
13C-2,3,7,8-TCDF	316/318	0.77	0.78	0.77	0.77	0.77	0.77		0.65-0.89
13C-1,2,3,7,8-PeCDF	352/354	1.56	1.57	1.55	1.56	1.56	1.56		1.32-1.78
13C-2,3,4,7,8-PeCDF	352/354	1.57	1.57	1.56	1.56	1.55	1.57		1.32-1.78
13C-1,2,3,4,7,8-HxCDF	384/385	0.52	0.53	0.54	0.54	0.52	0.52		0.43-0.59
13C-1,2,3,6,7,8-HxCDF	384/385	0.53	0.51	0.51	0.50	0.52	0.52		0.43-0.59
13C-2,3,4,6,7,8-HxCDF	384/385	0.52	0.52	0.52	0.52	0.52	0.52		0.43-0.59
13C-1,2,3,7,8,9-HxCDF	384/385	0.52	0.52	0.52	0.52	0.52	0.52		0.43-0.59
13C-1,2,3,4,6,7,8-HpCDF	418/420	0.45	0.45	0.45	0.45	0.44	0.45		0.37-0.51
13C-1,2,3,4,7,8,9-HpCDF	418/420	0.45	0.45	0.45	0.45	0.45	0.45		0.37-0.51

13C-1,2,3,4-TCDD	332/334	0.79	0.79	0.80	0.79	0.79	0.79	0.65-0.89
13C-1,2,3,7,8,9-HxCDD	402/404	1.26	1.25	1.23	1.24	1.23	1.24	1.05-1.43

Quality Control (QC) limits represent +/- 15% window around the theoretical ion abundance ratio. The laboratory must flag any analyte in any calibration solution which does not meet the ion abundance ratio QC limit by placing an asterisk in the flag column.

USEPA -
6DFA6
CDD/CDF INITIAL CALIBRATION RESPONSE FACTOR SUMMARY
HIGH RESOLUTION

Lab Name: Contract No.:
Lab Code: Case No.: TO No.: SDG No.: 3
GC Column: DB-5 ID: 0.25(mm) Instrument ID: E-HRMS-03
Init. Calib. Date(s).: 04/23/12
Init. Calib. Time.: 05:13

	RR/RRF							MEAN		
Target Analytes	CS0.5	CS1	CS2	CS3	CS4	CS5	Curve	RR/RRF	%RSD	QC LIMITS
2,3,7,8-TCDD	0.92	0.99	0.99	0.96	1.01	1.01	mean	0.98	3.29	+/-20%
2,3,7,8-TCDF	0.93	0.94	0.93	0.91	0.93	0.93	mean	0.93	0.96	+/-20%
1,2,3,7,8-PeCDF	0.96	1.02	1.02	0.93	1.04	1.04	mean	1.00	4.37	+/-20%
1,2,3,7,8-PeCDD	0.85	0.92	0.91	0.92	0.94	0.94	mean	0.91	3.60	+/-20%
2,3,4,7,8-PeCDF	0.90	0.96	0.96	1.00	0.97	0.98	mean	0.96	3.40	+/-20%
1,2,3,4,7,8-HxCDF	1.16	1.26	1.26	1.19	1.25	1.21	mean	1.22	3.41	+/-20%
1,2,3,6,7,8-HxCDF	1.09	1.14	1.16	1.15	1.15	1.14	mean	1.14	2.08	+/-20%
1,2,3,4,7,8-HxCDD	0.93	0.99	1.02	1.06	1.01	1.00	mean	1.00	4.40	+/-20%
1,2,3,6,7,8-HxCDD	0.95	1.03	1.01	0.88	1.01	1.00	mean	0.98	5.84	+/-20%
1,2,3,7,8,9-HxCDD	1.01	1.05	1.04	1.04	1.05	1.05	mean	1.04	1.62	+/-20%
2,3,4,6,7,8-HxCDF	1.09	1.18	1.16	1.12	1.16	1.12	mean	1.14	3.13	+/-20%
1,2,3,7,8,9-HxCDF	1.13	1.20	1.18	1.13	1.19	1.16	mean	1.16	2.56	+/-20%
1,2,3,4,6,7,8-HpCDF	1.33	1.44	1.41	1.34	1.43	1.41	mean	1.39	3.46	+/-20%
1,2,3,4,6,7,8-HpCDD	0.95	1.02	1.02	0.97	1.03	1.02	mean	1.00	3.14	+/-20%
1,2,3,4,7,8,9-HpCDF	1.28	1.34	1.33	1.37	1.36	1.34	mean	1.33	2.38	+/-20%
OCDD	1.00	1.08	1.06	0.99	1.09	1.11	mean	1.05	4.75	+/-20%
OCDF	1.19	1.23	1.24	1.09	1.29	1.32	mean	1.23	6.52	+/-20%
Labeled Compounds										
13C-2,3,7,8-TCDD	1.05	0.99	0.98	0.99	0.98	1.02	mean	1.00	2.93	+/-20%
13C-1,2,3,7,8-PeCDD	0.81	0.78	0.76	0.82	0.87	0.87	mean	0.82	5.66	+/-20%
13C-1,2,3,4,7,8-HxCDD	0.92	0.96	0.95	0.92	0.93	0.91	mean	0.93	1.94	+/-20%
13C-1,2,3,6,7,8-HxCDD	0.93	0.93	0.93	1.01	0.92	0.91	mean	0.94	3.63	+/-20%
13C-1,2,3,4,6,7,8-HpCDD	0.78	0.81	0.81	0.86	0.82	0.82	mean	0.82	2.99	+/-20%
13C-OCDD	0.53	0.58	0.57	0.67	0.60	0.62	mean	0.59	7.92	+/-20%
13C-2,3,7,8-TCDF	1.28	1.28	1.28	1.27	1.27	1.31	mean	1.28	1.23	+/-20%
13C-1,2,3,7,8-PeCDF	1.08	1.03	1.02	1.12	1.16	1.19	mean	1.10	6.11	+/-20%
13C-2,3,4,7,8-PeCDF	1.06	0.99	1.00	1.04	1.14	1.15	mean	1.07	6.38	+/-20%
13C-1,2,3,4,7,8-HxCDF	1.05	1.05	1.07	1.10	1.05	1.05	mean	1.06	1.88	+/-20%
13C-1,2,3,6,7,8-HxCDF	1.18	1.21	1.24	1.18	1.17	1.17	mean	1.19	2.39	+/-20%
13C-2,3,4,6,7,8-HxCDF	1.09	1.10	1.12	1.12	1.08	1.08	mean	1.10	1.75	+/-20%
13C-1,2,3,7,8,9-HxCDF	0.97	0.99	0.99	1.01	0.96	0.97	mean	0.98	2.08	+/-20%
13C-1,2,3,4,6,7,8-HpCDF	0.80	0.84	0.85	0.85	0.83	0.85	mean	0.84	2.54	+/-20%
13C-1,2,3,4,7,8,9-HpCDF	0.67	0.71	0.72	0.71	0.71	0.73	mean	0.71	2.95	+/-20%

37Cl-2,3,7,8-TCDD	1.05	1.04	1.01	1.02	1.04	1.07	mean	1.04	2.03	+/-20%

. For Method 1613, 123789-HxCDD Relative Response (RR) is calculated based on the labeled analogs of the other two HxCDDs. For Method M23 and TO9 the Relative Response is calculated based on 13C-123678-HxCDD.

. OCDF RR is calculated based on the labeled analog of OCDD

Sample Response Summary CLIENT ID.
ICAL CS0.5

Run #1 Filename 7202 #1 Samp: 1 Inj: 1 Acquired: 23-APR-12 06:03:22
Processed: 23-APR-12 10:20:38 LAB. ID: ICAL CS0.5

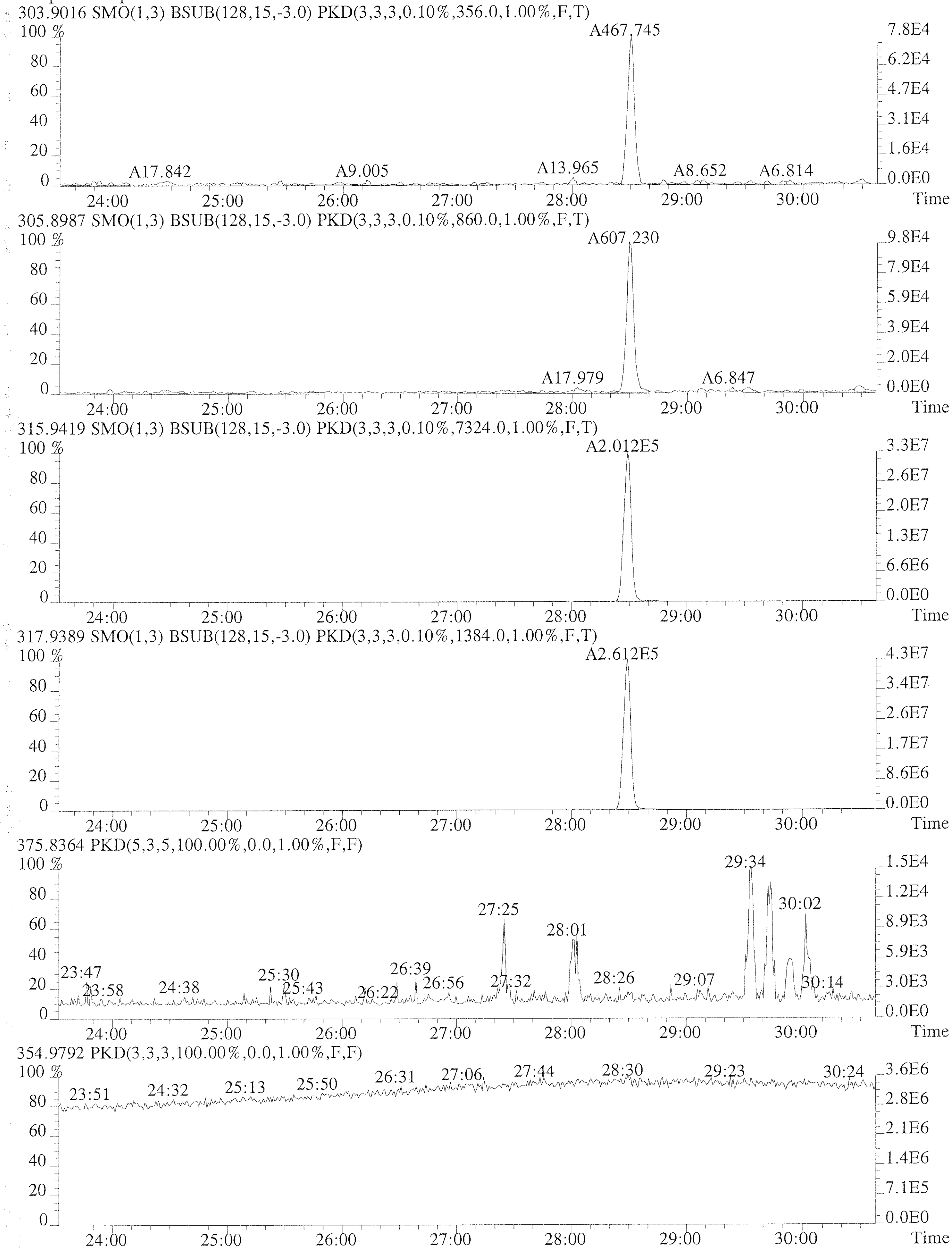
#	Typ	Name	RT-1	Resp 1	Resp 2	Ratio	Meet	Mod?	RRT
1	Unk	2,3,7,8-TCDF	28:31	4.677e+02	6.072e+02	0.77	yes	no	1.001
2	Unk	1,2,3,7,8-PeCDF	32:54	2.828e+03	1.869e+03	1.51	yes	no	1.001
3	Unk	2,3,4,7,8-PeCDF	33:39	2.617e+03	1.728e+03	1.51	yes	no	1.000
4	Unk	1,2,3,4,7,8-HxCDF	36:29	2.126e+03	1.713e+03	1.24	yes	no	1.000
5	Unk	1,2,3,6,7,8-HxCDF	36:34	2.239e+03	1.818e+03	1.23	yes	no	1.000
6	Unk	2,3,4,6,7,8-HxCDF	37:03	2.066e+03	1.663e+03	1.24	yes	no	1.000
7	Unk	1,2,3,7,8,9-HxCDF	37:45	1.948e+03	1.495e+03	1.30	yes	no	1.000
8	Unk	1,2,3,4,6,7,8-HpCDF	39:11	1.705e+03	1.637e+03	1.04	yes	no	1.000
9	Unk	1,2,3,4,7,8,9-HpCDF	40:29	1.405e+03	1.290e+03	1.09	yes	no	1.000
10	Unk	OCDF	43:15	1.889e+03	2.128e+03	0.89	yes	no	1.004
11	Unk	2,3,7,8-TCDD	29:21	4.101e+02	4.703e+02	0.87	yes	no	1.001
12	Unk	1,2,3,7,8-PeCDD	34:00	1.902e+03	1.243e+03	1.53	yes	no	1.000
13	Unk	1,2,3,4,7,8-HxCDD	37:10	1.469e+03	1.207e+03	1.22	yes	no	1.000
14	Unk	1,2,3,6,7,8-HxCDD	37:15	1.501e+03	1.269e+03	1.18	yes	no	1.000
15	Unk	1,2,3,7,8,9-HxCDD	37:32	1.662e+03	1.273e+03	1.31	yes	no	1.008
16	Unk	1,2,3,4,6,7,8-HpCDD	40:05	1.170e+03	1.175e+03	1.00	yes	no	1.000
17	Unk	OCDD	43:05	1.607e+03	1.753e+03	0.92	yes	no	1.000
18	IS	13C-2,3,7,8-TCDF	28:29	2.012e+05	2.612e+05	0.77	yes	no	0.978
19	IS	13C-1,2,3,7,8-PeCDF	32:53	2.379e+05	1.525e+05	1.56	yes	no	1.129
20	IS	13C-2,3,4,7,8-PeCDF	33:38	2.346e+05	1.498e+05	1.57	yes	no	1.155
21	IS	13C-1,2,3,4,7,8-HxCDF	36:28	9.054e+04	1.737e+05	0.52	yes	no	0.972
22	IS	13C-1,2,3,6,7,8-HxCDF	36:33	1.025e+05	1.944e+05	0.53	yes	no	0.974
23	IS	13C-2,3,4,6,7,8-HxCDF	37:03	9.395e+04	1.803e+05	0.52	yes	no	0.988
24	IS	13C-1,2,3,7,8,9-HxCDF	37:45	8.369e+04	1.600e+05	0.52	yes	no	1.006
25	IS	13C-1,2,3,4,6,7,8-HpCDF	39:10	6.275e+04	1.386e+05	0.45	yes	no	1.044
26	IS	13C-1,2,3,4,7,8,9-HpCDF	40:28	5.238e+04	1.165e+05	0.45	yes	no	1.079
27	IS	13C-2,3,7,8-TCDD	29:20	1.678e+05	2.134e+05	0.79	yes	no	1.007
28	IS	13C-1,2,3,7,8-PeCDD	33:59	1.806e+05	1.146e+05	1.58	yes	no	1.167
29	IS	13C-1,2,3,4,7,8-HxCDD	37:10	1.289e+05	1.026e+05	1.26	yes	no	0.991
30	IS	13C-1,2,3,6,7,8-HxCDD	37:14	1.303e+05	1.038e+05	1.25	yes	no	0.992
31	IS	13C-1,2,3,4,6,7,8-HpCDD	40:04	1.013e+05	9.559e+04	1.06	yes	no	1.068
32	IS	13C-OCDD	43:05	1.275e+05	1.422e+05	0.90	yes	no	1.148
	RS/RT	13C-1,2,3,4-TCDD	29:07	1.600e+05	2.023e+05	0.79	yes	no	*
	RS/RT	13C-1,2,3,7,8,9-HxCDD	37:31	1.407e+05	1.118e+05	1.26	yes	no	*
	C/Up	37Cl-2,3,7,8-TCDD	29:21	9.477e+02				no	1.008

Signal/Noise Height Ratio Summary CLIENT ID.
ICAL CS0.5

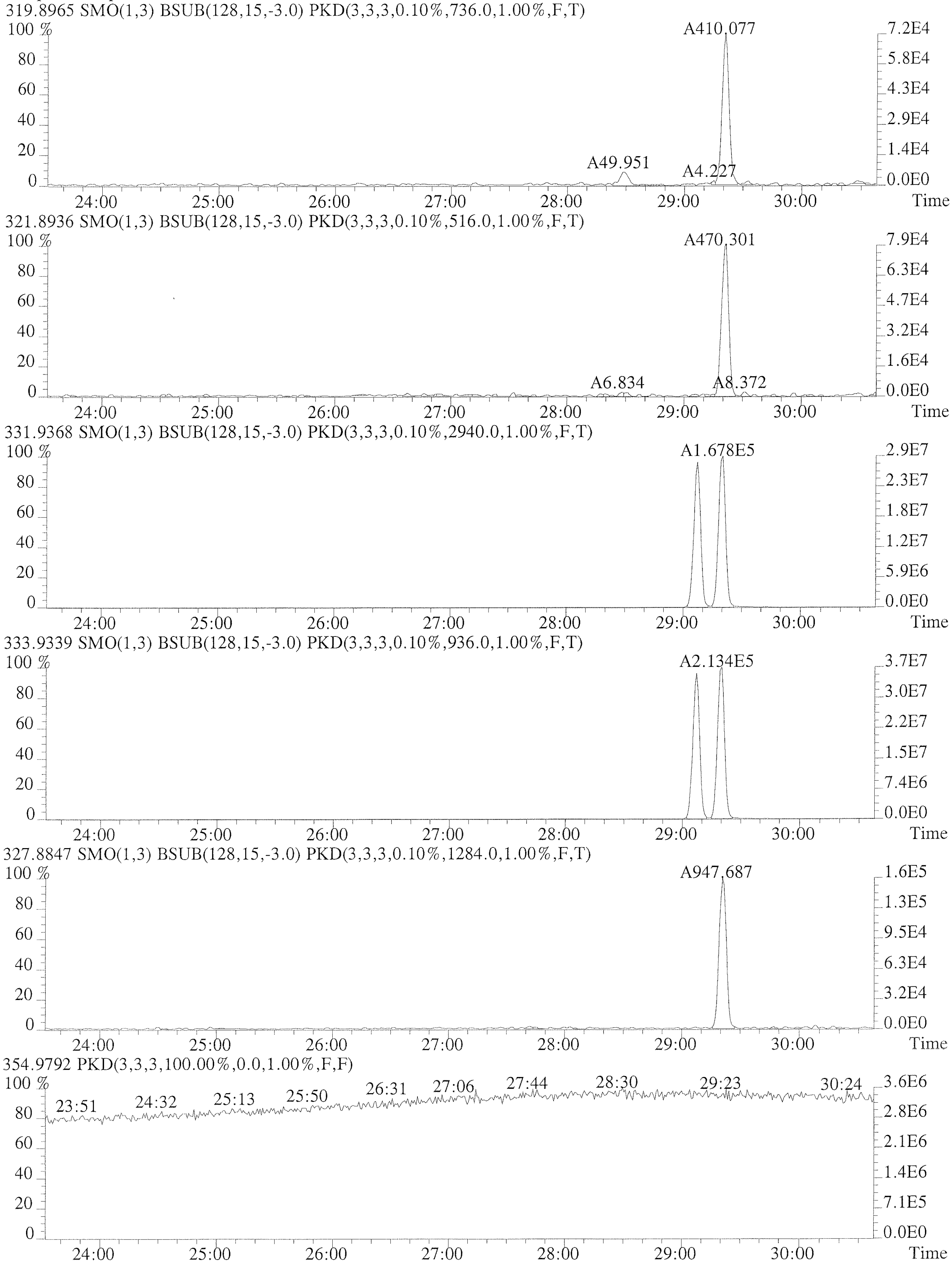
#1 Filename 7202 Samp: 1 Inj: 1 Acquired: 23-APR-12 06:03:22
Processed: 23-APR-12 10:20:381 LAB. ID: ICAL CS0.5

Name	Signal 1	Noise 1	S/N Rat.1	Signal 2	Noise 2	S/N Rat.2
2,3,7,8-TCDF	7.76e+04	3.56e+02	2.2e+02	9.77e+04	8.60e+02	1.1e+02
1,2,3,7,8-PeCDF	5.45e+05	5.80e+02	9.4e+02	3.56e+05	1.11e+03	3.2e+02
2,3,4,7,8-PeCDF	5.33e+05	5.80e+02	9.2e+02	3.27e+05	1.11e+03	3.0e+02
1,2,3,4,7,8-HxCDF	4.46e+05	1.04e+03	4.3e+02	3.71e+05	9.64e+02	3.9e+02
1,2,3,6,7,8-HxCDF	4.76e+05	1.04e+03	4.6e+02	3.75e+05	9.64e+02	3.9e+02
2,3,4,6,7,8-HxCDF	4.44e+05	1.04e+03	4.3e+02	3.63e+05	9.64e+02	3.8e+02
1,2,3,7,8,9-HxCDF	4.21e+05	1.04e+03	4.1e+02	3.17e+05	9.64e+02	3.3e+02
1,2,3,4,6,7,8-HpCDF	3.61e+05	1.55e+03	2.3e+02	3.64e+05	9.12e+02	4.0e+02
1,2,3,4,7,8,9-HpCDF	2.64e+05	1.55e+03	1.7e+02	2.50e+05	9.12e+02	2.7e+02
OCDF	3.14e+05	4.52e+02	6.9e+02	3.60e+05	6.40e+02	5.6e+02
2,3,7,8-TCDD	7.19e+04	7.36e+02	9.8e+01	7.88e+04	5.16e+02	1.5e+02
1,2,3,7,8-PeCDD	3.70e+05	8.56e+02	4.3e+02	2.54e+05	6.88e+02	3.7e+02
1,2,3,4,7,8-HxCDD	3.33e+05	1.24e+03	2.7e+02	2.81e+05	9.52e+02	2.9e+02
1,2,3,6,7,8-HxCDD	3.24e+05	1.24e+03	2.6e+02	2.77e+05	9.52e+02	2.9e+02
1,2,3,7,8,9-HxCDD	3.67e+05	1.24e+03	3.0e+02	2.68e+05	9.52e+02	2.8e+02
1,2,3,4,6,7,8-HpCDD	2.41e+05	4.04e+02	6.0e+02	2.39e+05	3.20e+02	7.5e+02
OCDD	2.61e+05	3.24e+02	8.1e+02	2.89e+05	5.60e+02	5.2e+02
13C-2,3,7,8-TCDF	3.29e+07	7.32e+03	4.5e+03	4.29e+07	1.38e+03	3.1e+04
13C-1,2,3,7,8-PeCDF	4.55e+07	4.20e+02	1.1e+05	2.95e+07	3.36e+02	8.8e+04
13C-2,3,4,7,8-PeCDF	4.63e+07	4.20e+02	1.1e+05	2.98e+07	3.36e+02	8.9e+04
13C-1,2,3,4,7,8-HxCDF	1.92e+07	8.16e+02	2.4e+04	3.67e+07	1.29e+03	2.8e+04
13C-1,2,3,6,7,8-HxCDF	2.13e+07	8.16e+02	2.6e+04	4.08e+07	1.29e+03	3.2e+04
13C-2,3,4,6,7,8-HxCDF	1.99e+07	8.16e+02	2.4e+04	3.87e+07	1.29e+03	3.0e+04
13C-1,2,3,7,8,9-HxCDF	1.81e+07	8.16e+02	2.2e+04	3.47e+07	1.29e+03	2.7e+04
13C-1,2,3,4,6,7,8-HpCDF	1.35e+07	1.70e+03	8.0e+03	3.00e+07	3.51e+03	8.6e+03
13C-1,2,3,4,7,8,9-HpCDF	1.02e+07	1.70e+03	6.0e+03	2.26e+07	3.51e+03	6.4e+03
13C-2,3,7,8-TCDD	2.93e+07	2.94e+03	1.0e+04	3.72e+07	9.36e+02	4.0e+04
13C-1,2,3,7,8-PeCDD	3.53e+07	5.24e+02	6.7e+04	2.26e+07	4.96e+02	4.5e+04
13C-1,2,3,4,7,8-HxCDD	2.95e+07	2.40e+03	1.2e+04	2.30e+07	1.54e+03	1.5e+04
13C-1,2,3,6,7,8-HxCDD	2.75e+07	2.40e+03	1.1e+04	2.20e+07	1.54e+03	1.4e+04
13C-1,2,3,4,6,7,8-HpCDD	2.07e+07	1.14e+03	1.8e+04	1.94e+07	7.32e+02	2.6e+04
13C-OCDD	2.12e+07	5.64e+02	3.8e+04	2.35e+07	7.92e+02	3.0e+04
13C-1,2,3,4-TCDD	2.82e+07	2.94e+03	9.6e+03	3.57e+07	9.36e+02	3.8e+04
13C-1,2,3,7,8,9-HxCDD	3.06e+07	2.40e+03	1.3e+04	2.42e+07	1.54e+03	1.6e+04
37Cl-2,3,7,8-TCDD	1.57e+05	1.28e+03	1.2e+02			

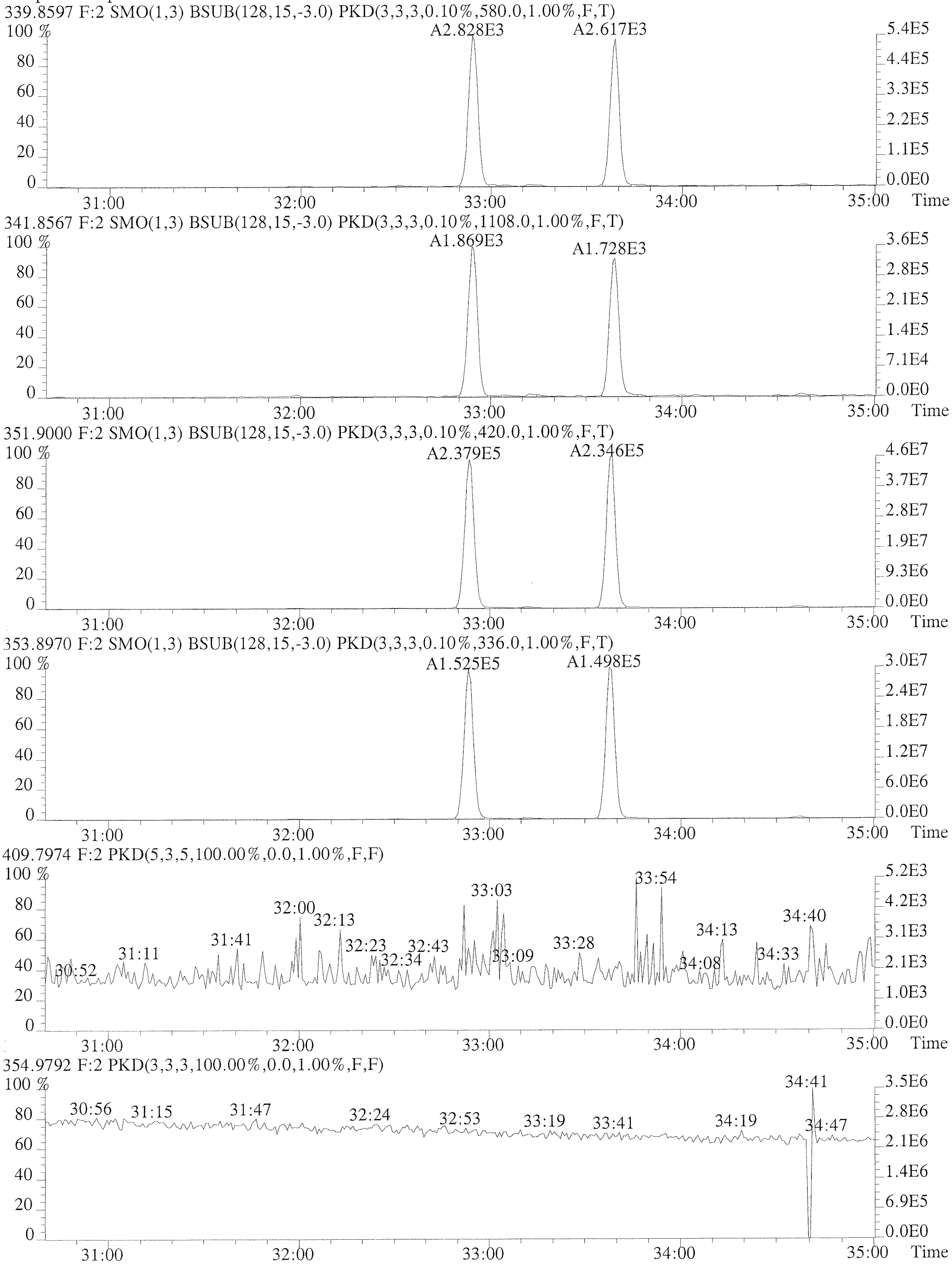
File: 7202 #1-592 Acq:23-APR-2012 06:03:22 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:ICAL CS0.5



File: 7202 #1-592 Acq:23-APR-2012 06:03:22 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:ICAL CS0.5

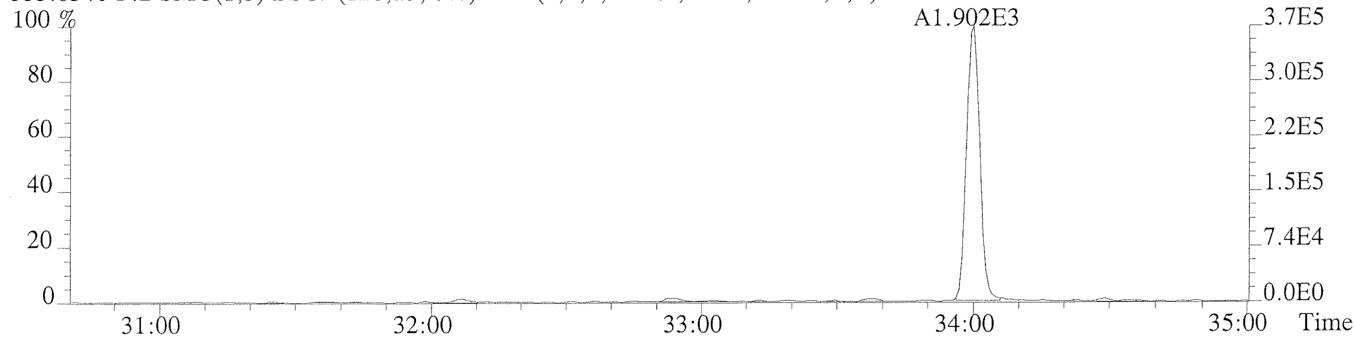


File: 7202 #1-394 Acq:23-APR-2012 06:03:22 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:ICAL CS0.5

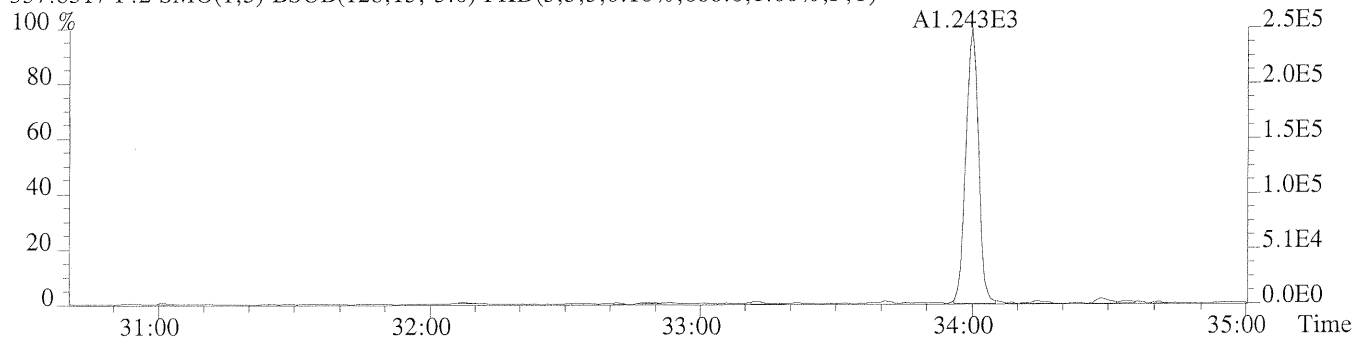


File: 7202 #1-394 Acq:23-APR-2012 06:03:22 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:ICAL CS0.5

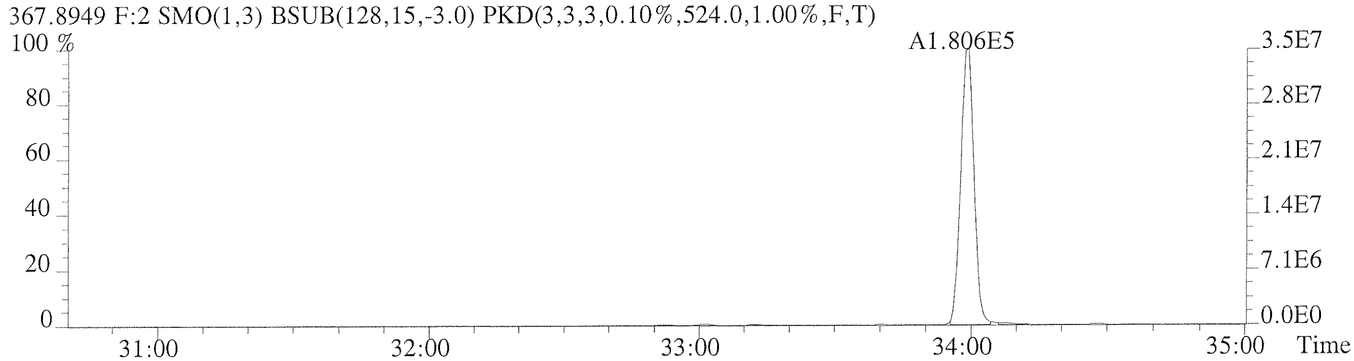
355.8546 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,856.0,1.00%,F,T)



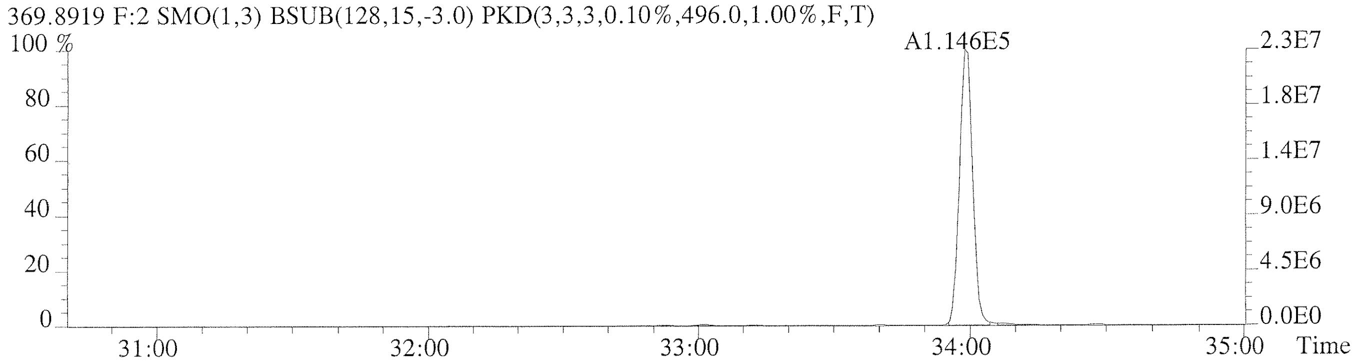
357.8517 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,688.0,1.00%,F,T)



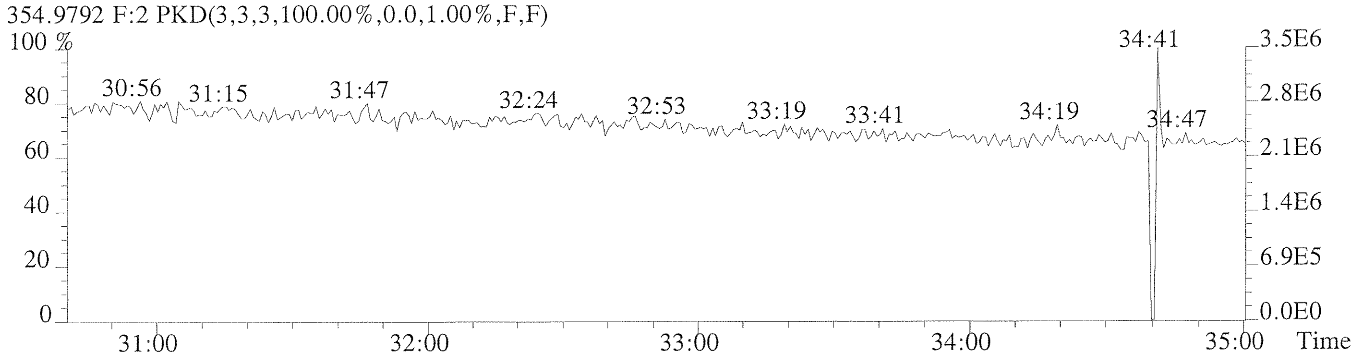
367.8949 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,524.0,1.00%,F,T)



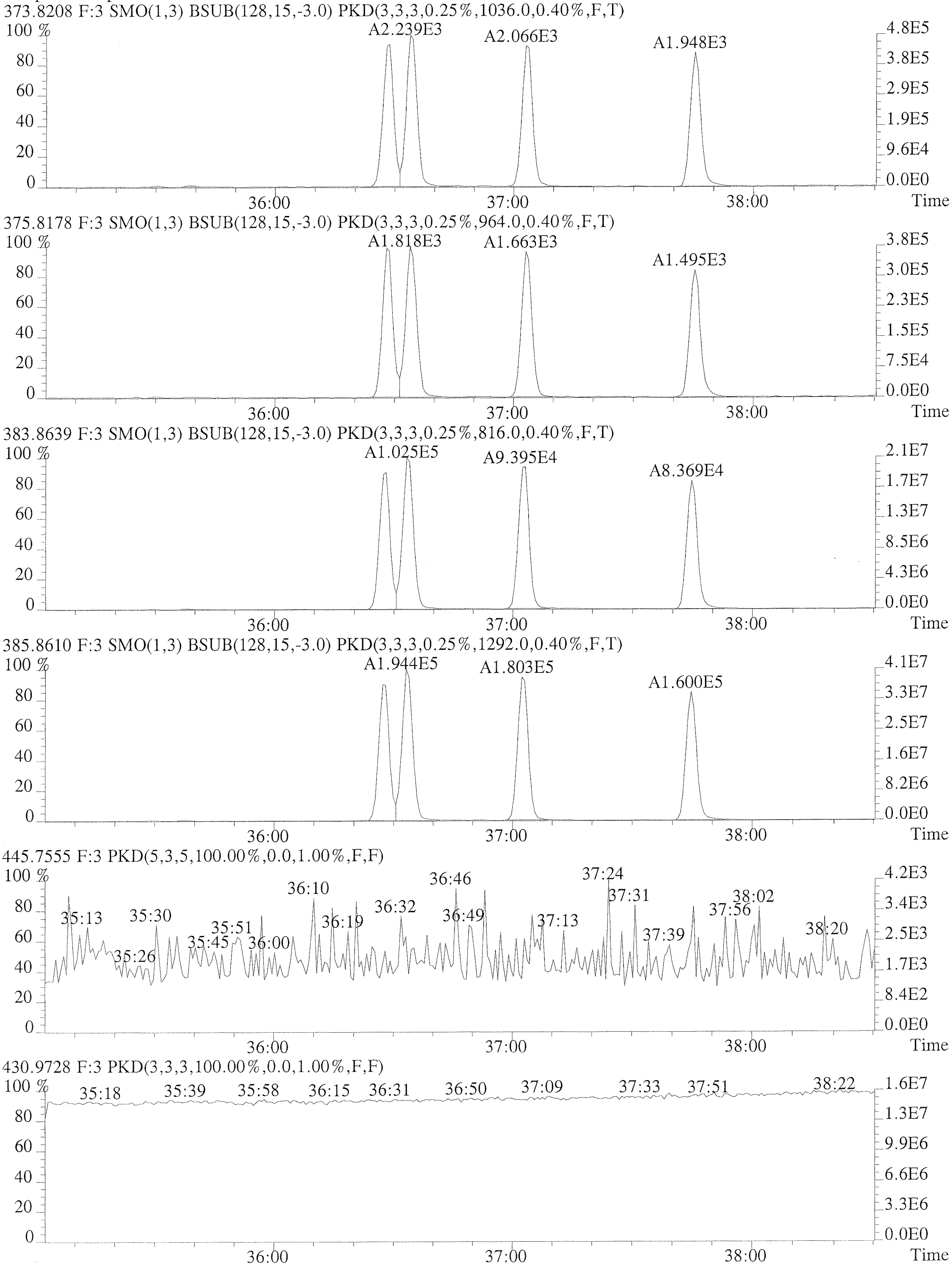
369.8919 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,496.0,1.00%,F,T)



354.9792 F:2 PKD(3,3,3,100.00%,0.0,1.00%,F,F)

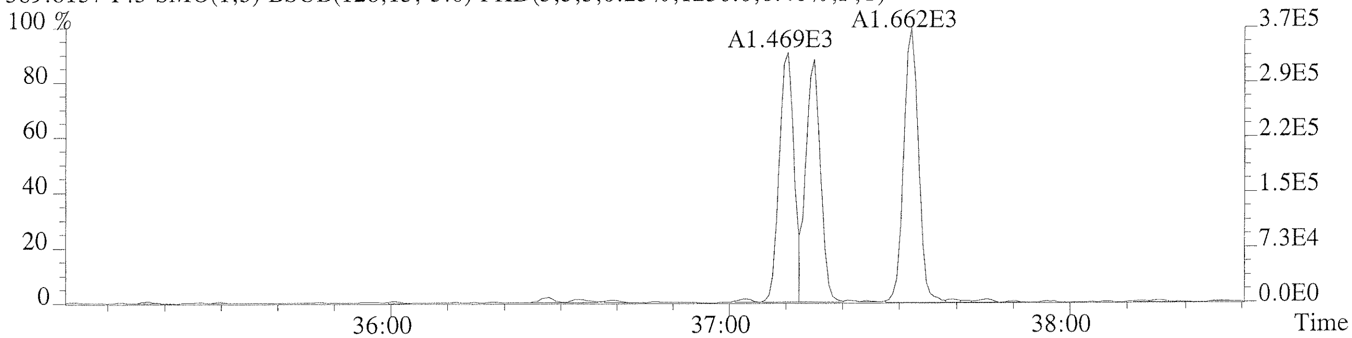


File: 7202 #1-315 Acq:23-APR-2012 06:03:22 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:ICAL CS0.5

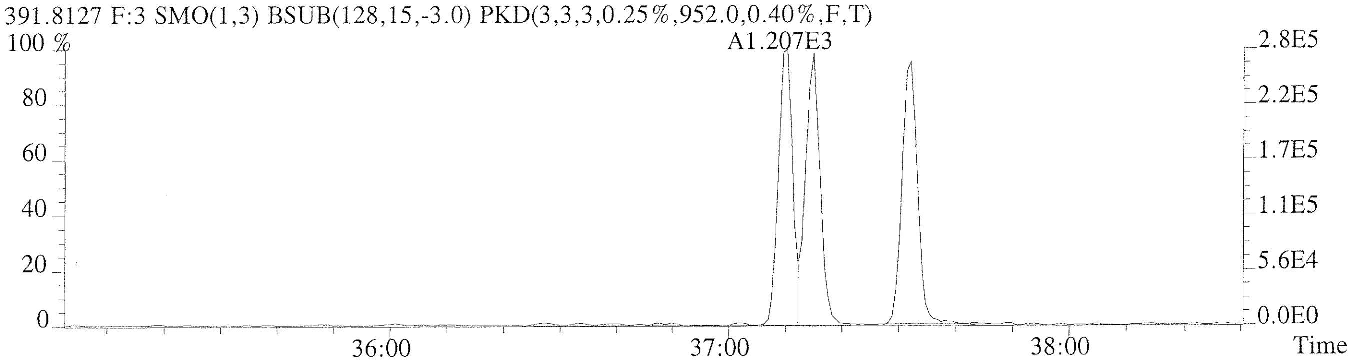


File: 7202 #1-315 Acq:23-APR-2012 06:03:22 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:ICAL CS0.5

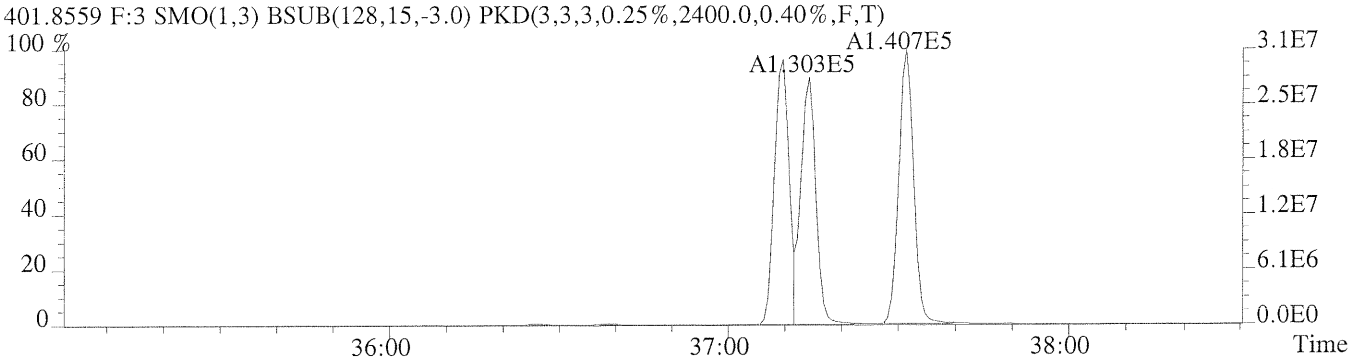
389.8157 F:3 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,1236.0,0.40%,F,T)



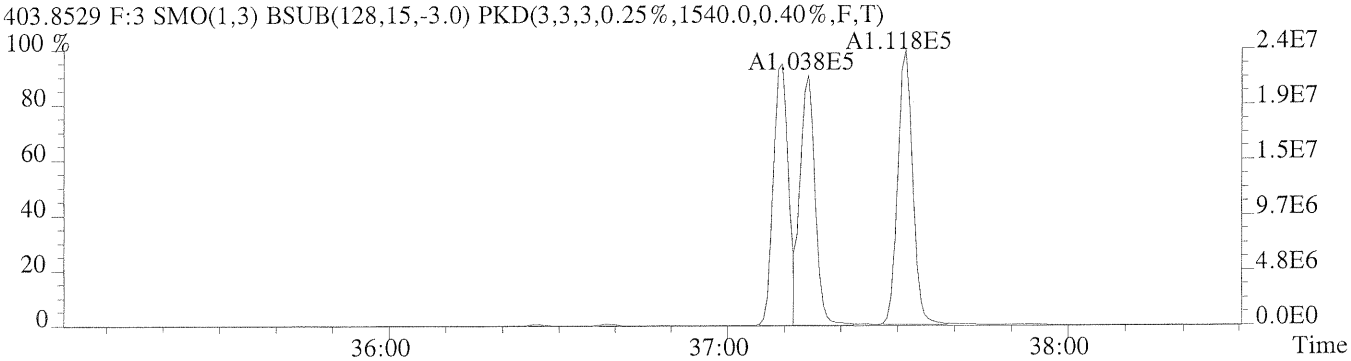
391.8127 F:3 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,952.0,0.40%,F,T)



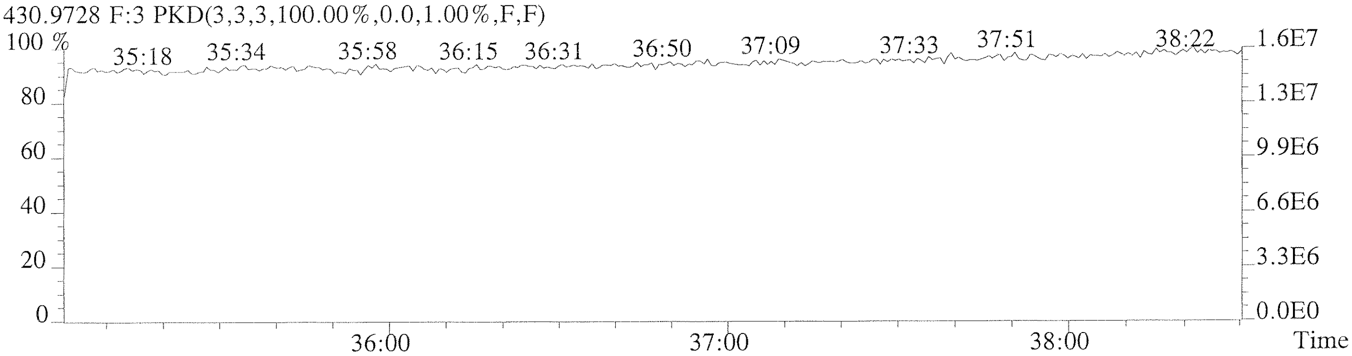
401.8559 F:3 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,2400.0,0.40%,F,T)



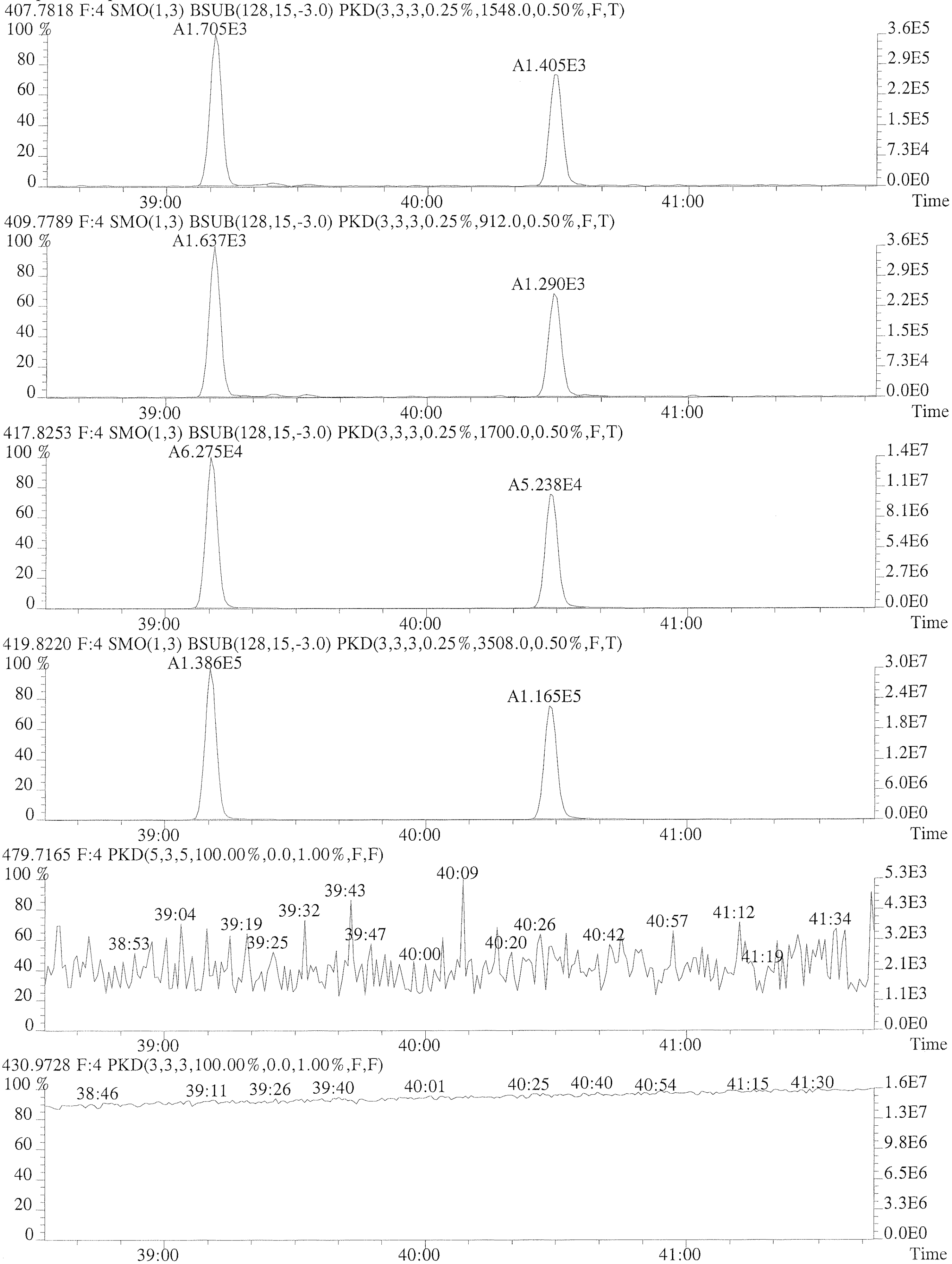
403.8529 F:3 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,1540.0,0.40%,F,T)



430.9728 F:3 PKD(3,3,3,100.00%,0.0,1.00%,F,F)

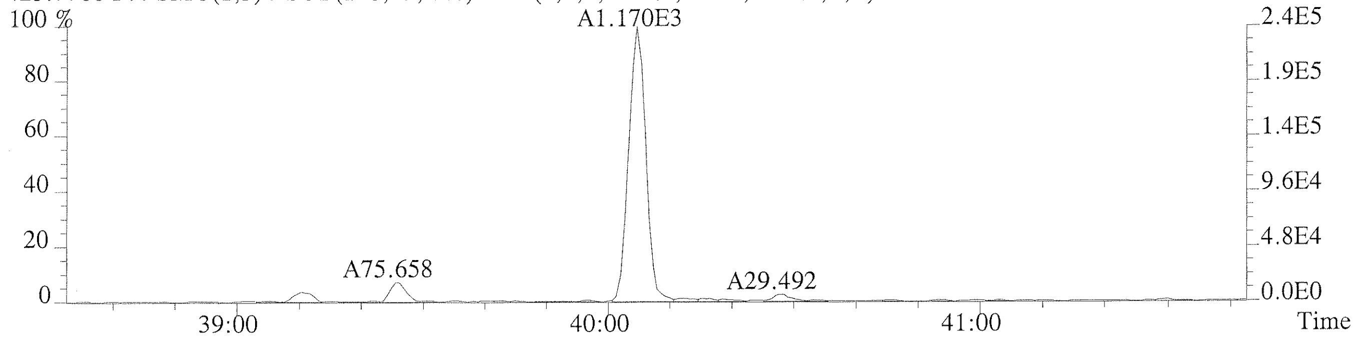


File: 7202 #1-288 Acq:23-APR-2012 06:03:22 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:ICAL CS0.5

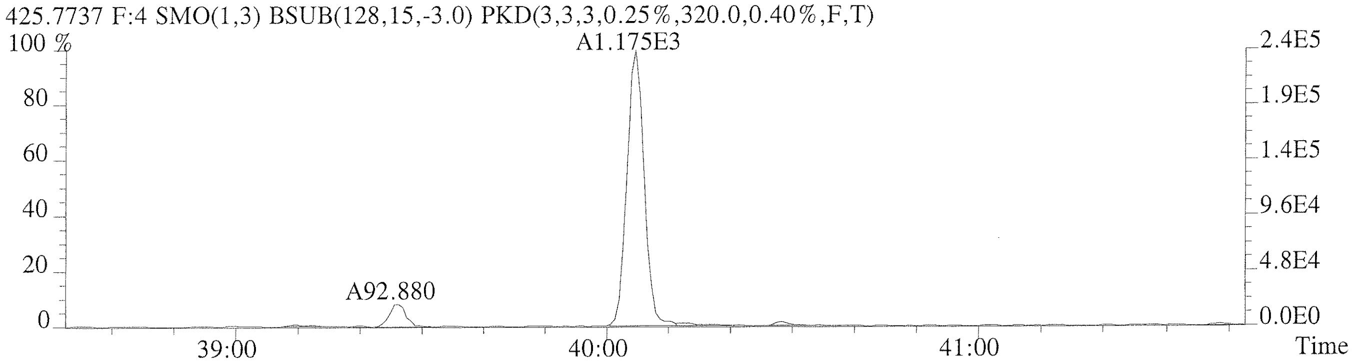


File: 7202 #1-288 Acq:23-APR-2012 06:03:22 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:ICAL CS0.5

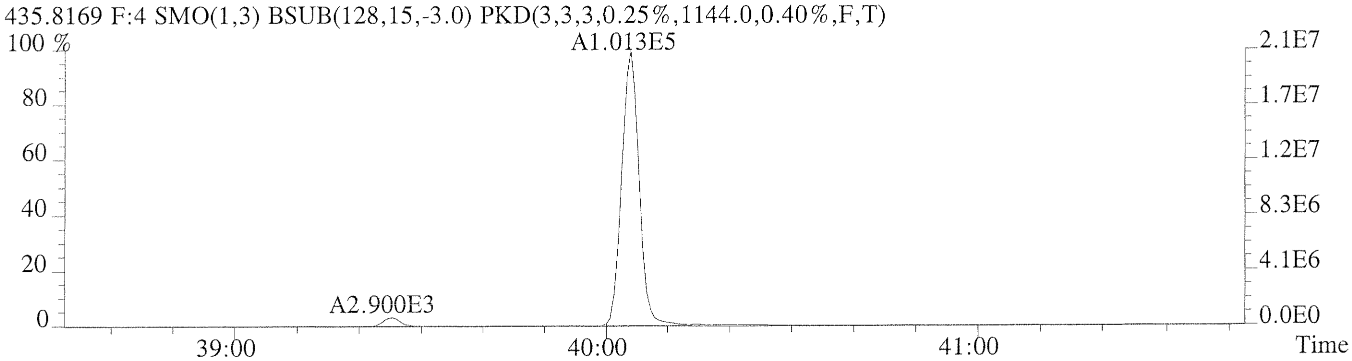
423.7766 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,404.0,0.40%,F,T)



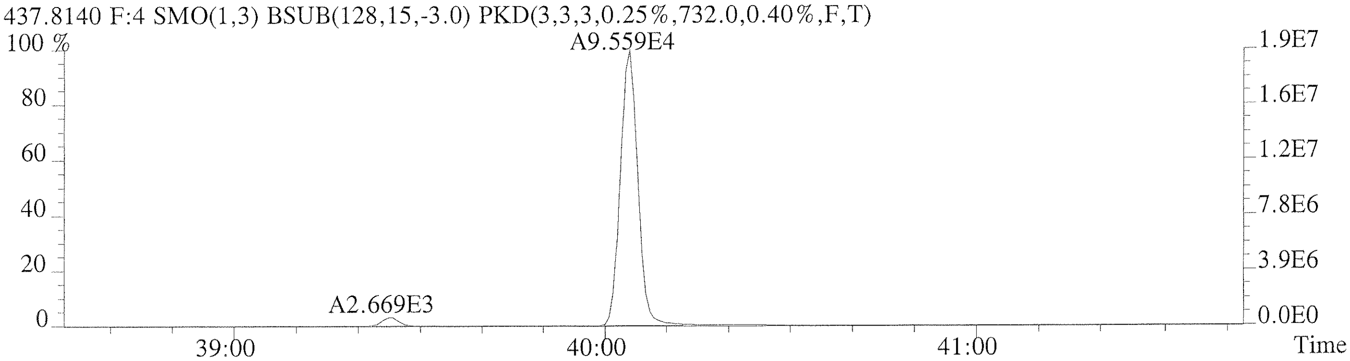
425.7737 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,320.0,0.40%,F,T)



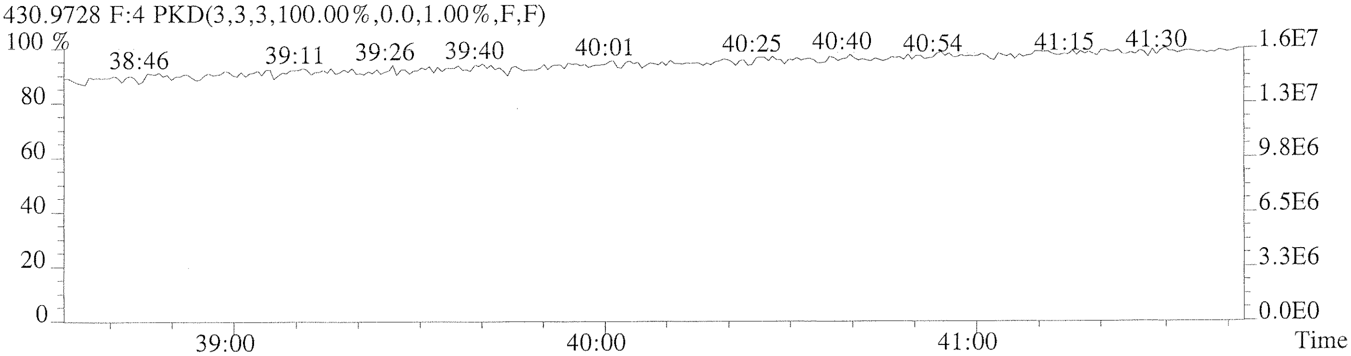
435.8169 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,1144.0,0.40%,F,T)



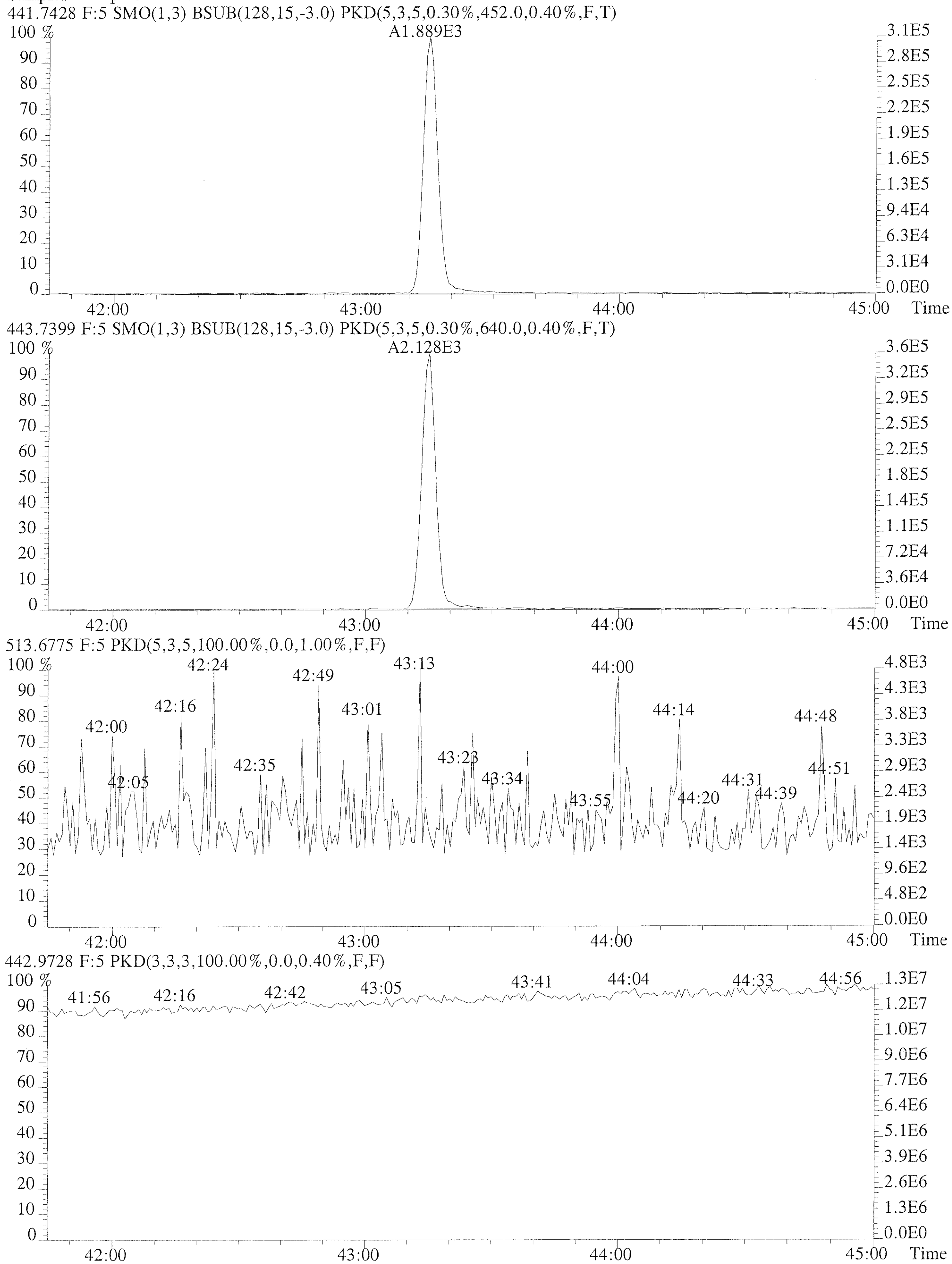
437.8140 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,732.0,0.40%,F,T)



430.9728 F:4 PKD(3,3,3,100.00%,0.0,1.00%,F,F)

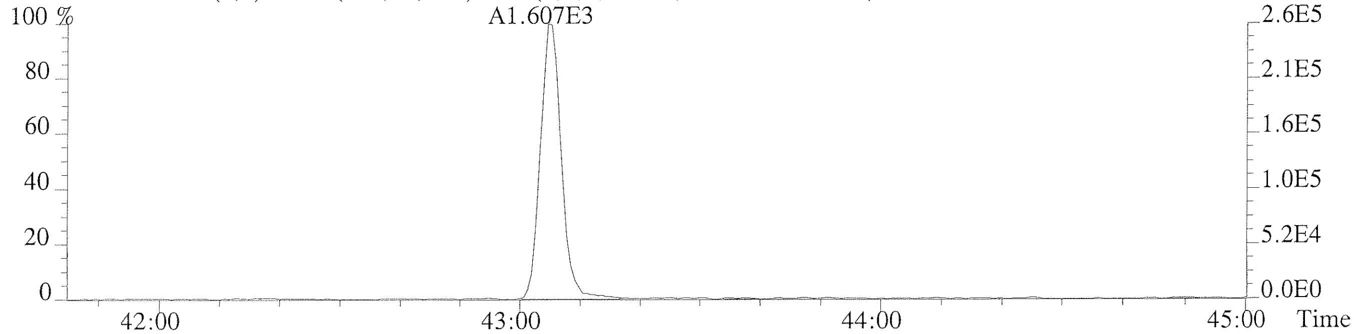


File: 7202 #1-300 Acq:23-APR-2012 06:03:22 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:ICAL CS0.5

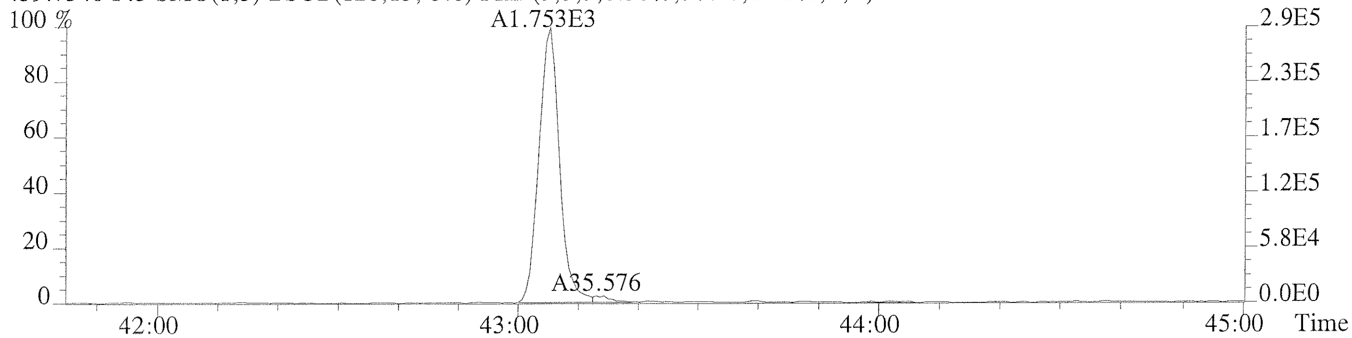


File: '202 #1-300 Acq:23-APR-2012 06:03:22 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:ICAL CS0.5

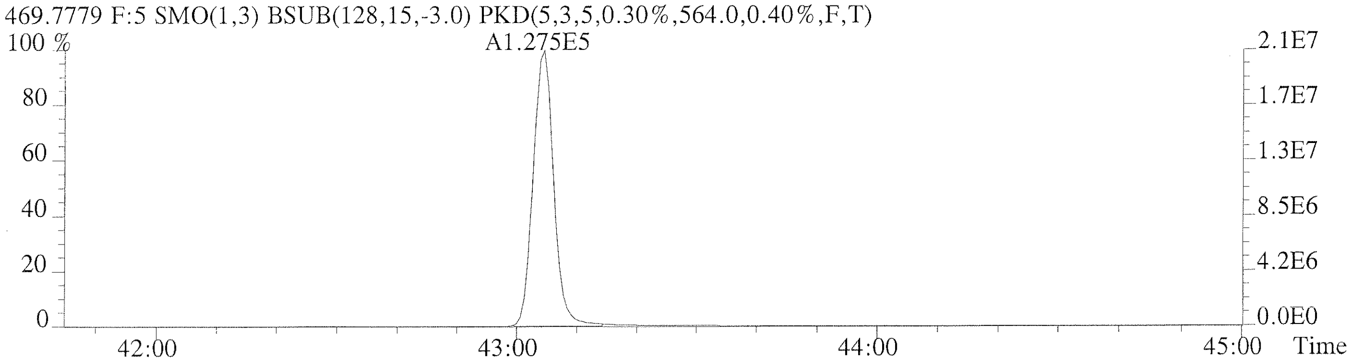
457.7377 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(5,3,5,0.30%,324.0,0.40%,F,T)



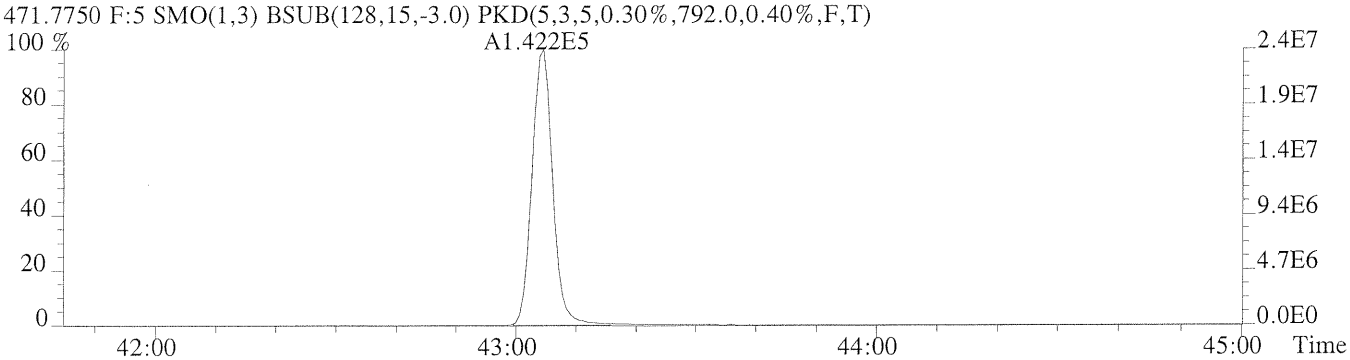
459.7348 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(5,3,5,0.30%,560.0,0.40%,F,T)



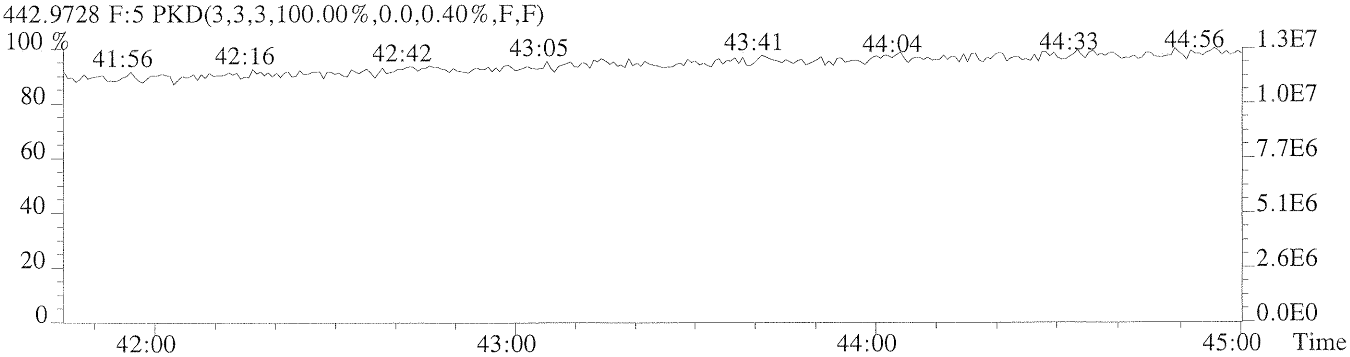
469.7779 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(5,3,5,0.30%,564.0,0.40%,F,T)



471.7750 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(5,3,5,0.30%,792.0,0.40%,F,T)



442.9728 F:5 PKD(3,3,3,100.00%,0.0,0.40%,F,F)



Sample Response Summary CLIENT ID.
ICAL CS1

#2 Filename 7203 #1 Samp: 1 Inj: 1 Acquired: 23-APR-12 07:12:38
Processed: 23-APR-12 10:20:42 LAB. ID: ICAL CS1

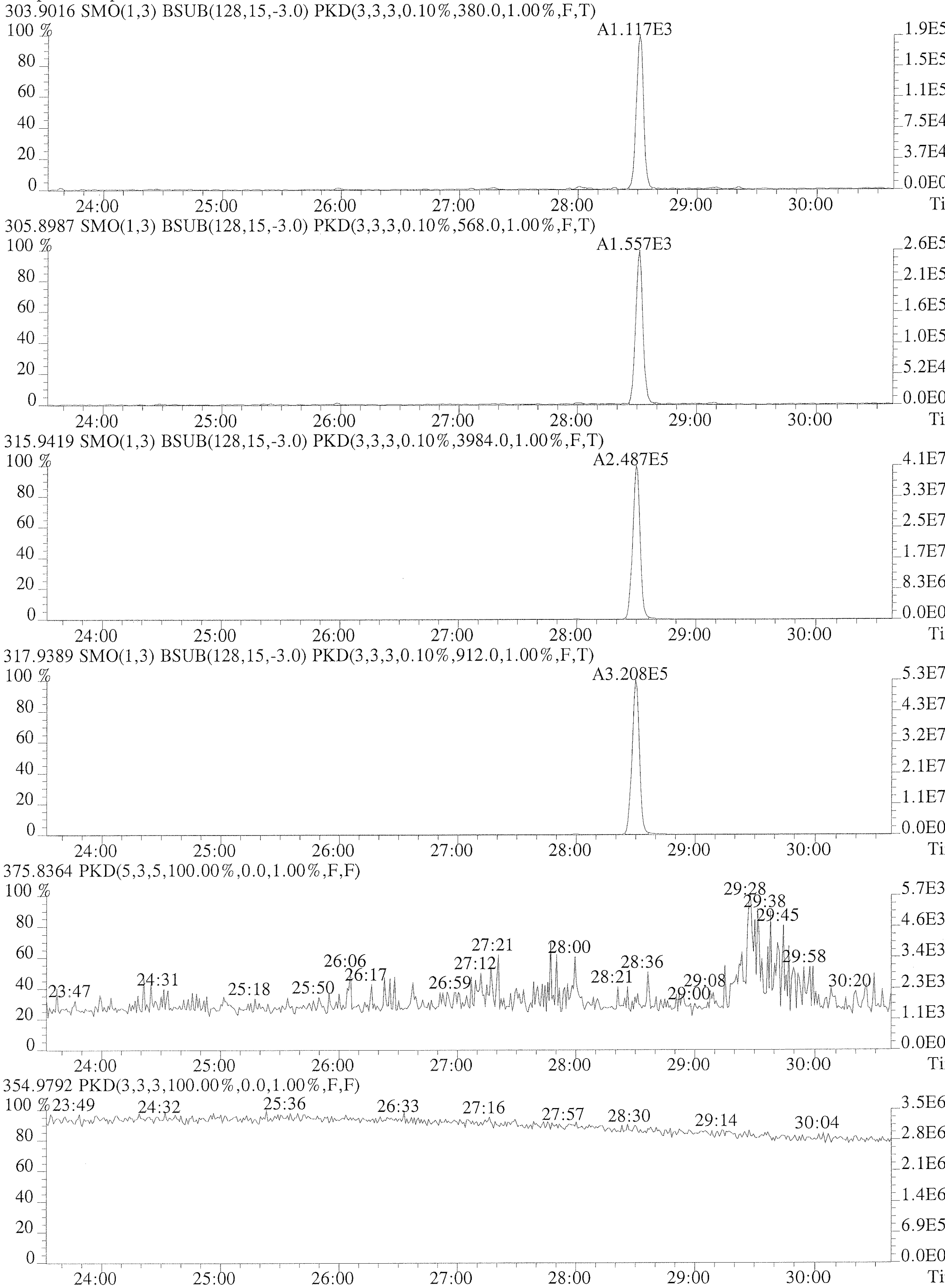
Typ	Name	RT-1	Resp 1	Resp 2	Ratio	Meet	Mod?	RRT
Unk	2,3,7,8-TCDF	28:31	1.117e+03	1.557e+03	0.72	yes	no	1.001
Unk	1,2,3,7,8-PeCDF	32:55	7.190e+03	4.529e+03	1.59	yes	no	1.001
Unk	2,3,4,7,8-PeCDF	33:39	6.413e+03	4.148e+03	1.55	yes	no	1.000
Unk	1,2,3,4,7,8-HxCDF	36:29	5.746e+03	4.635e+03	1.24	yes	no	1.000
Unk	1,2,3,6,7,8-HxCDF	36:35	5.979e+03	4.867e+03	1.23	yes	no	1.000
Unk	2,3,4,6,7,8-HxCDF	37:04	5.534e+03	4.663e+03	1.19	yes	no	1.000
Unk	1,2,3,7,8,9-HxCDF	37:46	5.168e+03	4.077e+03	1.27	yes	no	1.000
Unk	1,2,3,4,6,7,8-HpCDF	39:12	4.787e+03	4.657e+03	1.03	yes	no	1.000
Unk	1,2,3,4,7,8,9-HpCDF	40:30	3.775e+03	3.673e+03	1.03	yes	no	1.000
Unk	OCDF	43:15	5.272e+03	5.801e+03	0.91	yes	no	1.004
Unk	2,3,7,8-TCDD	29:22	9.344e+02	1.233e+03	0.76	yes	no	1.001
Unk	1,2,3,7,8-PeCDD	34:01	4.866e+03	3.062e+03	1.59	yes	no	1.001
Unk	1,2,3,4,7,8-HxCDD	37:10	4.053e+03	3.339e+03	1.21	yes	no	1.000
Unk	1,2,3,6,7,8-HxCDD	37:15	4.085e+03	3.329e+03	1.23	yes	no	1.000
Unk	1,2,3,7,8,9-HxCDD	37:32	4.271e+03	3.460e+03	1.23	yes	no	1.008
Unk	1,2,3,4,6,7,8-HpCDD	40:05	3.271e+03	3.210e+03	1.02	yes	no	1.000
Unk	OCDD	43:05	4.582e+03	5.162e+03	0.89	yes	no	1.000
IS	13C-2,3,7,8-TCDF	28:30	2.487e+05	3.208e+05	0.78	yes	no	0.978
IS	13C-1,2,3,7,8-PeCDF	32:54	2.802e+05	1.781e+05	1.57	yes	no	1.129
IS	13C-2,3,4,7,8-PeCDF	33:38	2.685e+05	1.710e+05	1.57	yes	no	1.154
IS	13C-1,2,3,4,7,8-HxCDF	36:28	1.146e+05	2.150e+05	0.53	yes	no	0.972
IS	13C-1,2,3,6,7,8-HxCDF	36:34	1.273e+05	2.519e+05	0.51	yes	no	0.975
IS	13C-2,3,4,6,7,8-HxCDF	37:03	1.186e+05	2.259e+05	0.52	yes	no	0.988
IS	13C-1,2,3,7,8,9-HxCDF	37:45	1.049e+05	2.031e+05	0.52	yes	no	1.006
IS	13C-1,2,3,4,6,7,8-HpCDF	39:11	8.125e+04	1.803e+05	0.45	yes	no	1.044
IS	13C-1,2,3,4,7,8,9-HpCDF	40:29	6.924e+04	1.534e+05	0.45	yes	no	1.079
IS	13C-2,3,7,8-TCDD	29:21	1.925e+05	2.452e+05	0.78	yes	no	1.007
IS	13C-1,2,3,7,8-PeCDD	33:59	2.112e+05	1.339e+05	1.58	yes	no	1.166
IS	13C-1,2,3,4,7,8-HxCDD	37:10	1.659e+05	1.324e+05	1.25	yes	no	0.991
IS	13C-1,2,3,6,7,8-HxCDD	37:14	1.611e+05	1.279e+05	1.26	yes	no	0.992
IS	13C-1,2,3,4,6,7,8-HpCDD	40:04	1.303e+05	1.234e+05	1.06	yes	no	1.068
IS	13C-OCDD	43:05	1.715e+05	1.900e+05	0.90	yes	no	1.148
RS/RT	13C-1,2,3,4-TCDD	29:08	1.964e+05	2.473e+05	0.79	yes	no	*
RS/RT	13C-1,2,3,7,8,9-HxCDD	37:31	1.735e+05	1.389e+05	1.25	yes	no	*
C/Up	37Cl-2,3,7,8-TCDD	29:22	2.319e+03				no	1.008

Signal/Noise Height Ratio Summary CLIENT ID.
ICAL CS1

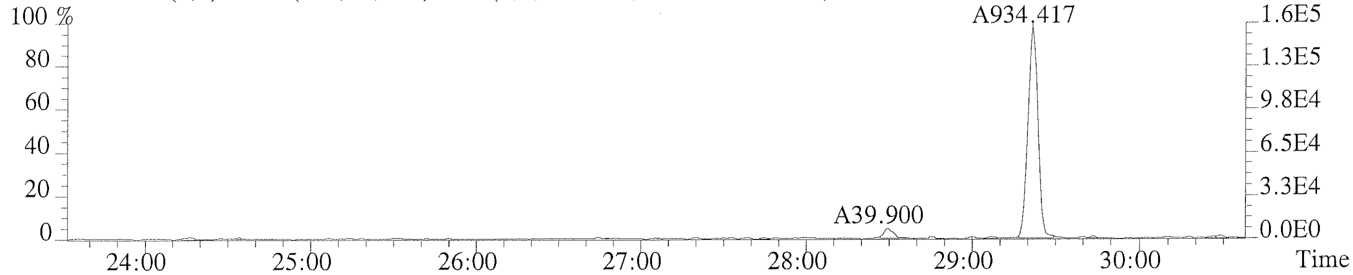
#2 Filename 7203 Samp: 1 Inj: 1 Acquired: 23-APR-12 07:12:38
Processed: 23-APR-12 10:20:421 LAB. ID: ICAL CS1

Name	Signal 1	Noise 1	S/N Rat.1	Signal 2	Noise 2	S/N Rat.2
2,3,7,8-TCDF	1.87e+05	3.80e+02	4.9e+02	2.61e+05	5.68e+02	4.6e+02
1,2,3,7,8-PeCDF	1.42e+06	4.16e+02	3.4e+03	8.89e+05	1.24e+03	7.2e+02
2,3,4,7,8-PeCDF	1.26e+06	4.16e+02	3.0e+03	8.28e+05	1.24e+03	6.7e+02
1,2,3,4,7,8-HxCDF	1.25e+06	7.20e+02	1.7e+03	9.88e+05	3.80e+02	2.6e+03
1,2,3,6,7,8-HxCDF	1.30e+06	7.20e+02	1.8e+03	1.05e+06	3.80e+02	2.8e+03
2,3,4,6,7,8-HxCDF	1.21e+06	7.20e+02	1.7e+03	1.03e+06	3.80e+02	2.7e+03
1,2,3,7,8,9-HxCDF	1.09e+06	7.20e+02	1.5e+03	8.47e+05	3.80e+02	2.2e+03
1,2,3,4,6,7,8-HpCDF	1.03e+06	1.59e+03	6.5e+02	9.98e+05	1.26e+03	7.9e+02
1,2,3,4,7,8,9-HpCDF	7.28e+05	1.59e+03	4.6e+02	7.20e+05	1.26e+03	5.7e+02
OCDF	8.52e+05	4.40e+02	1.9e+03	9.60e+05	5.48e+02	1.8e+03
2,3,7,8-TCDD	1.63e+05	5.60e+02	2.9e+02	2.04e+05	3.80e+02	5.4e+02
1,2,3,7,8-PeCDD	9.68e+05	5.44e+02	1.8e+03	6.20e+05	2.52e+02	2.5e+03
1,2,3,4,7,8-HxCDD	9.05e+05	6.60e+02	1.4e+03	7.43e+05	6.68e+02	1.1e+03
1,2,3,6,7,8-HxCDD	9.02e+05	6.60e+02	1.4e+03	7.41e+05	6.68e+02	1.1e+03
1,2,3,7,8,9-HxCDD	9.01e+05	6.60e+02	1.4e+03	7.35e+05	6.68e+02	1.1e+03
1,2,3,4,6,7,8-HpCDD	6.40e+05	4.24e+02	1.5e+03	6.44e+05	2.80e+02	2.3e+03
OCDD	7.86e+05	3.84e+02	2.0e+03	8.58e+05	2.68e+02	3.2e+03
13C-2,3,7,8-TCDF	4.13e+07	3.98e+03	1.0e+04	5.32e+07	9.12e+02	5.8e+04
13C-1,2,3,7,8-PeCDF	5.44e+07	2.88e+02	1.9e+05	3.47e+07	4.60e+02	7.5e+04
13C-2,3,4,7,8-PeCDF	5.39e+07	2.88e+02	1.9e+05	3.42e+07	4.60e+02	7.4e+04
13C-1,2,3,4,7,8-HxCDF	2.45e+07	4.80e+02	5.1e+04	4.72e+07	1.12e+03	4.2e+04
13C-1,2,3,6,7,8-HxCDF	2.76e+07	4.80e+02	5.7e+04	5.26e+07	1.12e+03	4.7e+04
13C-2,3,4,6,7,8-HxCDF	2.58e+07	4.80e+02	5.4e+04	4.90e+07	1.12e+03	4.4e+04
13C-1,2,3,7,8,9-HxCDF	2.22e+07	4.80e+02	4.6e+04	4.24e+07	1.12e+03	3.8e+04
13C-1,2,3,4,6,7,8-HpCDF	1.73e+07	5.04e+03	3.4e+03	3.80e+07	7.10e+03	5.4e+03
13C-1,2,3,4,7,8,9-HpCDF	1.34e+07	5.04e+03	2.6e+03	2.96e+07	7.10e+03	4.2e+03
13C-2,3,7,8-TCDD	3.35e+07	3.08e+03	1.1e+04	4.25e+07	1.37e+03	3.1e+04
13C-1,2,3,7,8-PeCDD	4.20e+07	4.48e+02	9.4e+04	2.67e+07	3.48e+02	7.7e+04
13C-1,2,3,4,7,8-HxCDD	3.70e+07	2.38e+03	1.6e+04	2.95e+07	1.45e+03	2.0e+04
13C-1,2,3,6,7,8-HxCDD	3.44e+07	2.38e+03	1.4e+04	2.75e+07	1.45e+03	1.9e+04
13C-1,2,3,4,6,7,8-HpCDD	2.58e+07	1.24e+03	2.1e+04	2.46e+07	6.84e+02	3.6e+04
13C-OCDD	2.87e+07	5.72e+02	5.0e+04	3.19e+07	5.28e+02	6.0e+04
13C-1,2,3,4-TCDD	3.48e+07	3.08e+03	1.1e+04	4.39e+07	1.37e+03	3.2e+04
13C-1,2,3,7,8,9-HxCDD	3.73e+07	2.38e+03	1.6e+04	3.00e+07	1.45e+03	2.1e+04
37Cl-2,3,7,8-TCDD	3.90e+05	8.68e+02	4.5e+02			

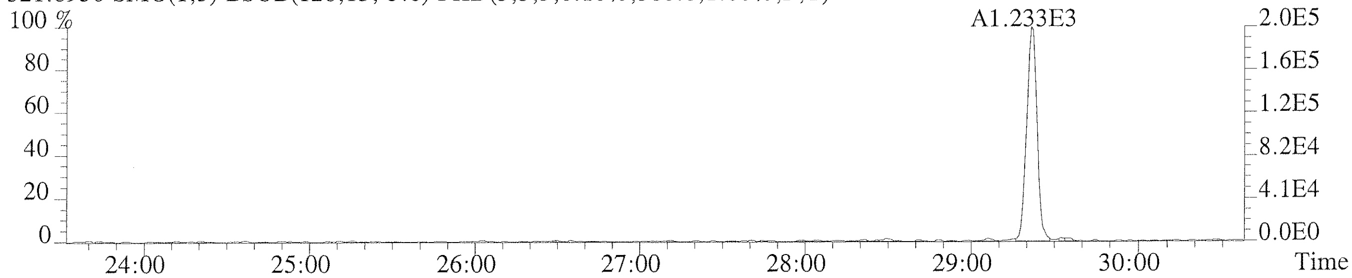
File: 7203 #1-592 Acq:23-APR-2012 07:12:38 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:ICAL CS1



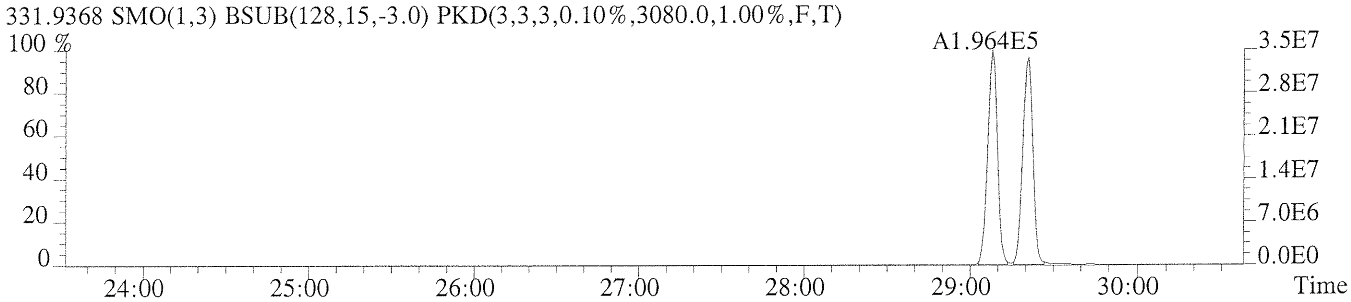
File: 7203 #1-592 Acq:23-APR-2012 07:12:38 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:ICAL CS1
319.8965 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,560.0,1.00%,F,T)



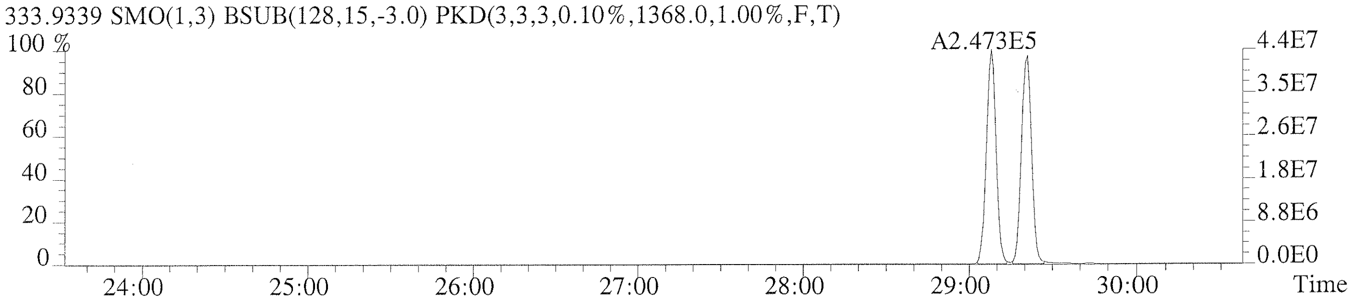
321.8936 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,380.0,1.00%,F,T)



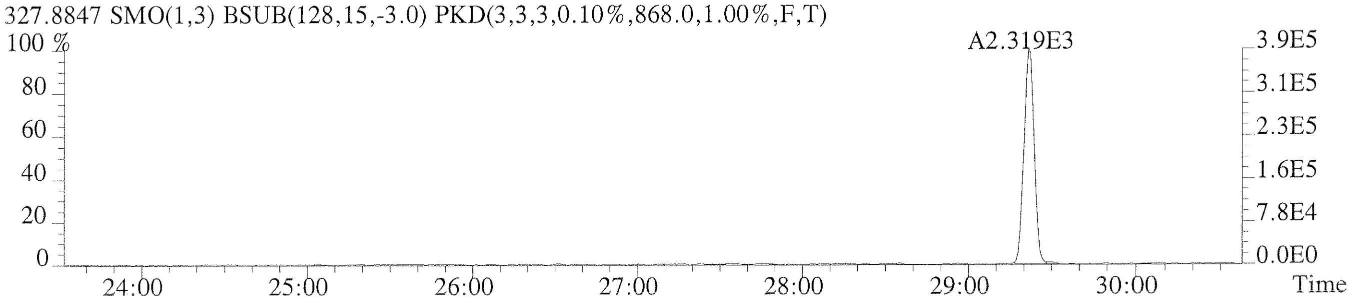
331.9368 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,3080.0,1.00%,F,T)



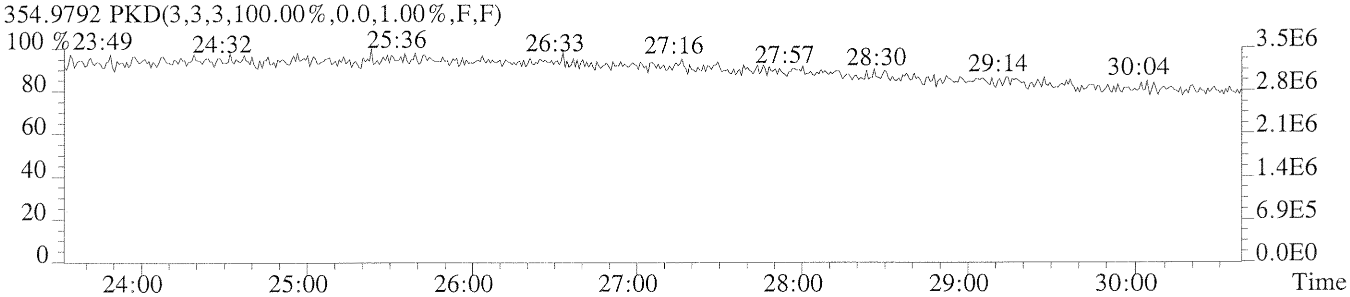
333.9339 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,1368.0,1.00%,F,T)



327.8847 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,868.0,1.00%,F,T)

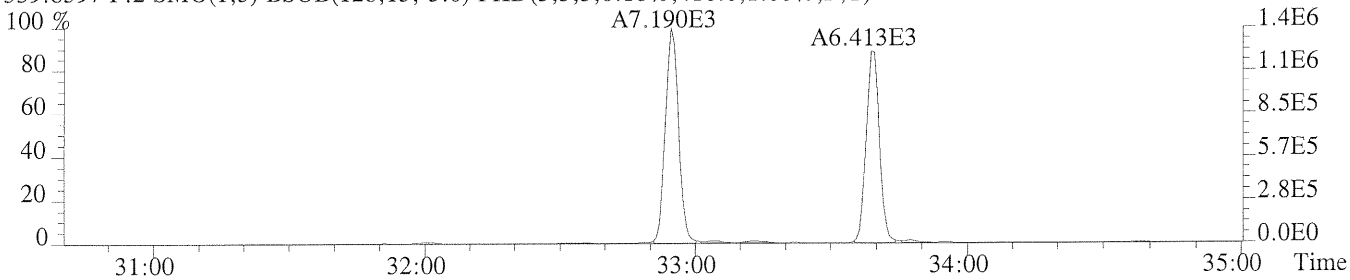


354.9792 PKD(3,3,3,100.00%,0.0,1.00%,F,F)

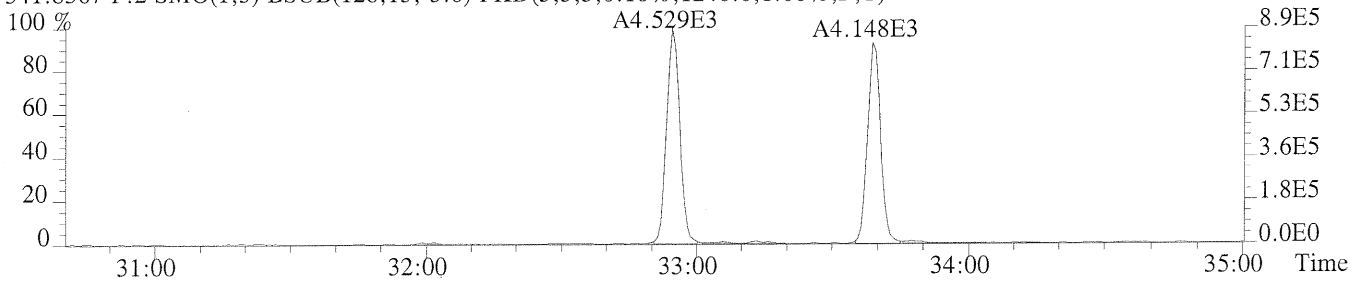


File: 7203 #1-394 Acq:23-APR-2012 07:12:38 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:ICAL CS1

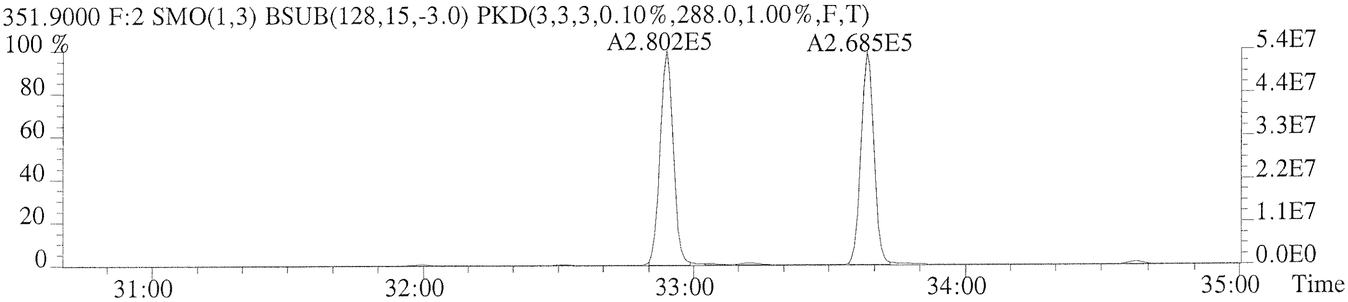
339.8597 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,416.0,1.00%,F,T)



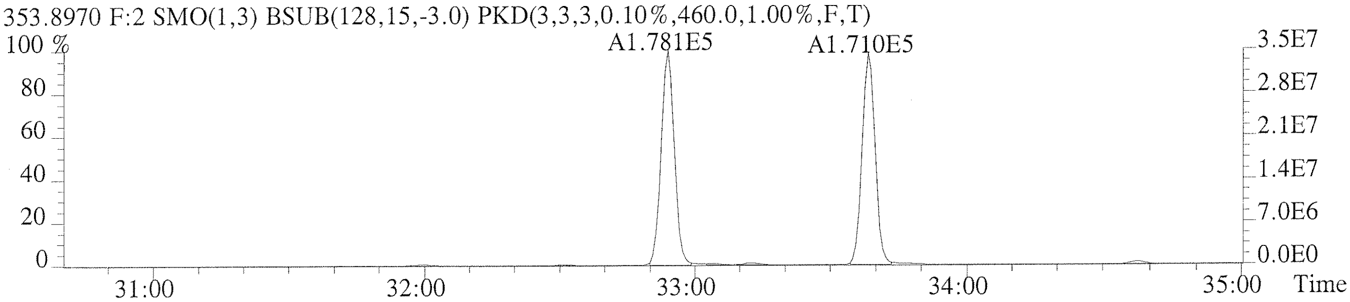
341.8567 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,1240.0,1.00%,F,T)



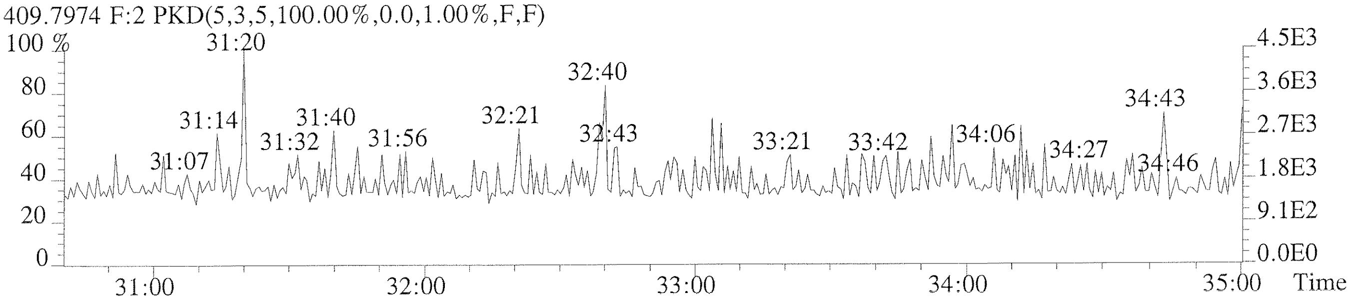
351.9000 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,288.0,1.00%,F,T)



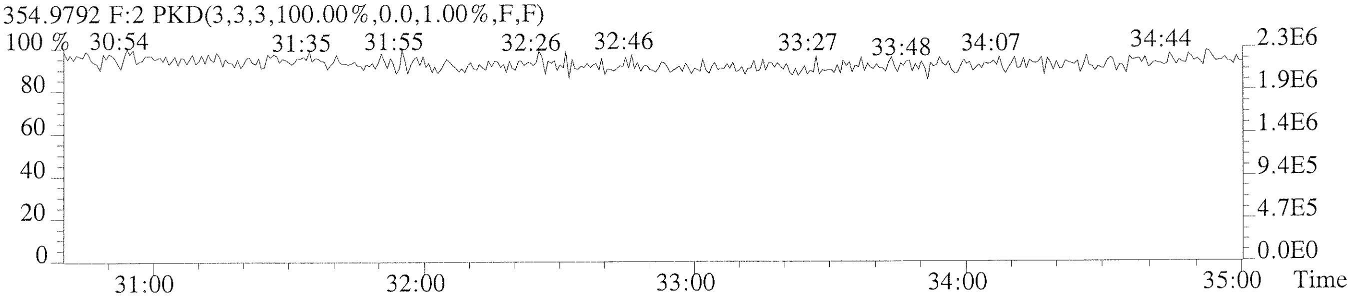
353.8970 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,460.0,1.00%,F,T)



409.7974 F:2 PKD(5,3,5,100.00%,0.0,1.00%,F,F)

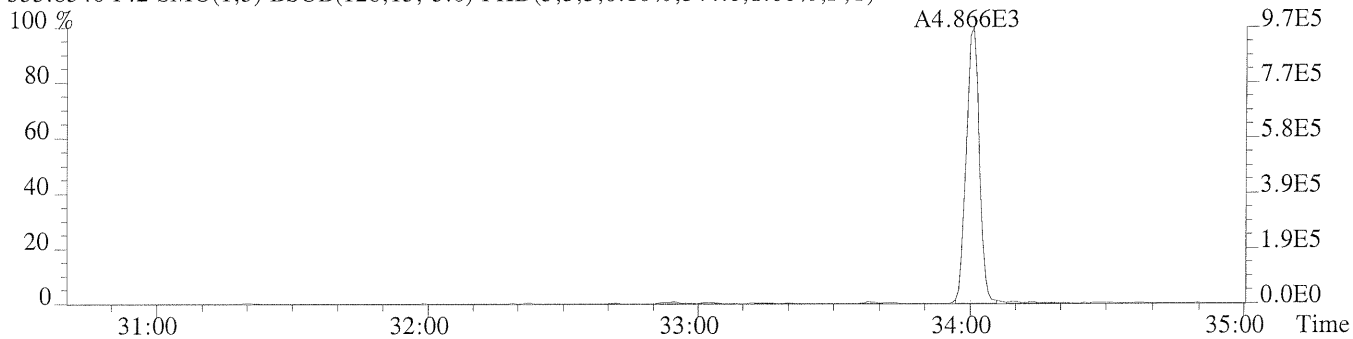


354.9792 F:2 PKD(3,3,3,100.00%,0.0,1.00%,F,F)

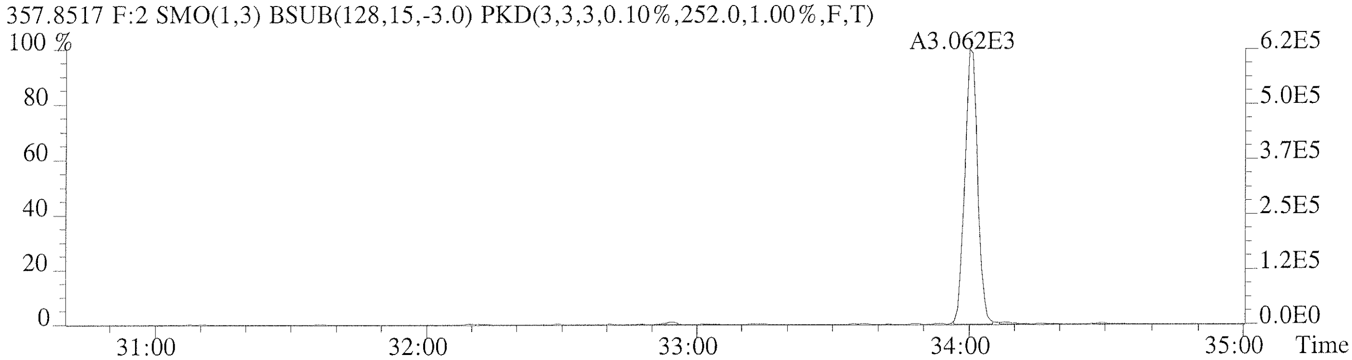


File: 7203 #1-394 Acq:23-APR-2012 07:12:38 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:ICAL CS1

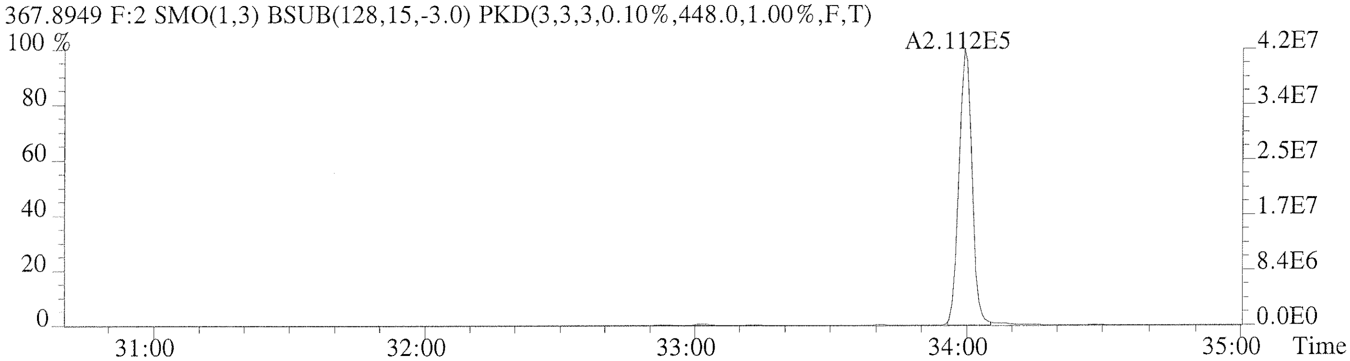
355.8546 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,544.0,1.00%,F,T)



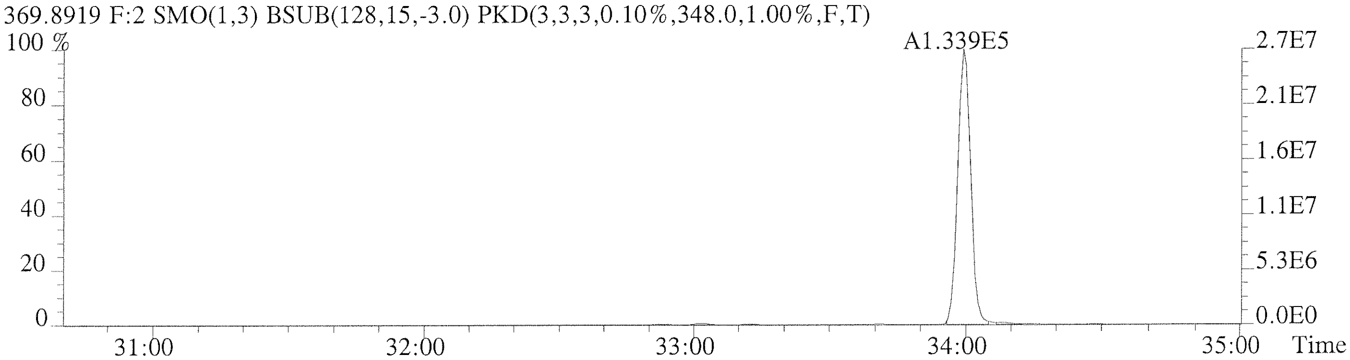
357.8517 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,252.0,1.00%,F,T)



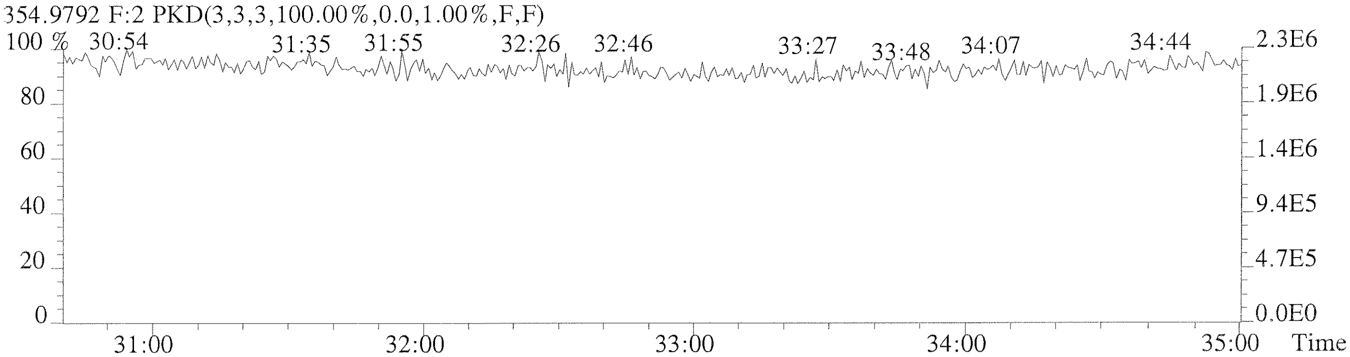
367.8949 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,448.0,1.00%,F,T)



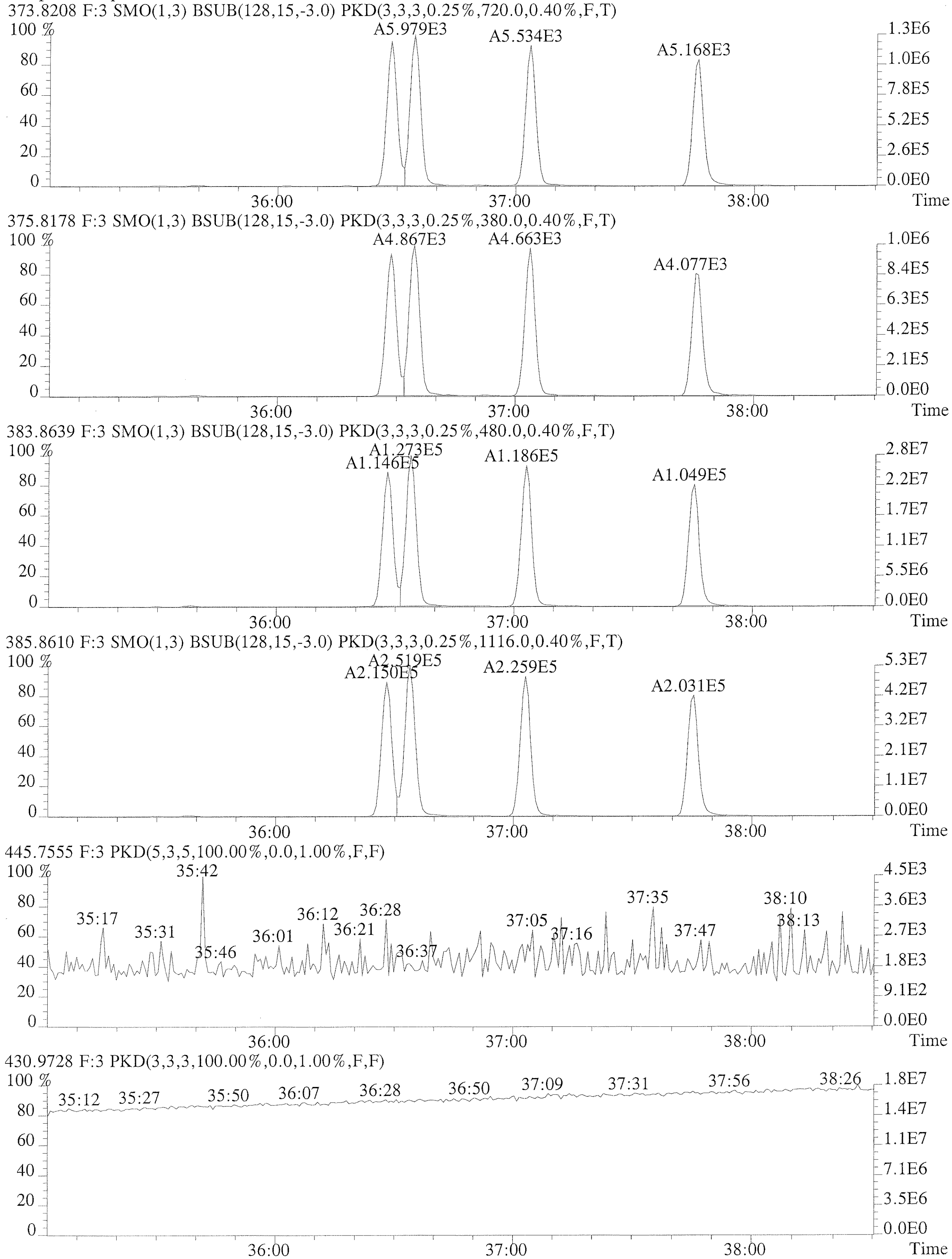
369.8919 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,348.0,1.00%,F,T)



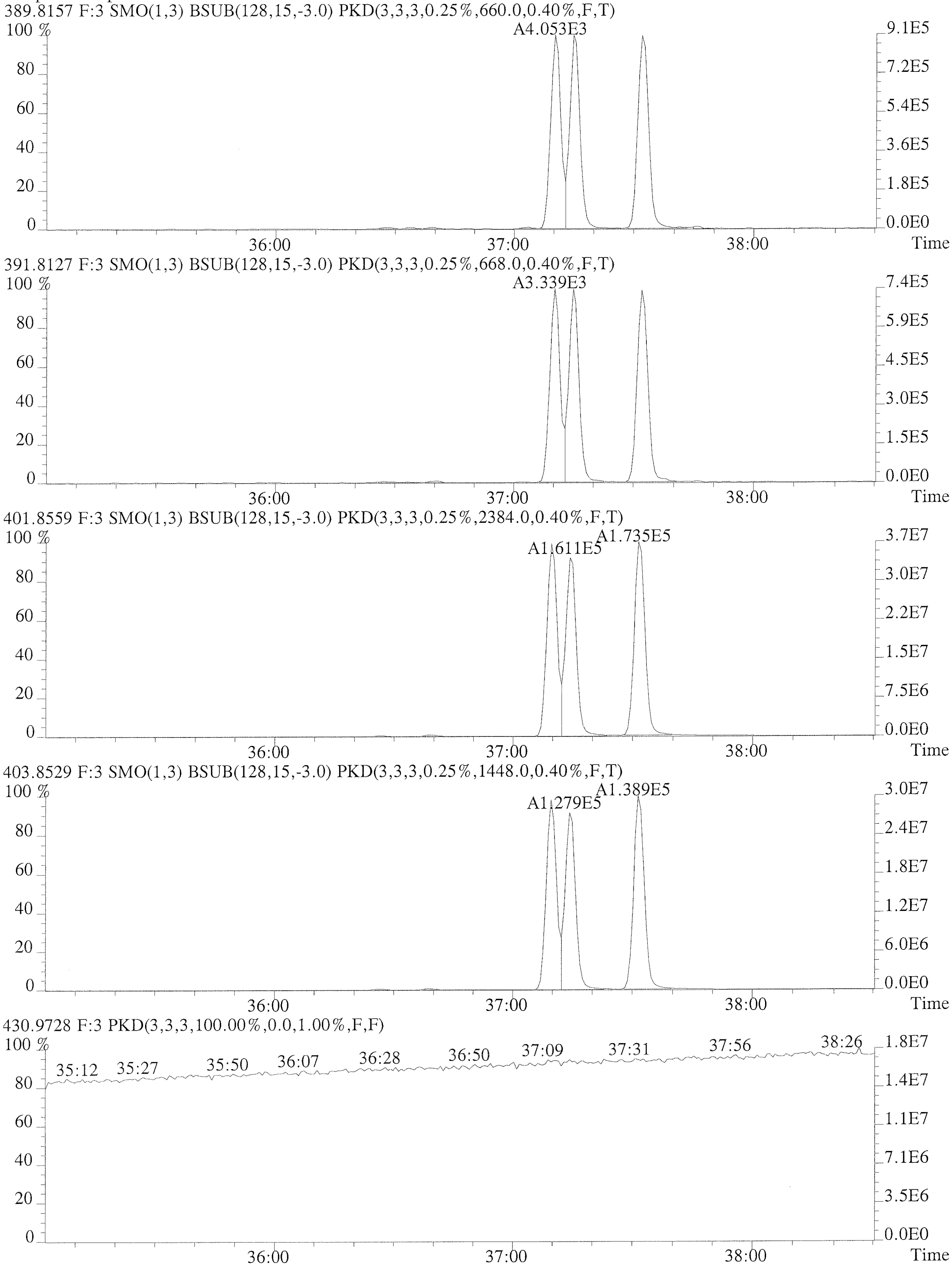
354.9792 F:2 PKD(3,3,3,100.00%,0.0,1.00%,F,F)



File: 7203 #1-315 Acq:23-APR-2012 07:12:38 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:ICAL CS1

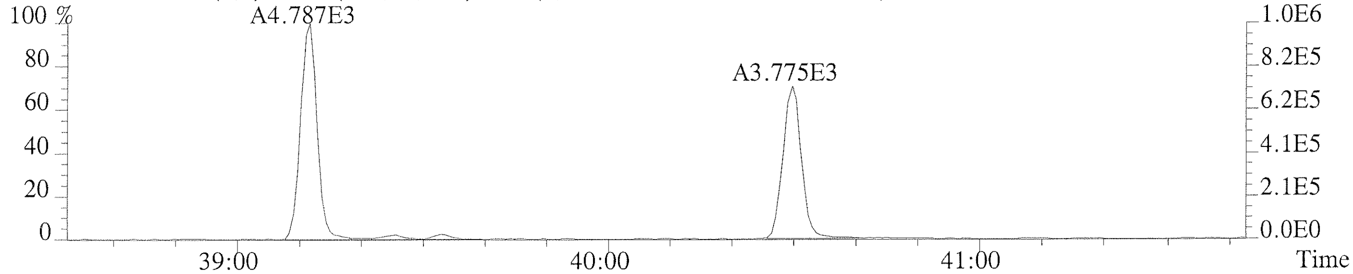


File: 7203 #1-315 Acq:23-APR-2012 07:12:38 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:ICAL CS1

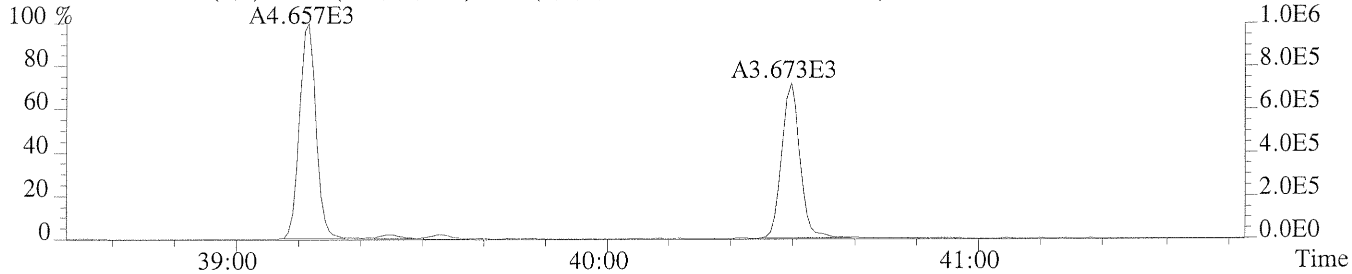


File: 7203 #1-288 Acq:23-APR-2012 07:12:38 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:ICAL CS1

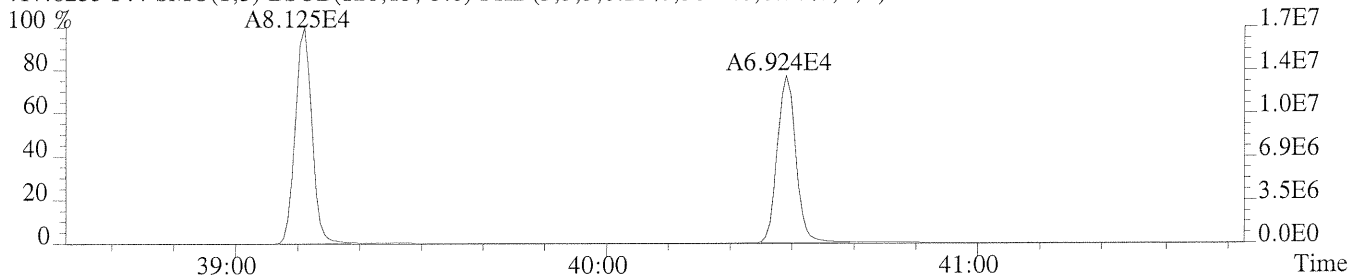
407.7818 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,1588.0,0.50%,F,T)



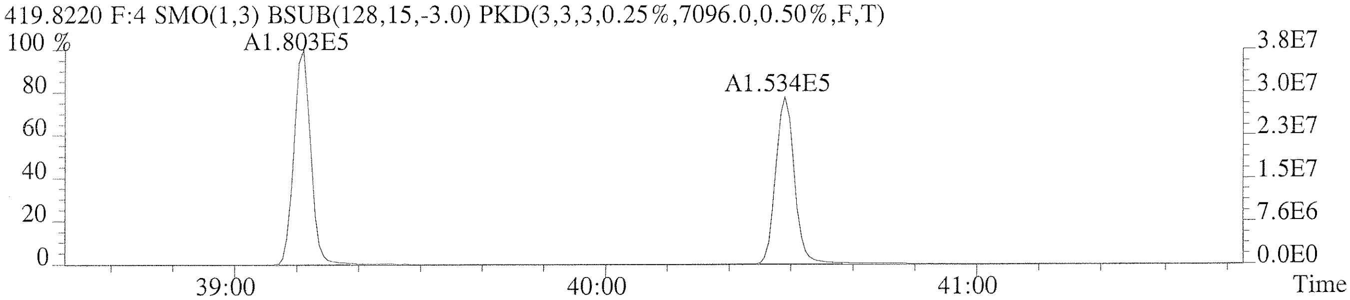
409.7789 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,1260.0,0.50%,F,T)



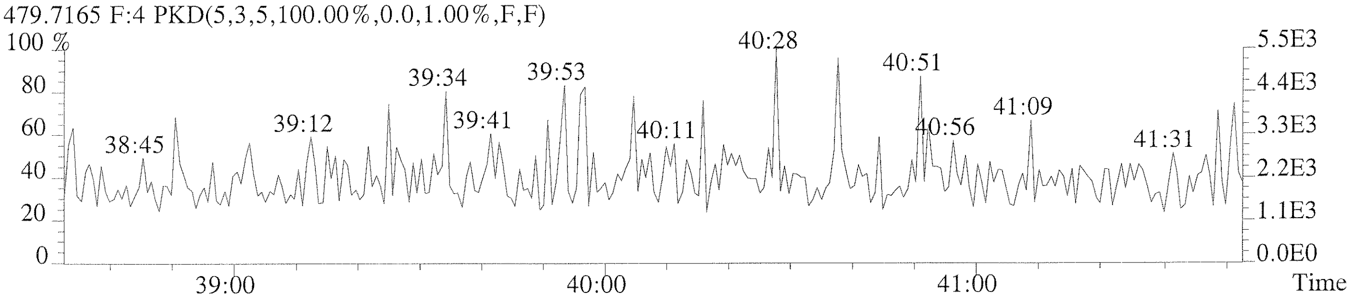
417.8253 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,5044.0,0.50%,F,T)



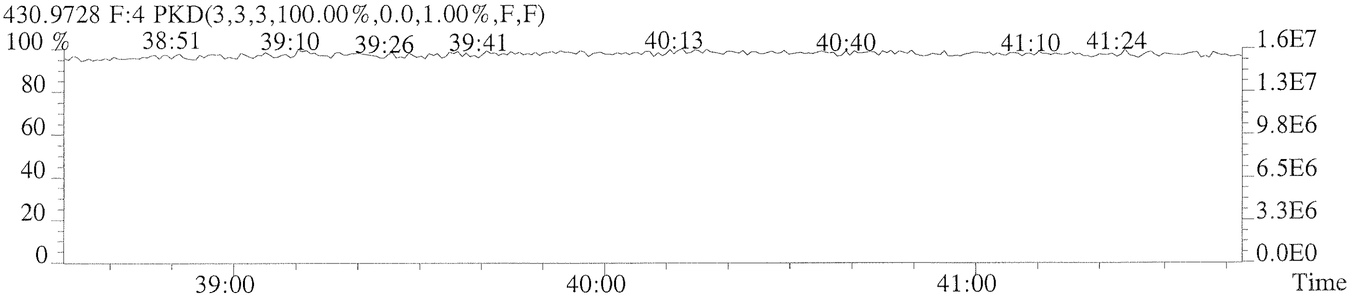
419.8220 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,7096.0,0.50%,F,T)



479.7165 F:4 PKD(5,3,5,100.00%,0.0,1.00%,F,F)

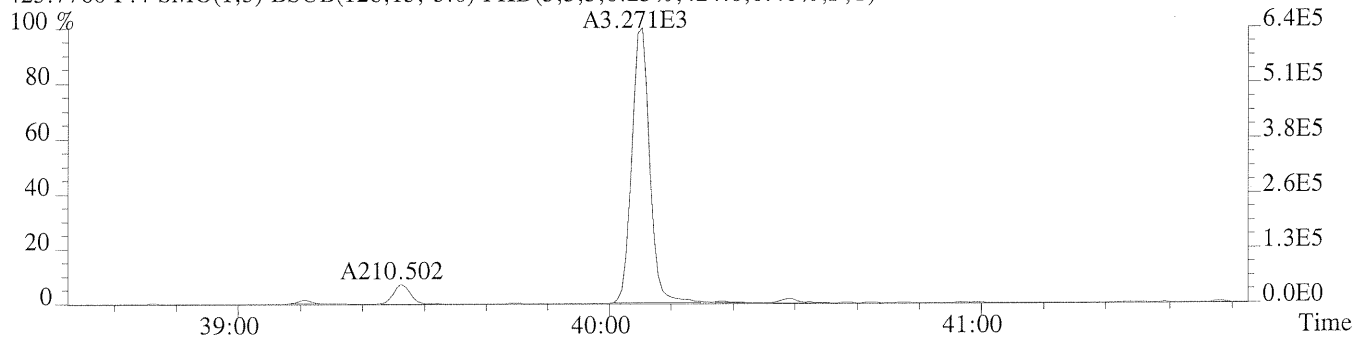


430.9728 F:4 PKD(3,3,3,100.00%,0.0,1.00%,F,F)

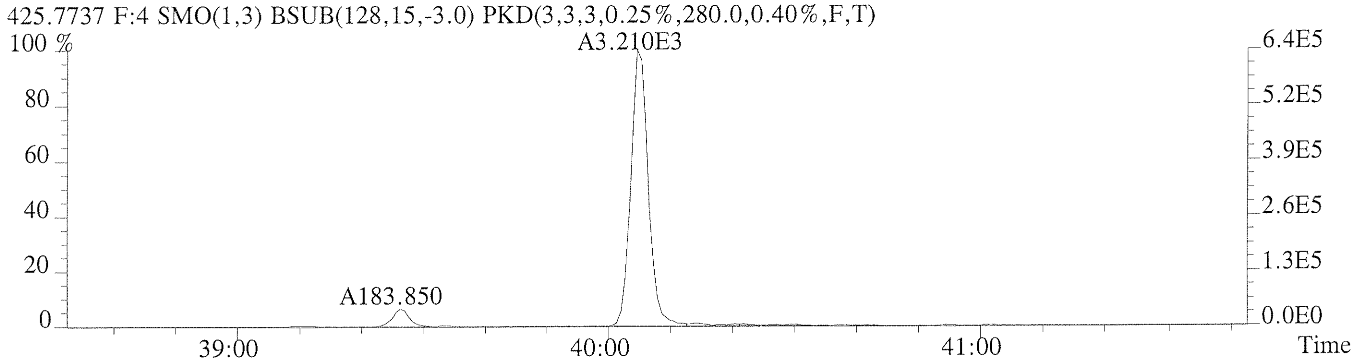


File: 7203 #1-288 Acq:23-APR-2012 07:12:38 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:ICAL CS1

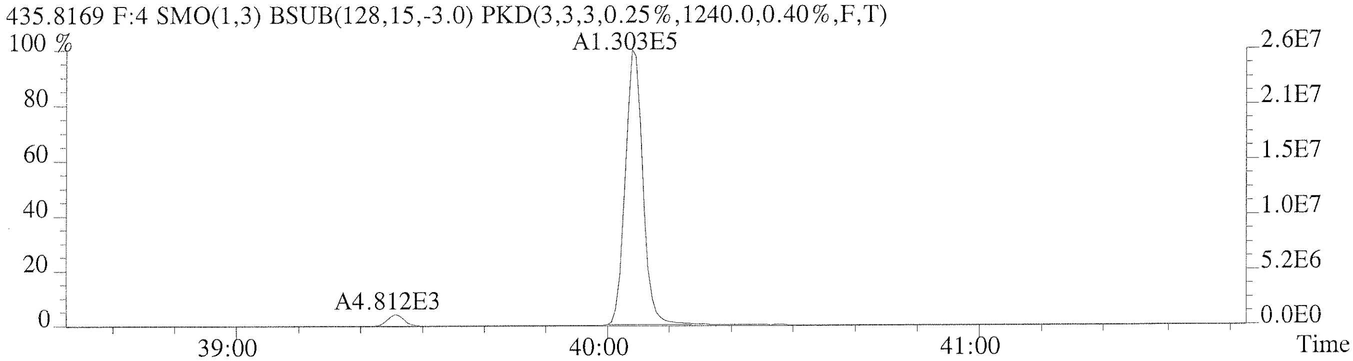
423.7766 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,424.0,0.40%,F,T)



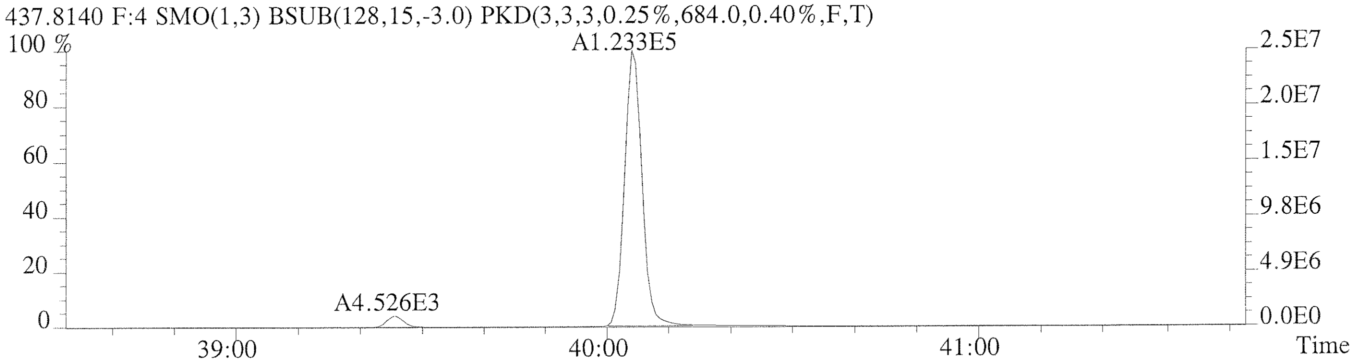
425.7737 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,280.0,0.40%,F,T)



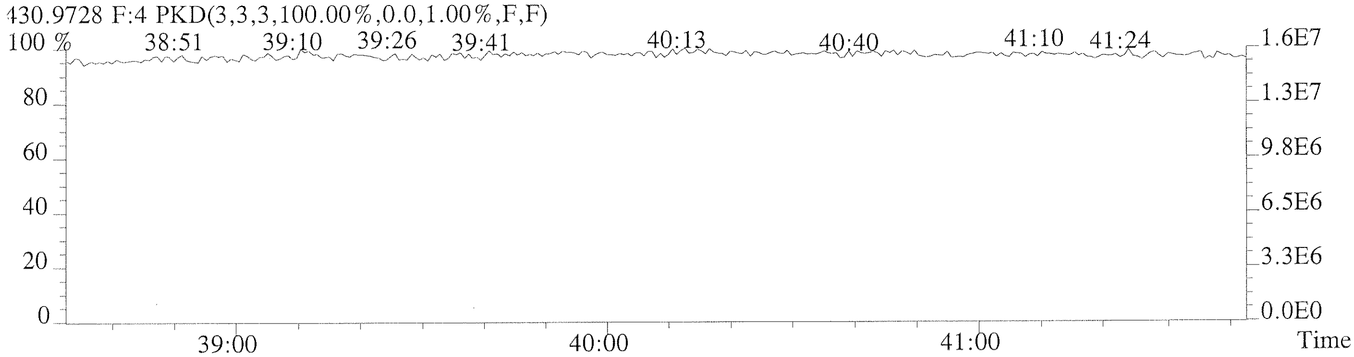
435.8169 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,1240.0,0.40%,F,T)



437.8140 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,684.0,0.40%,F,T)

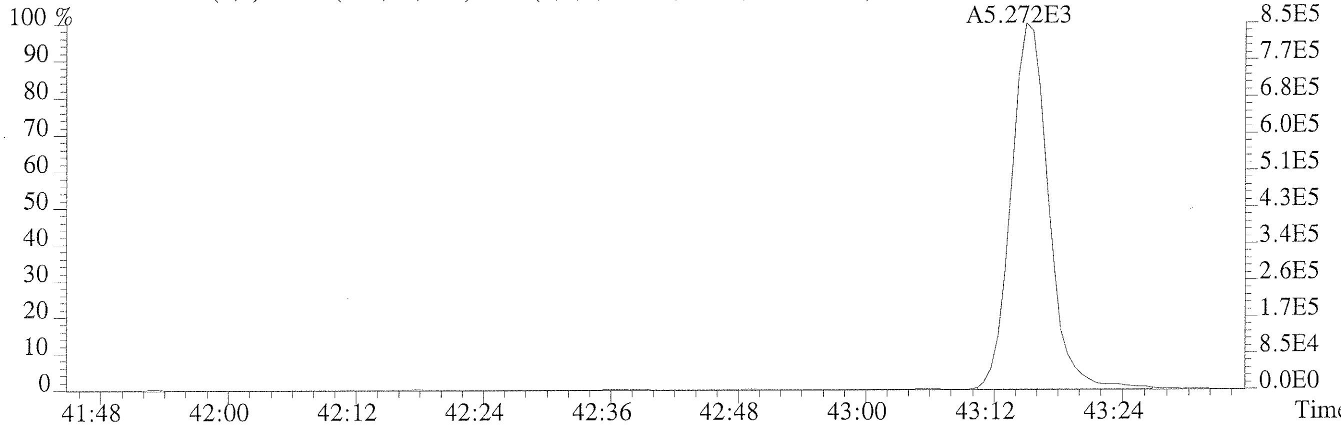


430.9728 F:4 PKD(3,3,3,100.00%,0.0,1.00%,F,F)

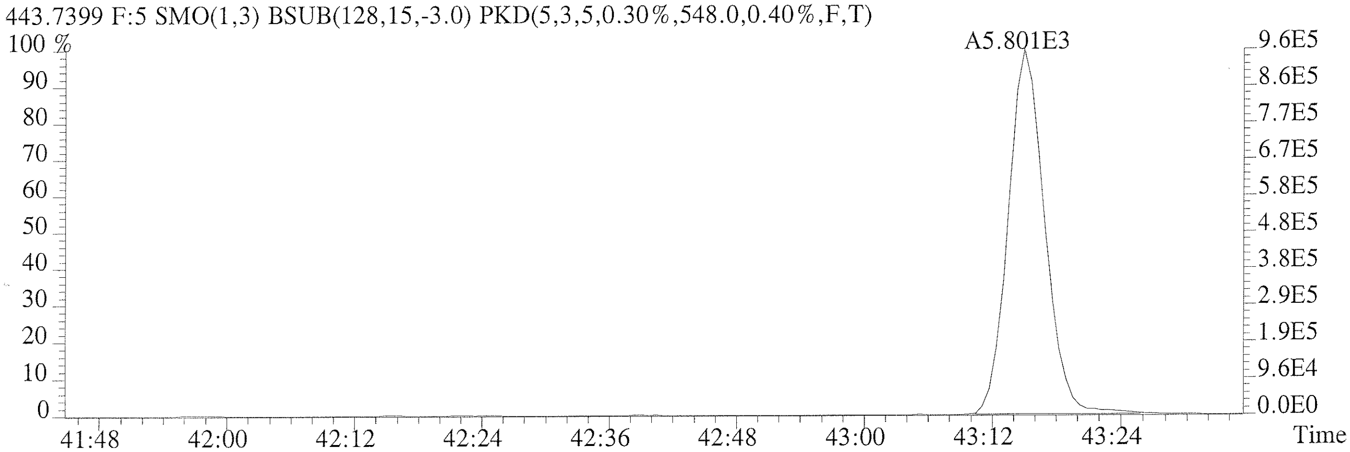


File: 7203 #1-170 Acq:23-APR-2012 07:12:38 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:ICAL CS1

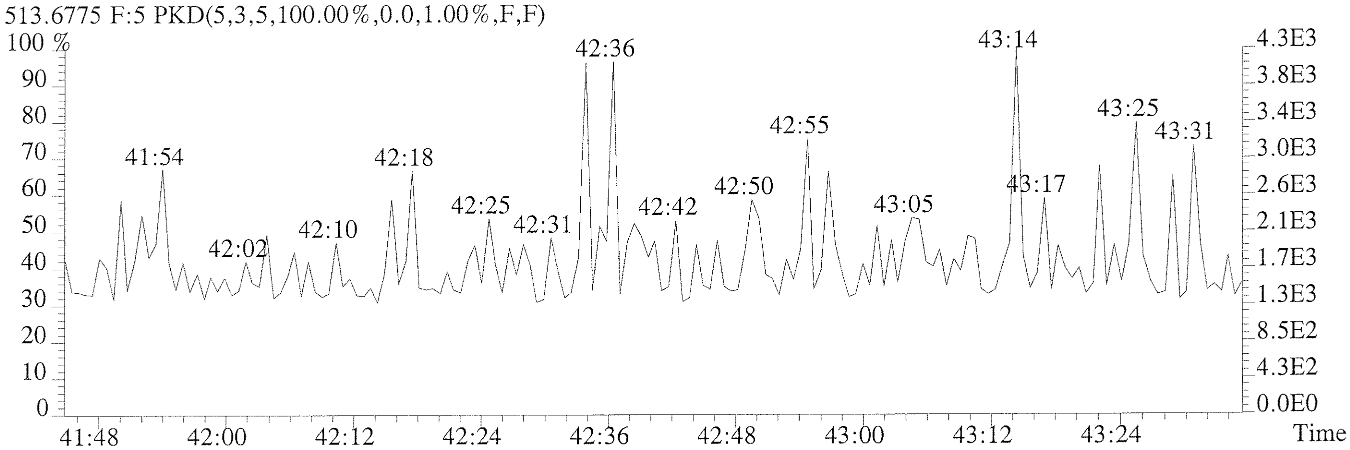
441.7428 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(5,3,5,0.30%,440.0,0.40%,F,T)



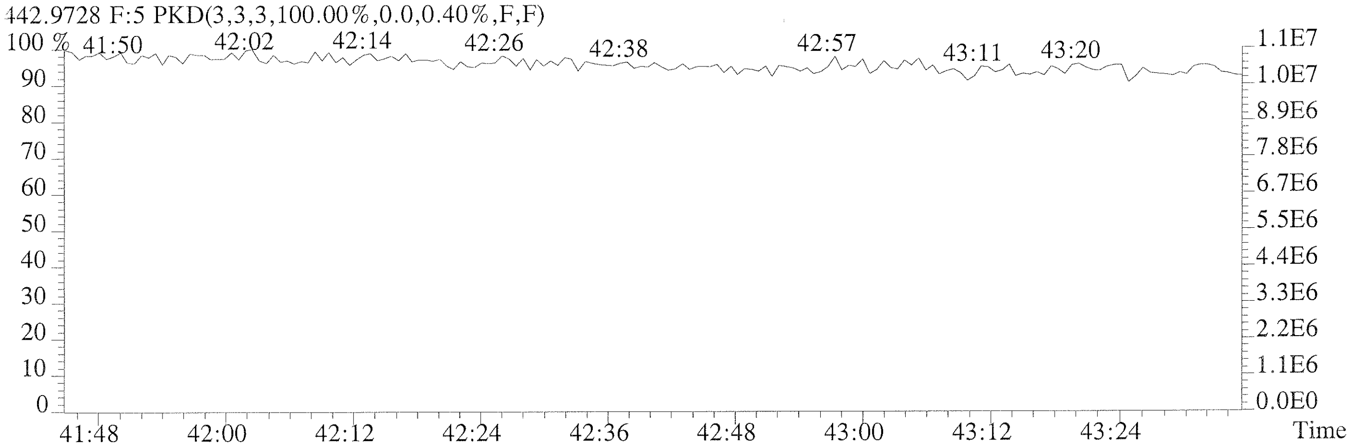
443.7399 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(5,3,5,0.30%,548.0,0.40%,F,T)



513.6775 F:5 PKD(5,3,5,100.00%,0.0,1.00%,F,F)

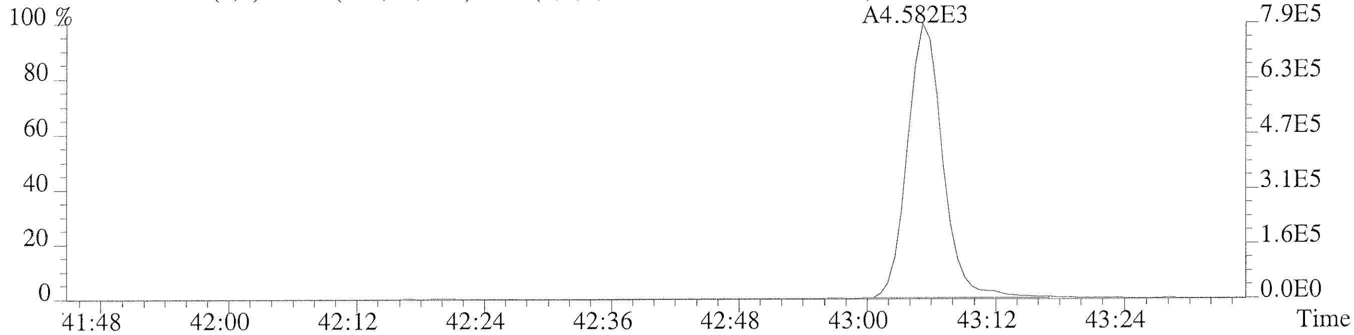


442.9728 F:5 PKD(3,3,3,100.00%,0.0,0.40%,F,F)

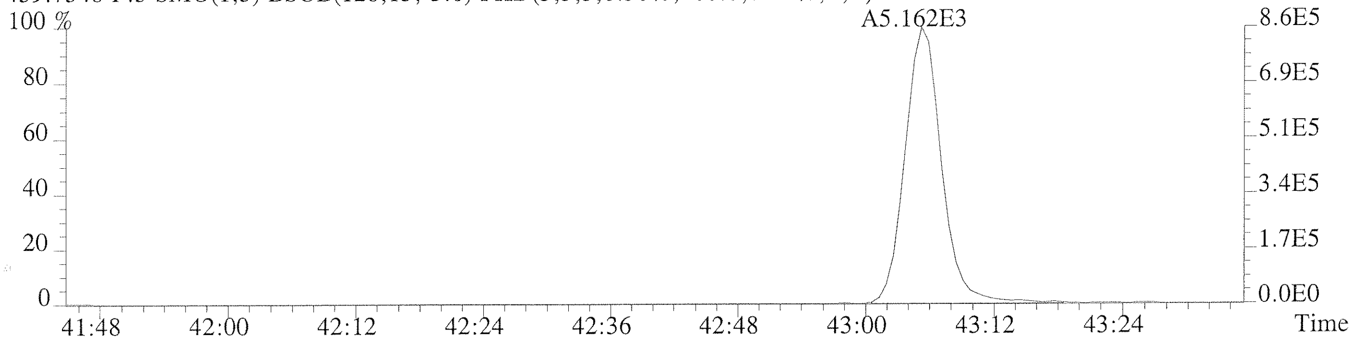


File: 7203 #1-170 Acq:23-APR-2012 07:12:38 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:ICAL CS1

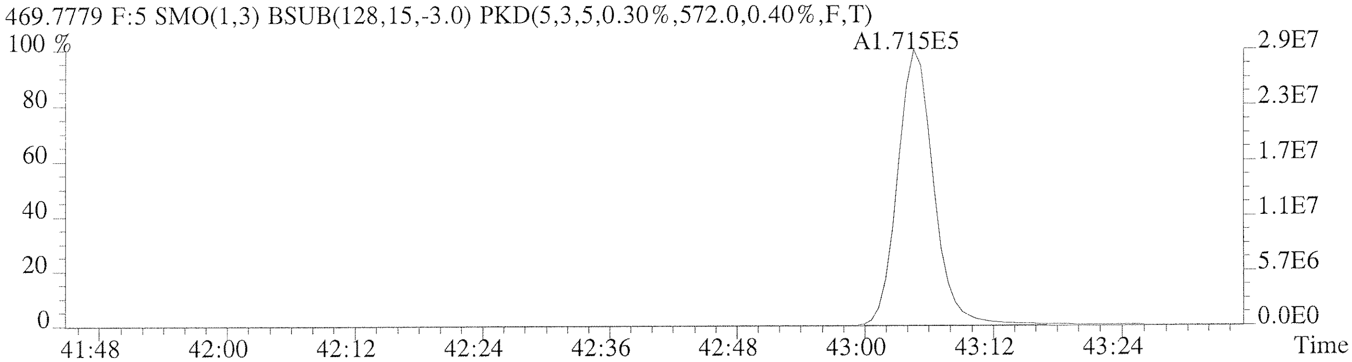
457.7377 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(5,3,5,0.30%,384.0,0.40%,F,T)



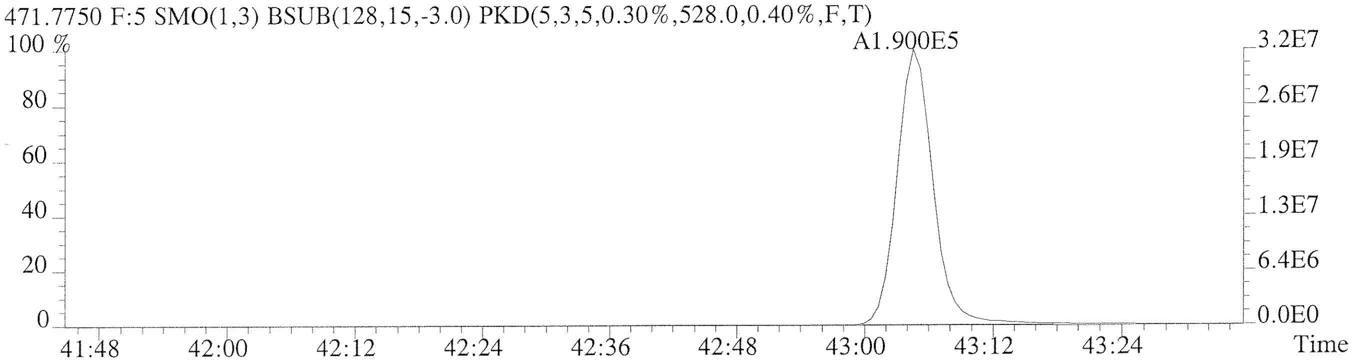
459.7348 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(5,3,5,0.30%,268.0,0.40%,F,T)



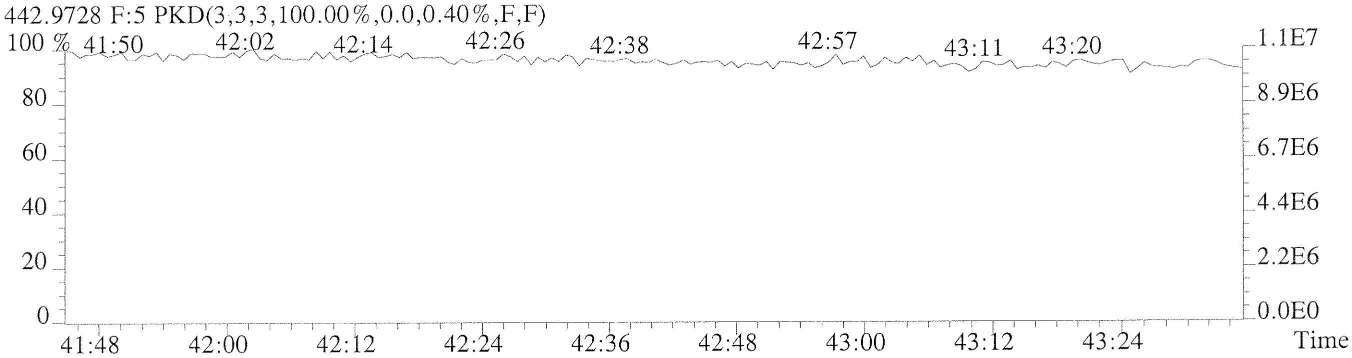
469.7779 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(5,3,5,0.30%,572.0,0.40%,F,T)



471.7750 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(5,3,5,0.30%,528.0,0.40%,F,T)



442.9728 F:5 PKD(3,3,3,100.00%,0.0,0.40%,F,F)



Sample Response Summary   CLIENT ID.
ICAL CS2

#3 Filename 7204 #1 Samp: 1 Inj: 1 Acquired: 23-APR-12 08:03:38
...cessed: 23-APR-12 10:20:46 LAB. ID: ICAL CS2

Typ	Name	RT-1	Resp 1	Resp 2	Ratio	Meet	Mod?	RRT
Unk	2,3,7,8-TCDF	28:31	3.639e+03	4.818e+03	0.76	yes	no	1.001
Unk	1,2,3,7,8-PeCDF	32:55	2.236e+04	1.461e+04	1.53	yes	no	1.001
Unk	2,3,4,7,8-PeCDF	33:39	2.089e+04	1.336e+04	1.56	yes	no	1.000
Unk	1,2,3,4,7,8-HxCDF	36:29	1.874e+04	1.436e+04	1.31	yes	no	1.000
Unk	1,2,3,6,7,8-HxCDF	36:35	1.915e+04	1.587e+04	1.21	yes	no	1.000
Unk	2,3,4,6,7,8-HxCDF	37:04	1.763e+04	1.415e+04	1.25	yes	no	1.000
Unk	1,2,3,7,8,9-HxCDF	37:46	1.581e+04	1.266e+04	1.25	yes	no	1.000
Unk	1,2,3,4,6,7,8-HpCDF	39:12	1.481e+04	1.442e+04	1.03	yes	no	1.000
Unk	1,2,3,4,7,8,9-HpCDF	40:30	1.177e+04	1.143e+04	1.03	yes	no	1.000
Unk	OCDF	43:16	1.644e+04	1.797e+04	0.91	yes	no	1.004
Unk	2,3,7,8-TCDD	29:22	3.007e+03	3.934e+03	0.76	yes	no	1.001
Unk	1,2,3,7,8-PeCDD	34:00	1.492e+04	9.729e+03	1.53	yes	no	1.000
Unk	1,2,3,4,7,8-HxCDD	37:10	1.305e+04	1.048e+04	1.24	yes	no	1.000
Unk	1,2,3,6,7,8-HxCDD	37:15	1.281e+04	1.013e+04	1.26	yes	no	1.000
Unk	1,2,3,7,8,9-HxCDD	37:32	1.314e+04	1.078e+04	1.22	yes	no	1.008
Unk	1,2,3,4,6,7,8-HpCDD	40:05	1.028e+04	9.917e+03	1.04	yes	no	1.000
Unk	OCDD	43:05	1.383e+04	1.564e+04	0.88	yes	no	1.000
IS	13C-2,3,7,8-TCDF	28:30	1.988e+05	2.571e+05	0.77	yes	no	0.979
IS	13C-1,2,3,7,8-PeCDF	32:54	2.209e+05	1.421e+05	1.55	yes	no	1.130
IS	13C-2,3,4,7,8-PeCDF	33:38	2.180e+05	1.394e+05	1.56	yes	no	1.155
IS	13C-1,2,3,4,7,8-HxCDF	36:28	9.150e+04	1.707e+05	0.54	yes	no	0.972
IS	13C-1,2,3,6,7,8-HxCDF	36:34	1.019e+05	2.002e+05	0.51	yes	no	0.975
IS	13C-2,3,4,6,7,8-HxCDF	37:03	9.342e+04	1.803e+05	0.52	yes	no	0.988
IS	13C-1,2,3,7,8,9-HxCDF	37:45	8.275e+04	1.578e+05	0.52	yes	no	1.006
IS	13C-1,2,3,4,6,7,8-HpCDF	39:11	6.435e+04	1.430e+05	0.45	yes	no	1.044
IS	13C-1,2,3,4,7,8,9-HpCDF	40:29	5.403e+04	1.208e+05	0.45	yes	no	1.079
IS	13C-2,3,7,8-TCDD	29:20	1.532e+05	1.958e+05	0.78	yes	no	1.007
IS	13C-1,2,3,7,8-PeCDD	33:59	1.649e+05	1.051e+05	1.57	yes	no	1.167
IS	13C-1,2,3,4,7,8-HxCDD	37:10	1.286e+05	1.024e+05	1.26	yes	no	0.991
IS	13C-1,2,3,6,7,8-HxCDD	37:14	1.263e+05	1.009e+05	1.25	yes	no	0.992
IS	13C-1,2,3,4,6,7,8-HpCDD	40:05	1.015e+05	9.667e+04	1.05	yes	no	1.068
IS	13C-OCDD	43:05	1.307e+05	1.461e+05	0.89	yes	no	1.148
RS/RT	13C-1,2,3,4-TCDD	29:07	1.579e+05	1.984e+05	0.80	yes	no	*
RS/RT	13C-1,2,3,7,8,9-HxCDD	37:31	1.348e+05	1.092e+05	1.23	yes	no	*
C/Up	37Cl-2,3,7,8-TCDD	29:22	7.232e+03				no	1.009

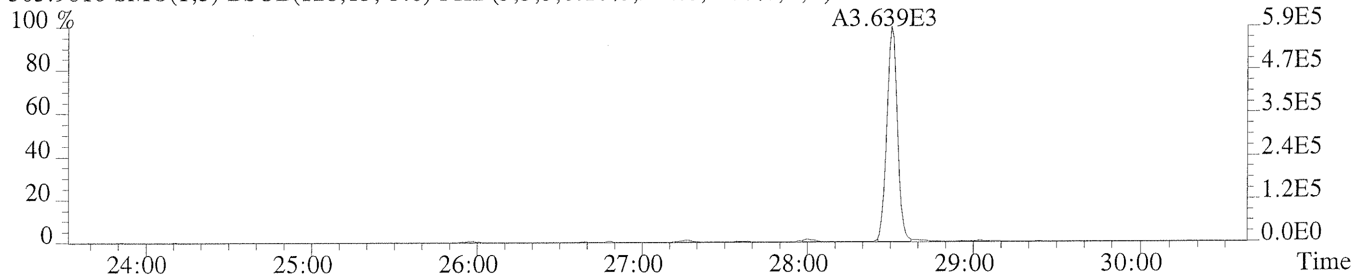
Signal/Noise Height Ratio Summary CLIENT ID.
ICAL CS2

#3 Filename ?204 Samp: 1 Inj: 1 Acquired: 23-APR-12 08:03:38
Processed: 23-APR-12 10:20:461 LAB. ID: ICAL CS2

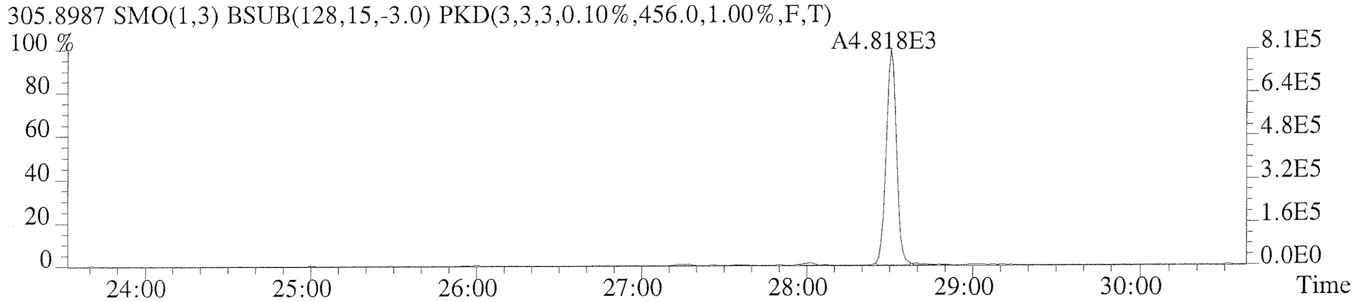
Name	Signal 1	Noise 1	S/N Rat.1	Signal 2	Noise 2	S/N Rat.2
2,3,7,8-TCDF	5.90e+05	2.44e+02	2.4e+03	8.05e+05	4.56e+02	1.8e+03
1,2,3,7,8-PeCDF	4.26e+06	4.60e+02	9.3e+03	2.79e+06	6.32e+02	4.4e+03
2,3,4,7,8-PeCDF	4.15e+06	4.60e+02	9.0e+03	2.60e+06	6.32e+02	4.1e+03
1,2,3,4,7,8-HxCDF	4.05e+06	6.56e+02	6.2e+03	3.19e+06	3.32e+02	9.6e+03
1,2,3,6,7,8-HxCDF	4.06e+06	6.56e+02	6.2e+03	3.27e+06	3.32e+02	9.8e+03
2,3,4,6,7,8-HxCDF	3.81e+06	6.56e+02	5.8e+03	3.07e+06	3.32e+02	9.2e+03
1,2,3,7,8,9-HxCDF	3.22e+06	6.56e+02	4.9e+03	2.59e+06	3.32e+02	7.8e+03
1,2,3,4,6,7,8-HpCDF	3.08e+06	2.10e+03	1.5e+03	2.99e+06	1.70e+03	1.8e+03
1,2,3,4,7,8,9-HpCDF	2.28e+06	2.10e+03	1.1e+03	2.21e+06	1.70e+03	1.3e+03
OCDF	2.61e+06	2.92e+02	8.9e+03	2.94e+06	4.20e+02	7.0e+03
2,3,7,8-TCDD	5.20e+05	4.12e+02	1.3e+03	6.87e+05	2.84e+02	2.4e+03
1,2,3,7,8-PeCDD	2.99e+06	5.44e+02	5.5e+03	1.95e+06	2.84e+02	6.9e+03
1,2,3,4,7,8-HxCDD	2.87e+06	8.36e+02	3.4e+03	2.31e+06	6.28e+02	3.7e+03
1,2,3,6,7,8-HxCDD	2.75e+06	8.36e+02	3.3e+03	2.19e+06	6.28e+02	3.5e+03
1,2,3,7,8,9-HxCDD	2.79e+06	8.36e+02	3.3e+03	2.26e+06	6.28e+02	3.6e+03
1,2,3,4,6,7,8-HpCDD	2.04e+06	4.28e+02	4.8e+03	1.92e+06	6.04e+02	3.2e+03
OCDD	2.26e+06	2.48e+02	9.1e+03	2.55e+06	3.16e+02	8.1e+03
13C-2,3,7,8-TCDF	3.22e+07	1.52e+03	2.1e+04	4.13e+07	8.12e+02	5.1e+04
13C-1,2,3,7,8-PeCDF	4.14e+07	1.88e+02	2.2e+05	2.65e+07	3.04e+02	8.7e+04
13C-2,3,4,7,8-PeCDF	4.28e+07	1.88e+02	2.3e+05	2.73e+07	3.04e+02	9.0e+04
13C-1,2,3,4,7,8-HxCDF	1.96e+07	1.10e+03	1.8e+04	3.77e+07	1.17e+03	3.2e+04
13C-1,2,3,6,7,8-HxCDF	2.15e+07	1.10e+03	2.0e+04	4.10e+07	1.17e+03	3.5e+04
13C-2,3,4,6,7,8-HxCDF	2.02e+07	1.10e+03	1.8e+04	3.89e+07	1.17e+03	3.3e+04
13C-1,2,3,7,8,9-HxCDF	1.72e+07	1.10e+03	1.6e+04	3.25e+07	1.17e+03	2.8e+04
13C-1,2,3,4,6,7,8-HpCDF	1.36e+07	2.69e+03	5.1e+03	3.02e+07	1.01e+04	3.0e+03
13C-1,2,3,4,7,8,9-HpCDF	1.03e+07	2.69e+03	3.9e+03	2.32e+07	1.01e+04	2.3e+03
13C-2,3,7,8-TCDD	2.65e+07	2.99e+03	8.9e+03	3.38e+07	1.05e+03	3.2e+04
13C-1,2,3,7,8-PeCDD	3.28e+07	6.56e+02	5.0e+04	2.10e+07	3.56e+02	5.9e+04
13C-1,2,3,4,7,8-HxCDD	2.83e+07	1.82e+03	1.5e+04	2.26e+07	1.02e+03	2.2e+04
13C-1,2,3,6,7,8-HxCDD	2.65e+07	1.82e+03	1.5e+04	2.16e+07	1.02e+03	2.1e+04
13C-1,2,3,4,6,7,8-HpCDD	1.95e+07	1.40e+03	1.4e+04	1.88e+07	3.44e+02	5.5e+04
13C-OCDD	2.12e+07	5.28e+02	4.0e+04	2.38e+07	5.04e+02	4.7e+04
13C-1,2,3,4-TCDD	2.74e+07	2.99e+03	9.2e+03	3.44e+07	1.05e+03	3.3e+04
13C-1,2,3,7,8,9-HxCDD	2.81e+07	1.82e+03	1.5e+04	2.30e+07	1.02e+03	2.3e+04
37Cl-2,3,7,8-TCDD	1.25e+06	7.40e+02	1.7e+03			

File: 7204 #1-592 Acq:23-APR-2012 08:03:38 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:ICAL CS2

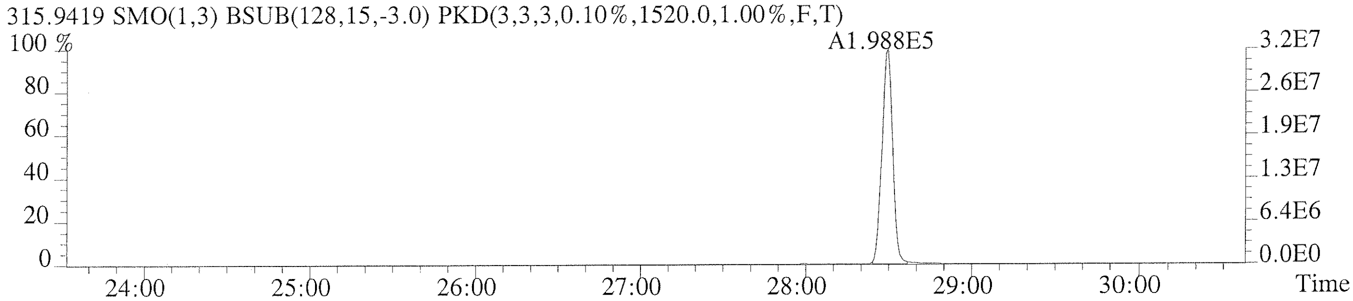
303.9016 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,244.0,1.00%,F,T)



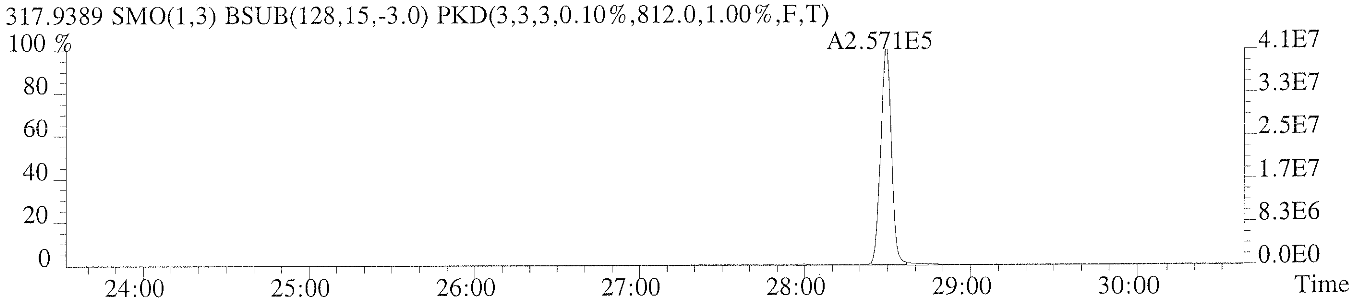
305.8987 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,456.0,1.00%,F,T)



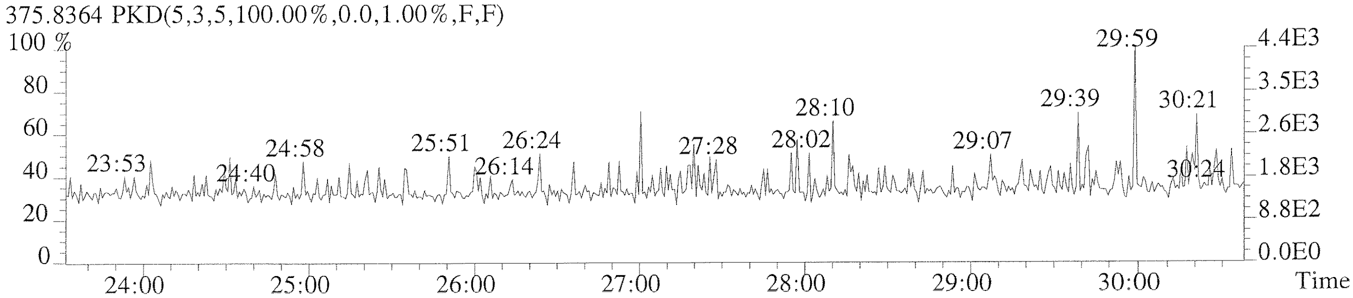
315.9419 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,1520.0,1.00%,F,T)



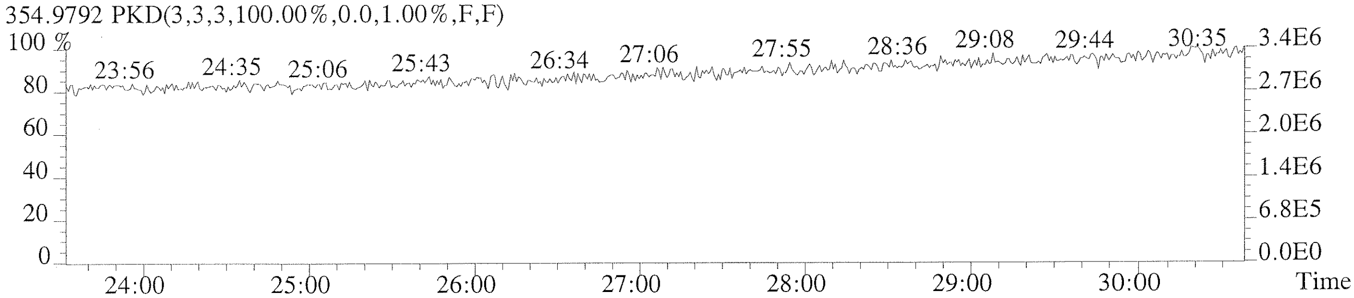
317.9389 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,812.0,1.00%,F,T)



375.8364 PKD(5,3,5,100.00%,0.0,1.00%,F,F)

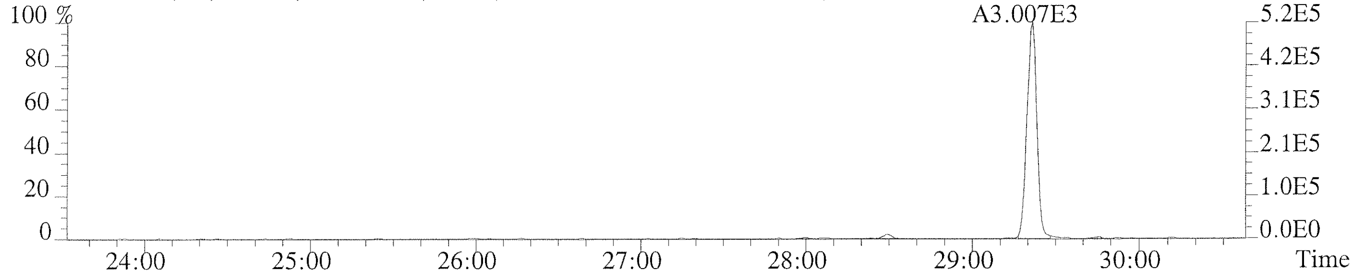


354.9792 PKD(3,3,3,100.00%,0.0,1.00%,F,F)

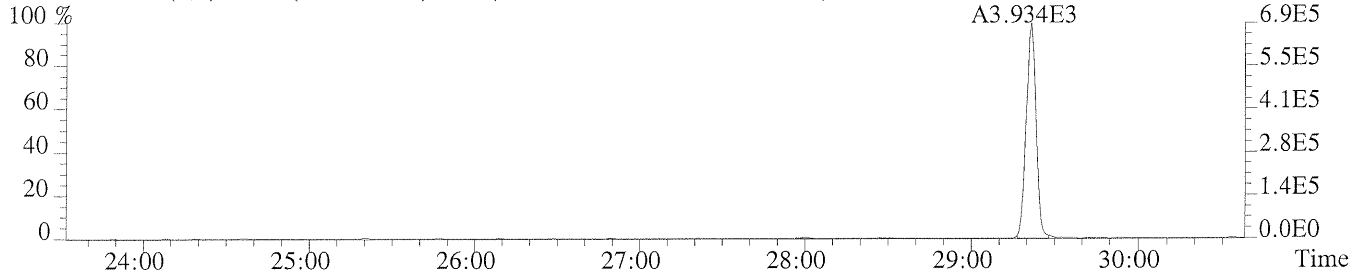


File: 7204 #1-592 Acq:23-APR-2012 08:03:38 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:ICAL CS2

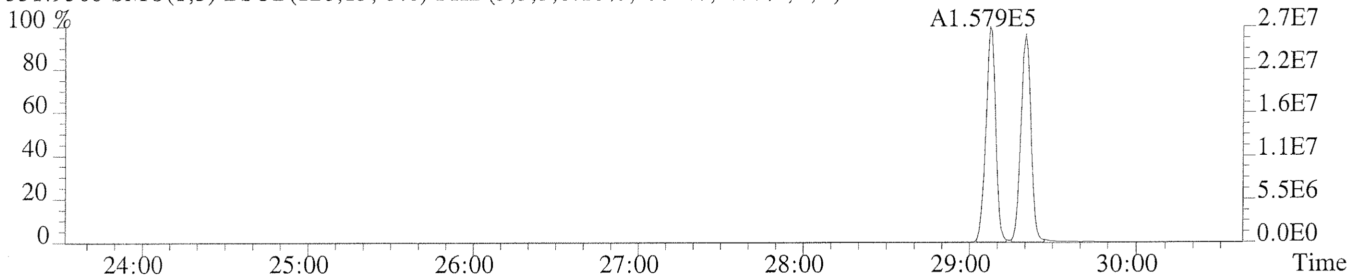
319.8965 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,412.0,1.00%,F,T)



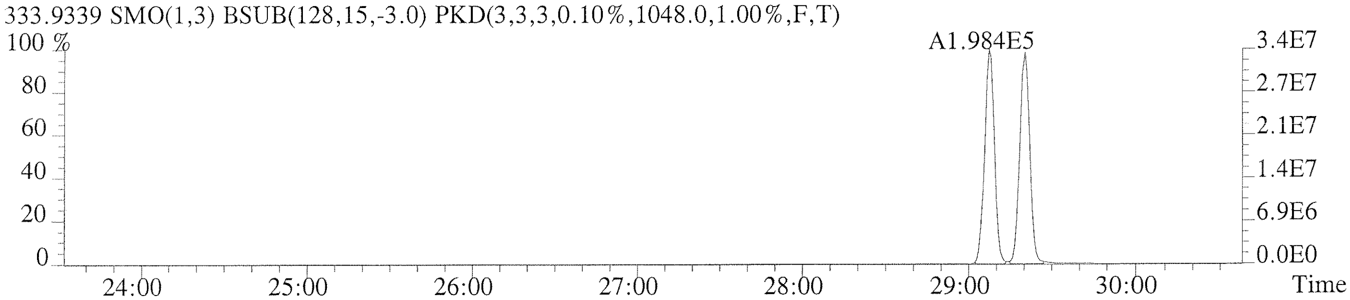
321.8936 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,284.0,1.00%,F,T)



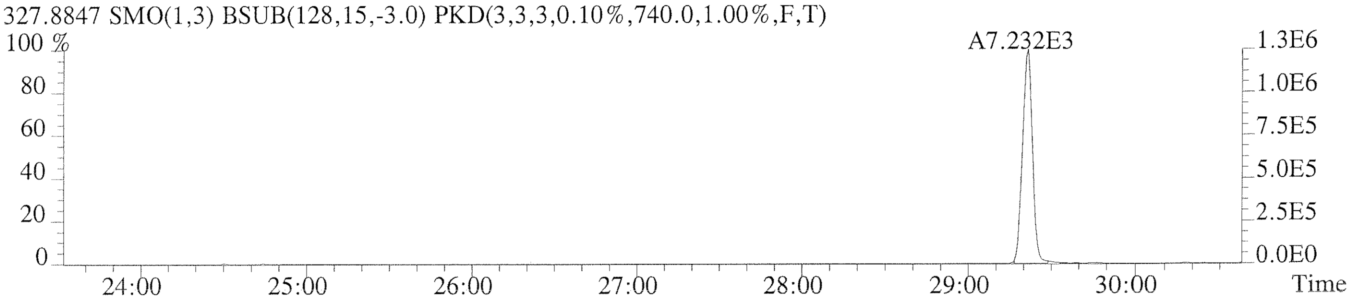
331.9368 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,2992.0,1.00%,F,T)



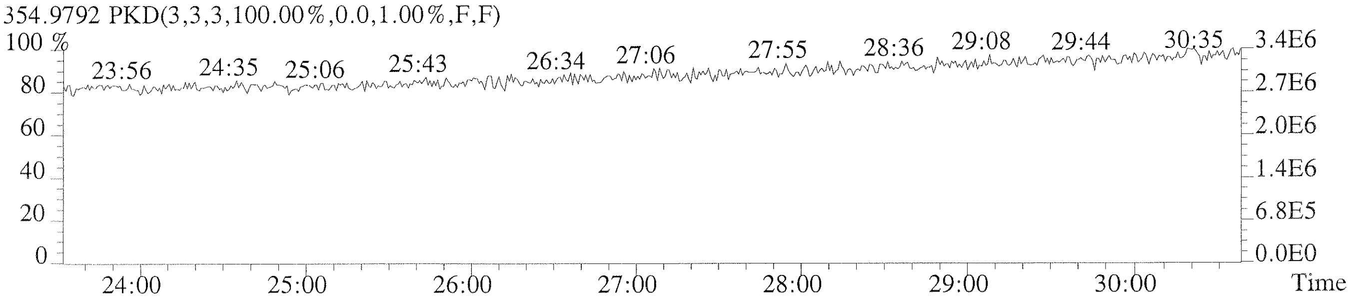
333.9339 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,1048.0,1.00%,F,T)



327.8847 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,740.0,1.00%,F,T)

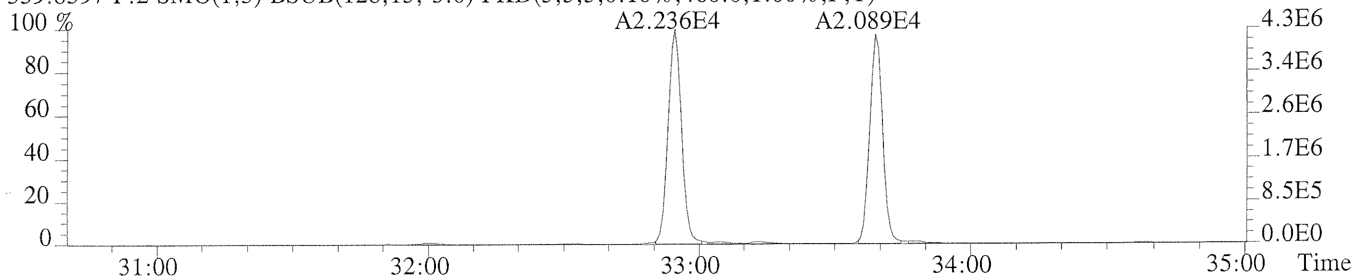


354.9792 PKD(3,3,3,100.00%,0.0,1.00%,F,F)

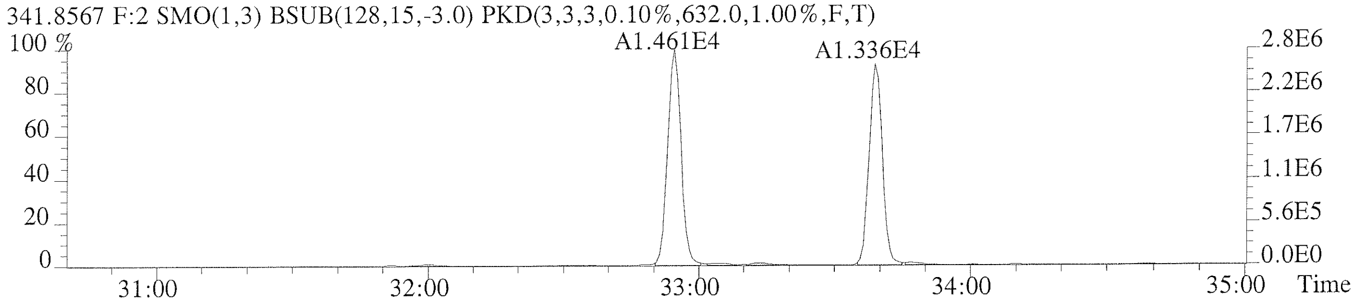


File: 7204 #1-394 Acq:23-APR-2012 08:03:38 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:ICAL CS2

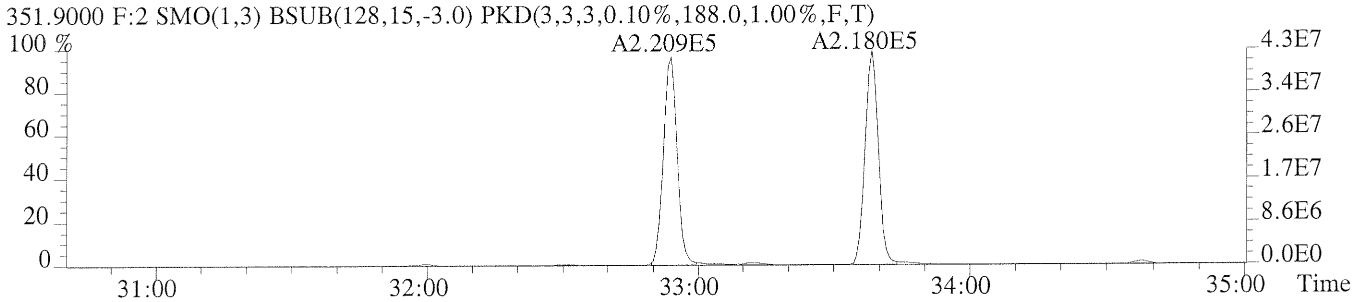
339.8597 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,460.0,1.00%,F,T)



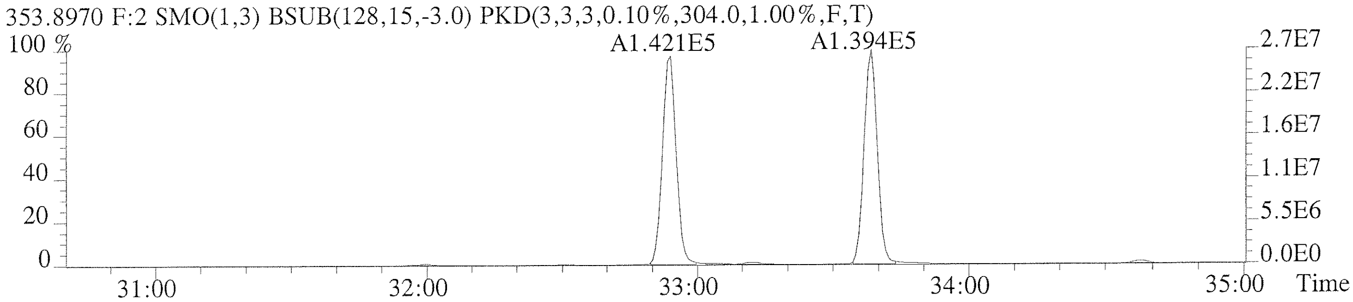
341.8567 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,632.0,1.00%,F,T)



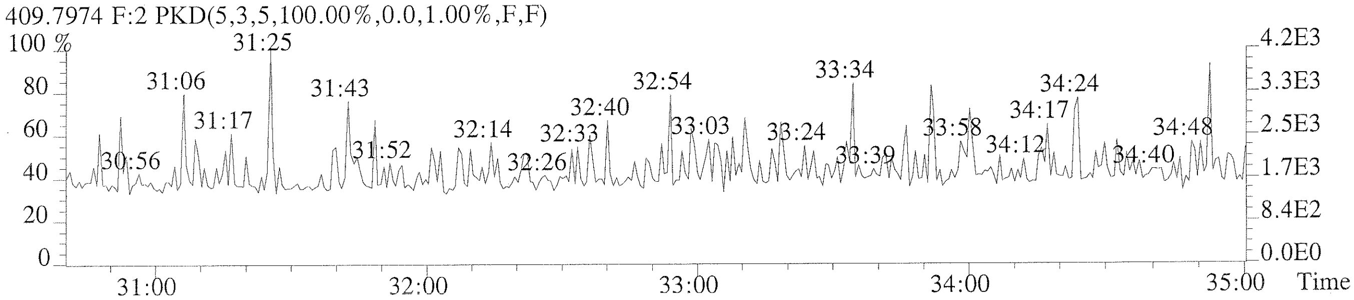
351.9000 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,188.0,1.00%,F,T)



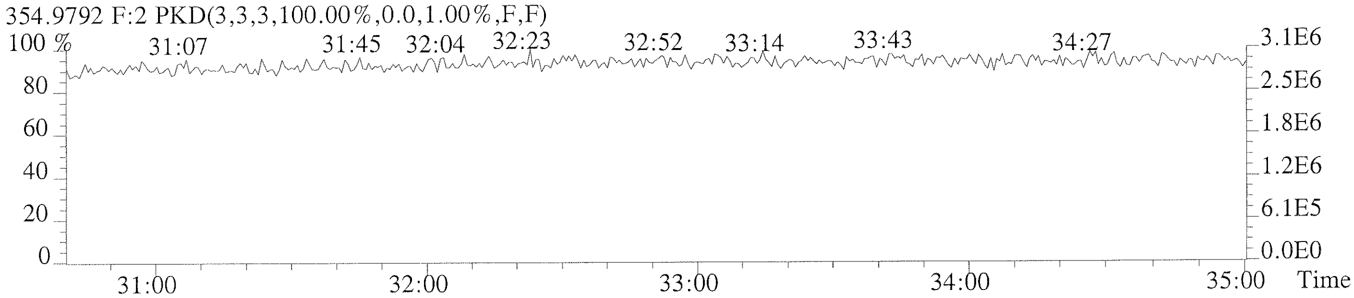
353.8970 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,304.0,1.00%,F,T)



409.7974 F:2 PKD(5,3,5,100.00%,0.0,1.00%,F,F)

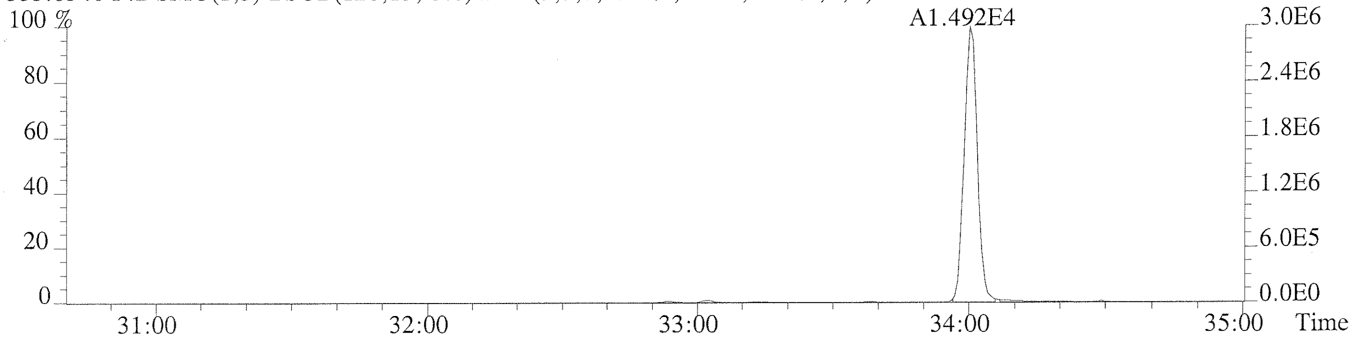


354.9792 F:2 PKD(3,3,3,100.00%,0.0,1.00%,F,F)

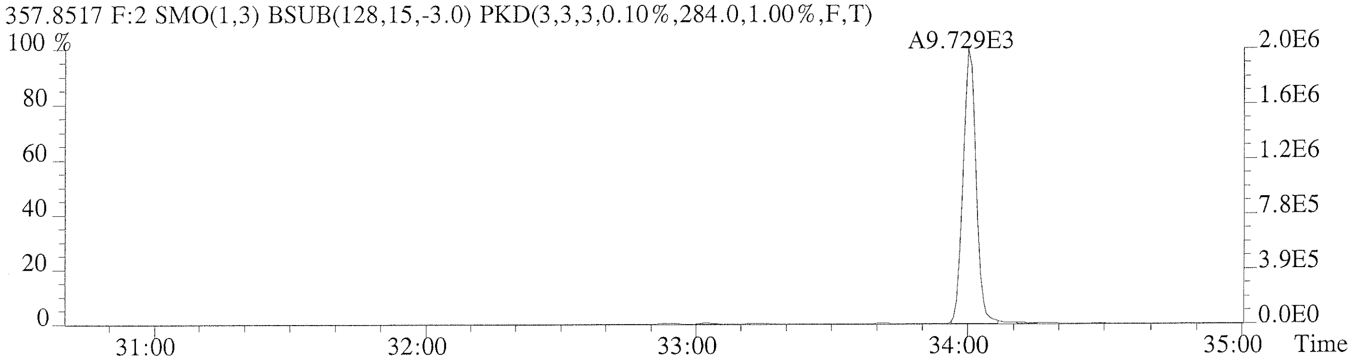


File: 7204 #1-394 Acq:23-APR-2012 08:03:38 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:ICAL CS2

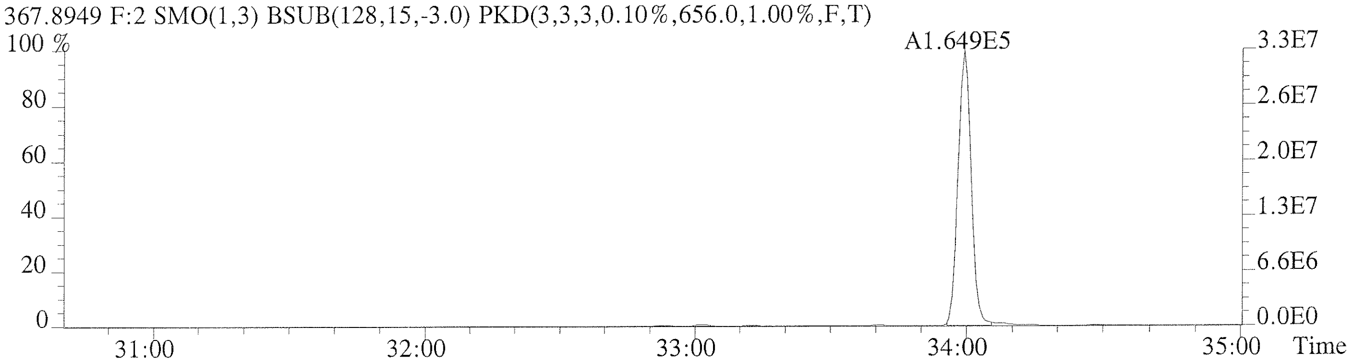
355.8546 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,544.0,1.00%,F,T)



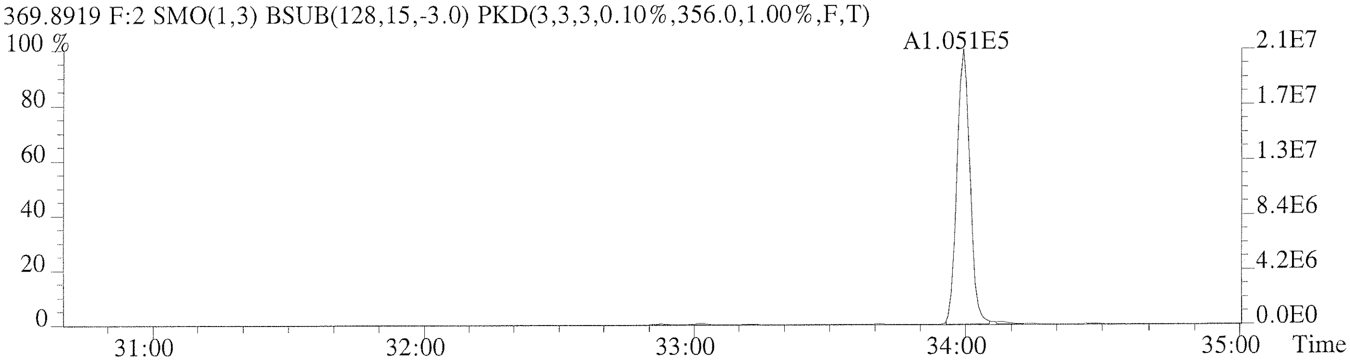
357.8517 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,284.0,1.00%,F,T)



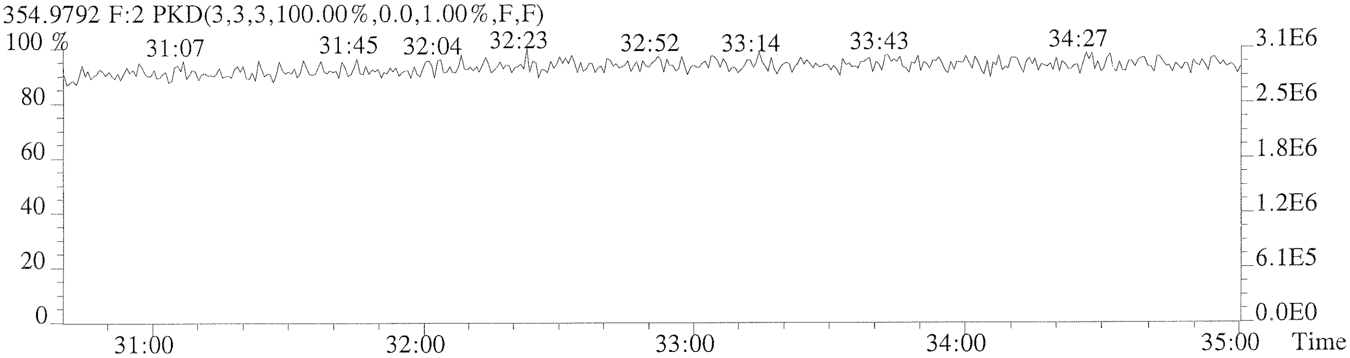
367.8949 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,656.0,1.00%,F,T)



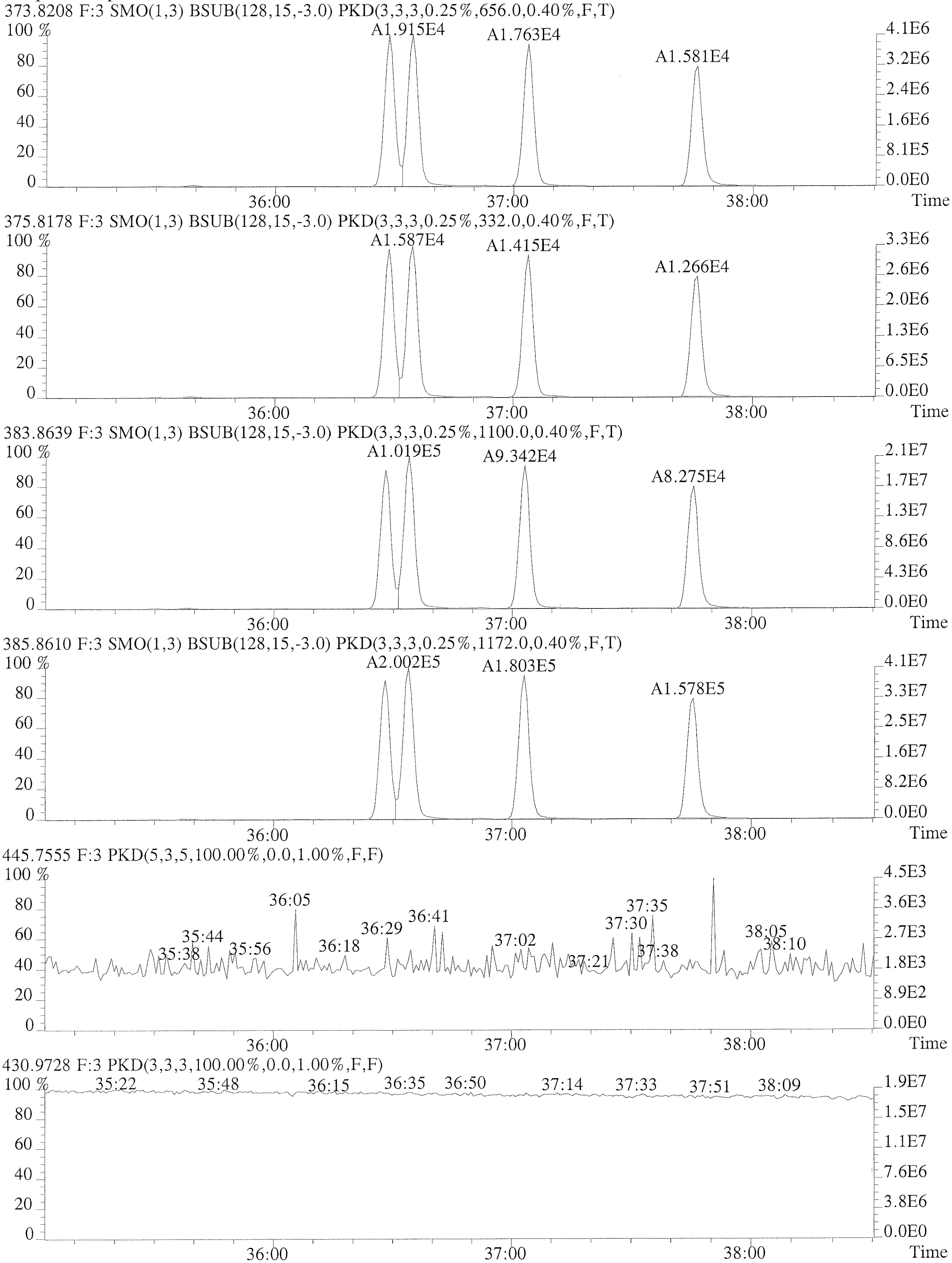
369.8919 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,356.0,1.00%,F,T)



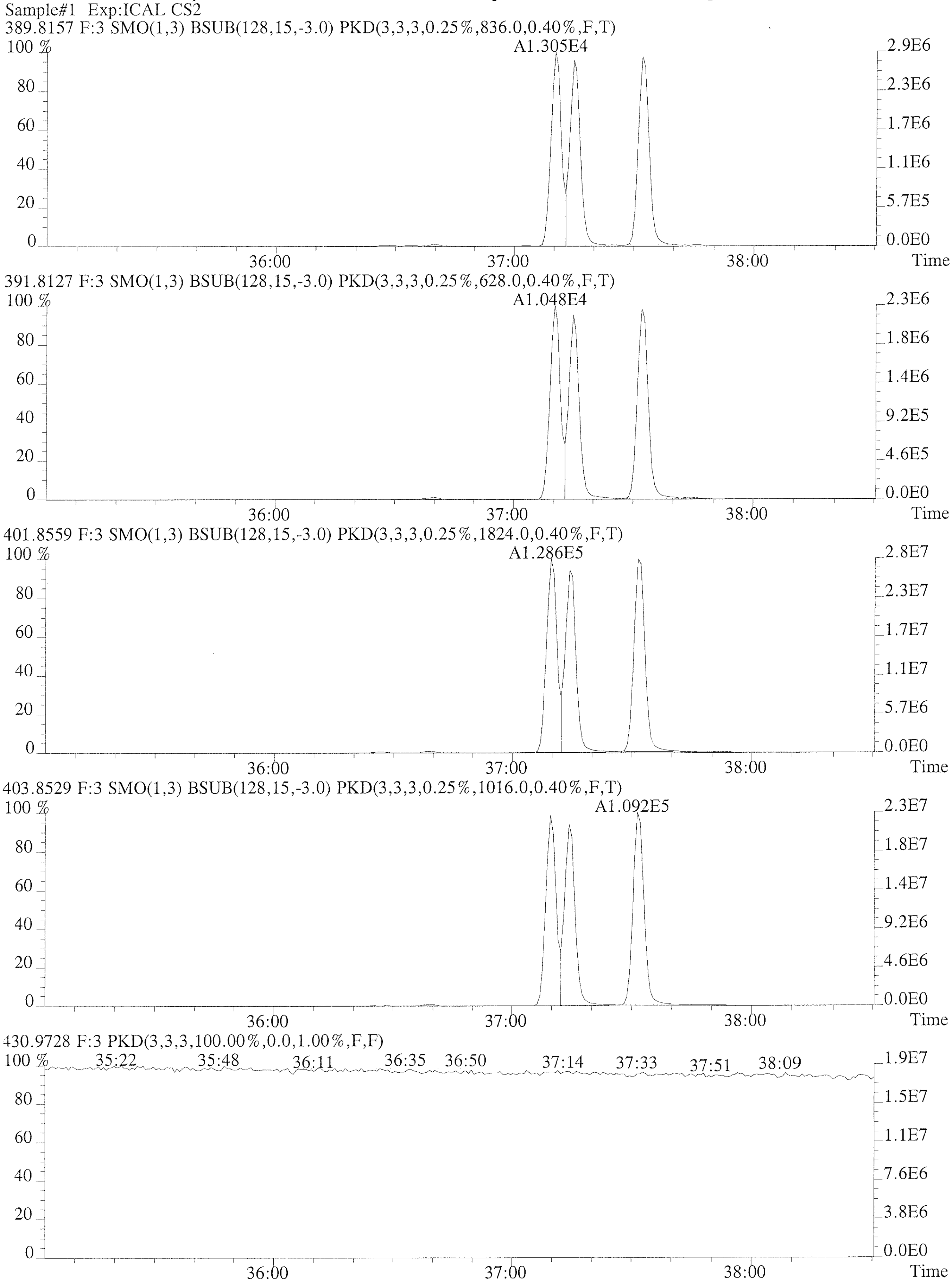
354.9792 F:2 PKD(3,3,3,100.00%,0.0,1.00%,F,F)



File: 7204 #1-315 Acq:23-APR-2012 08:03:38 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:ICAL CS2

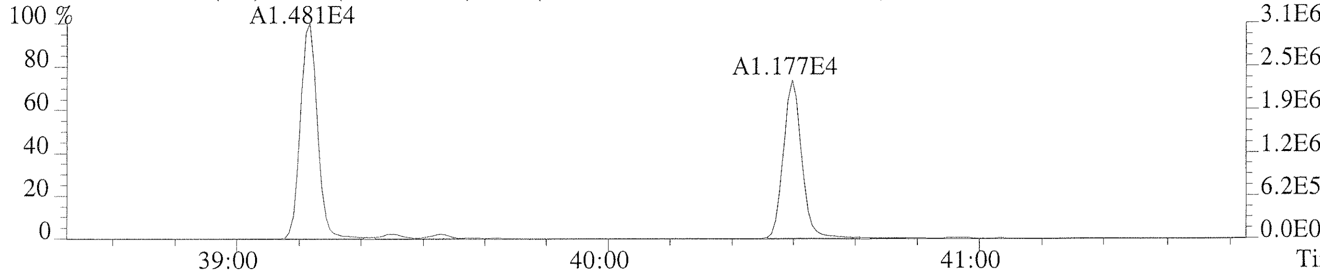


File: 7204 #1-315 Acq:23-APR-2012 08:03:38 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:ICAL CS2

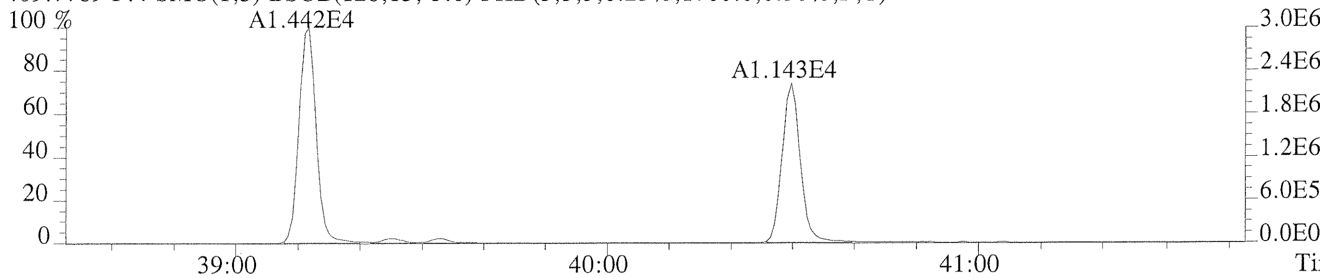


File: 7204 #1-288 Acq:23-APR-2012 08:03:38 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:ICAL CS2

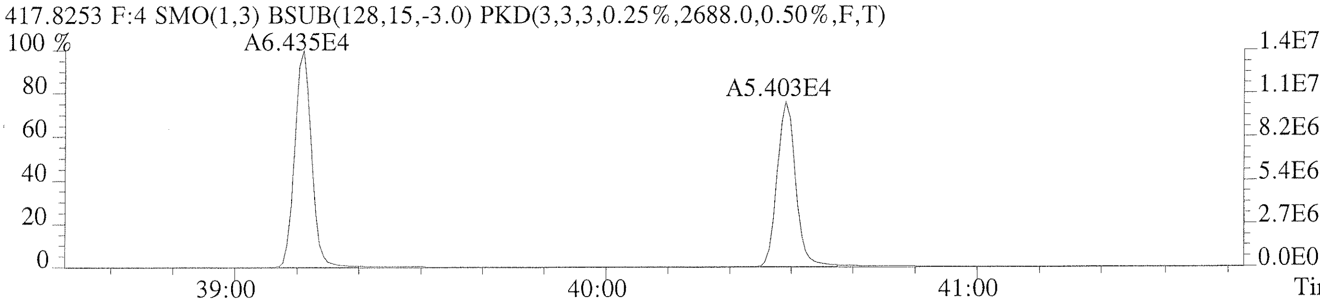
407.7818 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,2104.0,0.50%,F,T)



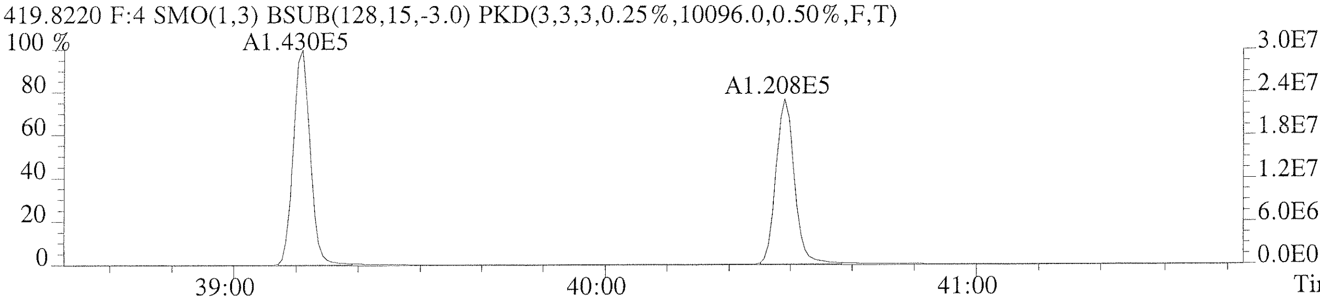
409.7789 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,1700.0,0.50%,F,T)



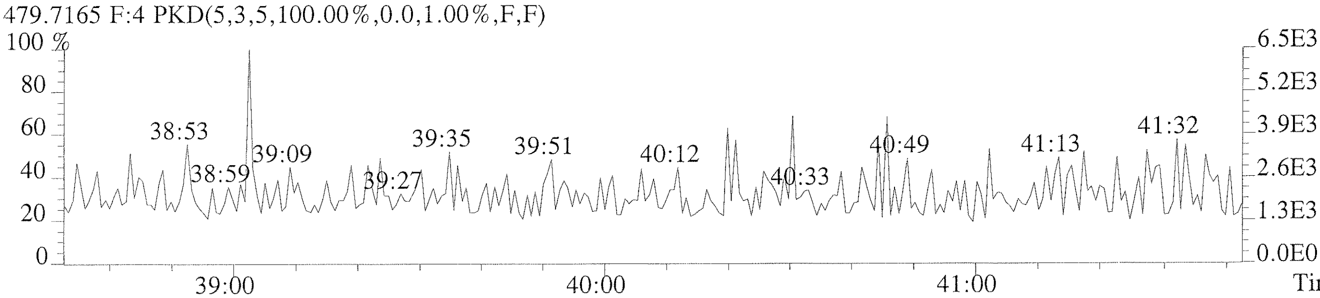
417.8253 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,2688.0,0.50%,F,T)



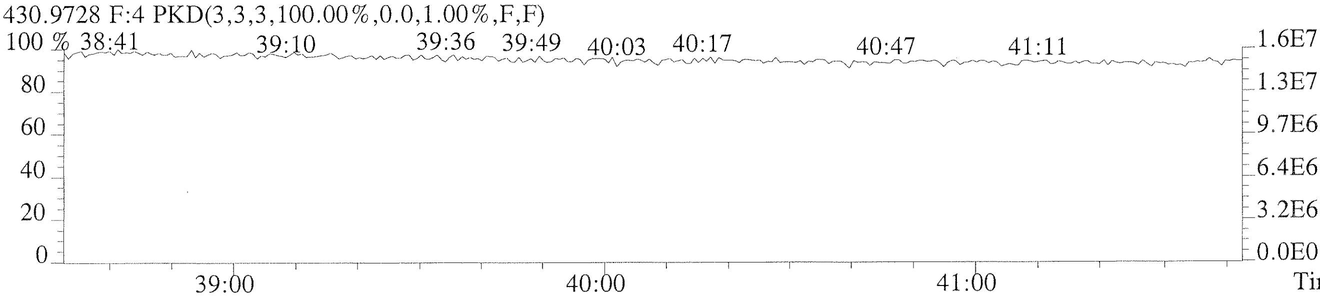
419.8220 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,10096.0,0.50%,F,T)



479.7165 F:4 PKD(5,3,5,100.00%,0.0,1.00%,F,F)

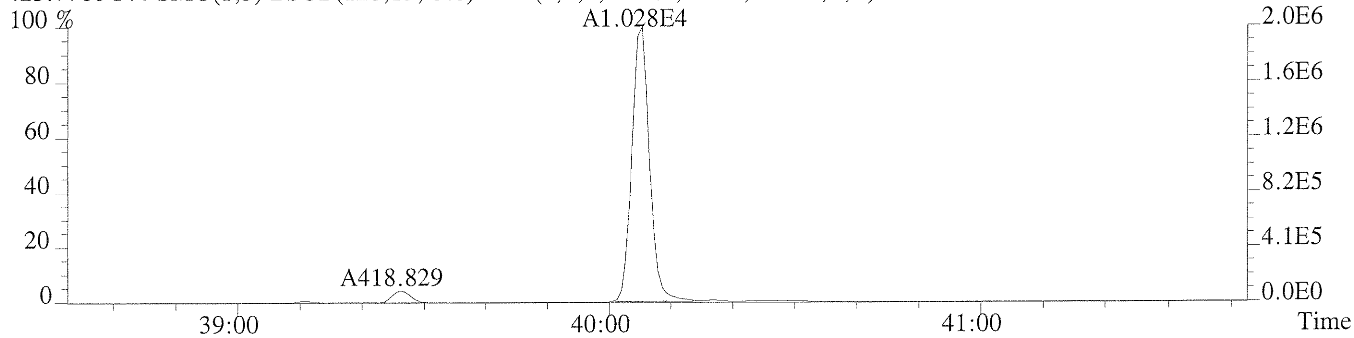


430.9728 F:4 PKD(3,3,3,100.00%,0.0,1.00%,F,F)

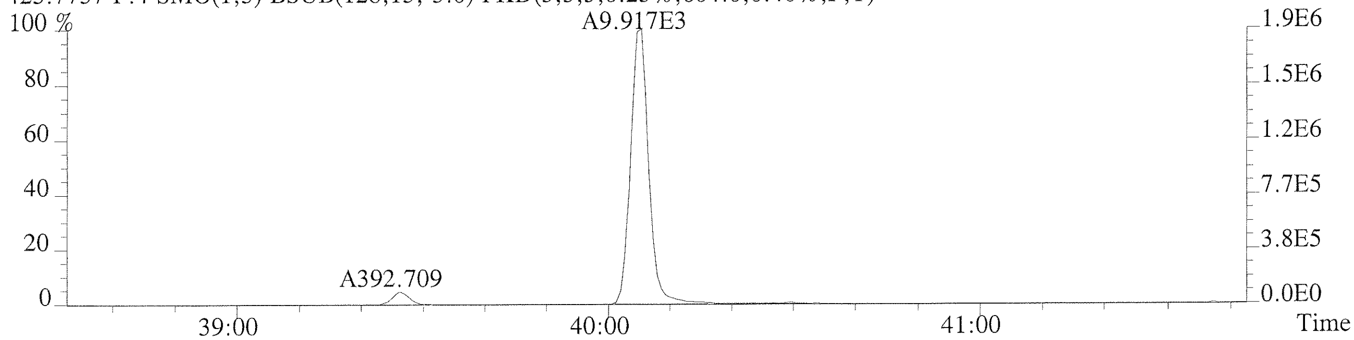


File: 7204 #1-288 Acq:23-APR-2012 08:03:38 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:ICAL CS2

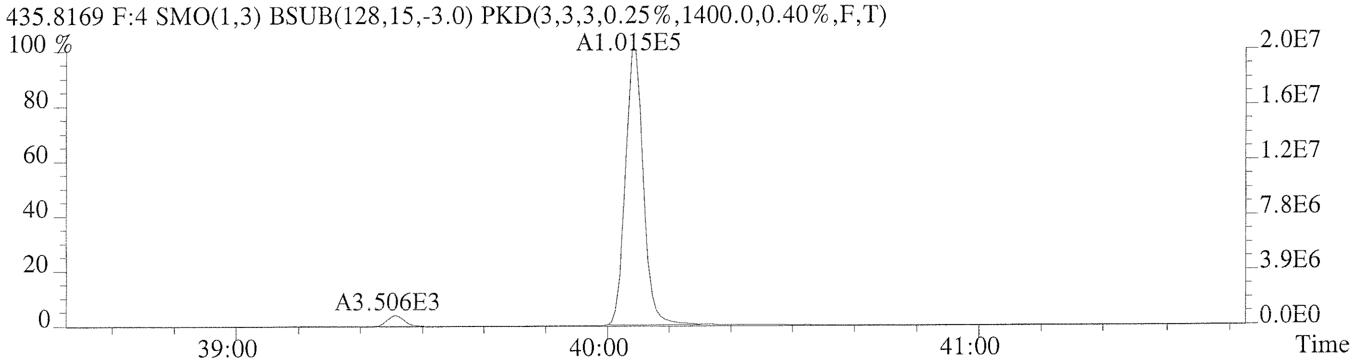
423.7766 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,428.0,0.40%,F,T)



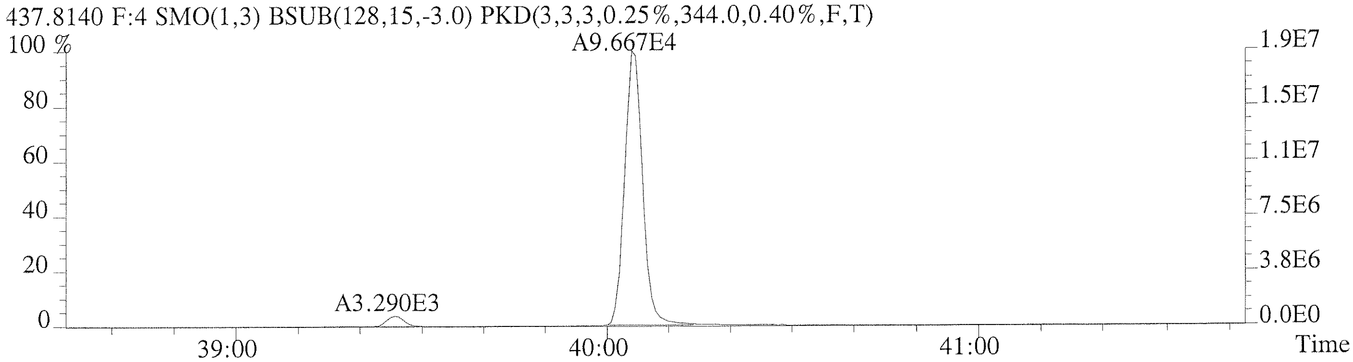
425.7737 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,604.0,0.40%,F,T)



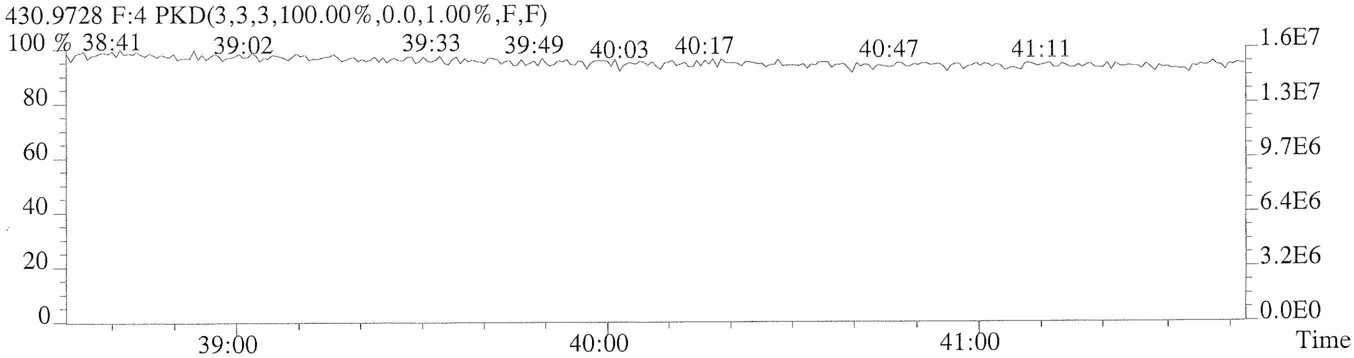
435.8169 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,1400.0,0.40%,F,T)



437.8140 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,344.0,0.40%,F,T)

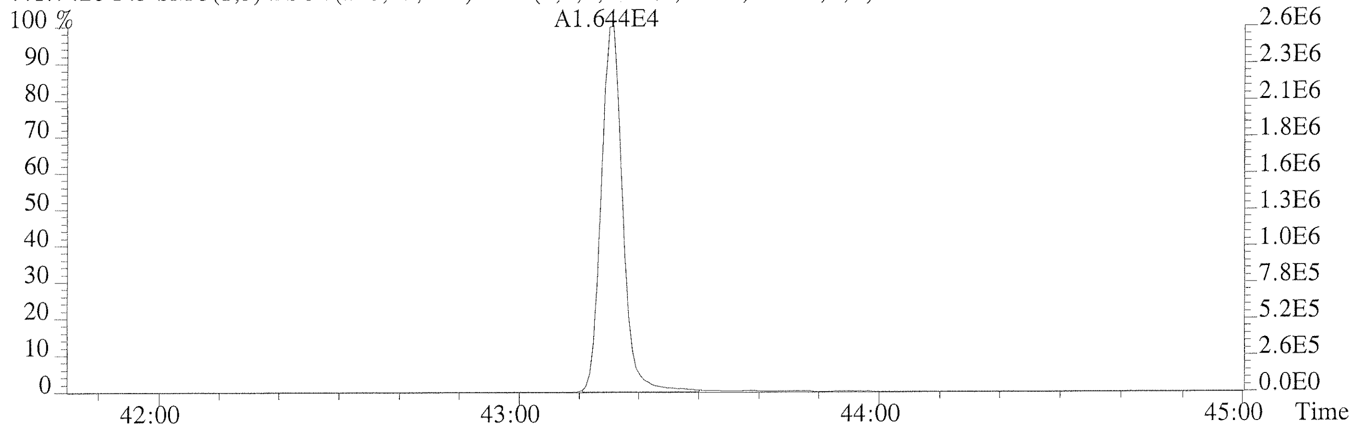


430.9728 F:4 PKD(3,3,3,100.00%,0.0,1.00%,F,F)

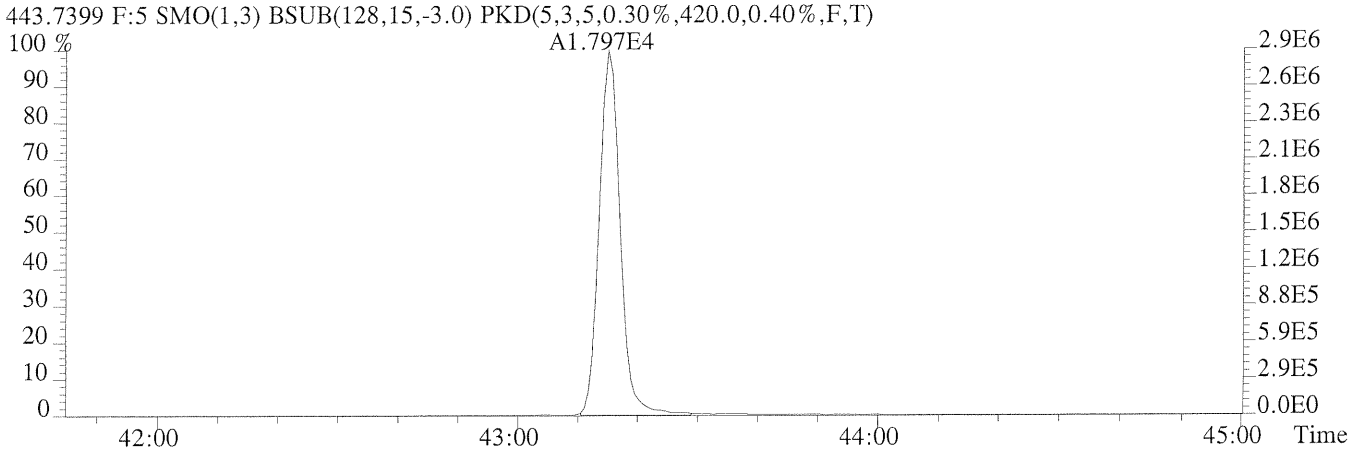


File: 7204 #1-300 Acq:23-APR-2012 08:03:38 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:ICAL CS2

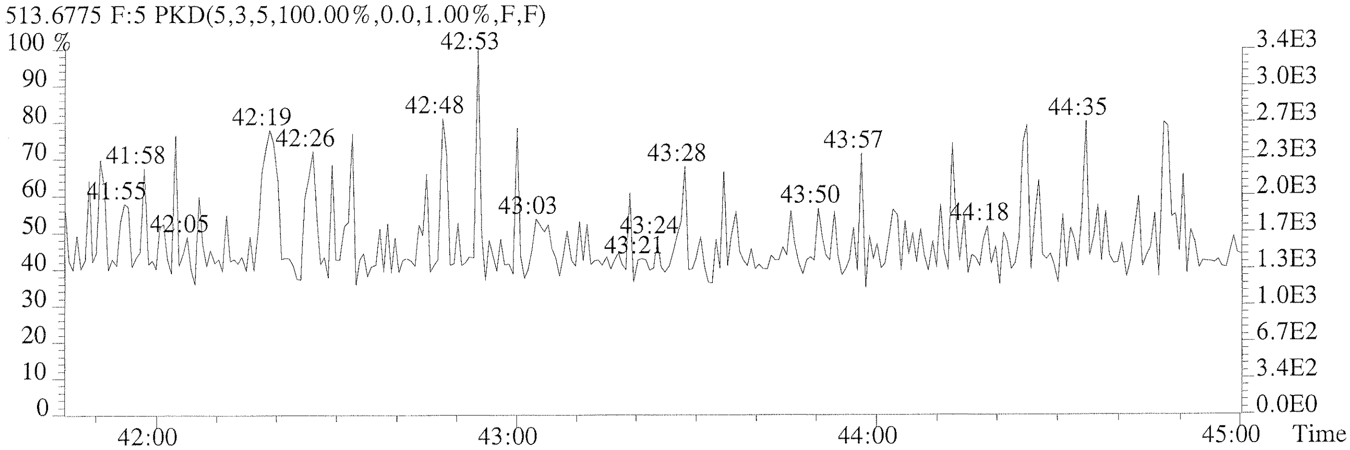
441.7428 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(5,3,5,0.30%,292.0,0.40%,F,T)



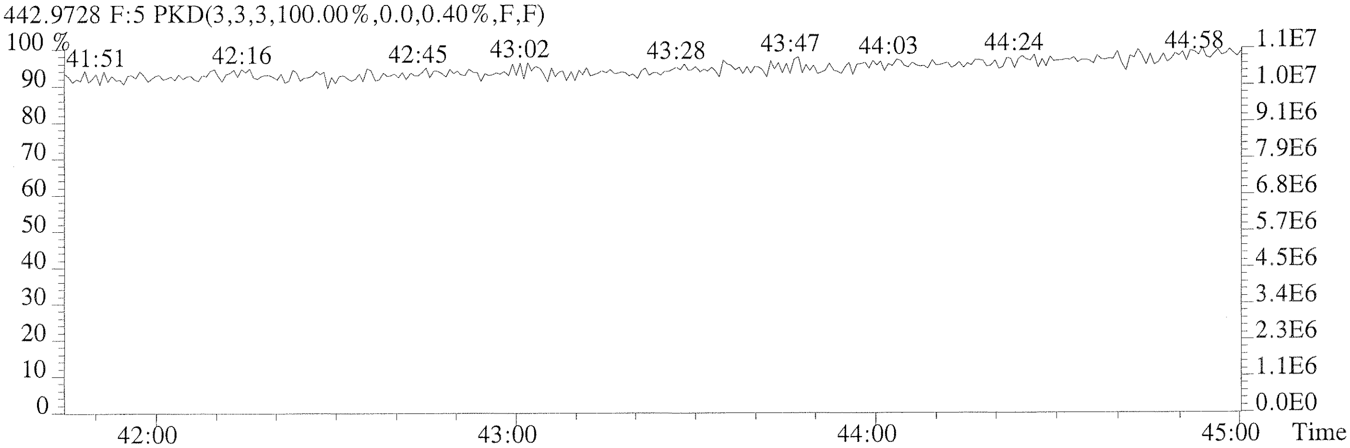
443.7399 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(5,3,5,0.30%,420.0,0.40%,F,T)



513.6775 F:5 PKD(5,3,5,100.00%,0.0,1.00%,F,F)

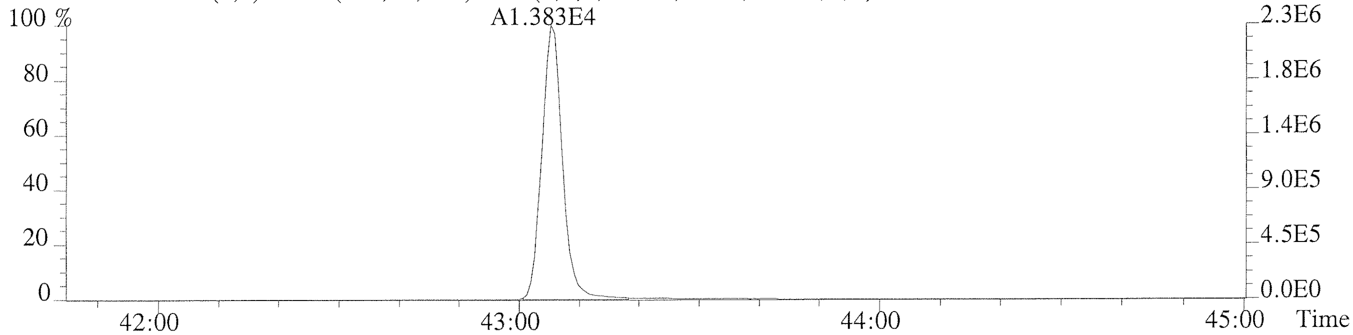


442.9728 F:5 PKD(3,3,3,100.00%,0.0,0.40%,F,F)

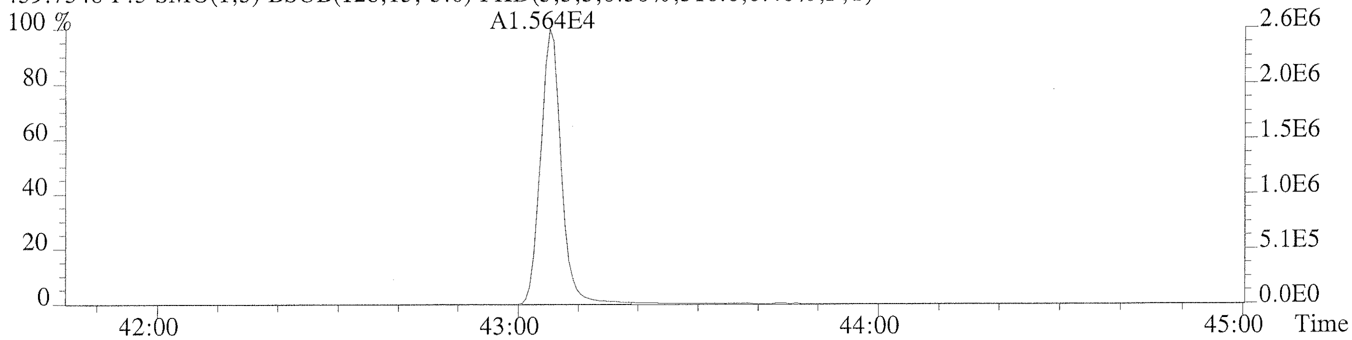


File: 7204 #1-300 Acq:23-APR-2012 08:03:38 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:ICAL CS2

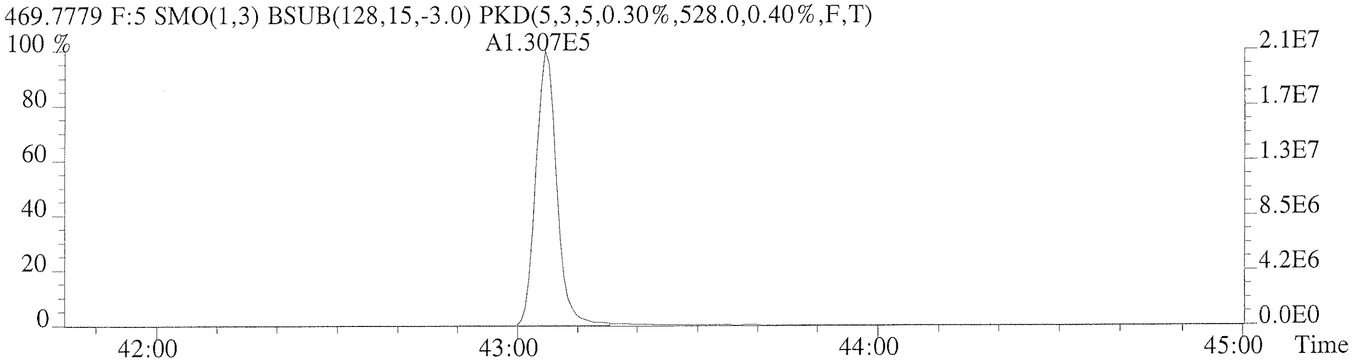
457.7377 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(5,3,5,0.30%,248.0,0.40%,F,T)



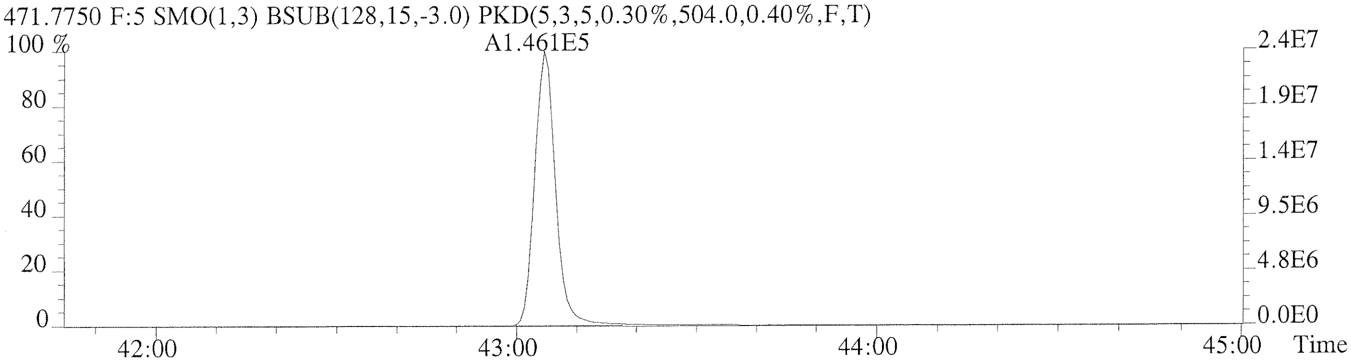
459.7348 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(5,3,5,0.30%,316.0,0.40%,F,T)



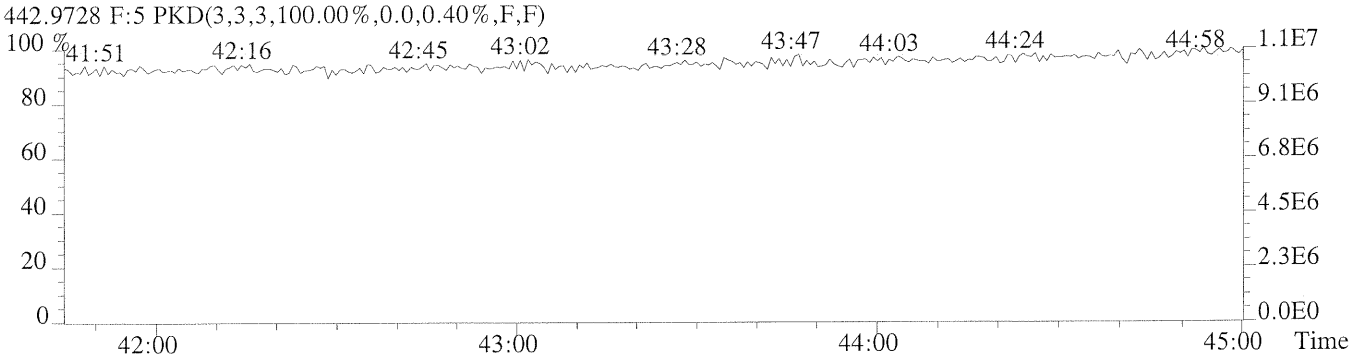
469.7779 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(5,3,5,0.30%,528.0,0.40%,F,T)



471.7750 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(5,3,5,0.30%,504.0,0.40%,F,T)



442.9728 F:5 PKD(3,3,3,100.00%,0.0,0.40%,F,F)



Sample Response Summary CLIENT ID.
ICAL CS3

#4 Filename 7205 #1 Samp: 1 Inj: 1 Acquired: 23-APR-12 08:56:23
Processed: 23-APR-12 10:20:50 LAB. ID: ICAL CS3

Typ	Name	RT-1	Resp 1	Resp 2	Ratio	Meet	Mod?	RRT
Unk	2,3,7,8-TCDF	28:31	2.275e+04	2.946e+04	0.77	yes	no	1.001
Unk	1,2,3,7,8-PeCDF	32:55	1.426e+05	9.148e+04	1.56	yes	no	1.001
Unk	2,3,4,7,8-PeCDF	33:39	1.433e+05	9.220e+04	1.55	yes	no	1.000
Unk	1,2,3,4,7,8-HxCDF	36:29	1.219e+05	9.389e+04	1.30	yes	no	1.000
Unk	1,2,3,6,7,8-HxCDF	36:35	1.244e+05	1.017e+05	1.22	yes	no	1.000
Unk	2,3,4,6,7,8-HxCDF	37:04	1.154e+05	9.228e+04	1.25	yes	no	1.000
Unk	1,2,3,7,8,9-HxCDF	37:46	1.060e+05	8.453e+04	1.25	yes	no	1.000
Unk	1,2,3,4,6,7,8-HpCDF	39:12	9.649e+04	9.341e+04	1.03	yes	no	1.000
Unk	1,2,3,4,7,8,9-HpCDF	40:30	8.190e+04	7.834e+04	1.05	yes	no	1.000
Unk	OCDF	43:15	1.157e+05	1.279e+05	0.90	yes	no	1.004
Unk	2,3,7,8-TCDD	29:22	1.848e+04	2.424e+04	0.76	yes	no	1.001
Unk	1,2,3,7,8-PeCDD	34:00	1.043e+05	6.641e+04	1.57	yes	no	1.000
Unk	1,2,3,4,7,8-HxCDD	37:10	8.974e+04	7.215e+04	1.24	yes	no	1.000
Unk	1,2,3,6,7,8-HxCDD	37:15	8.166e+04	6.455e+04	1.27	yes	no	1.000
Unk	1,2,3,7,8,9-HxCDD	37:32	9.167e+04	7.397e+04	1.24	yes	no	1.008
Unk	1,2,3,4,6,7,8-HpCDD	40:05	7.029e+04	6.782e+04	1.04	yes	no	1.000
Unk	OCDD	43:05	1.043e+05	1.159e+05	0.90	yes	no	1.000
IS	13C-2,3,7,8-TCDF	28:30	2.490e+05	3.231e+05	0.77	yes	no	0.978
IS	13C-1,2,3,7,8-PeCDF	32:54	3.061e+05	1.957e+05	1.56	yes	no	1.129
IS	13C-2,3,4,7,8-PeCDF	33:38	2.864e+05	1.833e+05	1.56	yes	no	1.154
IS	13C-1,2,3,4,7,8-HxCDF	36:28	1.270e+05	2.371e+05	0.54	yes	no	0.972
IS	13C-1,2,3,6,7,8-HxCDF	36:34	1.314e+05	2.609e+05	0.50	yes	no	0.975
IS	13C-2,3,4,6,7,8-HxCDF	37:03	1.274e+05	2.443e+05	0.52	yes	no	0.988
IS	13C-1,2,3,7,8,9-HxCDF	37:45	1.149e+05	2.219e+05	0.52	yes	no	1.006
IS	13C-1,2,3,4,6,7,8-HpCDF	39:11	8.770e+04	1.955e+05	0.45	yes	no	1.044
IS	13C-1,2,3,4,7,8,9-HpCDF	40:29	7.259e+04	1.619e+05	0.45	yes	no	1.079
IS	13C-2,3,7,8-TCDD	29:20	1.969e+05	2.481e+05	0.79	yes	no	1.007
IS	13C-1,2,3,7,8-PeCDD	33:59	2.264e+05	1.437e+05	1.58	yes	no	1.166
IS	13C-1,2,3,4,7,8-HxCDD	37:10	1.700e+05	1.353e+05	1.26	yes	no	0.991
IS	13C-1,2,3,6,7,8-HxCDD	37:14	1.853e+05	1.484e+05	1.25	yes	no	0.992
IS	13C-1,2,3,4,6,7,8-HpCDD	40:04	1.451e+05	1.391e+05	1.04	yes	no	1.068
IS	13C-OCDD	43:05	2.115e+05	2.344e+05	0.90	yes	no	1.148
RS/RT	13C-1,2,3,4-TCDD	29:08	1.992e+05	2.508e+05	0.79	yes	no	*
RS/RT	13C-1,2,3,7,8,9-HxCDD	37:31	1.841e+05	1.479e+05	1.24	yes	no	*
C/Up	37Cl-2,3,7,8-TCDD	29:22	4.595e+04				no	1.008

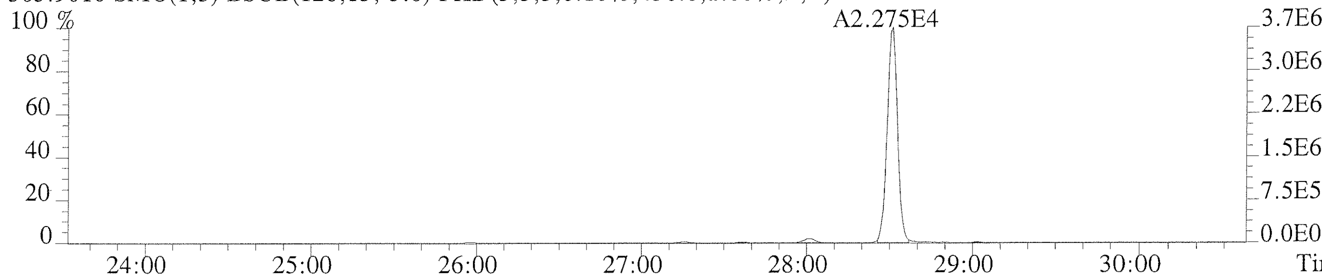
Signal/Noise Height Ratio Summary CLIENT ID.
ICAL CS3

Run #4 Filename 7205 Samp: 1 Inj: 1 Acquired: 23-APR-12 08:56:23
Processed: 23-APR-12 10:20:501 LAB. ID: ICAL CS3

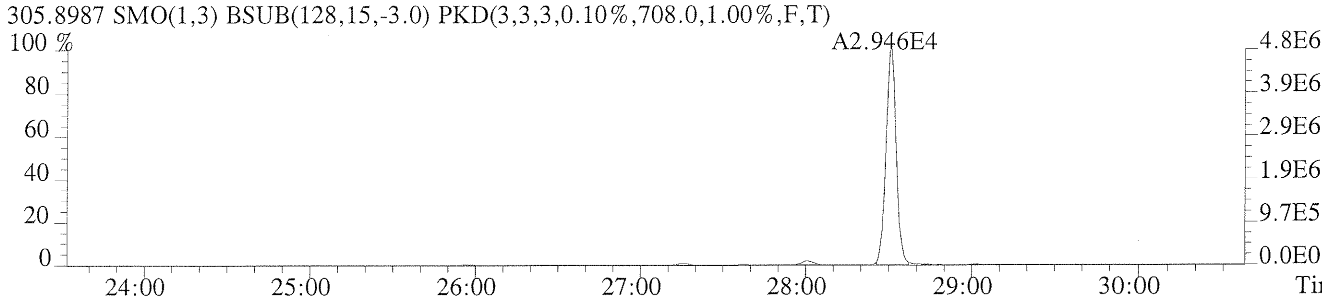
Name	Signal 1	Noise 1	S/N Rat.1	Signal 2	Noise 2	S/N Rat.2
2,3,7,8-TCDF	3.73e+06	4.36e+02	8.6e+03	4.82e+06	7.08e+02	6.8e+03
1,2,3,7,8-PeCDF	2.72e+07	9.72e+02	2.8e+04	1.74e+07	1.18e+03	1.5e+04
2,3,4,7,8-PeCDF	2.85e+07	9.72e+02	2.9e+04	1.84e+07	1.18e+03	1.6e+04
1,2,3,4,7,8-HxCDF	2.62e+07	1.81e+03	1.4e+04	2.07e+07	1.70e+03	1.2e+04
1,2,3,6,7,8-HxCDF	2.66e+07	1.81e+03	1.5e+04	2.12e+07	1.70e+03	1.2e+04
2,3,4,6,7,8-HxCDF	2.53e+07	1.81e+03	1.4e+04	2.02e+07	1.70e+03	1.2e+04
1,2,3,7,8,9-HxCDF	2.19e+07	1.81e+03	1.2e+04	1.72e+07	1.70e+03	1.0e+04
1,2,3,4,6,7,8-HpCDF	2.05e+07	5.27e+03	3.9e+03	1.98e+07	2.86e+03	6.9e+03
1,2,3,4,7,8,9-HpCDF	1.61e+07	5.27e+03	3.1e+03	1.55e+07	2.86e+03	5.4e+03
OCDF	1.92e+07	8.36e+02	2.3e+04	2.13e+07	1.46e+03	1.5e+04
2,3,7,8-TCDD	3.17e+06	6.76e+02	4.7e+03	4.19e+06	3.44e+02	1.2e+04
1,2,3,7,8-PeCDD	2.05e+07	1.03e+03	2.0e+04	1.33e+07	8.52e+02	1.6e+04
1,2,3,4,7,8-HxCDD	2.01e+07	1.31e+03	1.5e+04	1.61e+07	7.48e+02	2.1e+04
1,2,3,6,7,8-HxCDD	1.75e+07	1.31e+03	1.3e+04	1.40e+07	7.48e+02	1.9e+04
1,2,3,7,8,9-HxCDD	1.98e+07	1.31e+03	1.5e+04	1.61e+07	7.48e+02	2.1e+04
1,2,3,4,6,7,8-HpCDD	1.38e+07	1.29e+03	1.1e+04	1.32e+07	1.16e+03	1.1e+04
OCDD	1.73e+07	9.36e+02	1.9e+04	1.92e+07	9.36e+02	2.0e+04
13C-2,3,7,8-TCDF	4.11e+07	1.92e+03	2.1e+04	5.30e+07	1.26e+03	4.2e+04
13C-1,2,3,7,8-PeCDF	5.89e+07	6.80e+02	8.7e+04	3.74e+07	5.80e+02	6.4e+04
13C-2,3,4,7,8-PeCDF	5.72e+07	6.80e+02	8.4e+04	3.68e+07	5.80e+02	6.3e+04
13C-1,2,3,4,7,8-HxCDF	2.72e+07	1.76e+03	1.5e+04	5.21e+07	1.99e+03	2.6e+04
13C-1,2,3,6,7,8-HxCDF	2.79e+07	1.76e+03	1.6e+04	5.42e+07	1.99e+03	2.7e+04
13C-2,3,4,6,7,8-HxCDF	2.77e+07	1.76e+03	1.6e+04	5.34e+07	1.99e+03	2.7e+04
13C-1,2,3,7,8,9-HxCDF	2.40e+07	1.76e+03	1.4e+04	4.59e+07	1.99e+03	2.3e+04
13C-1,2,3,4,6,7,8-HpCDF	1.87e+07	3.44e+03	5.4e+03	4.14e+07	4.17e+03	9.9e+03
13C-1,2,3,4,7,8,9-HpCDF	1.44e+07	3.44e+03	4.2e+03	3.20e+07	4.17e+03	7.7e+03
13C-2,3,7,8-TCDD	3.33e+07	2.44e+03	1.4e+04	4.22e+07	1.34e+03	3.2e+04
13C-1,2,3,7,8-PeCDD	4.50e+07	4.72e+02	9.5e+04	2.86e+07	6.96e+02	4.1e+04
13C-1,2,3,4,7,8-HxCDD	3.74e+07	1.90e+03	2.0e+04	2.98e+07	1.90e+03	1.6e+04
13C-1,2,3,6,7,8-HxCDD	3.95e+07	1.90e+03	2.1e+04	3.20e+07	1.90e+03	1.7e+04
13C-1,2,3,4,6,7,8-HpCDD	2.85e+07	1.29e+03	2.2e+04	2.76e+07	9.84e+02	2.8e+04
13C-OCDD	3.55e+07	1.27e+03	2.8e+04	3.92e+07	1.25e+03	3.1e+04
13C-1,2,3,4-TCDD	3.46e+07	2.44e+03	1.4e+04	4.36e+07	1.34e+03	3.3e+04
13C-1,2,3,7,8,9-HxCDD	3.95e+07	1.90e+03	2.1e+04	3.18e+07	1.90e+03	1.7e+04
37Cl-2,3,7,8-TCDD	7.90e+06	6.80e+02	1.2e+04			

File: 7205 #1-592 Acq:23-APR-2012 08:56:23 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:ICAL CS3

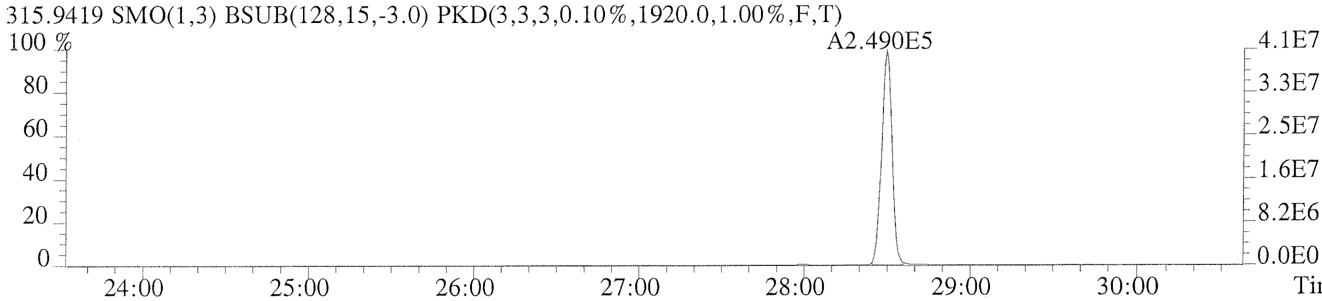
303.9016 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,436.0,1.00%,F,T)



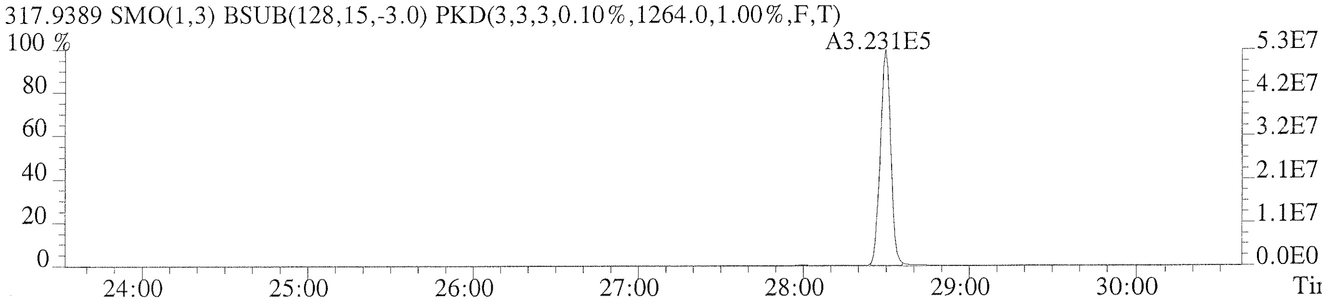
305.8987 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,708.0,1.00%,F,T)



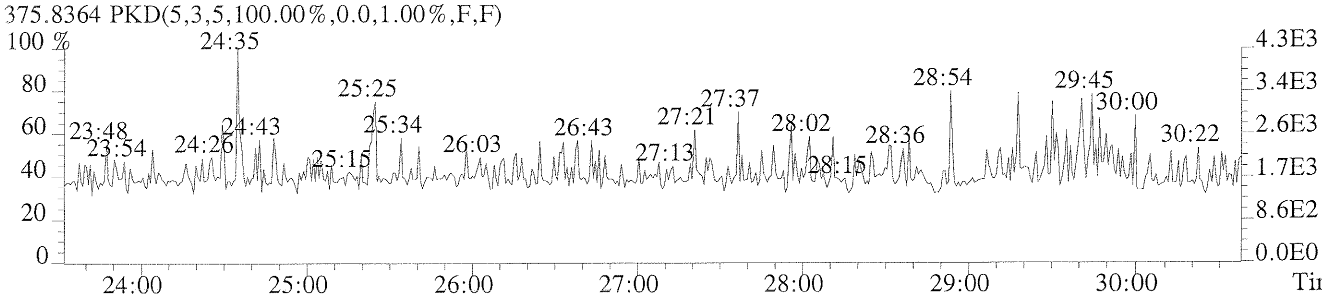
315.9419 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,1920.0,1.00%,F,T)



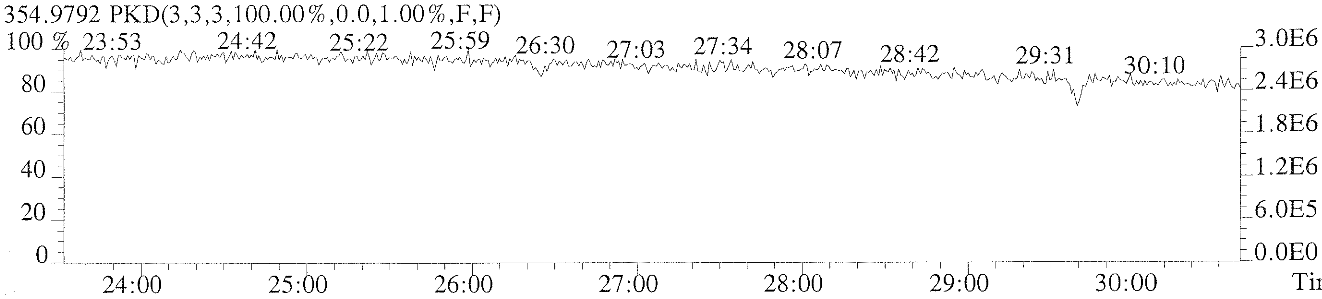
317.9389 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,1264.0,1.00%,F,T)



375.8364 PKD(5,3,5,100.00%,0.0,1.00%,F,F)

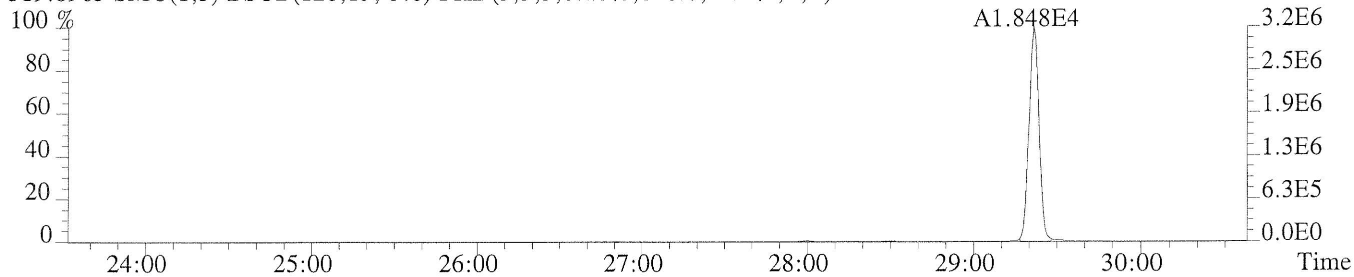


354.9792 PKD(3,3,3,100.00%,0.0,1.00%,F,F)

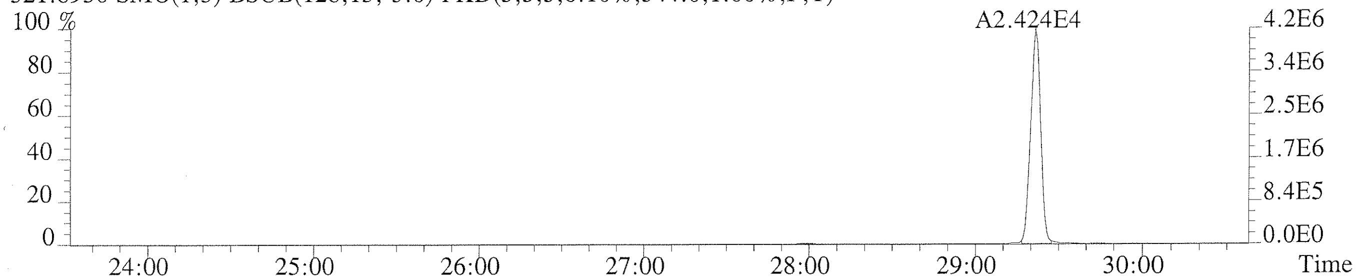


File: 7205 #1-592 Acq:23-APR-2012 08:56:23 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:ICAL CS3

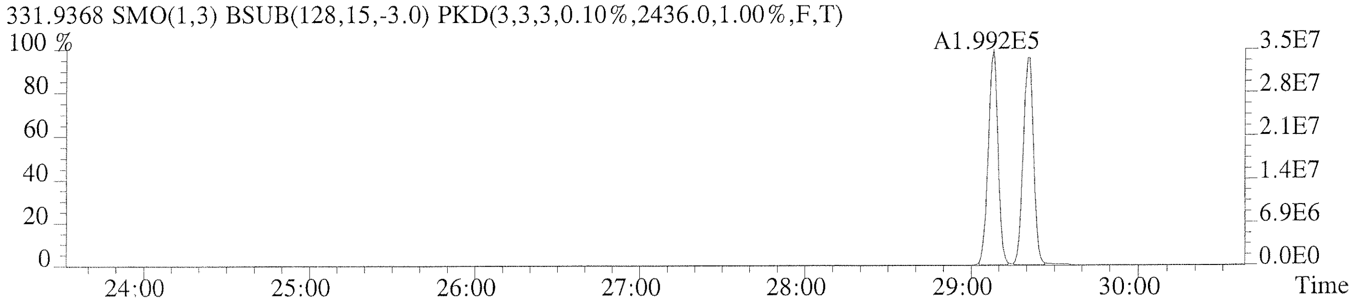
319.8965 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,676.0,1.00%,F,T)



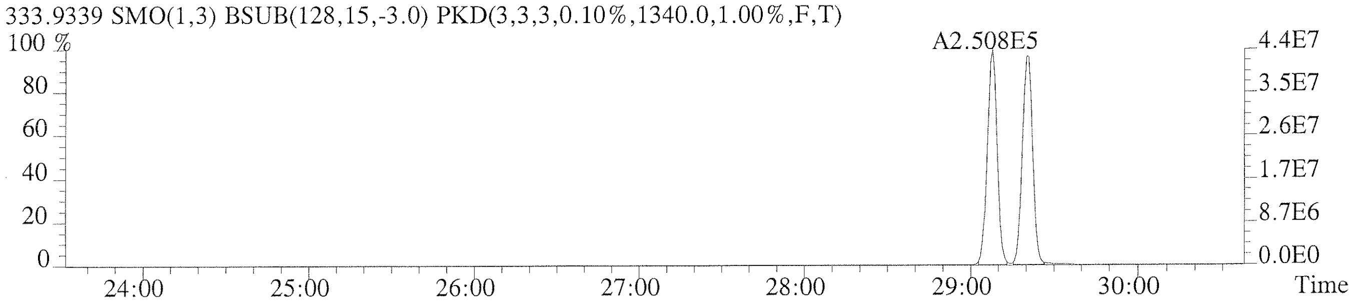
321.8936 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,344.0,1.00%,F,T)



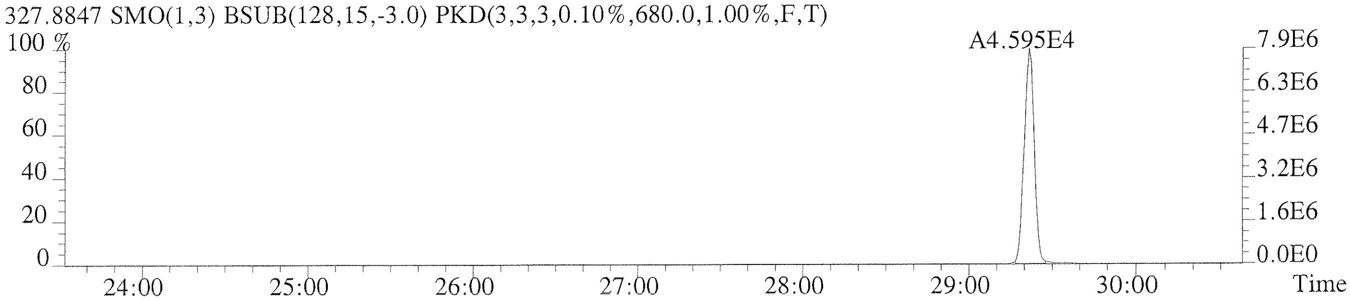
331.9368 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,2436.0,1.00%,F,T)



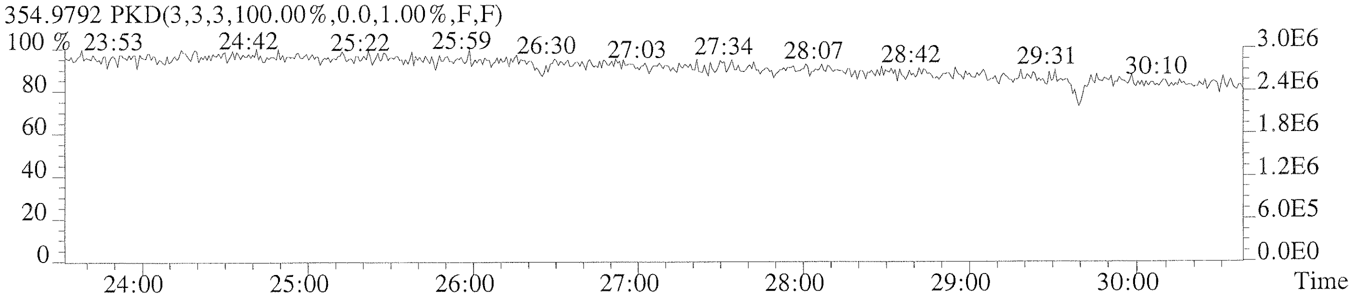
333.9339 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,1340.0,1.00%,F,T)



327.8847 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,680.0,1.00%,F,T)

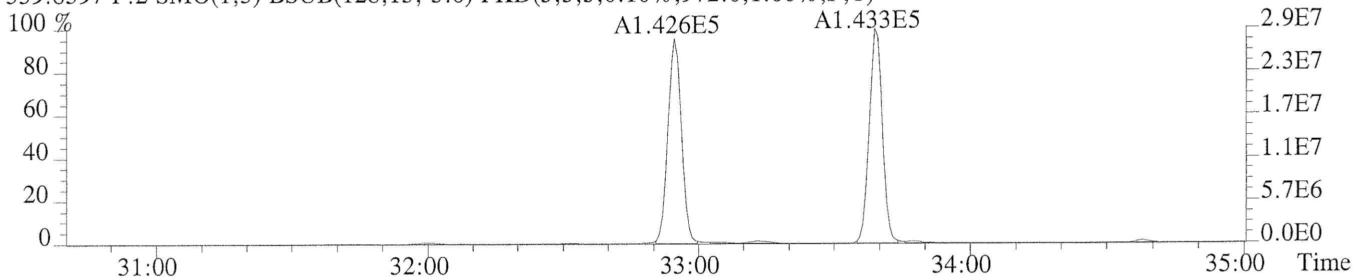


354.9792 PKD(3,3,3,100.00%,0.0,1.00%,F,F)

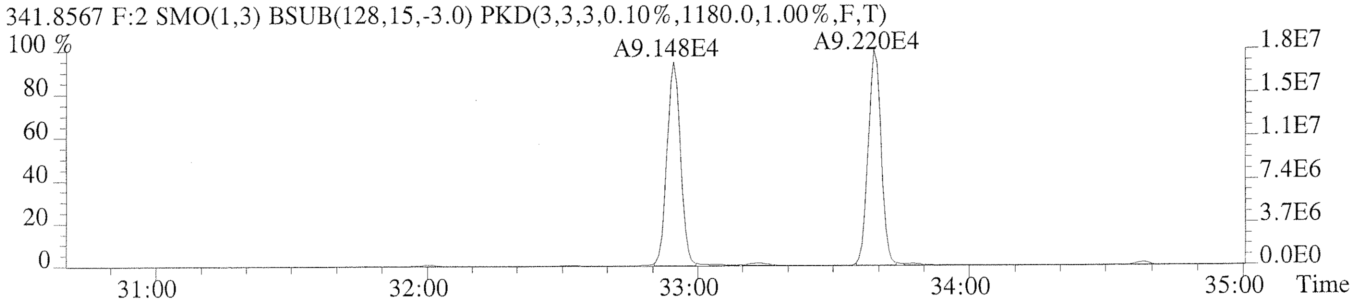


File: 7205 #1-394 Acq:23-APR-2012 08:56:23 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:ICAL CS3

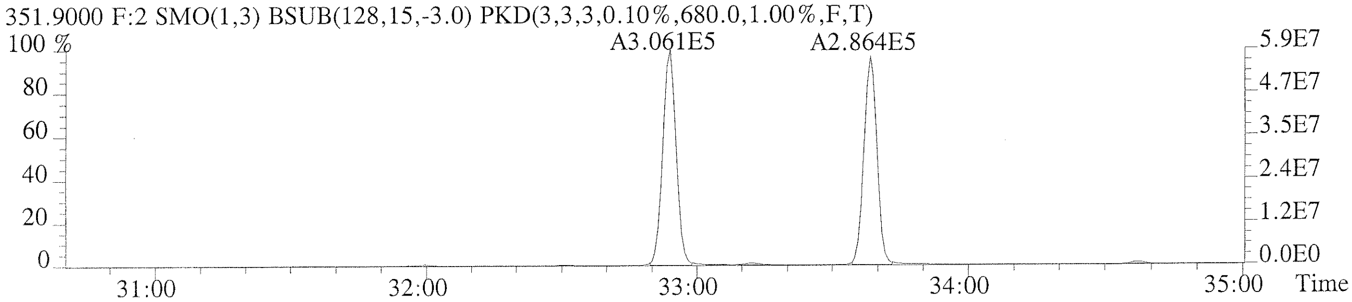
339.8597 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,972.0,1.00%,F,T)



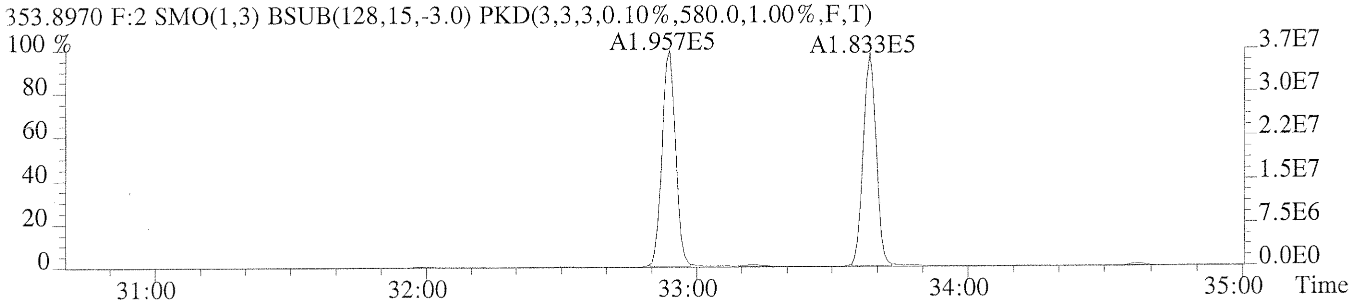
341.8567 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,1180.0,1.00%,F,T)



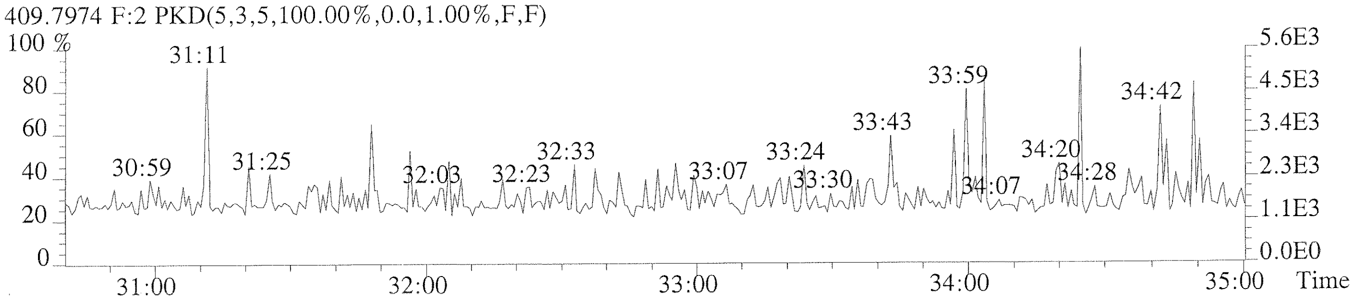
351.9000 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,680.0,1.00%,F,T)



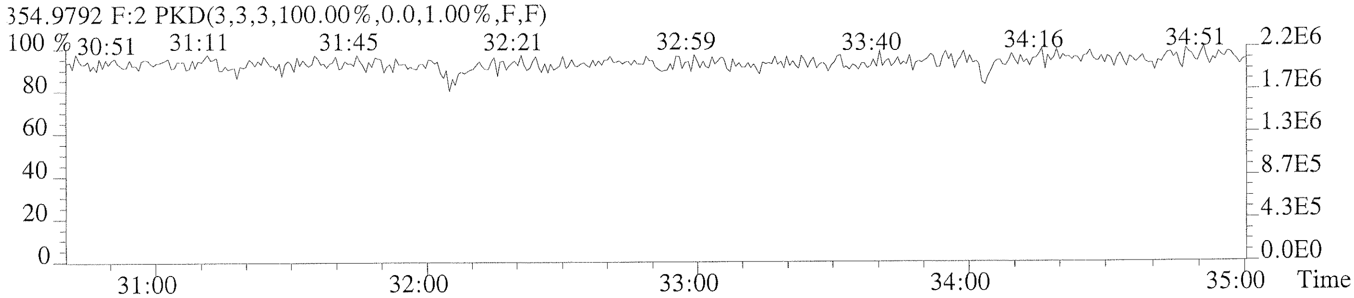
353.8970 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,580.0,1.00%,F,T)



409.7974 F:2 PKD(5,3,5,100.00%,0.0,1.00%,F,F)

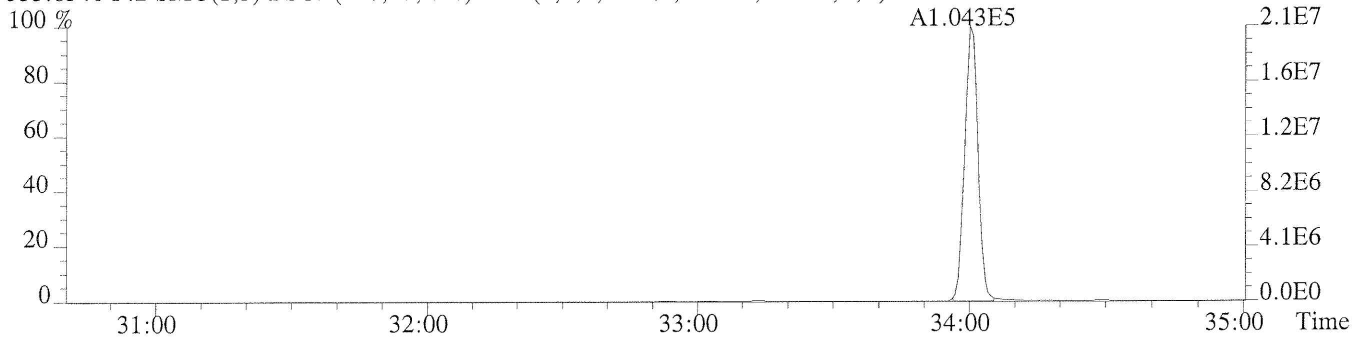


354.9792 F:2 PKD(3,3,3,100.00%,0.0,1.00%,F,F)

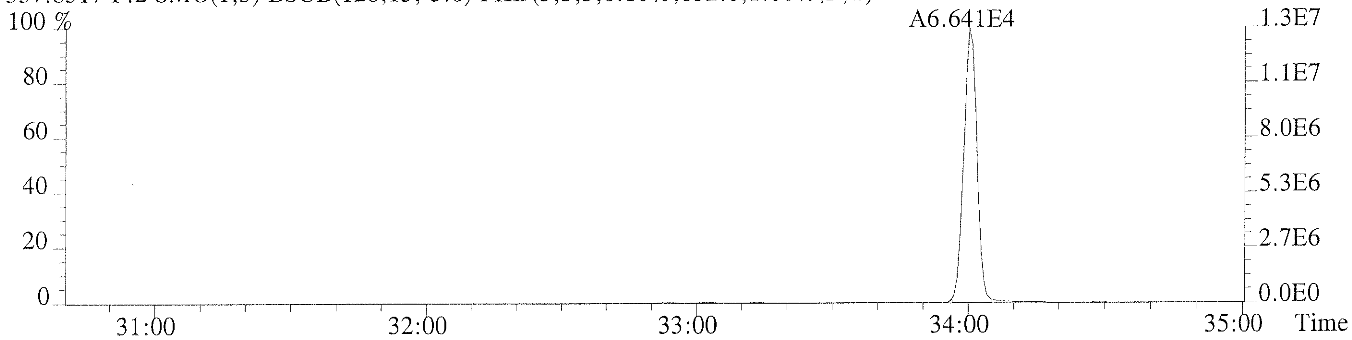


File: 7205 #1-394 Acq:23-APR-2012 08:56:23 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:ICAL CS3

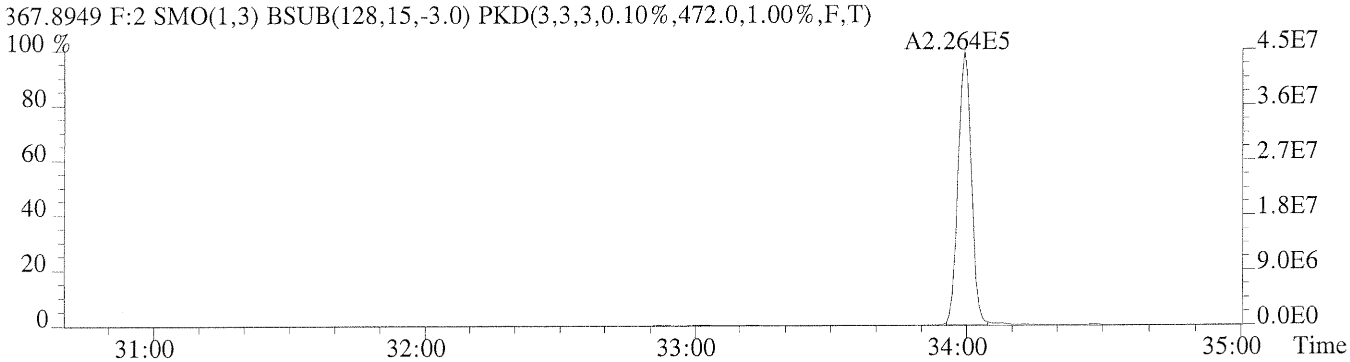
355.8546 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,1032.0,1.00%,F,T)



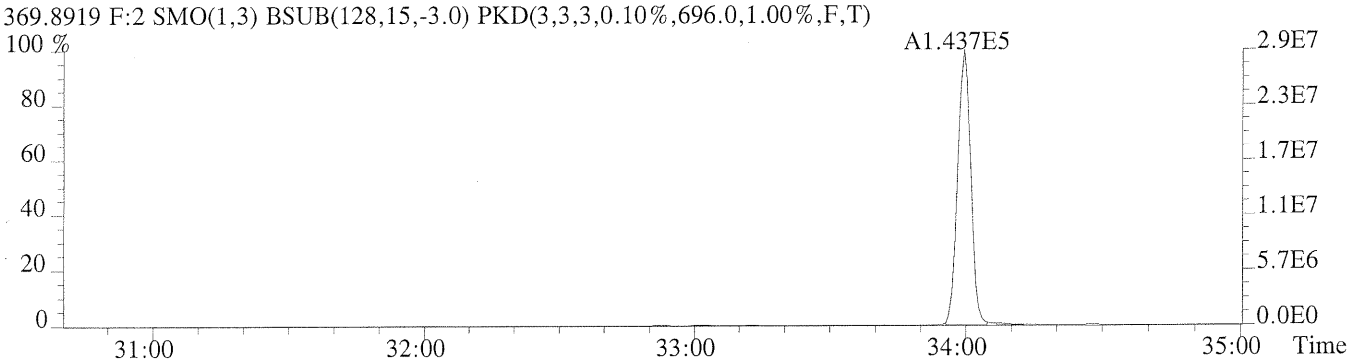
357.8517 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,852.0,1.00%,F,T)



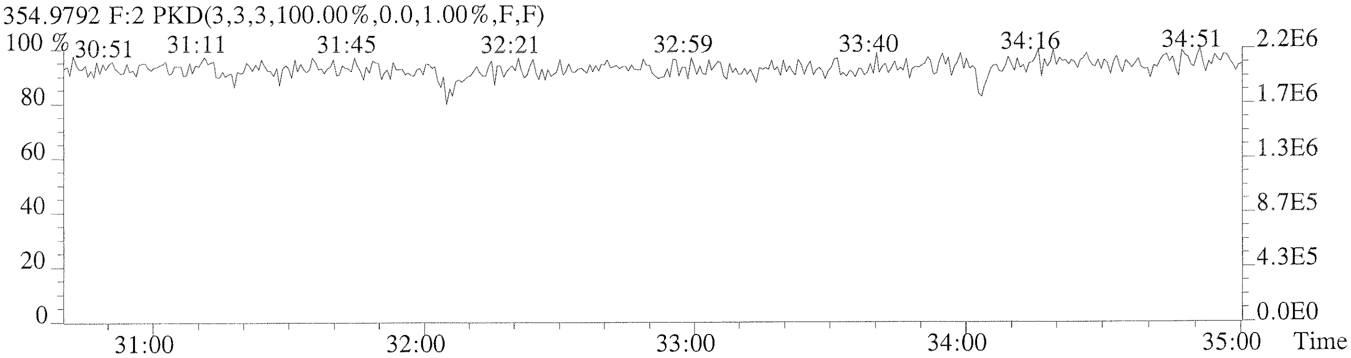
367.8949 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,472.0,1.00%,F,T)



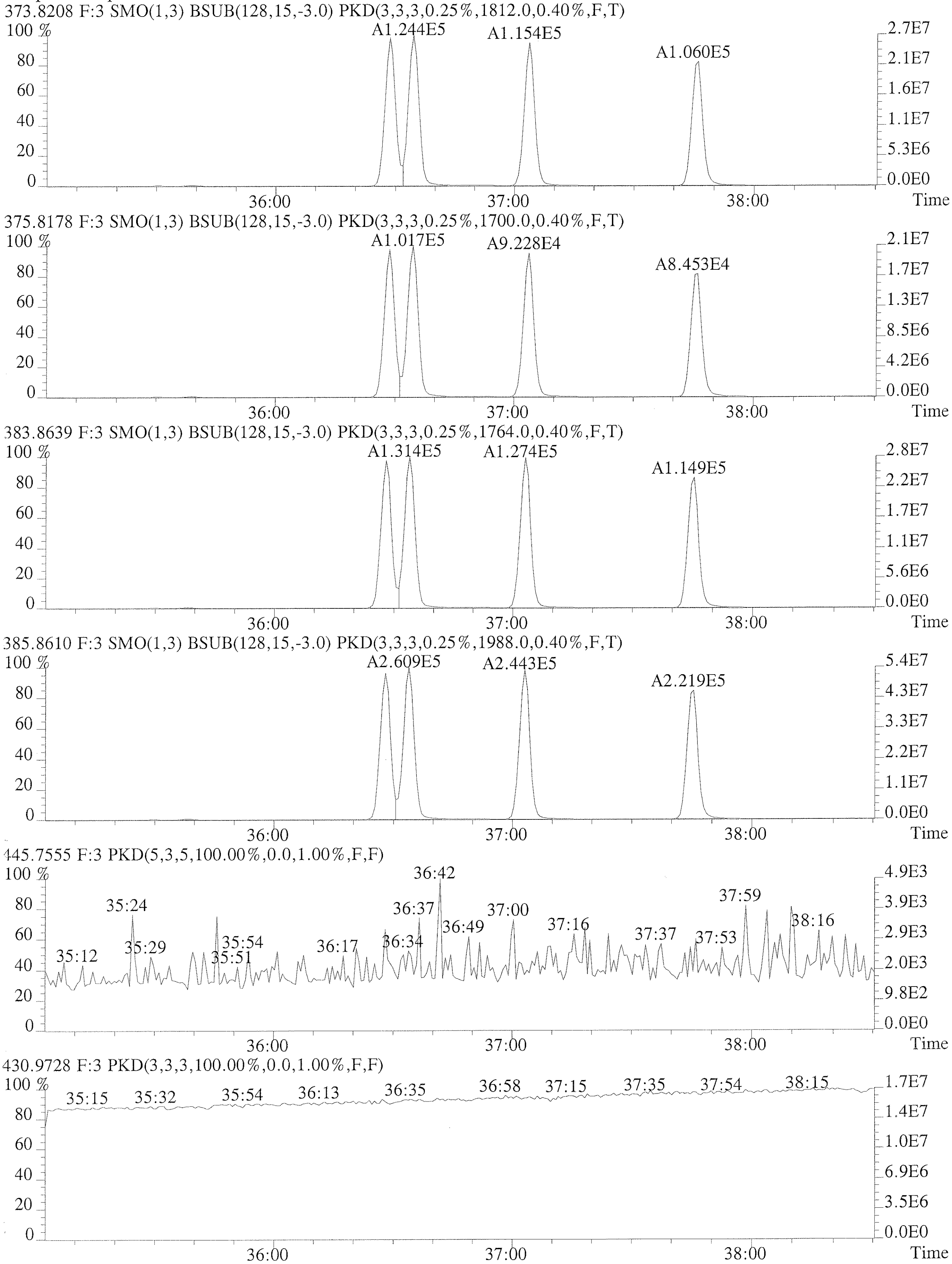
369.8919 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,696.0,1.00%,F,T)



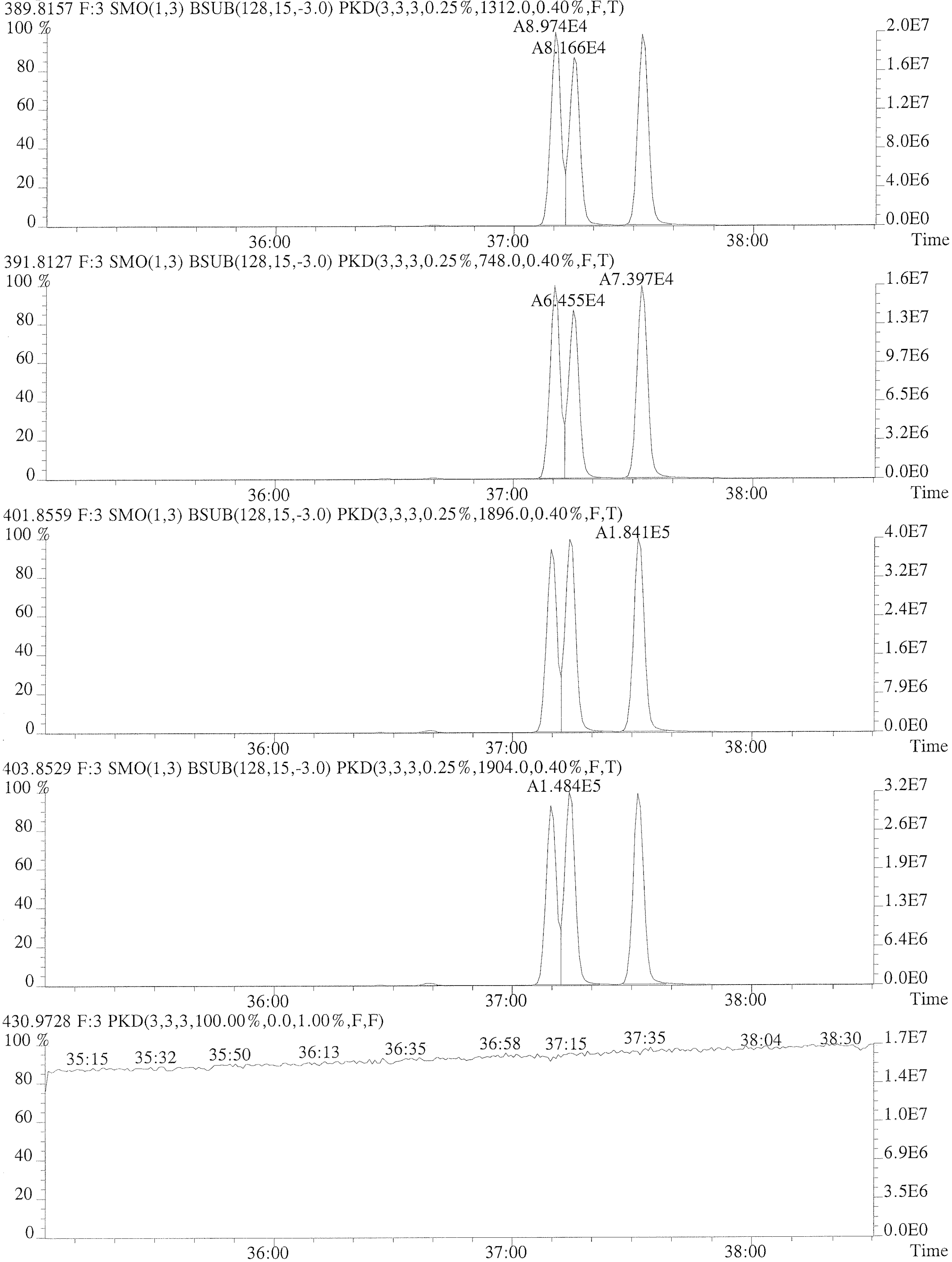
354.9792 F:2 PKD(3,3,3,100.00%,0.0,1.00%,F,F)



File: '205 #1-315 Acq:23-APR-2012 08:56:23 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:ICAL CS3

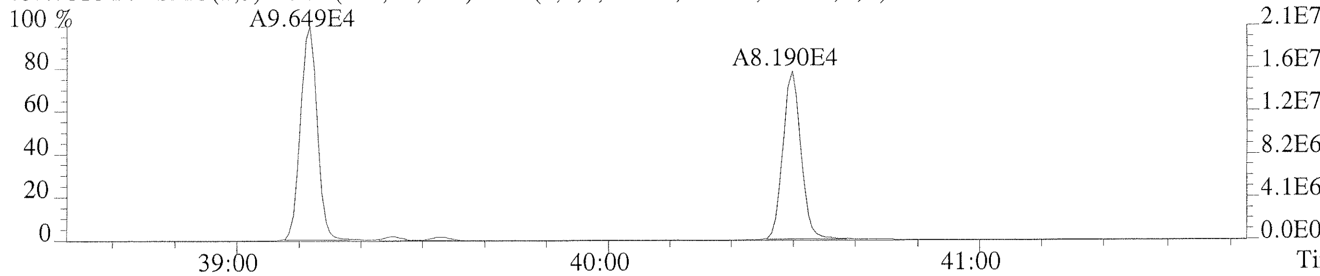


File: 205 #1-315 Acq:23-APR-2012 08:56:23 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:ICAL CS3

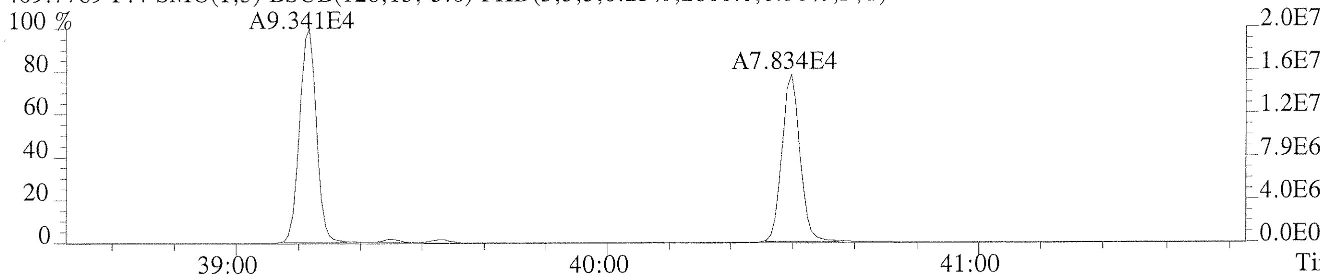


File: 7205 #1-288 Acq:23-APR-2012 08:56:23 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:ICAL CS3

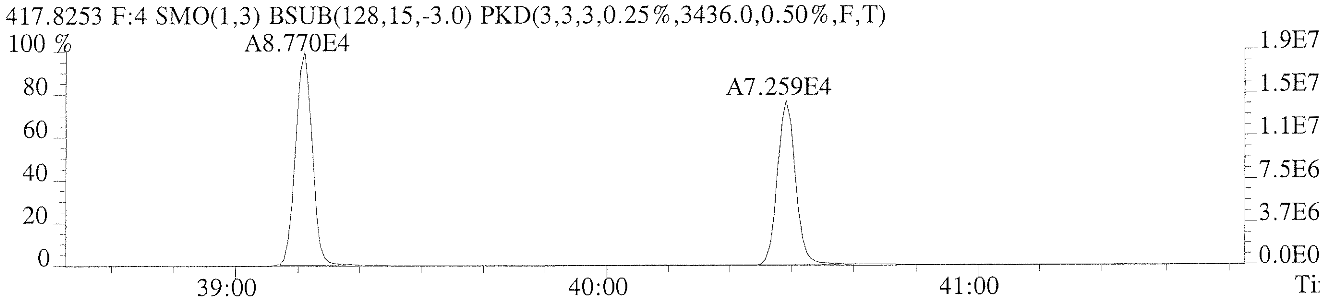
407.7818 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,5272.0,0.50%,F,T)



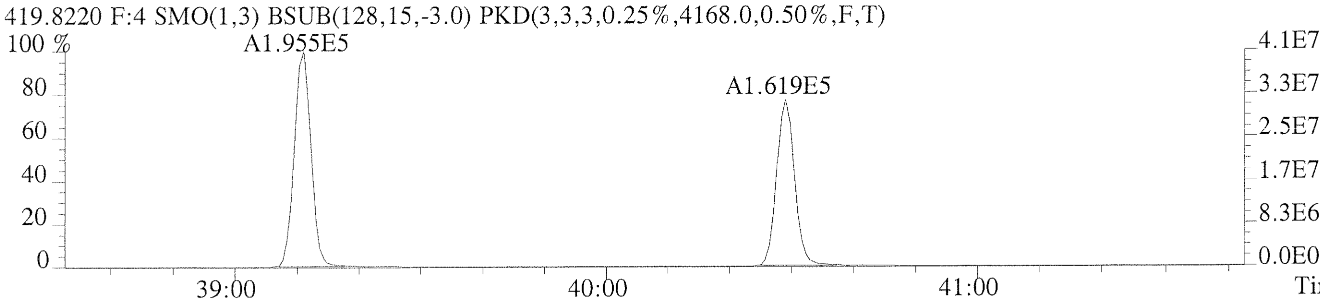
409.7789 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,2860.0,0.50%,F,T)



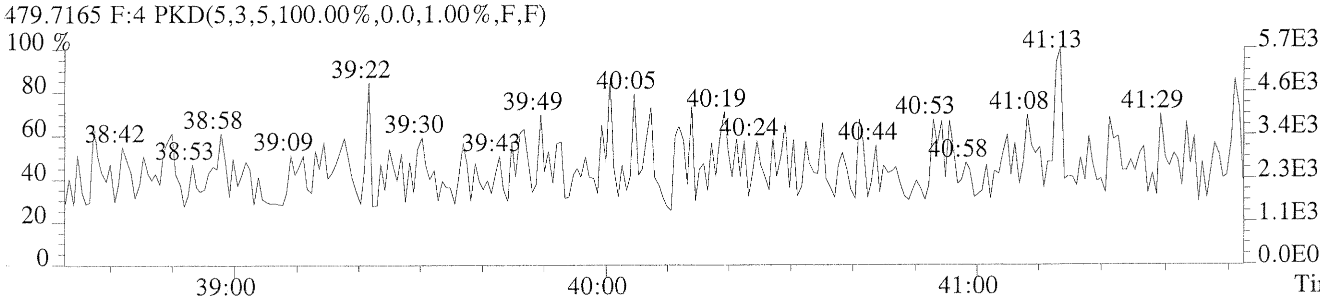
417.8253 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,3436.0,0.50%,F,T)



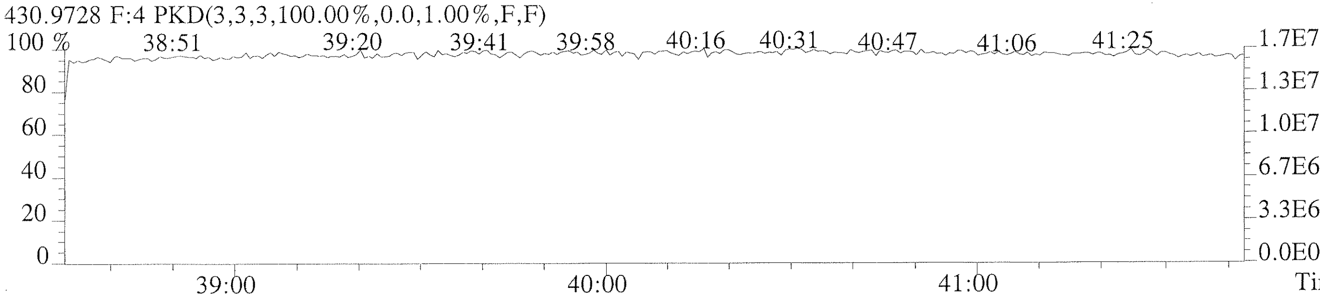
419.8220 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,4168.0,0.50%,F,T)



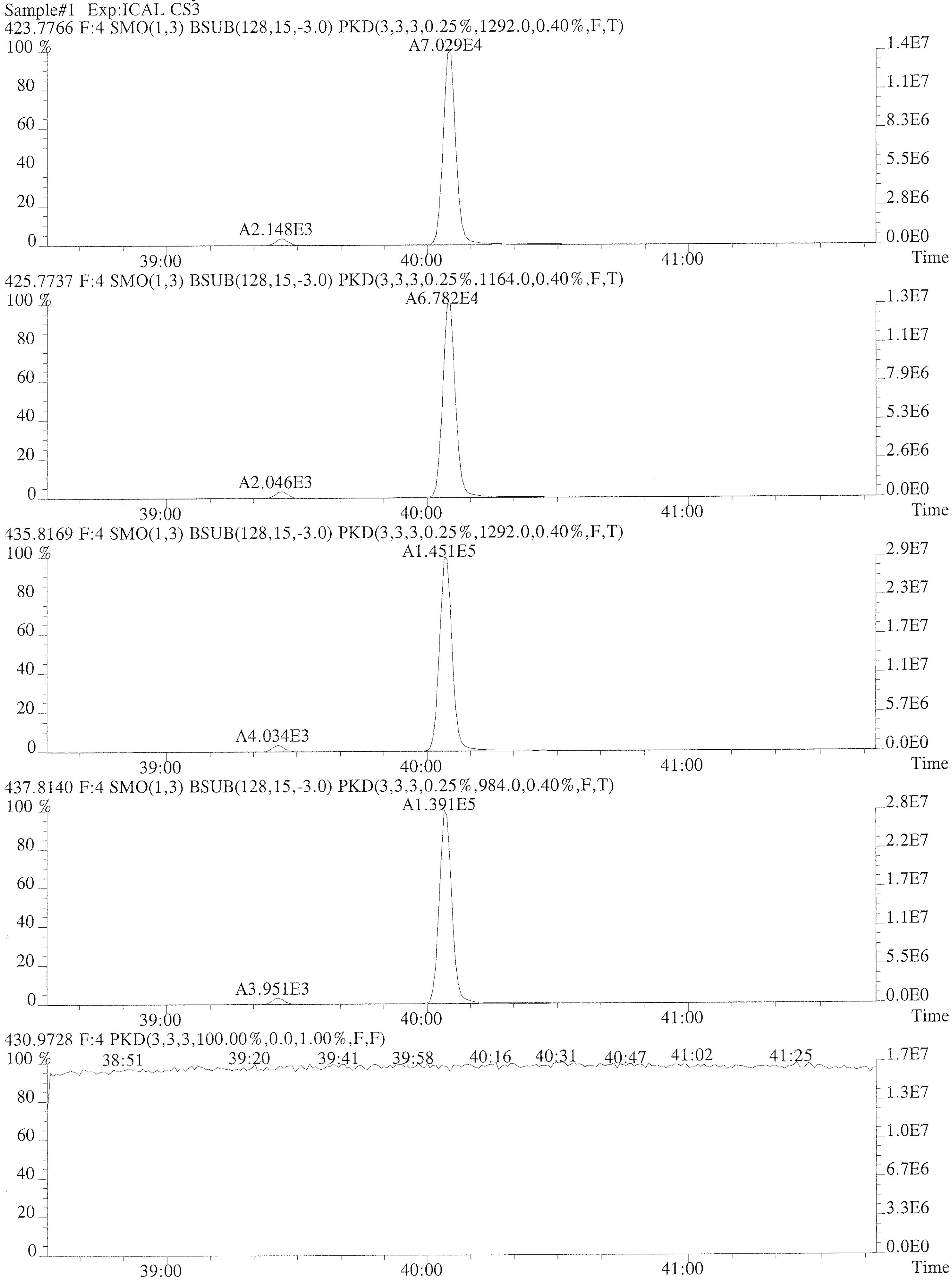
479.7165 F:4 PKD(5,3,5,100.00%,0.0,1.00%,F,F)



430.9728 F:4 PKD(3,3,3,100.00%,0.0,1.00%,F,F)

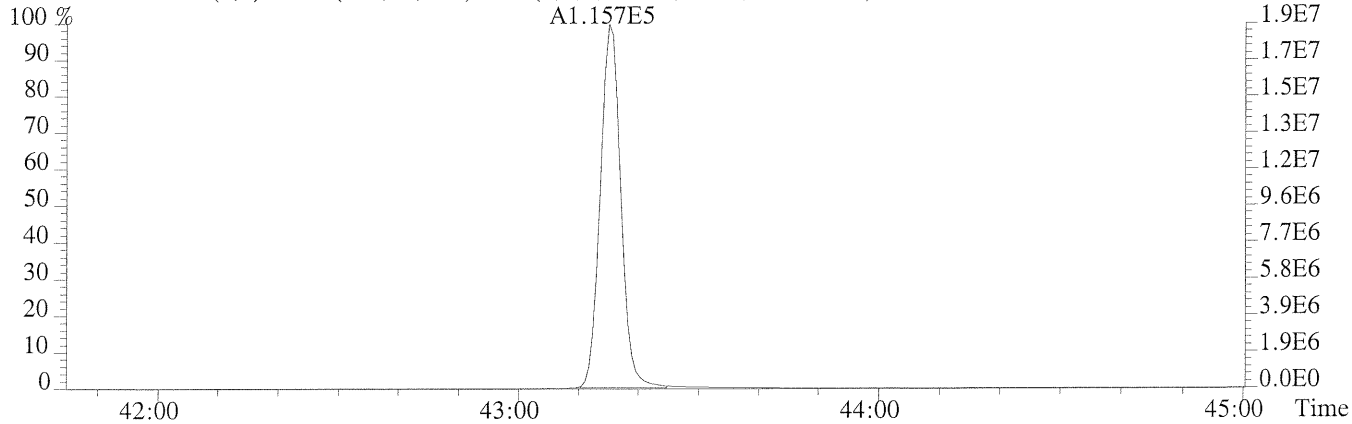


File: 7205 #1-288 Acq:23-APR-2012 08:56:23 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:ICAL CS3

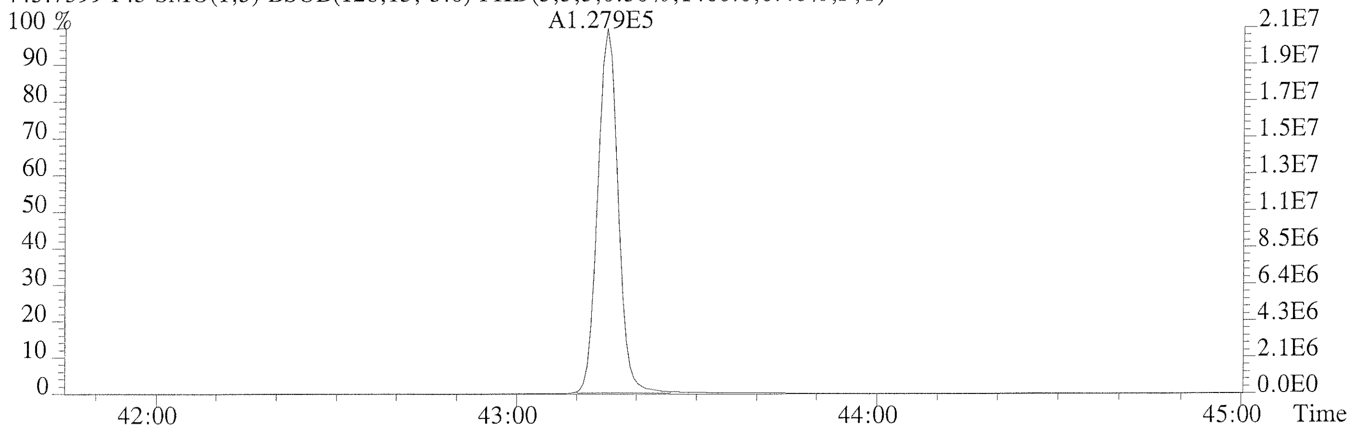


File: 7205 #1-300 Acq:23-APR-2012 08:56:23 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:ICAL CS3

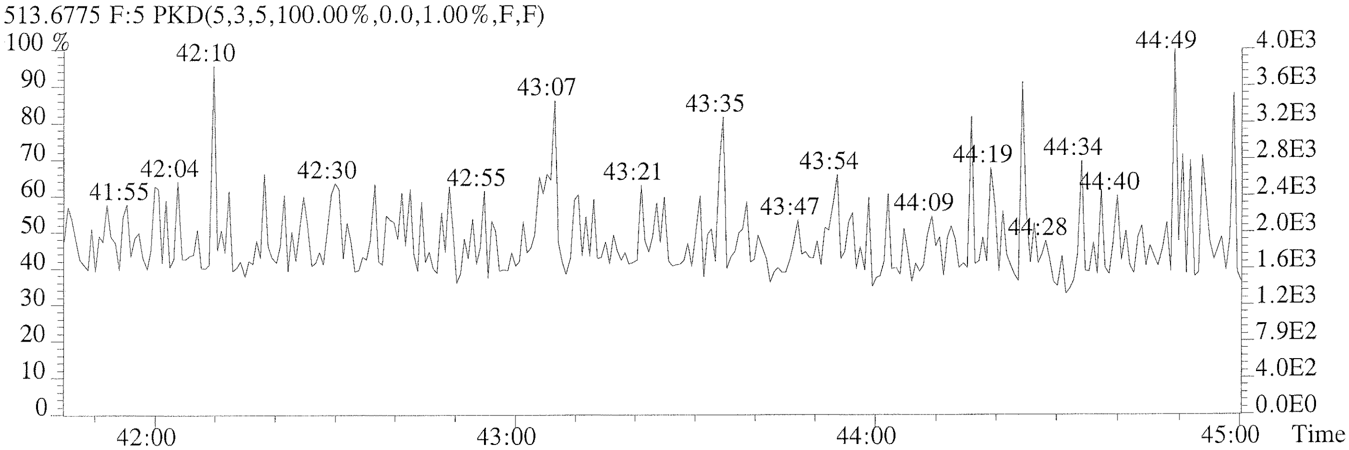
441.7428 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(5,3,5,0.30%,836.0,0.40%,F,T)



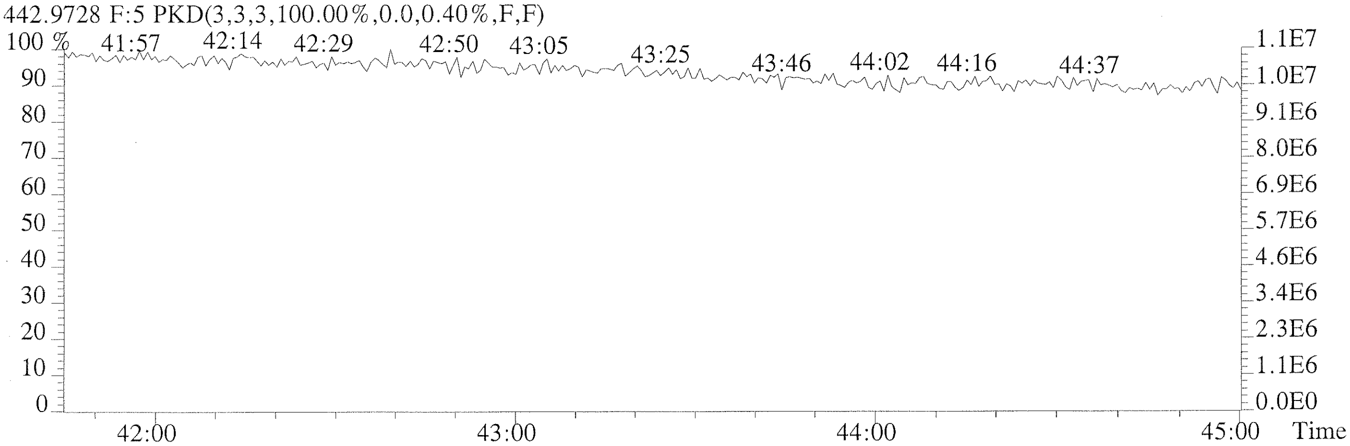
443.7399 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(5,3,5,0.30%,1460.0,0.40%,F,T)



513.6775 F:5 PKD(5,3,5,100.00%,0.0,1.00%,F,F)

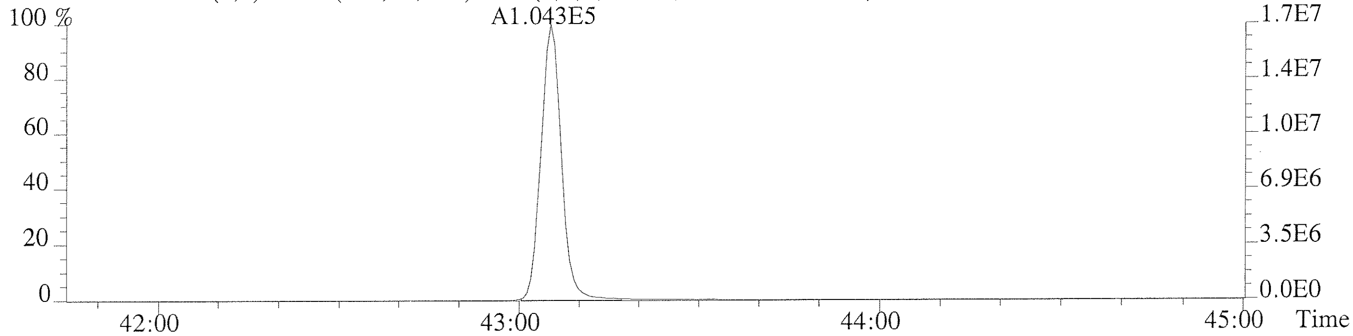


442.9728 F:5 PKD(3,3,3,100.00%,0.0,0.40%,F,F)

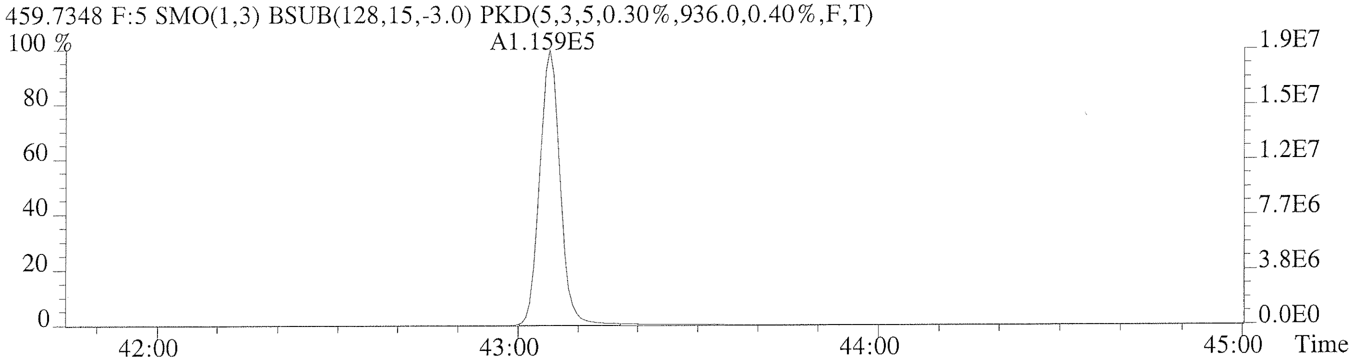


File: 205 #1-300 Acq:23-APR-2012 08:56:23 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:ICAL CS3

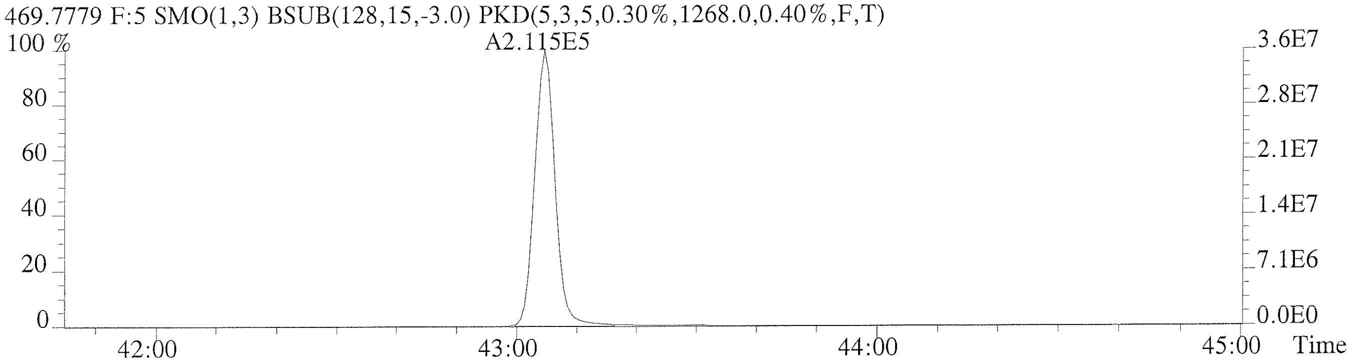
457.7377 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(5,3,5,0.30%,936.0,0.40%,F,T)



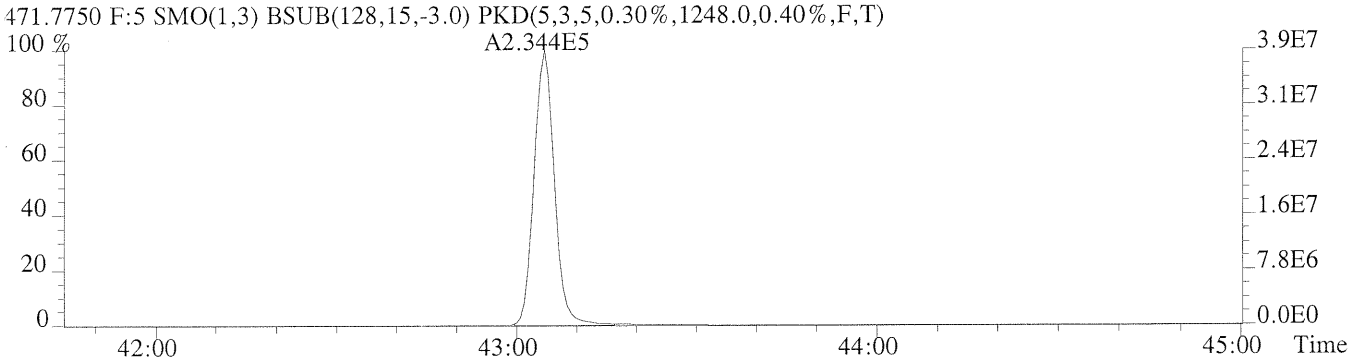
459.7348 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(5,3,5,0.30%,936.0,0.40%,F,T)



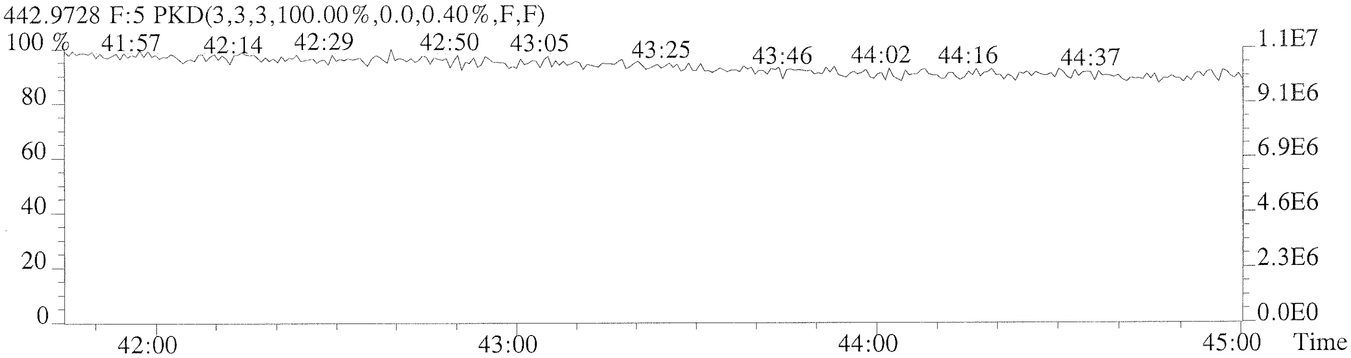
469.7779 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(5,3,5,0.30%,1268.0,0.40%,F,T)



471.7750 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(5,3,5,0.30%,1248.0,0.40%,F,T)



442.9728 F:5 PKD(3,3,3,100.00%,0.0,0.40%,F,F)



Sample Response Summary

CLIENT ID.
ICAL CS4

#5 Filename 7206 #1 Samp: 1 Inj: 1 Acquired: 23-APR-12 09:57:19
Processed: 23-APR-12 10:34:21 LAB. ID: ICAL CS4

Typ	Name	RT-1	Resp 1	Resp 2	Ratio	Meet	Mod?	RRT
Unk	2,3,7,8-TCDF	28:31	5.836e+04	7.424e+04	0.79	yes	no	1.001
Unk	1,2,3,7,8-PeCDF	32:55	4.104e+05	2.623e+05	1.56	yes	no	1.001
Unk	2,3,4,7,8-PeCDF	33:40	3.798e+05	2.419e+05	1.57	yes	no	1.001
Unk	1,2,3,4,7,8-HxCDF	36:29	3.397e+05	2.678e+05	1.27	yes	no	1.000
Unk	1,2,3,6,7,8-HxCDF	36:35	3.516e+05	2.724e+05	1.29	yes	no	1.000
Unk	2,3,4,6,7,8-HxCDF	37:04	3.262e+05	2.593e+05	1.26	yes	no	1.000
Unk	1,2,3,7,8,9-HxCDF	37:46	2.961e+05	2.329e+05	1.27	yes	no	1.000
Unk	1,2,3,4,6,7,8-HpCDF	39:12	2.833e+05	2.724e+05	1.04	yes	no	1.000
Unk	1,2,3,4,7,8,9-HpCDF	40:30	2.306e+05	2.209e+05	1.04	yes	no	1.000
Unk	OCDF	43:15	3.419e+05	3.772e+05	0.91	yes	no	1.004
Unk	2,3,7,8-TCDD	29:22	4.846e+04	6.183e+04	0.78	yes	no	1.001
Unk	1,2,3,7,8-PeCDD	34:01	2.802e+05	1.793e+05	1.56	yes	no	1.001
Unk	1,2,3,4,7,8-HxCDD	37:10	2.401e+05	1.942e+05	1.24	yes	no	1.000
Unk	1,2,3,6,7,8-HxCDD	37:16	2.397e+05	1.928e+05	1.24	yes	no	1.000
Unk	1,2,3,7,8,9-HxCDD	37:33	2.506e+05	2.017e+05	1.24	yes	no	1.008
Unk	1,2,3,4,6,7,8-HpCDD	40:05	2.001e+05	1.921e+05	1.04	yes	no	1.000
Unk	OCDD	43:05	2.867e+05	3.237e+05	0.89	yes	no	1.000
IS	13C-2,3,7,8-TCDF	28:30	1.544e+05	2.007e+05	0.77	yes	no	0.978
IS	13C-1,2,3,7,8-PeCDF	32:54	1.971e+05	1.264e+05	1.56	yes	no	1.129
IS	13C-2,3,4,7,8-PeCDF	33:38	1.937e+05	1.253e+05	1.55	yes	no	1.154
IS	13C-1,2,3,4,7,8-HxCDF	36:28	8.328e+04	1.606e+05	0.52	yes	no	0.972
IS	13C-1,2,3,6,7,8-HxCDF	36:34	9.320e+04	1.785e+05	0.52	yes	no	0.974
IS	13C-2,3,4,6,7,8-HxCDF	37:03	8.624e+04	1.658e+05	0.52	yes	no	0.987
IS	13C-1,2,3,7,8,9-HxCDF	37:45	7.593e+04	1.472e+05	0.52	yes	no	1.006
IS	13C-1,2,3,4,6,7,8-HpCDF	39:11	5.945e+04	1.346e+05	0.44	yes	no	1.044
IS	13C-1,2,3,4,7,8,9-HpCDF	40:29	5.130e+04	1.147e+05	0.45	yes	no	1.079
IS	13C-2,3,7,8-TCDD	29:21	1.205e+05	1.536e+05	0.78	yes	no	1.007
IS	13C-1,2,3,7,8-PeCDD	33:59	1.488e+05	9.527e+04	1.56	yes	no	1.166
IS	13C-1,2,3,4,7,8-HxCDD	37:10	1.197e+05	9.617e+04	1.24	yes	no	0.990
IS	13C-1,2,3,6,7,8-HxCDD	37:15	1.182e+05	9.552e+04	1.24	yes	no	0.992
IS	13C-1,2,3,4,6,7,8-HpCDD	40:05	9.759e+04	9.352e+04	1.04	yes	no	1.068
IS	13C-OCDD	43:05	1.318e+05	1.478e+05	0.89	yes	no	1.148
RS/RT	13C-1,2,3,4-TCDD	29:08	1.232e+05	1.563e+05	0.79	yes	no	*
RS/RT	13C-1,2,3,7,8,9-HxCDD	37:32	1.285e+05	1.044e+05	1.23	yes	no	*
C/Up	37Cl-2,3,7,8-TCDD	29:22	1.158e+05				no	1.008

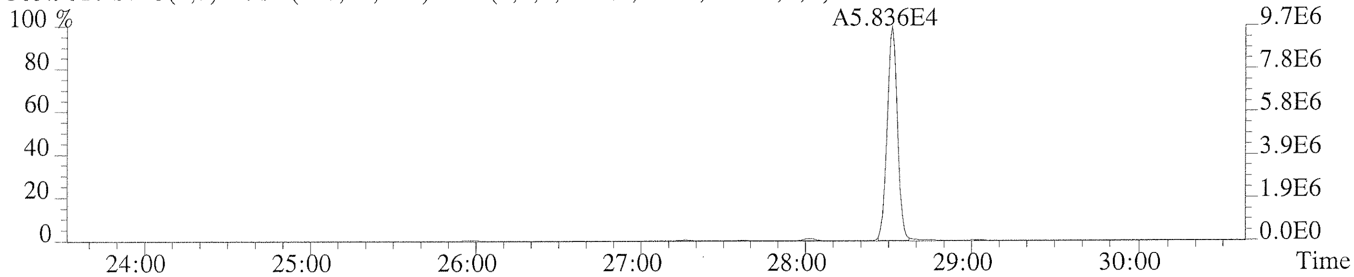
Signal/Noise Height Ratio Summary CLIENT ID.
ICAL CS4

#5 Filename 7206 Samp: 1 Inj: 1 Acquired: 23-APR-12 09:57:19
Processed: 23-APR-12 10:34:211 LAB. ID: ICAL CS4

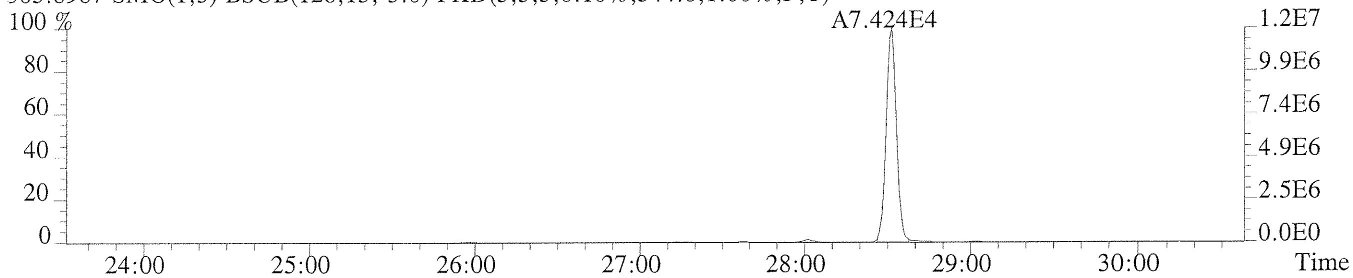
Name	Signal 1	Noise 1	S/N Rat.1	Signal 2	Noise 2	S/N Rat.2
2,3,7,8-TCDF	9.72e+06	2.40e+02	4.1e+04	1.23e+07	5.44e+02	2.3e+04
1,2,3,7,8-PeCDF	7.87e+07	6.32e+02	1.2e+05	5.07e+07	4.52e+02	1.1e+05
2,3,4,7,8-PeCDF	7.64e+07	6.32e+02	1.2e+05	4.82e+07	4.52e+02	1.1e+05
1,2,3,4,7,8-HxCDF	7.32e+07	1.08e+03	6.8e+04	5.80e+07	3.56e+02	1.6e+05
1,2,3,6,7,8-HxCDF	7.60e+07	1.08e+03	7.0e+04	5.88e+07	3.56e+02	1.7e+05
2,3,4,6,7,8-HxCDF	7.25e+07	1.08e+03	6.7e+04	5.83e+07	3.56e+02	1.6e+05
1,2,3,7,8,9-HxCDF	6.34e+07	1.08e+03	5.9e+04	4.98e+07	3.56e+02	1.4e+05
1,2,3,4,6,7,8-HpCDF	6.09e+07	1.05e+04	5.8e+03	5.85e+07	6.03e+03	9.7e+03
1,2,3,4,7,8,9-HpCDF	4.60e+07	1.05e+04	4.4e+03	4.39e+07	6.03e+03	7.3e+03
OCDF	5.65e+07	5.64e+02	1.0e+05	6.35e+07	1.01e+03	6.3e+04
2,3,7,8-TCDD	8.45e+06	3.76e+02	2.2e+04	1.08e+07	4.68e+02	2.3e+04
1,2,3,7,8-PeCDD	5.73e+07	7.32e+02	7.8e+04	3.62e+07	4.48e+02	8.1e+04
1,2,3,4,7,8-HxCDD	5.27e+07	8.48e+02	6.2e+04	4.28e+07	3.88e+02	1.1e+05
1,2,3,6,7,8-HxCDD	5.07e+07	8.48e+02	6.0e+04	4.05e+07	3.88e+02	1.0e+05
1,2,3,7,8,9-HxCDD	5.29e+07	8.48e+02	6.2e+04	4.28e+07	3.88e+02	1.1e+05
1,2,3,4,6,7,8-HpCDD	4.11e+07	1.20e+03	3.4e+04	3.91e+07	1.42e+03	2.8e+04
OCDD	4.91e+07	3.92e+02	1.3e+05	5.52e+07	8.04e+02	6.9e+04
13C-2,3,7,8-TCDF	2.57e+07	1.32e+03	1.9e+04	3.33e+07	7.48e+02	4.5e+04
13C-1,2,3,7,8-PeCDF	3.84e+07	3.32e+02	1.2e+05	2.47e+07	5.32e+02	4.6e+04
13C-2,3,4,7,8-PeCDF	3.82e+07	3.32e+02	1.2e+05	2.50e+07	5.32e+02	4.7e+04
13C-1,2,3,4,7,8-HxCDF	1.79e+07	6.52e+02	2.8e+04	3.47e+07	9.72e+02	3.6e+04
13C-1,2,3,6,7,8-HxCDF	2.02e+07	6.52e+02	3.1e+04	3.88e+07	9.72e+02	4.0e+04
13C-2,3,4,6,7,8-HxCDF	1.90e+07	6.52e+02	2.9e+04	3.68e+07	9.72e+02	3.8e+04
13C-1,2,3,7,8,9-HxCDF	1.64e+07	6.52e+02	2.5e+04	3.17e+07	9.72e+02	3.3e+04
13C-1,2,3,4,6,7,8-HpCDF	1.29e+07	1.42e+03	9.1e+03	2.89e+07	3.17e+03	9.1e+03
13C-1,2,3,4,7,8,9-HpCDF	1.02e+07	1.42e+03	7.2e+03	2.28e+07	3.17e+03	7.2e+03
13C-2,3,7,8-TCDD	2.12e+07	2.30e+03	9.2e+03	2.70e+07	7.64e+02	3.5e+04
13C-1,2,3,7,8-PeCDD	2.97e+07	5.60e+02	5.3e+04	1.91e+07	4.00e+02	4.8e+04
13C-1,2,3,4,7,8-HxCDD	2.63e+07	1.56e+03	1.7e+04	2.12e+07	1.06e+03	2.0e+04
13C-1,2,3,6,7,8-HxCDD	2.49e+07	1.56e+03	1.6e+04	2.01e+07	1.06e+03	1.9e+04
13C-1,2,3,4,6,7,8-HpCDD	1.98e+07	1.36e+03	1.5e+04	1.88e+07	1.11e+03	1.7e+04
13C-OCDD	2.25e+07	7.00e+02	3.2e+04	2.53e+07	8.64e+02	2.9e+04
13C-1,2,3,4-TCDD	2.17e+07	2.30e+03	9.5e+03	2.76e+07	7.64e+02	3.6e+04
13C-1,2,3,7,8,9-HxCDD	2.72e+07	1.56e+03	1.7e+04	2.20e+07	1.06e+03	2.1e+04
37Cl-2,3,7,8-TCDD	2.02e+07	4.84e+02	4.2e+04			

File: ?206 #1-592 Acq:23-APR-2012 09:57:19 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:ICAL CS4

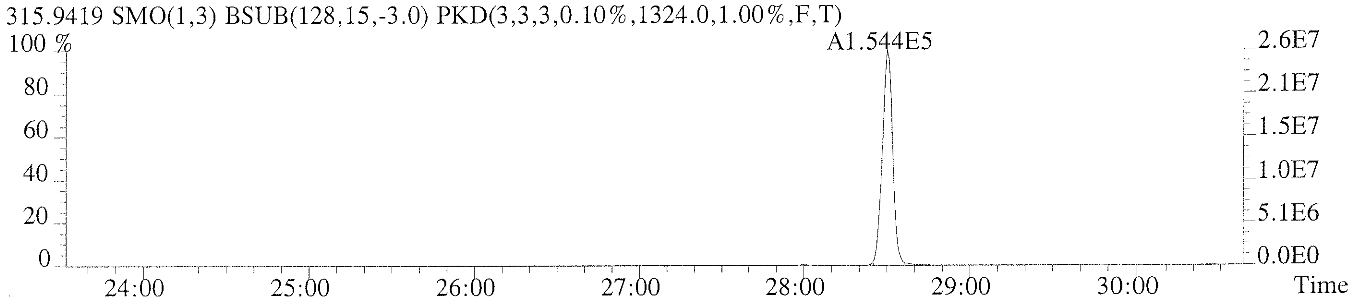
303.9016 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,240.0,1.00%,F,T)



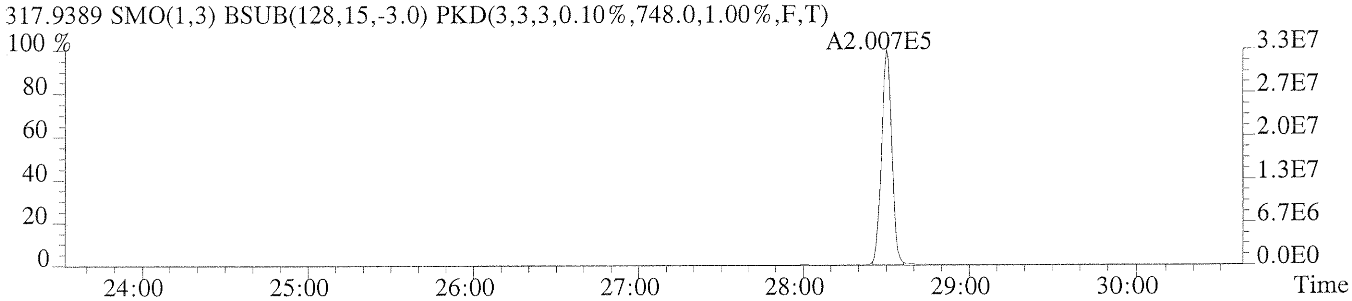
305.8987 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,544.0,1.00%,F,T)



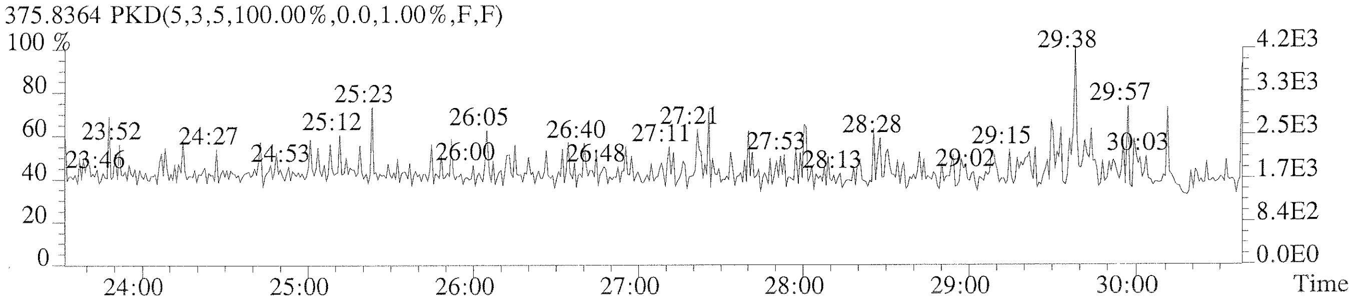
315.9419 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,1324.0,1.00%,F,T)



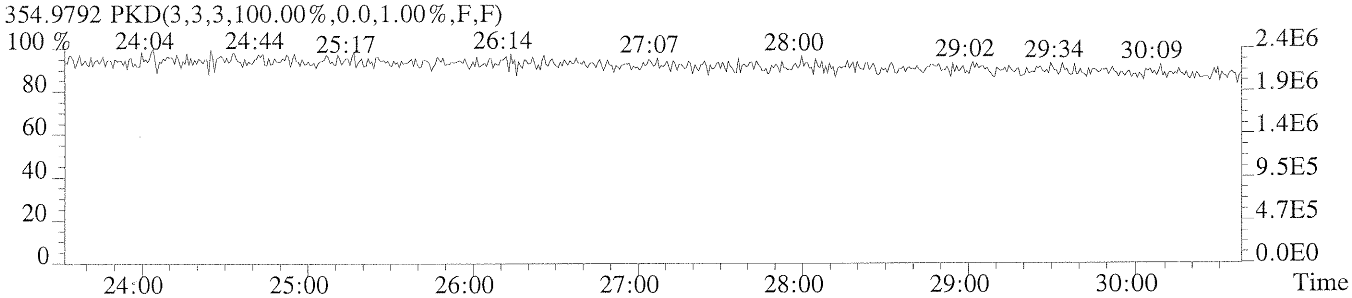
317.9389 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,748.0,1.00%,F,T)



375.8364 PKD(5,3,5,100.00%,0.0,1.00%,F,F)

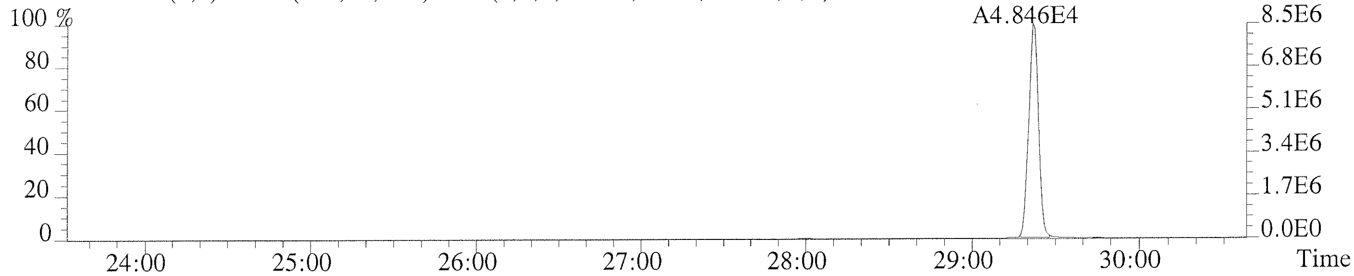


354.9792 PKD(3,3,3,100.00%,0.0,1.00%,F,F)

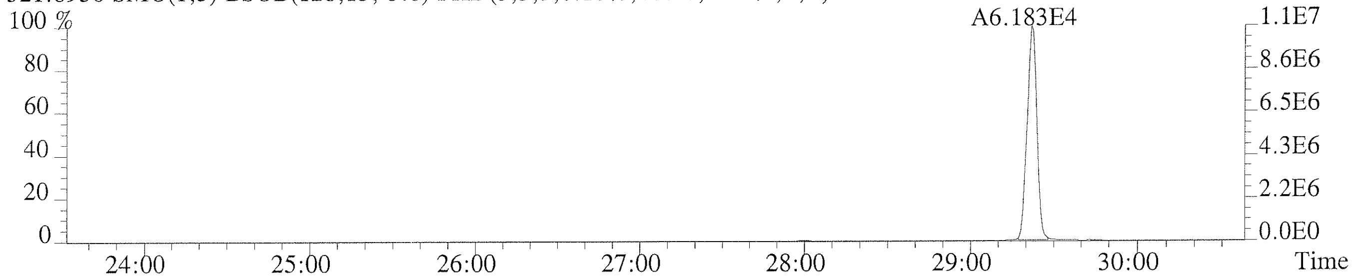


File: . 206 #1-592 Acq:23-APR-2012 09:57:19 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:ICAL CS4

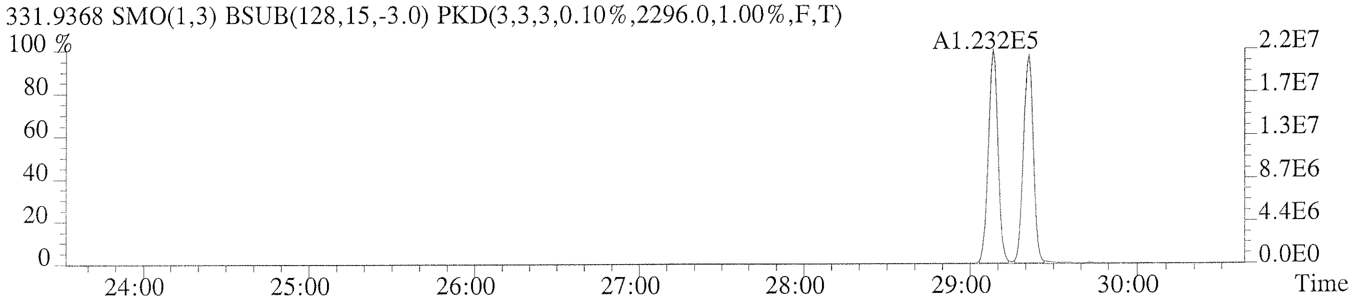
319.8965 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,376.0,1.00%,F,T)



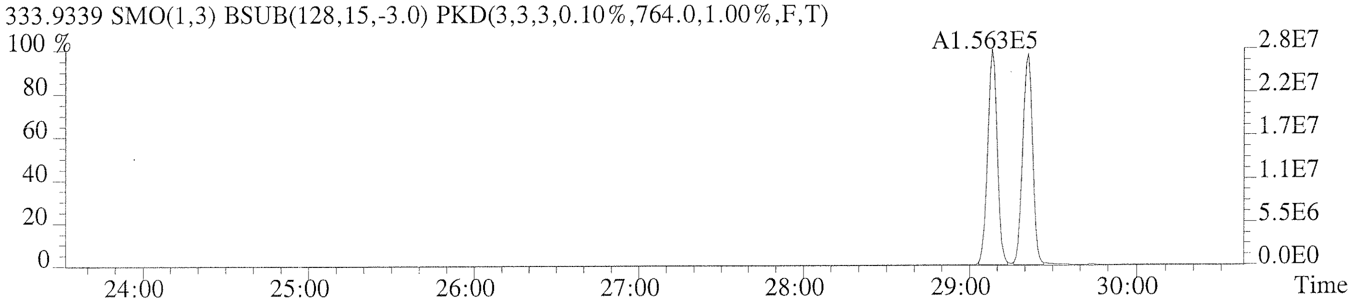
321.8936 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,468.0,1.00%,F,T)



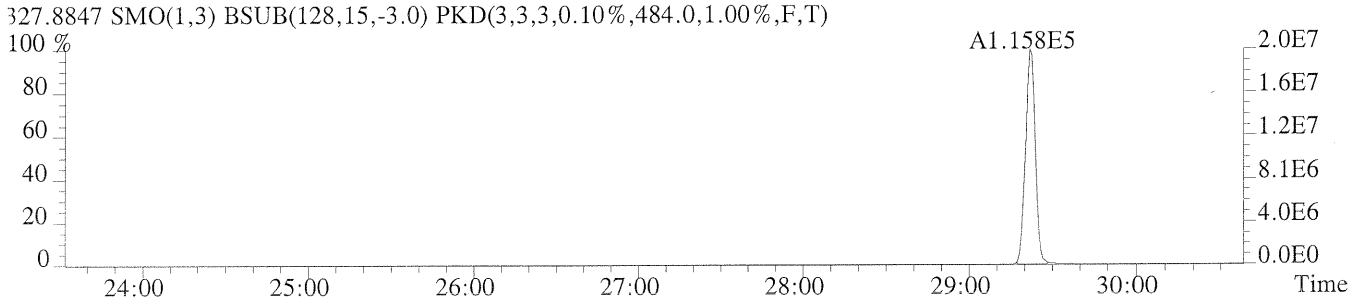
331.9368 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,2296.0,1.00%,F,T)



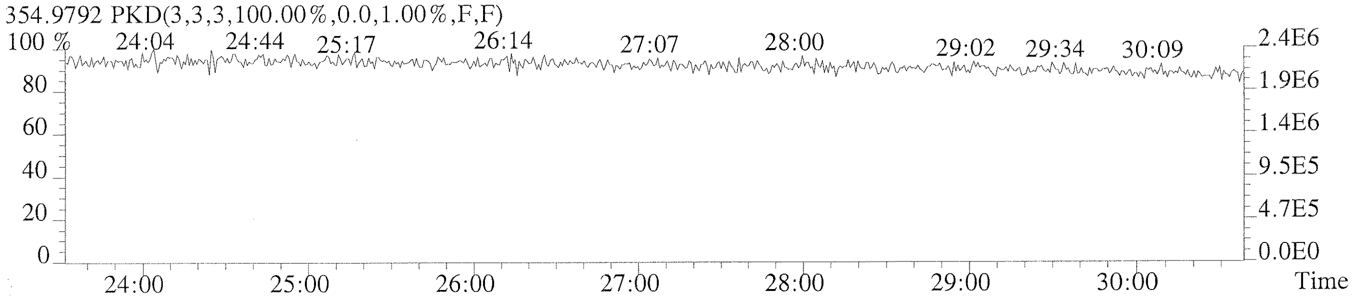
333.9339 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,764.0,1.00%,F,T)



327.8847 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,484.0,1.00%,F,T)

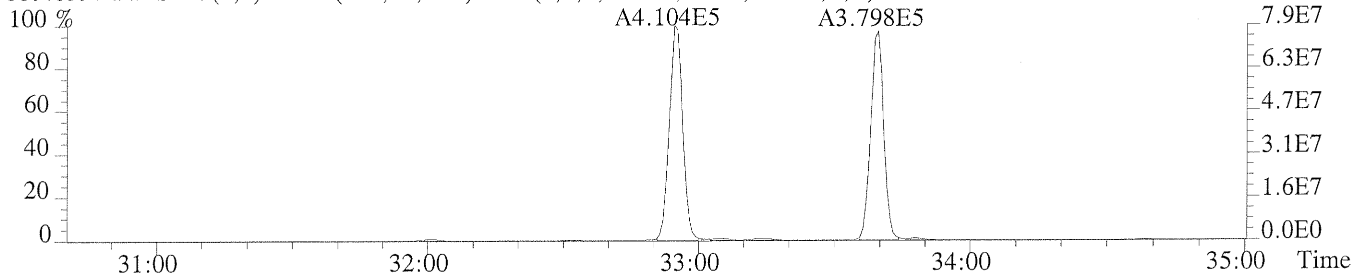


354.9792 PKD(3,3,3,100.00%,0.0,1.00%,F,F)

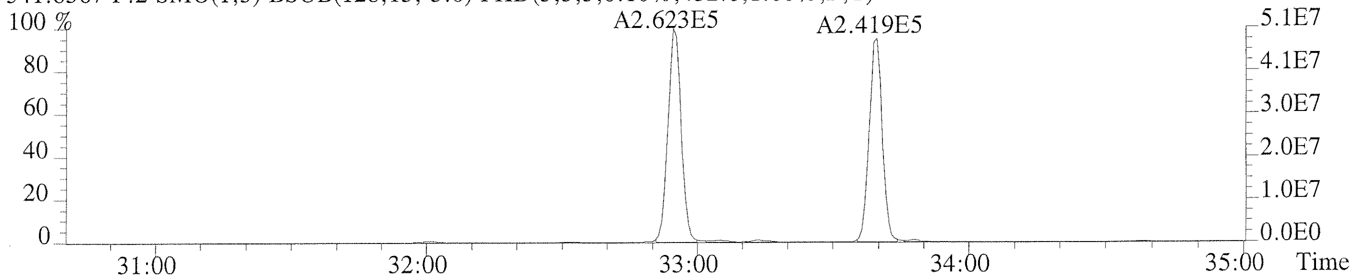


File: 206 #1-394 Acq:23-APR-2012 09:57:19 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:ICAL CS4

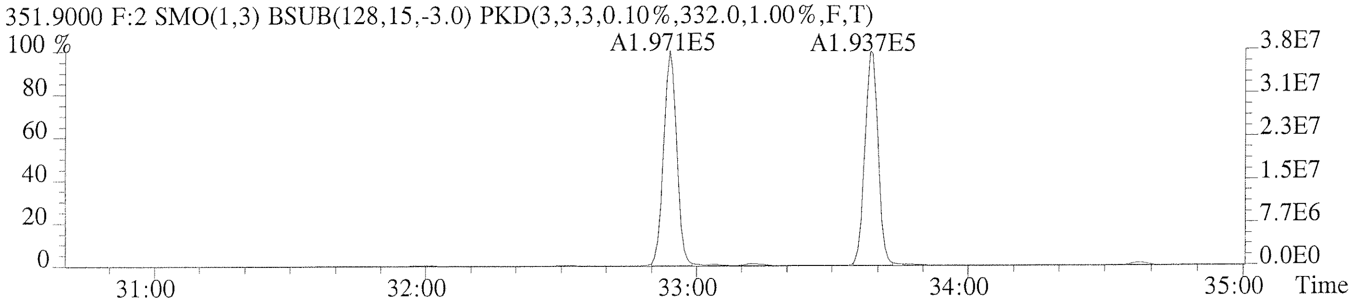
339.8597 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,632.0,1.00%,F,T)



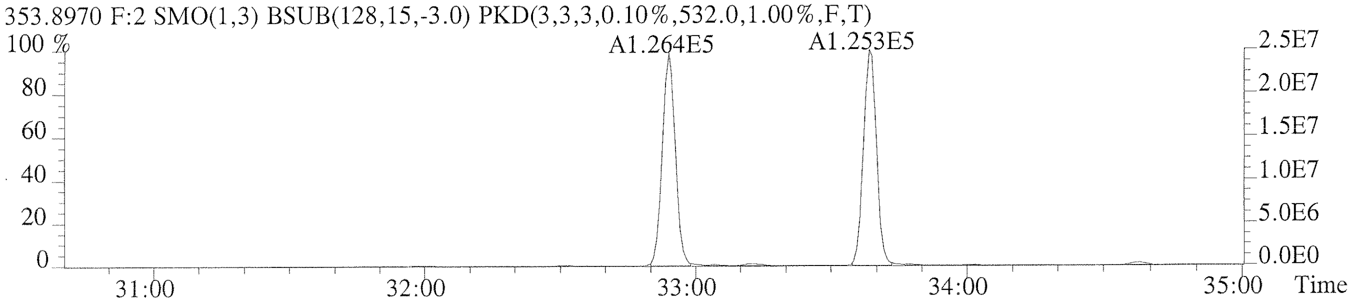
341.8567 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,452.0,1.00%,F,T)



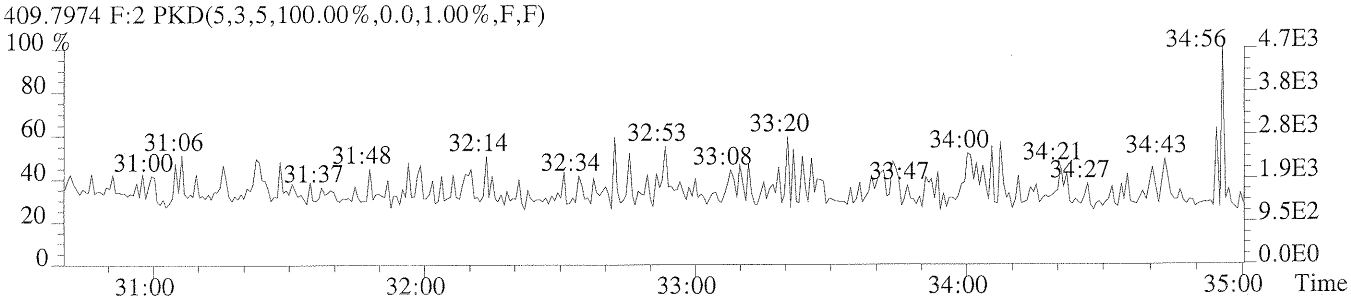
351.9000 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,332.0,1.00%,F,T)



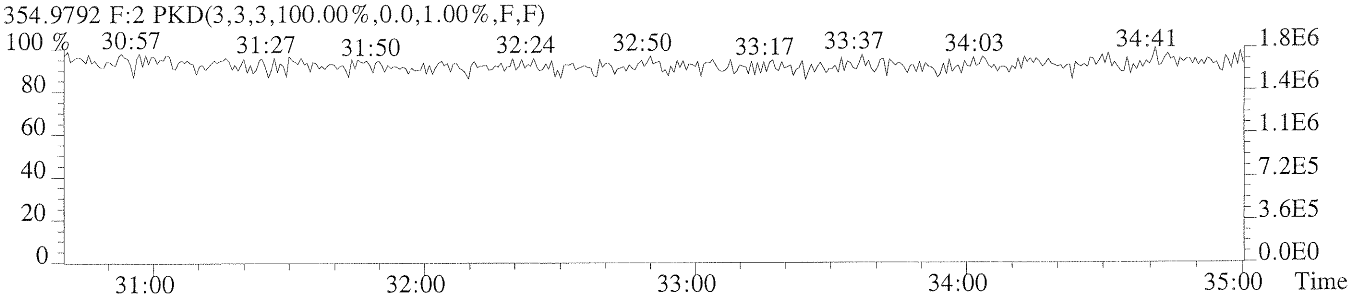
353.8970 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,532.0,1.00%,F,T)



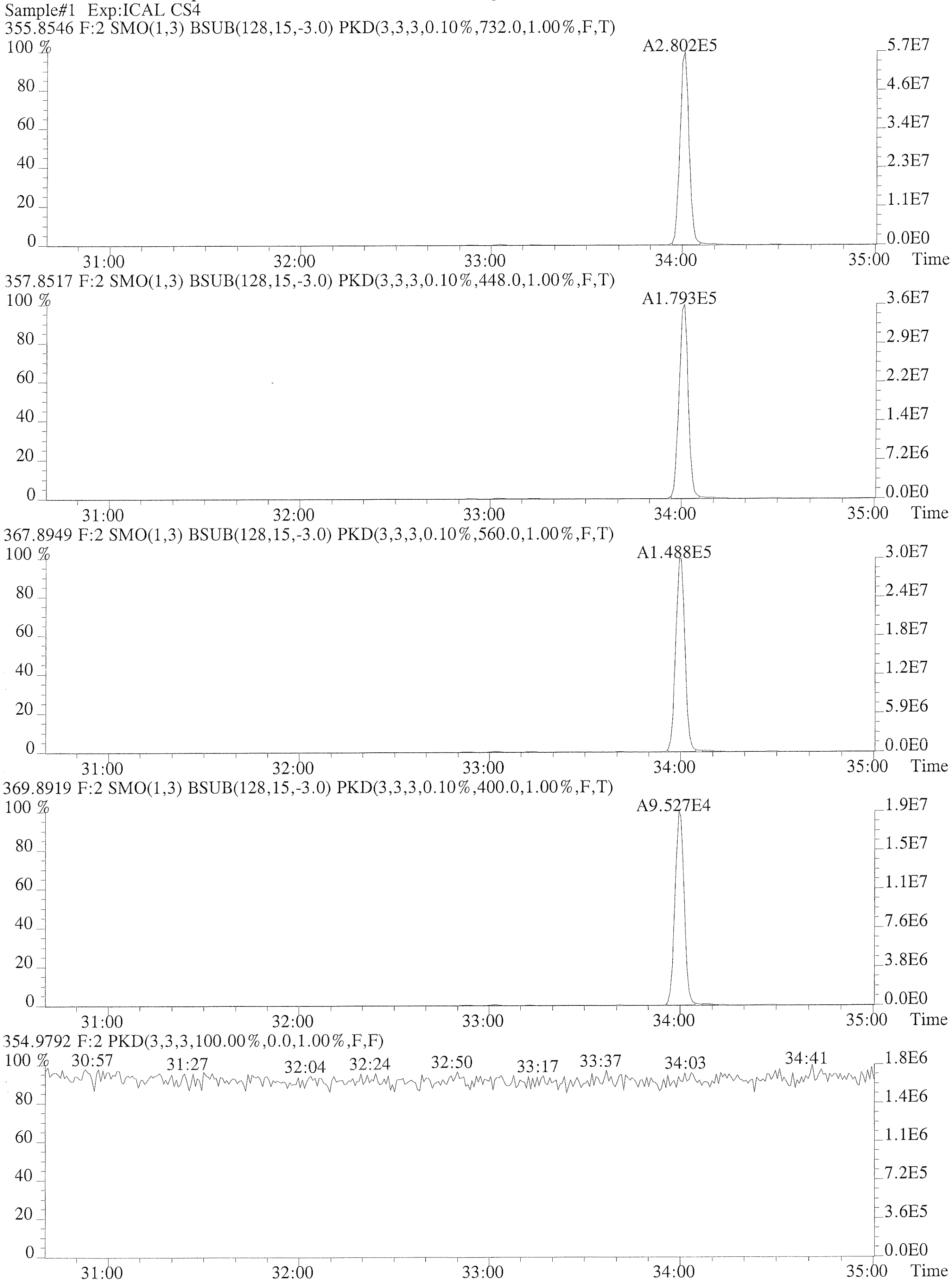
409.7974 F:2 PKD(5,3,5,100.00%,0.0,1.00%,F,F)



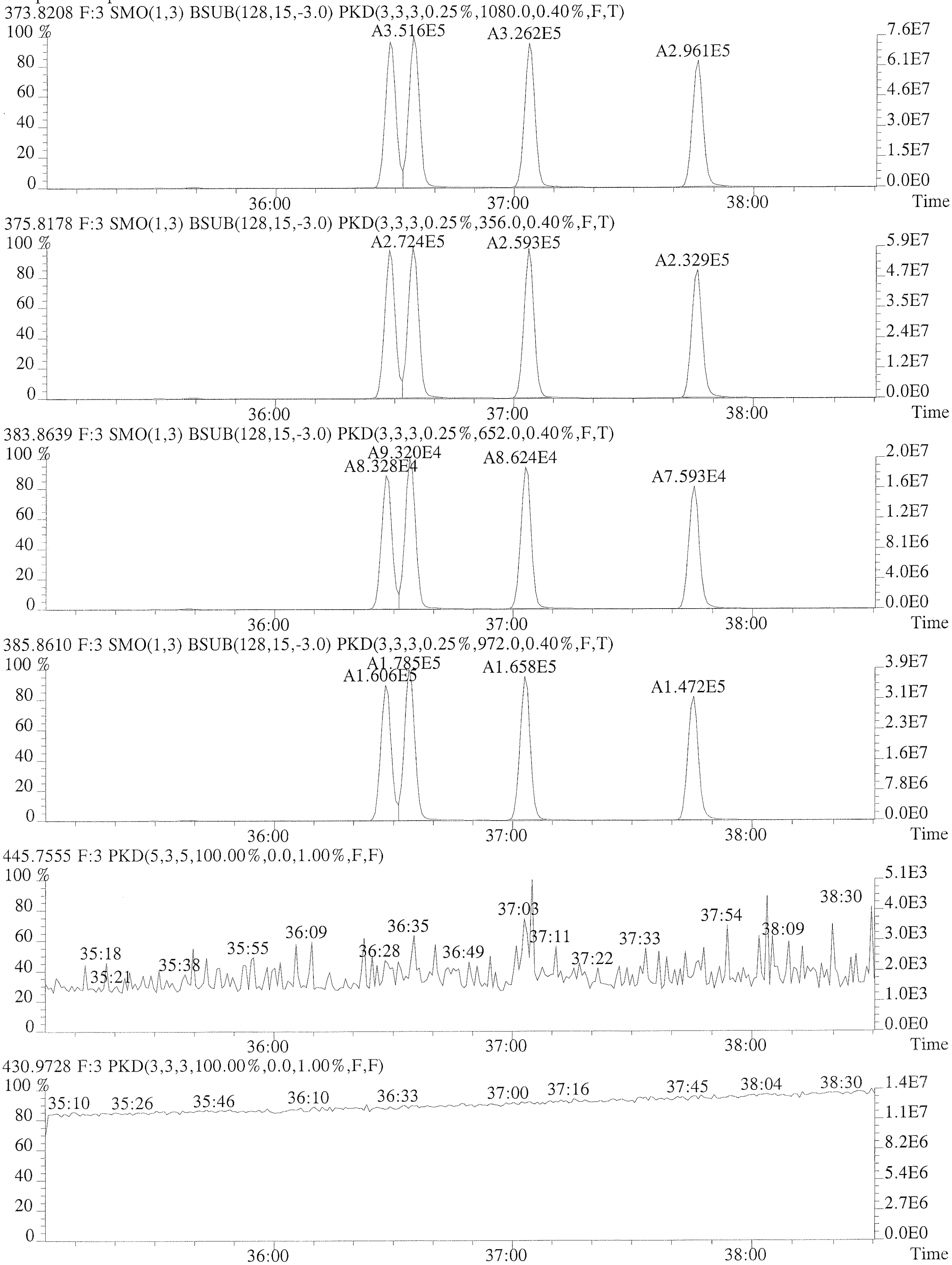
354.9792 F:2 PKD(3,3,3,100.00%,0.0,1.00%,F,F)



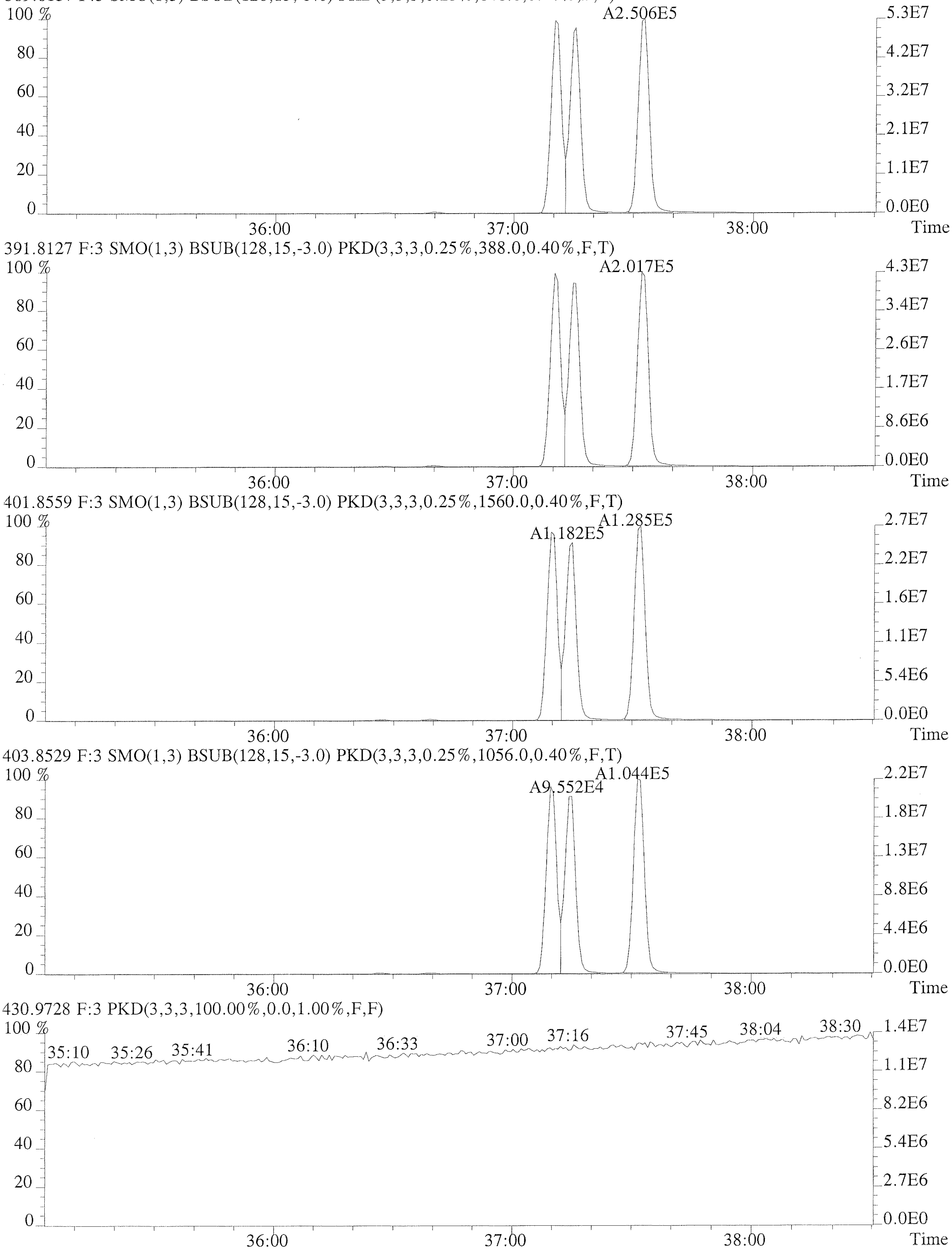
File: 7206 #1-394 Acq:23-APR-2012 09:57:19 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:ICAL CS4



File: 7206 #1-315 Acq:23-APR-2012 09:57:19 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:ICAL CS4

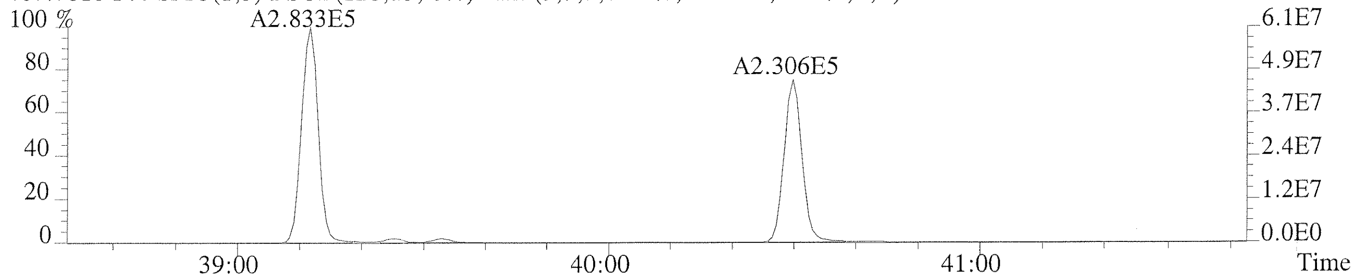


File: 206 #1-315 Acq:23-APR-2012 09:57:19 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:ICAL CS4
389.8157 F:3 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,848.0,0.40%,F,T)

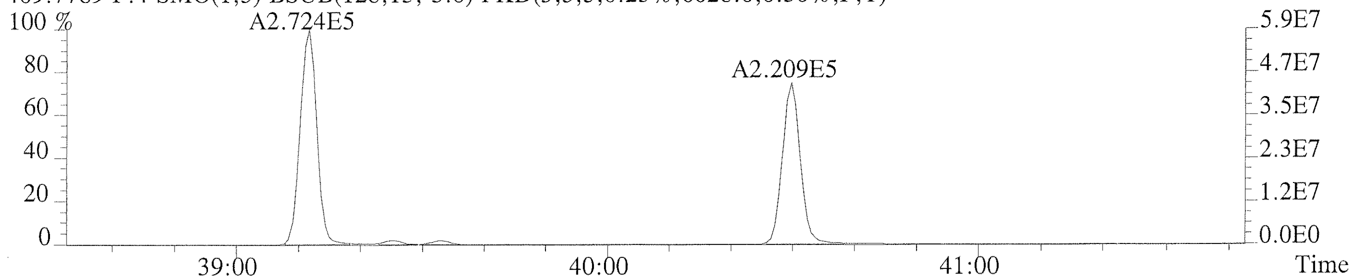


File: 206 #1-288 Acq:23-APR-2012 09:57:19 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:ICAL CS4

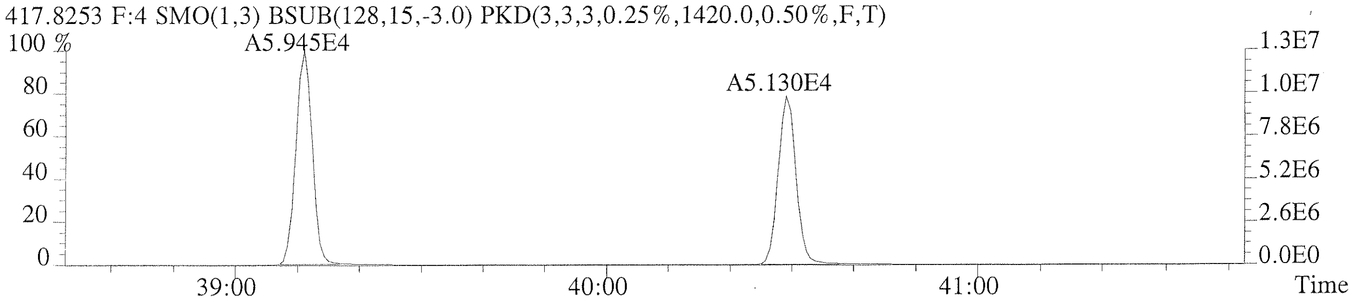
407.7818 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,10468.0,0.50%,F,T)



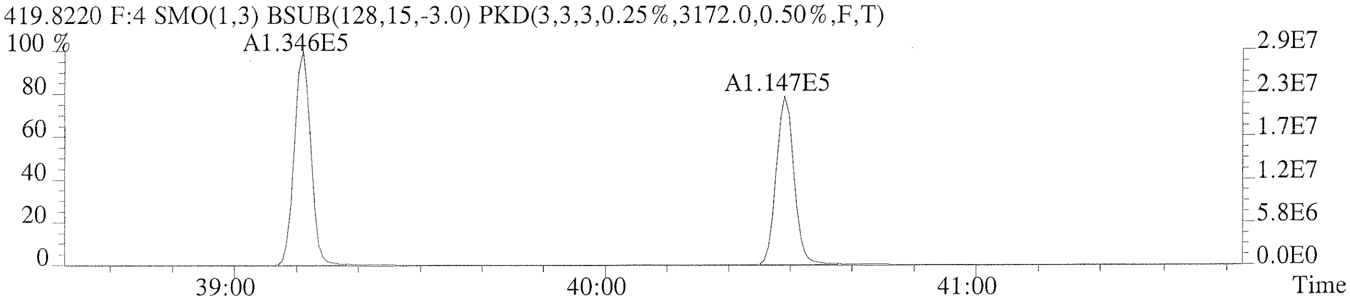
409.7789 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,6028.0,0.50%,F,T)



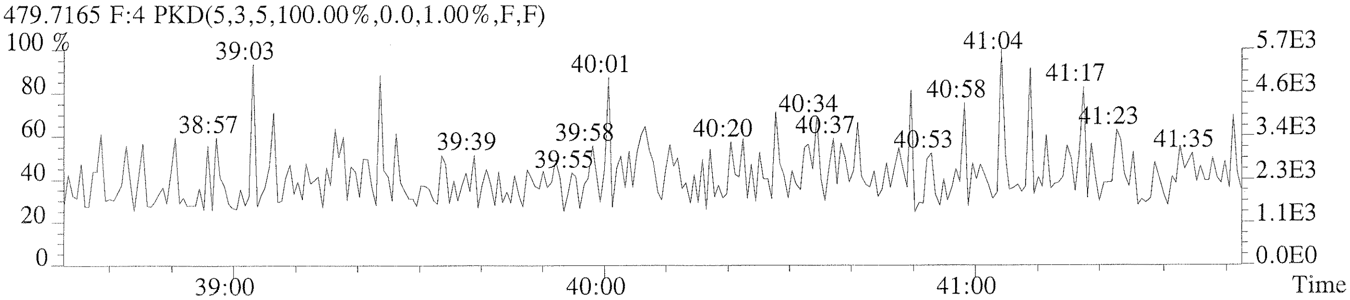
417.8253 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,1420.0,0.50%,F,T)



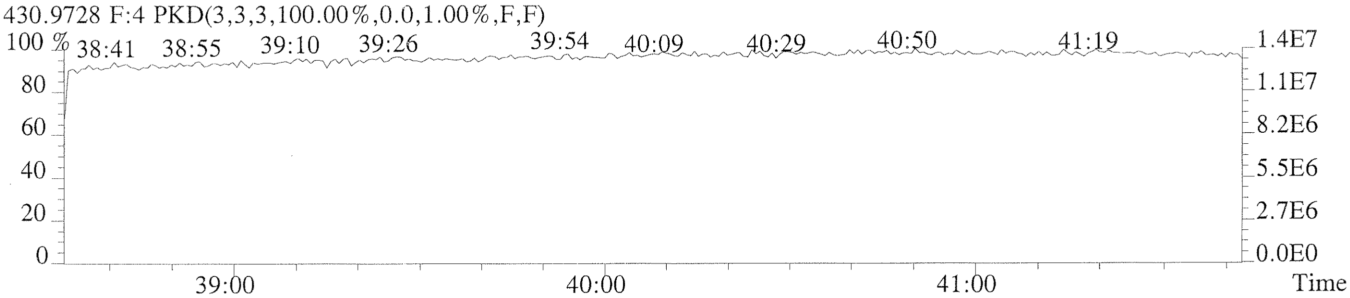
419.8220 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,3172.0,0.50%,F,T)



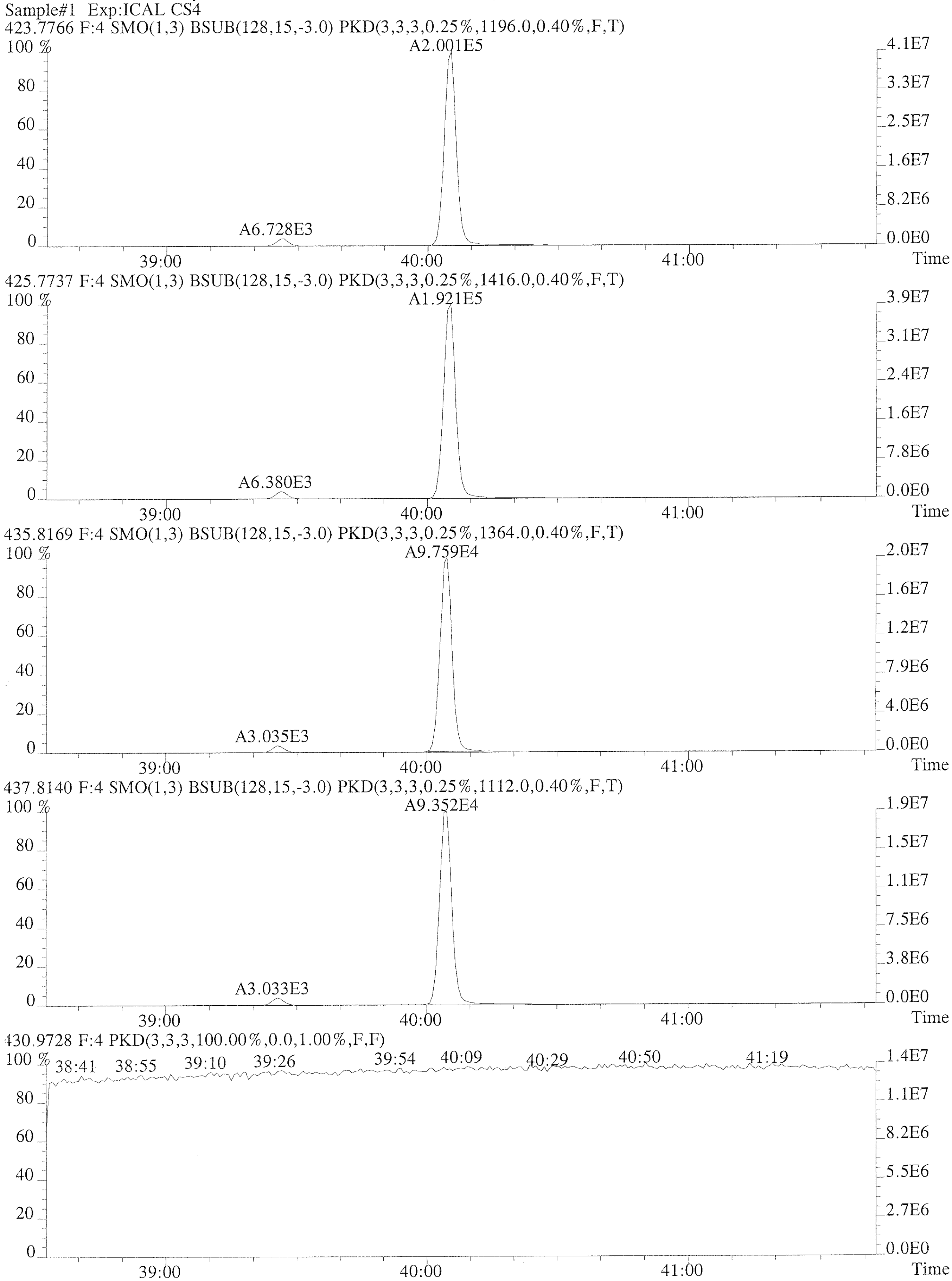
479.7165 F:4 PKD(5,3,5,100.00%,0.0,1.00%,F,F)



430.9728 F:4 PKD(3,3,3,100.00%,0.0,1.00%,F,F)

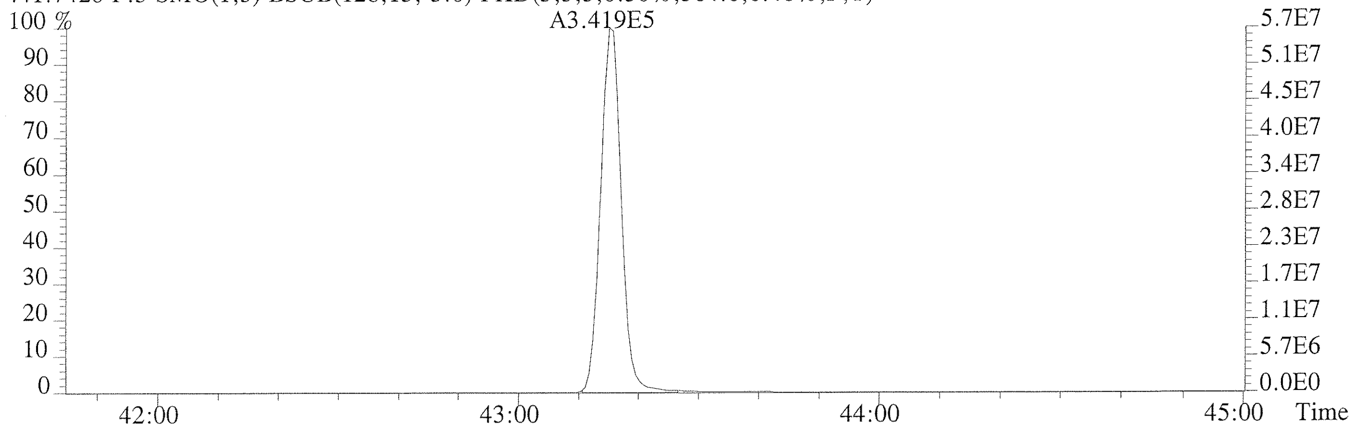


File: 7206 #1-288 Acq:23-APR-2012 09:57:19 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:ICAL CS4

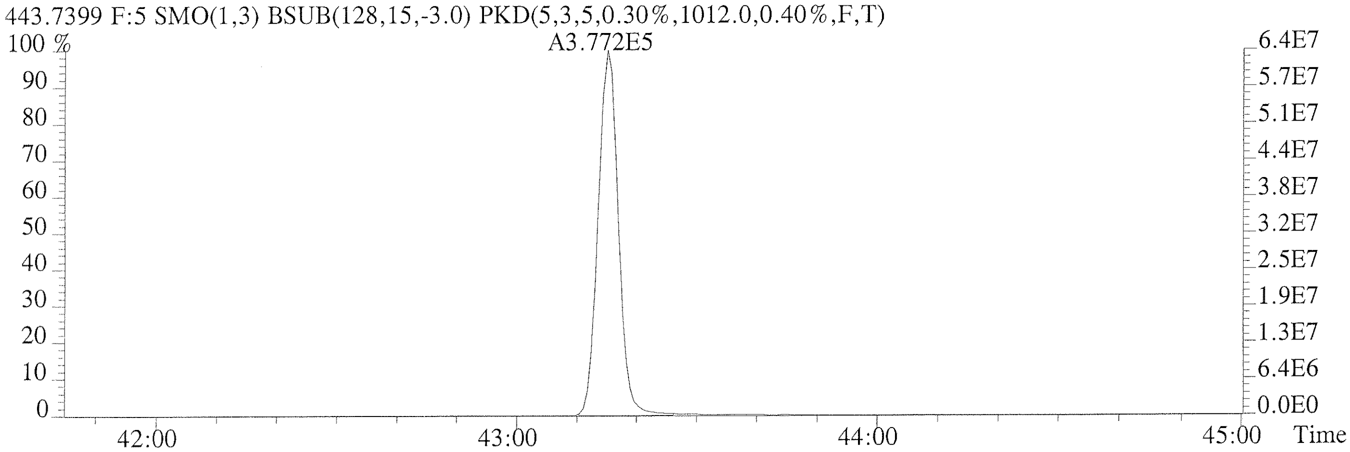


File: 7206 #1-300 Acq:23-APR-2012 09:57:19 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:ICAL CS4

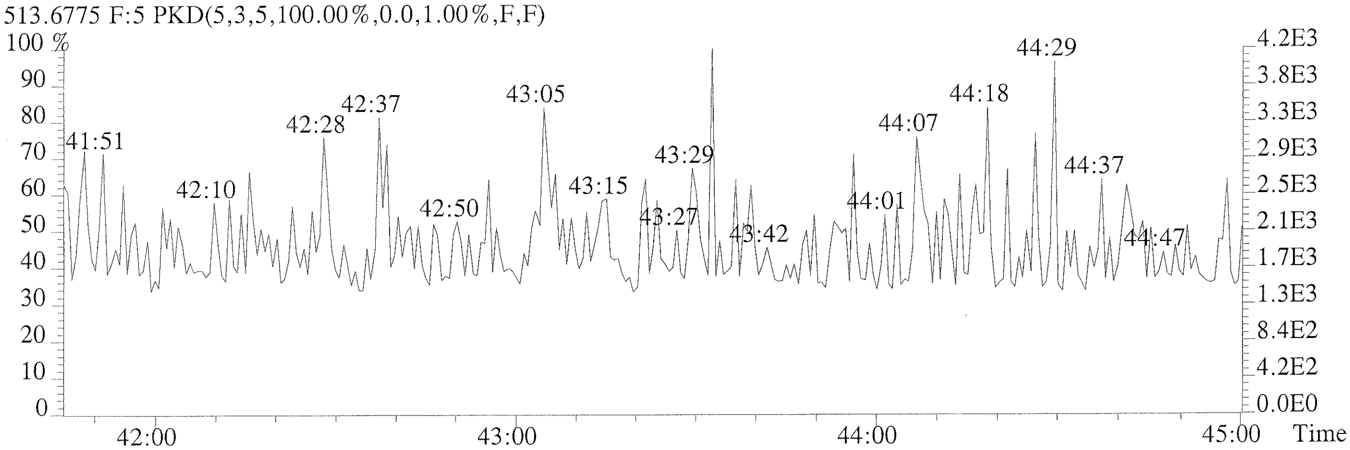
441.7428 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(5,3,5,0.30%,564.0,0.40%,F,T)



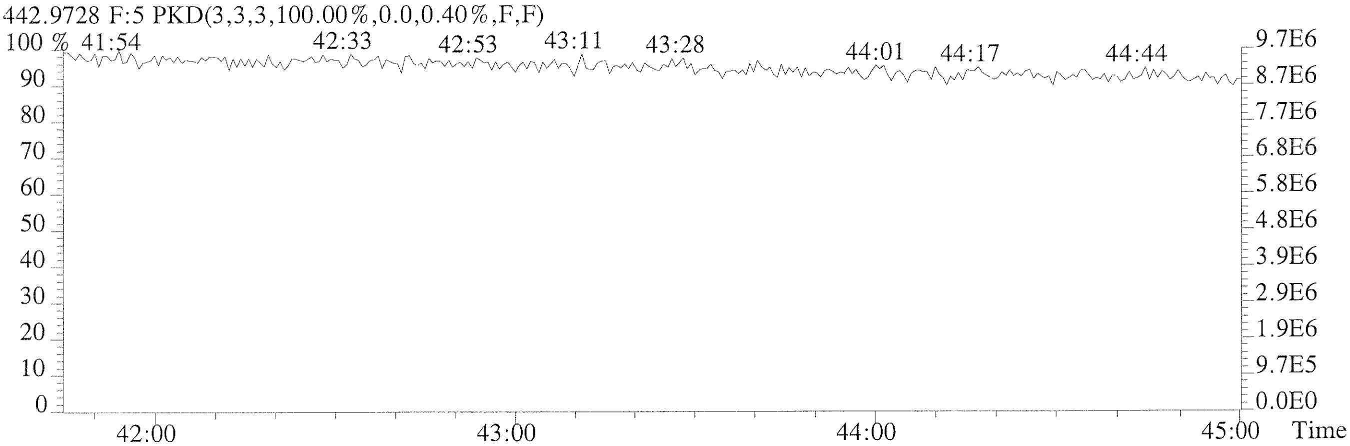
443.7399 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(5,3,5,0.30%,1012.0,0.40%,F,T)



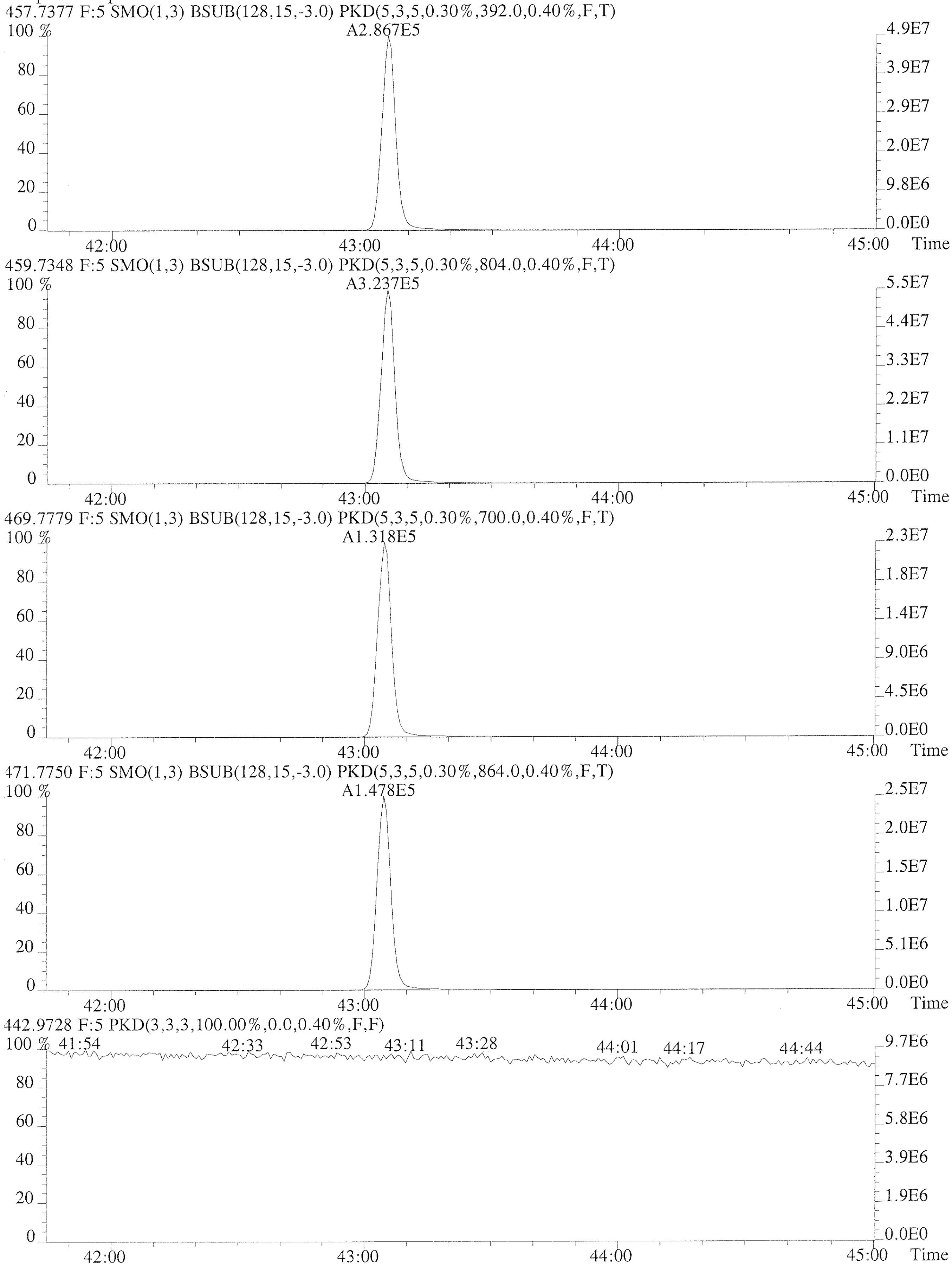
513.6775 F:5 PKD(5,3,5,100.00%,0.0,1.00%,F,F)



442.9728 F:5 PKD(3,3,3,100.00%,0.0,0.40%,F,F)



File: 7206 #1-300 Acq:23-APR-2012 09:57:19 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:ICAL CS4



Sample Response Summary CLIENT ID.
ICAL CS5

#6 - Filename 7207 #1 Samp: 1 Inj: 1 Acquired: 23-APR-12 10:51:12
Processed: 23-APR-12 11:24:35 LAB. ID: ICAL CS5

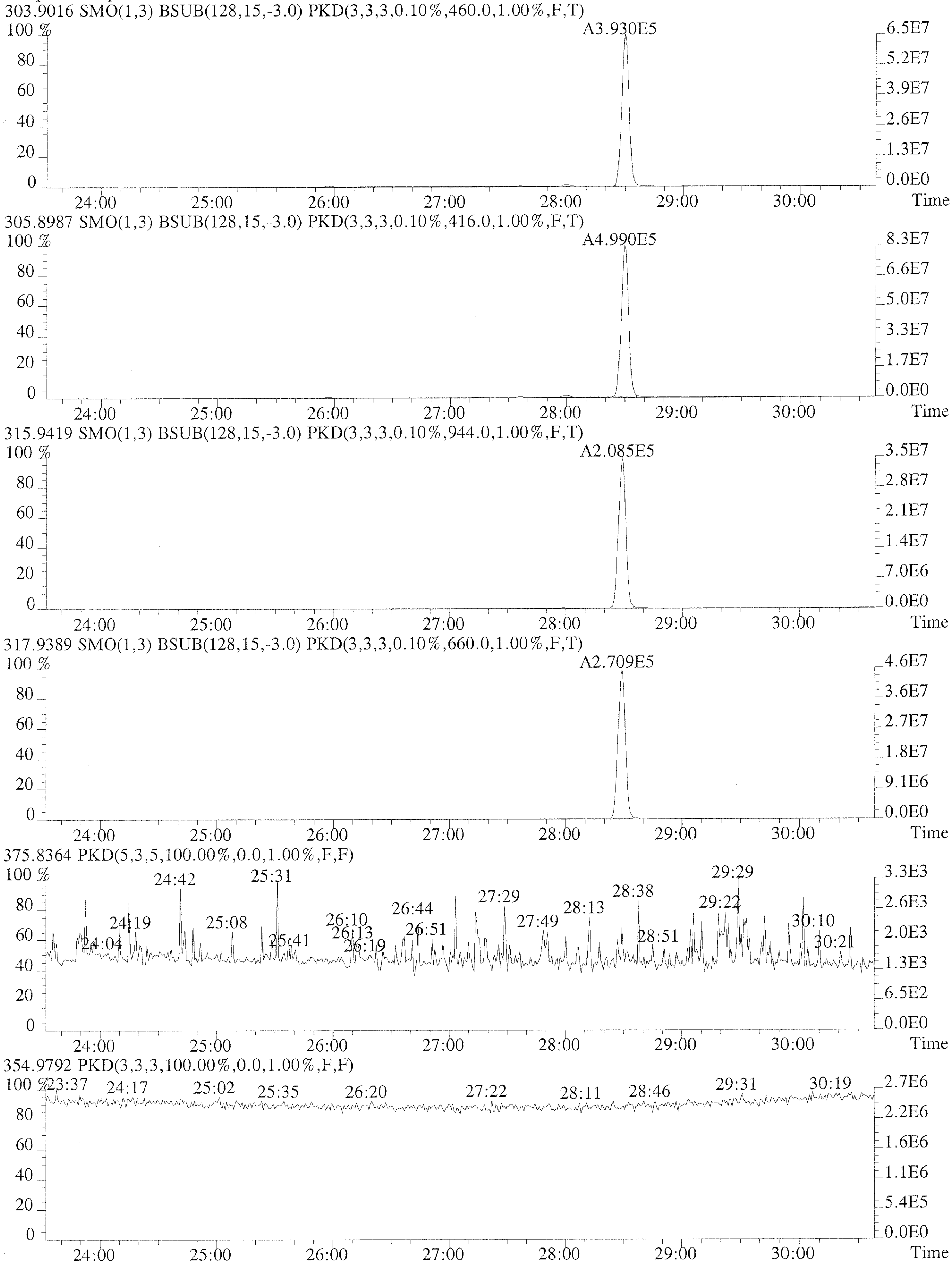
Typ	Name	RT-1	Resp 1	Resp 2	Ratio	Meet	Mod?	RRT
Unk	2,3,7,8-TCDF	28:30	3.930e+05	4.990e+05	0.79	yes	no	1.001
Unk	1,2,3,7,8-PeCDF	32:54	2.741e+06	1.745e+06	1.57	yes	no	1.001
Unk	2,3,4,7,8-PeCDF	33:38	2.502e+06	1.601e+06	1.56	yes	no	1.000
Unk	1,2,3,4,7,8-HxCDF	36:28	2.007e+06	1.590e+06	1.26	yes	no	1.000
Unk	1,2,3,6,7,8-HxCDF	36:34	2.108e+06	1.649e+06	1.28	yes	no	1.000
Unk	2,3,4,6,7,8-HxCDF	37:03	1.919e+06	1.498e+06	1.28	yes	no	1.000
Unk	1,2,3,7,8,9-HxCDF	37:45	1.767e+06	1.396e+06	1.27	yes	no	1.000
Unk	1,2,3,4,6,7,8-HpCDF	39:11	1.740e+06	1.667e+06	1.04	yes	no	1.000
Unk	1,2,3,4,7,8,9-HpCDF	40:29	1.411e+06	1.352e+06	1.04	yes	no	1.000
Unk	OCDF	43:15	2.188e+06	2.412e+06	0.91	yes	no	1.004
Unk	2,3,7,8-TCDD	29:21	3.274e+05	4.230e+05	0.77	yes	no	1.001
Unk	1,2,3,7,8-PeCDD	33:59	1.813e+06	1.168e+06	1.55	yes	no	1.000
Unk	1,2,3,4,7,8-HxCDD	37:10	1.412e+06	1.164e+06	1.21	yes	no	1.000
Unk	1,2,3,6,7,8-HxCDD	37:15	1.430e+06	1.151e+06	1.24	yes	no	1.000
Unk	1,2,3,7,8,9-HxCDD	37:32	1.490e+06	1.214e+06	1.23	yes	no	1.008
Unk	1,2,3,4,6,7,8-HpCDD	40:05	1.208e+06	1.158e+06	1.04	yes	no	1.000
Unk	OCDD	43:05	1.808e+06	2.040e+06	0.89	yes	no	1.000
IS	13C-2,3,7,8-TCDF	28:29	2.085e+05	2.709e+05	0.77	yes	no	0.978
IS	13C-1,2,3,7,8-PeCDF	32:53	2.638e+05	1.693e+05	1.56	yes	no	1.129
IS	13C-2,3,4,7,8-PeCDF	33:38	2.567e+05	1.636e+05	1.57	yes	no	1.155
IS	13C-1,2,3,4,7,8-HxCDF	36:27	1.012e+05	1.955e+05	0.52	yes	no	0.972
IS	13C-1,2,3,6,7,8-HxCDF	36:33	1.132e+05	2.172e+05	0.52	yes	no	0.974
IS	13C-2,3,4,6,7,8-HxCDF	37:02	1.040e+05	2.003e+05	0.52	yes	no	0.987
IS	13C-1,2,3,7,8,9-HxCDF	37:45	9.336e+04	1.802e+05	0.52	yes	no	1.006
IS	13C-1,2,3,4,6,7,8-HpCDF	39:10	7.444e+04	1.668e+05	0.45	yes	no	1.044
IS	13C-1,2,3,4,7,8,9-HpCDF	40:28	6.411e+04	1.424e+05	0.45	yes	no	1.079
IS	13C-2,3,7,8-TCDD	29:20	1.649e+05	2.082e+05	0.79	yes	no	1.007
IS	13C-1,2,3,7,8-PeCDD	33:59	1.929e+05	1.237e+05	1.56	yes	no	1.167
IS	13C-1,2,3,4,7,8-HxCDD	37:10	1.422e+05	1.146e+05	1.24	yes	no	0.991
IS	13C-1,2,3,6,7,8-HxCDD	37:14	1.434e+05	1.149e+05	1.25	yes	no	0.992
IS	13C-1,2,3,4,6,7,8-HpCDD	40:04	1.189e+05	1.130e+05	1.05	yes	no	1.068
IS	13C-OCDD	43:04	1.640e+05	1.842e+05	0.89	yes	no	1.148
RS/RT	13C-1,2,3,4-TCDD	29:07	1.613e+05	2.038e+05	0.79	yes	no	*
RS/RT	13C-1,2,3,7,8,9-HxCDD	37:31	1.563e+05	1.262e+05	1.24	yes	no	*
C/Up	37Cl-2,3,7,8-TCDD	29:21	7.841e+05				no	1.008

Signal/Noise Height Ratio Summary CLIENT ID.
ICAL CS5

#6 Filename 7207 Samp: 1 Inj: 1 Acquired: 23-APR-12 10:51:12
essed: 23-APR-12 11:24:351 LAB. ID: ICAL CS5

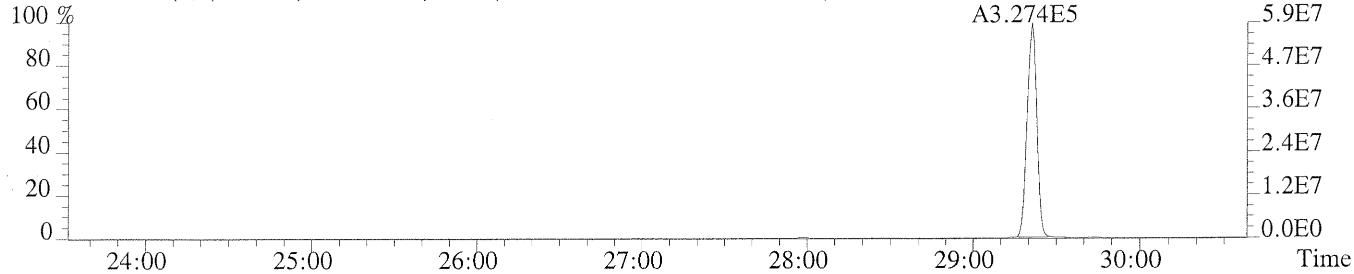
Name	Signal 1	Noise 1	S/N Rat.1	Signal 2	Noise 2	S/N Rat.2
2,3,7,8-TCDF	6.49e+07	4.60e+02	1.4e+05	8.26e+07	4.16e+02	2.0e+05
1,2,3,7,8-PeCDF	5.41e+08	6.48e+02	8.4e+05	3.47e+08	8.76e+02	4.0e+05
2,3,4,7,8-PeCDF	5.03e+08	6.48e+02	7.8e+05	3.24e+08	8.76e+02	3.7e+05
1,2,3,4,7,8-HxCDF	4.35e+08	2.20e+03	2.0e+05	3.48e+08	1.46e+03	2.4e+05
1,2,3,6,7,8-HxCDF	4.64e+08	2.20e+03	2.1e+05	3.62e+08	1.46e+03	2.5e+05
2,3,4,6,7,8-HxCDF	4.23e+08	2.20e+03	1.9e+05	3.30e+08	1.46e+03	2.3e+05
1,2,3,7,8,9-HxCDF	3.86e+08	2.20e+03	1.8e+05	3.04e+08	1.46e+03	2.1e+05
1,2,3,4,6,7,8-HpCDF	3.79e+08	4.69e+04	8.1e+03	3.61e+08	3.57e+04	1.0e+04
1,2,3,4,7,8,9-HpCDF	2.85e+08	4.69e+04	6.1e+03	2.72e+08	3.57e+04	7.6e+03
OCDF	3.74e+08	5.20e+02	7.2e+05	4.11e+08	5.12e+02	8.0e+05
2,3,7,8-TCDD	5.92e+07	5.16e+02	1.1e+05	7.61e+07	5.60e+02	1.4e+05
1,2,3,7,8-PeCDD	3.65e+08	7.52e+02	4.9e+05	2.37e+08	3.00e+02	7.9e+05
1,2,3,4,7,8-HxCDD	3.14e+08	8.88e+02	3.5e+05	2.61e+08	9.12e+02	2.9e+05
1,2,3,6,7,8-HxCDD	3.07e+08	8.88e+02	3.5e+05	2.48e+08	9.12e+02	2.7e+05
1,2,3,7,8,9-HxCDD	3.16e+08	8.88e+02	3.6e+05	2.61e+08	9.12e+02	2.9e+05
1,2,3,4,6,7,8-HpCDD	2.47e+08	4.56e+02	5.4e+05	2.35e+08	4.32e+03	5.4e+04
OCDD	3.07e+08	3.40e+02	9.0e+05	3.49e+08	5.40e+02	6.5e+05
13C-2,3,7,8-TCDF	3.51e+07	9.44e+02	3.7e+04	4.55e+07	6.60e+02	6.9e+04
13C-1,2,3,7,8-PeCDF	5.17e+07	3.40e+02	1.5e+05	3.32e+07	5.32e+02	6.2e+04
13C-2,3,4,7,8-PeCDF	5.17e+07	3.40e+02	1.5e+05	3.32e+07	5.32e+02	6.2e+04
13C-1,2,3,4,7,8-HxCDF	2.18e+07	5.32e+02	4.1e+04	4.21e+07	7.00e+02	6.0e+04
13C-1,2,3,6,7,8-HxCDF	2.47e+07	5.32e+02	4.6e+04	4.75e+07	7.00e+02	6.8e+04
13C-2,3,4,6,7,8-HxCDF	2.27e+07	5.32e+02	4.3e+04	4.40e+07	7.00e+02	6.3e+04
13C-1,2,3,7,8,9-HxCDF	2.04e+07	5.32e+02	3.8e+04	3.94e+07	7.00e+02	5.6e+04
13C-1,2,3,4,6,7,8-HpCDF	1.65e+07	3.01e+03	5.5e+03	3.64e+07	6.16e+03	5.9e+03
13C-1,2,3,4,7,8,9-HpCDF	1.28e+07	3.01e+03	4.3e+03	2.86e+07	6.16e+03	4.7e+03
13C-2,3,7,8-TCDD	2.89e+07	2.44e+03	1.2e+04	3.64e+07	1.04e+03	3.5e+04
13C-1,2,3,7,8-PeCDD	3.93e+07	5.44e+02	7.2e+04	2.54e+07	4.36e+02	5.8e+04
13C-1,2,3,4,7,8-HxCDD	3.14e+07	2.42e+03	1.3e+04	2.54e+07	1.36e+03	1.9e+04
13C-1,2,3,6,7,8-HxCDD	3.08e+07	2.42e+03	1.3e+04	2.46e+07	1.36e+03	1.8e+04
13C-1,2,3,4,6,7,8-HpCDD	2.42e+07	1.38e+03	1.8e+04	2.28e+07	6.72e+02	3.4e+04
13C-OCDD	2.78e+07	6.68e+02	4.2e+04	3.11e+07	9.00e+02	3.5e+04
13C-1,2,3,4-TCDD	2.82e+07	2.44e+03	1.2e+04	3.57e+07	1.04e+03	3.4e+04
13C-1,2,3,7,8,9-HxCDD	3.33e+07	2.42e+03	1.4e+04	2.67e+07	1.36e+03	2.0e+04
37Cl-2,3,7,8-TCDD	1.41e+08	7.60e+02	1.9e+05			

File: 207 #1-592 Acq:23-APR-2012 10:51:12 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:ICAL CS5

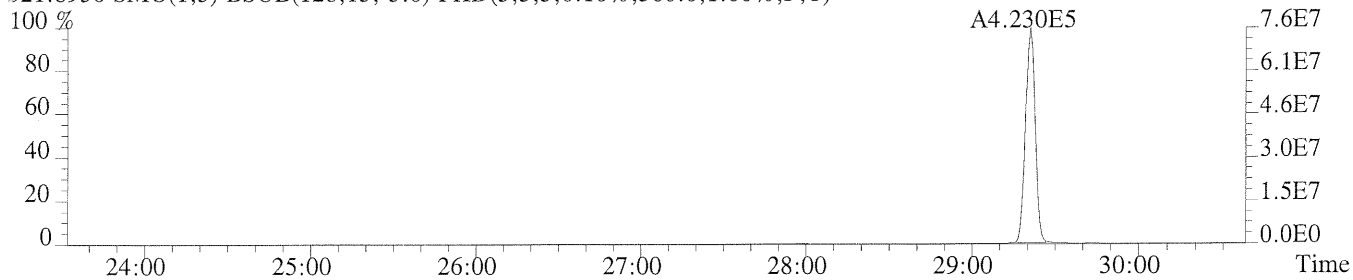


File: 207 #1-592 Acq:23-APR-2012 10:51:12 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:ICAL CS5

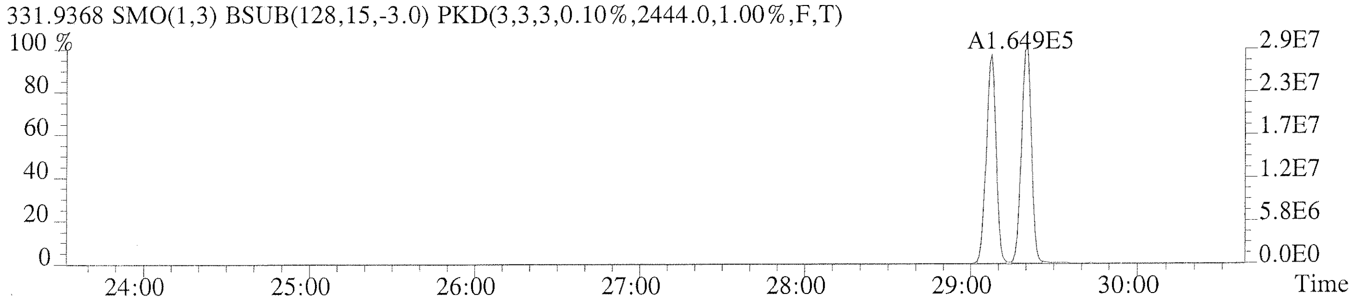
319.8965 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,516.0,1.00%,F,T)



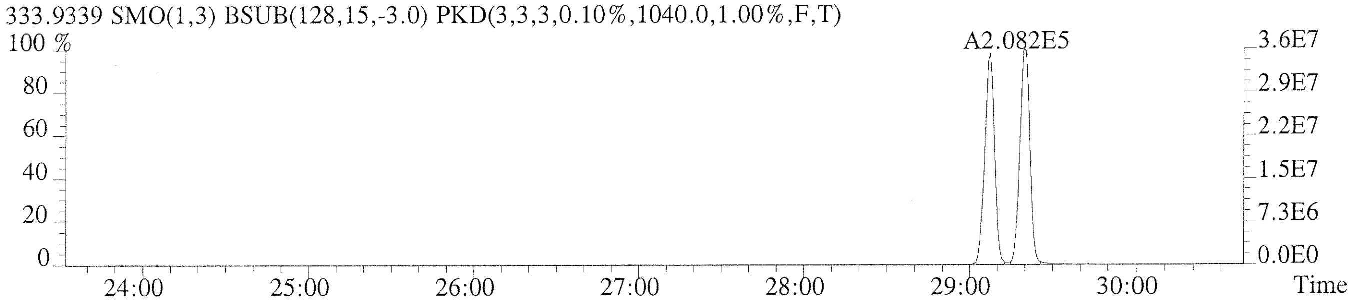
321.8936 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,560.0,1.00%,F,T)



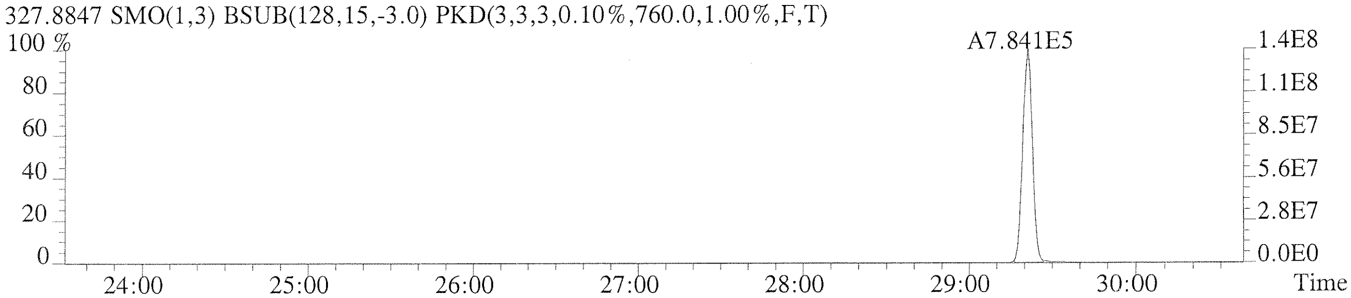
331.9368 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,2444.0,1.00%,F,T)



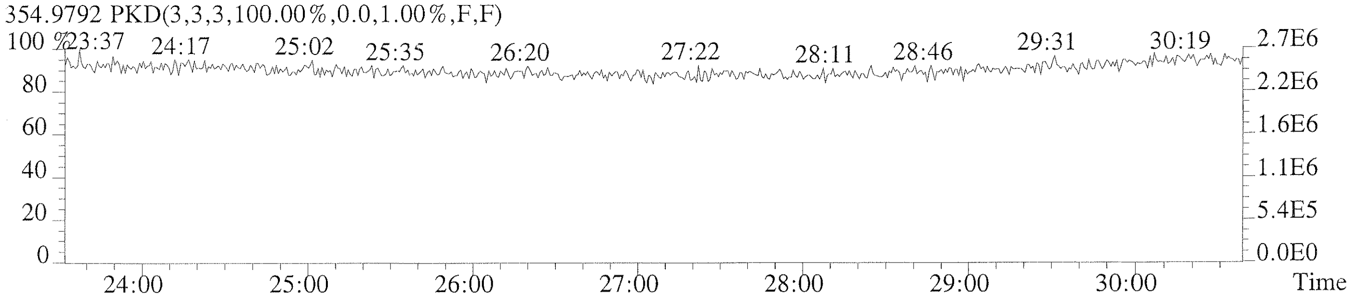
333.9339 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,1040.0,1.00%,F,T)



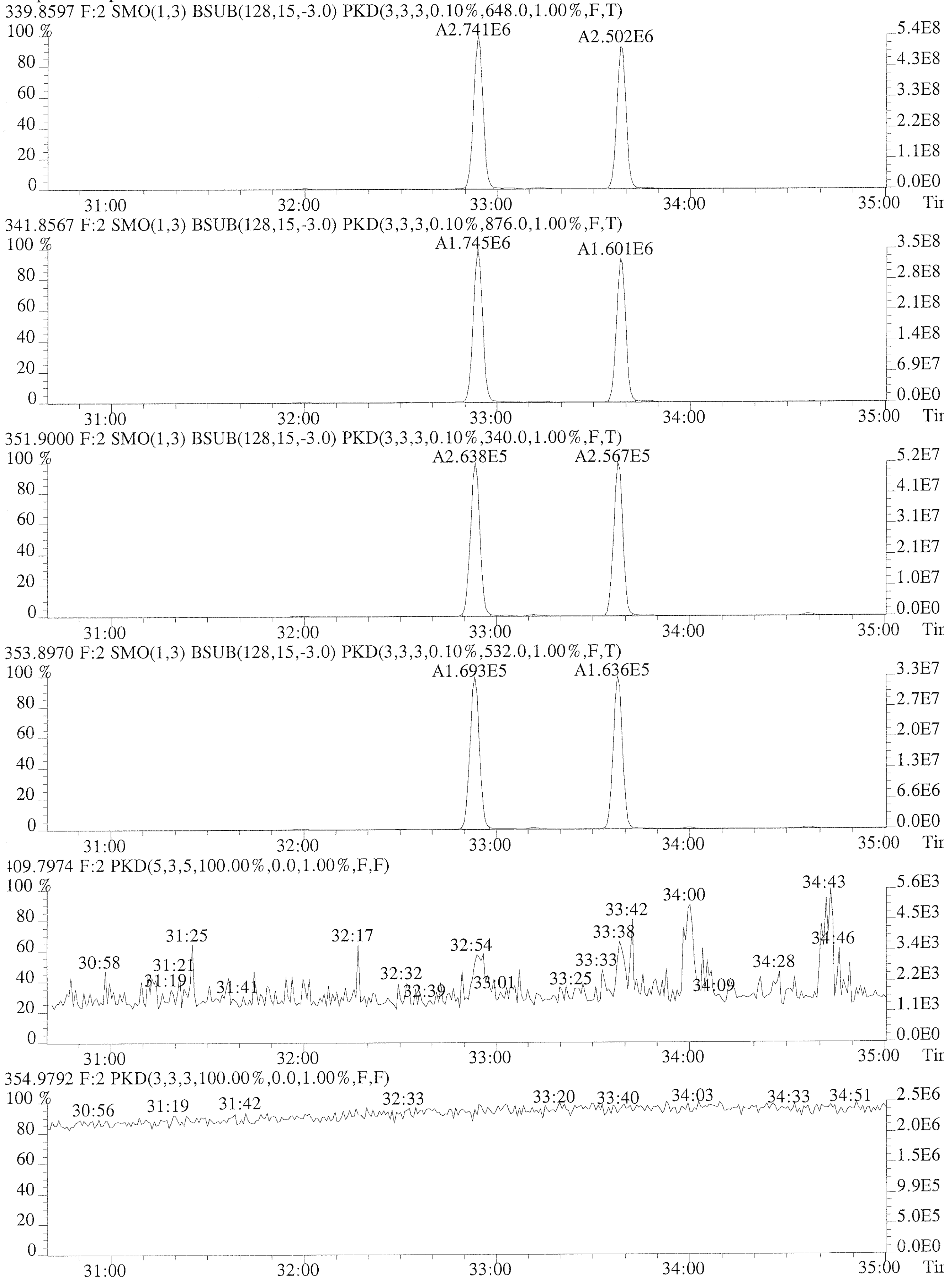
327.8847 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,760.0,1.00%,F,T)



354.9792 PKD(3,3,3,100.00%,0.0,1.00%,F,F)

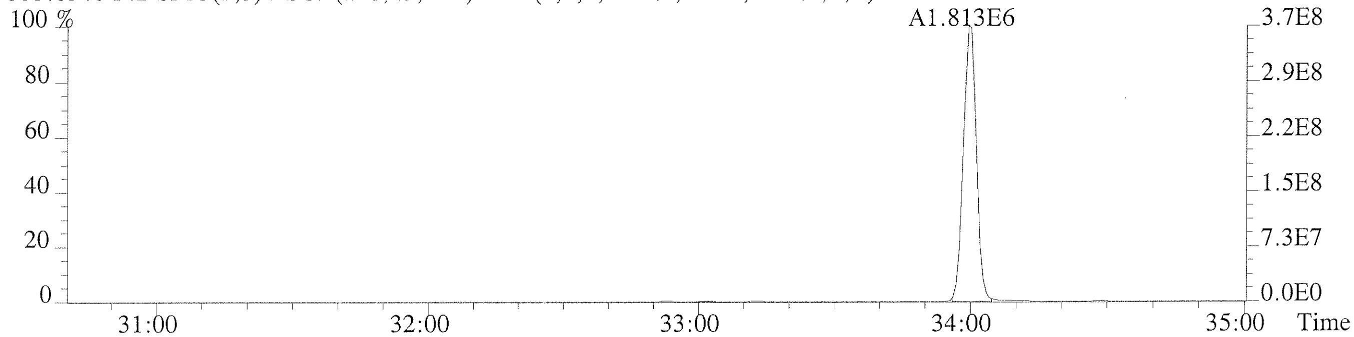


File: 7207 #1-394 Acq:23-APR-2012 10:51:12 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:ICAL CS5

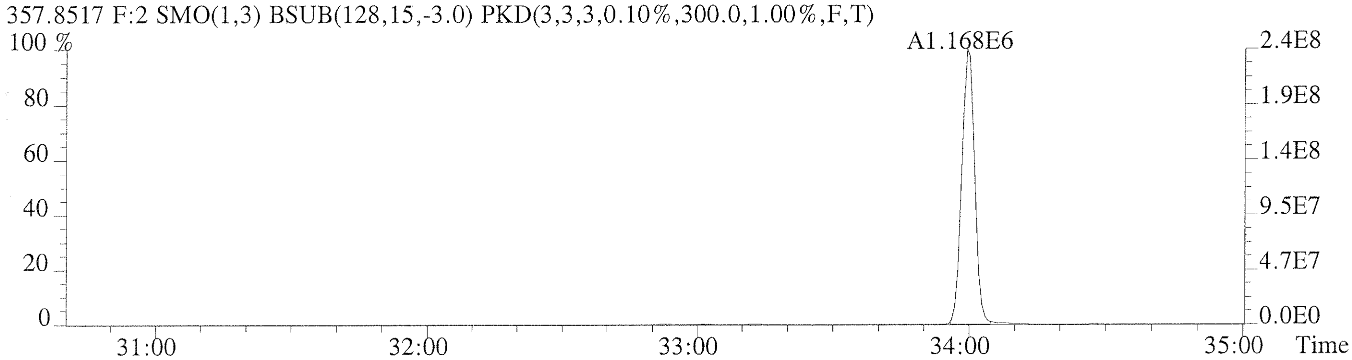


File: 7207 #1-394 Acq:23-APR-2012 10:51:12 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:ICAL CS5

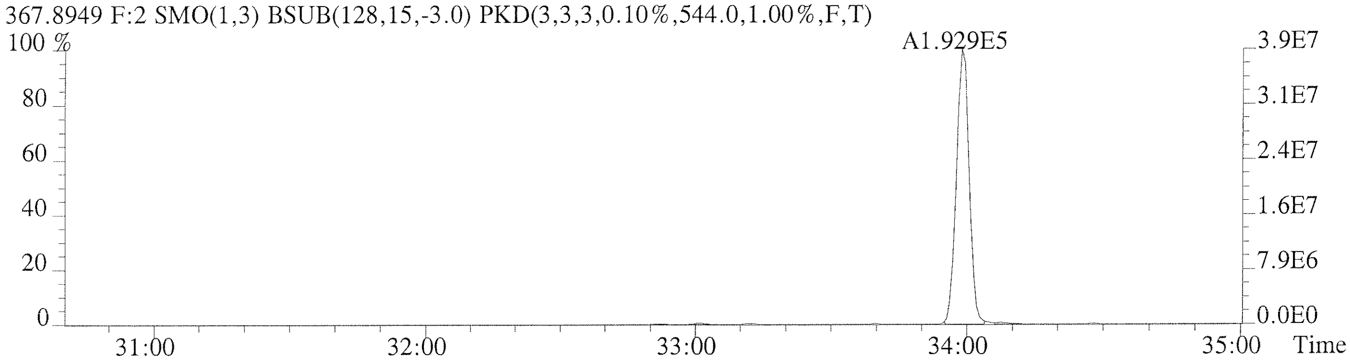
355.8546 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,752.0,1.00%,F,T)



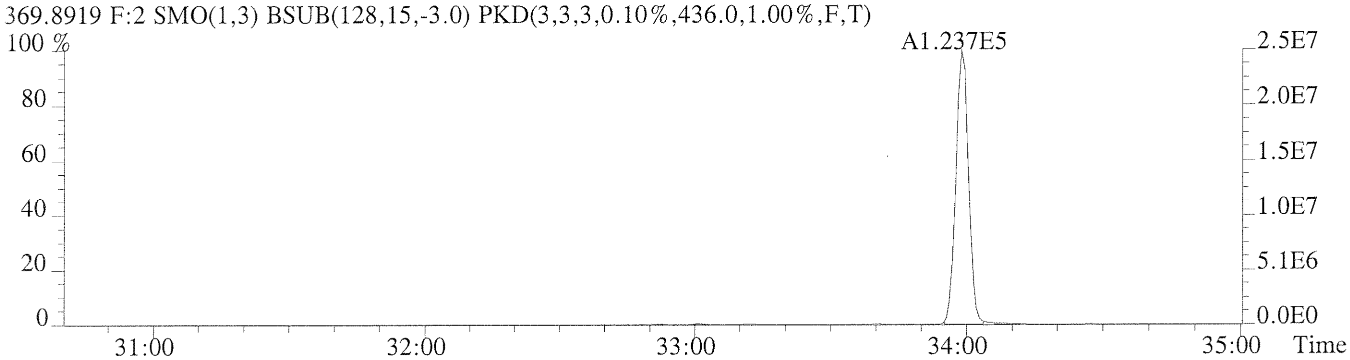
357.8517 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,300.0,1.00%,F,T)



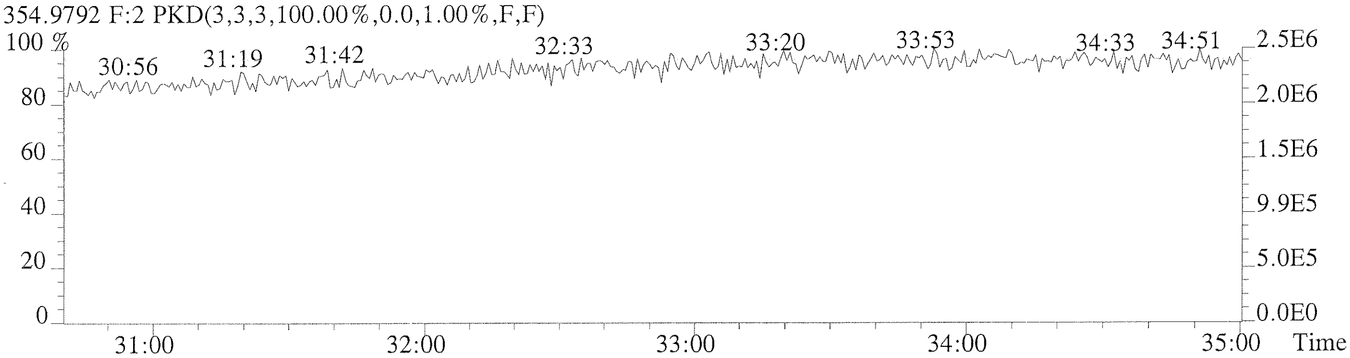
367.8949 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,544.0,1.00%,F,T)



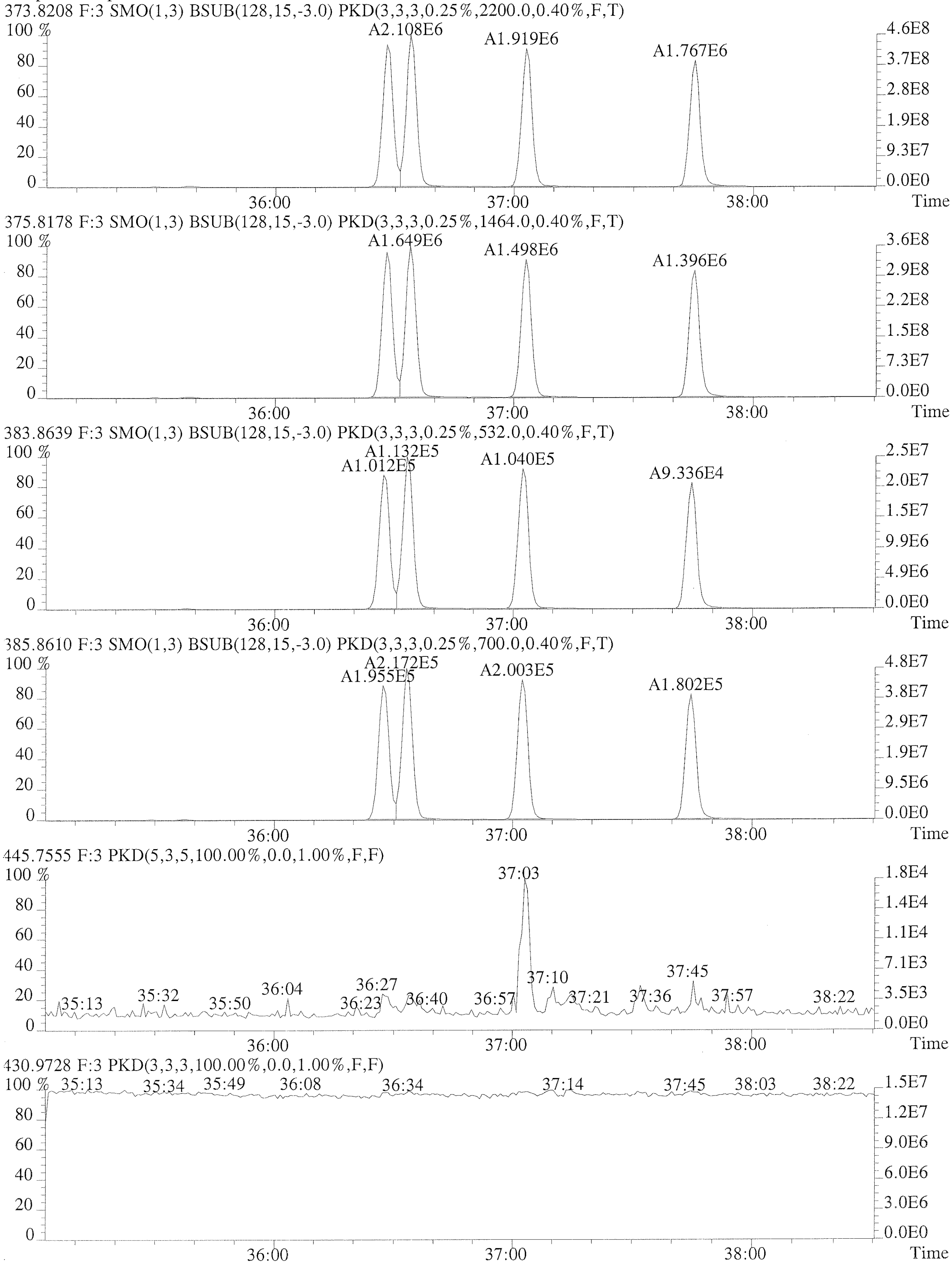
369.8919 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,436.0,1.00%,F,T)



354.9792 F:2 PKD(3,3,3,100.00%,0.0,1.00%,F,F)

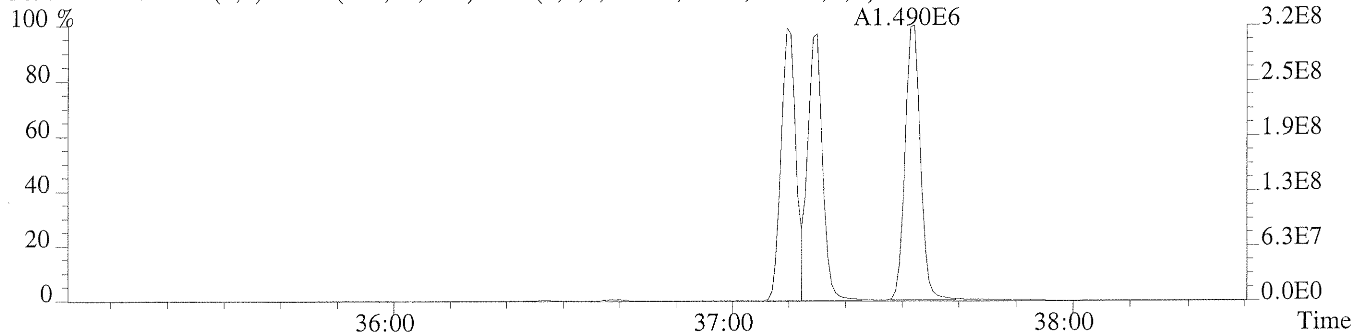


File: 207 #1-315 Acq:23-APR-2012 10:51:12 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:ICAL CS5

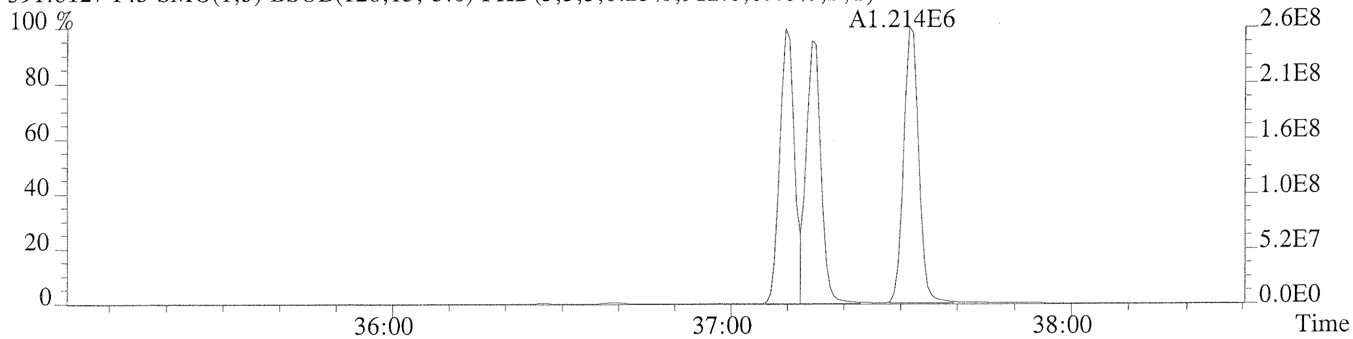


File: 207 #1-315 Acq:23-APR-2012 10:51:12 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:ICAL CS5

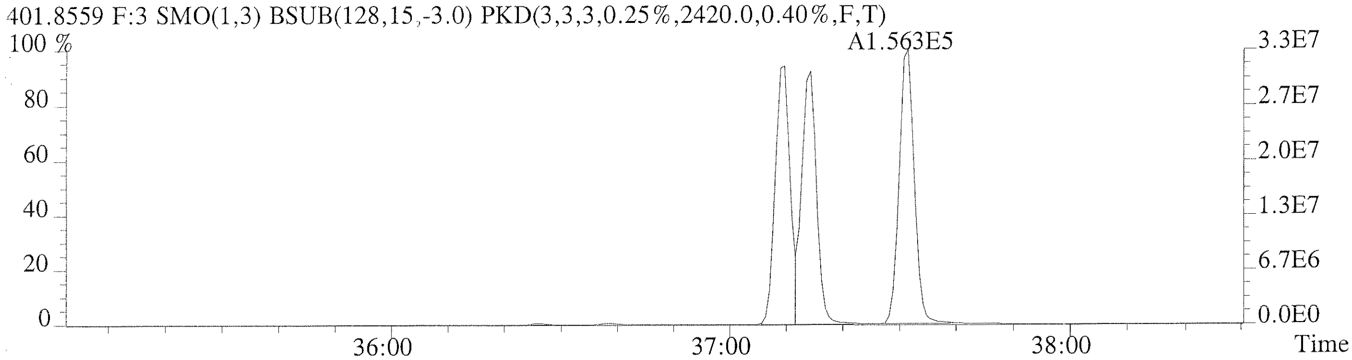
389.8157 F:3 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,888.0,0.40%,F,T)



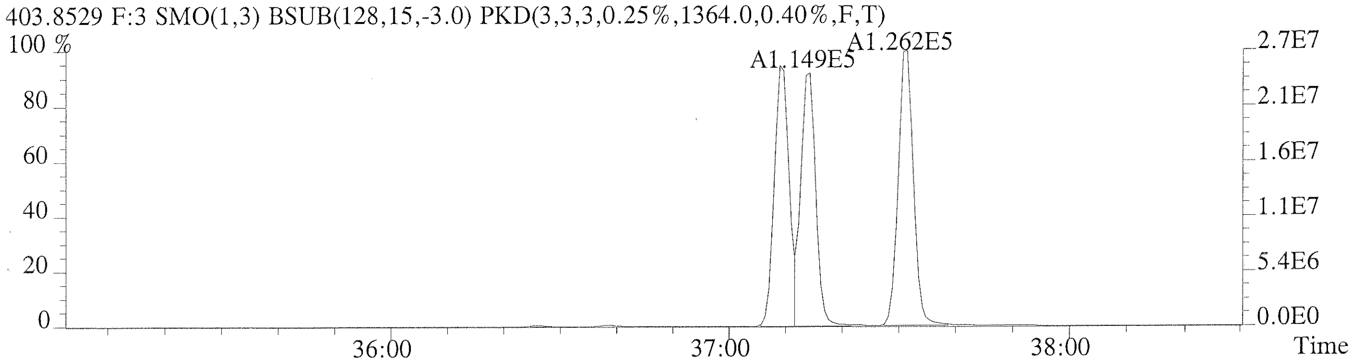
391.8127 F:3 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,912.0,0.40%,F,T)



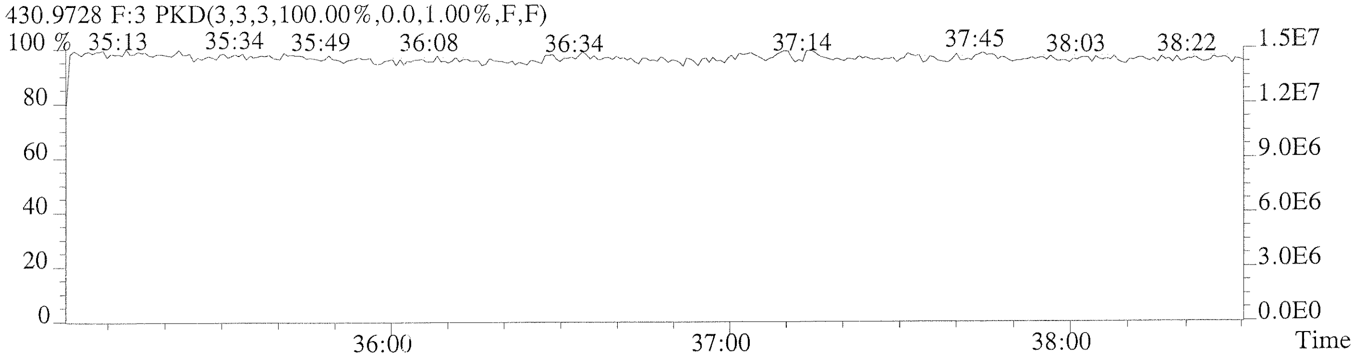
401.8559 F:3 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,2420.0,0.40%,F,T)



403.8529 F:3 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,1364.0,0.40%,F,T)

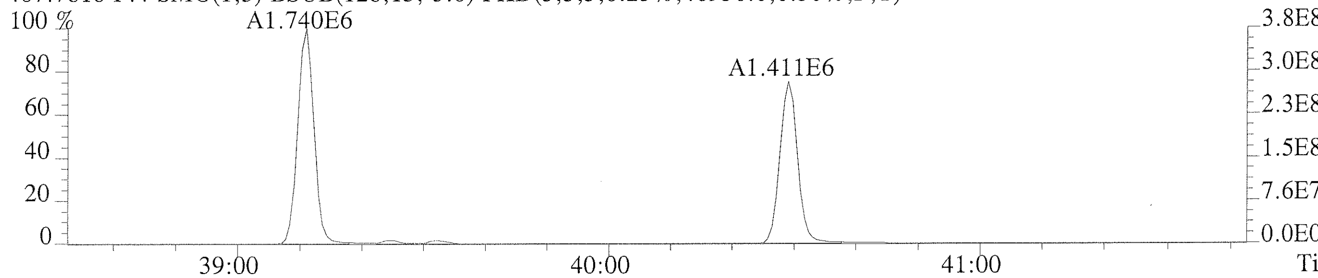


430.9728 F:3 PKD(3,3,3,100.00%,0.0,1.00%,F,F)

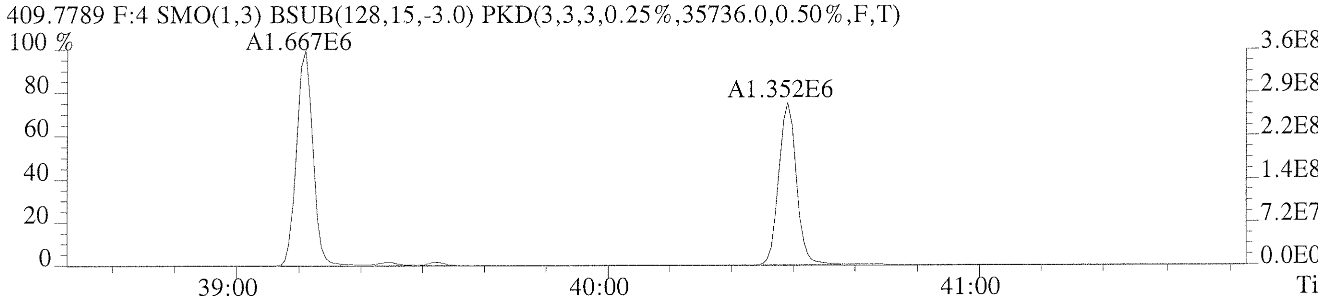


File: 7207 #1-288 Acq:23-APR-2012 10:51:12 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:ICAL CS5

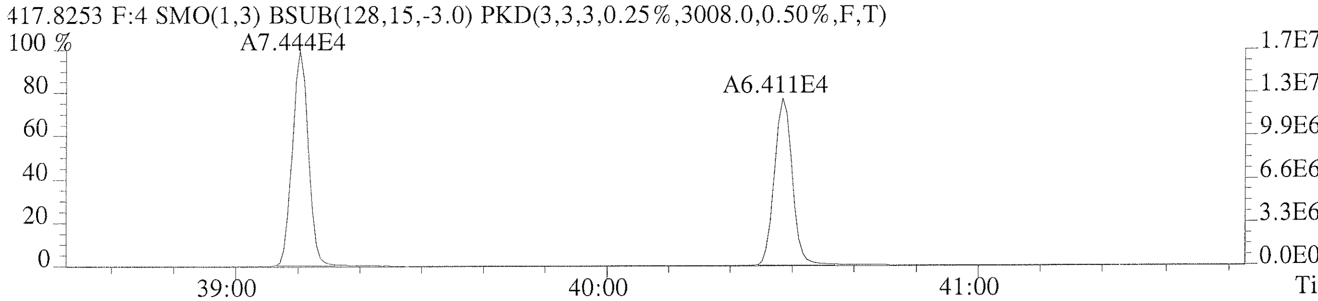
407.7818 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,46936.0,0.50%,F,T)



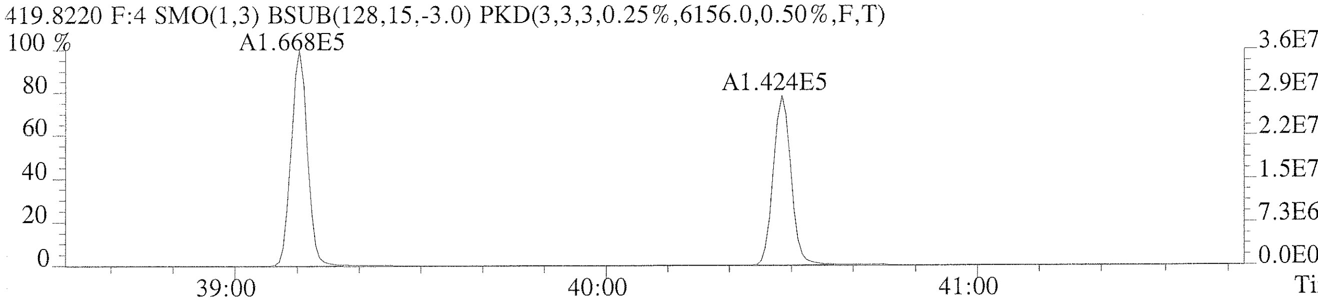
409.7789 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,35736.0,0.50%,F,T)



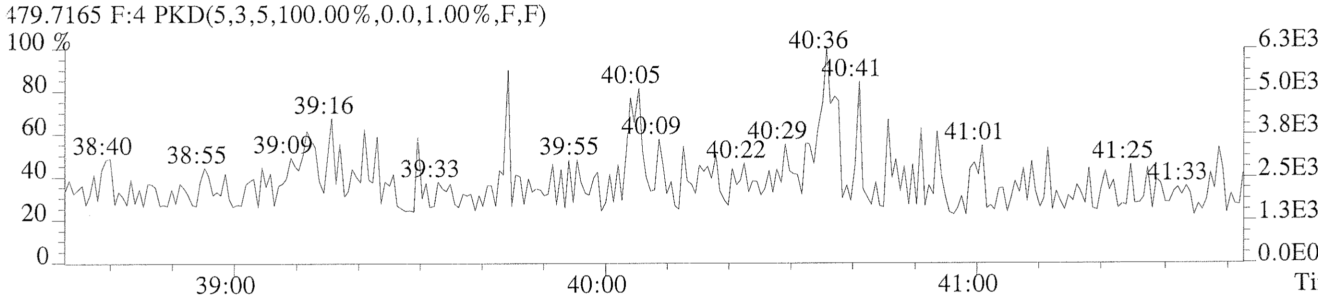
417.8253 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,3008.0,0.50%,F,T)



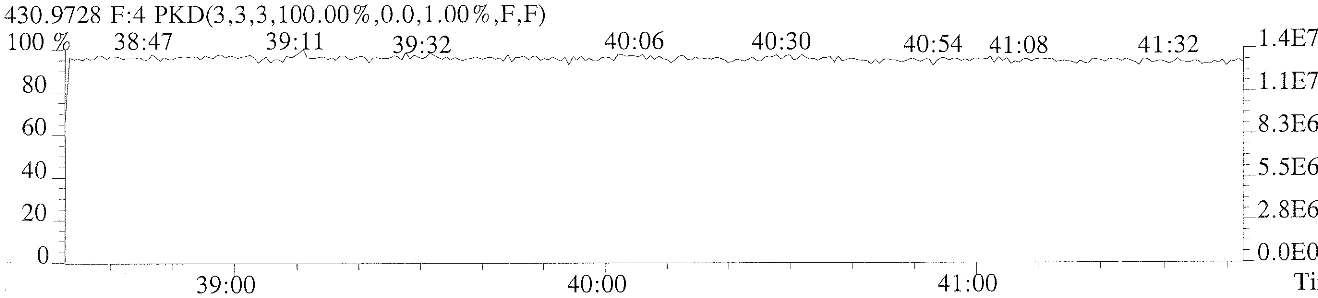
419.8220 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,6156.0,0.50%,F,T)



479.7165 F:4 PKD(5,3,5,100.00%,0.0,1.00%,F,F)

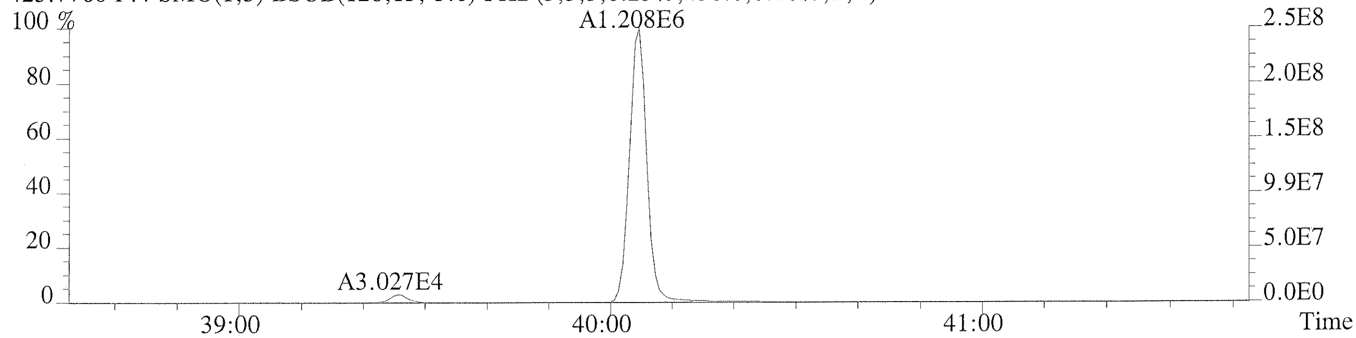


430.9728 F:4 PKD(3,3,3,100.00%,0.0,1.00%,F,F)

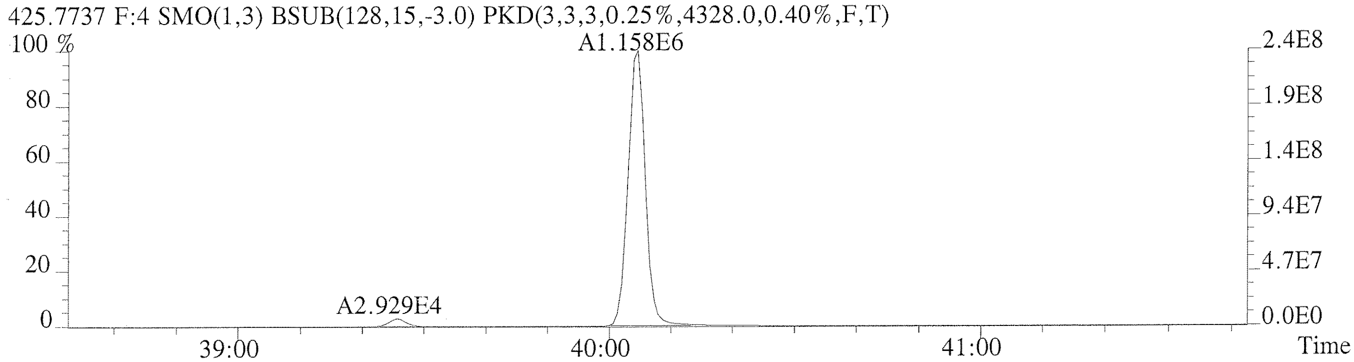


File: 207 #1-288 Acq:23-APR-2012 10:51:12 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:ICAL CS5

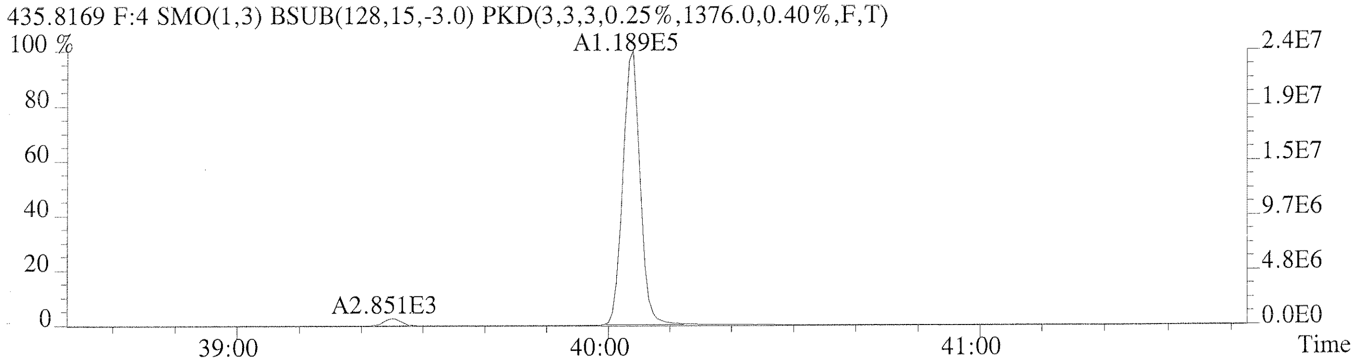
423.7766 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,456.0,0.40%,F,T)



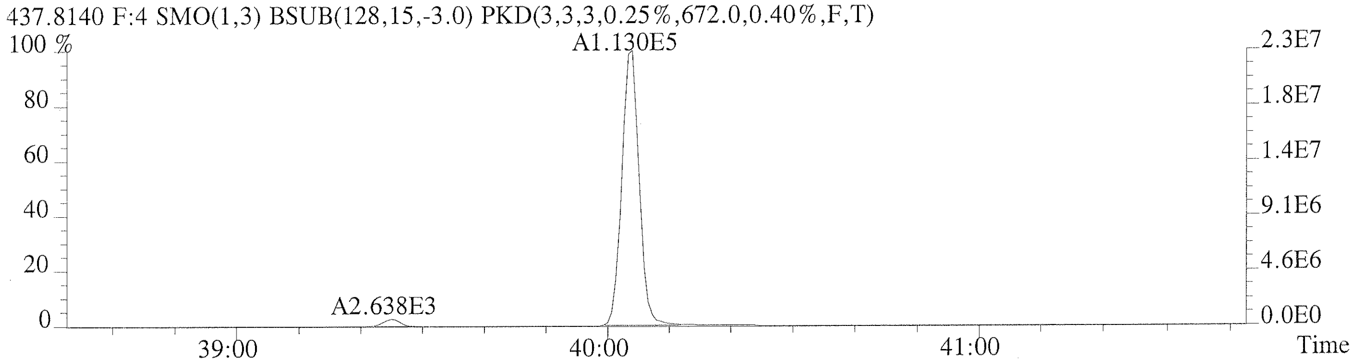
425.7737 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,4328.0,0.40%,F,T)



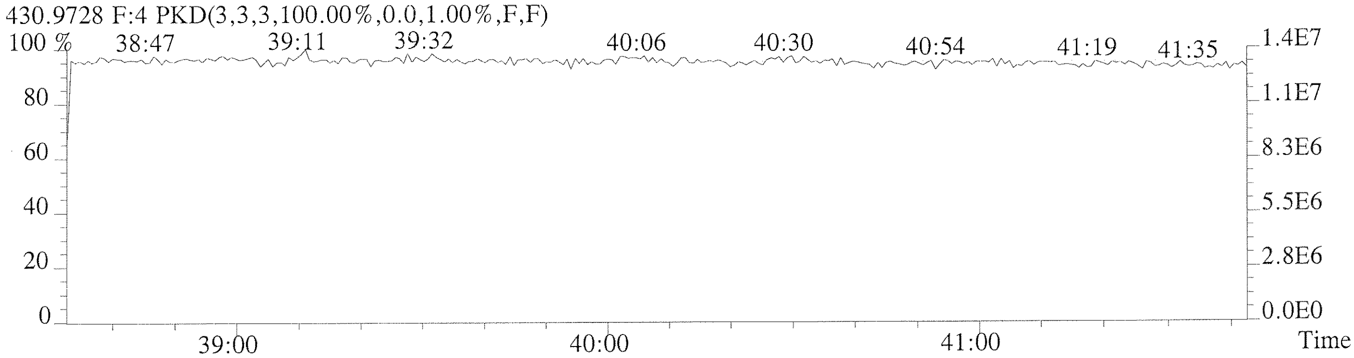
435.8169 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,1376.0,0.40%,F,T)



437.8140 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,672.0,0.40%,F,T)

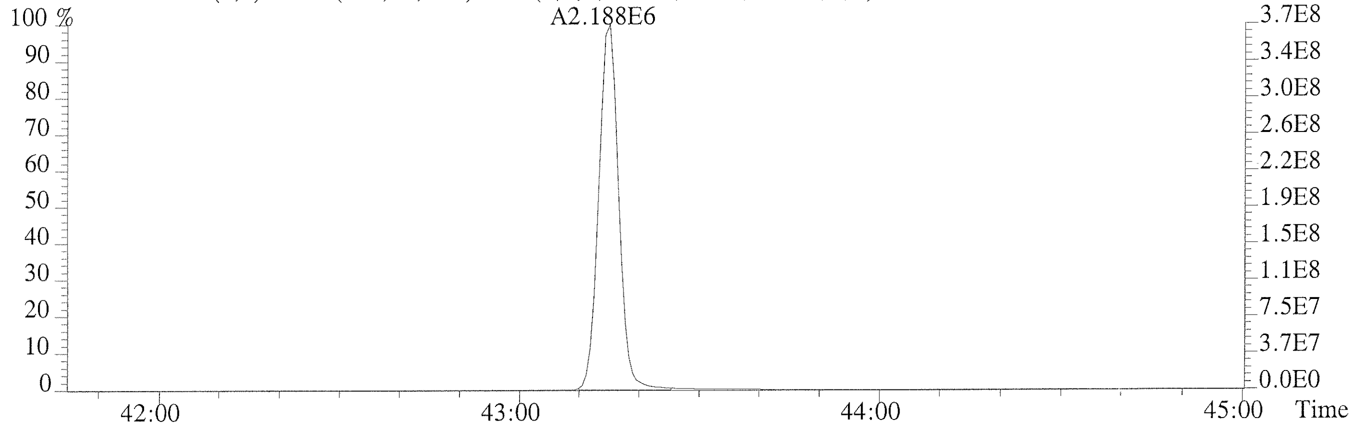


430.9728 F:4 PKD(3,3,3,100.00%,0.0,1.00%,F,F)

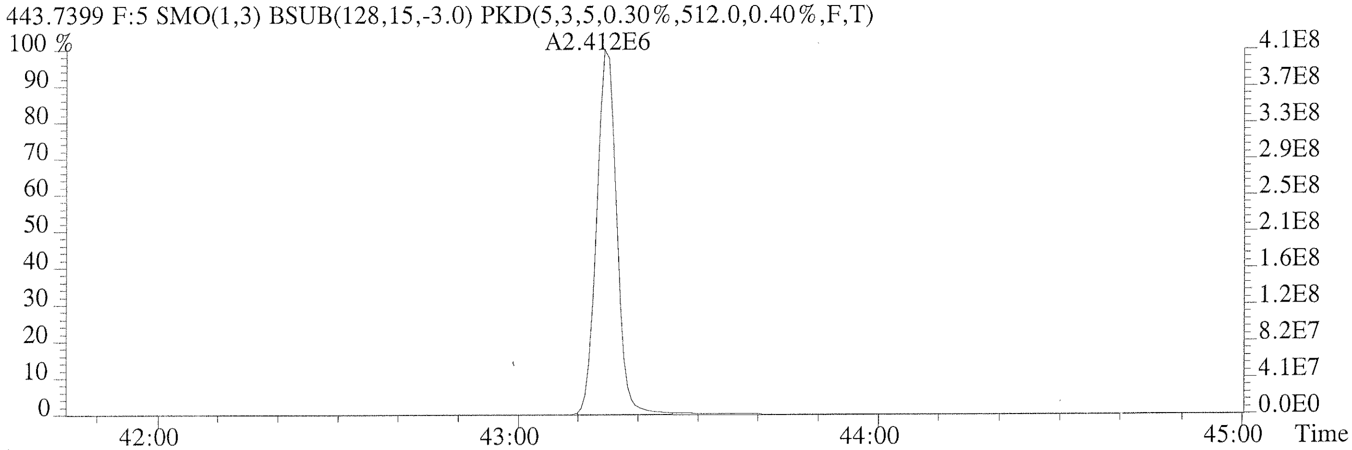


File: 7207 #1-300 Acq:23-APR-2012 10:51:12 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:ICAL CS5

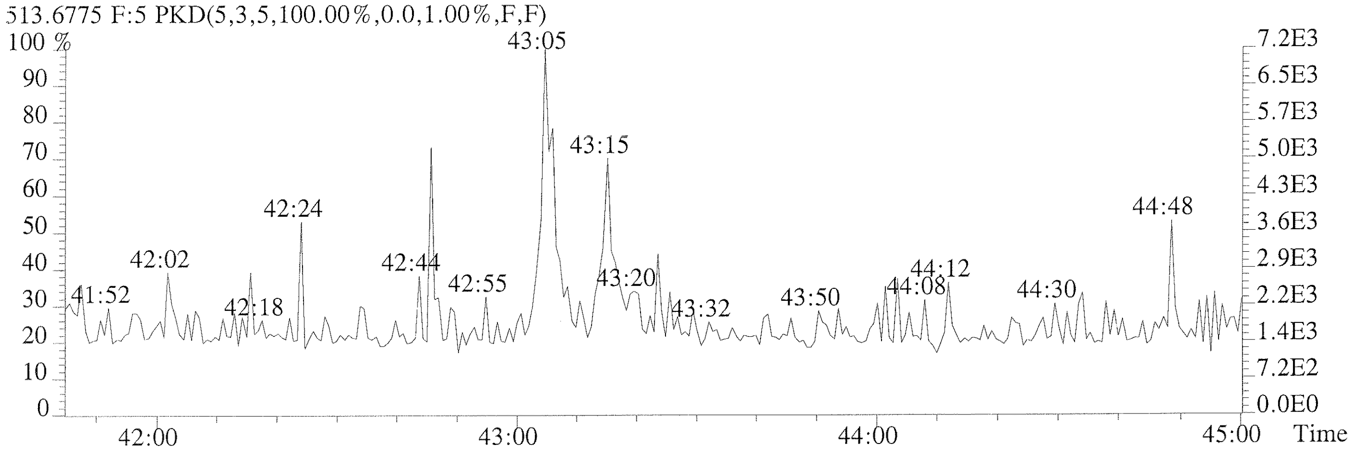
441.7428 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(5,3,5,0.30%,520.0,0.40%,F,T)



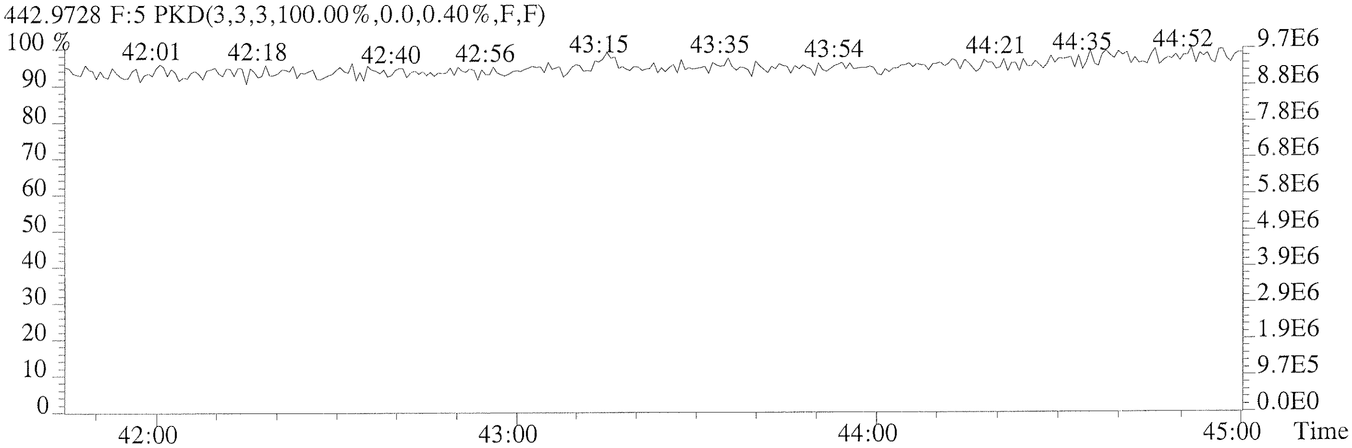
443.7399 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(5,3,5,0.30%,512.0,0.40%,F,T)



513.6775 F:5 PKD(5,3,5,100.00%,0.0,1.00%,F,F)

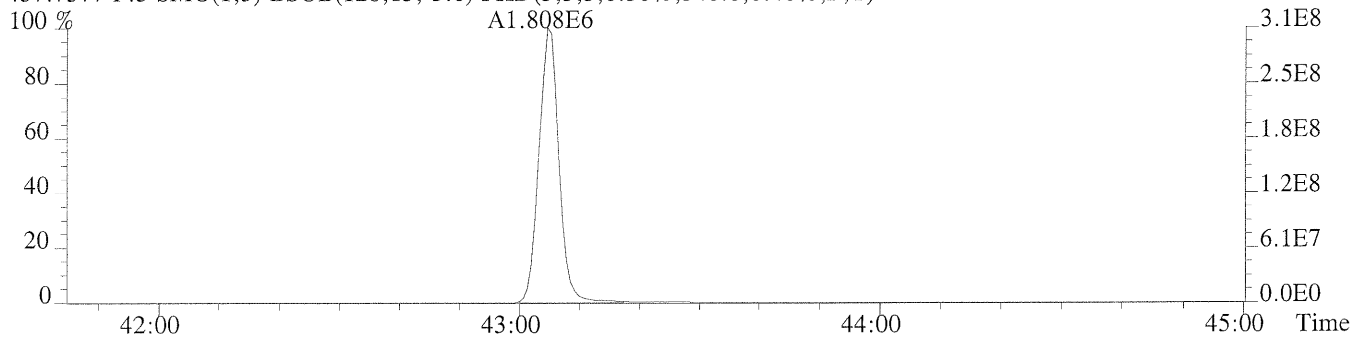


442.9728 F:5 PKD(3,3,3,100.00%,0.0,0.40%,F,F)

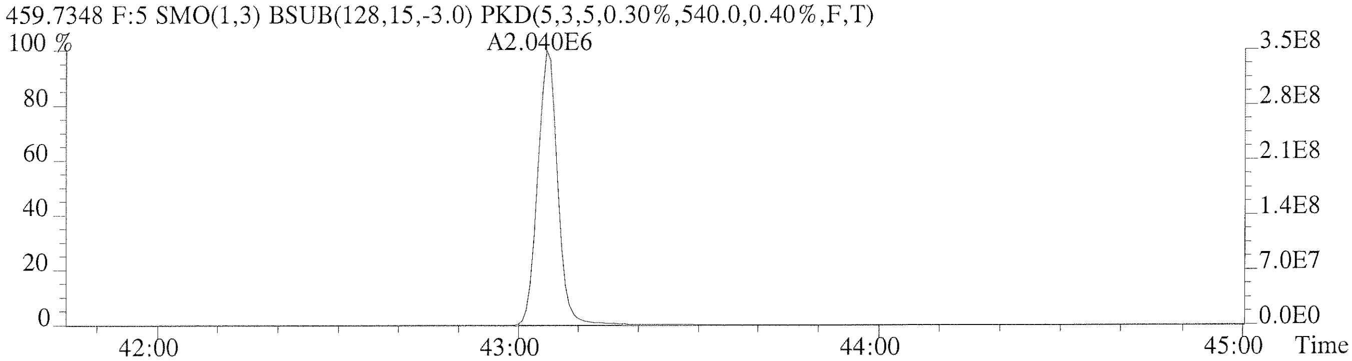


File: 7207 #1-300 Acq:23-APR-2012 10:51:12 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:ICAL CS5

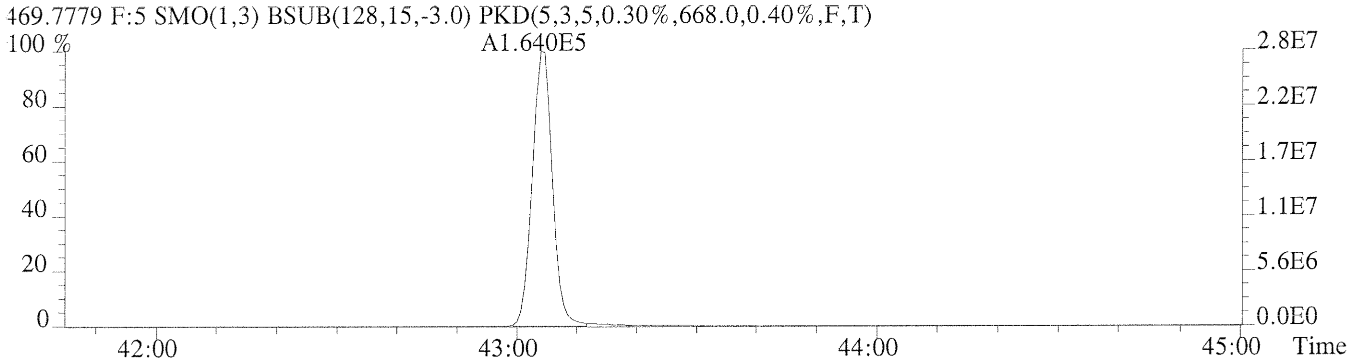
457.7377 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(5,3,5,0.30%,340.0,0.40%,F,T)



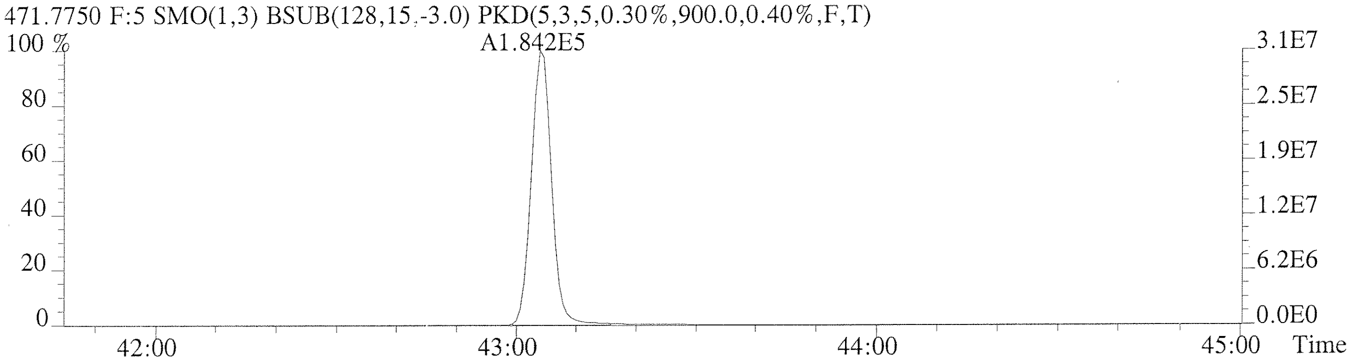
459.7348 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(5,3,5,0.30%,540.0,0.40%,F,T)



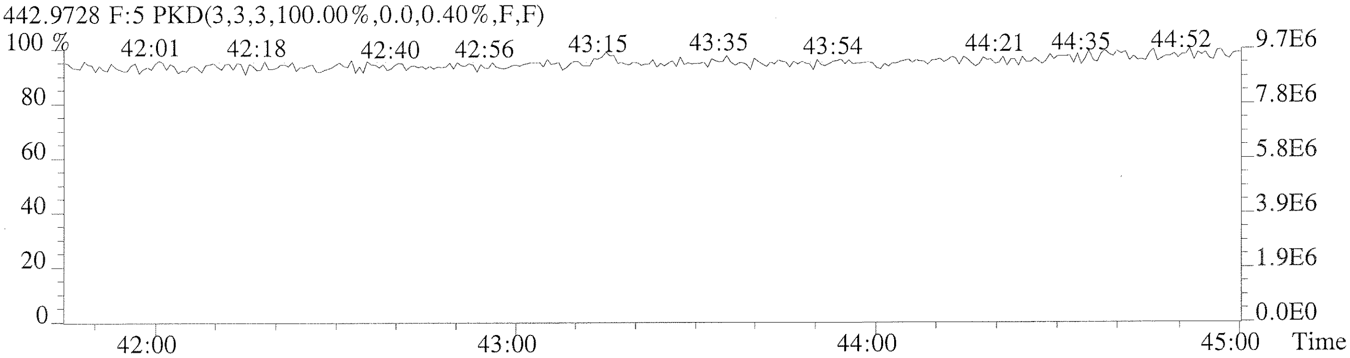
469.7779 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(5,3,5,0.30%,668.0,0.40%,F,T)



471.7750 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(5,3,5,0.30%,900.0,0.40%,F,T)



442.9728 F:5 PKD(3,3,3,100.00%,0.0,0.40%,F,F)



FORM 4A
PCDD/PCDF CALIBRATION VERIFICATION

Lab Name: Episode No.:

Contract No.: SAS No.:

Initial Calibration Date: 04/23/12

Instrument ID: AutoSpec-Ultima GC Column ID: DB-5

VER Data Filename: 7208 Analysis Date: 23-APR-12 Time: 11:54:29

NATIVE ANALYTES	M/Z'S FORMING RATIO (1)	ION ABUND. RATIO	QC LIMITS (2)	CONC. FOUND	CONC. RANGE (3) (ng/mL)
2,3,7,8-TCDD	M/M+2	0.77	0.65-0.89	10.3	7.8 - 12.9
1,2,3,7,8-PeCDD	M+2/M+4	1.56	1.32-1.78	50	39 - 65
1,2,3,4,7,8-HxCDD	M+2/M+4	1.25	1.05-1.43	52	39 - 64
1,2,3,6,7,8-HxCDD	M+2/M+4	1.26	1.05-1.43	52	39 - 64
1,2,3,7,8,9-HxCDD	M+2/M+4	1.24	1.05-1.43	57	41 - 61
1,2,3,4,6,7,8-HpCDD	M+2/M+4	1.04	0.88-1.20	51	43 - 58
OCDD	M+2/M+4	0.89	0.76-1.02	116	79 - 126
2,3,7,8-TCDF	M/M+2	0.78	0.65-0.89	9.9	8.4 - 12.0
1,2,3,7,8-PeCDF	M+2/M+4	1.56	1.32-1.78	51	41 - 60
2,3,4,7,8-PeCDF	M+2/M+4	1.55	1.32-1.78	50	41 - 61
1,2,3,4,7,8-HxCDF	M+2/M+4	1.23	1.05-1.43	51	45 - 56
1,2,3,6,7,8-HxCDF	M+2/M+4	1.22	1.05-1.43	51	44 - 57
1,2,3,7,8,9-HxCDF	M+2/M+4	1.23	1.05-1.43	51	45 - 56
2,3,4,6,7,8-HxCDF	M+2/M+4	1.22	1.05-1.43	51	44 - 57
1,2,3,4,6,7,8-HpCDF	M+2/M+4	1.04	0.88-1.20	51	45 - 55
1,2,3,4,7,8,9-HpCDF	M+2/M+4	1.03	0.88-1.20	50	43 - 58
OCDF	M+2/M+4	0.91	0.76-1.02	100	63 - 159

(1) See Table 8, Method 1613B, for m/z specifications.

(2) Ion Abundance Ratio Control Limits as specified in Table 9, Method 1613B.

(3) Contract-required concentration range as specified in Table 6, Method 1613B, under VER.

6/90

FORM 4B
PCDD/PCDF CALIBRATION VERIFICATION

Lab Name: Episode No.:

Contract No.: SAS No.:

Initial Calibration Date: 04/23/12

Instrument ID: AutoSpec-Ultima GC Column ID: DB-5

VER Data Filename: 7208 Analysis Date: 23-APR-12 Time: 11:54:29

	M/Z'S FORMING RATIO (1)	ION ABUND. RATIO	QC LIMITS (2)	CONC. FOUND	CONC. RANGE (3) (ng/mL)
LABELED COMPOUNDS					
13C-2,3,7,8-TCDD	M/M+2	0.79	0.65-0.89	98	82 - 121
13C-1,2,3,7,8-PeCDD	M+2/M+4	1.56	1.32-1.78	95	62 - 160
13C-1,2,3,4,7,8-HxCDD	M+2/M+4	1.26	1.05-1.43	87	85 - 117
13C-1,2,3,6,7,8-HxCDD	M+2/M+4	1.26	1.05-1.43	93	85 - 118
13C-1,2,3,4,6,7,8-HpCDD	M+2/M+4	1.04	0.88-1.20	104	72 - 138
13C-OCDD	M+2/M+4	0.89	0.76-1.02	242	96 - 415
13C-2,3,7,8-TCDF	M/M+2	0.78	0.65-0.89	99	71 - 140
13C-1,2,3,7,8-PeCDF	M+2/M+4	1.57	1.32-1.78	97	76 - 130
13C-2,3,4,7,8-PeCDF	M+2/M+4	1.56	1.32-1.78	97	77 - 130
13C-1,2,3,4,7,8-HxCDF	M/M+2	0.52	0.43-0.59	100	76 - 131
13C-1,2,3,6,7,8-HxCDF	M/M+2	0.52	0.43-0.59	100	70 - 143
13C-1,2,3,7,8,9-HxCDF	M/M+2	0.52	0.43-0.59	96	74 - 135
13C-2,3,4,6,7,8-HxCDF	M/M+2	0.52	0.43-0.59	99	73 - 137
13C-1,2,3,4,6,7,8-HpCDF	M/M+2	0.45	0.37-0.51	96	78 - 129
13C-1,2,3,4,7,8,9-HpCDF	M/M+2	0.45	0.37-0.51	103	77 - 129
CLEANUP STANDARD					
37Cl-2,3,7,8-TCDD				10.1	7.9 - 12.7

(1) See Table 8, Method 1613B, for m/z specifications.

(2) Ion Abundance Ratio Control Limits as specified in Table 9, Method 1613B.

(3) Contract-required concentration range, as specified in Table 6, Method 1613B, under VER.

(4) No ion abundance ratio; report concentration found.

6/90

Sample Response Summary CLIENT ID.
2ND SOURCE VERIF

Run #7 Filename 7208 #1 Samp: 1 Inj: 1 Acquired: 23-APR-12 11:54:29
Processed: 24-APR-12 07:24:19 LAB. ID:

	Typ	Name	RT-1	Resp 1	Resp 2	Ratio	Meet	Mod?	RRT
1	Unk	2,3,7,8-TCDF	28:34	3.469e+04	4.468e+04	0.78	yes	no	1.001
2	Unk	1,2,3,7,8-PeCDF	32:57	2.269e+05	1.454e+05	1.56	yes	no	1.000
3	Unk	2,3,4,7,8-PeCDF	33:42	2.072e+05	1.335e+05	1.55	yes	no	1.000
4	Unk	1,2,3,4,7,8-HxCDF	36:31	1.616e+05	1.316e+05	1.23	yes	no	1.000
5	Unk	1,2,3,6,7,8-HxCDF	36:37	1.692e+05	1.383e+05	1.22	yes	no	1.000
6	Unk	2,3,4,6,7,8-HxCDF	37:06	1.550e+05	1.266e+05	1.22	yes	no	1.000
7	Unk	1,2,3,7,8,9-HxCDF	37:48	1.381e+05	1.120e+05	1.23	yes	no	1.000
8	Unk	1,2,3,4,6,7,8-HpCDF	39:14	1.301e+05	1.251e+05	1.04	yes	no	1.000
9	Unk	1,2,3,4,7,8,9-HpCDF	40:32	1.102e+05	1.067e+05	1.03	yes	no	1.000
10	Unk	OCDF	43:18	1.883e+05	2.061e+05	0.91	yes	no	1.004
11	Unk	2,3,7,8-TCDD	29:25	2.922e+04	3.791e+04	0.77	yes	no	1.001
12	Unk	1,2,3,7,8-PeCDD	34:03	1.466e+05	9.373e+04	1.56	yes	no	1.000
13	Unk	1,2,3,4,7,8-HxCDD	37:13	1.047e+05	8.373e+04	1.25	yes	no	1.000
14	Unk	1,2,3,6,7,8-HxCDD	37:18	1.102e+05	8.718e+04	1.26	yes	no	1.000
15	Unk	1,2,3,7,8,9-HxCDD	37:35	1.236e+05	9.930e+04	1.24	yes	no	1.008
16	Unk	1,2,3,4,6,7,8-HpCDD	40:07	9.899e+04	9.561e+04	1.04	yes	no	1.000
17	Unk	OCDD	43:08	1.856e+05	2.083e+05	0.89	yes	no	1.000
18	IS	13C-2,3,7,8-TCDF	28:33	3.764e+05	4.824e+05	0.78	yes	no	0.978
19	IS	13C-1,2,3,7,8-PeCDF	32:57	4.410e+05	2.815e+05	1.57	yes	no	1.129
20	IS	13C-2,3,4,7,8-PeCDF	33:41	4.296e+05	2.746e+05	1.56	yes	no	1.154
21	IS	13C-1,2,3,4,7,8-HxCDF	36:31	1.610e+05	3.118e+05	0.52	yes	no	0.972
22	IS	13C-1,2,3,6,7,8-HxCDF	36:37	1.829e+05	3.492e+05	0.52	yes	no	0.974
23	IS	13C-2,3,4,6,7,8-HxCDF	37:06	1.663e+05	3.183e+05	0.52	yes	no	0.987
24	IS	13C-1,2,3,7,8,9-HxCDF	37:47	1.435e+05	2.784e+05	0.52	yes	no	1.006
25	IS	13C-1,2,3,4,6,7,8-HpCDF	39:13	1.118e+05	2.483e+05	0.45	yes	no	1.044
26	IS	13C-1,2,3,4,7,8,9-HpCDF	40:32	1.008e+05	2.246e+05	0.45	yes	no	1.079
27	IS	13C-2,3,7,8-TCDD	29:24	2.933e+05	3.728e+05	0.79	yes	no	1.007
28	IS	13C-1,2,3,7,8-PeCDD	34:02	3.214e+05	2.054e+05	1.56	yes	no	1.166
29	IS	13C-1,2,3,4,7,8-HxCDD	37:12	2.020e+05	1.601e+05	1.26	yes	no	0.990
30	IS	13C-1,2,3,6,7,8-HxCDD	37:17	2.159e+05	1.710e+05	1.26	yes	no	0.992
31	IS	13C-1,2,3,4,6,7,8-HpCDD	40:07	1.932e+05	1.852e+05	1.04	yes	no	1.068
32	IS	13C-OCDD	43:07	3.037e+05	3.397e+05	0.89	yes	no	1.148
33	RS/RT	13C-1,2,3,4-TCDD	29:11	2.996e+05	3.785e+05	0.79	yes	no	*
34	RS/RT	13C-1,2,3,7,8,9-HxCDD	37:34	2.488e+05	1.974e+05	1.26	yes	no	*
35	C/Up	37Cl-2,3,7,8-TCDD	29:25	7.093e+04				no	1.008

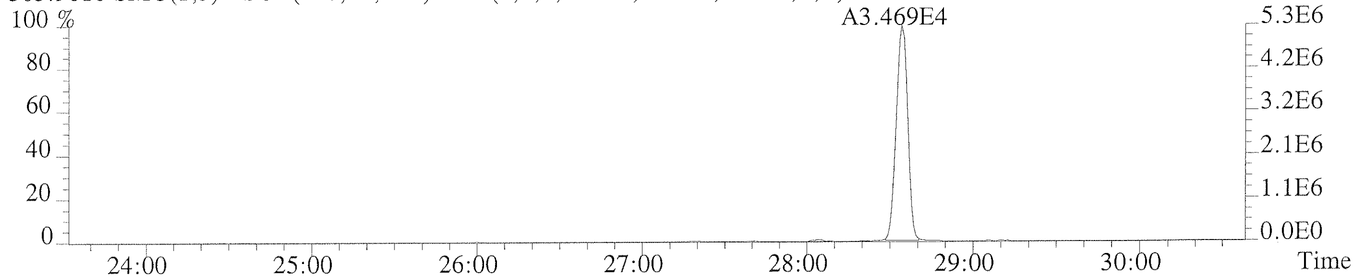
Signal/Noise Height Ratio Summary CLIENT ID.
2ND SOURCE VERIF

Run #7 Filename 7208 Samp: 1 Inj: 1 Acquired: 23-APR-12 11:54:29
Processed: 24-APR-12 07:24:191 LAB. ID:

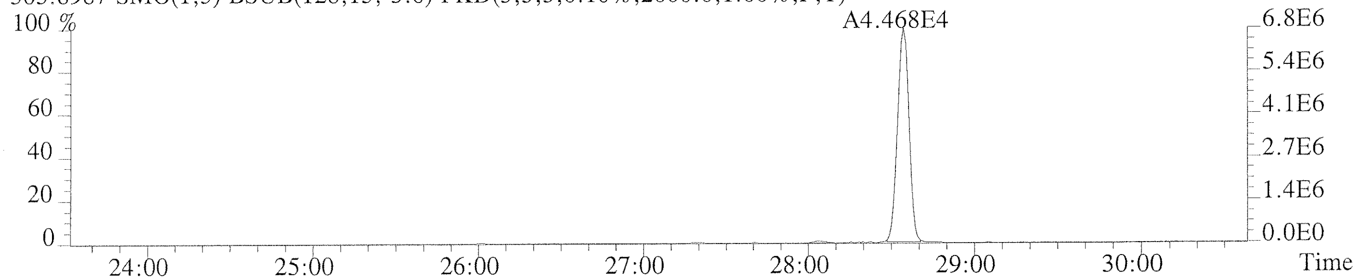
Name	Signal 1	Noise 1	S/N Rat.1	Signal 2	Noise 2	S/N Rat.2
2,3,7,8-TCDF	5.28e+06	1.69e+03	3.1e+03	6.78e+06	2.00e+03	3.4e+03
1,2,3,7,8-PeCDF	4.00e+07	2.67e+03	1.5e+04	2.59e+07	1.47e+03	1.8e+04
2,3,4,7,8-PeCDF	3.90e+07	2.67e+03	1.5e+04	2.52e+07	1.47e+03	1.7e+04
1,2,3,4,7,8-HxCDF	3.32e+07	6.45e+03	5.1e+03	2.68e+07	3.79e+03	7.1e+03
1,2,3,6,7,8-HxCDF	3.36e+07	6.45e+03	5.2e+03	2.74e+07	3.79e+03	7.2e+03
2,3,4,6,7,8-HxCDF	3.19e+07	6.45e+03	4.9e+03	2.58e+07	3.79e+03	6.8e+03
1,2,3,7,8,9-HxCDF	2.81e+07	6.45e+03	4.4e+03	2.28e+07	3.79e+03	6.0e+03
1,2,3,4,6,7,8-HpCDF	2.68e+07	4.85e+03	5.5e+03	2.60e+07	3.73e+03	7.0e+03
1,2,3,4,7,8,9-HpCDF	2.14e+07	4.85e+03	4.4e+03	2.07e+07	3.73e+03	5.5e+03
OCDF	3.10e+07	2.96e+03	1.0e+04	3.41e+07	2.69e+03	1.3e+04
2,3,7,8-TCDD	4.47e+06	1.88e+03	2.4e+03	5.79e+06	9.68e+02	6.0e+03
1,2,3,7,8-PeCDD	2.84e+07	1.74e+03	1.6e+04	1.83e+07	1.66e+03	1.1e+04
1,2,3,4,7,8-HxCDD	2.02e+07	3.31e+03	6.1e+03	1.62e+07	2.88e+03	5.6e+03
1,2,3,6,7,8-HxCDD	2.42e+07	3.31e+03	7.3e+03	1.93e+07	2.88e+03	6.7e+03
1,2,3,7,8,9-HxCDD	2.58e+07	3.31e+03	7.8e+03	2.04e+07	2.88e+03	7.1e+03
1,2,3,4,6,7,8-HpCDD	1.87e+07	2.46e+03	7.6e+03	1.82e+07	2.85e+03	6.4e+03
OCDD	3.08e+07	3.40e+03	9.0e+03	3.47e+07	4.03e+03	8.6e+03
13C-2,3,7,8-TCDF	5.64e+07	2.25e+03	2.5e+04	7.25e+07	2.07e+03	3.5e+04
13C-1,2,3,7,8-PeCDF	7.82e+07	1.66e+03	4.7e+04	5.01e+07	1.42e+03	3.5e+04
13C-2,3,4,7,8-PeCDF	8.16e+07	1.66e+03	4.9e+04	5.25e+07	1.42e+03	3.7e+04
13C-1,2,3,4,7,8-HxCDF	3.31e+07	4.01e+03	8.2e+03	6.38e+07	3.32e+03	1.9e+04
13C-1,2,3,6,7,8-HxCDF	3.62e+07	4.01e+03	9.0e+03	6.87e+07	3.32e+03	2.1e+04
13C-2,3,4,6,7,8-HxCDF	3.34e+07	4.01e+03	8.3e+03	6.44e+07	3.32e+03	1.9e+04
13C-1,2,3,7,8,9-HxCDF	2.92e+07	4.01e+03	7.3e+03	5.66e+07	3.32e+03	1.7e+04
13C-1,2,3,4,6,7,8-HpCDF	2.30e+07	2.63e+03	8.7e+03	5.10e+07	7.08e+03	7.2e+03
13C-1,2,3,4,7,8,9-HpCDF	1.96e+07	2.63e+03	7.4e+03	4.35e+07	7.08e+03	6.1e+03
13C-2,3,7,8-TCDD	4.57e+07	2.62e+03	1.7e+04	5.79e+07	1.39e+03	4.2e+04
13C-1,2,3,7,8-PeCDD	6.17e+07	1.67e+03	3.7e+04	3.95e+07	1.00e+03	3.9e+04
13C-1,2,3,4,7,8-HxCDD	3.90e+07	3.54e+03	1.1e+04	3.08e+07	3.43e+03	9.0e+03
13C-1,2,3,6,7,8-HxCDD	4.70e+07	3.54e+03	1.3e+04	3.77e+07	3.43e+03	1.1e+04
13C-1,2,3,4,6,7,8-HpCDD	3.69e+07	2.70e+03	1.4e+04	3.57e+07	2.36e+03	1.5e+04
13C-OCDD	5.07e+07	2.04e+03	2.5e+04	5.66e+07	1.52e+03	3.7e+04
13C-1,2,3,4-TCDD	4.80e+07	2.62e+03	1.8e+04	6.05e+07	1.39e+03	4.4e+04
13C-1,2,3,7,8,9-HxCDD	5.20e+07	3.54e+03	1.5e+04	4.12e+07	3.43e+03	1.2e+04
37Cl-2,3,7,8-TCDD	1.09e+07	1.20e+03	9.1e+03			

File: 208 #1-592 Acq:23-APR-2012 11:54:29 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:2ND SOURCE VERIFICATION

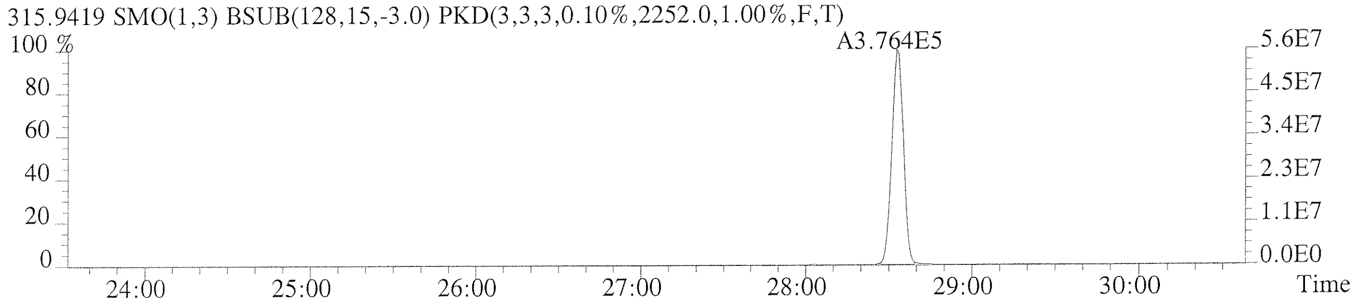
303.9016 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,1688.0,1.00%,F,T)



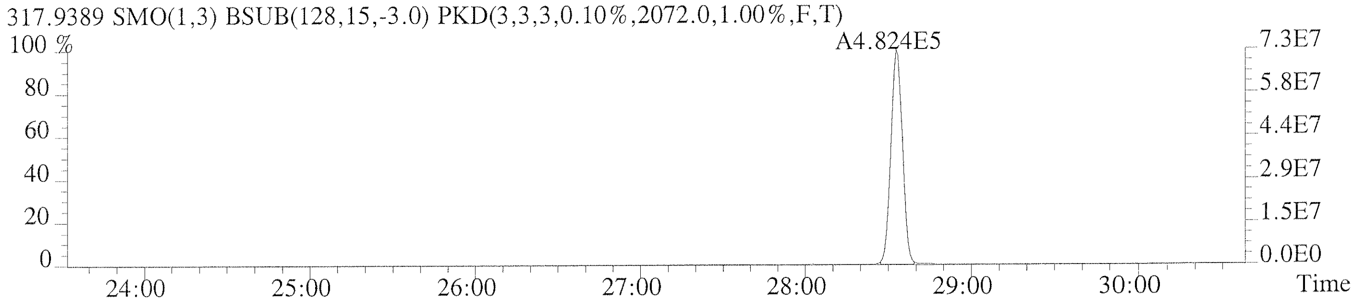
305.8987 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,2000.0,1.00%,F,T)



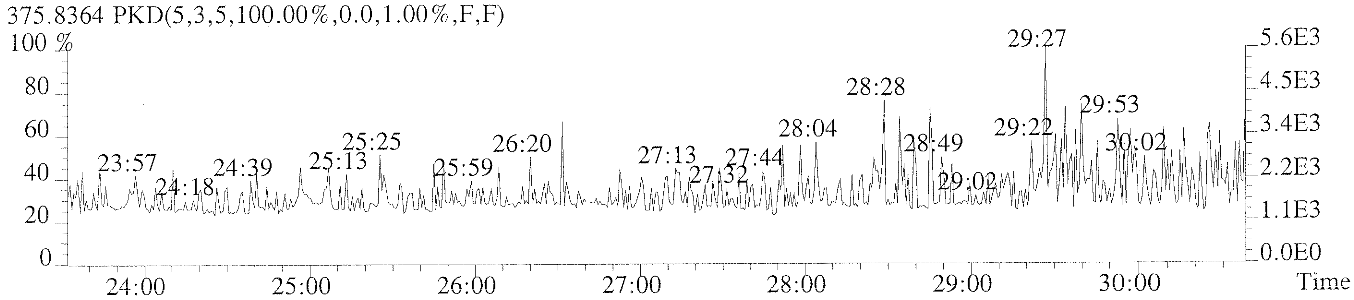
315.9419 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,2252.0,1.00%,F,T)



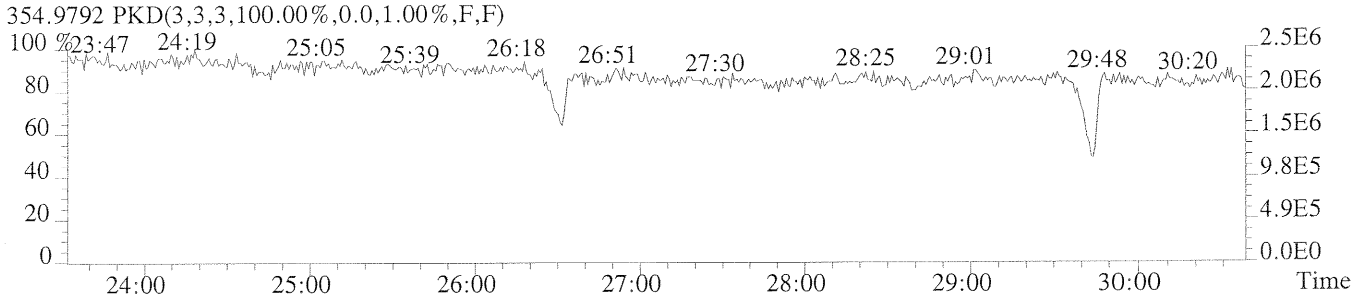
317.9389 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,2072.0,1.00%,F,T)



375.8364 PKD(5,3,5,100.00%,0.0,1.00%,F,F)

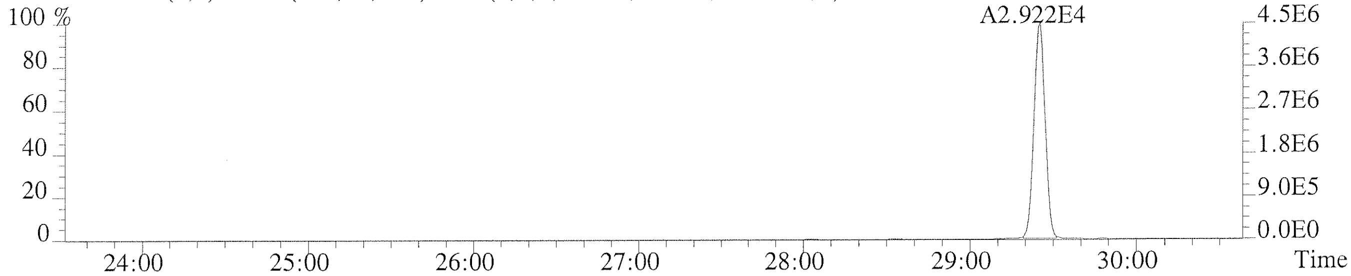


354.9792 PKD(3,3,3,100.00%,0.0,1.00%,F,F)

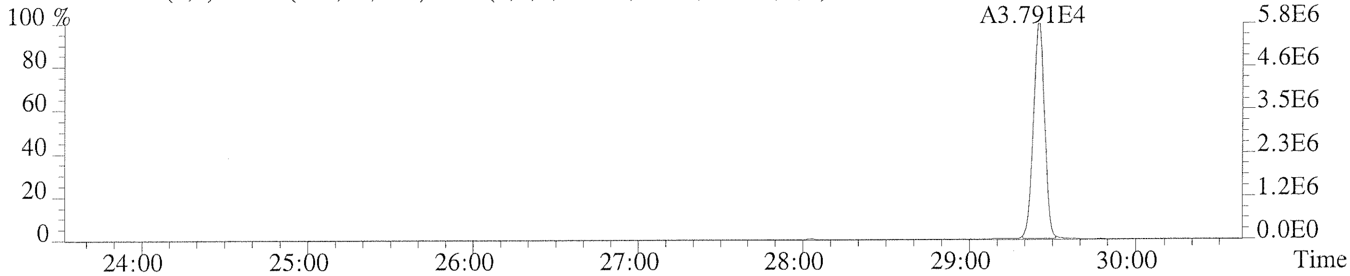


File: 208 #1-592 Acq:23-APR-2012 11:54:29 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:2ND SOURCE VERIFICATION

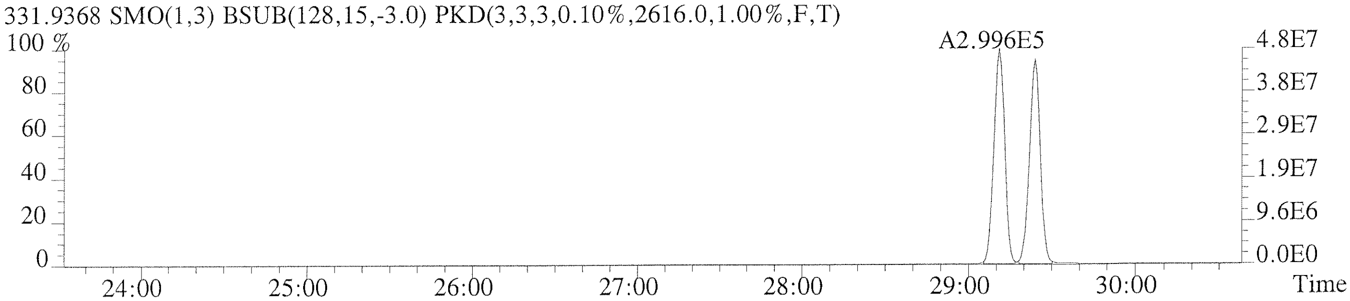
319.8965 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,1880.0,1.00%,F,T)



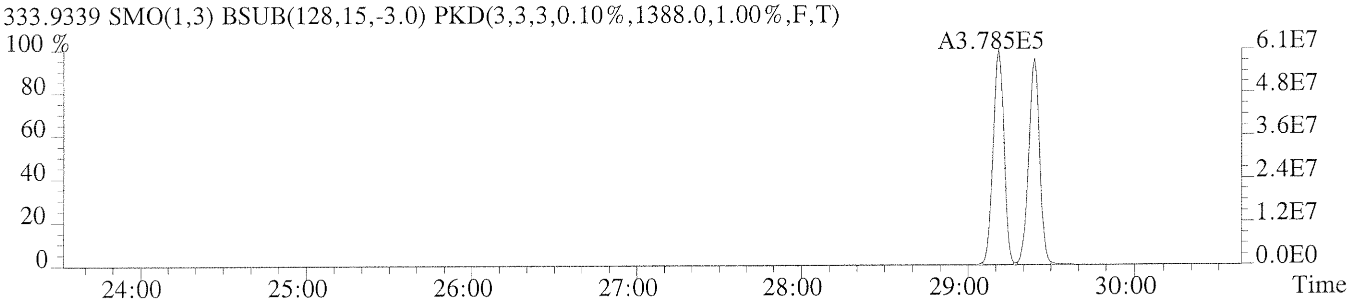
321.8936 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,968.0,1.00%,F,T)



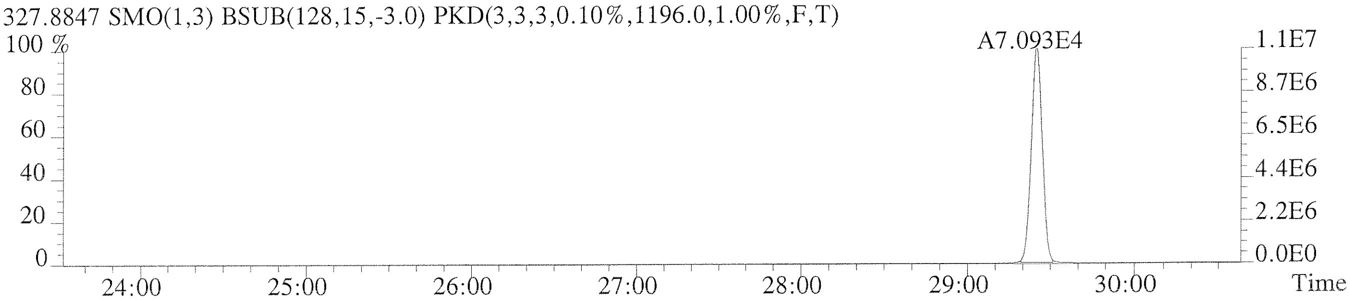
331.9368 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,2616.0,1.00%,F,T)



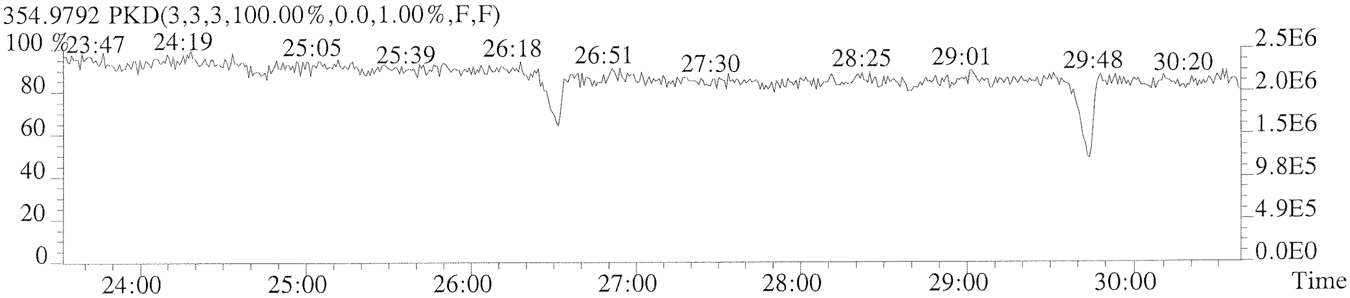
333.9339 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,1388.0,1.00%,F,T)



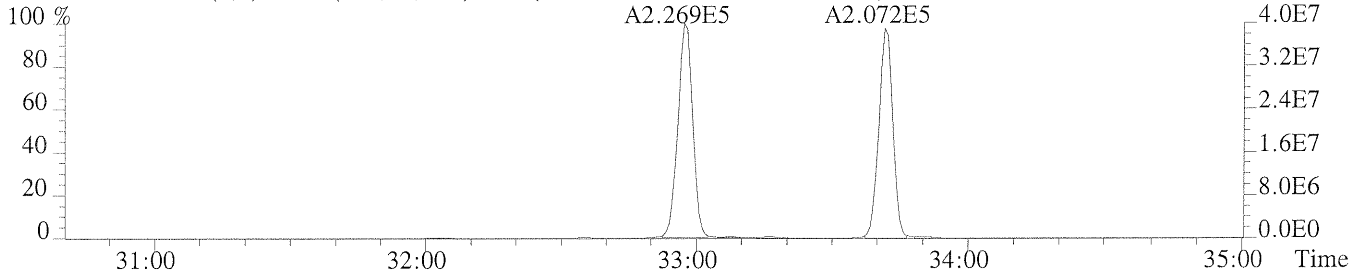
327.8847 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,1196.0,1.00%,F,T)



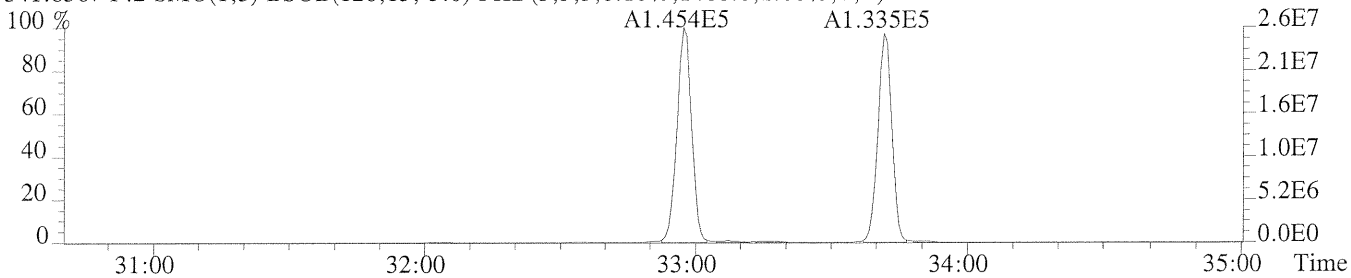
354.9792 PKD(3,3,3,100.00%,0.0,1.00%,F,F)



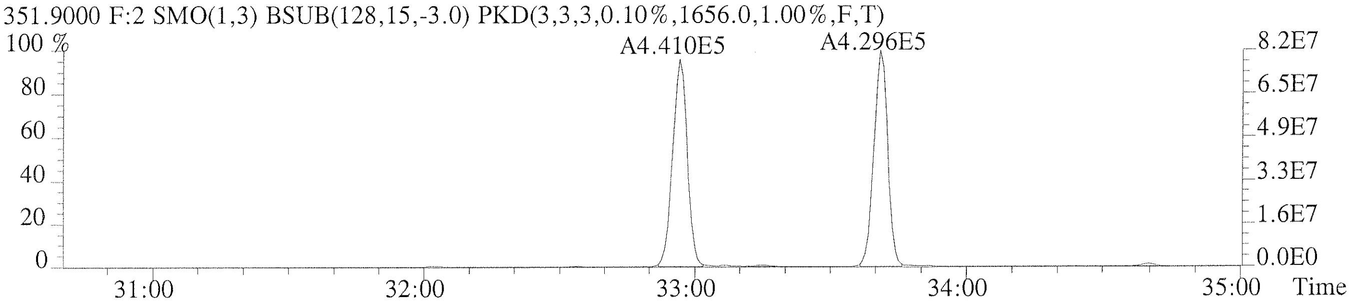
File: 7208 #1-394 Acq:23-APR-2012 11:54:29 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:2ND SOURCE VERIFICATION
339.8597 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,2668.0,1.00%,F,T)



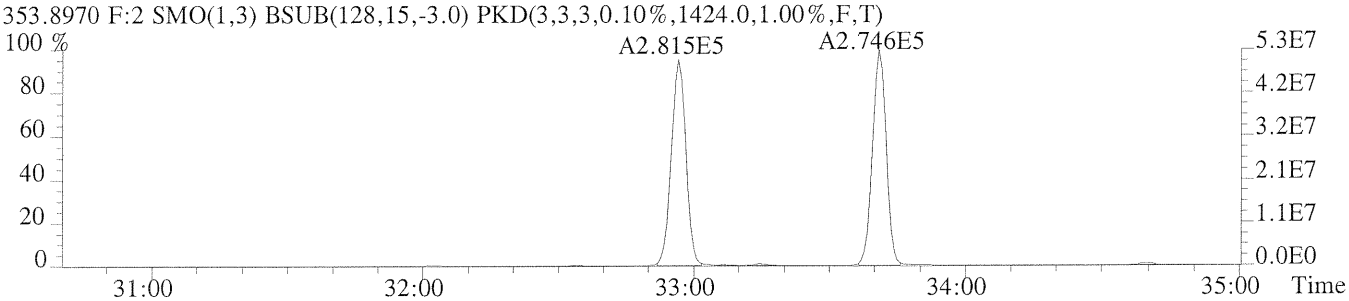
341.8567 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,1468.0,1.00%,F,T)



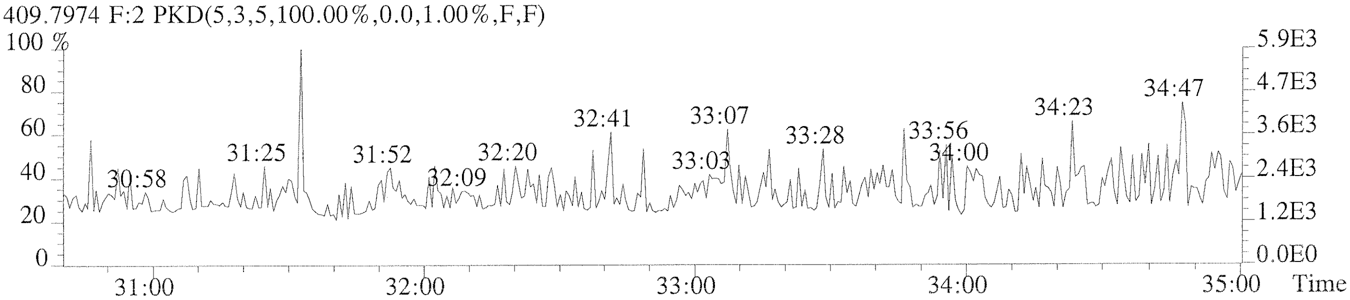
351.9000 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,1656.0,1.00%,F,T)



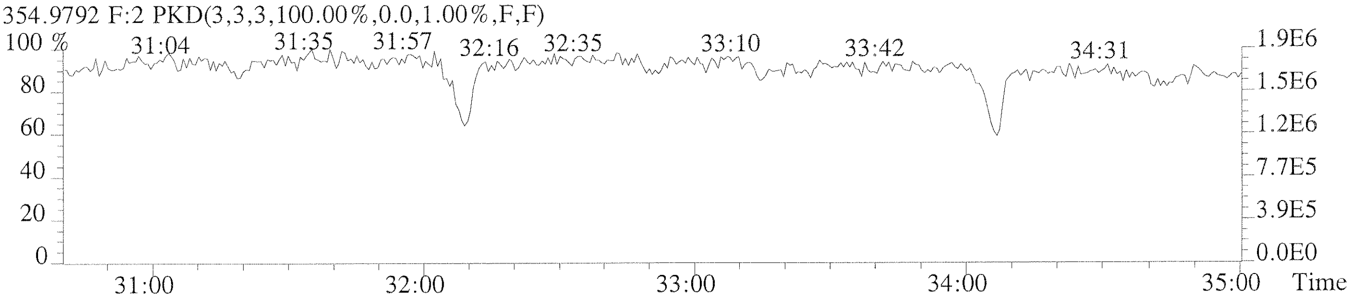
353.8970 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,1424.0,1.00%,F,T)



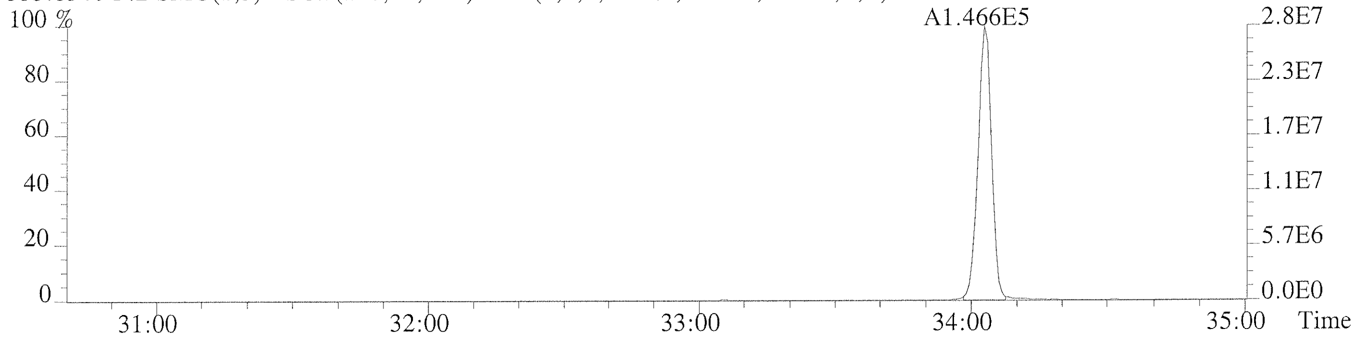
409.7974 F:2 PKD(5,3,5,100.00%,0.0,1.00%,F,F)



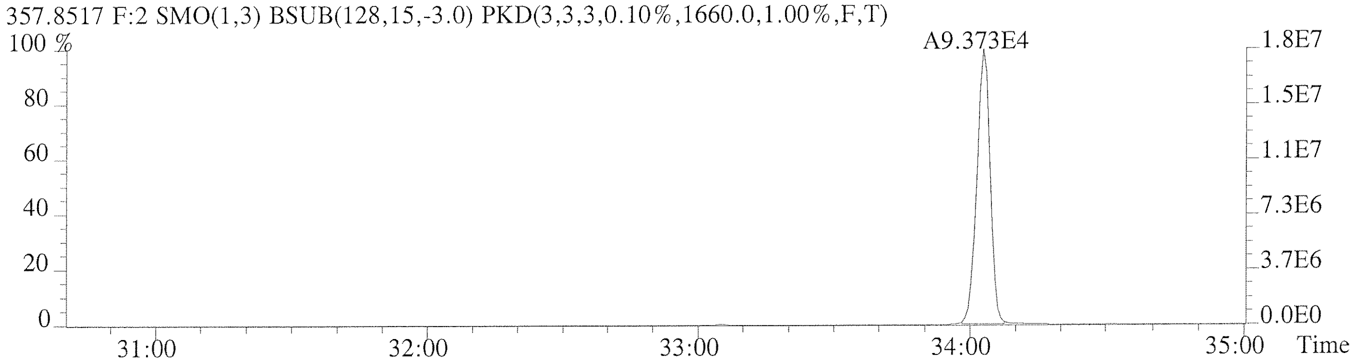
354.9792 F:2 PKD(3,3,3,100.00%,0.0,1.00%,F,F)



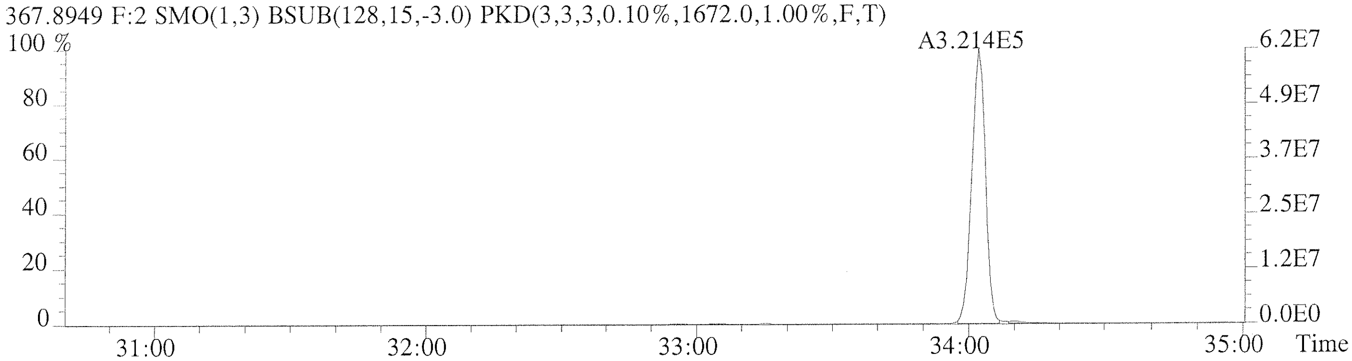
File ?208 #1-394 Acq:23-APR-2012 11:54:29 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:2ND SOURCE VERIFICATION
355.8546 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,1736.0,1.00%,F,T)



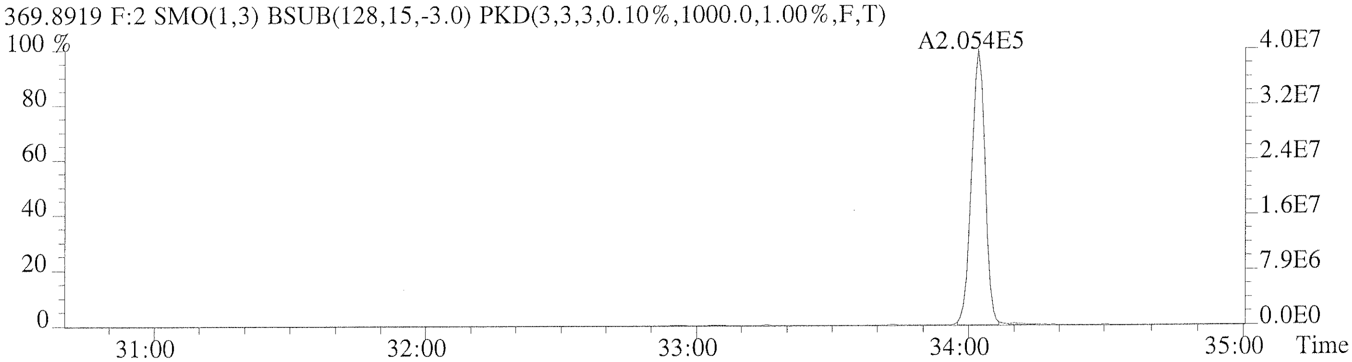
357.8517 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,1660.0,1.00%,F,T)



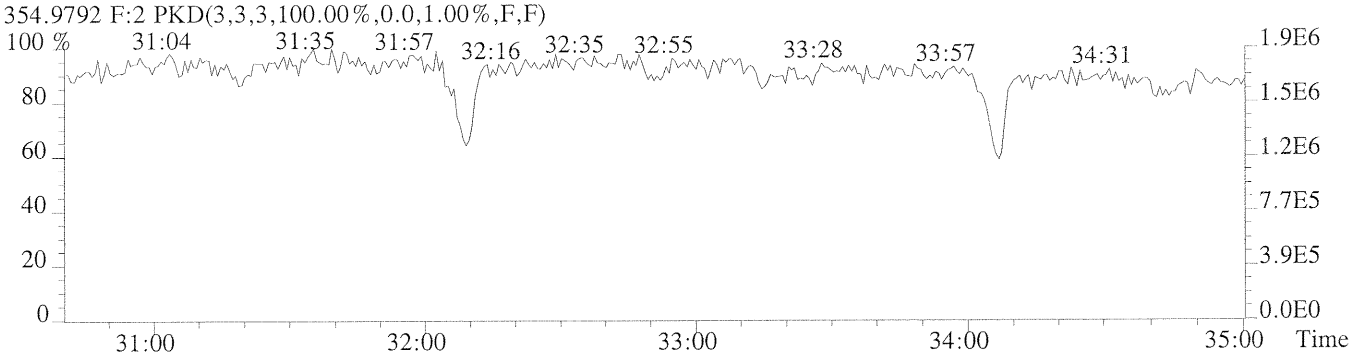
367.8949 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,1672.0,1.00%,F,T)



369.8919 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,1000.0,1.00%,F,T)

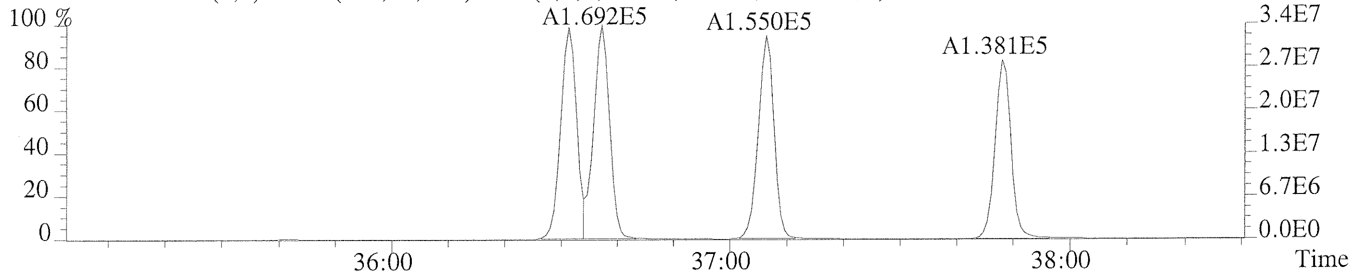


354.9792 F:2 PKD(3,3,3,100.00%,0.0,1.00%,F,F)

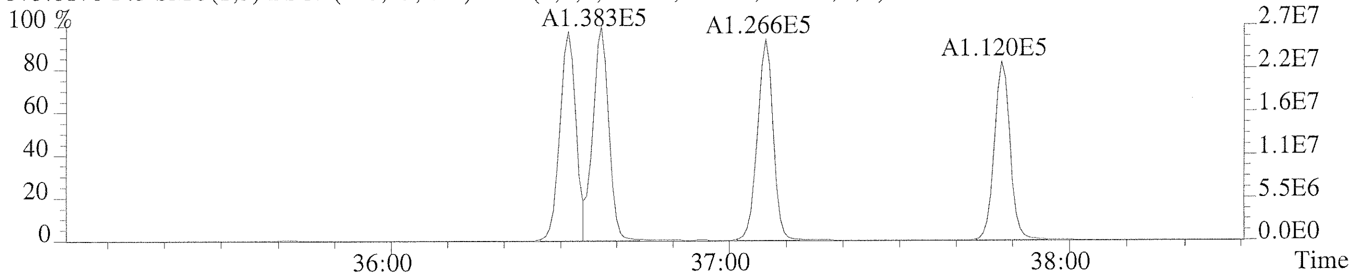


File: ⁷208 #1-315 Acq:23-APR-2012 11:54:29 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:2ND SOURCE VERIFICATION

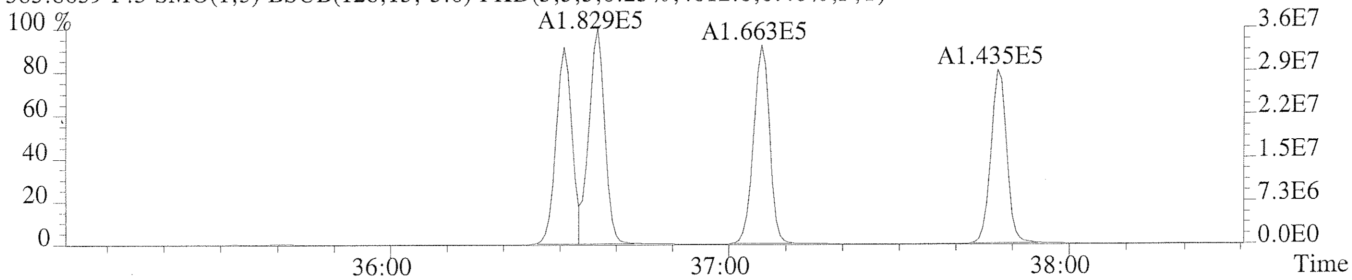
373.8208 F:3 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,6448.0,0.40%,F,T)



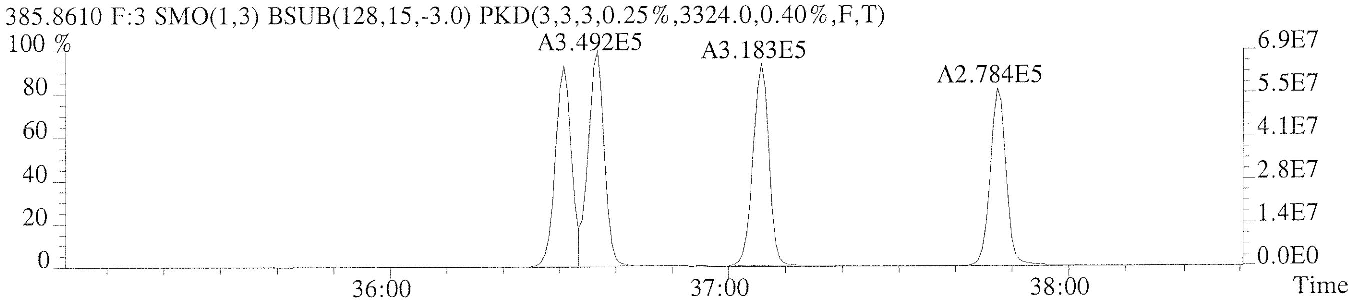
375.8178 F:3 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,3792.0,0.40%,F,T)



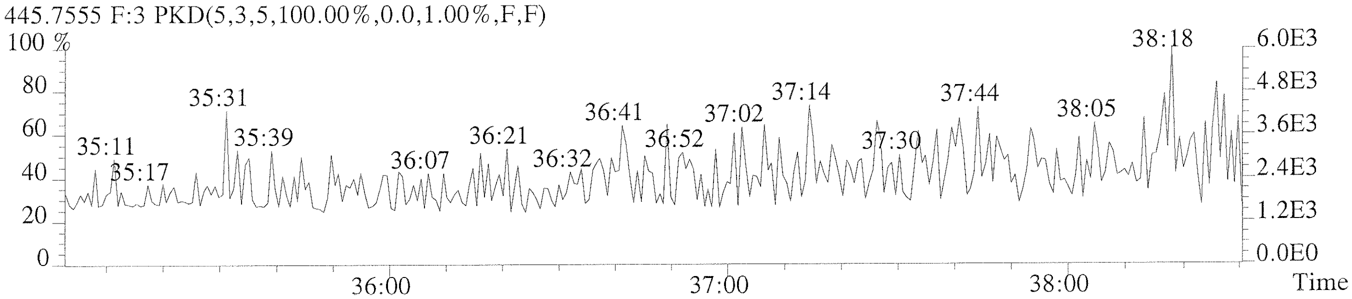
383.8639 F:3 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,4012.0,0.40%,F,T)



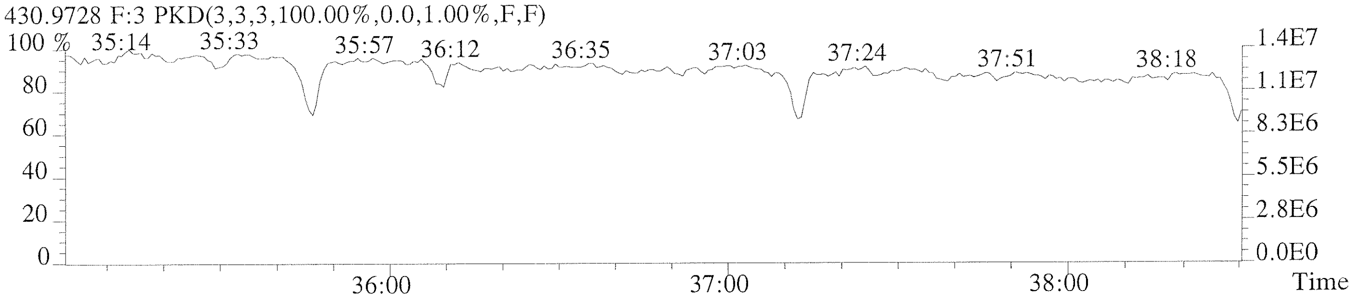
385.8610 F:3 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,3324.0,0.40%,F,T)



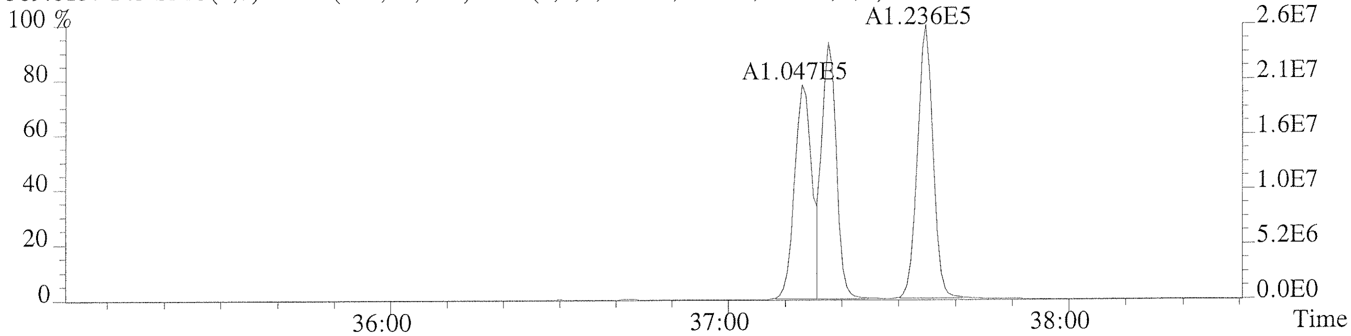
445.7555 F:3 PKD(5,3,5,100.00%,0.0,1.00%,F,F)



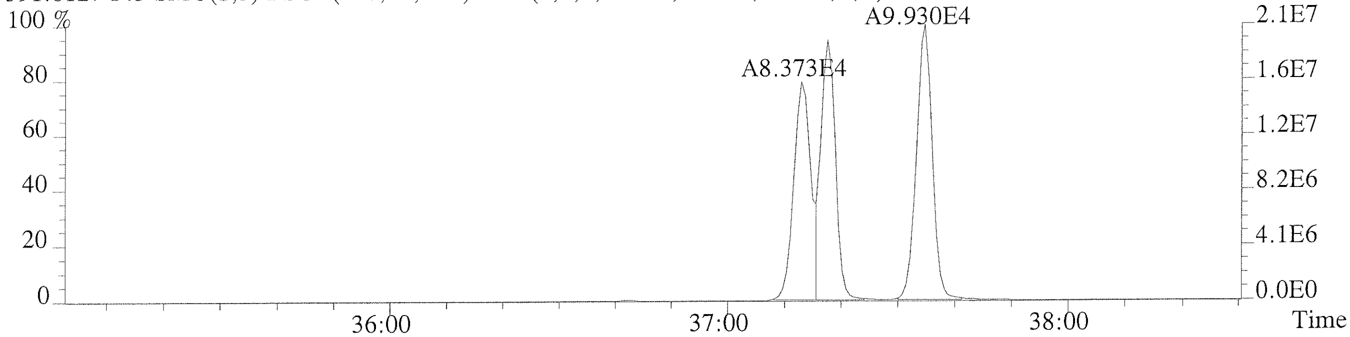
430.9728 F:3 PKD(3,3,3,100.00%,0.0,1.00%,F,F)



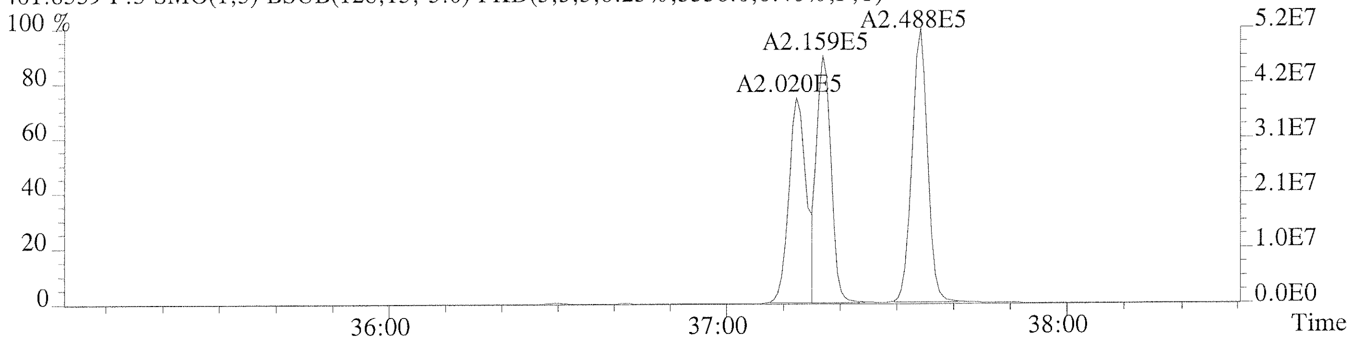
File: '208 #1-315 Acq:23-APR-2012 11:54:29 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:2ND SOURCE VERIFICATION
389.8157 F:3 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,3308.0,0.40%,F,T)



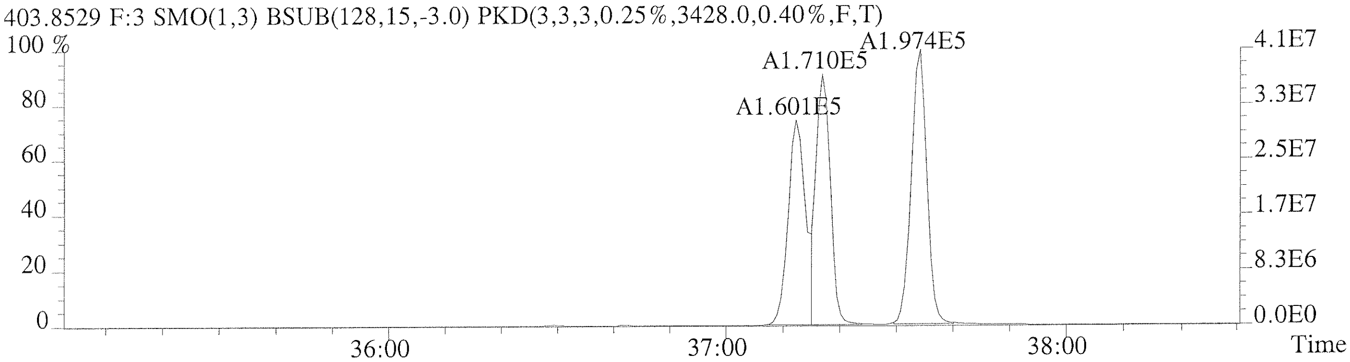
391.8127 F:3 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,2884.0,0.40%,F,T)



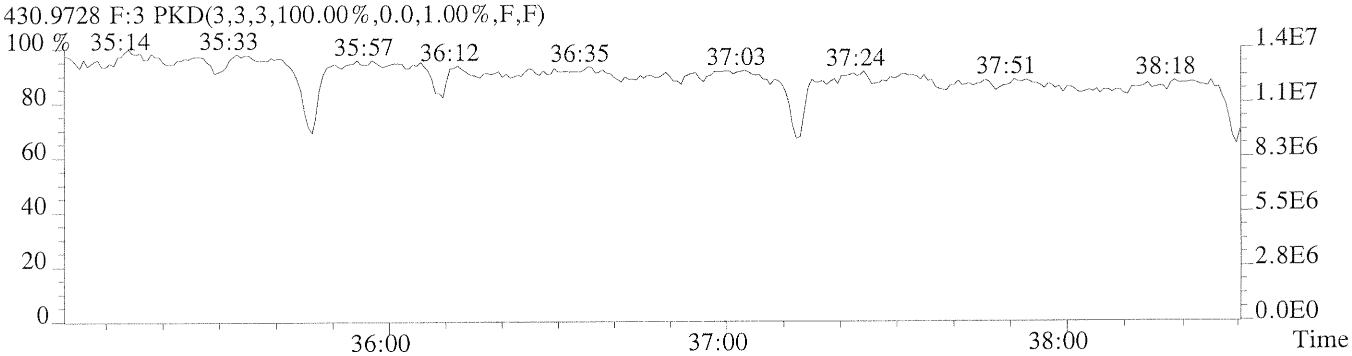
401.8559 F:3 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,3536.0,0.40%,F,T)



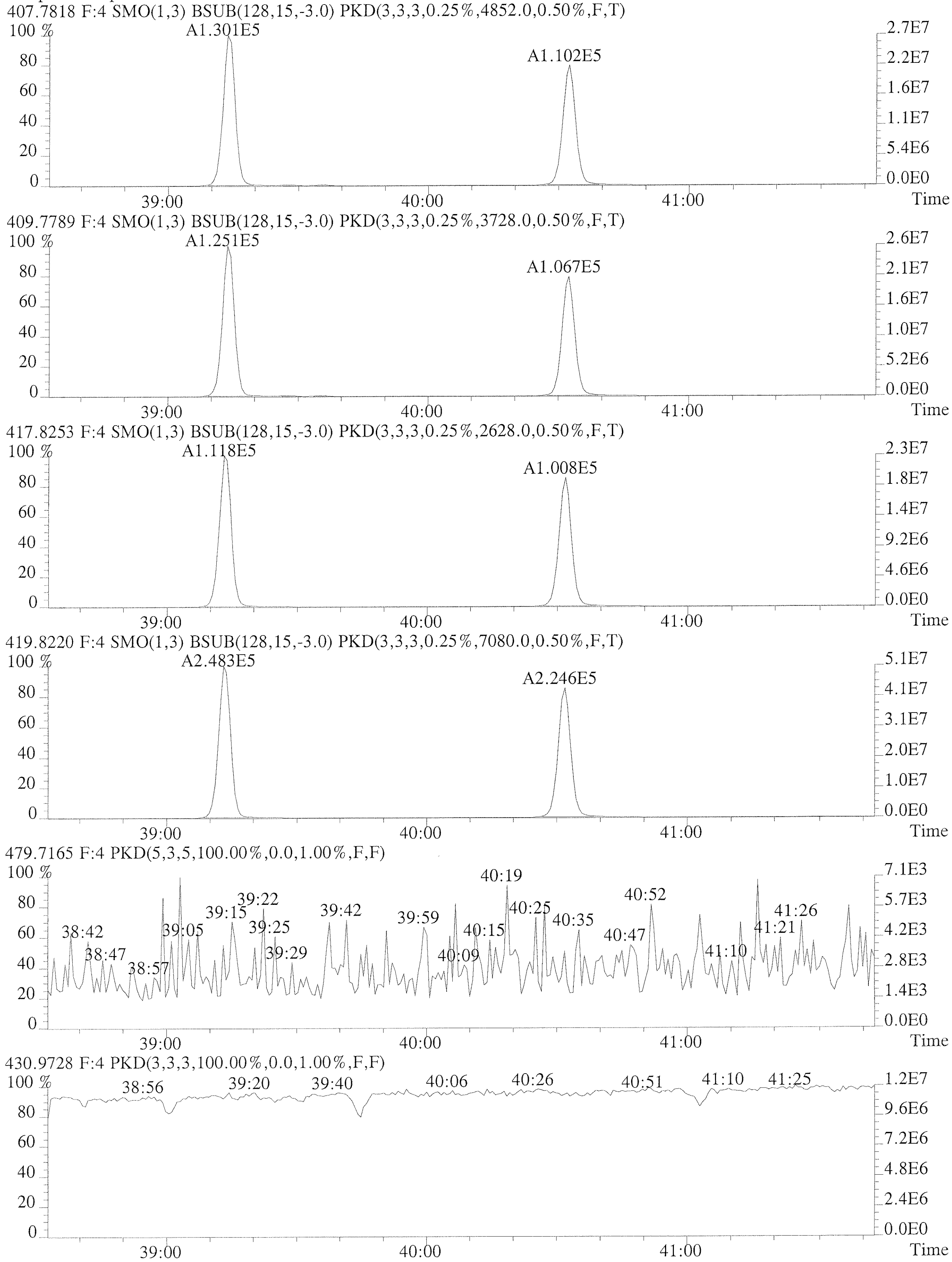
403.8529 F:3 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,3428.0,0.40%,F,T)



430.9728 F:3 PKD(3,3,3,100.00%,0.0,1.00%,F,F)

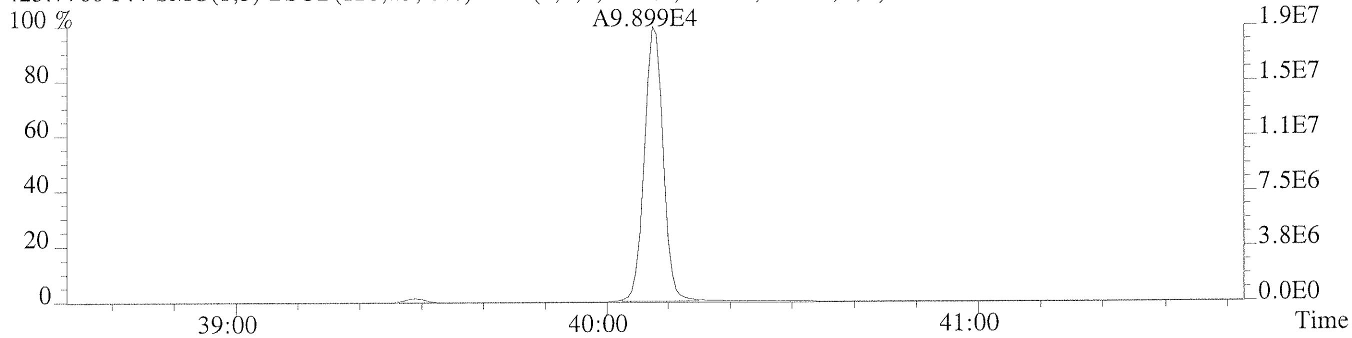


File: 208 #1-288 Acq:23-APR-2012 11:54:29 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:2ND SOURCE VERIFICATION

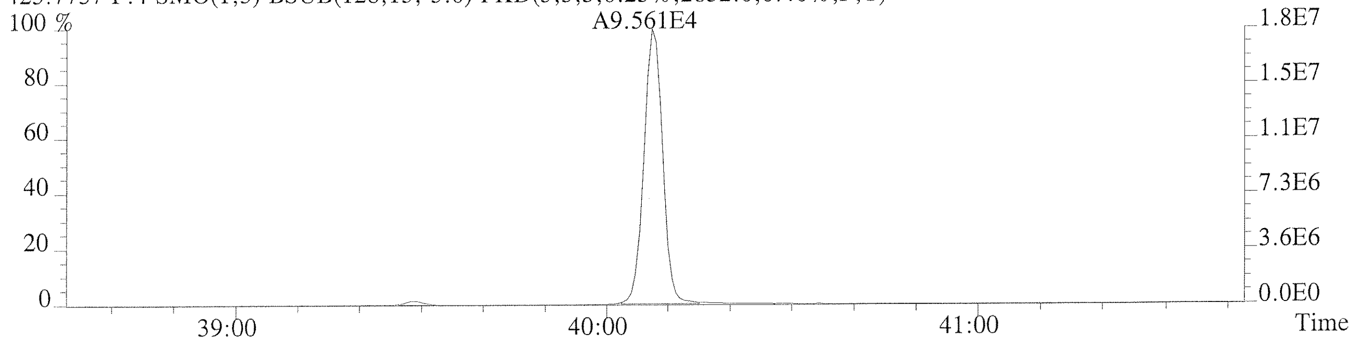


File: ⁷208 #1-288 Acq:23-APR-2012 11:54:29 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:2ND SOURCE VERIFICATION

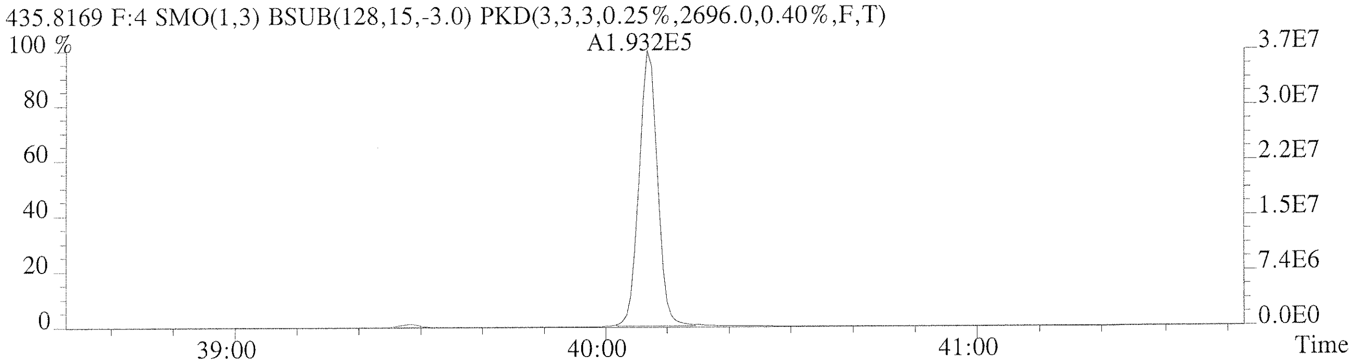
423.7766 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,2464.0,0.40%,F,T)



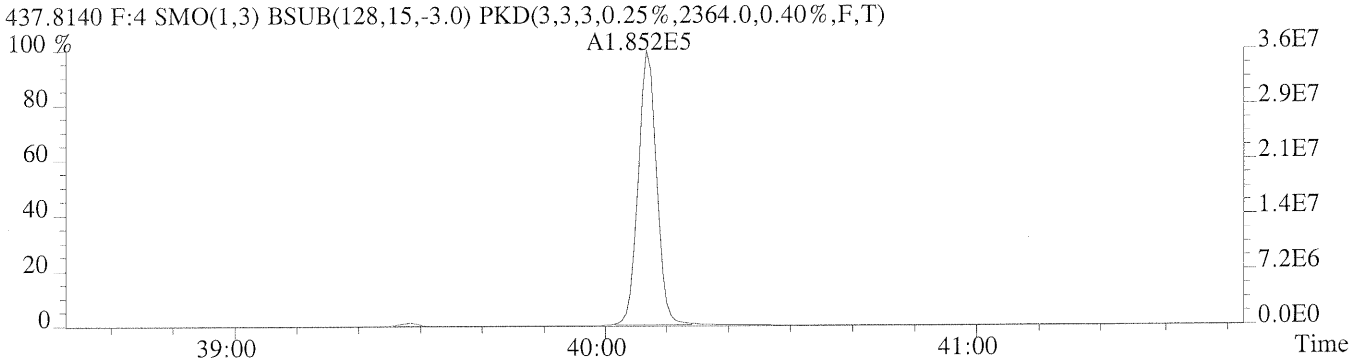
425.7737 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,2852.0,0.40%,F,T)



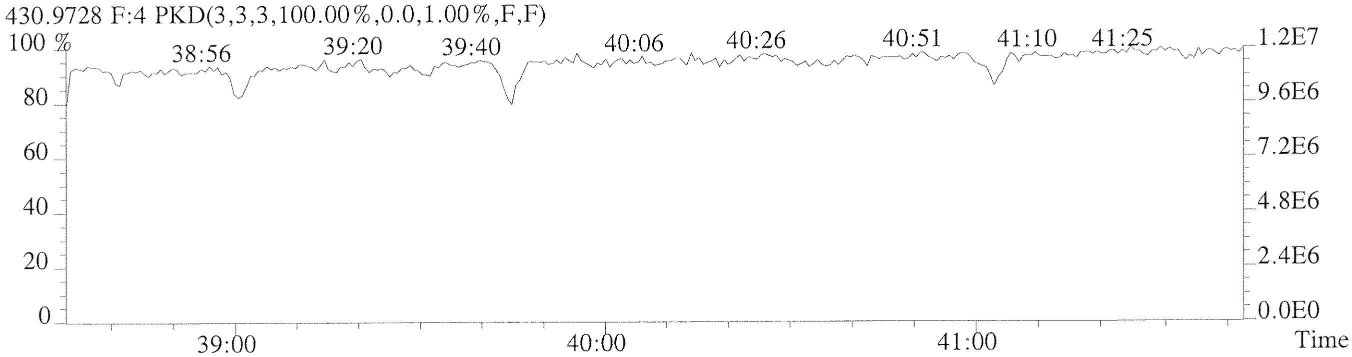
435.8169 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,2696.0,0.40%,F,T)



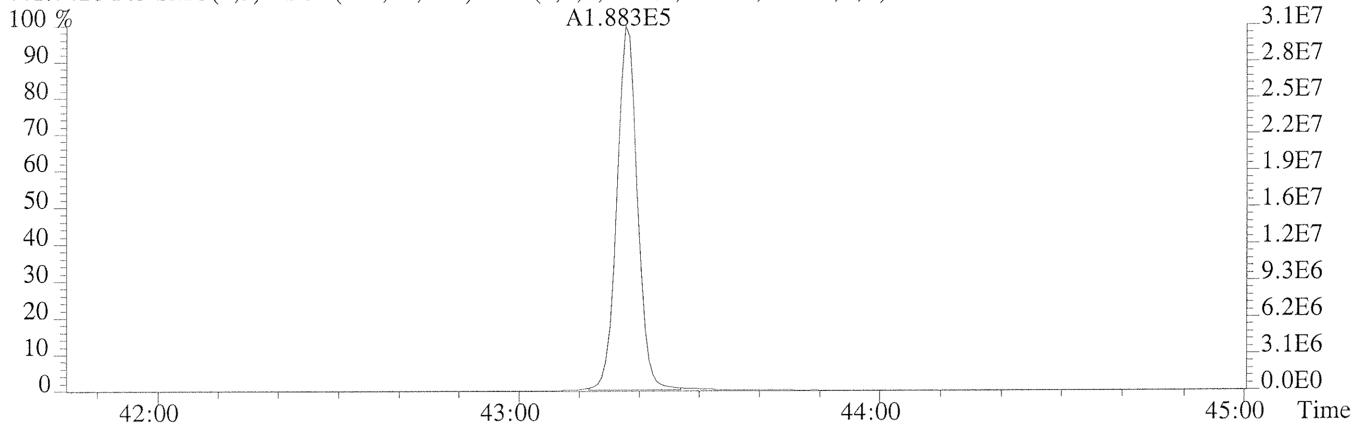
437.8140 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,2364.0,0.40%,F,T)



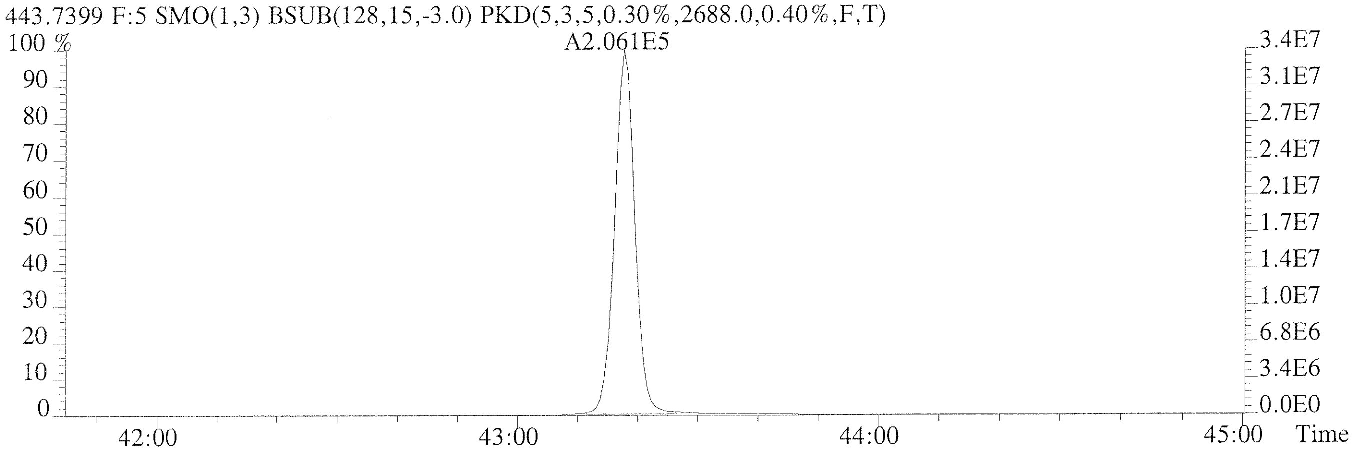
430.9728 F:4 PKD(3,3,3,100.00%,0.0,1.00%,F,F)



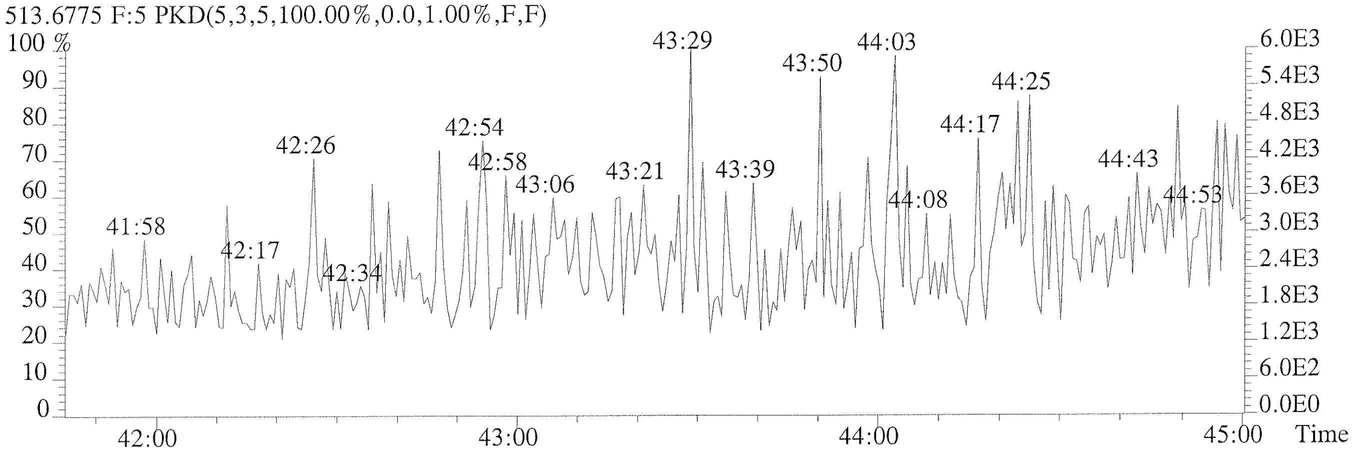
File: '208 #1-300 Acq:23-APR-2012 11:54:29 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:2ND SOURCE VERIFICATION
441.7428 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(5,3,5,0.30%,2960.0,0.40%,F,T)



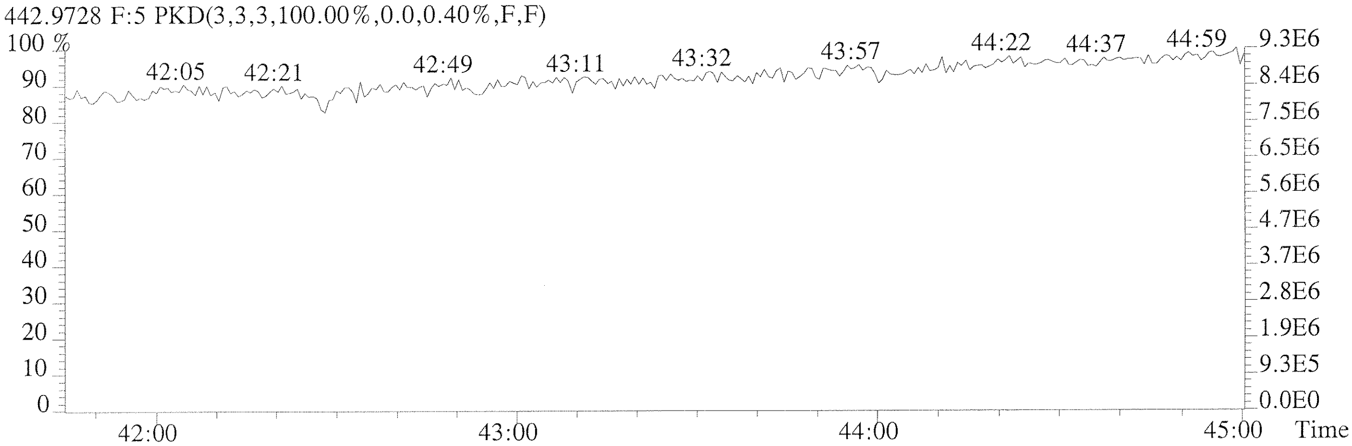
443.7399 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(5,3,5,0.30%,2688.0,0.40%,F,T)



513.6775 F:5 PKD(5,3,5,100.00%,0.0,1.00%,F,F)

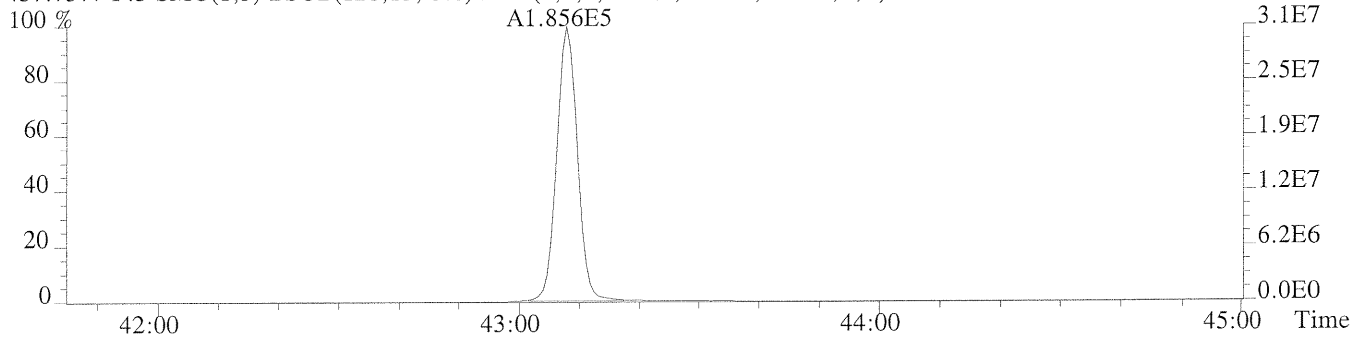


442.9728 F:5 PKD(3,3,3,100.00%,0.0,0.40%,F,F)

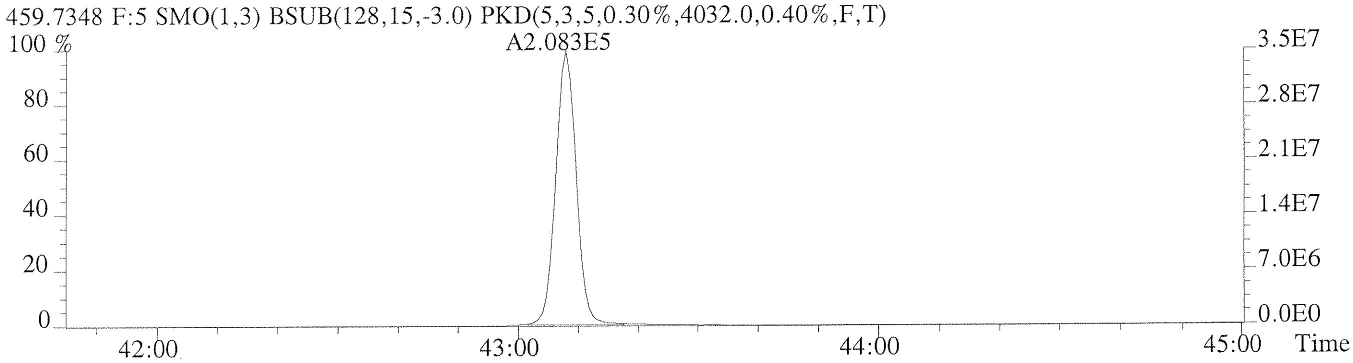


File: 208 #1-300 Acq:23-APR-2012 11:54:29 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:2ND SOURCE VERIFICATION

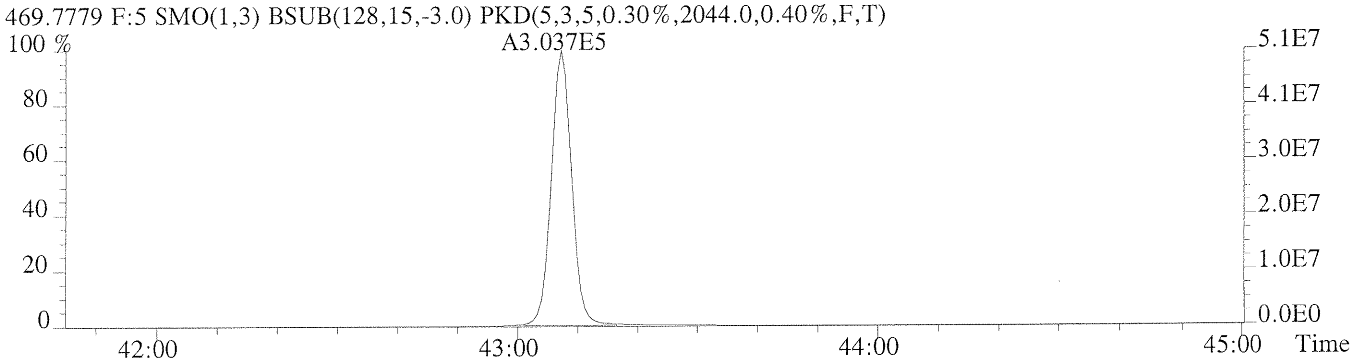
457.7377 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(5,3,5,0.30%,3404.0,0.40%,F,T)



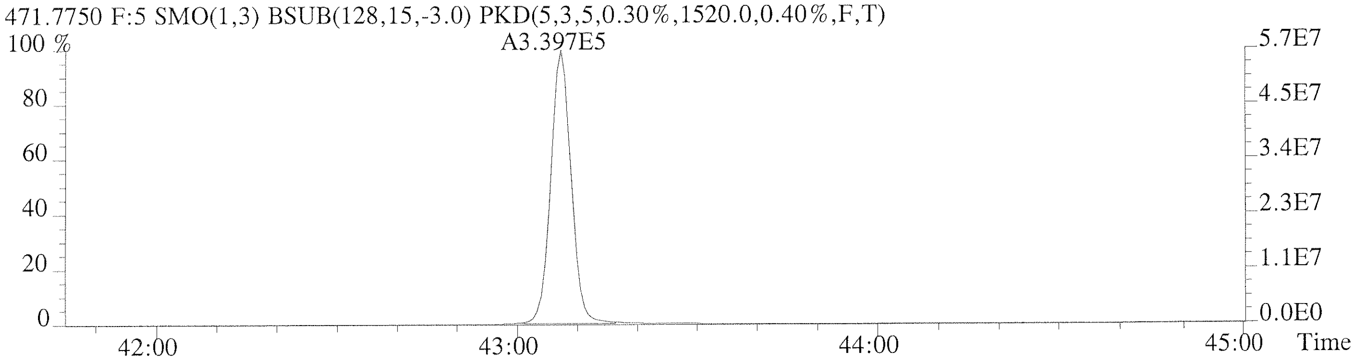
459.7348 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(5,3,5,0.30%,4032.0,0.40%,F,T)



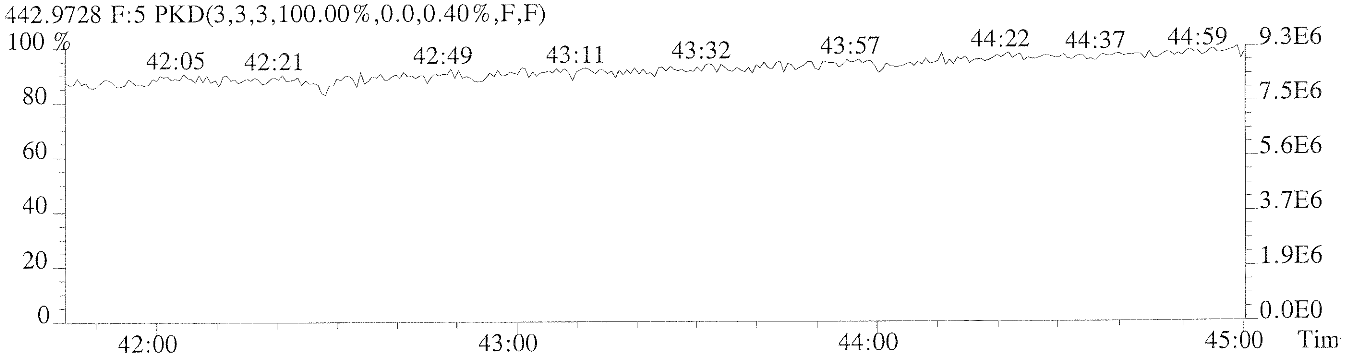
469.7779 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(5,3,5,0.30%,2044.0,0.40%,F,T)



471.7750 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(5,3,5,0.30%,1520.0,0.40%,F,T)



442.9728 F:5 PKD(3,3,3,100.00%,0.0,0.40%,F,F)



Initial Calibration QC Checklist

ICAL Name: 75031613I

Date: 03 MAR '12

Method: 1613 / 8290 / Tetra / TCDD Only / TCDF Conf / 8280 / 613 / M23 / TO-9

Retention Window/Column Performance Check	Analyst	Second Check
Windows in and first and last eluters labeled	✓	✓
Column Performance shows less than or equal to 25% valley between column specific 2378 isomer and it's closest eluters	✓	✓
No QC ion deflections affect column specific 2378 isomer or it's closest eluters	✓	✓

Initial Calibration	Analyst	Second Check
Percent RSD within method criteria	✓	✓
All relative abundance ratios meet method criteria	✓	✓
No QC ion deflections of greater than 20%	✓	✓
Mass spectrometer resolution greater than or equal to 10,000 and documented	✓	✓
2378-TCDD elutes at 25 minutes or later on the DB-5 column	✓	✓
Signal-to-noise of all target analytes and their labeled standards at least 10:1	✓	✓
Valley between labeled 123478 and 123678 HxCDD peaks less than or equal to 50%	✓	✓
All Manual Intergrations signed and dated and first and final copies of Ical summary included	✓	✓

Analyst: ____ ________________ Second QC: ______________________

icalqc.xls 02-

5DFC
PCDD/PCDF ANALYTICAL SEQUENCE SUMMARY
HIGH RESOLUTION

Name: Contract

Lab Code: CASE No.: Client No: SDG No.:

GC Column: DB-5 ID: 0.25 (mm) Instrument ID: AutoSpec-Ultima

Init. Calib. Date: 05/03/12

Init. Calib.Times: 05:17

THE ANALYTICAL SEQUENCE OF STANDARDS, SAMPLES, BLANKS, SPIKES AND DUPLICATES IS AS FOLLOWS:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
WINDOW DEFINE		7388	3-MAY-12	05:17:38
ICAL CS0.5	ICAL CS0.5	7389	3-MAY-12	06:11:11
ICAL CS1	ICAL CS1	7390	3-MAY-12	07:07:52
ICAL CS2	ICAL CS2	7391	3-MAY-12	08:16:36
ICAL CS3	ICAL CS3	7392	3-MAY-12	09:15:36
ICAL CS4	ICAL CS4	7393	3-MAY-12	10:13:02
ICAL CS5		7394	3-MAY-12	11:11:27

Sample List Report MassLynx 4.1

Sample List: C:\MassLynx\ 'RO\SampleDB\ 20503.SPL Page 1 of 1

Last Modified: Thursday, May 03, 2012 10:21:13 Central Daylight Time

Printed: Thursday, May 03, 2012 10:23:40 Central Daylight Time Page Position (1, 1)

D: 0503161³I D: 0503M23I D: 7395RES-VER D: 7395RES-VERM23

	Date	Time	File Name	Sample ID	Client ID		Comments	GC Met	Acq Met
1	05/03/12	05:17	7388	WINDOW DEFINE	D12-56-2		HRMS CHECK 05:15	8290	8290
2		06:11	7389	ICAL CS0.5	D13-8-2			8290	8290
3		07:07	7390	ICAL CS1	D12-90-3A			8290	8290
4		08:16	7391	ICAL CS2	D12-90-3B			8290	8290
5		09:15	7392	ICAL CS3	D12-83-1			8290	8290
6		10:13	7393	ICAL CS4	D12-90-3D			8290	8290
7		11:11	7394	ICAL CS5	D12-90-3E		HRMS CHECK 12:10	8290	8290
8		12:23	7395	2ND SOURCE VERIFICATION	D12-5-1B		~~HRMS CHECK~~	8290	8290
9			---	---	---			8290	8290
10			---	---	---			8290	8290
11			---	---	---			8290	8290
12			---	---	---			8290	8290
13			---	---	---			8290	8290
14			---	---	---			8290	8290
15			---	---	---			8290	8290
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20			---	---	---			8290	8290
21			---	---	---			---	---
22	---	---	---	---	---	---	---	---	---
23	---	---	---	---	---	---	---	TCDF	tcdf
24	---	---	---	---	---	---	---	TCDF	tcdf
25	---	---	---	---	---	---	---	---	---
26	---	---	---	---	---	---	---	TCDF	tcdf
27	---	---	---	---	---	---	---	TCDF	8290
28	---	---	---	---	---	---	---	TCDF	8290
29	---	---	---	---	---	---	---	---	---
30	---	---	---	---	---	---	---	8290	8290
31	---	---	---	---	---	---	---	8290	8280
32	---	---	---	---	---	---		---	---

Reviewed by:

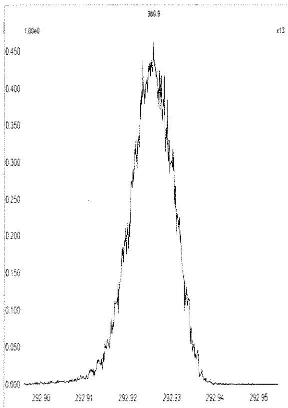
05/03/12

089

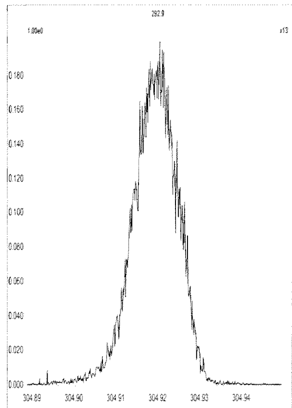
File: Experiment: 8290 .exp Reference: pfk.ref Function: 1 @ 200 (ppm)

Printed: Thursday, May 03, 2012 05:15:11 Central Daylight Time

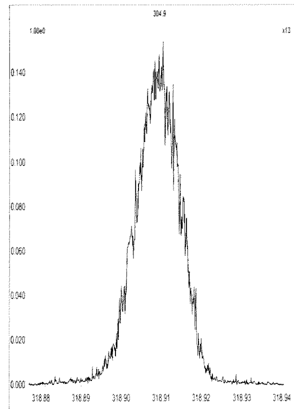
M 292.9824 R 13225



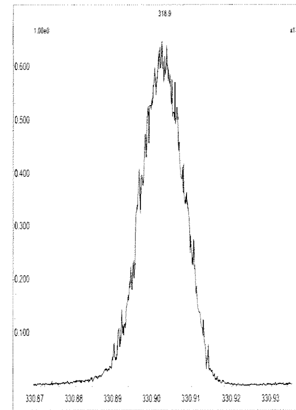
M 304.9824 R 13022



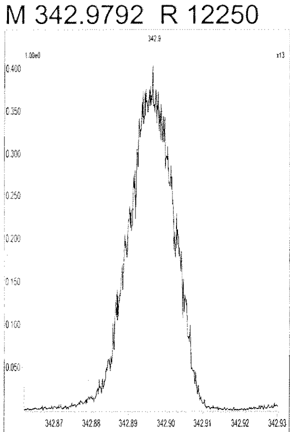
M 318.9792 R 12562



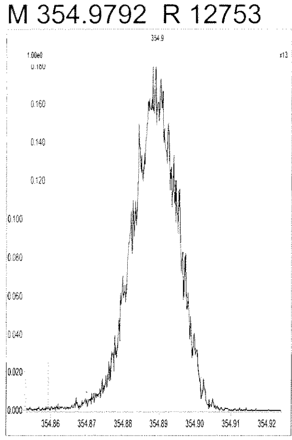
M 330.9792 R 13740



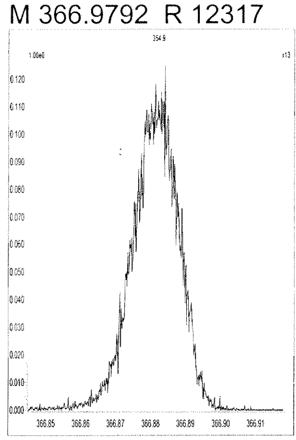
M 342.9792 R 12250



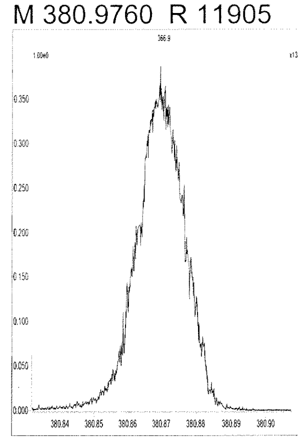
M 354.9792 R 12753



M 366.9792 R 12317



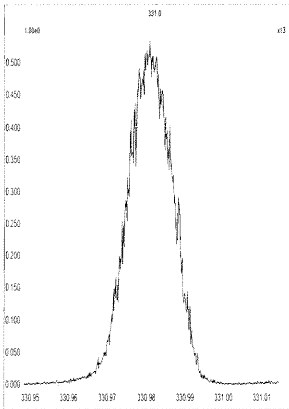
M 380.9760 R 11905



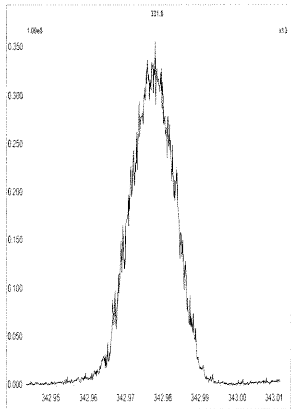
File: Experiment: 8290 .exp Reference: pfk.ref Function: 2 @ 200 (ppm)

Printed: Thursday, May 03, 2012 05:15:54 Central Daylight Time

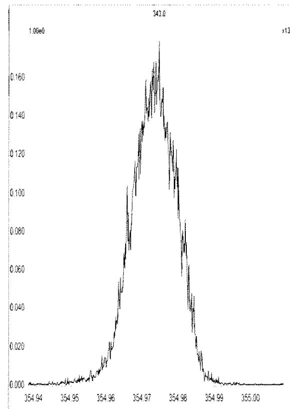
M 330.9792 R 12438



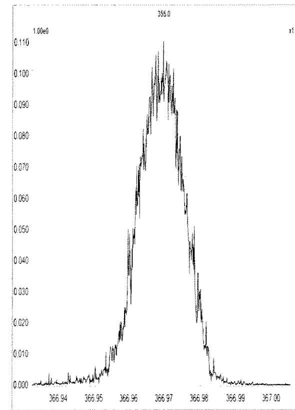
M 342.9792 R 12885



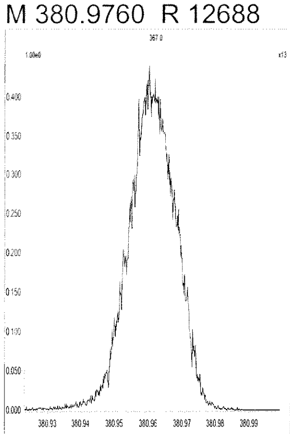
M 354.9792 R 12822



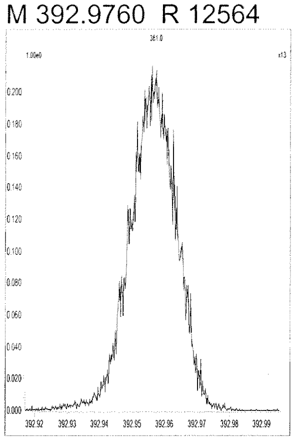
M 366.9792 R 12886



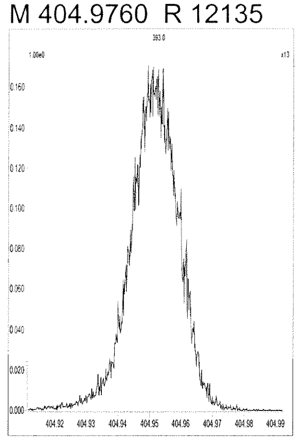
M 380.9760 R 12688



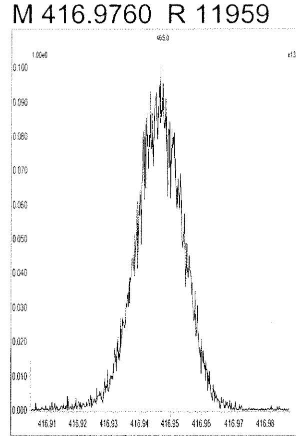
M 392.9760 R 12564



M 404.9760 R 12135



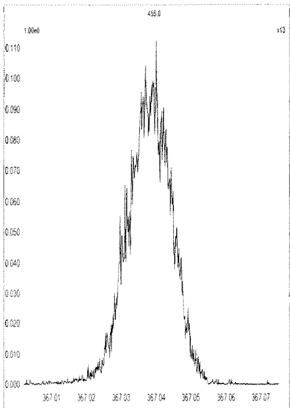
M 416.9760 R 11959



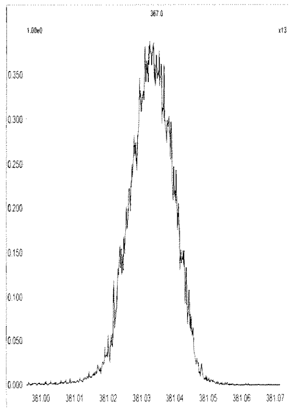
File: Experiment: 8290 .exp Reference: pfk.ref Function: 3 @ 200 (ppm)

Printed: Thursday, May 03, 2012 05:16:17 Central Daylight Time

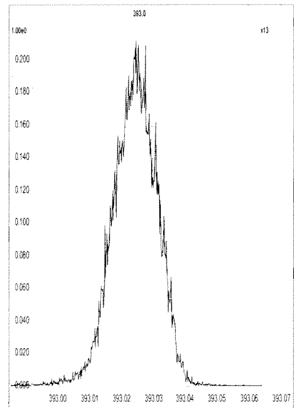
M 366.9792 R 13365



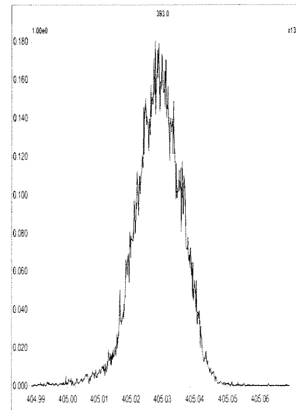
M 380.9760 R 13089



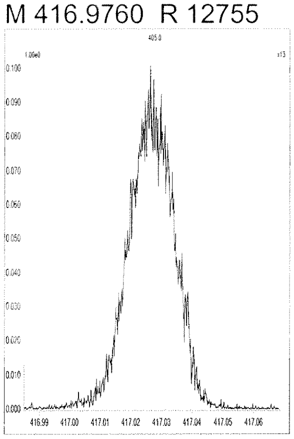
M 392.9760 R 12885



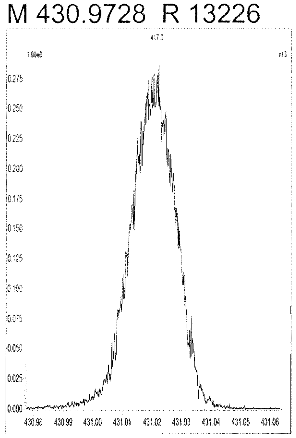
M 404.9760 R 12559



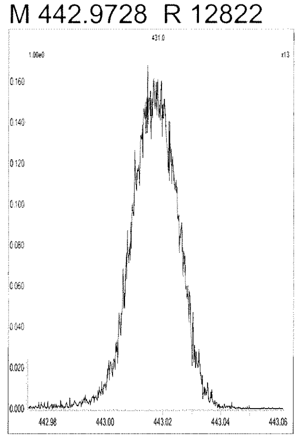
M 416.9760 R 12755



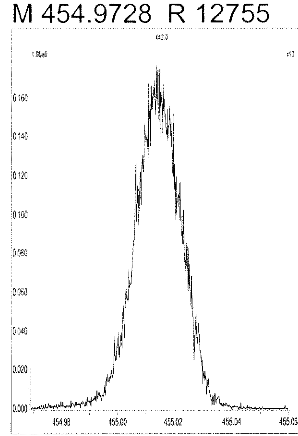
M 430.9728 R 13226



M 442.9728 R 12822



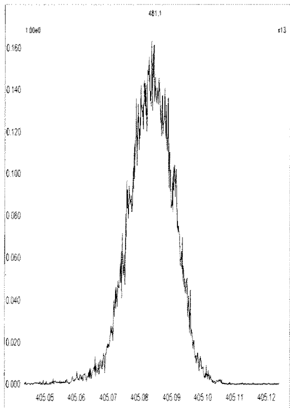
M 454.9728 R 12755



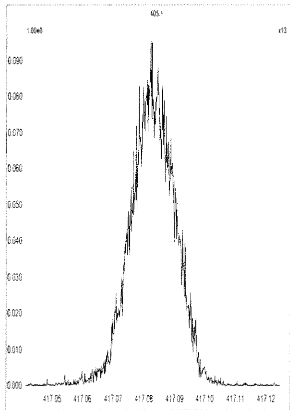
File: Experiment: 8290 .exp Reference: pfk.ref Function: 4 @ 200 (ppm)

Printed: Thursday, May 03, 2012 05:16:46 Central Daylight Time

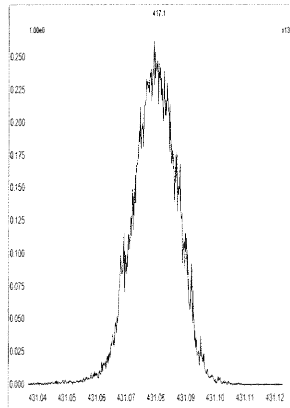
M 404.9760 R 13585



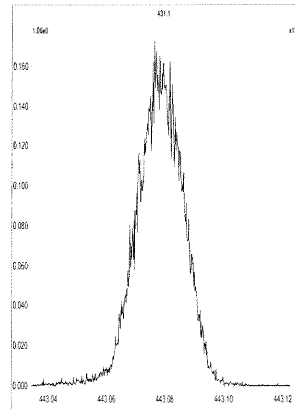
M 416.9760 R 13663



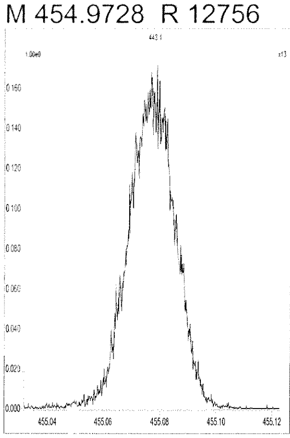
M 430.9728 R 12887



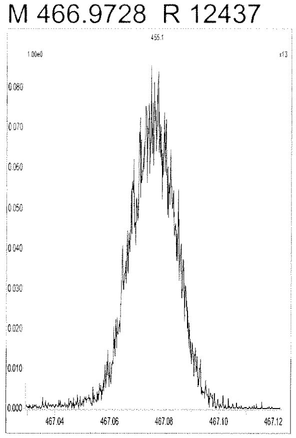
M 442.9728 R 12754



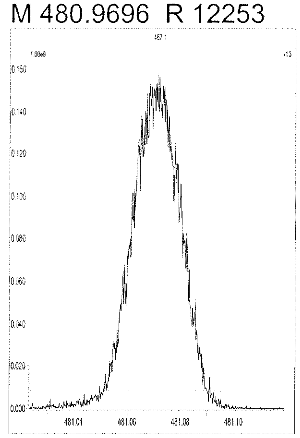
M 454.9728 R 12756



M 466.9728 R 12437



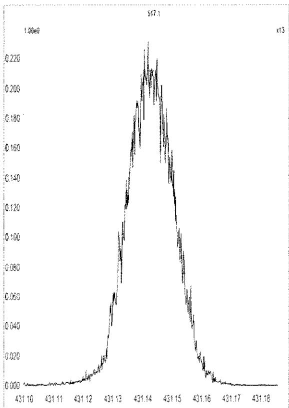
M 480.9696 R 12253



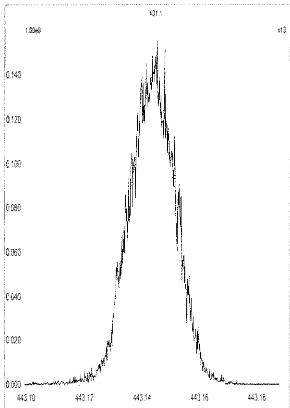
File: Experiment: 8290 exp Reference: pfk.ref Function: 5 @ 200 (ppm)

Printed: Thursday, May 03, 2012 05:17:12 Central Daylight Time

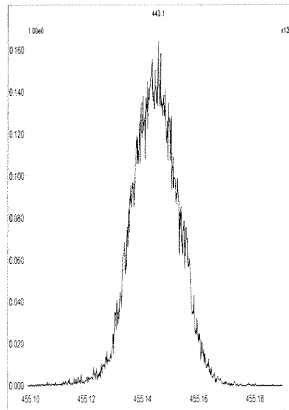
M 430.9728 R 12688



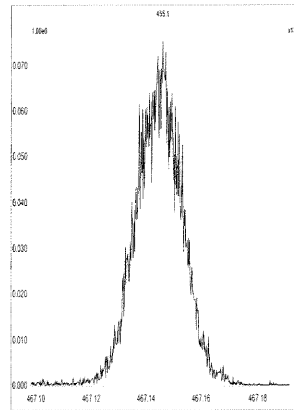
M 442.9728 R 12563



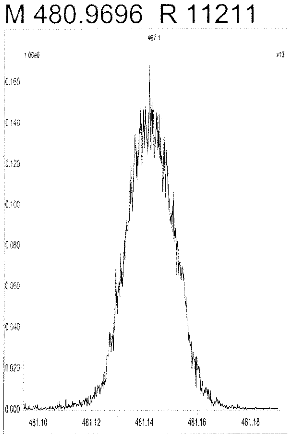
M 454.9728 R 11961



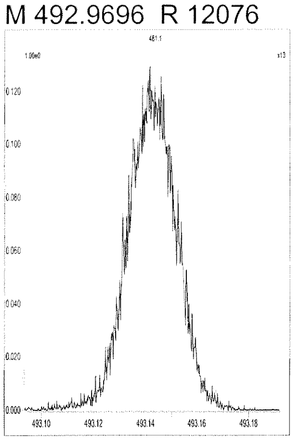
M 466.9728 R 12374



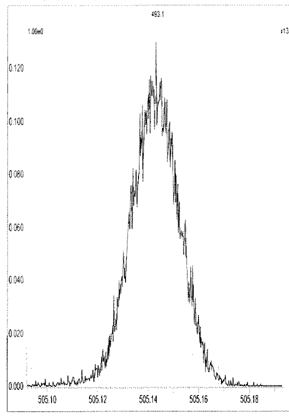
M 480.9696 R 11211



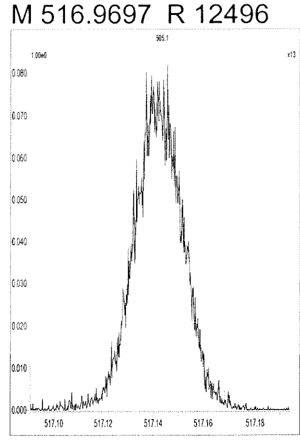
M 492.9696 R 12076



M 504.9696 R 11310



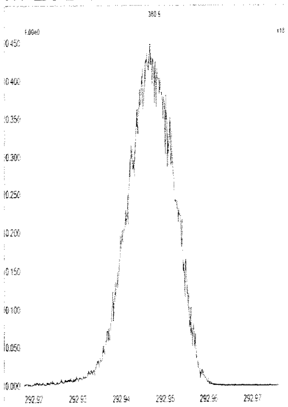
M 516.9697 R 12496



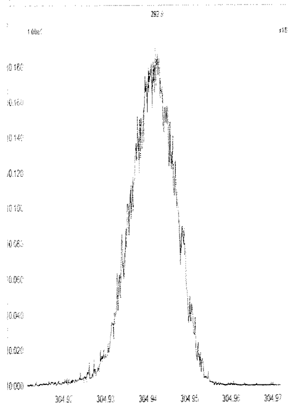
File: Experiment: 8290 .exp Reference: pfk.ref Function: 1 @ 200 (ppm)

Printed: Thursday, May 03, 2012 12:10:01 Central Daylight Time

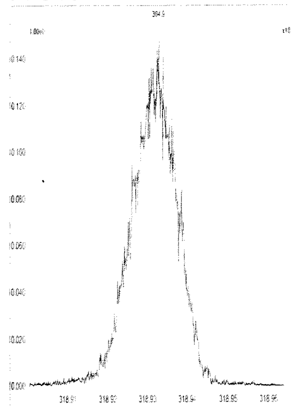
M 292.9824 R 12194



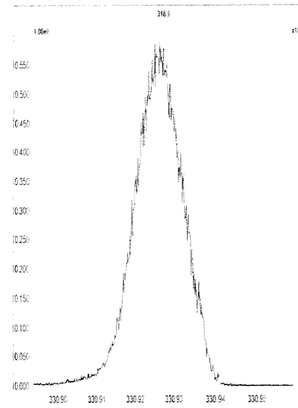
M 304.9824 R 12565



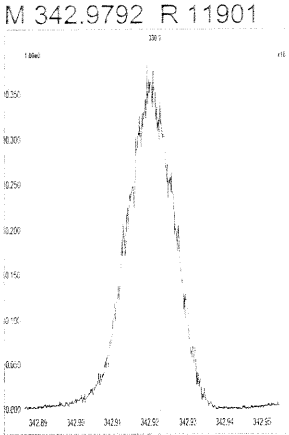
M 318.9792 R 12195



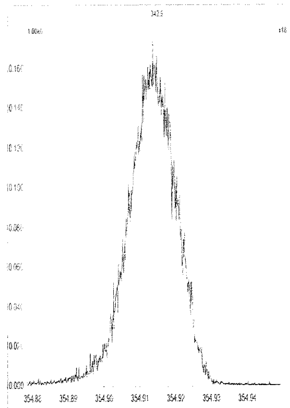
M 330.9792 R 11965



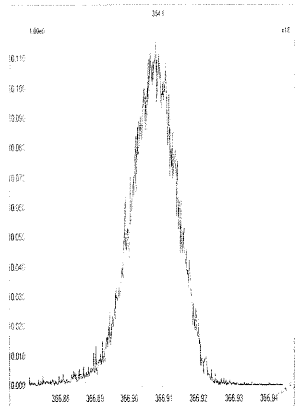
M 342.9792 R 11901



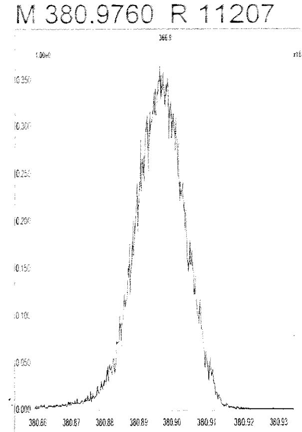
M 354.9792 R 11966



M 366.9792 R 11964



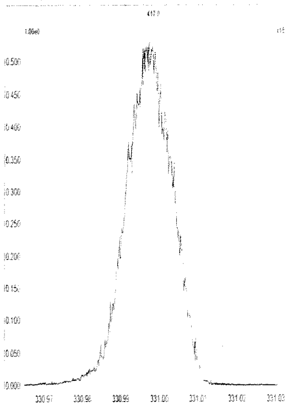
M 380.9760 R 11207



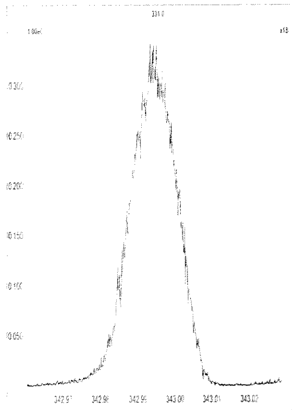
File: Experiment: 8290 .exp Reference: pfk.ref Function: 2 @ 200 (ppm)

Printed: Thursday, May 03, 2012 12:10:32 Central Daylight Time

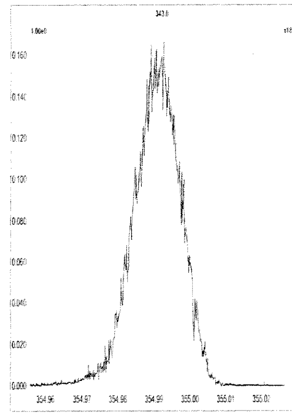
M 330.9792 R 12439



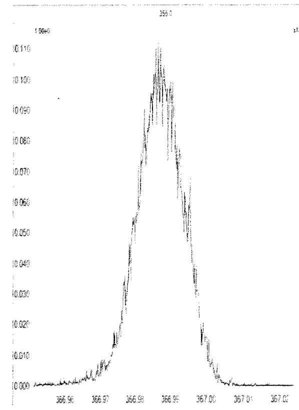
M 342.9792 R 12436



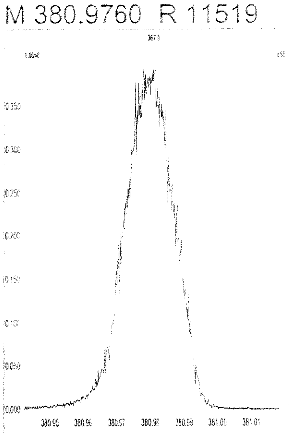
M 354.9792 R 12692



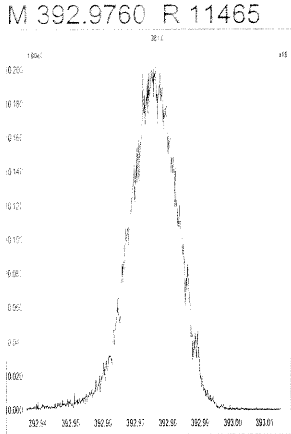
M 366.9792 R 12255



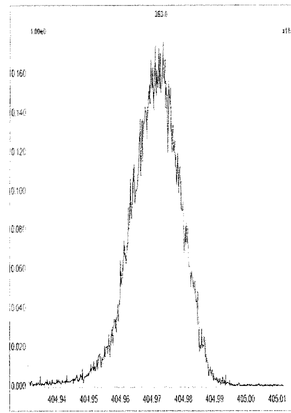
M 380.9760 R 11519



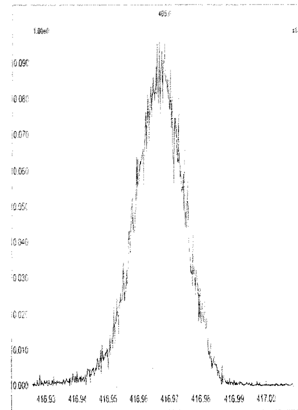
M 392.9760 R 11465



M 404.9760 R 10917

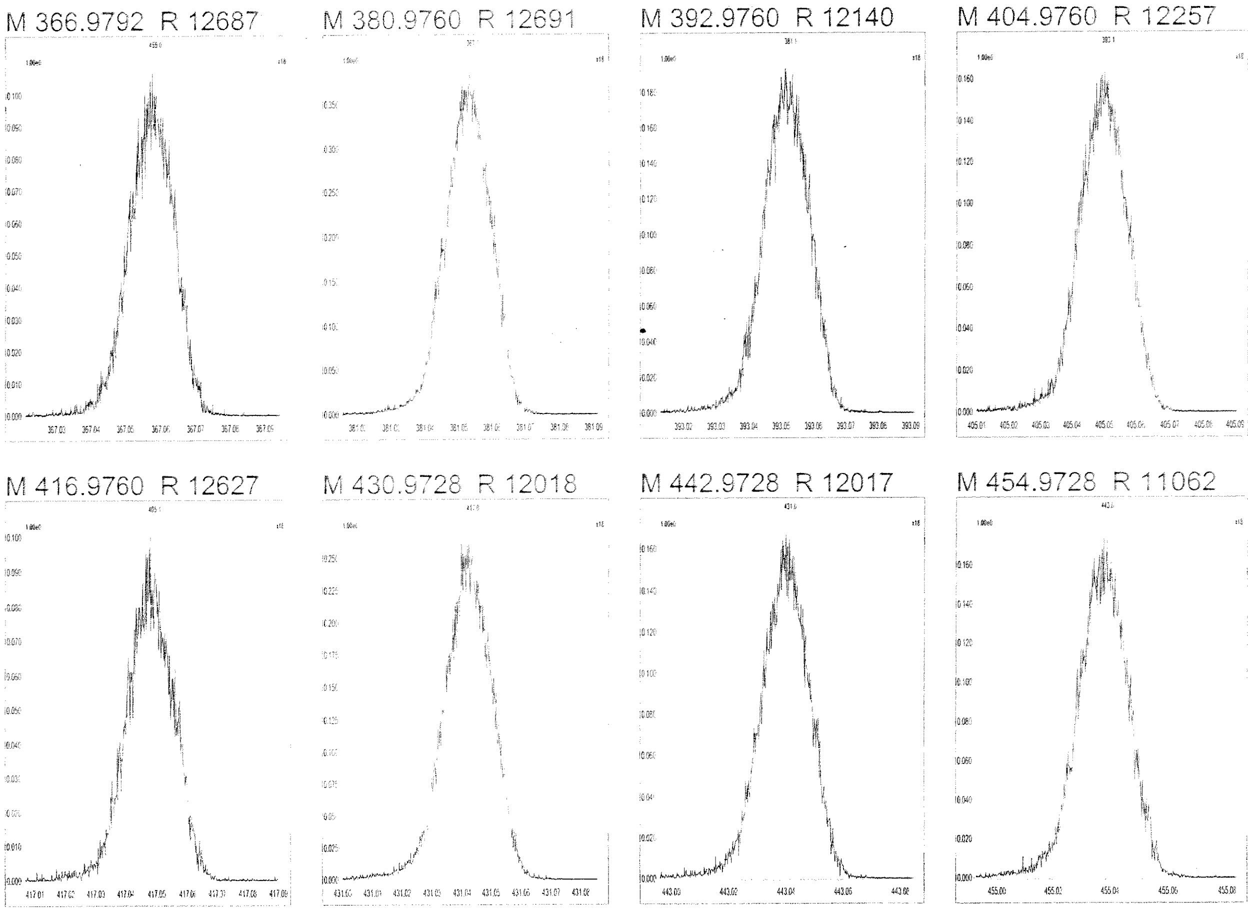


M 416.9760 R 11263



File: Experiment: 8290 .exp Reference: pfk.ref Function: 3 @ 200 (ppm)

Printed: Thursday, May 03, 2012 12:10:59 Central Daylight Time



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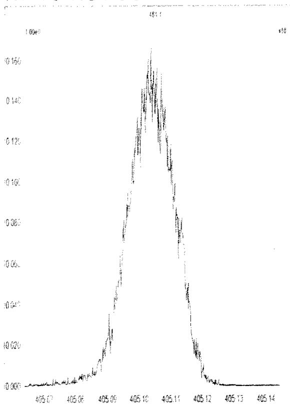
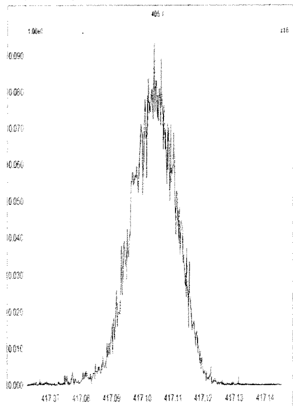
File: Experiment: 8290 .exp Reference: pfk.ref Function: 4 @ 200 (ppm)

Printed: Thursday, May 03, 2012 12:11:32 Central Daylight Time

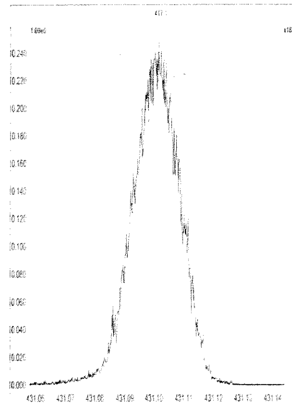
M 404.9760 R 12819



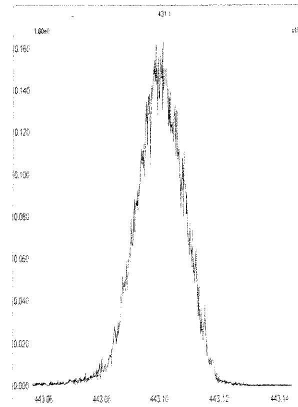
M 416.9760 R 12951



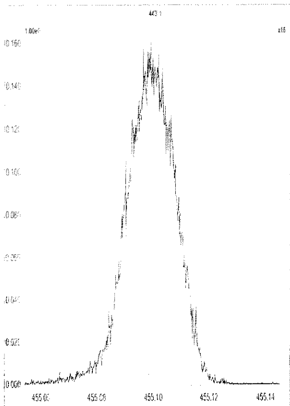
M 430.9728 R 11845



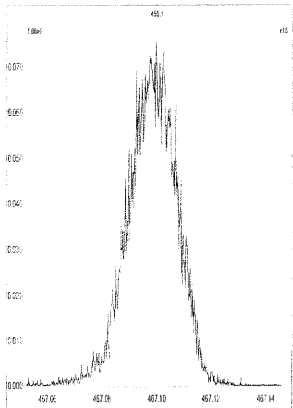
M 442.9728 R 12018



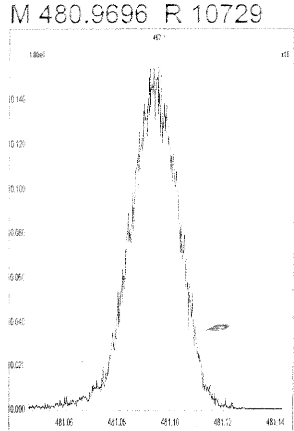
M 454.9728 R 12075



M 466.9728 R 12255



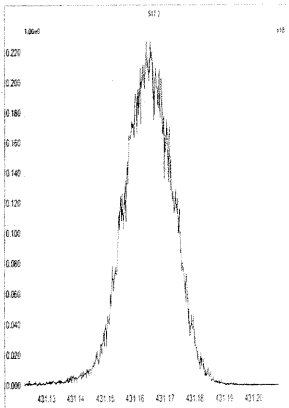
M 480.9696 R 10729



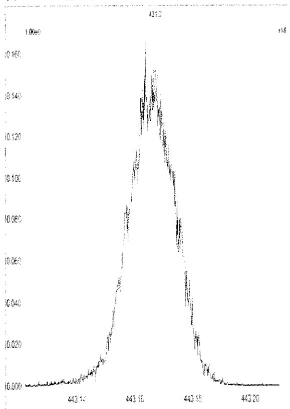
File: Experiment: 8290 .exp Reference: pfk.ref Function: 5 @ 200 (ppm)

Printed: Thursday, May 03, 2012 12:12:02 Central Daylight Time

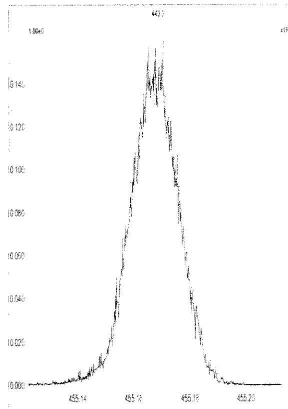
M 430.9728 R 11418



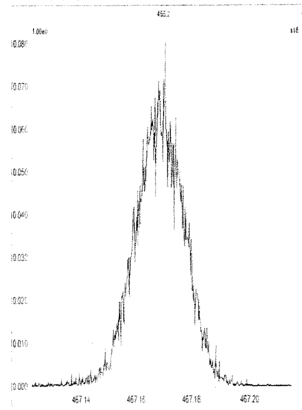
M 442.9728 R 12020



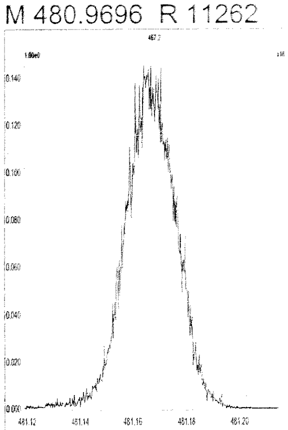
M 454.9728 R 12077



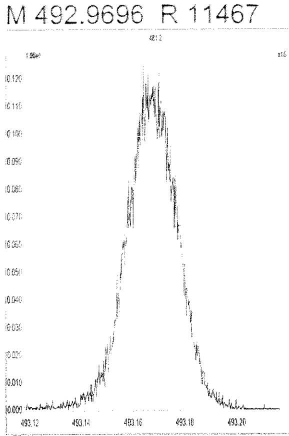
M 466.9728 R 11684



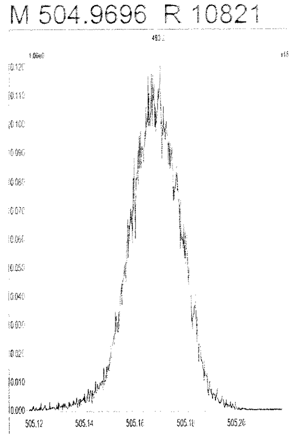
M 480.9696 R 11262



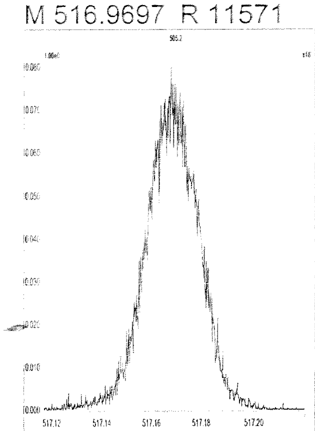
M 492.9696 R 11467



M 504.9696 R 10821



M 516.9697 R 11571

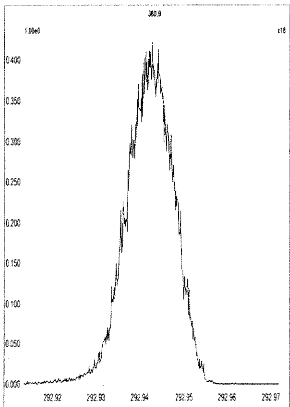


Experiment Calibration Report **MassLynx 4.1**

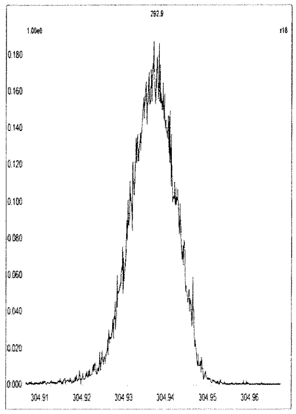
File: Experiment: 8290 .exp Reference: pfk.ref Function: 1 @ 200 (ppm)

Printed: Thursday, May 03, 2012 13:58:49 Central Daylight Time

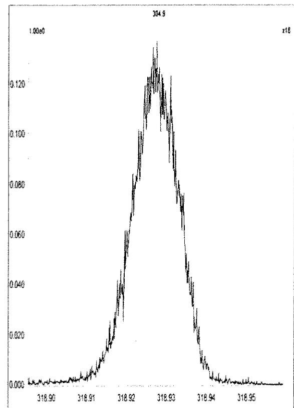
M 292.9824 R 12436



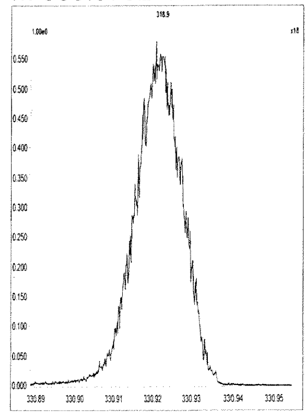
M 304.9824 R 12757



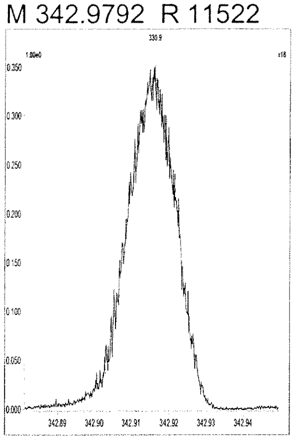
M 318.9792 R 12249



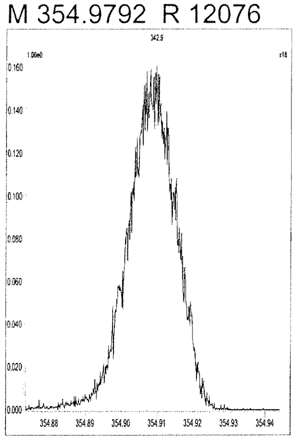
M 330.9792 R 12199



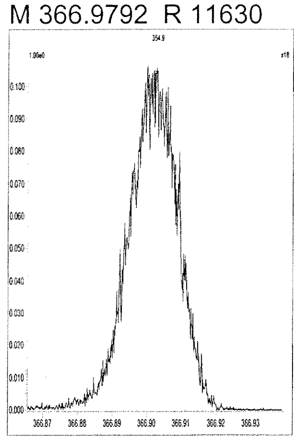
M 342.9792 R 11522



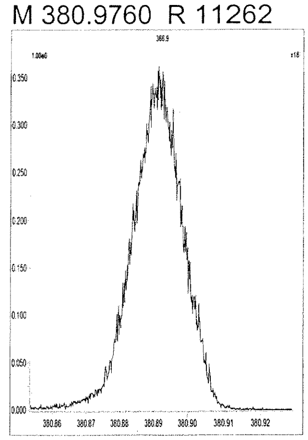
M 354.9792 R 12076



M 366.9792 R 11630



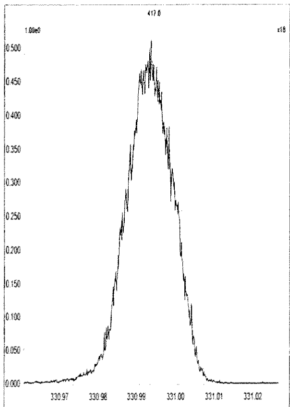
M 380.9760 R 11262



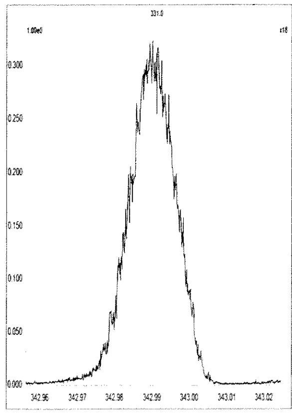
File: Experiment: 829C .exp Reference: pfk.ref Function: 2 @ 200 (ppm)

Printed: Thursday, May 03, 2012 13:59:37 Central Daylight Time

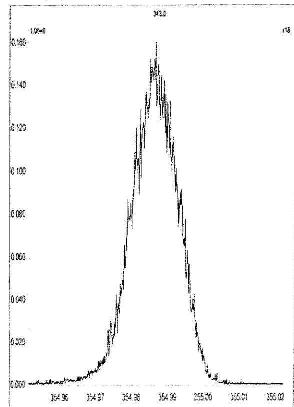
M 330.9792 R 12196



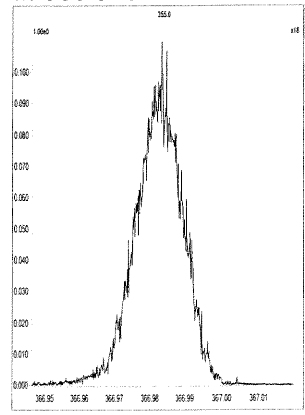
M 342.9792 R 12375



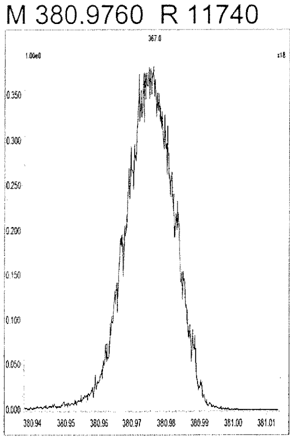
M 354.9792 R 12016



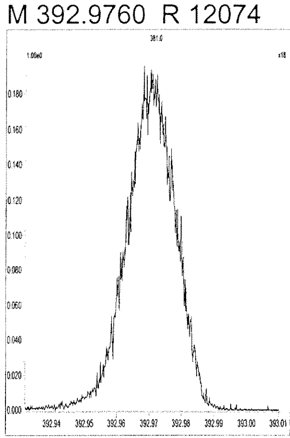
M 366.9792 R 12755



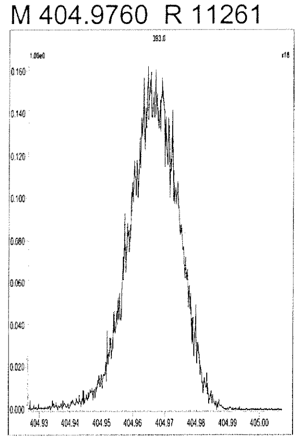
M 380.9760 R 11740



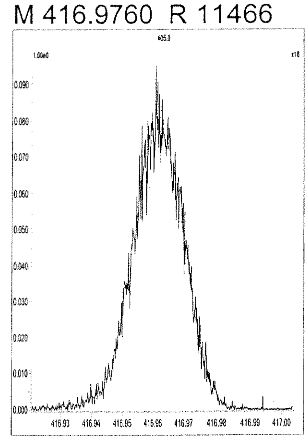
M 392.9760 R 12074



M 404.9760 R 11261



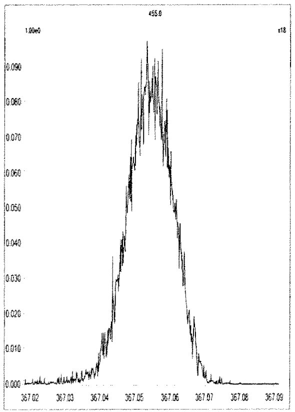
M 416.9760 R 11466



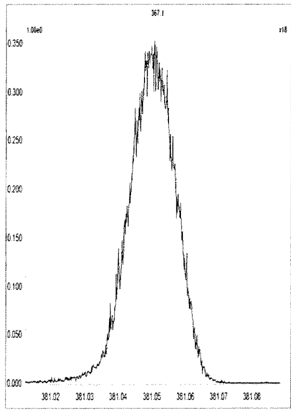
File: Experiment: 829(exp Reference: pfk.ref Function: 3 @ 200 (ppm)

Printed: Thursday, May 03, 2012 14:00:20 Central Daylight Time

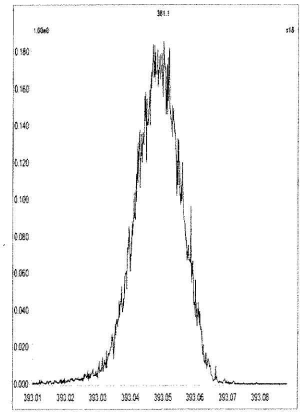
M 366.9792 R 13018



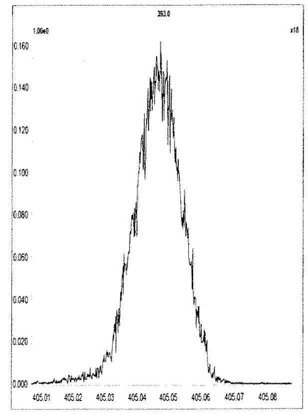
M 380.9760 R 12073



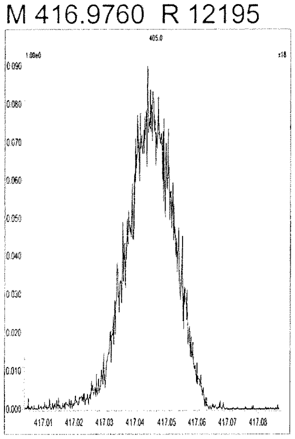
M 392.9760 R 12375



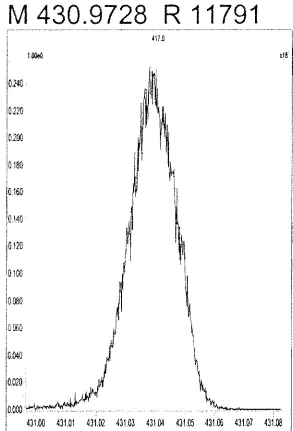
M 404.9760 R 12138



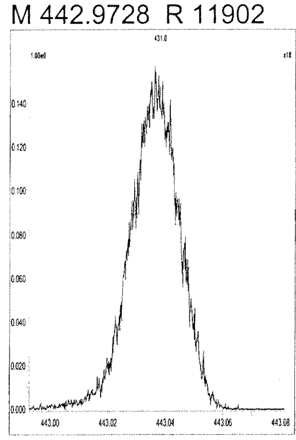
M 416.9760 R 12195



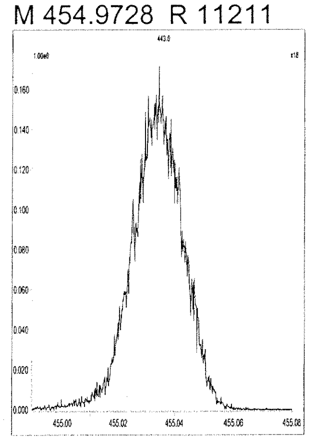
M 430.9728 R 11791



M 442.9728 R 11902



M 454.9728 R 11211

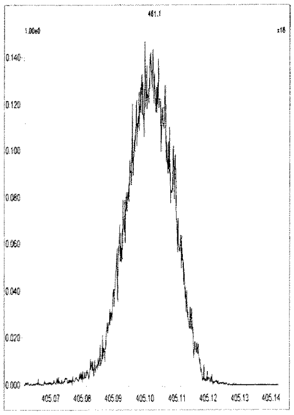


Experiment Calibration Report **MassLynx 4.1**

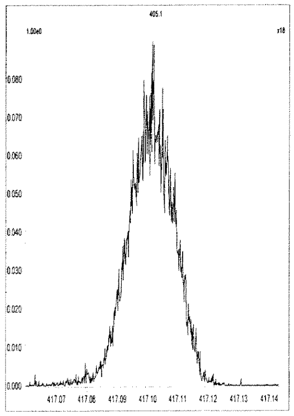
File: Experiment: 8290 .exp Reference: pfk.ref Function: 4 @ 200 (ppm)

Printed: Thursday, May 03, 2012 14:01:06 Central Daylight Time

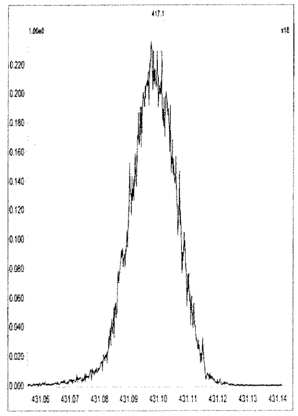
M 404.9760 R 12437



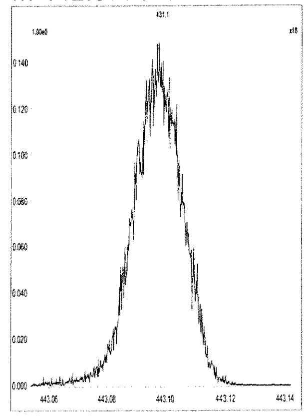
M 416.9760 R 12955



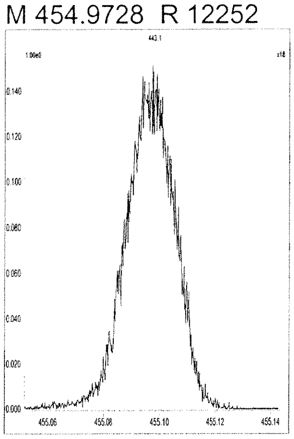
M 430.9728 R 12438



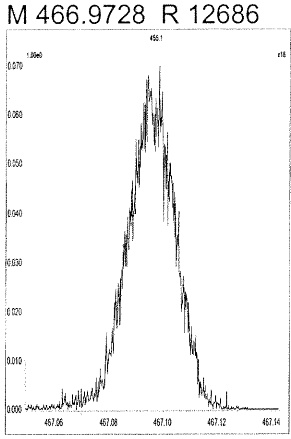
M 442.9728 R 11791



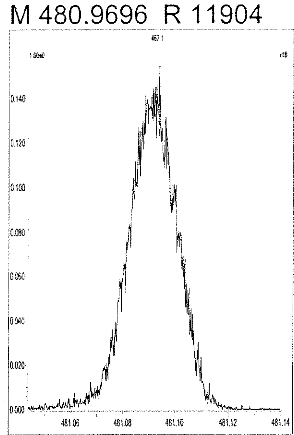
M 454.9728 R 12252



M 466.9728 R 12686



M 480.9696 R 11904

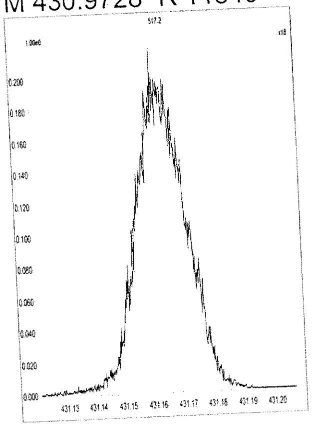


Experiment Calibration Report **MassLynx 4.1**

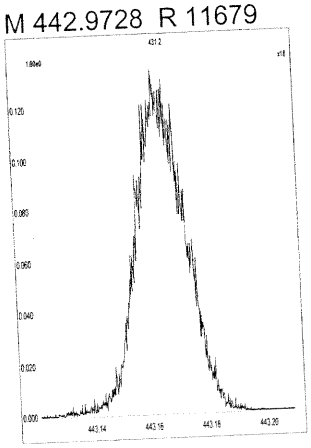
File: Experiment: 8290 .exp Reference: pfk.ref Function: 5 @ 200 (ppm)

Printed: Thursday, May 03, 2012 14:01:43 Central Daylight Time

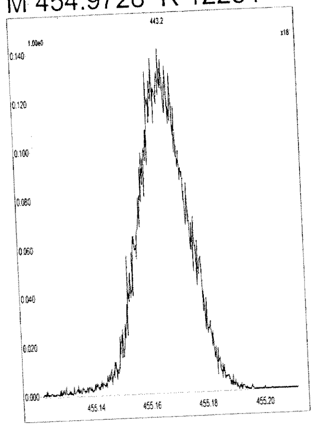
M 430.9728 R 11846



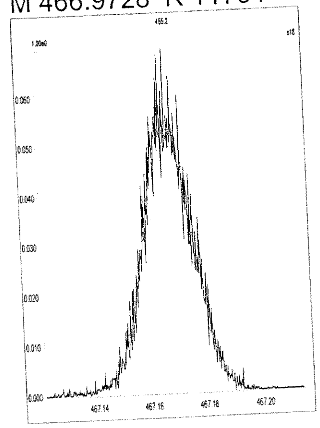
M 442.9728 R 11679



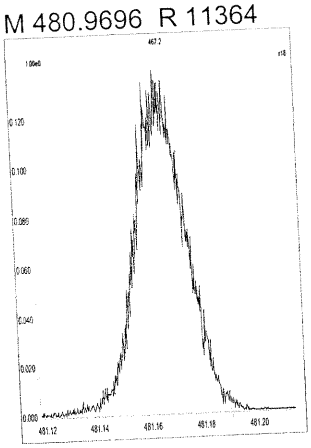
M 454.9728 R 12254



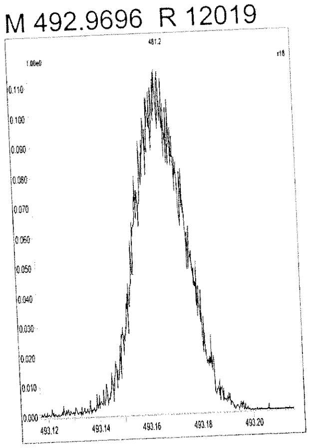
M 466.9728 R 11791



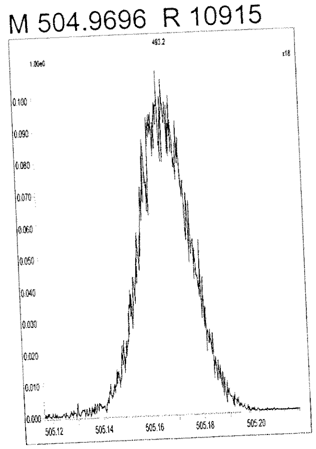
M 480.9696 R 11364



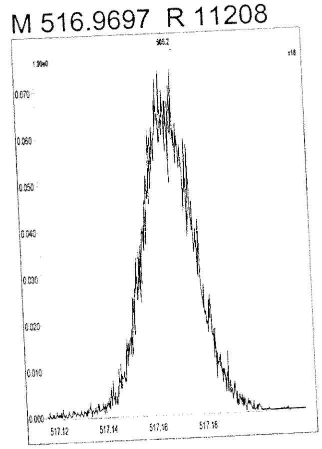
M 492.9696 R 12019



M 504.9696 R 10915



M 516.9697 R 11208



5DFA

WINDOW DEFINING MIX SUMMARY

CLIENT ID:

WDM

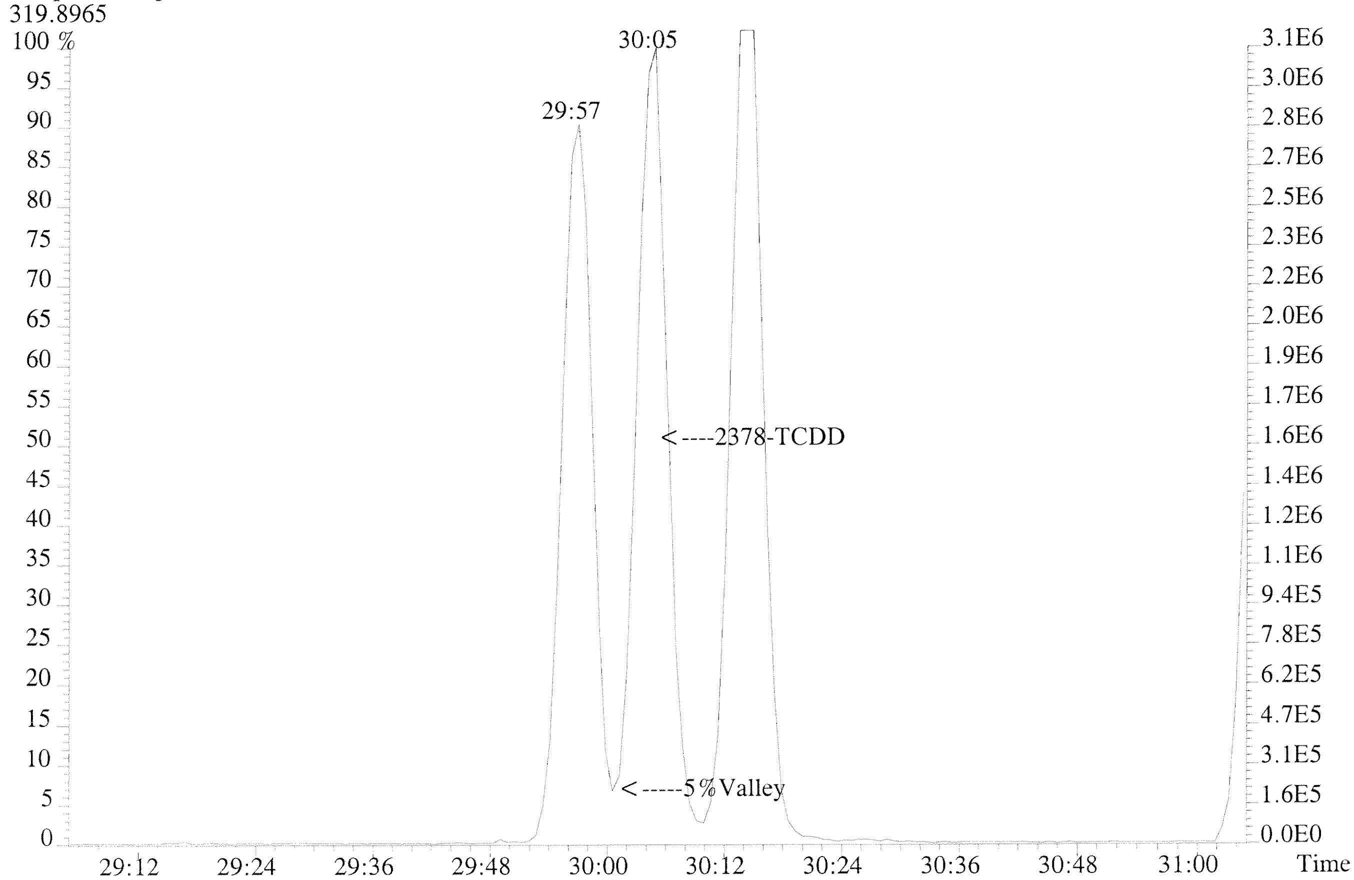
Lab Name:
Lab Code:
GC Column: DB-5

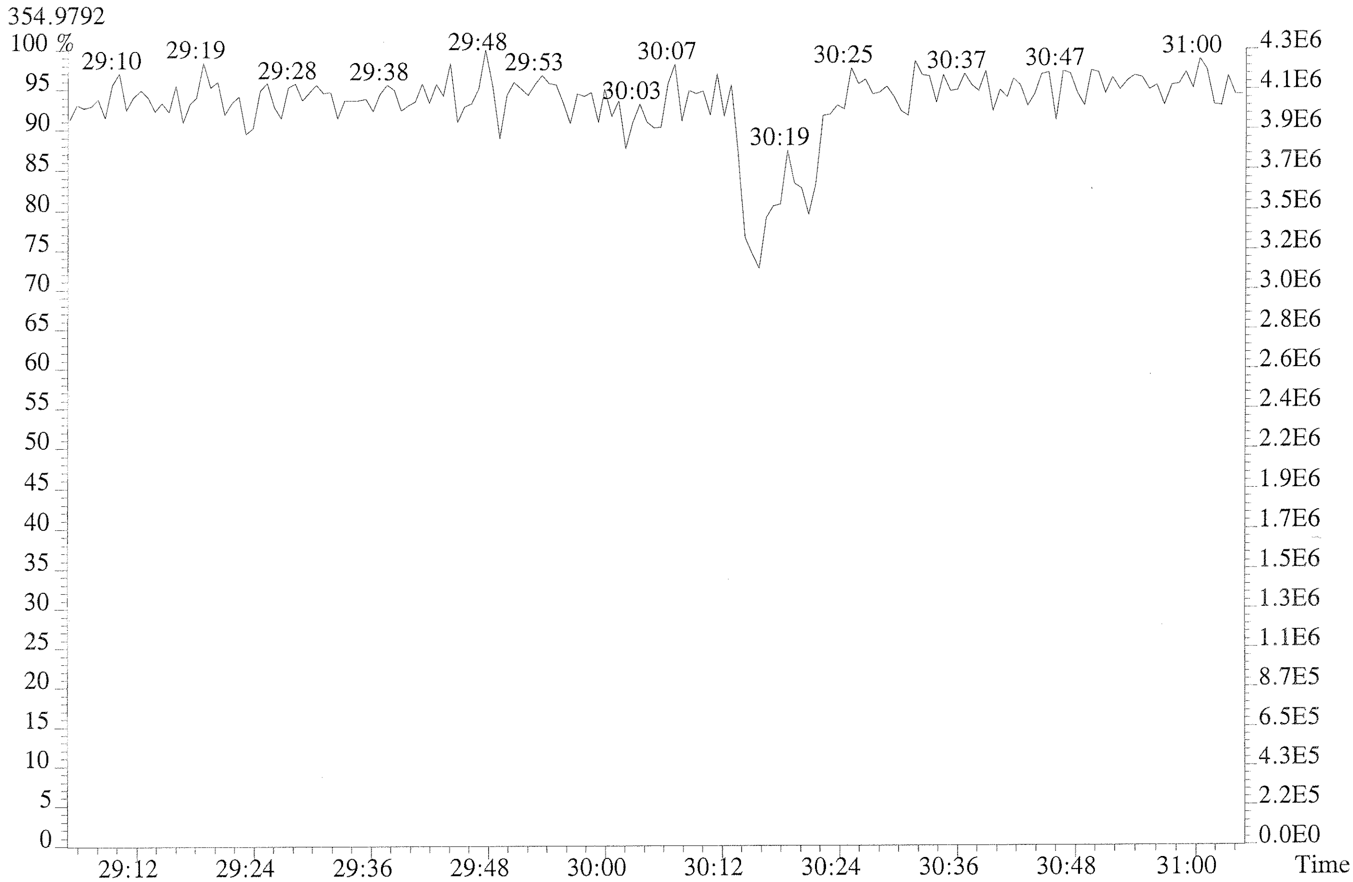
Case No.: ______________ SDG No.:
ID: 0.25 (mm) Lab File ID: 7388
Date Analyzed: 3-MAY-2012
Time Analyzed: 05:17:38

Congener	Retention Time First Eluting	Retention Time Last Eluting
TCDF	25:40	31:08
TCDD	27:16	31:06
PeCDF	31:22	35:05
PeCDD	32:40	34:55
HxCDF	35:55	38:11
HxCDD	36:24	37:52
HpCDF	39:35	40:57
HpCDD	39:50	40:31

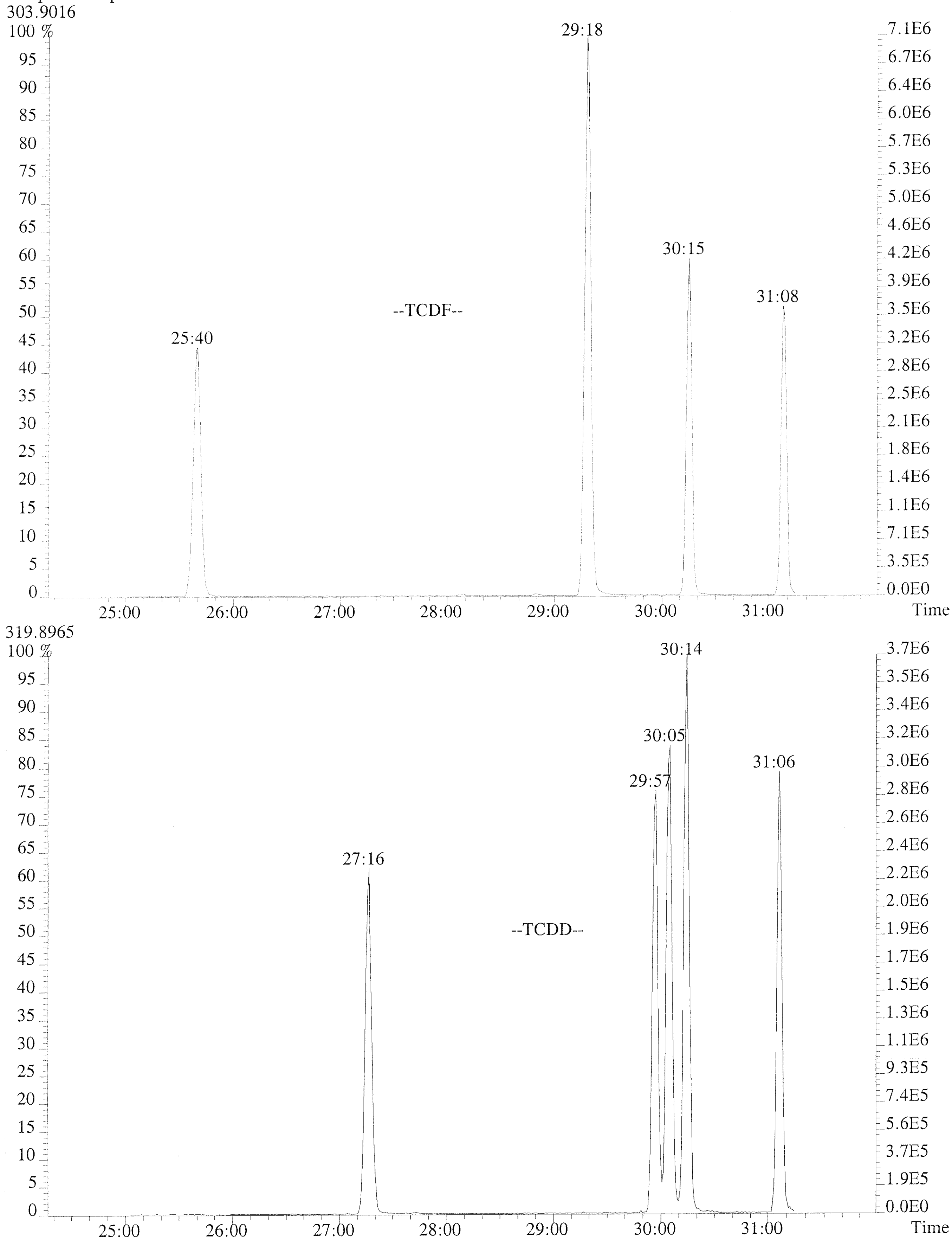
% Valley 2378-TCDD: 5 %

File 7388 #1-517 Acq: 3-MAY-2012 05:17:38 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:WINDOW DEFINE

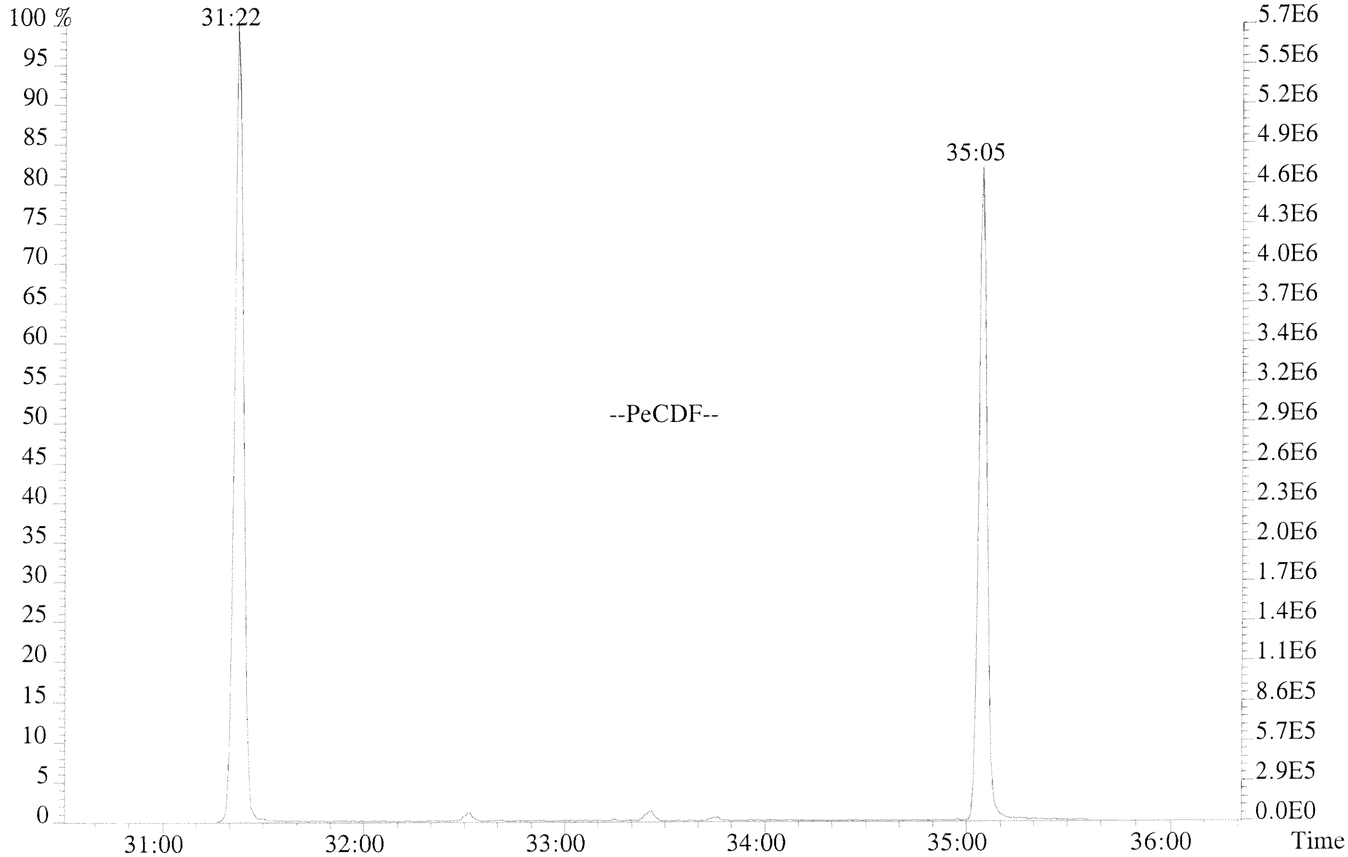




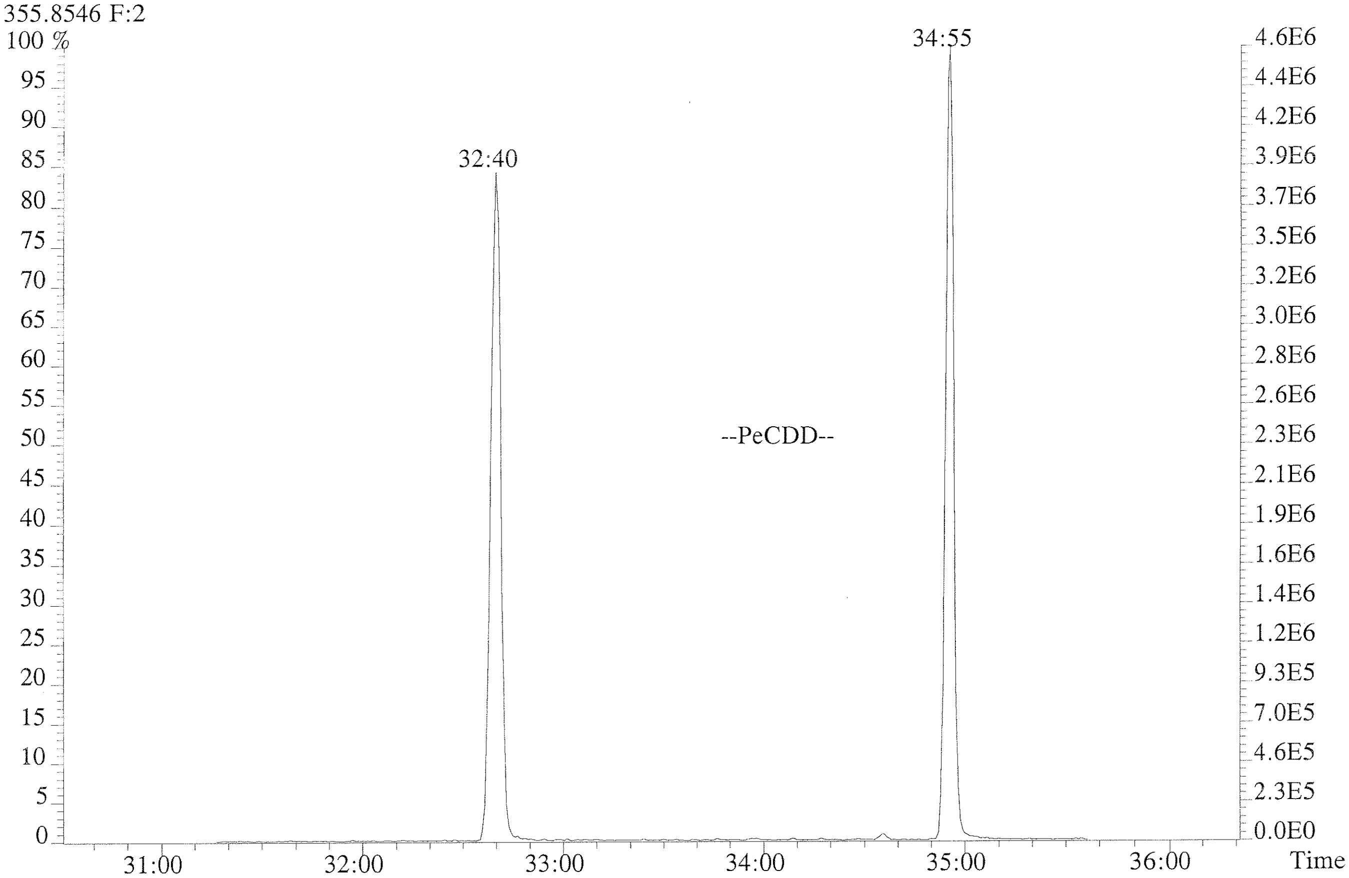
File: 7388 #1-517 Acq: 3-MAY-2012 05:17:38 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:WINDOW DEFINE



File: 7388 #1-394 Acq: 3-MAY-2012 05:17:38 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:WINDOW DEFINE
339.8597 F:2

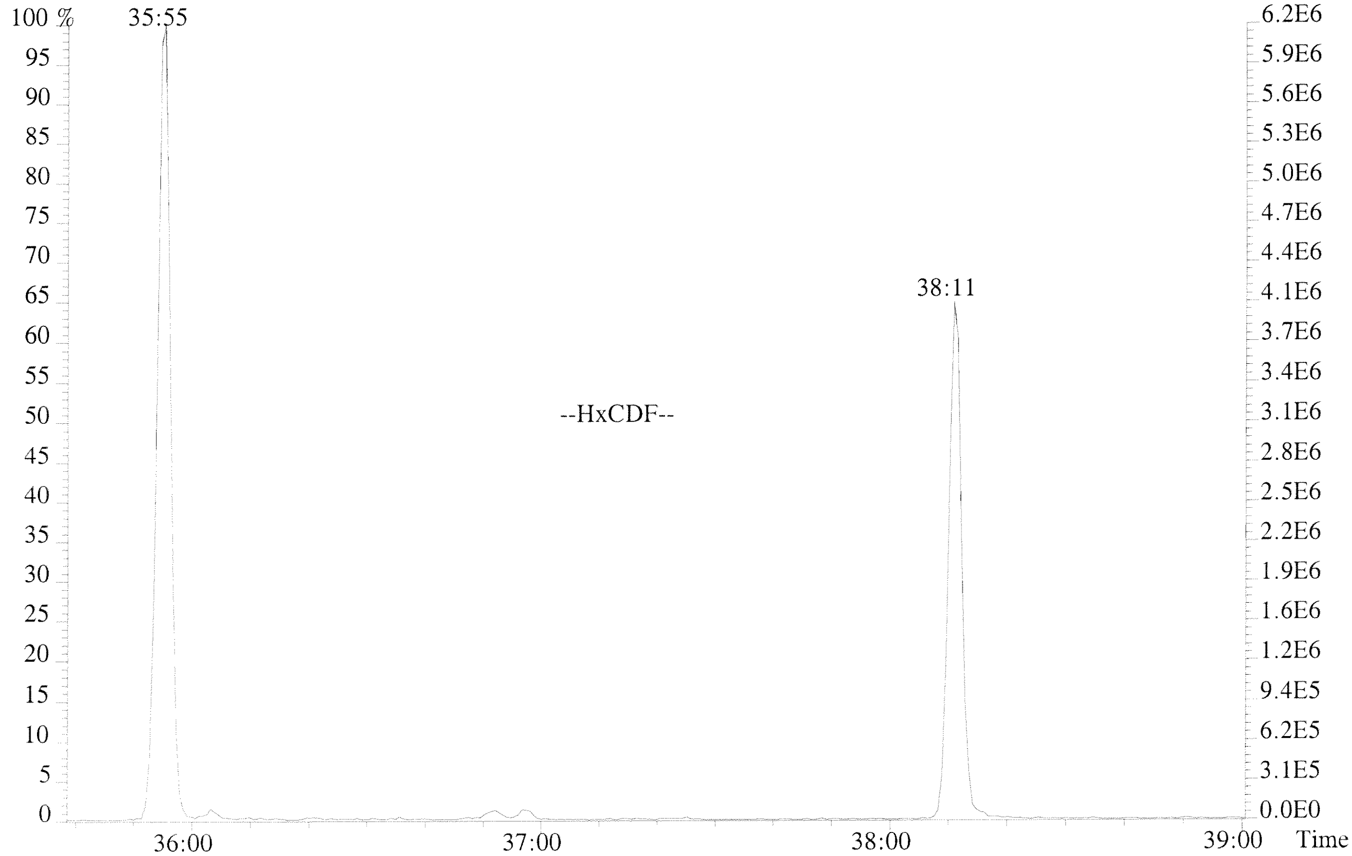


355.8546 F:2

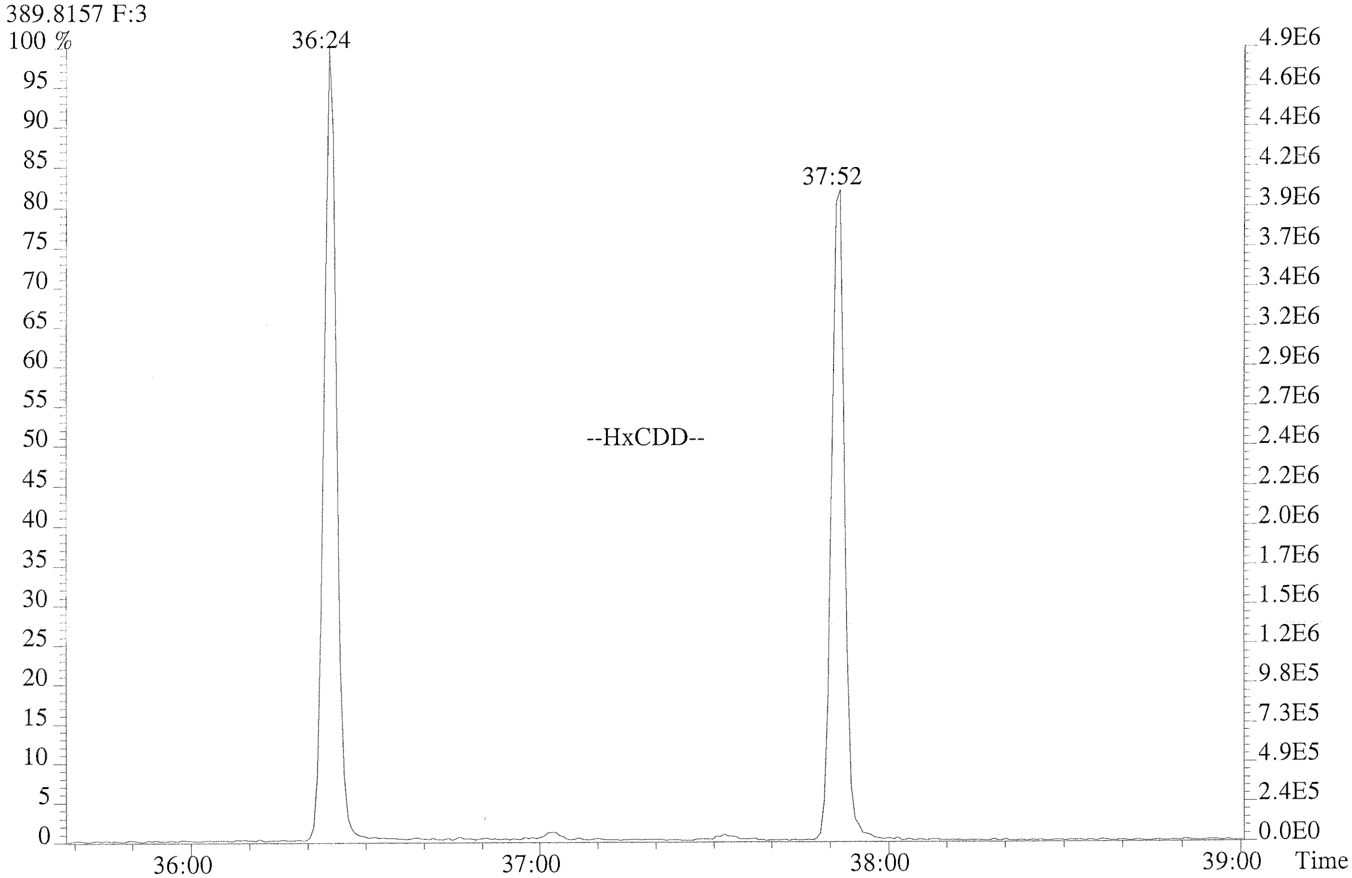


File: 7388 #1-306 Acq: 3-MAY-2012 05:17:38 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:WINDOW DEFINE

373.8208 F:3

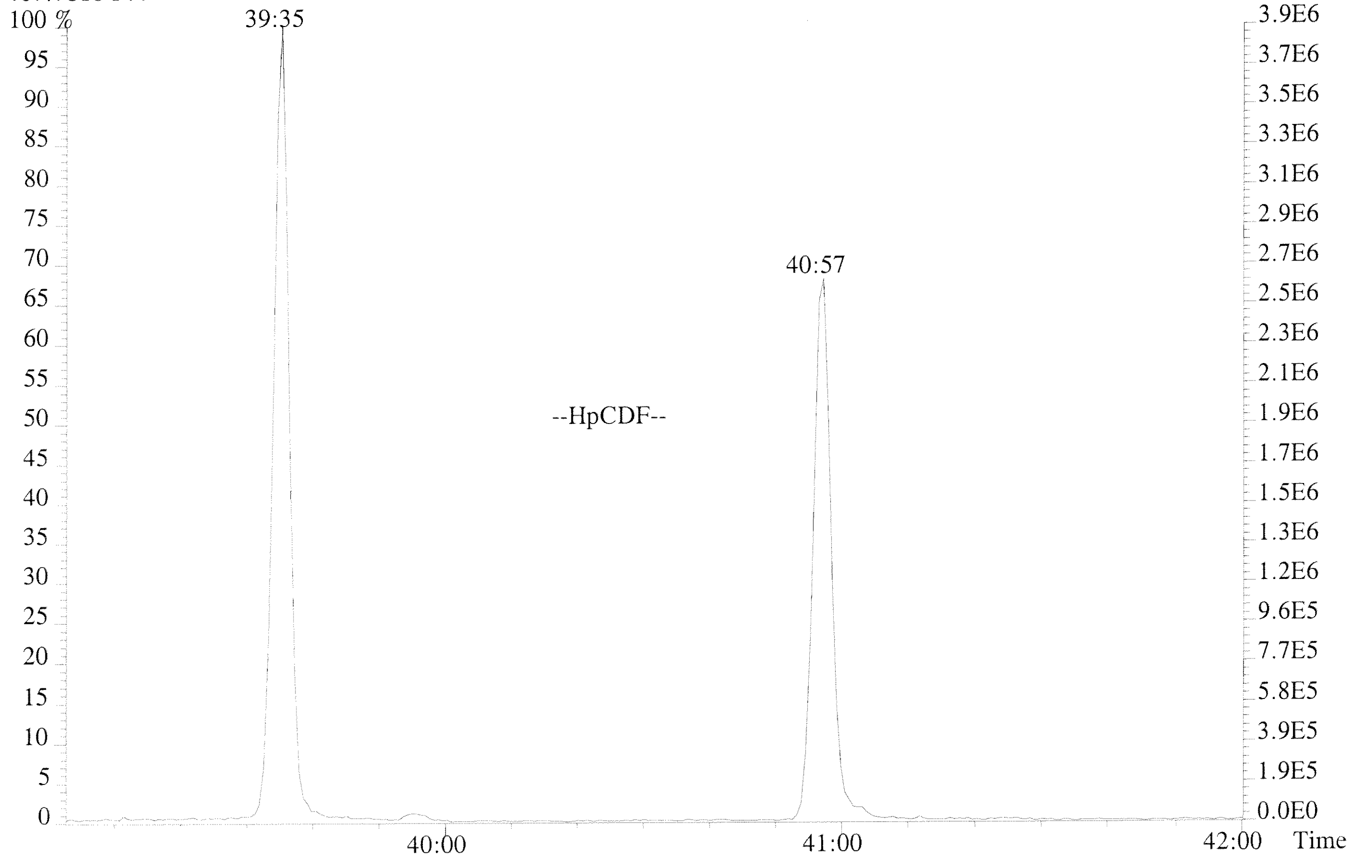


389.8157 F:3

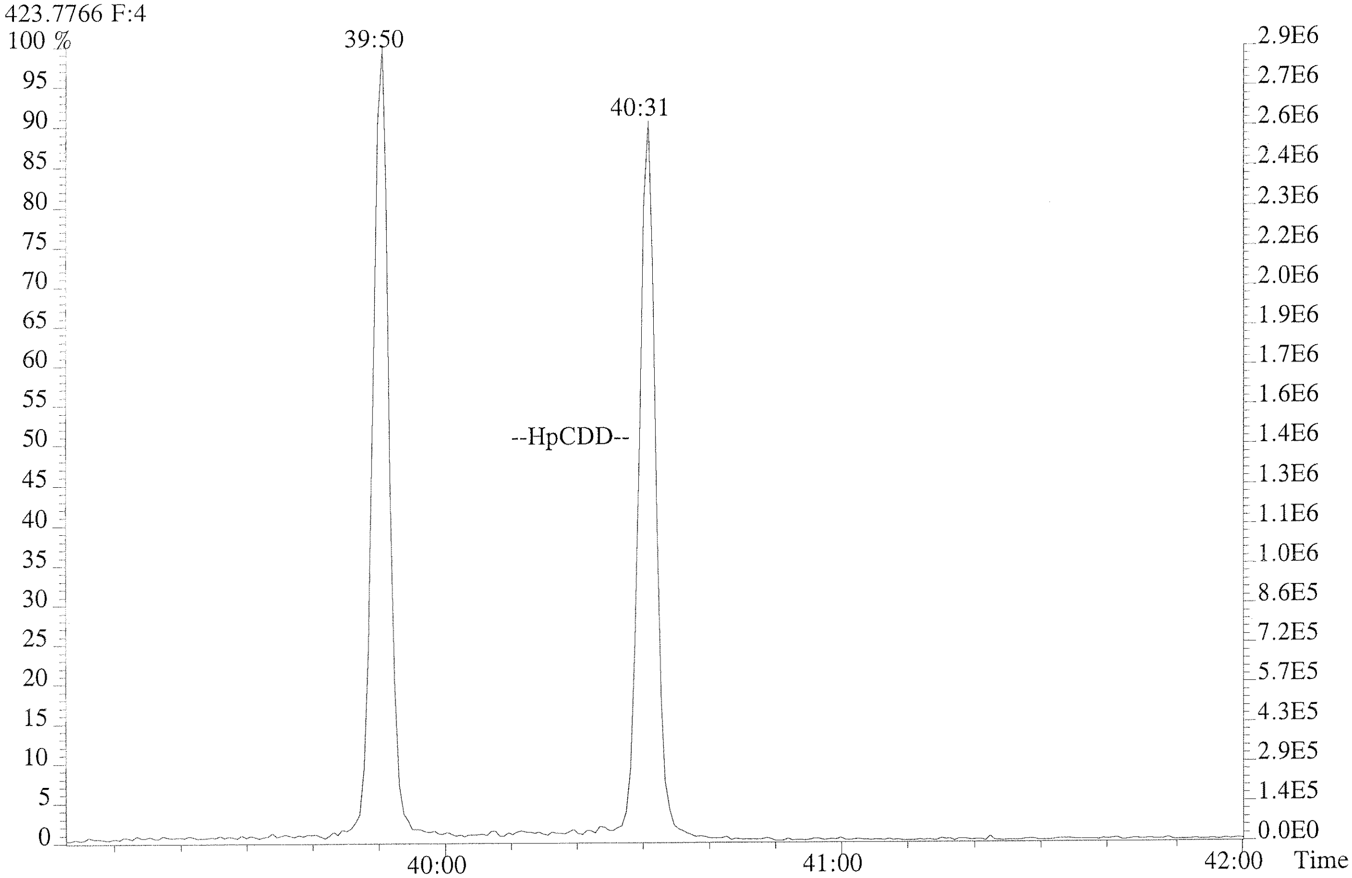


File: 7388 #1-269 Acq: 3-MAY-2012 05:17:38 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:WINDOW DEFINE

407.7818 F:4



423.7766 F:4



FORM 3A: PCDD/PCDF INITIAL CALIBRATION RELATIVE RESPONSES

Lab Name:

Episode No.:

Contract No.:

Initial Calibration Date: 05/03/12

Instrument ID: AutoSpec-Premier

GC Column ID: DB-5

CS1 Data Filename: 7389

CS4 Data Filename: 7392

CS2 Data Filename: 7390

CS5 Data Filename: 7393

CS3 Data Filename: 7391

CS6 Data Filename: 7394

	RELATIVE RESPONSE (RR)						MEAN RR	Cv (%RSD) (1)
	CS1	CS2	CS3	CS4	CS5	CS6		
NATIVE ANALYTES								
2,3,7,8-TCDD	1.18	0.94	0.97	1.01	0.99	1.00	1.01	8.31
1,2,3,7,8-PeCDD	0.97	0.93	0.91	1.05	0.95	0.97	0.96	5.07
1,2,3,4,7,8-HxCDD	1.11	1.03	1.02	1.16	1.06	1.07	1.07	5.07
1,2,3,6,7,8-HxCDD	1.15	1.03	1.00	0.95	1.05	1.06	1.04	6.29
1,2,3,7,8,9-HxCDD	1.21	1.03	0.99	1.03	1.08	1.11	1.07	7.24
1,2,3,4,6,7,8-HpCDD	1.17	1.04	0.98	1.05	1.04	1.05	1.05	6.15
OCDD	1.44	1.20	1.11	1.09	1.13	1.14	1.19	10.96
2,3,7,8-TCDF	1.09	0.89	0.87	0.95	0.93	0.95	0.95	8.25
1,2,3,7,8-PeCDF	0.93	0.97	0.97	0.98	1.02	1.05	0.99	3.96
2,3,4,7,8-PeCDF	0.89	0.93	0.91	1.04	0.97	0.98	0.95	5.60
1,2,3,4,7,8-HxCDF	1.32	1.19	1.21	1.21	1.25	1.26	1.24	3.95
1,2,3,6,7,8-HxCDF	1.22	1.12	1.12	1.20	1.16	1.17	1.17	3.43
1,2,3,7,8,9-HxCDF	1.31	1.15	1.13	1.17	1.17	1.19	1.19	5.38
2,3,4,6,7,8-HxCDF	1.27	1.15	1.13	1.10	1.16	1.17	1.16	4.84
1,2,3,4,6,7,8-HpCDF	1.55	1.36	1.35	1.37	1.39	1.41	1.40	5.18
1,2,3,4,7,8,9-HpCDF	1.43	1.28	1.27	1.39	1.31	1.34	1.34	4.75
OCDF	1.44	1.26	1.25	1.21	1.30	1.35	1.30	6.18

(1) For contract Cv specifications, see Section 10.5.4, Method 1613.
(2) Response Ratios are calculated relative to the labeled analogs of the other two HxCDDs (Section 17.1.2, Method 1613).
(3) Response Ratios are calculated relative to the labeled analog of OCDD (Section 17.1.1, Method 1613).

RFP C500273T1

FORM 3B: PCDD/PCDF INITIAL CALIBRATION RELATIVE RESPONSES

Lab Name:	Episode No.:
Contract No.:	Initial Calibration Date: 05/03/12
Instrument ID: AutoSpec-Premier	GC Column ID: DB-5
CS1 Data Filename: 7389	CS4 Data Filename: 7392
CS2 Data Filename: 7390	CS5 Data Filename: 7393
CS3 Data Filename: 7391	CS6 Data Filename: 7394

	RELATIVE RESPONSE (RR)						MEAN RR	Cv (%RSD) (1)
	CS1	CS2	CS3	CS4	CS5	CS6		
LABELED COMPOUNDS								
13C-2,3,7,8-TCDD	0.90	0.90	0.90	0.91	0.95	1.03	0.93	5.70
13C-1,2,3,7,8-PeCDD	0.91	0.89	0.89	0.67	1.07	1.12	0.93	17.17
13C-1,2,3,4,7,8-HxCDD	0.94	0.96	0.97	1.00	0.91	0.89	0.95	4.12
13C-1,2,3,6,7,8-HxCDD	0.96	1.05	1.06	1.08	0.99	0.93	1.01	6.07
13C-1,2,3,4,6,7,8-HpCDD	0.84	0.86	0.94	0.96	0.86	0.86	0.89	5.69
13C-OCDD	0.54	0.56	0.64	0.85	0.60	0.61	0.63	17.64
13C-2,3,7,8-TCDF	1.24	1.23	1.24	1.32	1.28	1.34	1.28	3.47
13C-1,2,3,7,8-PeCDF	1.19	1.21	1.17	1.18	1.40	1.54	1.28	12.04
13C-2,3,4,7,8-PeCDF	1.23	1.22	1.21	1.09	1.45	1.55	1.29	13.26
13C-1,2,3,4,7,8-HxCDF	1.11	1.13	1.14	1.41	1.09	1.08	1.16	10.70
13C-1,2,3,6,7,8-HxCDF	1.30	1.38	1.39	1.43	1.30	1.25	1.34	5.16
13C-1,2,3,7,8,9-HxCDF	0.99	0.98	1.00	1.09	1.02	1.01	1.02	4.02
13C-2,3,4,6,7,8-HxCDF	1.12	1.22	1.23	1.18	1.19	1.16	1.18	3.31
13C-1,2,3,4,6,7,8-HpCDF	0.89	0.95	0.99	1.04	0.93	0.92	0.95	5.63
13C-1,2,3,4,7,8,9-HpCDF	0.72	0.75	0.82	0.87	0.77	0.76	0.78	7.02
CLEANUP STANDARD								
37Cl-2,3,7,8-TCDD	0.96	0.94	0.86	0.93	0.97	1.08	0.96	7.51

(1) For assignment of labeled compounds to internal standards, see Table 2. Contract Cv specifications, see Section 10.6.3, Method 1613.

RFP C500273T1

FORM 3C: PCDD/PCDF INITIAL CALIBRATION ION ABUNDANCE RATIOS

Lab Name:

Episode No.:

Contract No.:

Initial Calibration Date: 05/03/12

Instrument ID: AutoSpec-Premier

GC Column ID: DB-5

CS1 Data Filename: 7389

CS4 Data Filename: 7392

CS2 Data Filename: 7390

CS5 Data Filename: 7393

CS3 Data Filename: 7391

CS6 Data Filename: 7394

	M/Z'S FORMING RATIO(1)	ION ABUNDANCE RATIO						QC LIMITS (2)
		CS1	CS2	CS3	CS4	CS5	CS6	
NATIVE ANALYTES								
2,3,7,8-TCDD	M/M+2	0.70	0.84	0.72	0.77	0.78	0.77	0.65-0.89
1,2,3,7,8-PeCDD	M+2/M+4	1.65	1.60	1.63	1.59	1.56	1.57	1.32-1.78
1,2,3,4,7,8-HxCDD	M+2/M+4	1.16	1.20	1.27	1.27	1.25	1.24	1.05-1.43
1,2,3,6,7,8-HxCDD	M+2/M+4	1.25	1.28	1.24	1.27	1.27	1.25	1.05-1.43
1,2,3,7,8,9-HxCDD	M+2/M+4	1.18	1.24	1.30	1.27	1.25	1.26	1.05-1.43
1,2,3,4,6,7,8-HpCDD	M+2/M+4	1.01	1.01	1.04	1.06	1.05	1.03	0.88-1.20
OCDD	M+2/M+4	0.83	0.86	0.91	0.89	0.90	0.89	0.76-1.02
2,3,7,8-TCDF	M/M+2	0.85	0.84	0.77	0.77	0.77	0.77	0.65-0.89
1,2,3,7,8-PeCDF	M+2/M+4	1.59	1.61	1.60	1.56	1.56	1.56	1.32-1.78
2,3,4,7,8-PeCDF	M+2/M+4	1.52	1.54	1.55	1.55	1.58	1.56	1.32-1.78
1,2,3,4,7,8-HxCDF	M+2/M+4	1.21	1.20	1.25	1.25	1.25	1.25	1.05-1.43
1,2,3,6,7,8-HxCDF	M+2/M+4	1.25	1.24	1.22	1.26	1.26	1.25	1.05-1.43
1,2,3,7,8,9-HxCDF	M+2/M+4	1.24	1.31	1.26	1.26	1.25	1.25	1.05-1.43
2,3,4,6,7,8-HxCDF	M+2/M+4	1.23	1.24	1.26	1.26	1.24	1.25	1.05-1.43
1,2,3,4,6,7,8-HpCDF	M+2/M+4	1.04	0.99	1.04	1.03	1.03	1.03	0.88-1.20
1,2,3,4,7,8,9-HpCDF	M+2/M+4	0.98	1.05	1.00	1.03	1.03	1.04	0.88-1.20
OCDF	M+2/M+4	0.91	0.89	0.90	0.90	0.90	0.90	0.76-1.02

(1) See Table 8, Method 1613, for m/z specifications.

(2) Ion Abundance Ratio Control Limits from Table 9, Method 1613.

RFP C500273T1

FORM 3D: PCDD/PCDF INITIAL CALIBRATION ION ABUNDANCE RATIOS

Lab Name:	Episode No.:
Contract No.:	Initial Calibration Date: 05/03/12
Instrument ID: AutoSpec-Premier	GC Column ID: DB-5
CS1 Data Filename: 7389	CS4 Data Filename: 7392
CS2 Data Filename: 7390	CS5 Data Filename: 7393
CS3 Data Filename: 7391	CS6 Data Filename: 7394

	M/Z'S FORMING RATIO(1)	ION ABUNDANCE RATIO						QC LIMITS (2)
		CS1	CS2	CS3	CS4	CS5	CS6	
LABELED COMPOUNDS								
-2,3,7,8-TCDD	M/M+2	0.79	0.78	0.78	0.79	0.79	0.79	0.65-0.89
-1,2,3,7,8-PeCDD	M+2/M+4	1.57	1.55	1.59	1.59	1.57	1.55	1.32-1.78
1,2,3,4,7,8-HxCDD	M+2/M+4	1.26	1.26	1.26	1.26	1.27	1.26	1.05-1.43
-1,2,3,6,7,8-HxCDD	M+2/M+4	1.28	1.26	1.27	1.27	1.25	1.26	1.05-1.43
-1,2,3,4,6,7,8-HpCDD	M+2/M+4	1.06	1.05	1.07	1.06	1.05	1.06	0.88-1.20
OCDD	M+2/M+4	0.91	0.91	0.91	0.91	0.90	0.90	0.76-1.02
-2,3,7,8-TCDF	M/M+2	0.78	0.78	0.78	0.78	0.78	0.78	0.65-0.89
-1,2,3,7,8-PeCDF	M/M+2	1.56	1.57	1.58	1.60	1.56	1.56	1.32-1.78
-2,3,4,7,8-PeCDF	M+2/M+4	1.58	1.57	1.58	1.59	1.57	1.56	1.32-1.78
-1,2,3,4,7,8-HxCDF	M/M+2	0.52	0.52	0.51	0.53	0.52	0.52	0.43-0.59
-1,2,3,6,7,8-HxCDF	M/M+2	0.52	0.53	0.52	0.52	0.52	0.52	0.43-0.59
-1,2,3,7,8,9-HxCDF	M/M+2	0.52	0.52	0.52	0.53	0.52	0.50	0.43-0.59
-2,3,4,6,7,8-HxCDF	M/M+2	0.52	0.52	0.52	0.53	0.52	0.52	0.43-0.59
-1,2,3,4,6,7,8-HpCDF	M/M+2	0.44	0.44	0.44	0.45	0.44	0.44	0.37-0.51
-1,2,3,4,7,8,9-HpCDF	M/M+2	0.44	0.44	0.45	0.44	0.44	0.44	0.37-0.51

(1) See Table 8, Method 1613, for m/z specifications.

(2) Ion Abundance Ratio Control Limits from Table 9, Method 1613.

RFP C500273T1

Sample Response Summary CLIENT ID.
ICAL CS0.5

Run #1 Filename 7389 #1 Samp: 1 Inj: 1 Acquired: 3-MAY-12 06:11:11
Processed: 3-MAY-12 06:50:01 LAB. ID: ICAL CS0.5

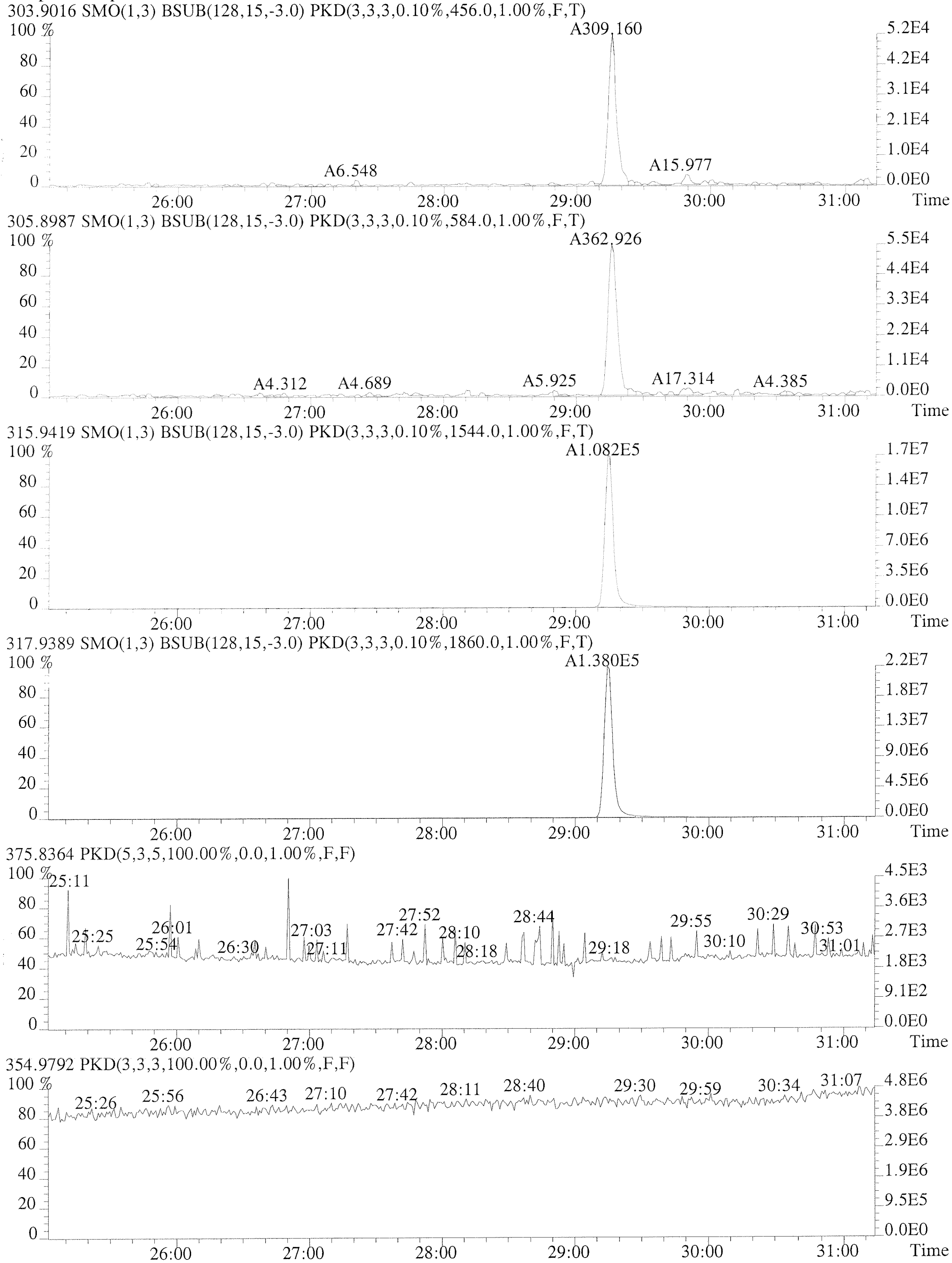
	Typ	Name	RT-1	Resp 1	Resp 2	Ratio	Meet	Mod?	RRT
1	Unk	2,3,7,8-TCDF	29:16	3.092e+02	3.629e+02	0.85	yes	no	1.001
2	Unk	1,2,3,7,8-PeCDF	33:24	1.682e+03	1.061e+03	1.59	yes	no	1.001
3	Unk	2,3,4,7,8-PeCDF	34:06	1.638e+03	1.078e+03	1.52	yes	no	1.000
4	Unk	1,2,3,4,7,8-HxCDF	36:51	1.782e+03	1.471e+03	1.21	yes	no	1.000
5	Unk	1,2,3,6,7,8-HxCDF	36:56	1.947e+03	1.555e+03	1.25	yes	no	1.000
6	Unk	2,3,4,6,7,8-HxCDF	37:24	1.739e+03	1.417e+03	1.23	yes	no	1.000
7	Unk	1,2,3,7,8,9-HxCDF	38:06	1.593e+03	1.288e+03	1.24	yes	no	1.000
8	Unk	1,2,3,4,6,7,8-HpCDF	39:34	1.558e+03	1.502e+03	1.04	yes	no	1.000
9	Unk	1,2,3,4,7,8,9-HpCDF	40:56	1.129e+03	1.149e+03	0.98	yes	no	1.000
10	Unk	OCDF	43:51	1.648e+03	1.815e+03	0.91	yes	no	1.004
11	Unk	2,3,7,8-TCDD	30:02	2.157e+02	3.094e+02	0.70	yes	no	1.000
12	Unk	1,2,3,7,8-PeCDD	34:26	1.363e+03	8.264e+02	1.65	yes	no	1.000
13	Unk	1,2,3,4,7,8-HxCDD	37:30	1.243e+03	1.068e+03	1.16	yes	no	1.000
14	Unk	1,2,3,6,7,8-HxCDD	37:35	1.358e+03	1.091e+03	1.25	yes	no	1.000
15	Unk	1,2,3,7,8,9-HxCDD	37:52	1.379e+03	1.172e+03	1.18	yes	no	1.008
16	Unk	1,2,3,4,6,7,8-HpCDD	40:29	1.094e+03	1.087e+03	1.01	yes	no	1.000
17	Unk	OCDD	43:40	1.578e+03	1.897e+03	0.83	yes	no	1.000
18	IS	13C-2,3,7,8-TCDF	29:14	1.082e+05	1.380e+05	0.78	yes	no	0.981
19	IS	13C-1,2,3,7,8-PeCDF	33:23	1.431e+05	9.178e+04	1.56	yes	no	1.119
20	IS	13C-2,3,4,7,8-PeCDF	34:05	1.490e+05	9.449e+04	1.58	yes	no	1.143
21	IS	13C-1,2,3,4,7,8-HxCDF	36:50	6.706e+04	1.295e+05	0.52	yes	no	0.973
22	IS	13C-1,2,3,6,7,8-HxCDF	36:55	7.918e+04	1.512e+05	0.52	yes	no	0.975
23	IS	13C-2,3,4,6,7,8-HxCDF	37:24	6.827e+04	1.312e+05	0.52	yes	no	0.988
24	IS	13C-1,2,3,7,8,9-HxCDF	38:05	6.056e+04	1.156e+05	0.52	yes	no	1.006
25	IS	13C-1,2,3,4,6,7,8-HpCDF	39:33	4.833e+04	1.100e+05	0.44	yes	no	1.045
26	IS	13C-1,2,3,4,7,8,9-HpCDF	40:55	3.903e+04	8.812e+04	0.44	yes	no	1.081
27	IS	13C-2,3,7,8-TCDD	30:01	7.859e+04	9.953e+04	0.79	yes	no	1.007
28	IS	13C-1,2,3,7,8-PeCDD	34:26	1.104e+05	7.043e+04	1.57	yes	no	1.155
29	IS	13C-1,2,3,4,7,8-HxCDD	37:30	9.324e+04	7.402e+04	1.26	yes	no	0.990
30	IS	13C-1,2,3,6,7,8-HxCDD	37:34	9.590e+04	7.512e+04	1.28	yes	no	0.992
31	IS	13C-1,2,3,4,6,7,8-HpCDD	40:29	7.648e+04	7.202e+04	1.06	yes	no	1.069
32	IS	13C-OCDD	43:39	9.187e+04	1.009e+05	0.91	yes	no	1.153
33	RS/RT	13C-1,2,3,4-TCDD	29:49	8.731e+04	1.109e+05	0.79	yes	no	*
34	RS/RT	13C-1,2,3,7,8,9-HxCDD	37:52	9.902e+04	7.865e+04	1.26	yes	no	*
35	C/Up	37Cl-2,3,7,8-TCDD	30:02	4.760e+02				no	1.007

Signal/Noise Height Ratio Summary CLIENT ID.
ICAL CS0.5

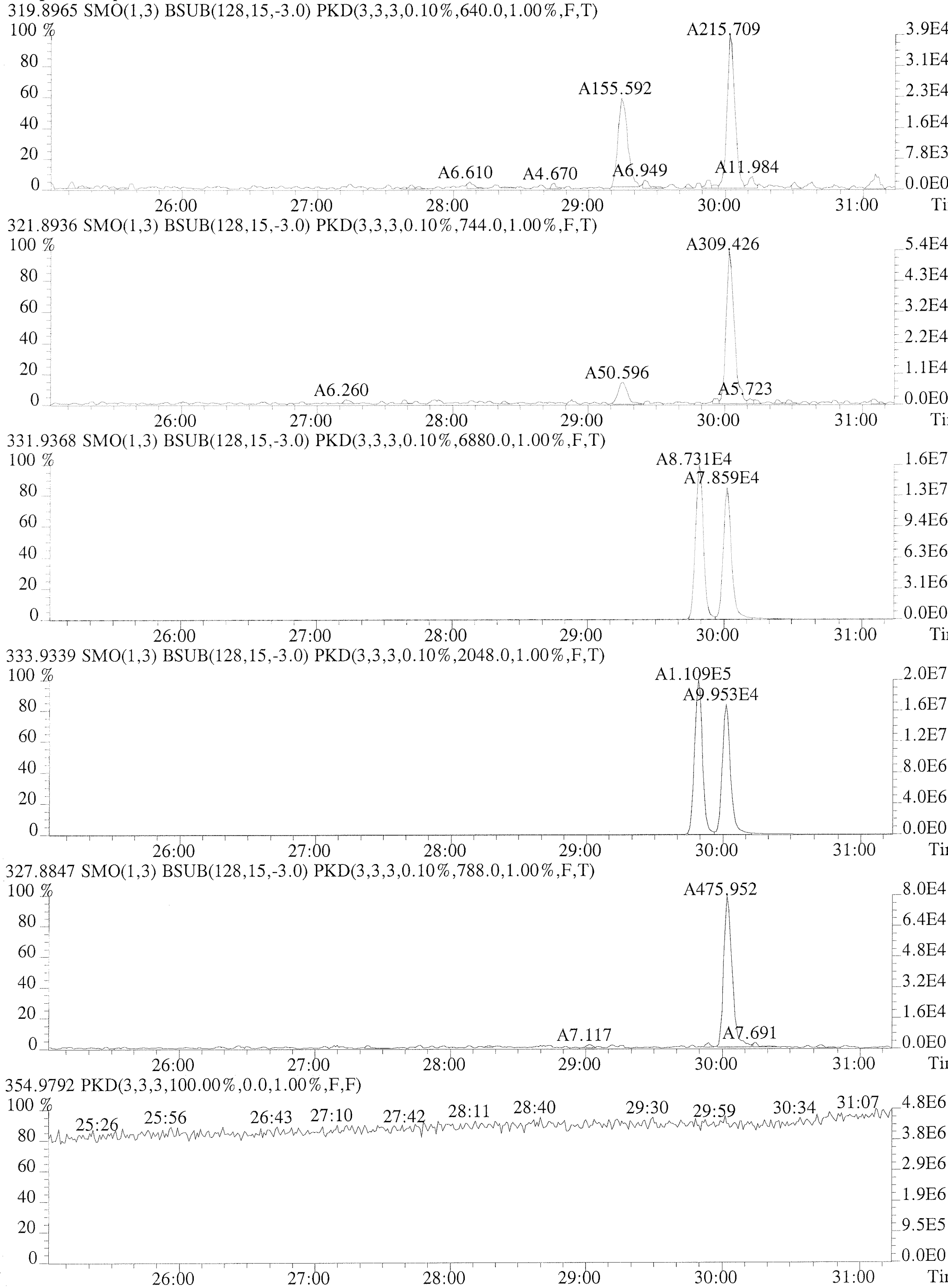
#1 Filename 7389 Samp: 1 Inj: 1 Acquired: 3-MAY-12 06:11:11
essed: 3-MAY-12 06:50:011 LAB. ID: ICAL CS0.5

Name	Signal 1	Noise 1	S/N Rat.1	Signal 2	Noise 2	S/N Rat.2
2,3,7,8-TCDF	5.20e+04	4.56e+02	1.1e+02	5.43e+04	5.84e+02	9.3e+01
1,2,3,7,8-PeCDF	3.19e+05	2.76e+02	1.2e+03	1.85e+05	1.01e+03	1.8e+02
2,3,4,7,8-PeCDF	3.05e+05	2.76e+02	1.1e+03	2.07e+05	1.01e+03	2.1e+02
1,2,3,4,7,8-HxCDF	3.82e+05	7.28e+02	5.2e+02	3.14e+05	6.12e+02	5.1e+02
1,2,3,6,7,8-HxCDF	4.00e+05	7.28e+02	5.5e+02	3.19e+05	6.12e+02	5.2e+02
2,3,4,6,7,8-HxCDF	3.58e+05	7.28e+02	4.9e+02	2.90e+05	6.12e+02	4.7e+02
1,2,3,7,8,9-HxCDF	3.10e+05	7.28e+02	4.3e+02	2.46e+05	6.12e+02	4.0e+02
1,2,3,4,6,7,8-HpCDF	3.12e+05	1.58e+03	2.0e+02	3.00e+05	6.72e+02	4.5e+02
1,2,3,4,7,8,9-HpCDF	2.00e+05	1.58e+03	1.3e+02	2.00e+05	6.72e+02	3.0e+02
OCDF	2.36e+05	4.36e+02	5.4e+02	2.63e+05	7.52e+02	3.5e+02
2,3,7,8-TCDD	3.87e+04	6.40e+02	6.0e+01	5.37e+04	7.44e+02	7.2e+01
1,2,3,7,8-PeCDD	2.65e+05	6.28e+02	4.2e+02	1.62e+05	6.28e+02	2.6e+02
1,2,3,4,7,8-HxCDD	2.70e+05	8.48e+02	3.2e+02	2.32e+05	4.56e+02	5.1e+02
1,2,3,6,7,8-HxCDD	2.85e+05	8.48e+02	3.4e+02	2.31e+05	4.56e+02	5.1e+02
1,2,3,7,8,9-HxCDD	2.82e+05	8.48e+02	3.3e+02	2.37e+05	4.56e+02	5.2e+02
1,2,3,4,6,7,8-HpCDD	2.05e+05	9.84e+02	2.1e+02	2.05e+05	5.56e+02	3.7e+02
OCDD	2.46e+05	9.52e+02	2.6e+02	2.84e+05	9.92e+02	2.9e+02
13C-2,3,7,8-TCDF	1.75e+07	1.54e+03	1.1e+04	2.24e+07	1.86e+03	1.2e+04
13C-1,2,3,7,8-PeCDF	2.62e+07	3.12e+02	8.4e+04	1.70e+07	5.80e+02	2.9e+04
13C-2,3,4,7,8-PeCDF	2.90e+07	3.12e+02	9.3e+04	1.84e+07	5.80e+02	3.2e+04
13C-1,2,3,4,7,8-HxCDF	1.45e+07	9.04e+02	1.6e+04	2.76e+07	9.24e+02	3.0e+04
13C-1,2,3,6,7,8-HxCDF	1.62e+07	9.04e+02	1.8e+04	3.11e+07	9.24e+02	3.4e+04
13C-2,3,4,6,7,8-HxCDF	1.46e+07	9.04e+02	1.6e+04	2.79e+07	9.24e+02	3.0e+04
13C-1,2,3,7,8,9-HxCDF	1.20e+07	9.04e+02	1.3e+04	2.29e+07	9.24e+02	2.5e+04
13C-1,2,3,4,6,7,8-HpCDF	9.67e+06	2.32e+03	4.2e+03	2.22e+07	3.50e+03	6.3e+03
13C-1,2,3,4,7,8,9-HpCDF	6.94e+06	2.32e+03	3.0e+03	1.55e+07	3.50e+03	4.4e+03
13C-2,3,7,8-TCDD	1.34e+07	6.88e+03	1.9e+03	1.69e+07	2.05e+03	8.3e+03
13C-1,2,3,7,8-PeCDD	2.14e+07	5.04e+02	4.3e+04	1.35e+07	4.28e+02	3.2e+04
13C-1,2,3,4,7,8-HxCDD	2.05e+07	3.53e+03	5.8e+03	1.63e+07	1.67e+03	9.8e+03
13C-1,2,3,6,7,8-HxCDD	2.03e+07	3.53e+03	5.7e+03	1.60e+07	1.67e+03	9.6e+03
13C-1,2,3,4,6,7,8-HpCDD	1.46e+07	1.74e+03	8.4e+03	1.37e+07	9.00e+02	1.5e+04
13C-OCDD	1.42e+07	5.64e+02	2.5e+04	1.56e+07	7.20e+02	2.2e+04
13C-1,2,3,4-TCDD	1.57e+07	6.88e+03	2.3e+03	2.01e+07	2.05e+03	9.8e+03
13C-1,2,3,7,8,9-HxCDD	2.06e+07	3.53e+03	5.8e+03	1.65e+07	1.67e+03	9.9e+03
37Cl-2,3,7,8-TCDD	7.94e+04	7.88e+02	1.0e+02			

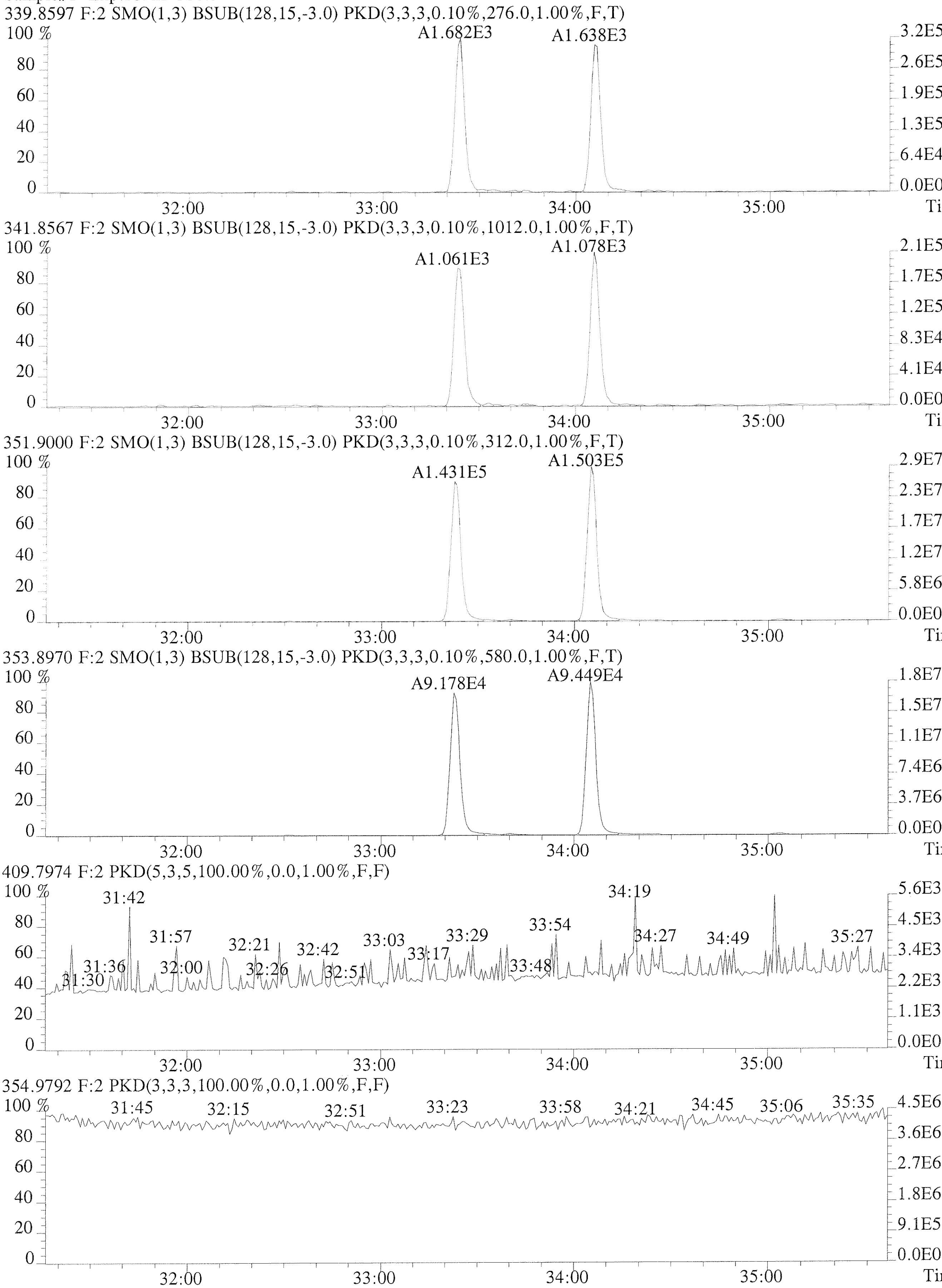
File: 7389 #1-517 Acq: 3-MAY-2012 06:11:11 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:ICAL CS0.5



File: 7389 #1-517 Acq: 3-MAY-2012 06:11:11 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:ICAL CS0.5

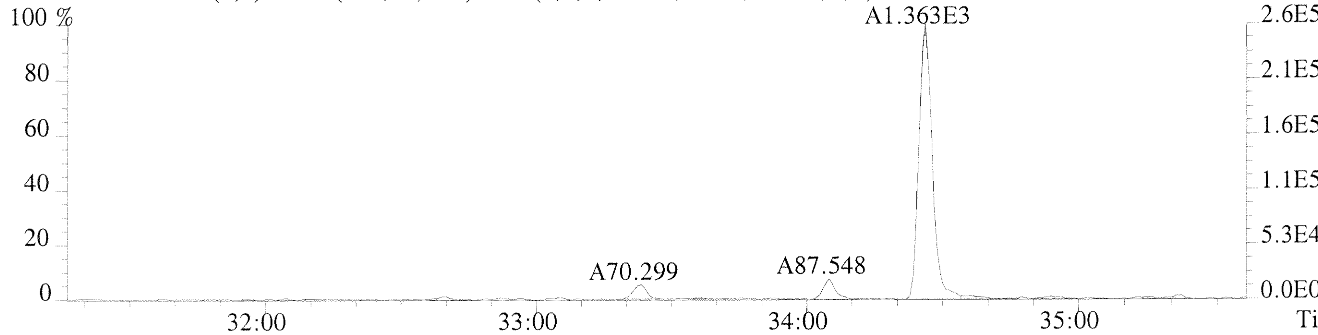


File: 7389 #1-394 Acq: 3-MAY-2012 06:11:11 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:ICAL CS0.5

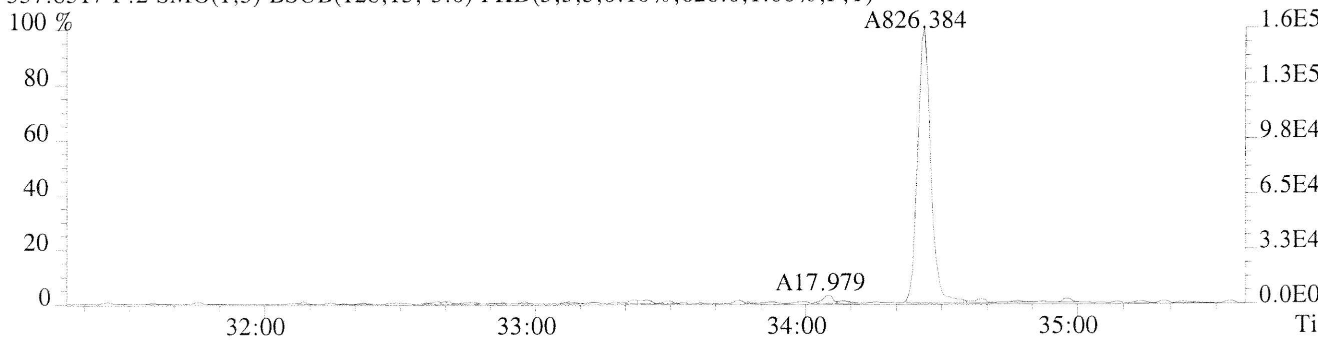


File: 7389 #1-394 Acq: 3-MAY-2012 06:11:11 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:ICAL CS0.5

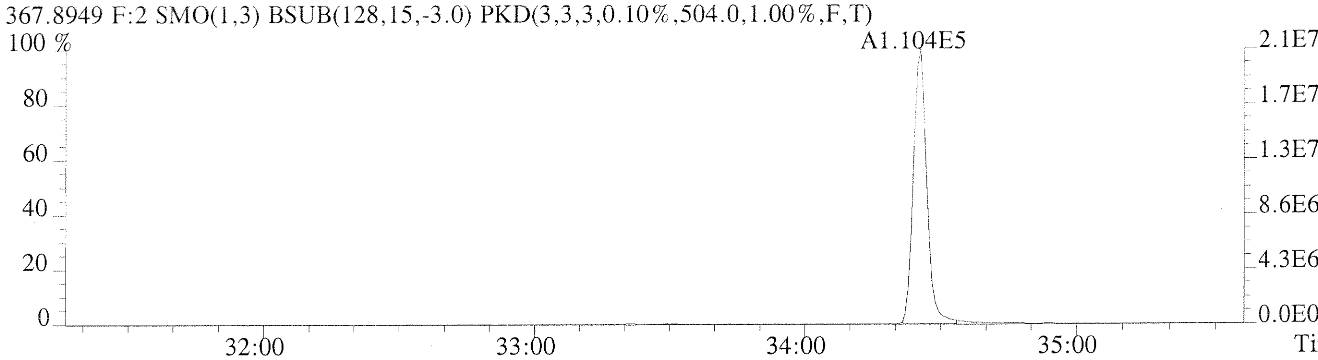
355.8546 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,628.0,1.00%,F,T)



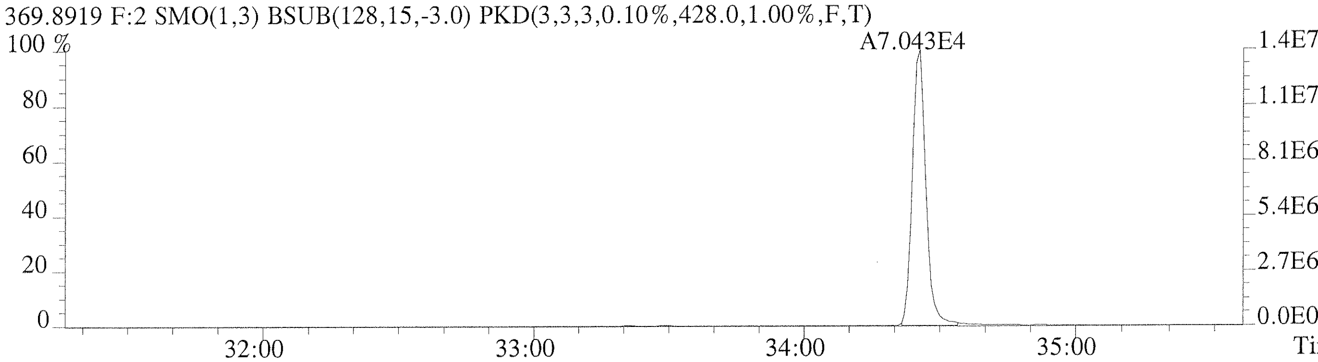
357.8517 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,628.0,1.00%,F,T)



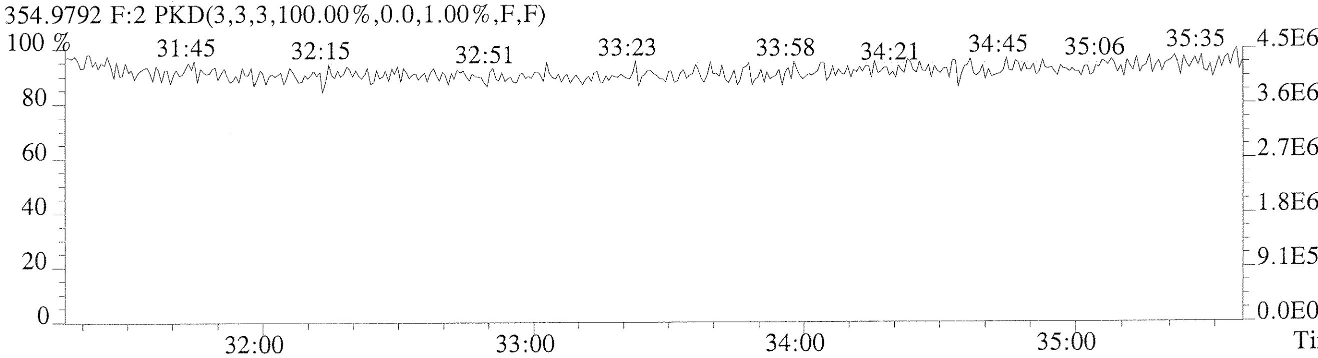
367.8949 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,504.0,1.00%,F,T)



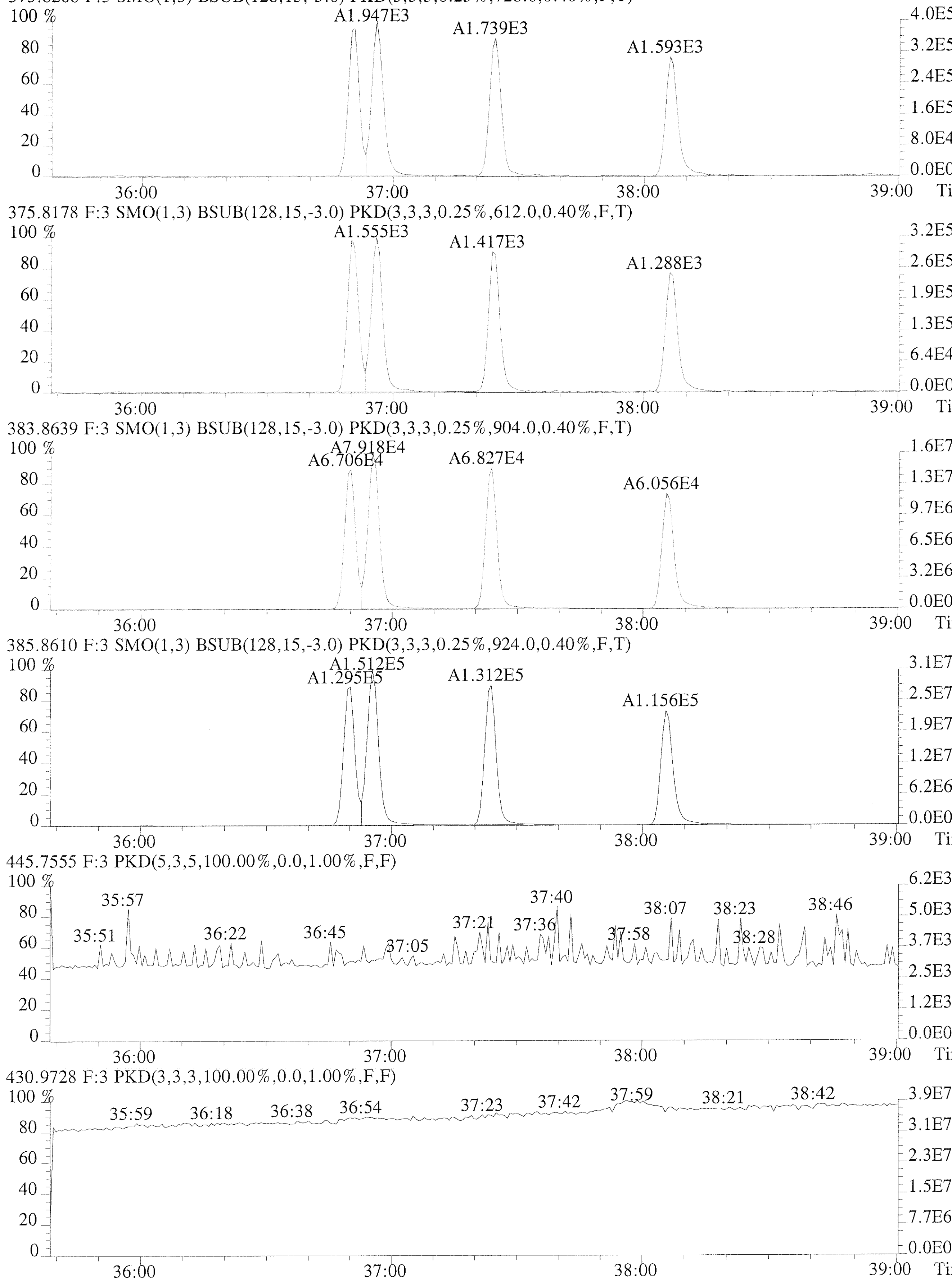
369.8919 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,428.0,1.00%,F,T)



354.9792 F:2 PKD(3,3,3,100.00%,0.0,1.00%,F,F)

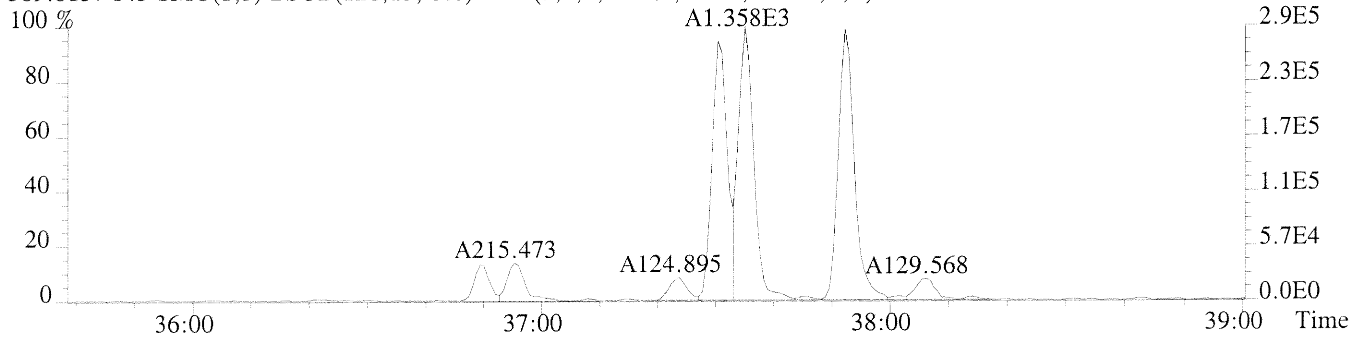


File: 7389 #1-306 Acq: 3-MAY-2012 06:11:11 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:ICAL CS0.5

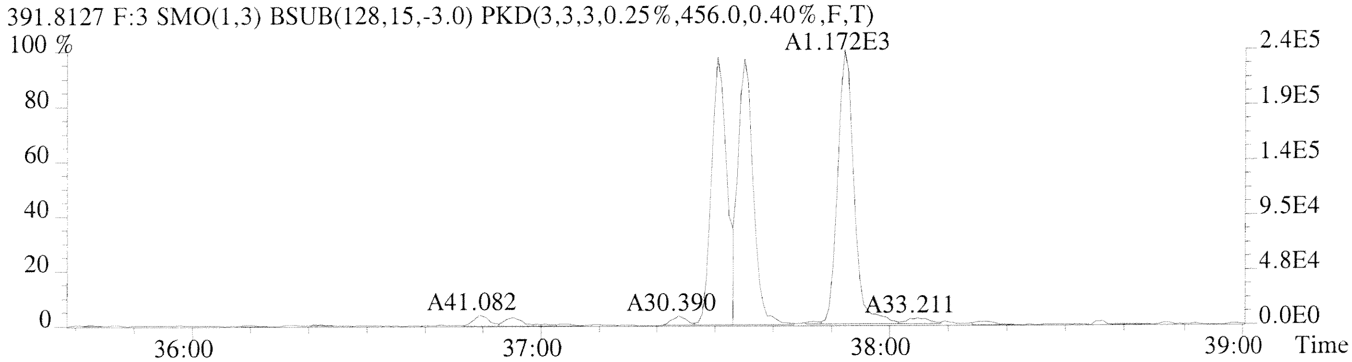


File: 7389 #1-306 Acq: 3-MAY-2012 06:11:11 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:ICAL CS0.5

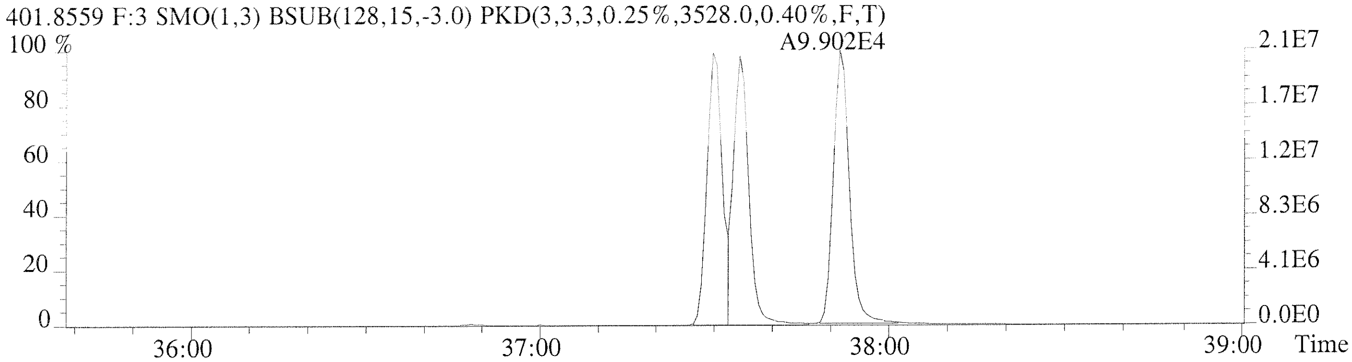
389.8157 F:3 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,848.0,0.40%,F,T)



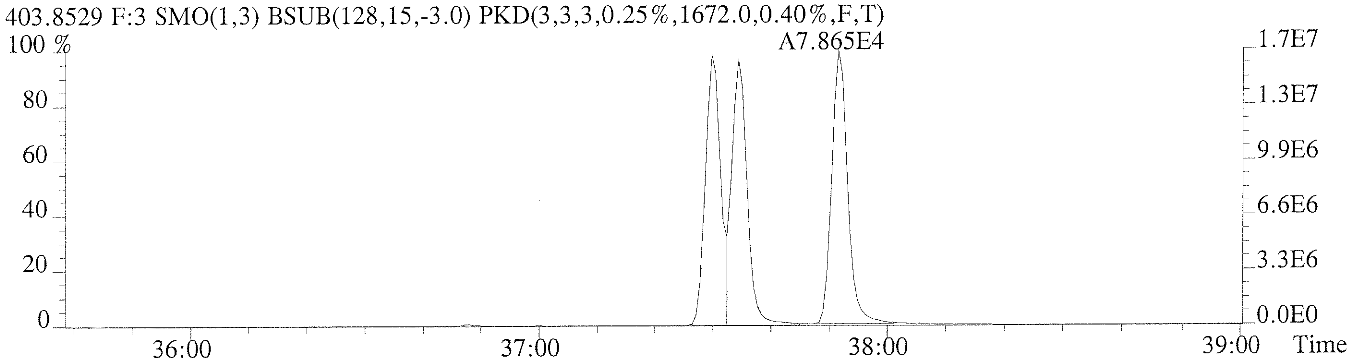
391.8127 F:3 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,456.0,0.40%,F,T)



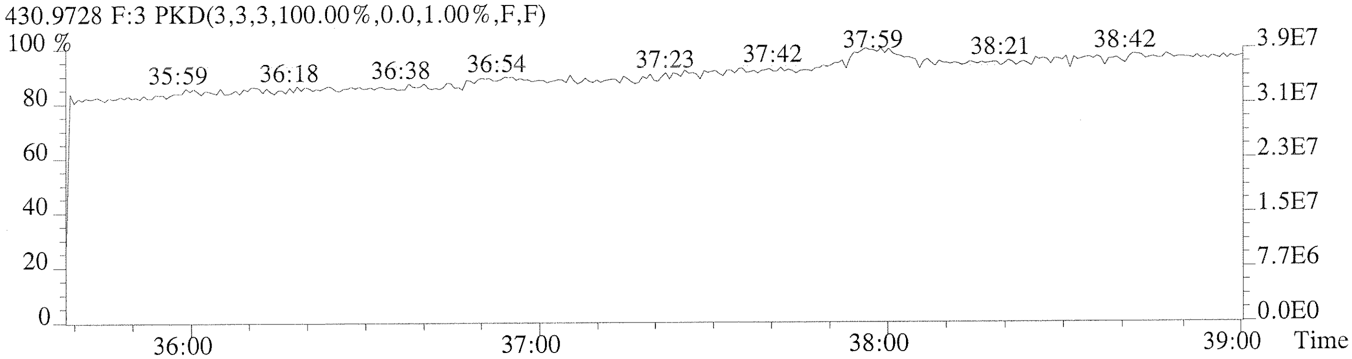
401.8559 F:3 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,3528.0,0.40%,F,T)



403.8529 F:3 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,1672.0,0.40%,F,T)

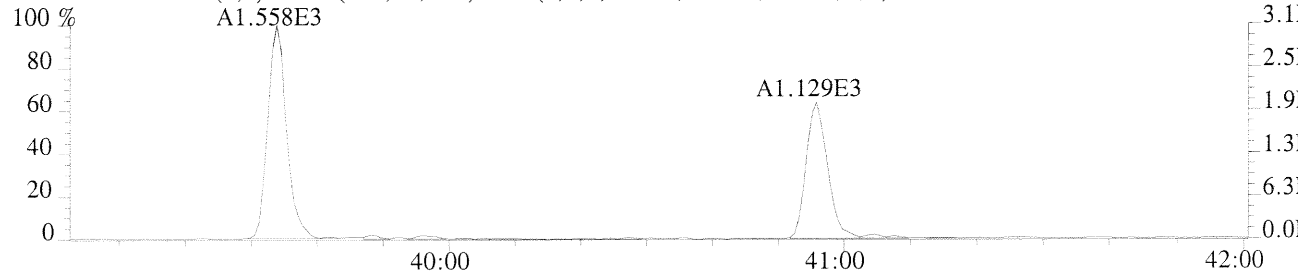


430.9728 F:3 PKD(3,3,3,100.00%,0.0,1.00%,F,F)

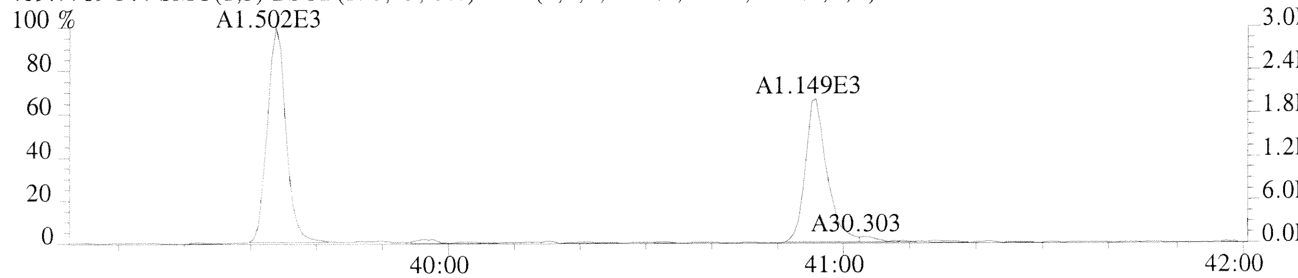


File: 7389 #1-270 Acq: 3-MAY-2012 06:11:11 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:ICAL CS0.5

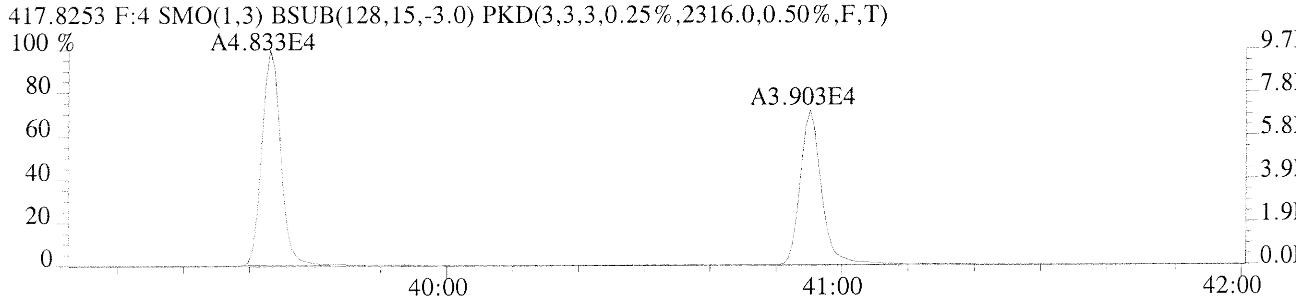
407.7818 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,1584.0,0.50%,F,T)



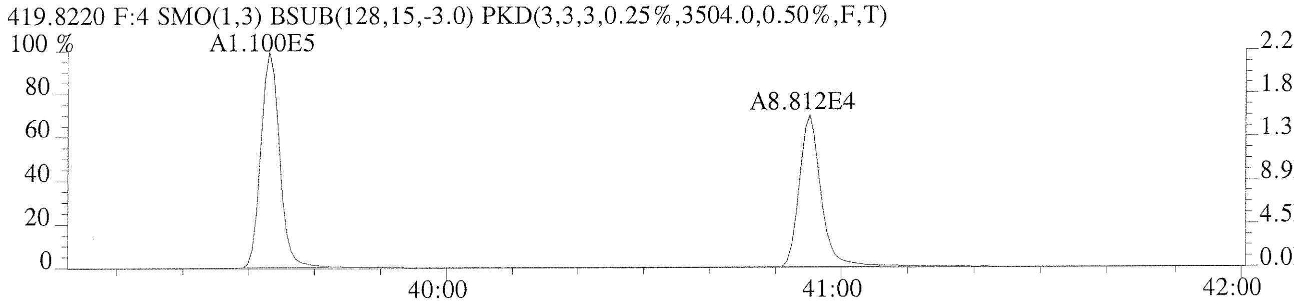
409.7789 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,672.0,0.50%,F,T)



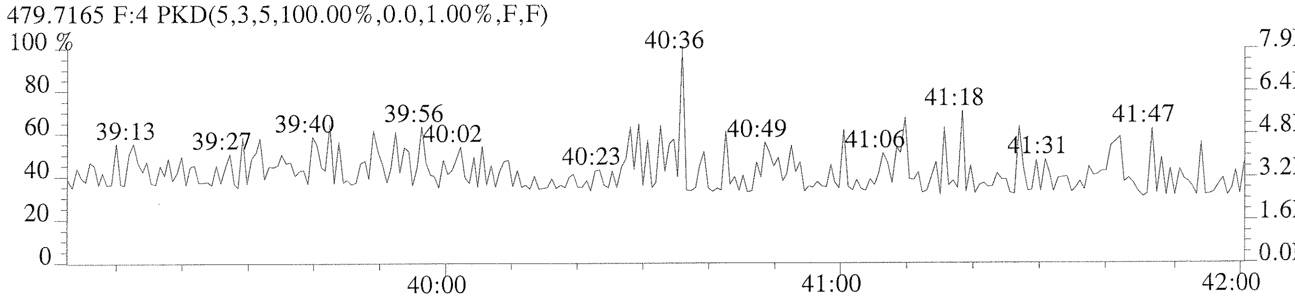
417.8253 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,2316.0,0.50%,F,T)



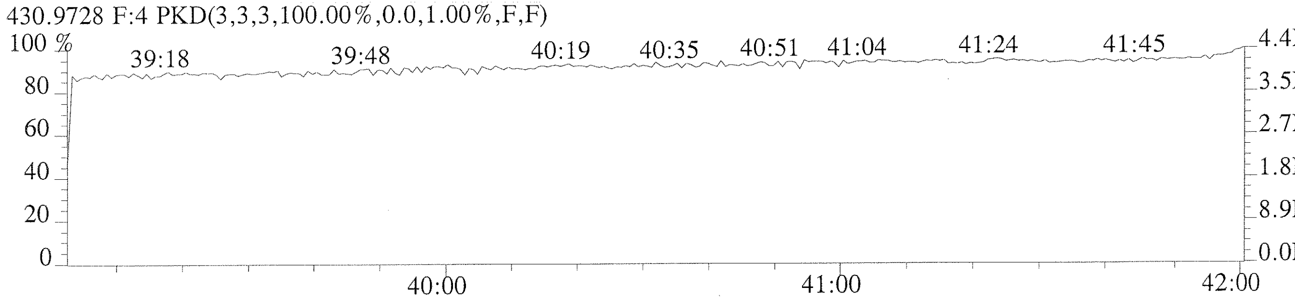
419.8220 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,3504.0,0.50%,F,T)



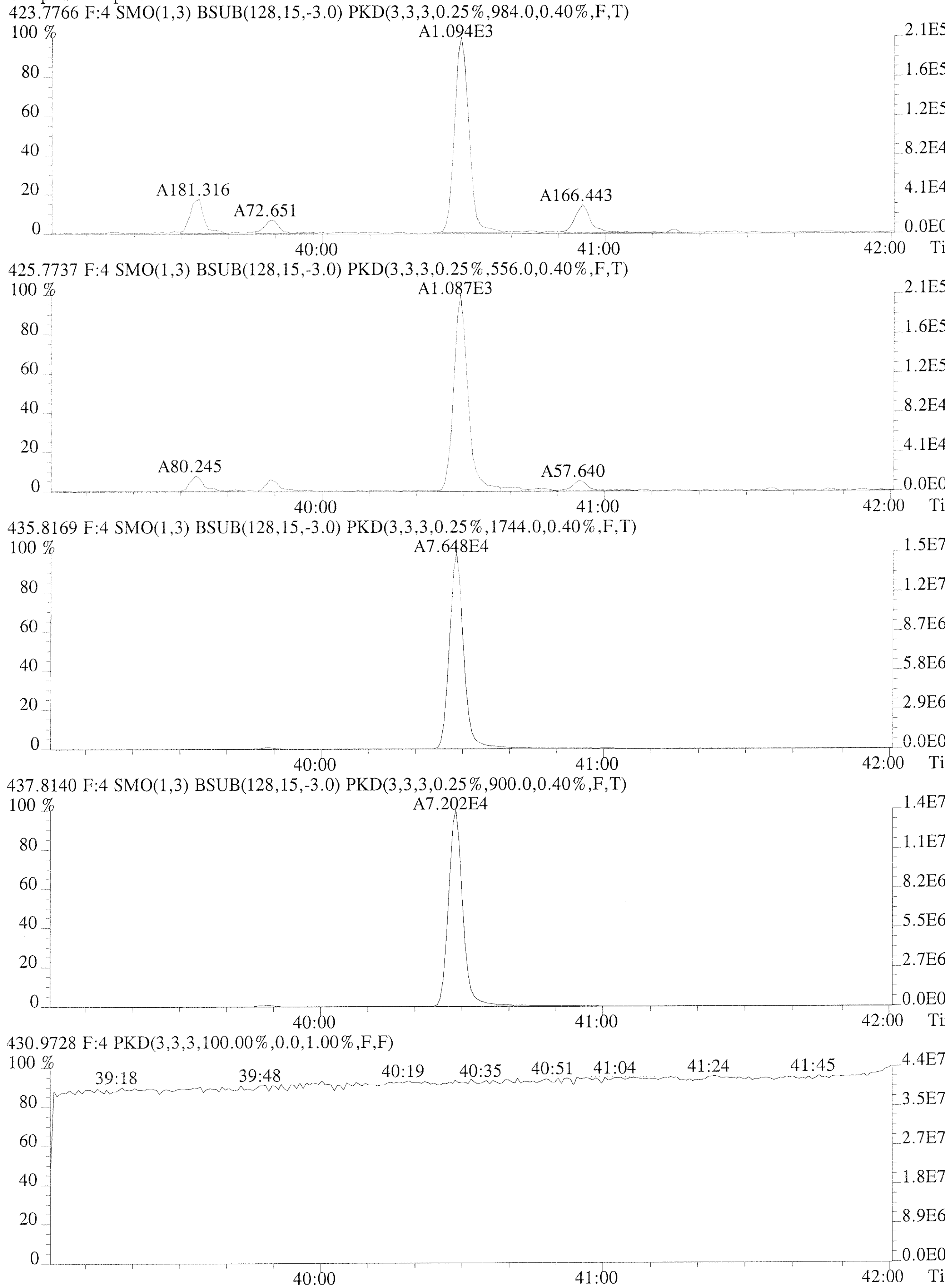
479.7165 F:4 PKD(5,3,5,100.00%,0.0,1.00%,F,F)



430.9728 F:4 PKD(3,3,3,100.00%,0.0,1.00%,F,F)

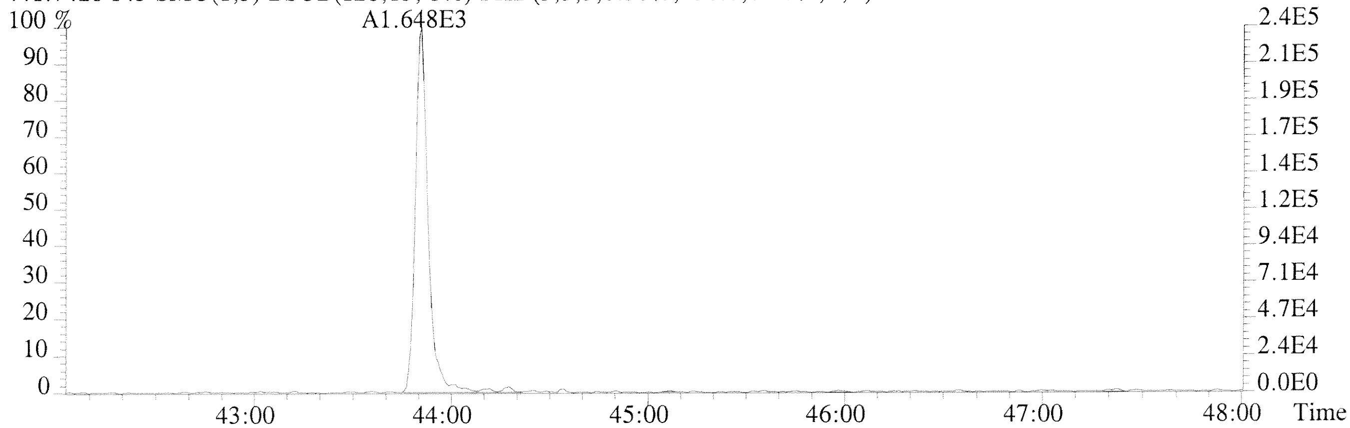


File: 7389 #1-270 Acq: 3-MAY-2012 06:11:11 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:ICAL CS0.5

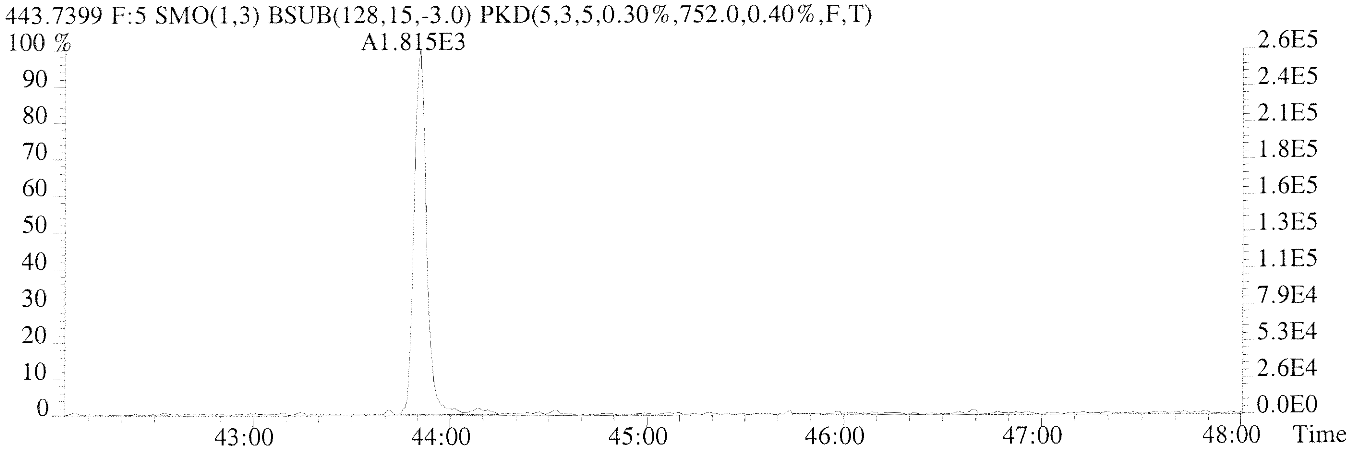


File: 7389 #1-548 Acq: 3-MAY-2012 06:11:11 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:ICAL CS0.5

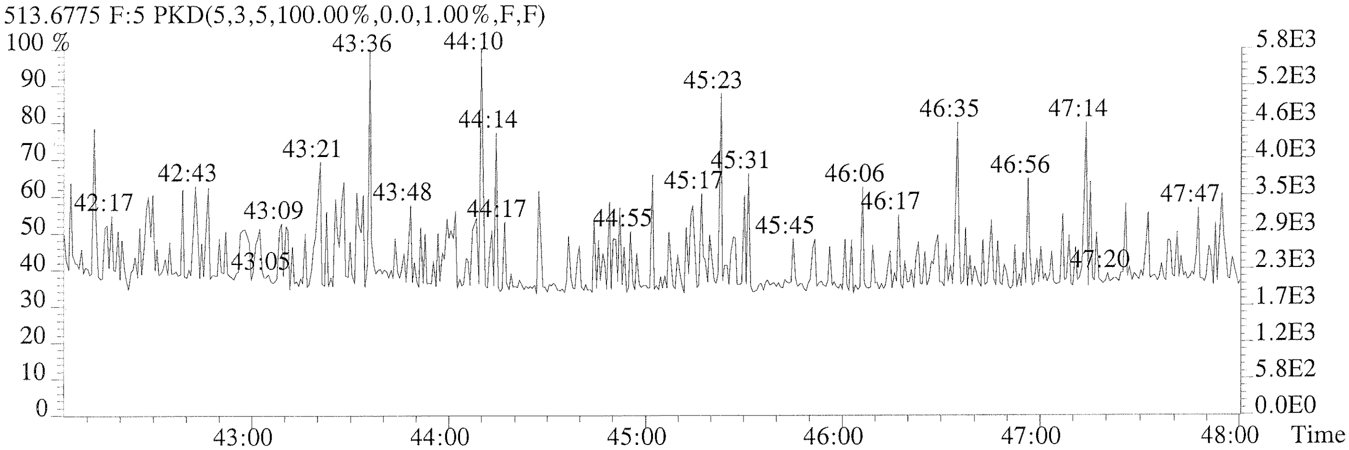
441.7428 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(5,3,5,0.30%,436.0,0.40%,F,T)



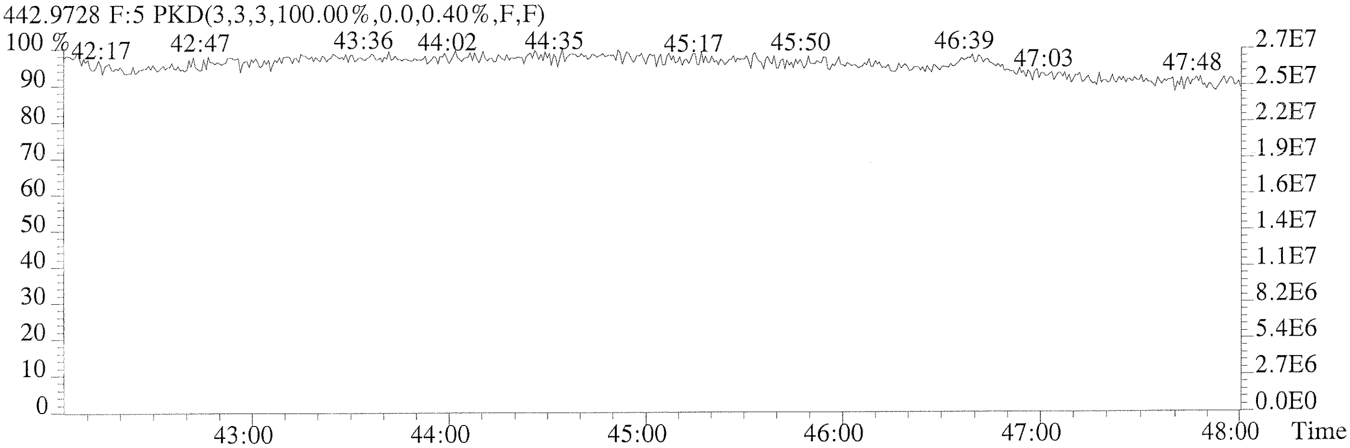
443.7399 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(5,3,5,0.30%,752.0,0.40%,F,T)



513.6775 F:5 PKD(5,3,5,100.00%,0.0,1.00%,F,F)

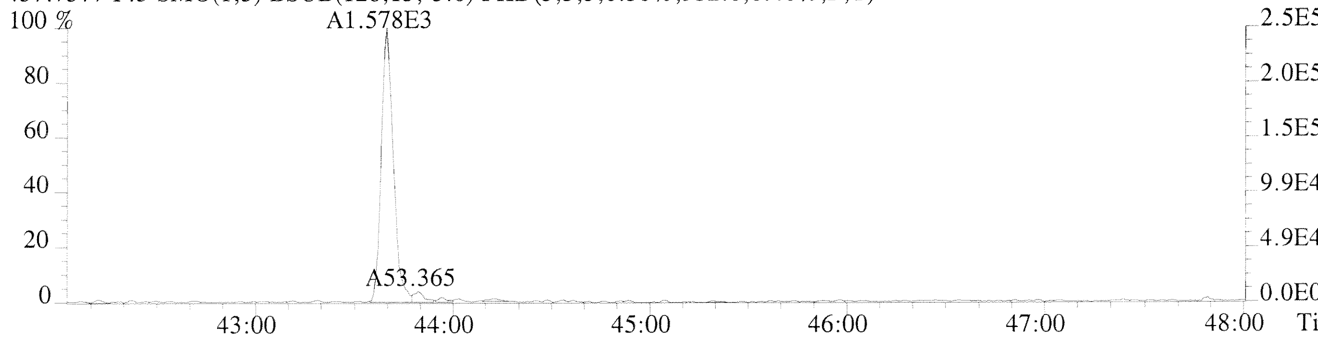


442.9728 F:5 PKD(3,3,3,100.00%,0.0,0.40%,F,F)

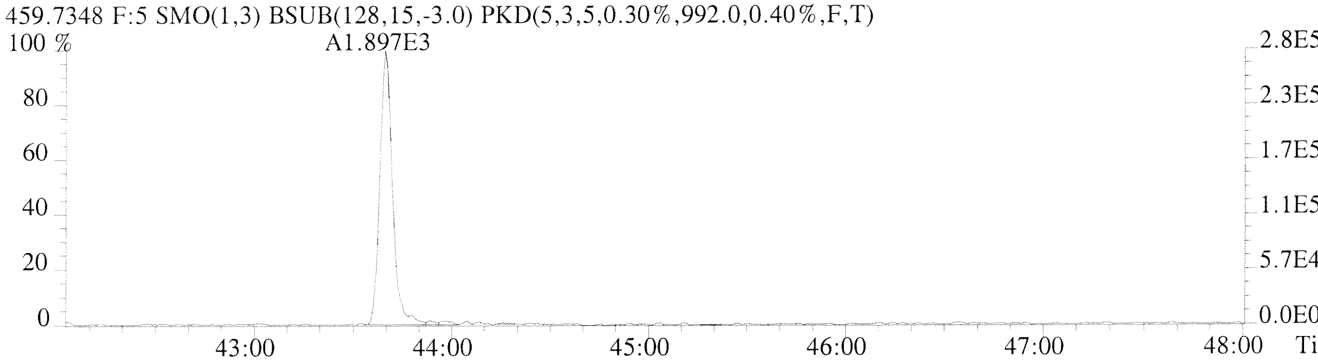


File: 7389 #1-548 Acq: 3-MAY-2012 06:11:11 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:ICAL CS0.5

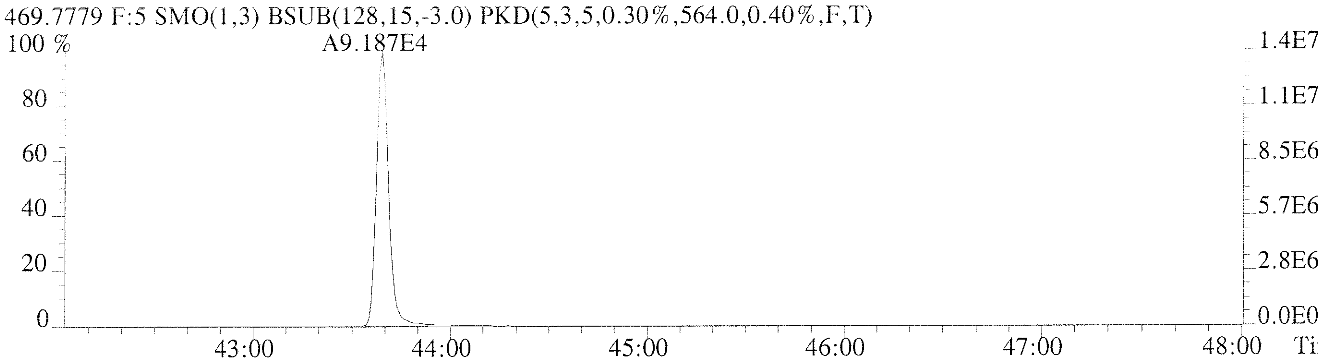
457.7377 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(5,3,5,0.30%,952.0,0.40%,F,T)



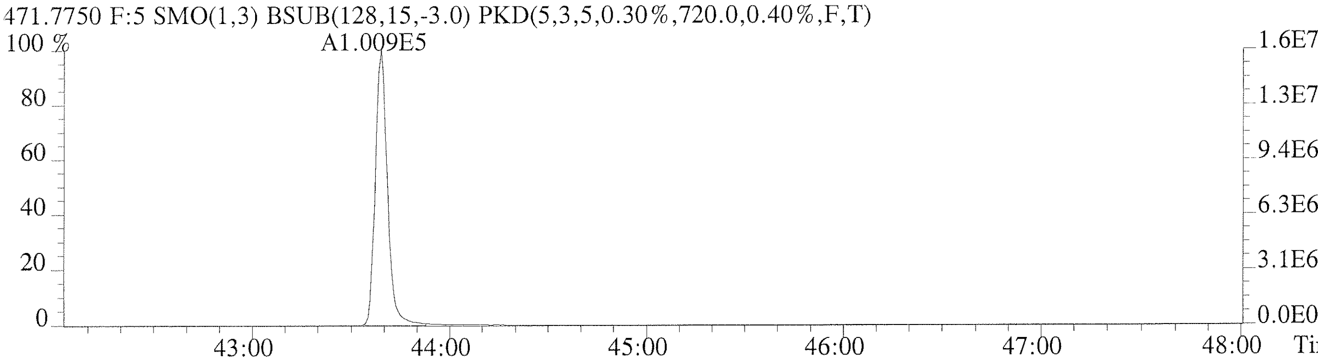
459.7348 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(5,3,5,0.30%,992.0,0.40%,F,T)



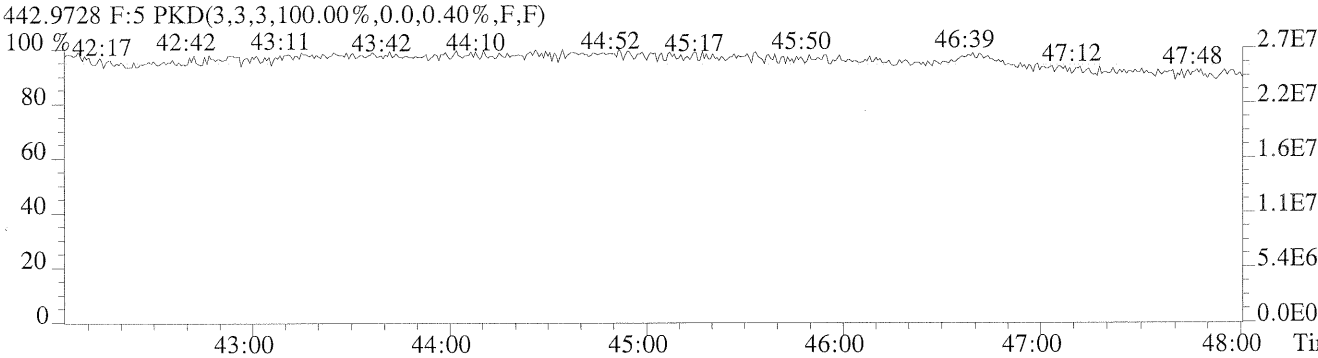
469.7779 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(5,3,5,0.30%,564.0,0.40%,F,T)



471.7750 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(5,3,5,0.30%,720.0,0.40%,F,T)



442.9728 F:5 PKD(3,3,3,100.00%,0.0,0.40%,F,F)



Sample Response Summary

CLIENT ID.
ICAL CS1

Run #2 Filename 7390 #1 Samp: 1 Inj: 1 Acquired: 3-MAY-12 07:07:52
Processed: 3-MAY-12 07:48:20 LAB. ID: ICAL CS1

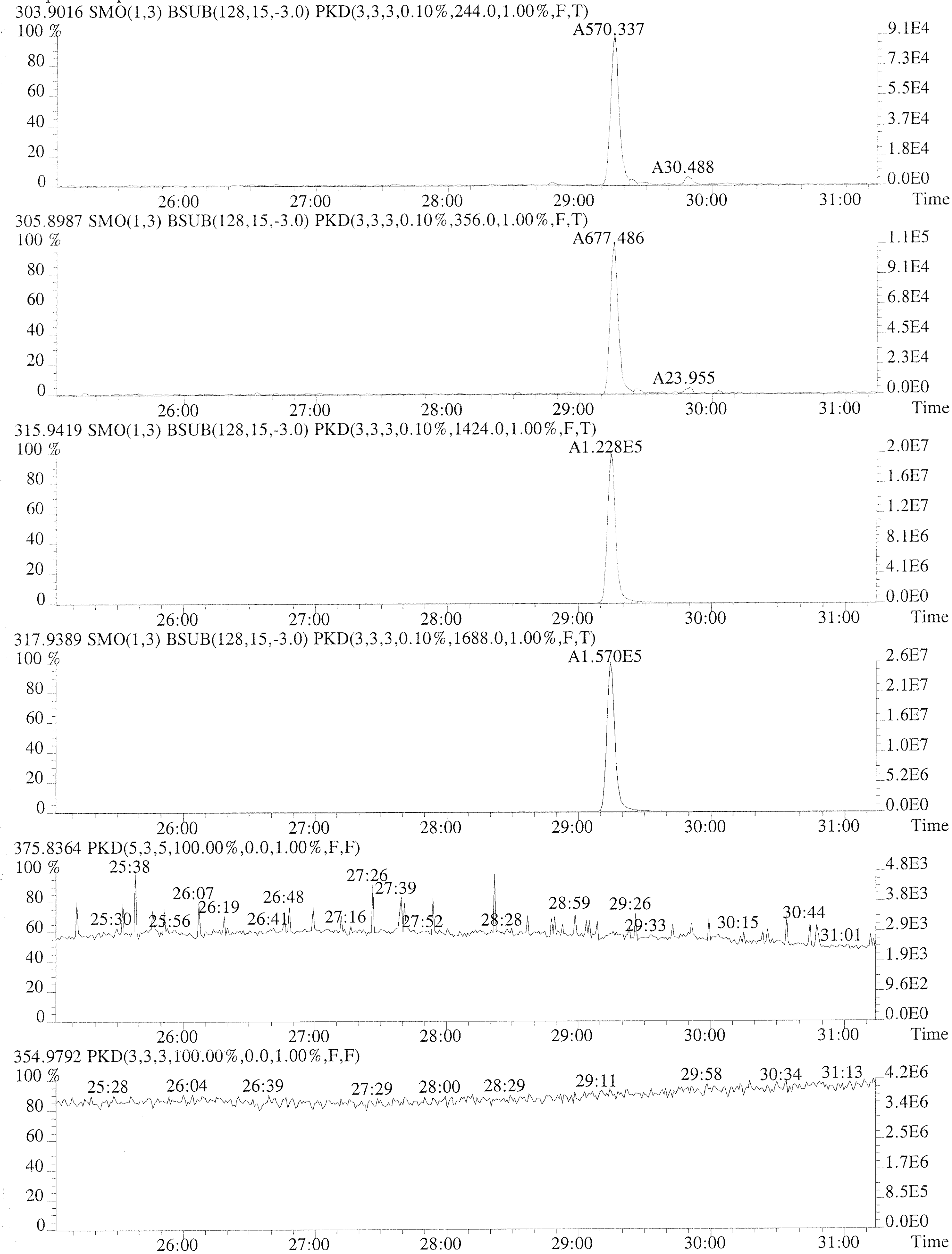
Typ	Name	RT-1	Resp 1	Resp 2	Ratio	Meet	Mod?	RRT
Unk	2,3,7,8-TCDF	29:16	5.703e+02	6.775e+02	0.84	yes	no	1.001
Unk	1,2,3,7,8-PeCDF	33:23	4.131e+03	2.563e+03	1.61	yes	no	1.000
Unk	2,3,4,7,8-PeCDF	34:06	3.923e+03	2.541e+03	1.54	yes	no	1.000
Unk	1,2,3,4,7,8-HxCDF	36:50	3.472e+03	2.892e+03	1.20	yes	no	1.000
Unk	1,2,3,6,7,8-HxCDF	36:56	4.085e+03	3.306e+03	1.24	yes	no	1.000
Unk	2,3,4,6,7,8-HxCDF	37:24	3.664e+03	2.965e+03	1.24	yes	no	1.000
Unk	1,2,3,7,8,9-HxCDF	38:06	3.042e+03	2.327e+03	1.31	yes	no	1.000
Unk	1,2,3,4,6,7,8-HpCDF	39:33	3.072e+03	3.091e+03	0.99	yes	no	1.000
Unk	1,2,3,4,7,8,9-HpCDF	40:55	2.331e+03	2.222e+03	1.05	yes	no	1.000
Unk	OCDF	43:50	3.156e+03	3.535e+03	0.89	yes	no	1.005
Unk	2,3,7,8-TCDD	30:02	4.389e+02	5.225e+02	0.84	yes	no	1.001
Unk	1,2,3,7,8-PeCDD	34:26	2.883e+03	1.804e+03	1.60	yes	no	1.000
Unk	1,2,3,4,7,8-HxCDD	37:30	2.546e+03	2.118e+03	1.20	yes	no	1.000
Unk	1,2,3,6,7,8-HxCDD	37:35	2.866e+03	2.236e+03	1.28	yes	no	1.000
Unk	1,2,3,7,8,9-HxCDD	37:52	2.722e+03	2.196e+03	1.24	yes	no	1.008
Unk	1,2,3,4,6,7,8-HpCDD	40:29	2.138e+03	2.112e+03	1.01	yes	no	1.000
Unk	OCDD	43:39	2.951e+03	3.424e+03	0.86	yes	no	1.000
IS	13C-2,3,7,8-TCDF	29:14	1.228e+05	1.570e+05	0.78	yes	no	0.980
IS	13C-1,2,3,7,8-PeCDF	33:23	1.678e+05	1.071e+05	1.57	yes	no	1.120
IS	13C-2,3,4,7,8-PeCDF	34:05	1.695e+05	1.079e+05	1.57	yes	no	1.143
IS	13C-1,2,3,4,7,8-HxCDF	36:49	7.327e+04	1.409e+05	0.52	yes	no	0.972
IS	13C-1,2,3,6,7,8-HxCDF	36:55	9.066e+04	1.722e+05	0.53	yes	no	0.975
IS	13C-2,3,4,6,7,8-HxCDF	37:23	7.932e+04	1.522e+05	0.52	yes	no	0.987
IS	13C-1,2,3,7,8,9-HxCDF	38:05	6.382e+04	1.230e+05	0.52	yes	no	1.006
IS	13C-1,2,3,4,6,7,8-HpCDF	39:33	5.535e+04	1.258e+05	0.44	yes	no	1.044
IS	13C-1,2,3,4,7,8,9-HpCDF	40:54	4.350e+04	9.902e+04	0.44	yes	no	1.080
IS	13C-2,3,7,8-TCDD	30:01	8.976e+04	1.152e+05	0.78	yes	no	1.007
IS	13C-1,2,3,7,8-PeCDD	34:25	1.232e+05	7.932e+04	1.55	yes	no	1.154
IS	13C-1,2,3,4,7,8-HxCDD	37:30	1.012e+05	8.029e+04	1.26	yes	no	0.990
IS	13C-1,2,3,6,7,8-HxCDD	37:34	1.109e+05	8.790e+04	1.26	yes	no	0.992
IS	13C-1,2,3,4,6,7,8-HpCDD	40:28	8.426e+04	7.988e+04	1.05	yes	no	1.069
IS	13C-OCDD	43:38	1.008e+05	1.111e+05	0.91	yes	no	1.152
RS/RT	13C-1,2,3,4-TCDD	29:49	9.986e+04	1.267e+05	0.79	yes	no	*
RS/RT	13C-1,2,3,7,8,9-HxCDD	37:52	1.060e+05	8.393e+04	1.26	yes	no	*
C/Up	37Cl-2,3,7,8-TCDD	30:02	1.062e+03				no	1.007

Signal/Noise Height Ratio Summary CLIENT ID.
ICAL CS1

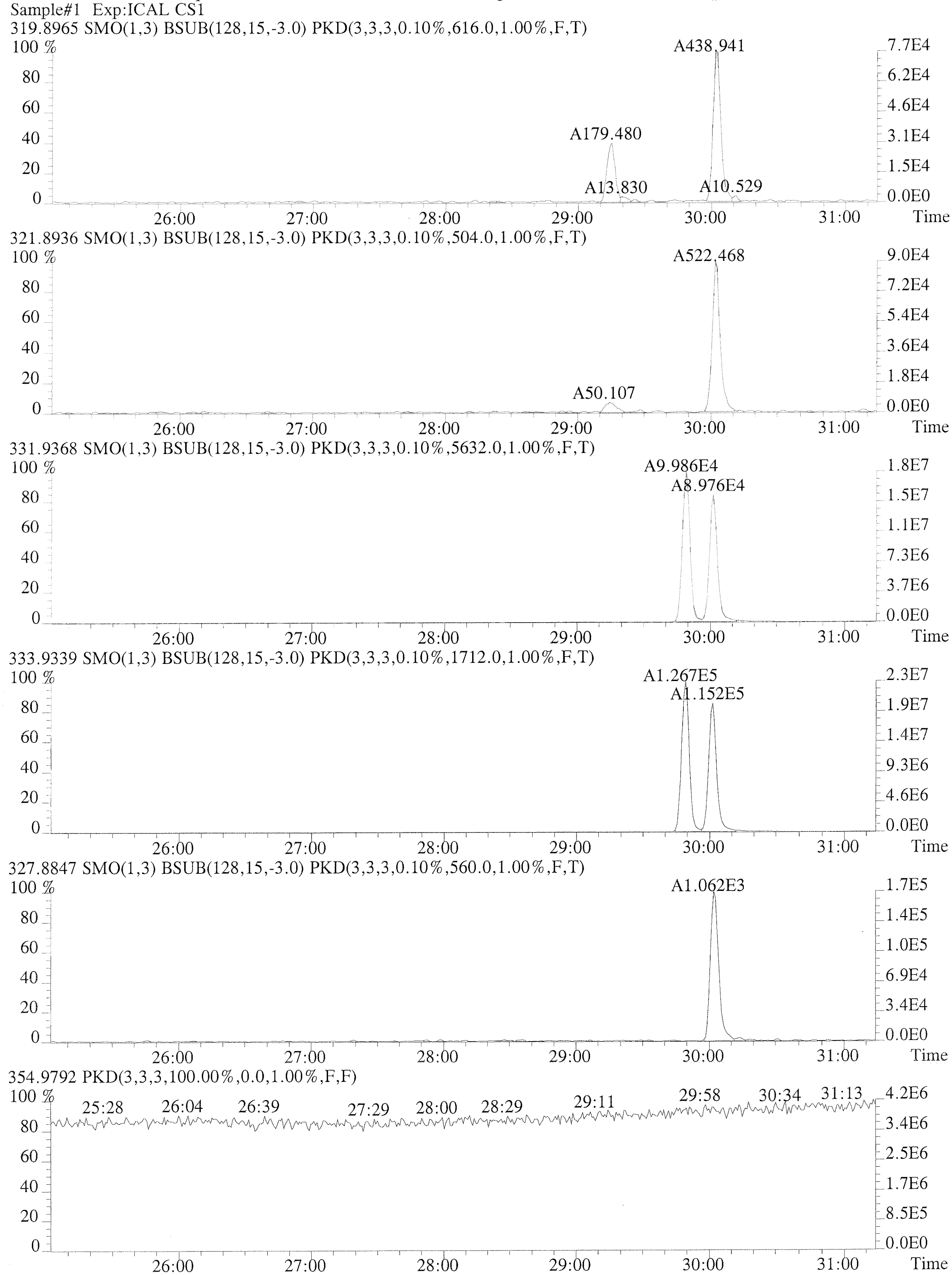
Run #2 Filename 7390 Samp: 1 Inj: 1 Acquired: 3-MAY-12 07:07:52
Processed: 3-MAY-12 07:48:201 LAB. ID: ICAL CS1

Name	Signal 1	Noise 1	S/N Rat.1	Signal 2	Noise 2	S/N Rat.2
2,3,7,8-TCDF	9.14e+04	2.44e+02	3.7e+02	1.13e+05	3.56e+02	3.2e+02
1,2,3,7,8-PeCDF	7.65e+05	4.28e+02	1.8e+03	4.64e+05	7.24e+02	6.4e+02
2,3,4,7,8-PeCDF	7.45e+05	4.28e+02	1.7e+03	4.81e+05	7.24e+02	6.6e+02
1,2,3,4,7,8-HxCDF	7.90e+05	3.04e+02	2.6e+03	6.29e+05	2.92e+02	2.2e+03
1,2,3,6,7,8-HxCDF	8.18e+05	3.04e+02	2.7e+03	6.57e+05	2.92e+02	2.2e+03
2,3,4,6,7,8-HxCDF	7.84e+05	3.04e+02	2.6e+03	6.23e+05	2.92e+02	2.1e+03
1,2,3,7,8,9-HxCDF	5.98e+05	3.04e+02	2.0e+03	4.56e+05	2.92e+02	1.6e+03
1,2,3,4,6,7,8-HpCDF	6.05e+05	1.51e+03	4.0e+02	5.99e+05	1.23e+03	4.9e+02
1,2,3,4,7,8,9-HpCDF	4.27e+05	1.51e+03	2.8e+02	4.01e+05	1.23e+03	3.3e+02
OCDF	4.73e+05	2.84e+02	1.7e+03	5.24e+05	7.80e+02	6.7e+02
2,3,7,8-TCDD	7.67e+04	6.16e+02	1.2e+02	9.00e+04	5.04e+02	1.8e+02
1,2,3,7,8-PeCDD	5.40e+05	5.12e+02	1.1e+03	3.43e+05	4.88e+02	7.0e+02
1,2,3,4,7,8-HxCDD	5.85e+05	3.64e+02	1.6e+03	4.93e+05	6.72e+02	7.3e+02
1,2,3,6,7,8-HxCDD	5.87e+05	3.64e+02	1.6e+03	4.56e+05	6.72e+02	6.8e+02
1,2,3,7,8,9-HxCDD	5.71e+05	3.64e+02	1.6e+03	4.44e+05	6.72e+02	6.6e+02
1,2,3,4,6,7,8-HpCDD	4.12e+05	4.08e+02	1.0e+03	4.01e+05	5.72e+02	7.0e+02
OCDD	4.52e+05	5.60e+02	8.1e+02	5.30e+05	6.60e+02	8.0e+02
13C-2,3,7,8-TCDF	2.02e+07	1.42e+03	1.4e+04	2.59e+07	1.69e+03	1.5e+04
13C-1,2,3,7,8-PeCDF	3.13e+07	3.00e+02	1.0e+05	2.02e+07	6.28e+02	3.2e+04
13C-2,3,4,7,8-PeCDF	3.34e+07	3.00e+02	1.1e+05	2.12e+07	6.28e+02	3.4e+04
13C-1,2,3,4,7,8-HxCDF	1.65e+07	7.12e+02	2.3e+04	3.15e+07	1.27e+03	2.5e+04
13C-1,2,3,6,7,8-HxCDF	1.83e+07	7.12e+02	2.6e+04	3.46e+07	1.27e+03	2.7e+04
13C-2,3,4,6,7,8-HxCDF	1.70e+07	7.12e+02	2.4e+04	3.29e+07	1.27e+03	2.6e+04
13C-1,2,3,7,8,9-HxCDF	1.29e+07	7.12e+02	1.8e+04	2.45e+07	1.27e+03	1.9e+04
13C-1,2,3,4,6,7,8-HpCDF	1.11e+07	6.52e+03	1.7e+03	2.49e+07	1.25e+04	2.0e+03
13C-1,2,3,4,7,8,9-HpCDF	7.78e+06	6.52e+03	1.2e+03	1.76e+07	1.25e+04	1.4e+03
13C-2,3,7,8-TCDD	1.54e+07	5.63e+03	2.7e+03	1.98e+07	1.71e+03	1.2e+04
13C-1,2,3,7,8-PeCDD	2.38e+07	5.04e+02	4.7e+04	1.54e+07	1.96e+02	7.9e+04
13C-1,2,3,4,7,8-HxCDD	2.37e+07	2.76e+03	8.6e+03	1.87e+07	1.54e+03	1.2e+04
13C-1,2,3,6,7,8-HxCDD	2.27e+07	2.76e+03	8.2e+03	1.78e+07	1.54e+03	1.2e+04
13C-1,2,3,4,6,7,8-HpCDD	1.61e+07	9.76e+02	1.7e+04	1.54e+07	5.16e+02	3.0e+04
13C-OCDD	1.55e+07	5.28e+02	2.9e+04	1.74e+07	3.08e+02	5.6e+04
13C-1,2,3,4-TCDD	1.83e+07	5.63e+03	3.2e+03	2.32e+07	1.71e+03	1.4e+04
13C-1,2,3,7,8,9-HxCDD	2.27e+07	2.76e+03	8.2e+03	1.78e+07	1.54e+03	1.2e+04
37Cl-2,3,7,8-TCDD	1.72e+05	5.60e+02	3.1e+02			

File: 7390 #1-517 Acq: 3-MAY-2012 07:07:52 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:ICAL CS1

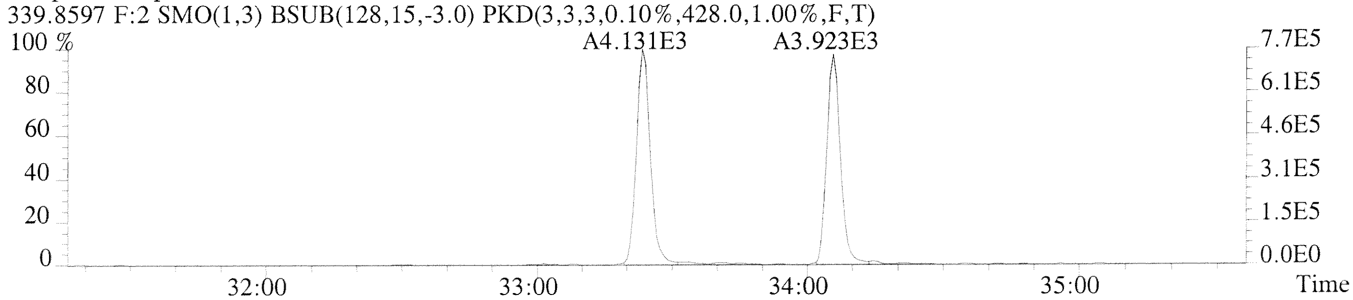


File: 7390 #1-517 Acq: 3-MAY-2012 07:07:52 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:ICAL CS1

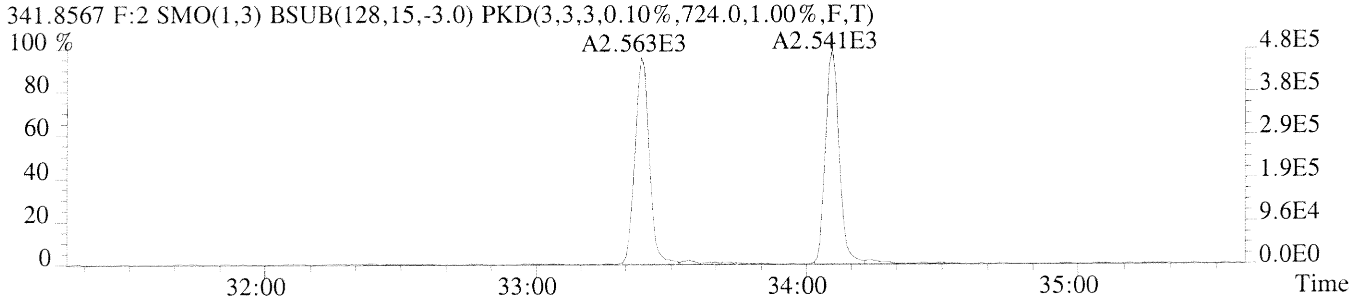


File: 7390 #1-394 Acq: 3-MAY-2012 07:07:52 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:ICAL CS1

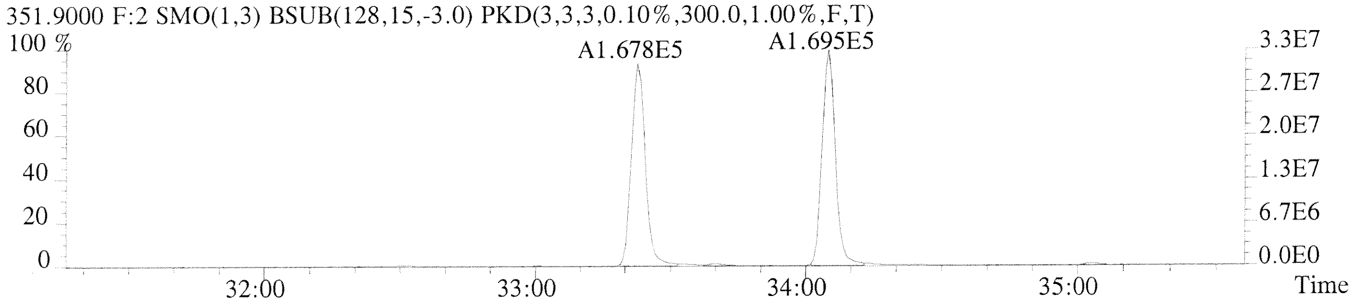
339.8597 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,428.0,1.00%,F,T)



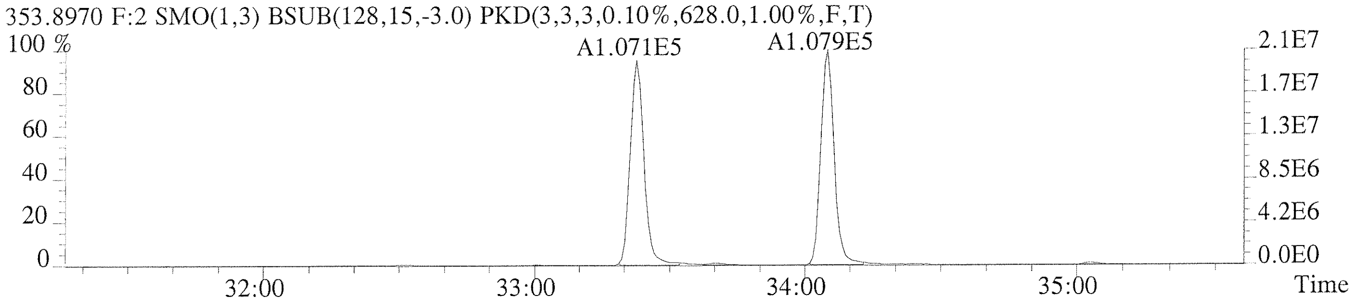
341.8567 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,724.0,1.00%,F,T)



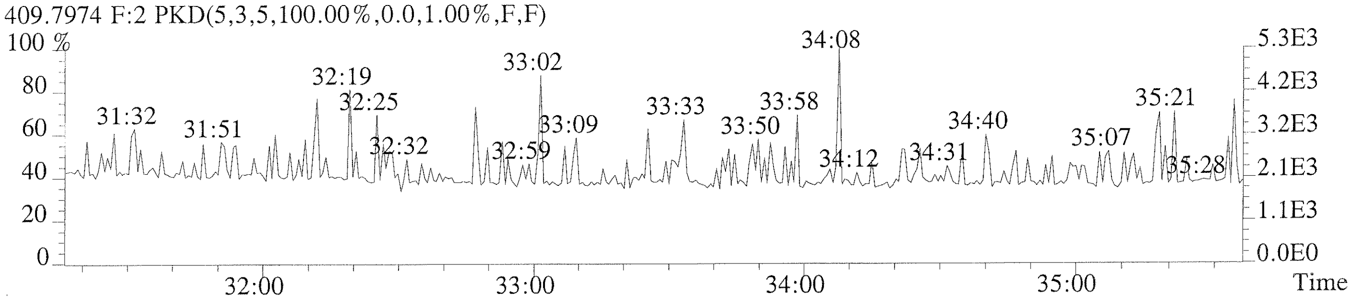
351.9000 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,300.0,1.00%,F,T)



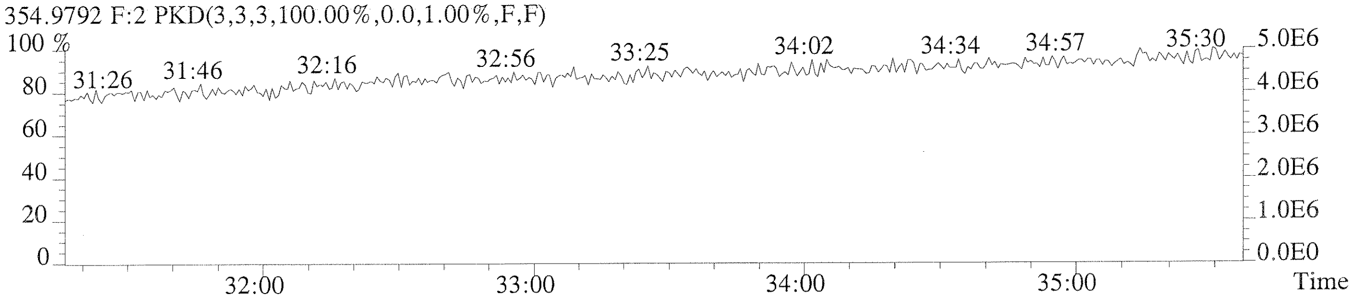
353.8970 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,628.0,1.00%,F,T)



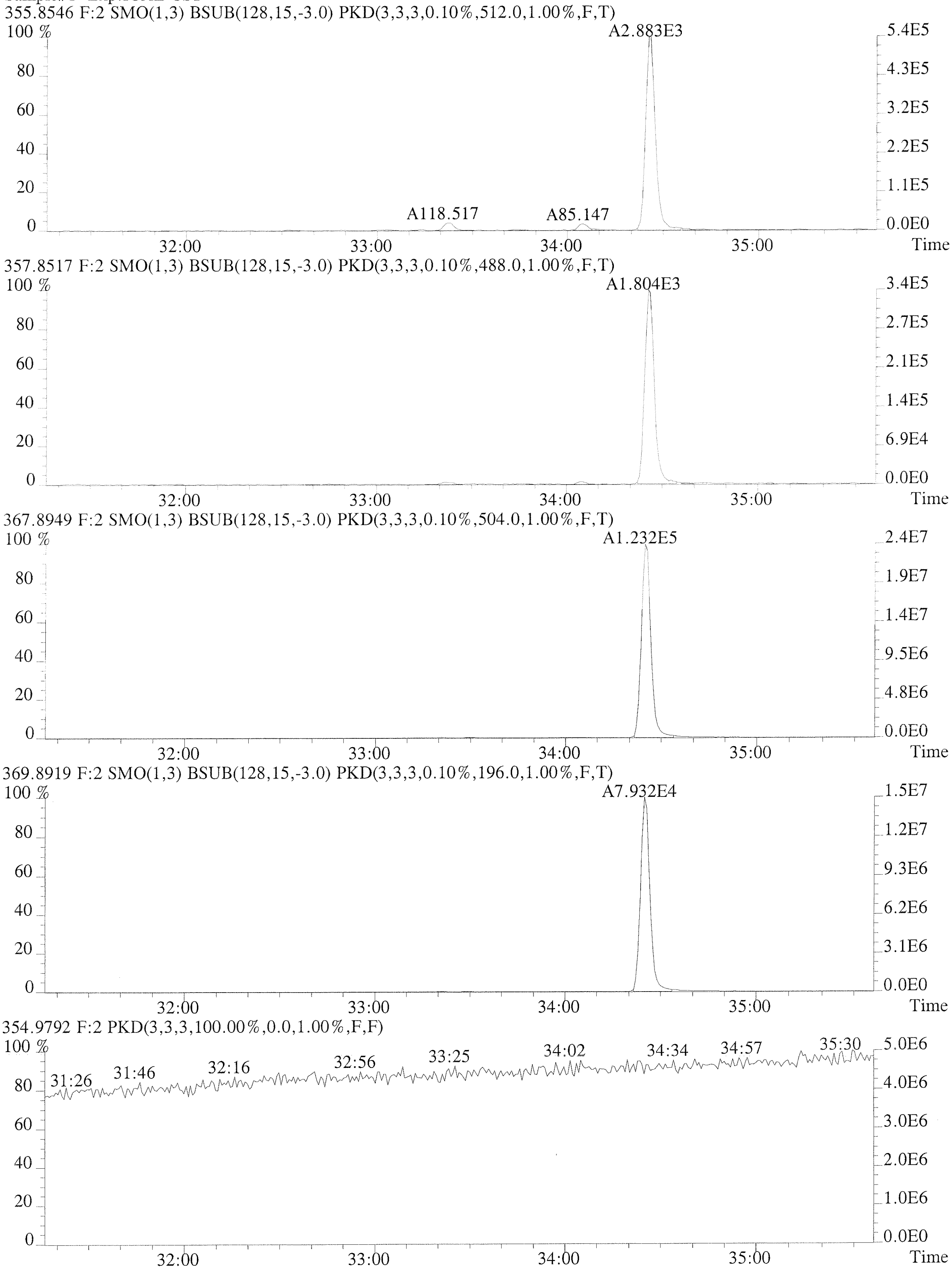
409.7974 F:2 PKD(5,3,5,100.00%,0.0,1.00%,F,F)



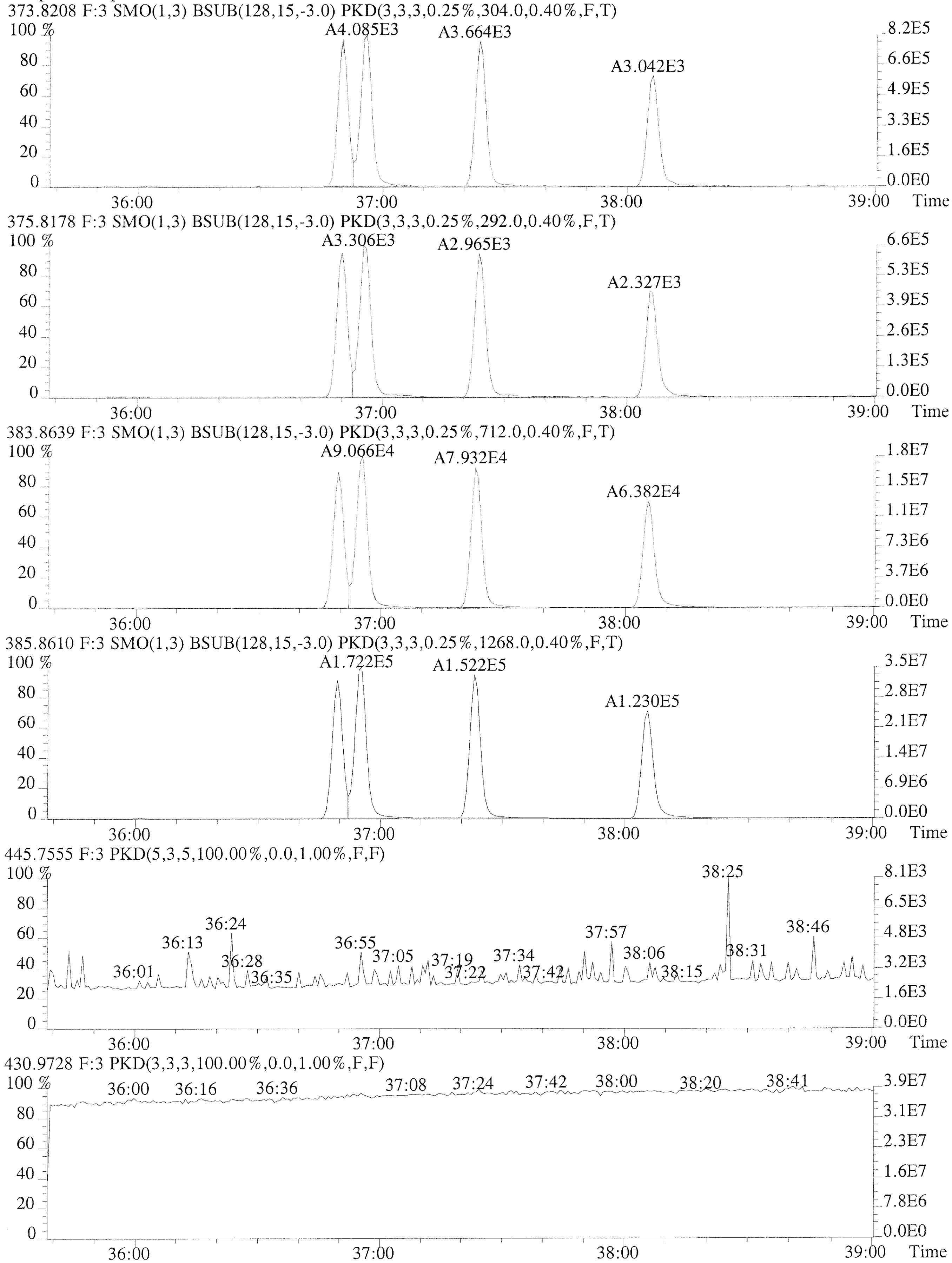
354.9792 F:2 PKD(3,3,3,100.00%,0.0,1.00%,F,F)



File: 7390 #1-394 Acq: 3-MAY-2012 07:07:52 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:ICAL CS1

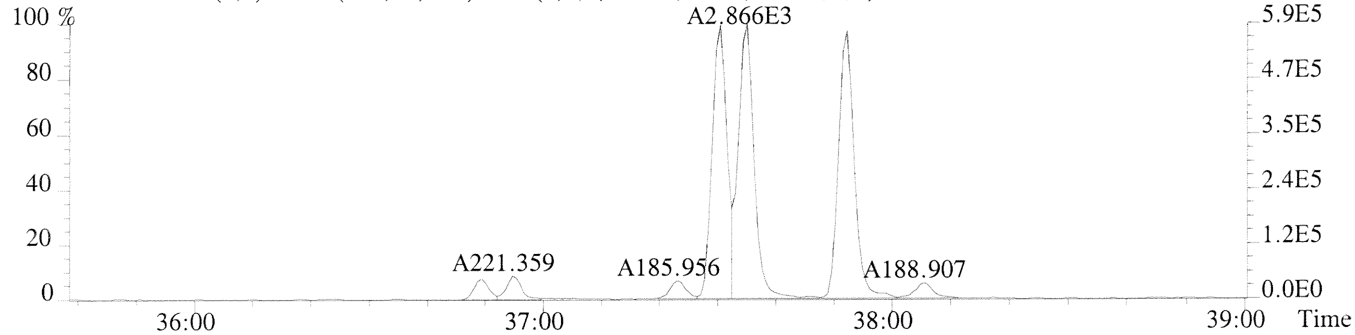


File: 7390 #1-306 Acq: 3-MAY-2012 07:07:52 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:ICAL CS1

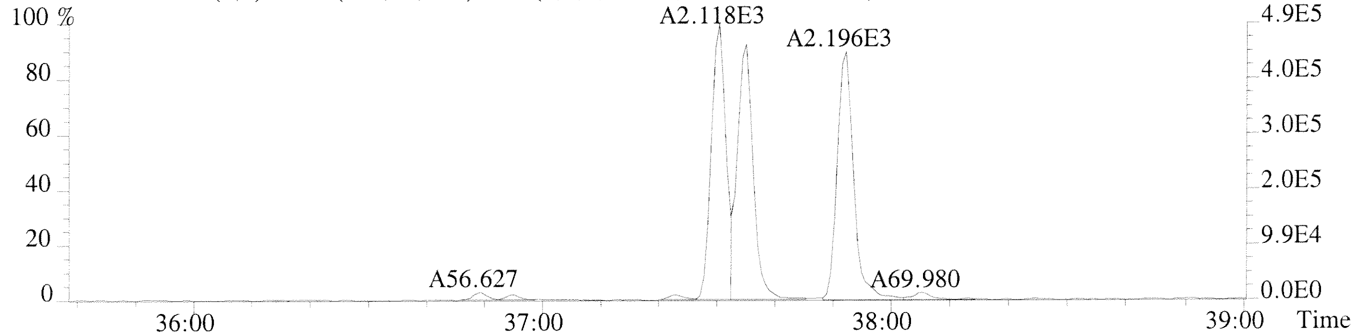


File: 7390 #1-306 Acq: 3-MAY-2012 07:07:52 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:ICAL CS1

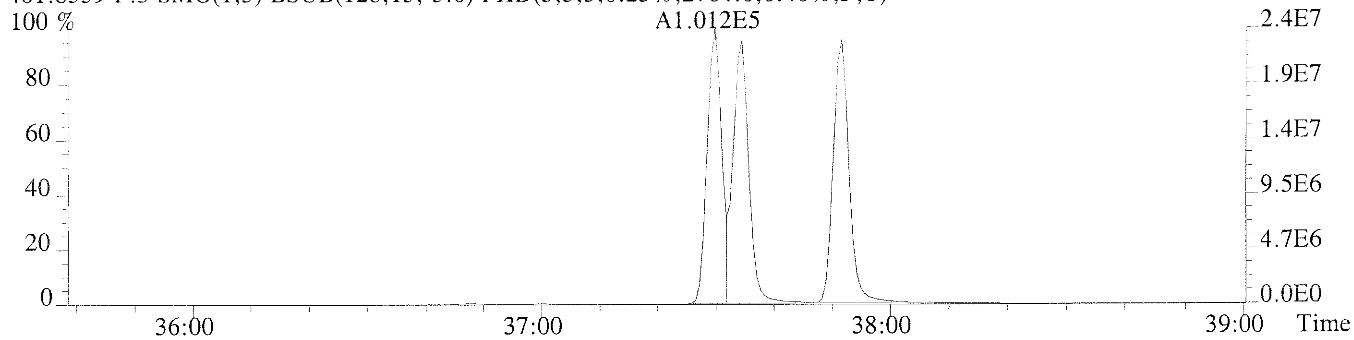
389.8157 F:3 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,364.0,0.40%,F,T)



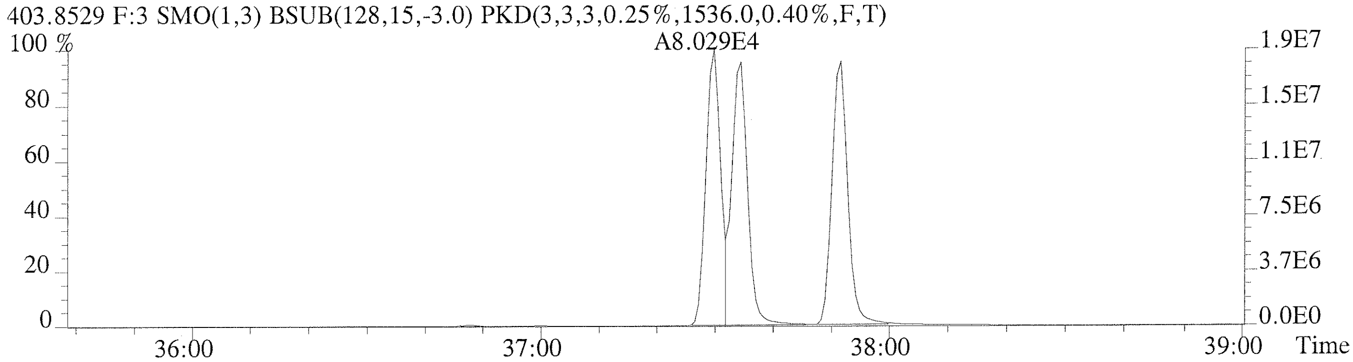
391.8127 F:3 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,672.0,0.40%,F,T)



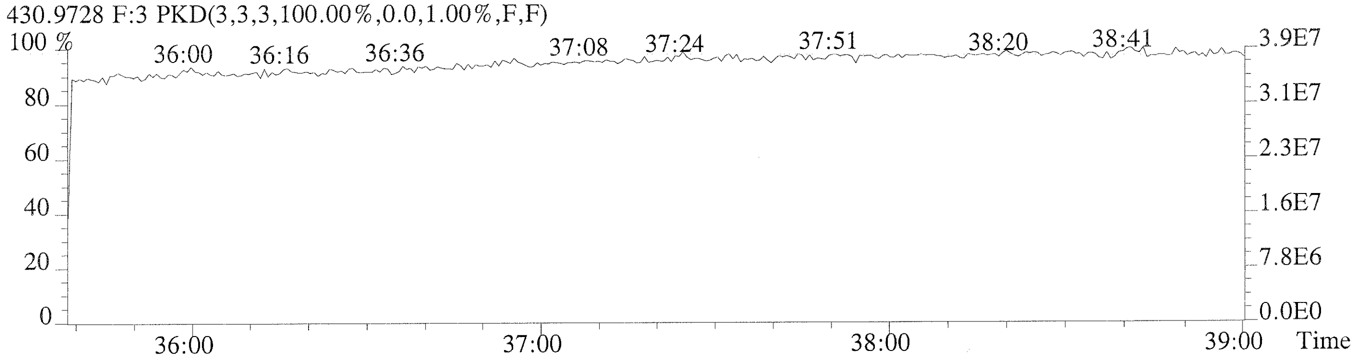
401.8559 F:3 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,2764.0,0.40%,F,T)



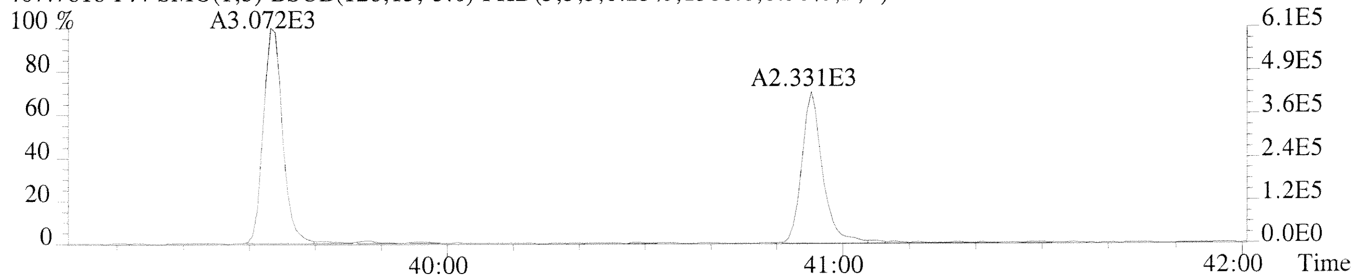
403.8529 F:3 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,1536.0,0.40%,F,T)



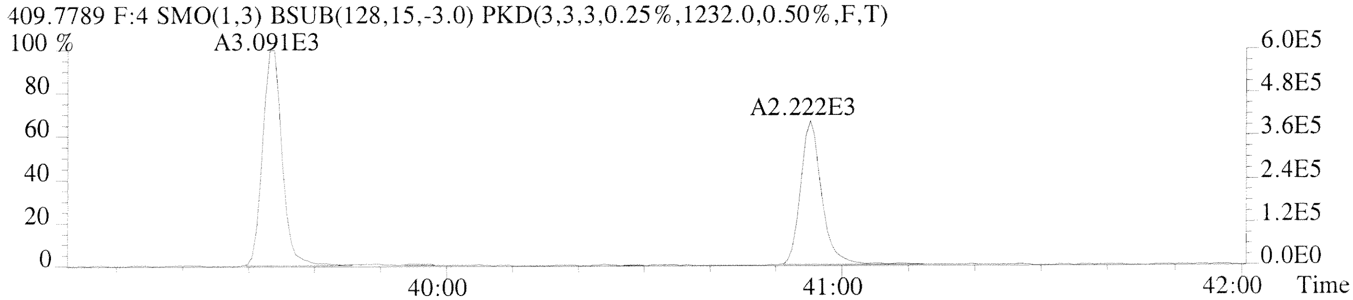
430.9728 F:3 PKD(3,3,3,100.00%,0.0,1.00%,F,F)



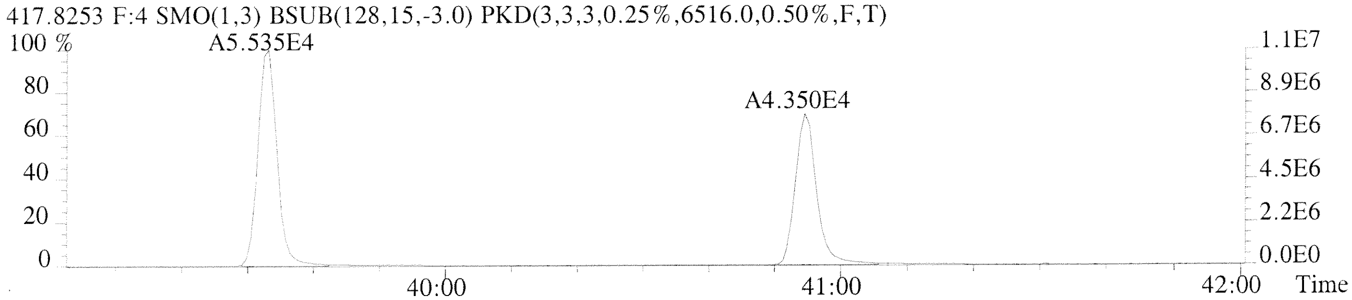
File 7390 #1-270 Acq: 3-MAY-2012 07:07:52 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:ICAL CS1
407.7818 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,1508.0,0.50%,F,T)



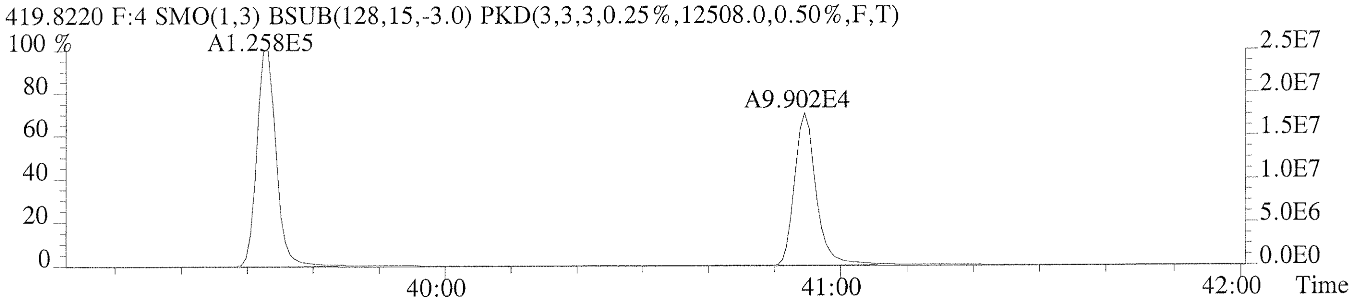
409.7789 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,1232.0,0.50%,F,T)



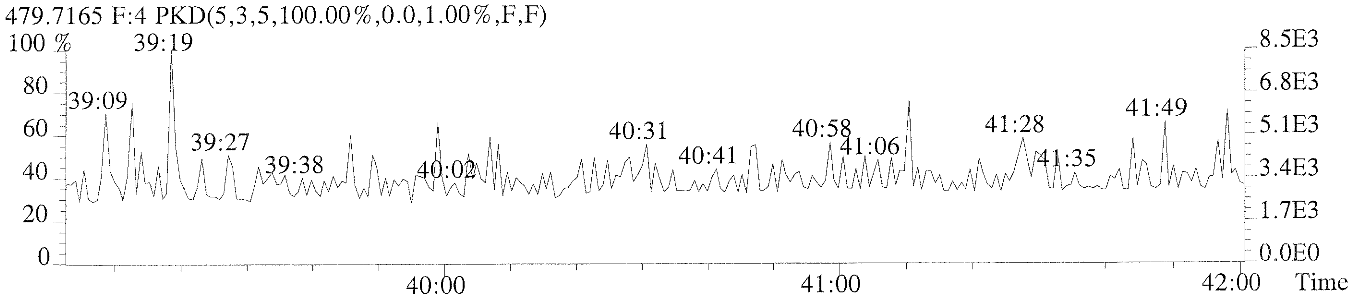
417.8253 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,6516.0,0.50%,F,T)



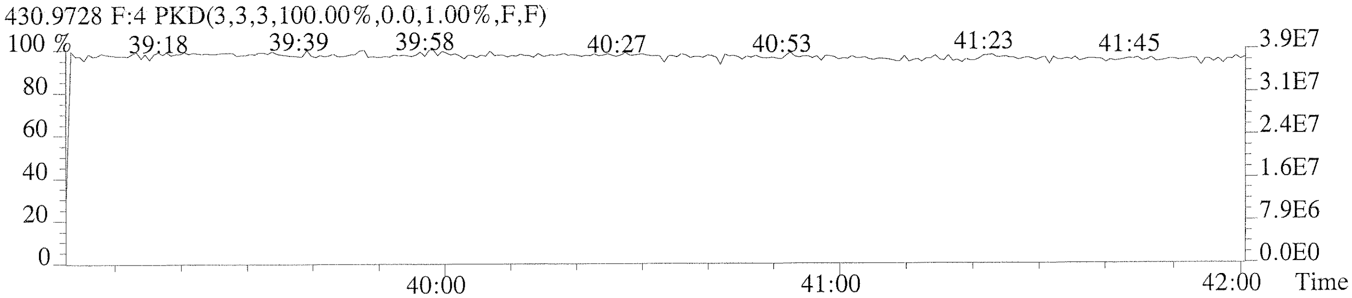
419.8220 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,12508.0,0.50%,F,T)



479.7165 F:4 PKD(5,3,5,100.00%,0.0,1.00%,F,F)

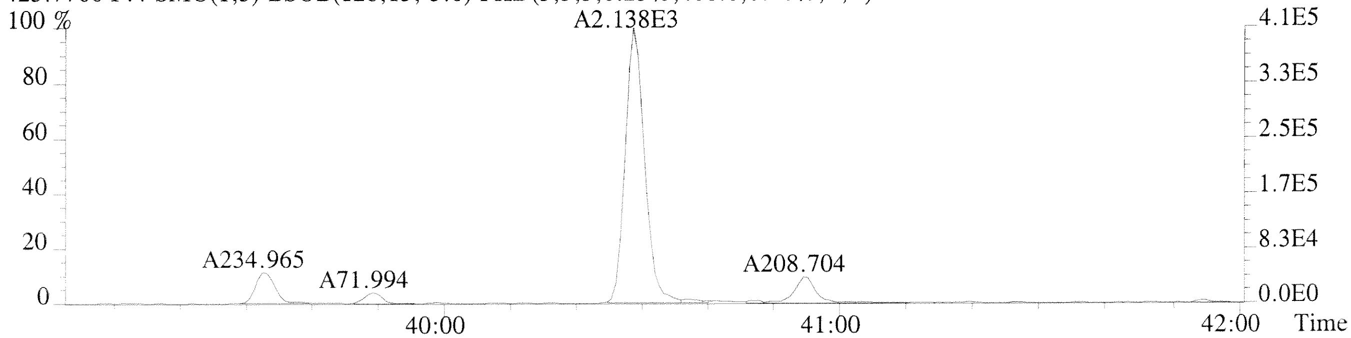


430.9728 F:4 PKD(3,3,3,100.00%,0.0,1.00%,F,F)

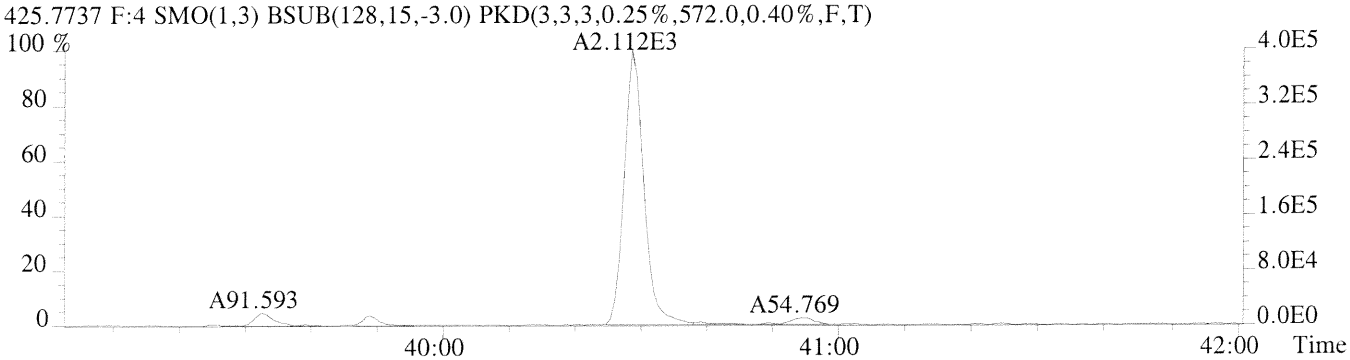


File: 7390 #1-270 Acq: 3-MAY-2012 07:07:52 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:ICAL CS1

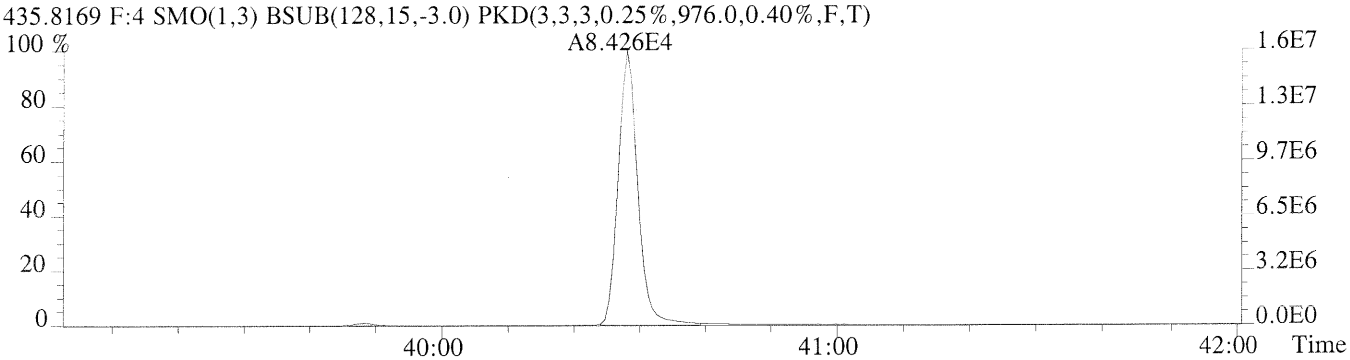
423.7766 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,408.0,0.40%,F,T)



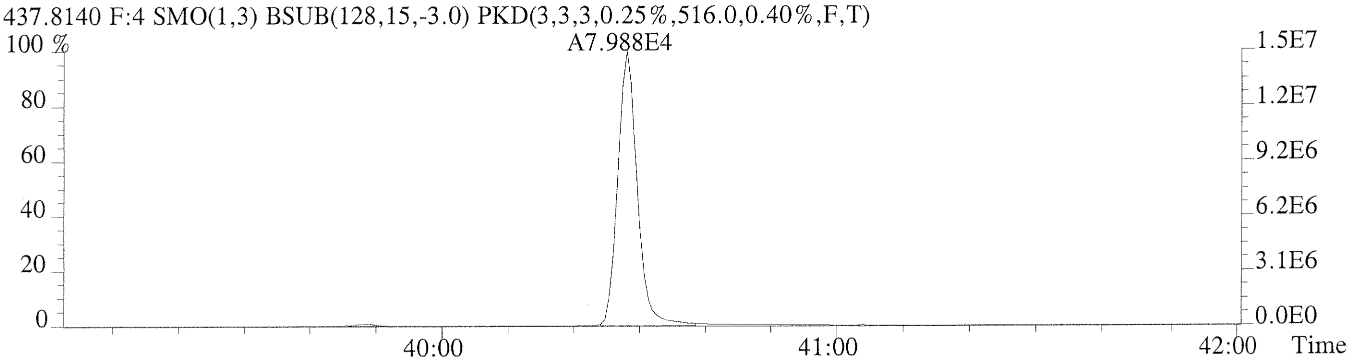
425.7737 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,572.0,0.40%,F,T)



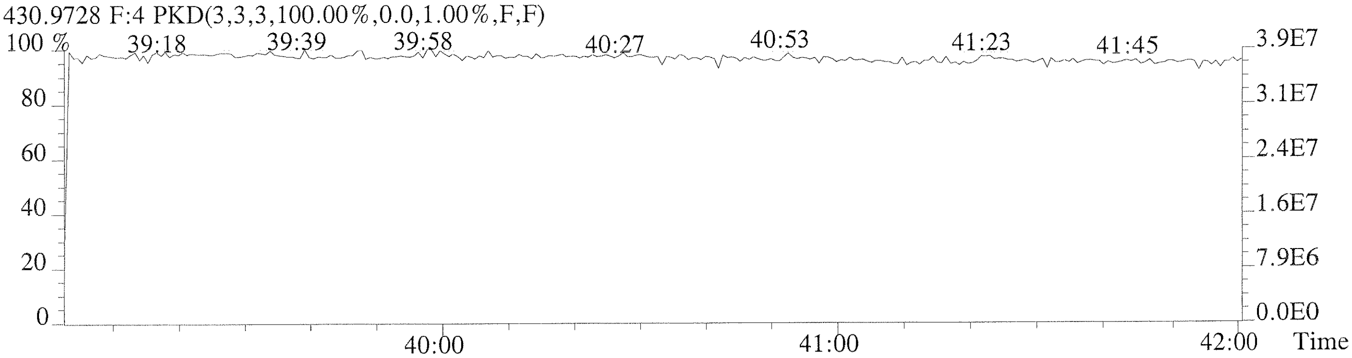
435.8169 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,976.0,0.40%,F,T)



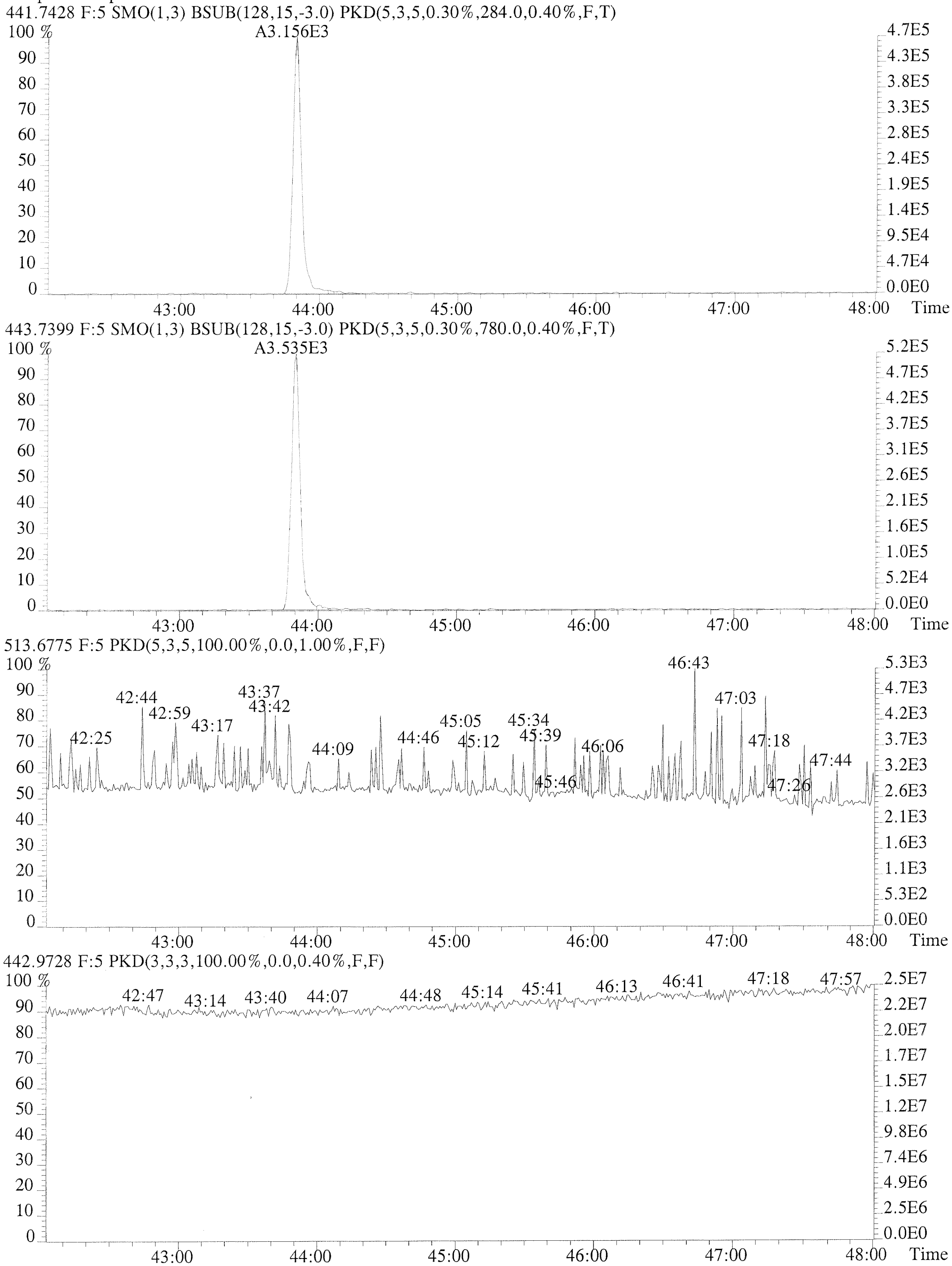
437.8140 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,516.0,0.40%,F,T)



430.9728 F:4 PKD(3,3,3,100.00%,0.0,1.00%,F,F)

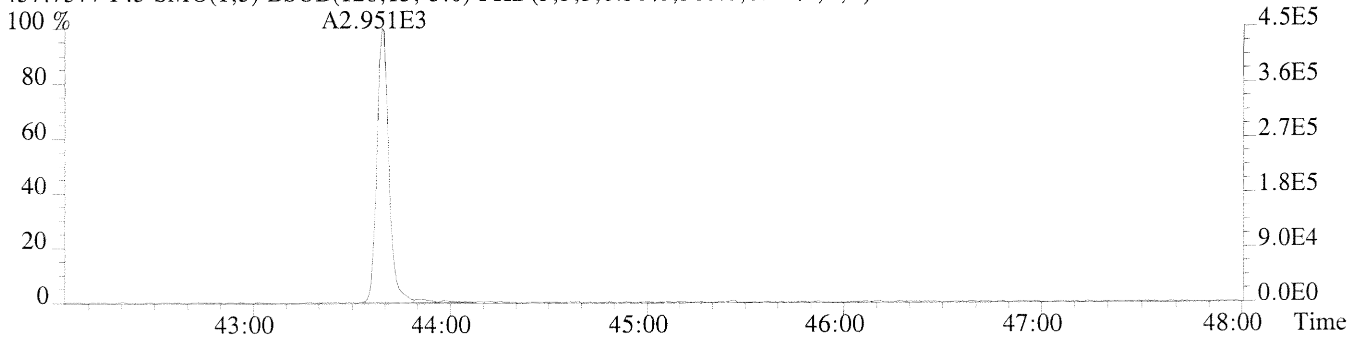


File: 7390 #1-548 Acq: 3-MAY-2012 07:07:52 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:ICAL CS1

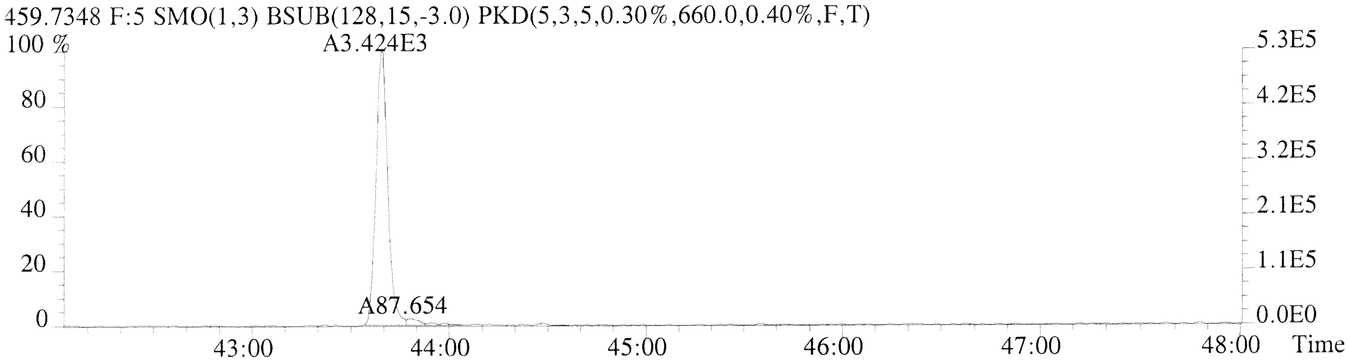


File: 7390 #1-548 Acq: 3-MAY-2012 07:07:52 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:ICAL CS1

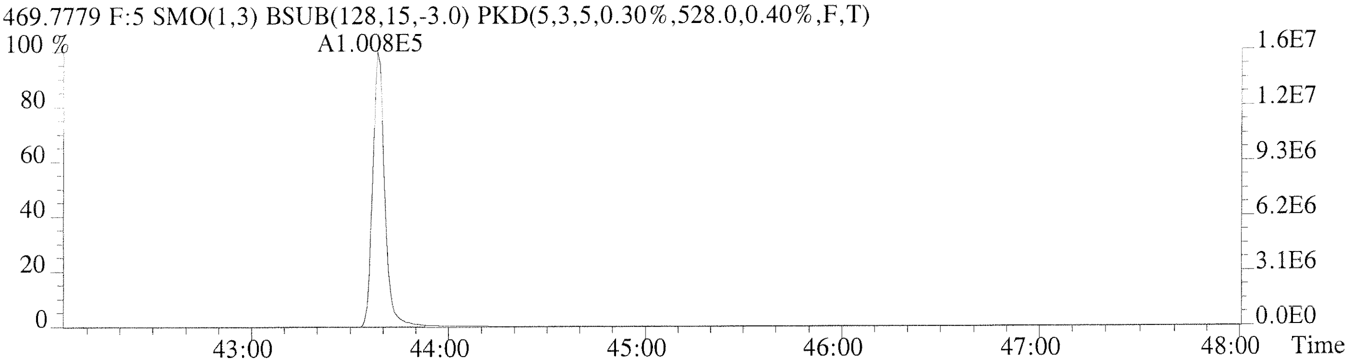
457.7377 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(5,3,5,0.30%,560.0,0.40%,F,T)



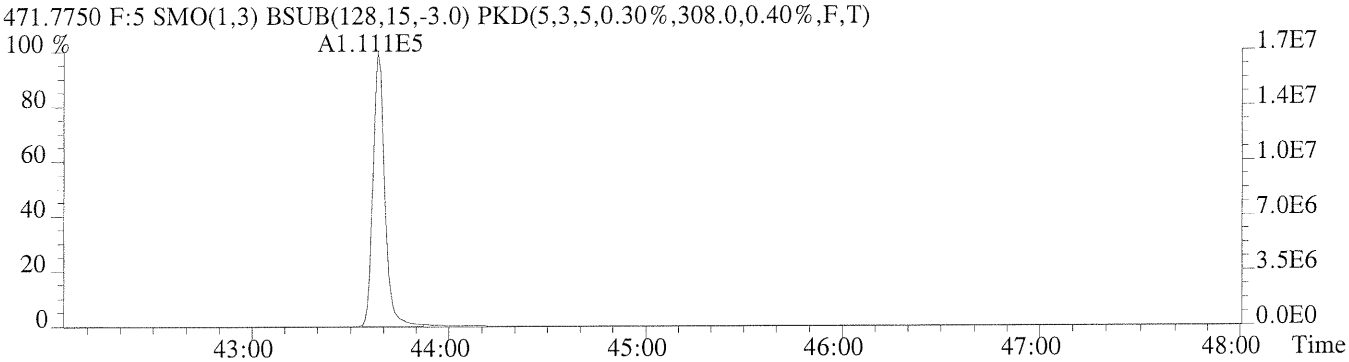
459.7348 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(5,3,5,0.30%,660.0,0.40%,F,T)



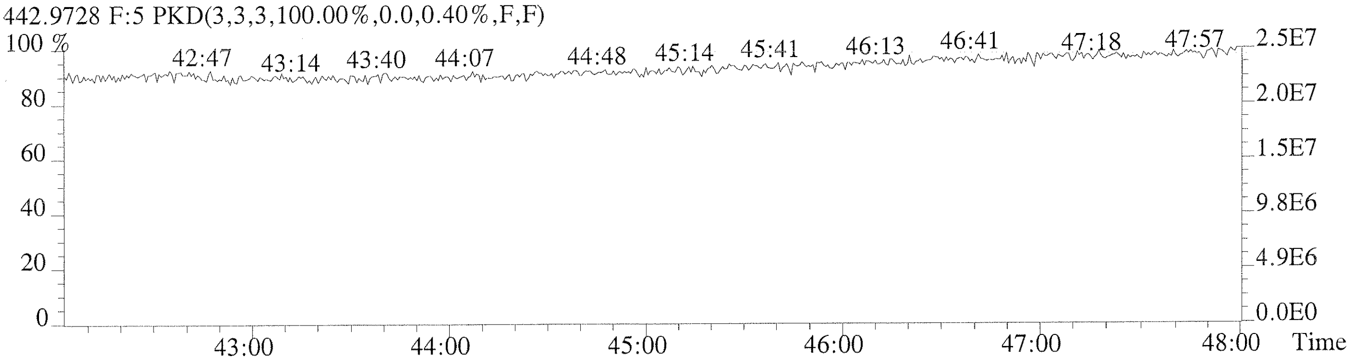
469.7779 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(5,3,5,0.30%,528.0,0.40%,F,T)



471.7750 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(5,3,5,0.30%,308.0,0.40%,F,T)



442.9728 F:5 PKD(3,3,3,100.00%,0.0,0.40%,F,F)



Sample Response Summary

CLIENT ID.
ICAL CS2

#3 Filename 7391 #1 Samp: 1 Inj: 1 Acquired: 3-MAY-12 08:16:36
cessed: 3-MAY-12 08:55:47 LAB. ID: ICAL CS2

Typ	Name	RT-1	Resp 1	Resp 2	Ratio	Meet	Mod?	RRT
Unk	2,3,7,8-TCDF	29:16	1.536e+03	1.985e+03	0.77	yes	no	1.000
Unk	1,2,3,7,8-PeCDF	33:23	1.145e+04	7.173e+03	1.60	yes	no	1.000
Unk	2,3,4,7,8-PeCDF	34:06	1.104e+04	7.120e+03	1.55	yes	no	1.000
Unk	1,2,3,4,7,8-HxCDF	36:50	1.014e+04	8.117e+03	1.25	yes	no	1.000
Unk	1,2,3,6,7,8-HxCDF	36:56	1.133e+04	9.292e+03	1.22	yes	no	1.000
Unk	2,3,4,6,7,8-HxCDF	37:24	1.027e+04	8.144e+03	1.26	yes	no	1.000
Unk	1,2,3,7,8,9-HxCDF	38:06	8.321e+03	6.619e+03	1.26	yes	no	1.000
Unk	1,2,3,4,6,7,8-HpCDF	39:33	9.068e+03	8.678e+03	1.04	yes	no	1.000
Unk	1,2,3,4,7,8,9-HpCDF	40:55	6.982e+03	6.959e+03	1.00	yes	no	1.000
Unk	OCDF	43:50	1.005e+04	1.115e+04	0.90	yes	no	1.004
Unk	2,3,7,8-TCDD	30:03	1.198e+03	1.664e+03	0.72	yes	no	1.001
Unk	1,2,3,7,8-PeCDD	34:26	8.180e+03	5.010e+03	1.63	yes	no	1.001
Unk	1,2,3,4,7,8-HxCDD	37:30	7.351e+03	5.779e+03	1.27	yes	no	1.000
Unk	1,2,3,6,7,8-HxCDD	37:35	7.796e+03	6.297e+03	1.24	yes	no	1.000
Unk	1,2,3,7,8,9-HxCDD	37:52	7.559e+03	5.810e+03	1.30	yes	no	1.008
Unk	1,2,3,4,6,7,8-HpCDD	40:29	6.211e+03	5.995e+03	1.04	yes	no	1.000
Unk	OCDD	43:39	8.966e+03	9.889e+03	0.91	yes	no	1.000
IS	13C-2,3,7,8-TCDF	29:15	8.889e+04	1.137e+05	0.78	yes	no	0.981
IS	13C-1,2,3,7,8-PeCDF	33:23	1.173e+05	7.413e+04	1.58	yes	no	1.119
IS	13C-2,3,4,7,8-PeCDF	34:05	1.220e+05	7.699e+04	1.58	yes	no	1.143
IS	13C-1,2,3,4,7,8-HxCDF	36:49	5.123e+04	1.001e+05	0.51	yes	no	0.973
IS	13C-1,2,3,6,7,8-HxCDF	36:55	6.350e+04	1.214e+05	0.52	yes	no	0.975
IS	13C-2,3,4,6,7,8-HxCDF	37:23	5.602e+04	1.072e+05	0.52	yes	no	0.987
IS	13C-1,2,3,7,8,9-HxCDF	38:05	4.536e+04	8.733e+04	0.52	yes	no	1.006
IS	13C-1,2,3,4,6,7,8-HpCDF	39:32	4.016e+04	9.173e+04	0.44	yes	no	1.044
IS	13C-1,2,3,4,7,8,9-HpCDF	40:54	3.380e+04	7.555e+04	0.45	yes	no	1.081
IS	13C-2,3,7,8-TCDD	30:01	6.434e+04	8.250e+04	0.78	yes	no	1.007
IS	13C-1,2,3,7,8-PeCDD	34:25	8.925e+04	5.624e+04	1.59	yes	no	1.154
IS	13C-1,2,3,4,7,8-HxCDD	37:30	7.189e+04	5.718e+04	1.26	yes	no	0.990
IS	13C-1,2,3,6,7,8-HxCDD	37:34	7.923e+04	6.234e+04	1.27	yes	no	0.992
IS	13C-1,2,3,4,6,7,8-HpCDD	40:28	6.441e+04	6.033e+04	1.07	yes	no	1.069
IS	13C-OCDD	43:38	8.088e+04	8.886e+04	0.91	yes	no	1.153
RS/RT	13C-1,2,3,4-TCDD	29:49	7.188e+04	9.187e+04	0.78	yes	no	*
RS/RT	13C-1,2,3,7,8,9-HxCDD	37:52	7.400e+04	5.908e+04	1.25	yes	no	*
C/Up	37Cl-2,3,7,8-TCDD	30:03	2.806e+03				no	1.008

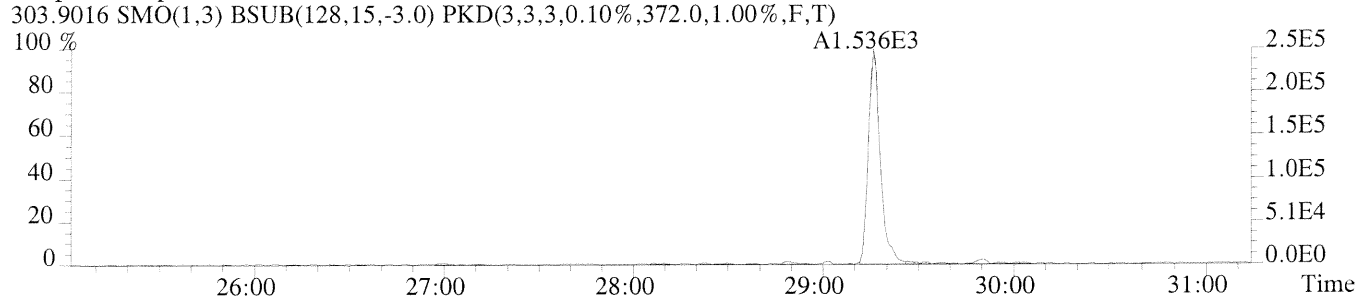
Signal/Noise Height Ratio Summary CLIENT ID.
ICAL CS2

#3 Filename 7391 Samp: 1 Inj: 1 Acquired: 3-MAY-12 08:16:36
Processed: 3-MAY-12 08:55:471 LAB. ID: ICAL CS2

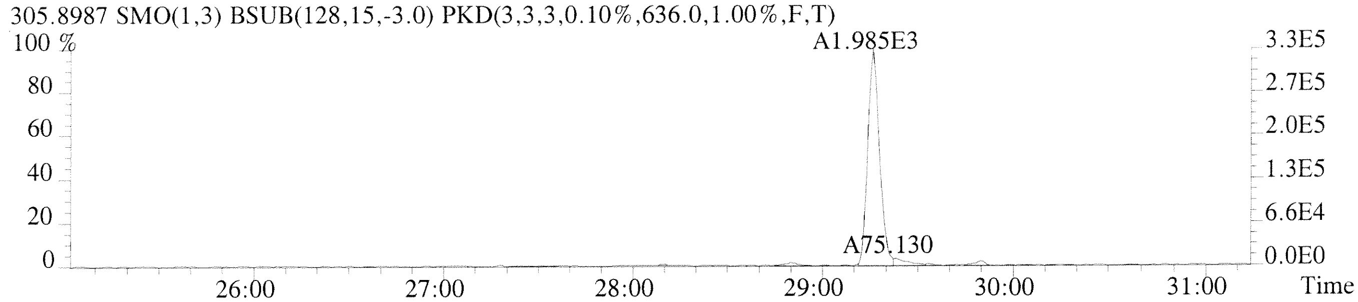
Name	Signal 1	Noise 1	S/N Rat.1	Signal 2	Noise 2	S/N Rat.2
2,3,7,8-TCDF	2.53e+05	3.72e+02	6.8e+02	3.32e+05	6.36e+02	5.2e+02
1,2,3,7,8-PeCDF	2.08e+06	4.48e+02	4.6e+03	1.28e+06	7.36e+02	1.7e+03
2,3,4,7,8-PeCDF	2.14e+06	4.48e+02	4.8e+03	1.40e+06	7.36e+02	1.9e+03
1,2,3,4,7,8-HxCDF	2.25e+06	5.16e+02	4.4e+03	1.82e+06	2.76e+02	6.6e+03
1,2,3,6,7,8-HxCDF	2.16e+06	5.16e+02	4.2e+03	1.80e+06	2.76e+02	6.5e+03
2,3,4,6,7,8-HxCDF	2.18e+06	5.16e+02	4.2e+03	1.75e+06	2.76e+02	6.3e+03
1,2,3,7,8,9-HxCDF	1.62e+06	5.16e+02	3.1e+03	1.24e+06	2.76e+02	4.5e+03
1,2,3,4,6,7,8-HpCDF	1.78e+06	8.52e+02	2.1e+03	1.69e+06	1.72e+03	9.8e+02
1,2,3,4,7,8,9-HpCDF	1.22e+06	8.52e+02	1.4e+03	1.22e+06	1.72e+03	7.1e+02
OCDF	1.46e+06	4.80e+02	3.1e+03	1.65e+06	5.32e+02	3.1e+03
2,3,7,8-TCDD	2.01e+05	4.04e+02	5.0e+02	2.88e+05	4.64e+02	6.2e+02
1,2,3,7,8-PeCDD	1.57e+06	7.04e+02	2.2e+03	9.48e+05	4.68e+02	2.0e+03
1,2,3,4,7,8-HxCDD	1.72e+06	7.96e+02	2.2e+03	1.30e+06	5.76e+02	2.3e+03
1,2,3,6,7,8-HxCDD	1.56e+06	7.96e+02	2.0e+03	1.26e+06	5.76e+02	2.2e+03
1,2,3,7,8,9-HxCDD	1.54e+06	7.96e+02	1.9e+03	1.19e+06	5.76e+02	2.1e+03
1,2,3,4,6,7,8-HpCDD	1.18e+06	5.28e+02	2.2e+03	1.14e+06	5.16e+02	2.2e+03
OCDD	1.39e+06	7.28e+02	1.9e+03	1.54e+06	7.40e+02	2.1e+03
13C-2,3,7,8-TCDF	1.45e+07	1.68e+03	8.6e+03	1.85e+07	1.86e+03	9.9e+03
13C-1,2,3,7,8-PeCDF	2.19e+07	7.60e+01	2.9e+05	1.39e+07	4.00e+02	3.5e+04
13C-2,3,4,7,8-PeCDF	2.40e+07	7.60e+01	3.2e+05	1.50e+07	4.00e+02	3.7e+04
13C-1,2,3,4,7,8-HxCDF	1.14e+07	8.60e+02	1.3e+04	2.23e+07	1.83e+03	1.2e+04
13C-1,2,3,6,7,8-HxCDF	1.25e+07	8.60e+02	1.5e+04	2.35e+07	1.83e+03	1.3e+04
13C-2,3,4,6,7,8-HxCDF	1.21e+07	8.60e+02	1.4e+04	2.31e+07	1.83e+03	1.3e+04
13C-1,2,3,7,8,9-HxCDF	8.80e+06	8.60e+02	1.0e+04	1.70e+07	1.83e+03	9.3e+03
13C-1,2,3,4,6,7,8-HpCDF	7.85e+06	2.67e+03	2.9e+03	1.81e+07	7.60e+03	2.4e+03
13C-1,2,3,4,7,8,9-HpCDF	6.01e+06	2.67e+03	2.2e+03	1.34e+07	7.60e+03	1.8e+03
13C-2,3,7,8-TCDD	1.08e+07	6.30e+03	1.7e+03	1.38e+07	1.16e+03	1.2e+04
13C-1,2,3,7,8-PeCDD	1.70e+07	4.56e+02	3.7e+04	1.08e+07	6.00e+02	1.8e+04
13C-1,2,3,4,7,8-HxCDD	1.67e+07	1.59e+03	1.0e+04	1.31e+07	1.63e+03	8.1e+03
13C-1,2,3,6,7,8-HxCDD	1.60e+07	1.59e+03	1.0e+04	1.25e+07	1.63e+03	7.7e+03
13C-1,2,3,4,6,7,8-HpCDD	1.22e+07	5.68e+02	2.1e+04	1.13e+07	4.68e+02	2.4e+04
13C-OCDD	1.26e+07	5.00e+02	2.5e+04	1.38e+07	3.08e+02	4.5e+04
13C-1,2,3,4-TCDD	1.30e+07	6.30e+03	2.1e+03	1.67e+07	1.16e+03	1.4e+04
13C-1,2,3,7,8,9-HxCDD	1.56e+07	1.59e+03	9.8e+03	1.23e+07	1.63e+03	7.5e+03
37Cl-2,3,7,8-TCDD	4.61e+05	8.16e+02	5.6e+02			

File: 7391 #1-517 Acq: 3-MAY-2012 08:16:36 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:ICAL CS2

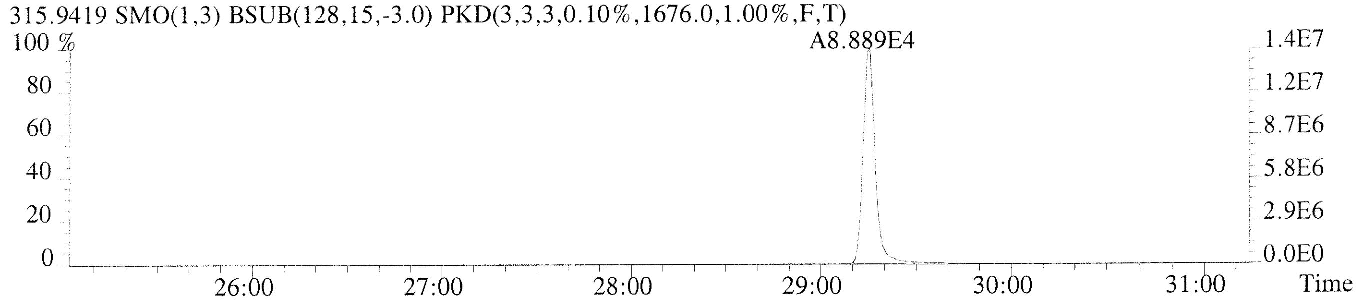
303.9016 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,372.0,1.00%,F,T)



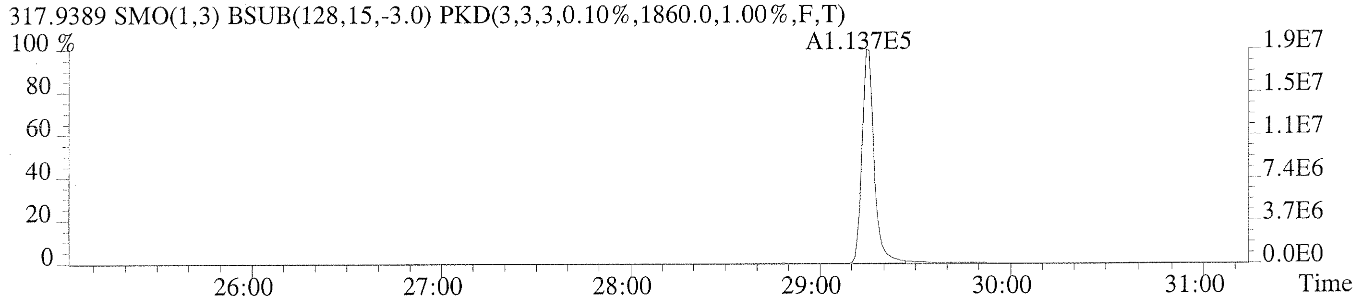
305.8987 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,636.0,1.00%,F,T)



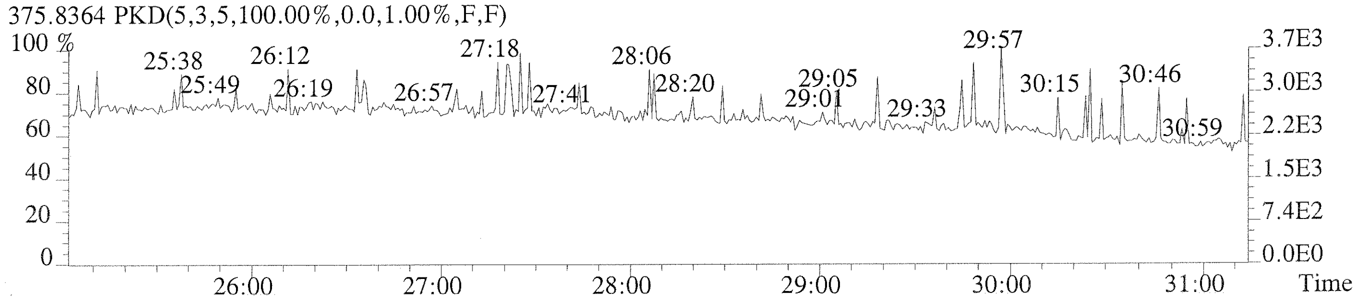
315.9419 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,1676.0,1.00%,F,T)



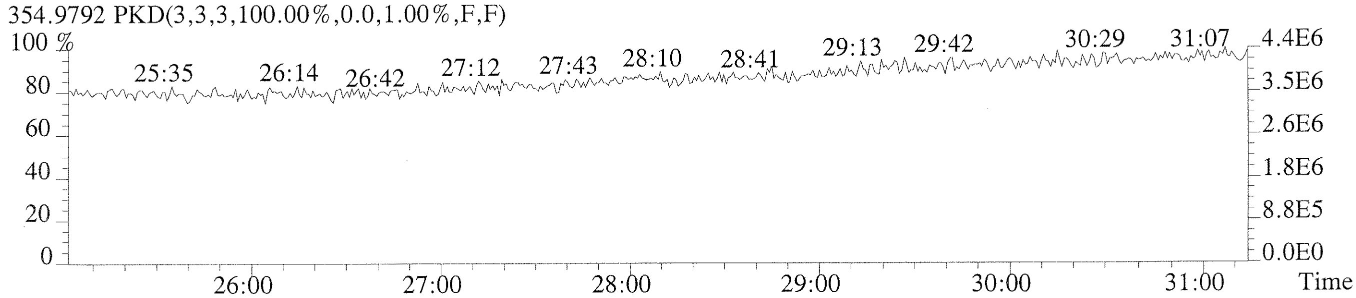
317.9389 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,1860.0,1.00%,F,T)



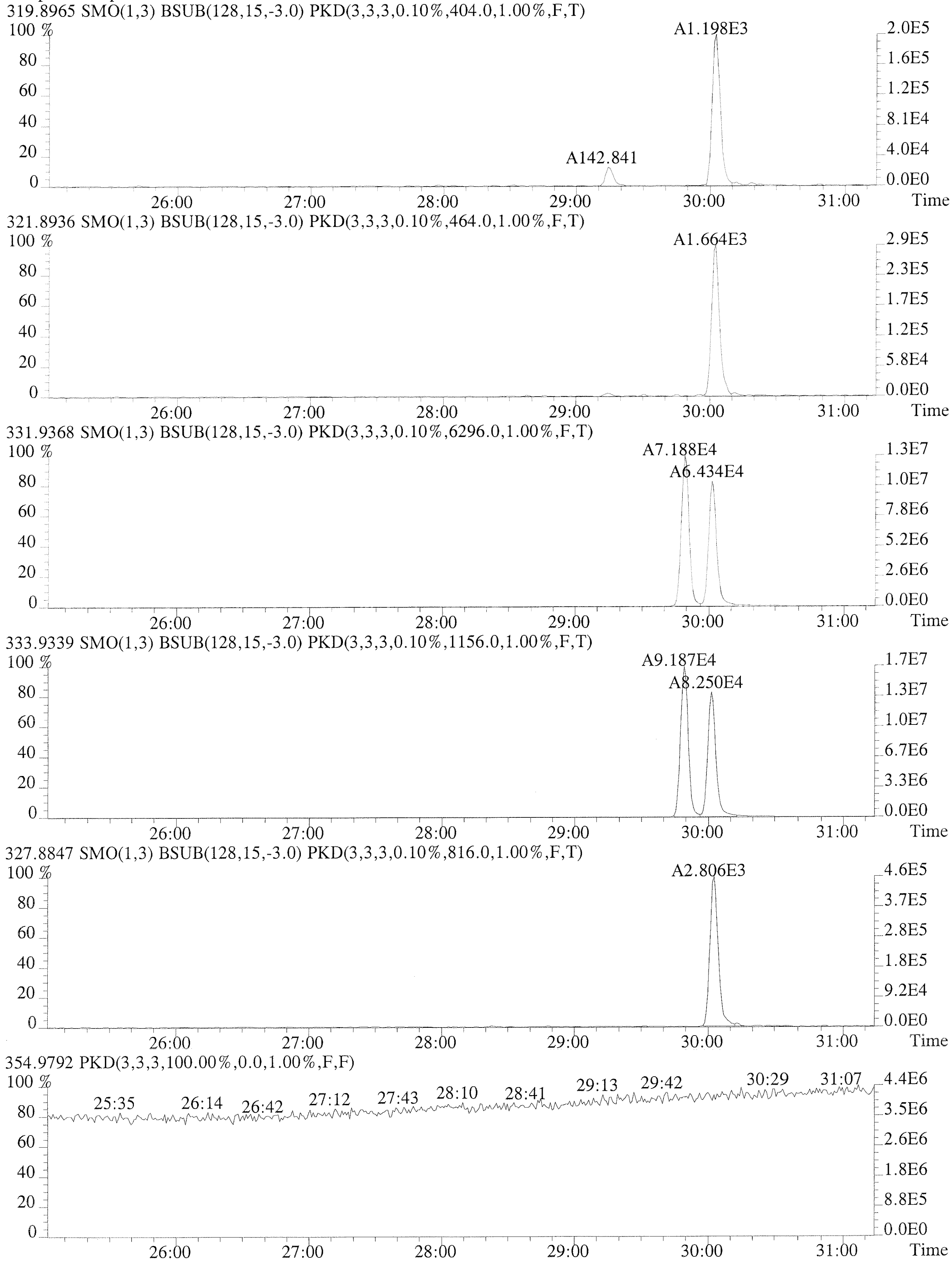
375.8364 PKD(5,3,5,100.00%,0.0,1.00%,F,F)



354.9792 PKD(3,3,3,100.00%,0.0,1.00%,F,F)

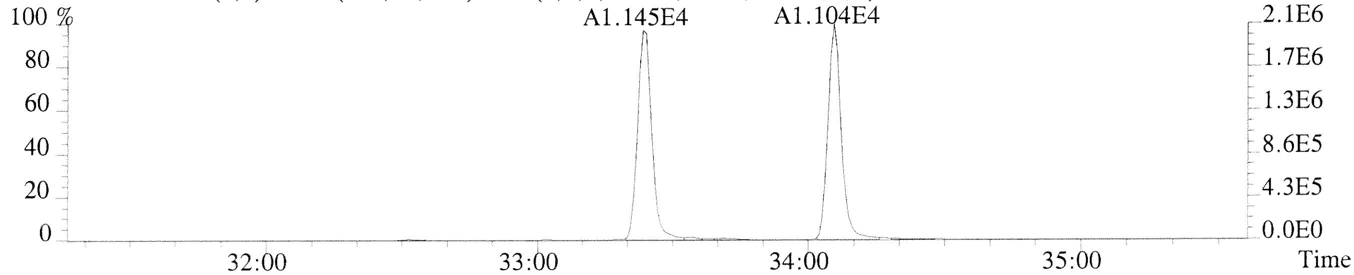


File: 7391 #1-517 Acq: 3-MAY-2012 08:16:36 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:ICAL CS2

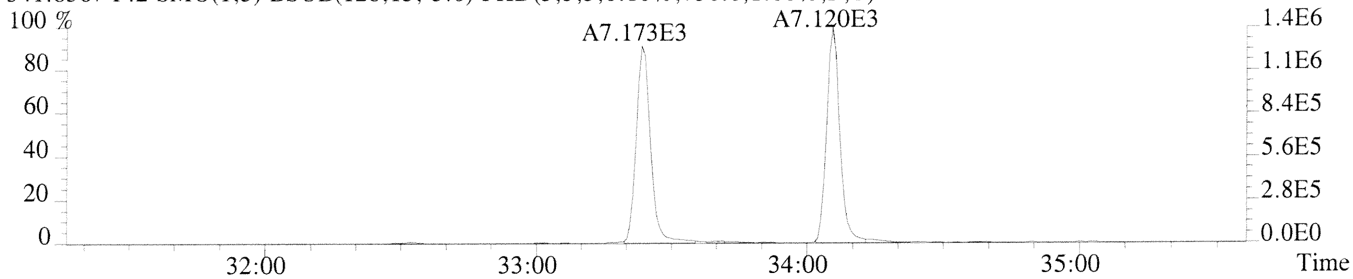


File: 7391 #1-394 Acq: 3-MAY-2012 08:16:36 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:ICAL CS2

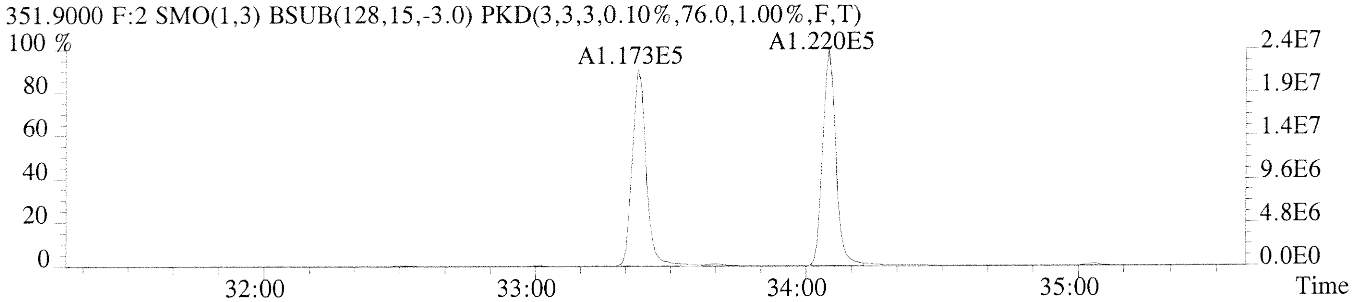
339.8597 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,448.0,1.00%,F,T)



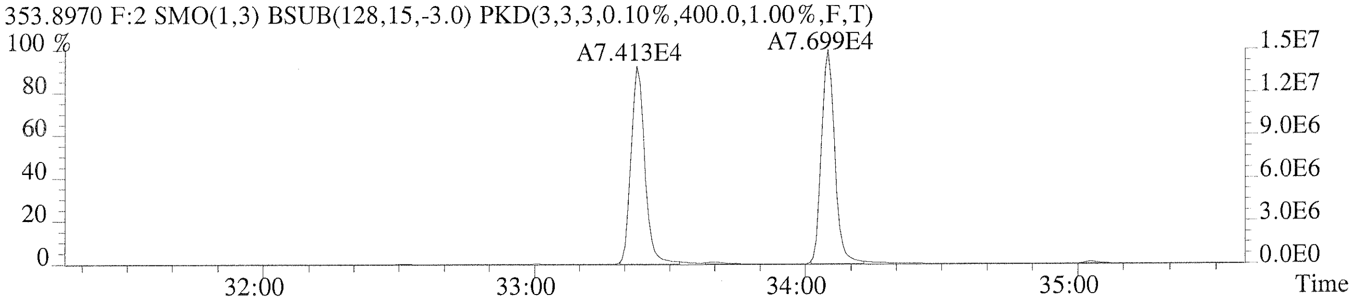
341.8567 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,736.0,1.00%,F,T)



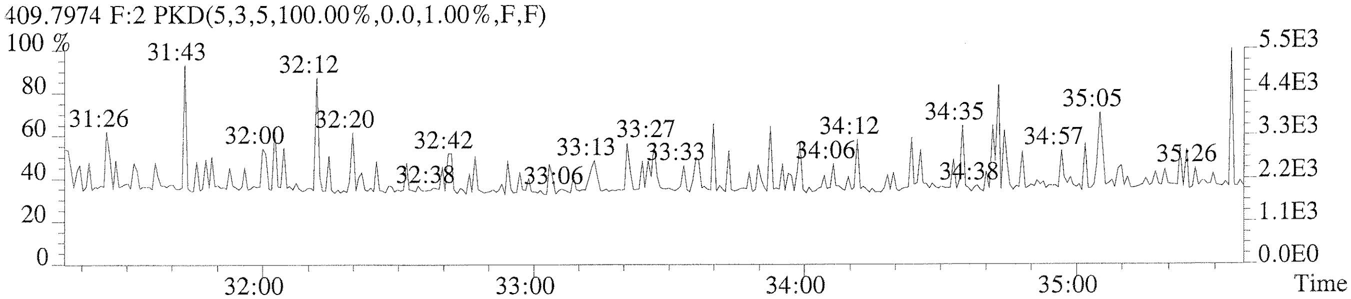
351.9000 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,76.0,1.00%,F,T)



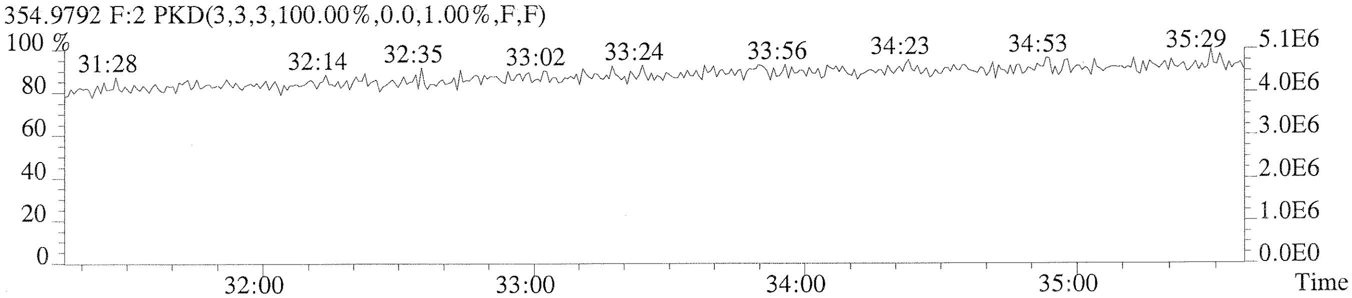
353.8970 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,400.0,1.00%,F,T)



409.7974 F:2 PKD(5,3,5,100.00%,0.0,1.00%,F,F)

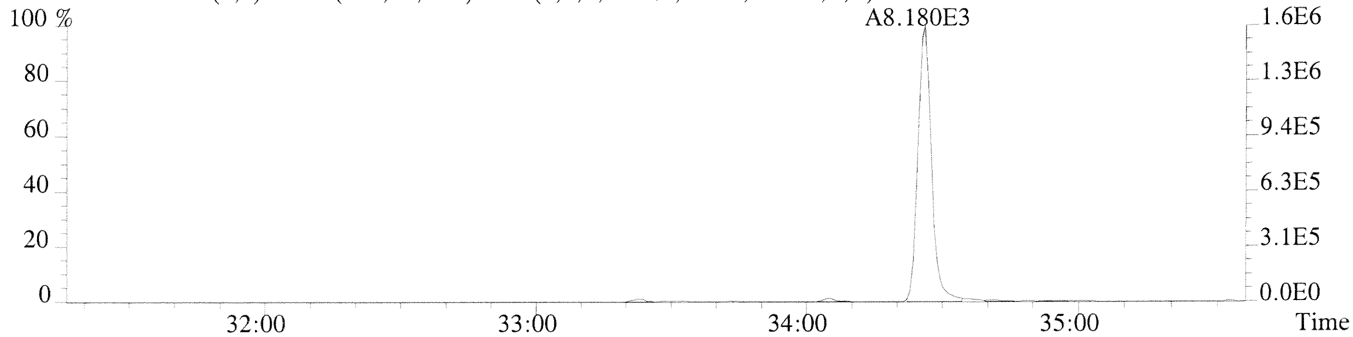


354.9792 F:2 PKD(3,3,3,100.00%,0.0,1.00%,F,F)

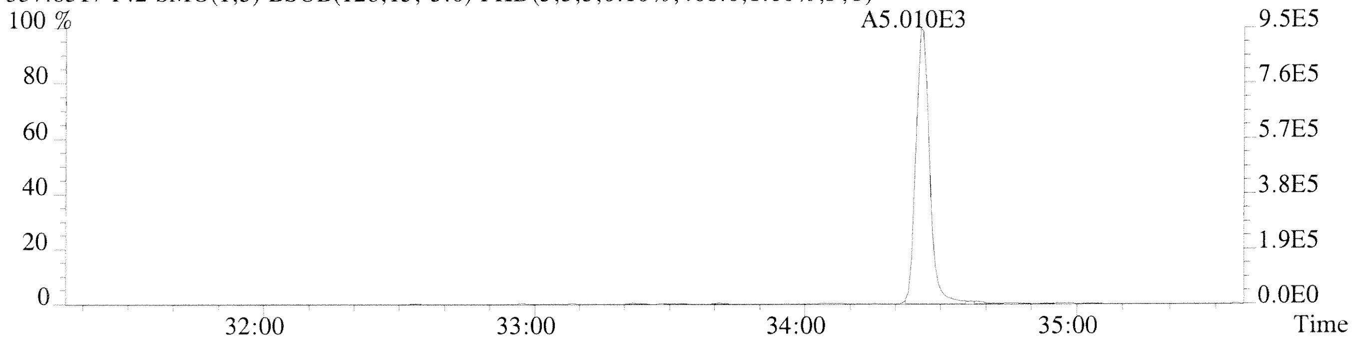


File: 7391 #1-394 Acq: 3-MAY-2012 08:16:36 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:ICAL CS2

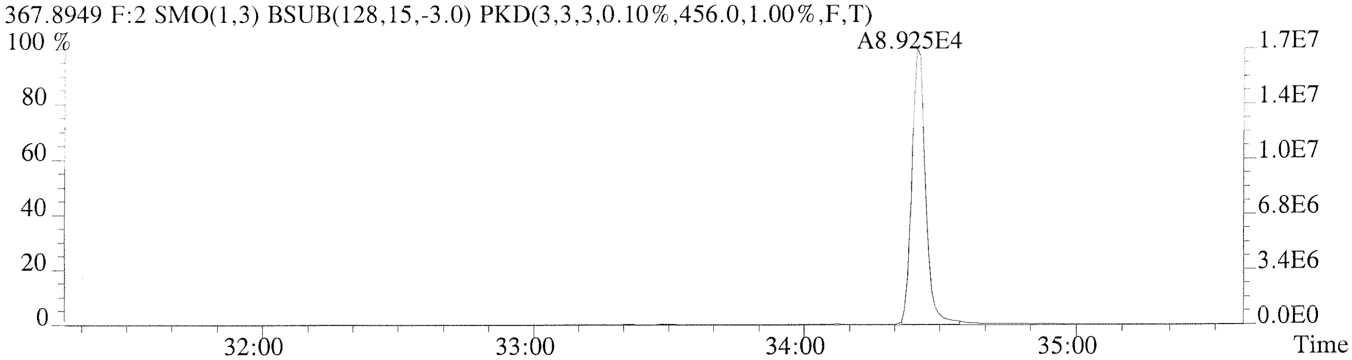
355.8546 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,704.0,1.00%,F,T)



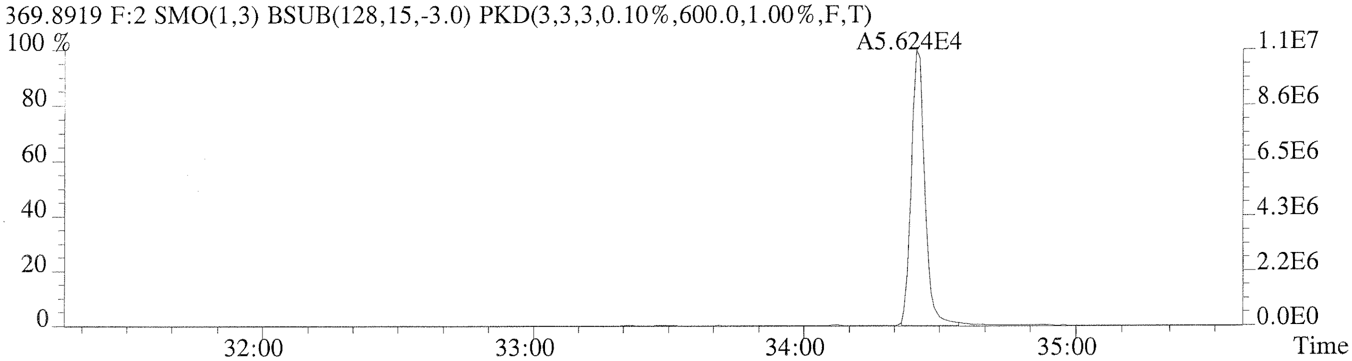
357.8517 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,468.0,1.00%,F,T)



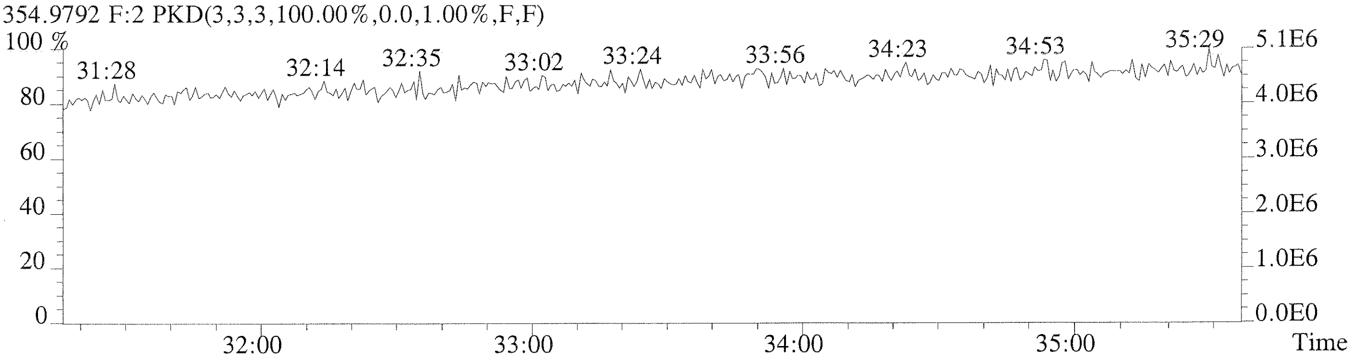
367.8949 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,456.0,1.00%,F,T)



369.8919 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,600.0,1.00%,F,T)

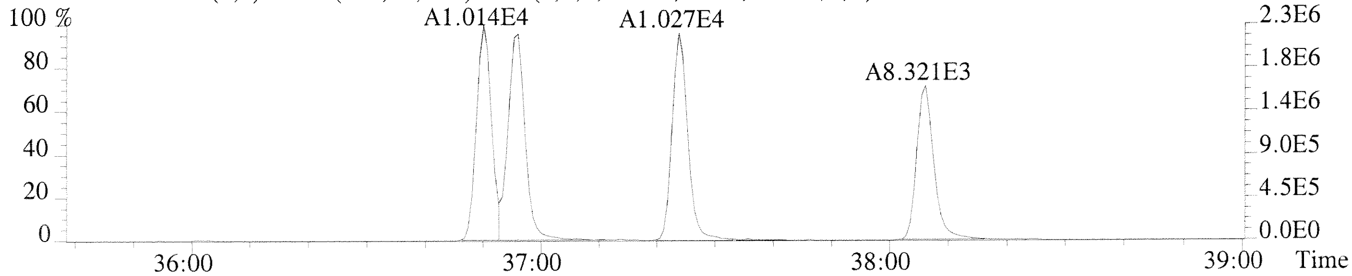


354.9792 F:2 PKD(3,3,3,100.00%,0.0,1.00%,F,F)

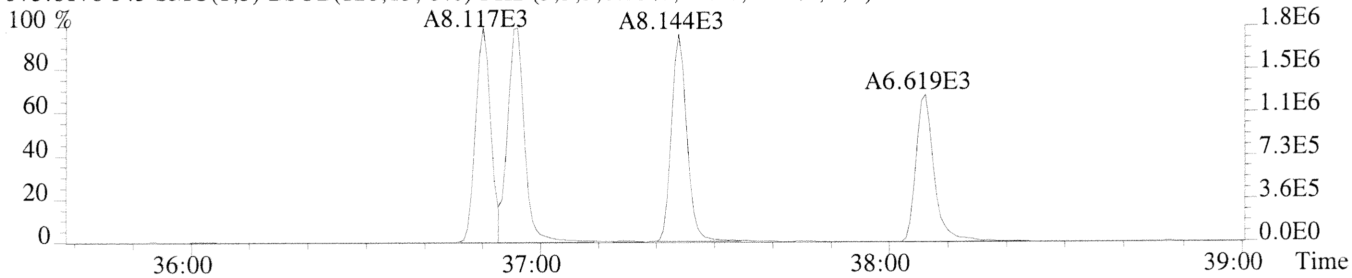


File: 7391 #1-306 Acq: 3-MAY-2012 08:16:36 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:ICAL CS2

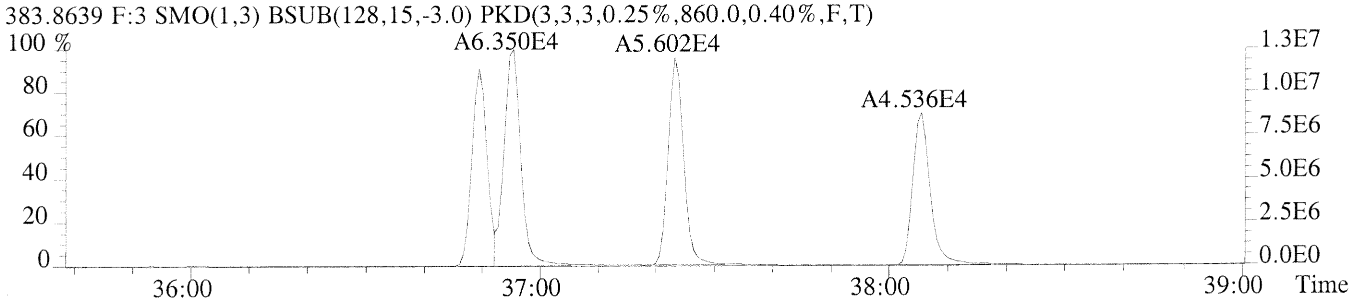
373.8208 F:3 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,516.0,0.40%,F,T)



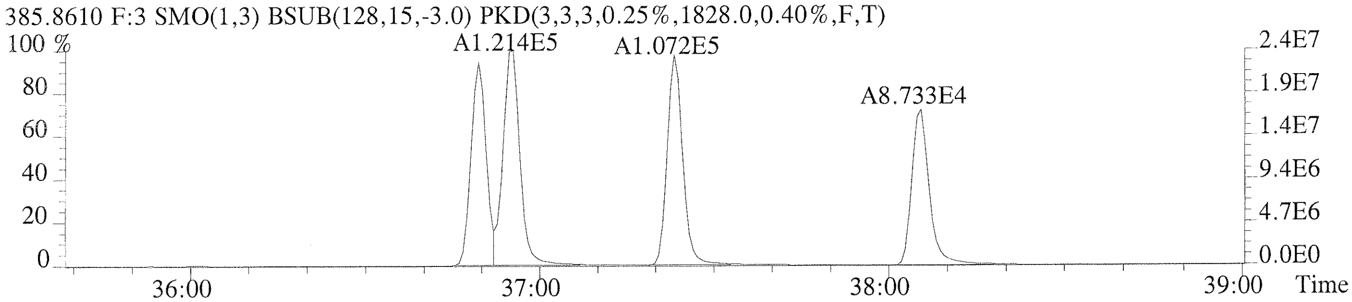
375.8178 F:3 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,276.0,0.40%,F,T)



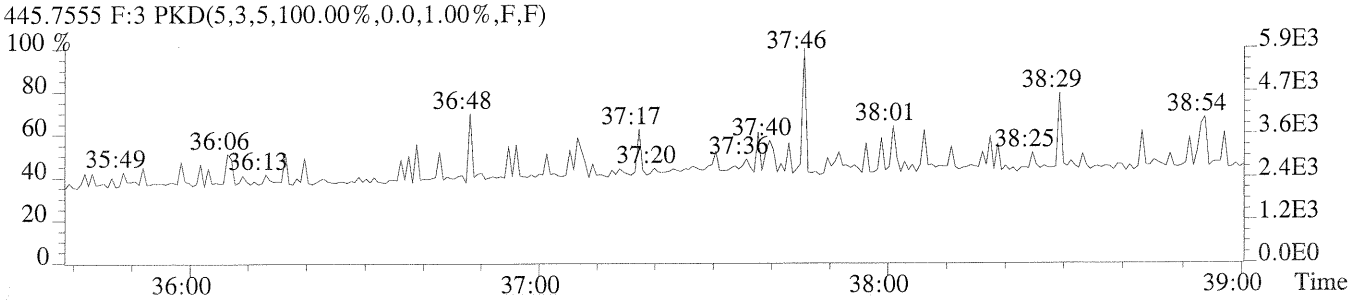
383.8639 F:3 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,860.0,0.40%,F,T)



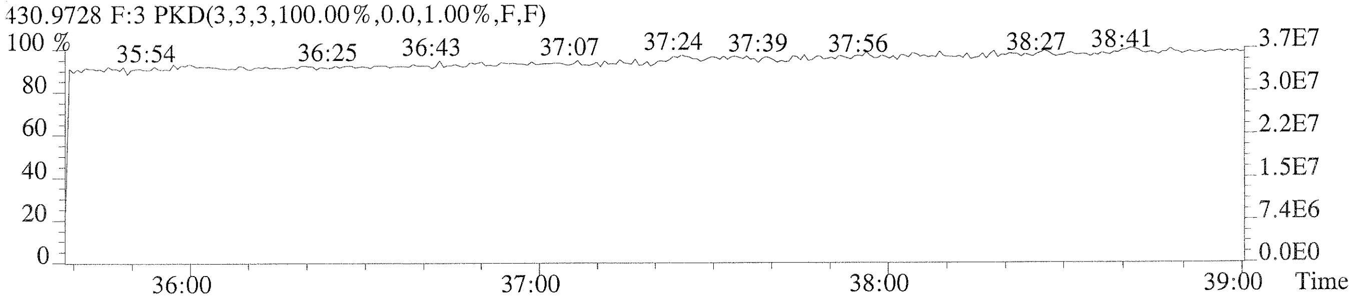
385.8610 F:3 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,1828.0,0.40%,F,T)



445.7555 F:3 PKD(5,3,5,100.00%,0.0,1.00%,F,F)

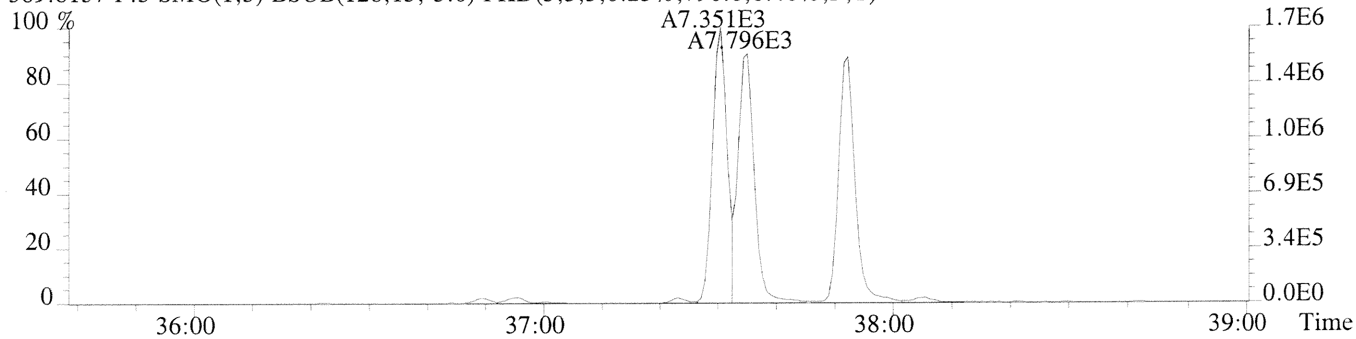


430.9728 F:3 PKD(3,3,3,100.00%,0.0,1.00%,F,F)

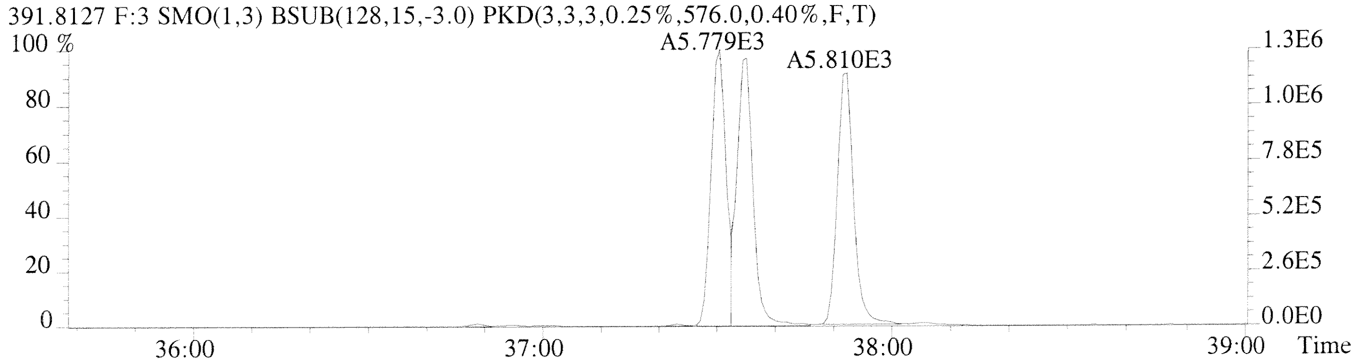


File: 7391 #1-306 Acq: 3-MAY-2012 08:16:36 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:ICAL CS2

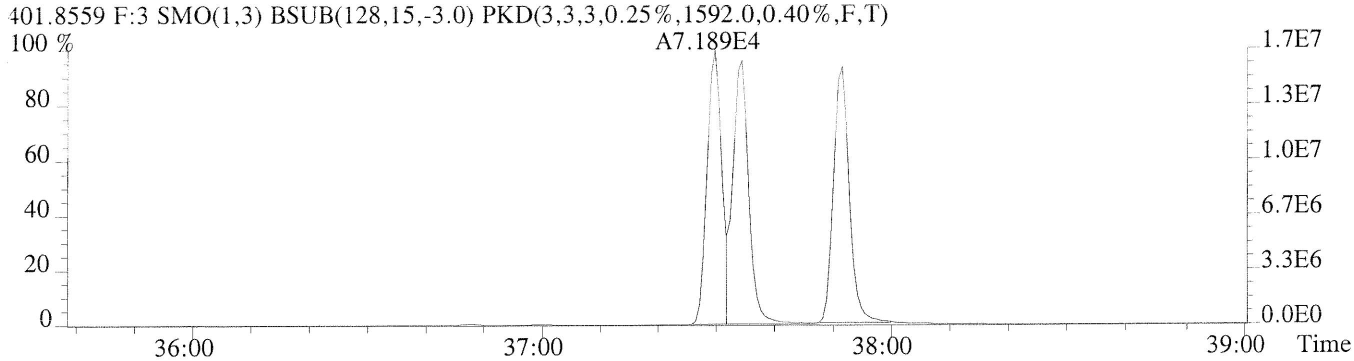
389.8157 F:3 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,796.0,0.40%,F,T)



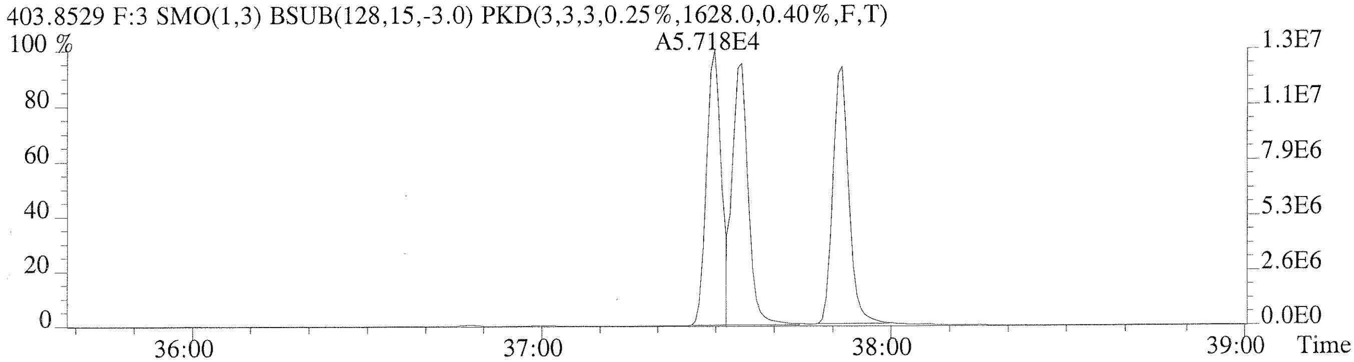
391.8127 F:3 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,576.0,0.40%,F,T)



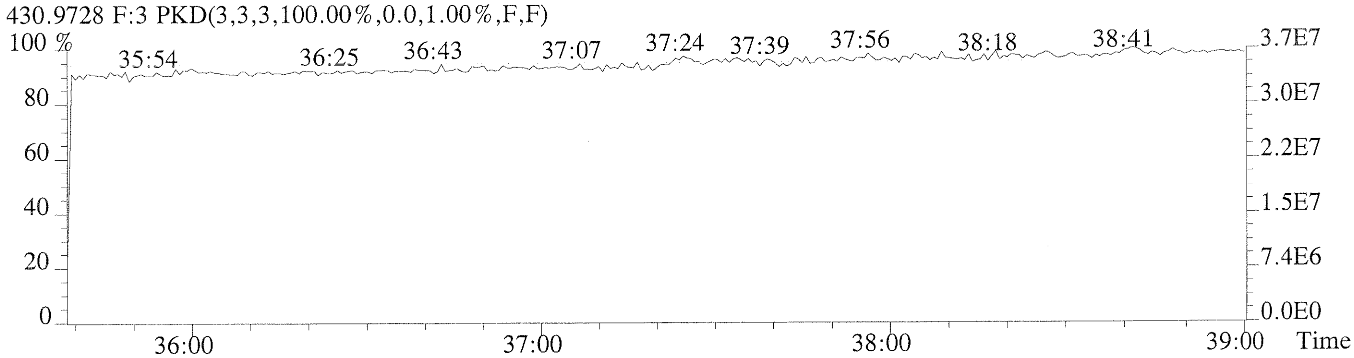
401.8559 F:3 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,1592.0,0.40%,F,T)



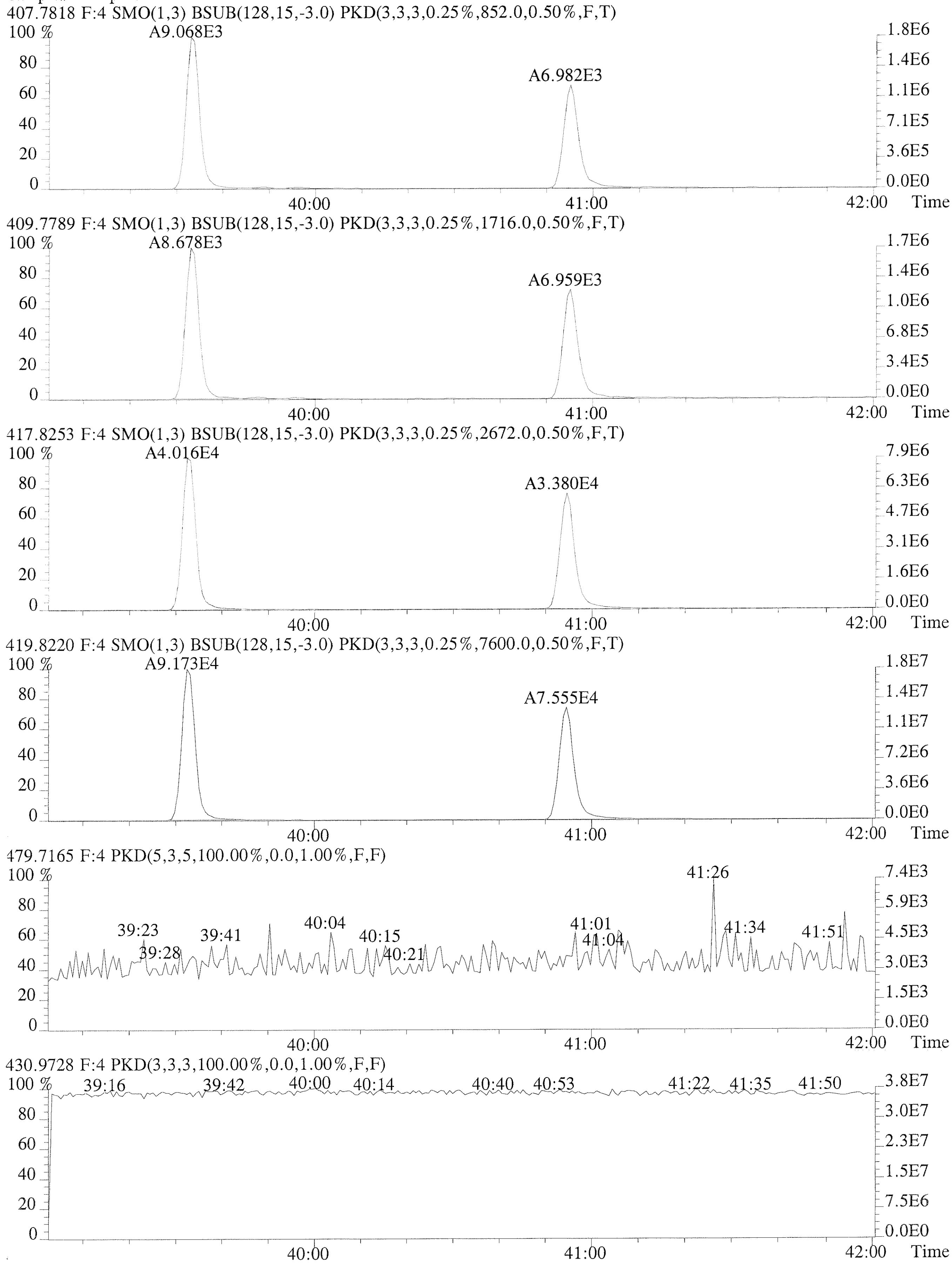
403.8529 F:3 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,1628.0,0.40%,F,T)



430.9728 F:3 PKD(3,3,3,100.00%,0.0,1.00%,F,F)

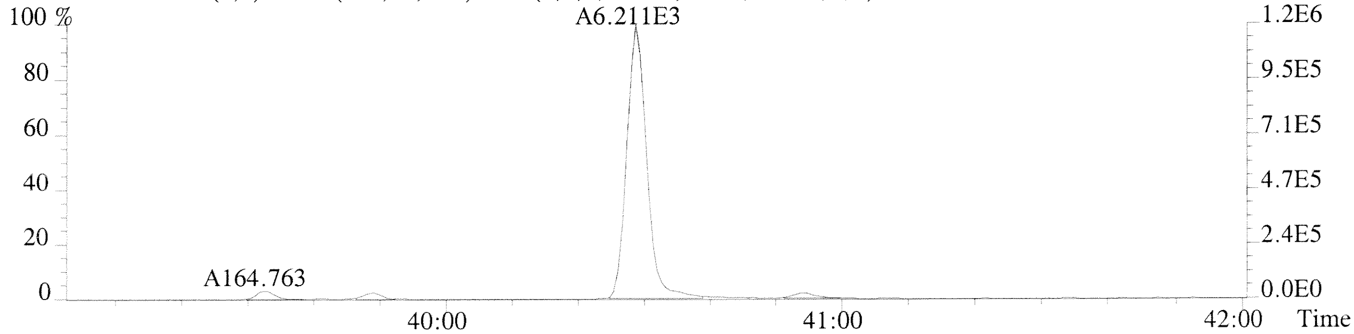


File: 7391 #1-270 Acq: 3-MAY-2012 08:16:36 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:ICAL CS2

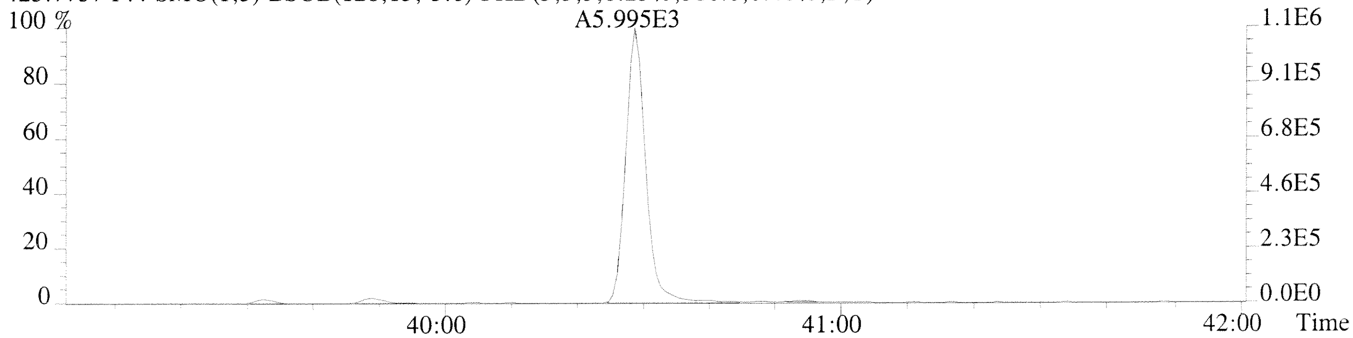


File: 7391 #1-270 Acq: 3-MAY-2012 08:16:36 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:ICAL CS2

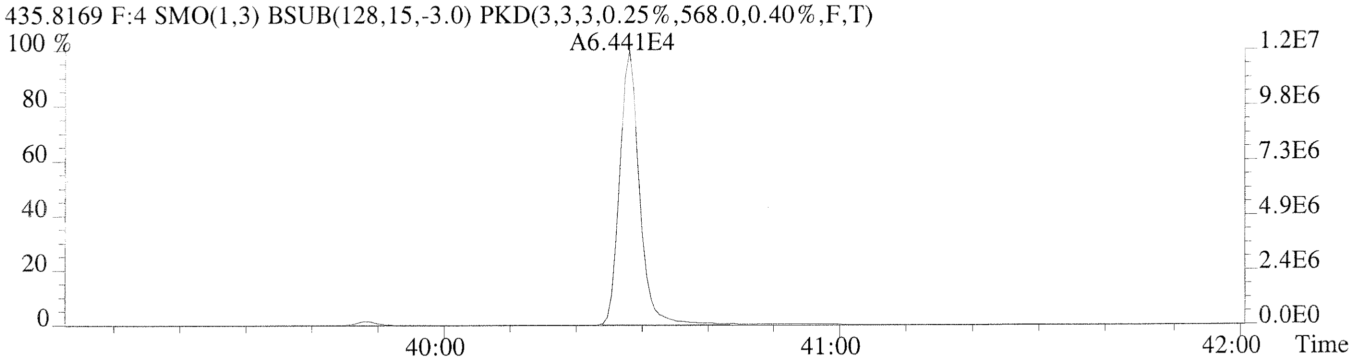
423.7766 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,528.0,0.40%,F,T)



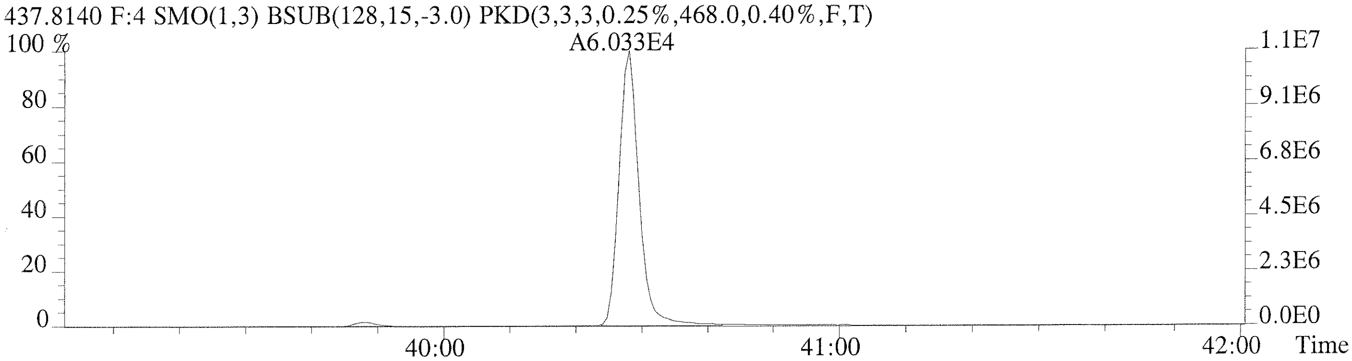
425.7737 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,516.0,0.40%,F,T)



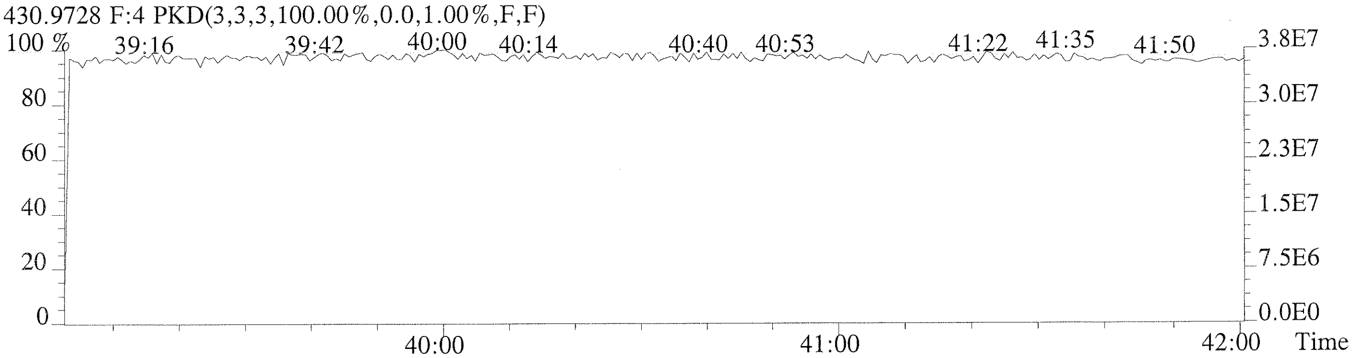
435.8169 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,568.0,0.40%,F,T)



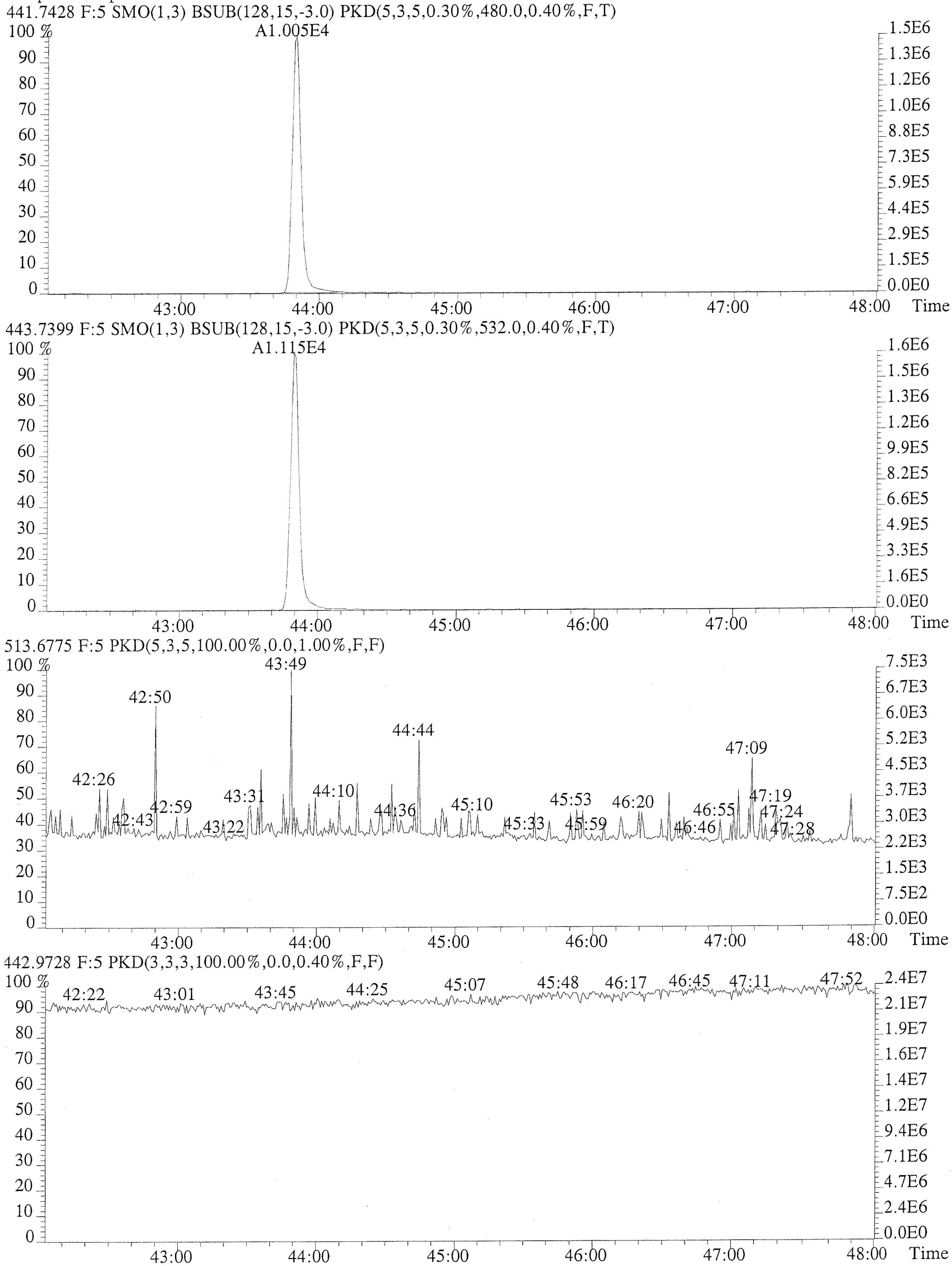
437.8140 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,468.0,0.40%,F,T)



430.9728 F:4 PKD(3,3,3,100.00%,0.0,1.00%,F,F)

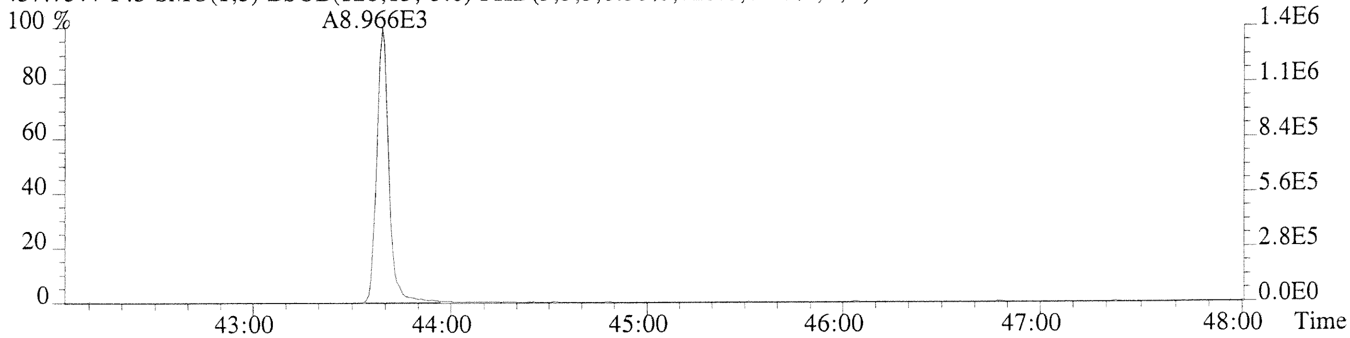


File: 7391 #1-548 Acq: 3-MAY-2012 08:16:36 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:ICAL CS2

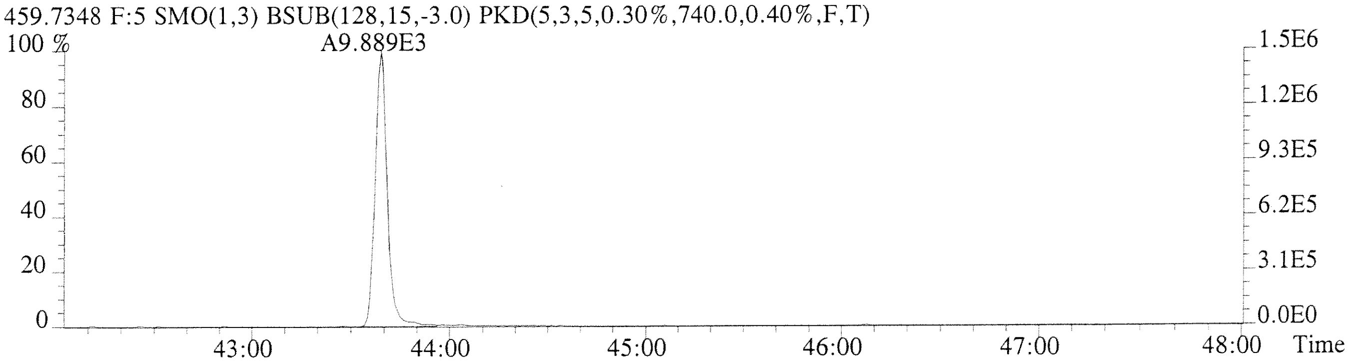


File: 7391 #1-548 Acq: 3-MAY-2012 08:16:36 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:ICAL CS2

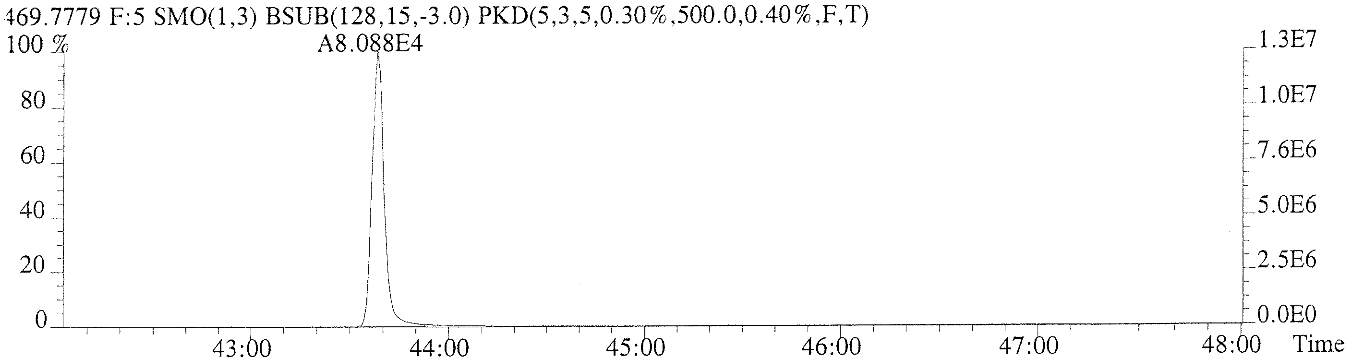
457.7377 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(5,3,5,0.30%,728.0,0.40%,F,T)



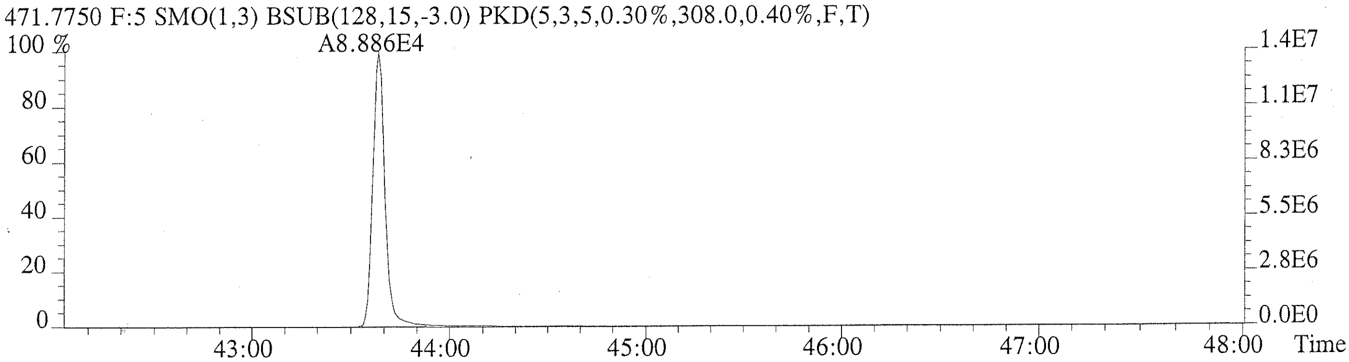
459.7348 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(5,3,5,0.30%,740.0,0.40%,F,T)



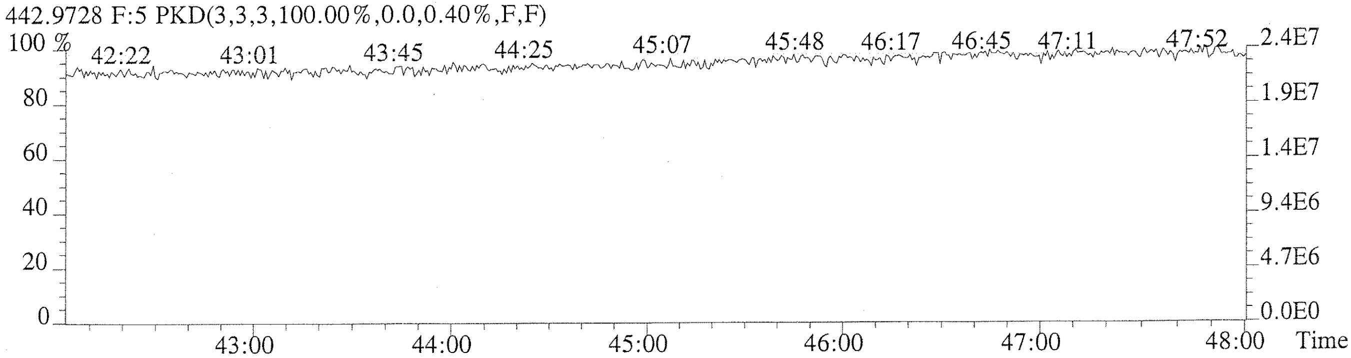
469.7779 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(5,3,5,0.30%,500.0,0.40%,F,T)



471.7750 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(5,3,5,0.30%,308.0,0.40%,F,T)



442.9728 F:5 PKD(3,3,3,100.00%,0.0,0.40%,F,F)



Sample Response Summary CLIENT ID.
ICAL CS3

Run #4 Filename 7392 #1 Samp: 1 Inj: 1 Acquired: 3-MAY-12 09:15:36
Processed: 3-MAY-12 09:51:32 LAB. ID: ICAL CS3

#	Typ	Name	RT-1	Resp 1	Resp 2	Ratio	Meet	Mod?	RRT
1	Unk	2,3,7,8-TCDF	29:17	2.342e+04	3.045e+04	0.77	yes	no	1.001
2	Unk	1,2,3,7,8-PeCDF	33:25	1.498e+05	9.584e+04	1.56	yes	no	1.000
3	Unk	2,3,4,7,8-PeCDF	34:07	1.474e+05	9.505e+04	1.55	yes	no	1.000
4	Unk	1,2,3,4,7,8-HxCDF	36:51	1.164e+05	9.281e+04	1.25	yes	no	1.000
5	Unk	1,2,3,6,7,8-HxCDF	36:57	1.171e+05	9.315e+04	1.26	yes	no	1.000
6	Unk	2,3,4,6,7,8-HxCDF	37:25	8.877e+04	7.040e+04	1.26	yes	no	1.000
7	Unk	1,2,3,7,8,9-HxCDF	38:08	8.779e+04	6.973e+04	1.26	yes	no	1.000
8	Unk	1,2,3,4,6,7,8-HpCDF	39:35	8.913e+04	8.622e+04	1.03	yes	no	1.000
9	Unk	1,2,3,4,7,8,9-HpCDF	40:57	7.495e+04	7.302e+04	1.03	yes	no	1.000
10	Unk	OCDF	43:52	1.200e+05	1.337e+05	0.90	yes	no	1.004
11	Unk	2,3,7,8-TCDD	30:04	1.711e+04	2.210e+04	0.77	yes	no	1.001
12	Unk	1,2,3,7,8-PeCDD	34:28	9.240e+04	5.809e+04	1.59	yes	no	1.000
13	Unk	1,2,3,4,7,8-HxCDD	37:32	8.002e+04	6.307e+04	1.27	yes	no	1.000
14	Unk	1,2,3,6,7,8-HxCDD	37:36	7.076e+04	5.592e+04	1.27	yes	no	1.000
15	Unk	1,2,3,7,8,9-HxCDD	37:54	7.339e+04	5.783e+04	1.27	yes	no	1.008
16	Unk	1,2,3,4,6,7,8-HpCDD	40:30	6.385e+04	6.011e+04	1.06	yes	no	1.000
17	Unk	OCDD	43:40	1.076e+05	1.206e+05	0.89	yes	no	1.000
18	IS	13C-2,3,7,8-TCDF	29:16	2.480e+05	3.163e+05	0.78	yes	no	0.981
19	IS	13C-1,2,3,7,8-PeCDF	33:24	3.097e+05	1.935e+05	1.60	yes	no	1.119
20	IS	13C-2,3,4,7,8-PeCDF	34:06	2.857e+05	1.801e+05	1.59	yes	no	1.143
21	IS	13C-1,2,3,4,7,8-HxCDF	36:51	1.189e+05	2.264e+05	0.53	yes	no	0.973
22	IS	13C-1,2,3,6,7,8-HxCDF	36:57	1.202e+05	2.301e+05	0.52	yes	no	0.975
23	IS	13C-2,3,4,6,7,8-HxCDF	37:25	1.001e+05	1.886e+05	0.53	yes	no	0.988
24	IS	13C-1,2,3,7,8,9-HxCDF	38:07	9.315e+04	1.758e+05	0.53	yes	no	1.006
25	IS	13C-1,2,3,4,6,7,8-HpCDF	39:35	7.864e+04	1.764e+05	0.45	yes	no	1.045
26	IS	13C-1,2,3,4,7,8,9-HpCDF	40:56	6.520e+04	1.481e+05	0.44	yes	no	1.080
27	IS	13C-2,3,7,8-TCDD	30:03	1.713e+05	2.180e+05	0.79	yes	no	1.007
28	IS	13C-1,2,3,7,8-PeCDD	34:27	1.765e+05	1.108e+05	1.59	yes	no	1.154
29	IS	13C-1,2,3,4,7,8-HxCDD	37:31	1.369e+05	1.088e+05	1.26	yes	no	0.990
30	IS	13C-1,2,3,6,7,8-HxCDD	37:36	1.490e+05	1.170e+05	1.27	yes	no	0.992
31	IS	13C-1,2,3,4,6,7,8-HpCDD	40:29	1.219e+05	1.148e+05	1.06	yes	no	1.069
32	IS	13C-OCDD	43:40	1.995e+05	2.182e+05	0.91	yes	no	1.153
33	RS/RT	13C-1,2,3,4-TCDD	29:50	1.896e+05	2.383e+05	0.80	yes	no	*
34	RS/RT	13C-1,2,3,7,8,9-HxCDD	37:53	1.381e+05	1.075e+05	1.28	yes	no	*
35	C/Up	37Cl-2,3,7,8-TCDD	30:04	3.972e+04				no	1.008

Signal/Noise Height Ratio Summary

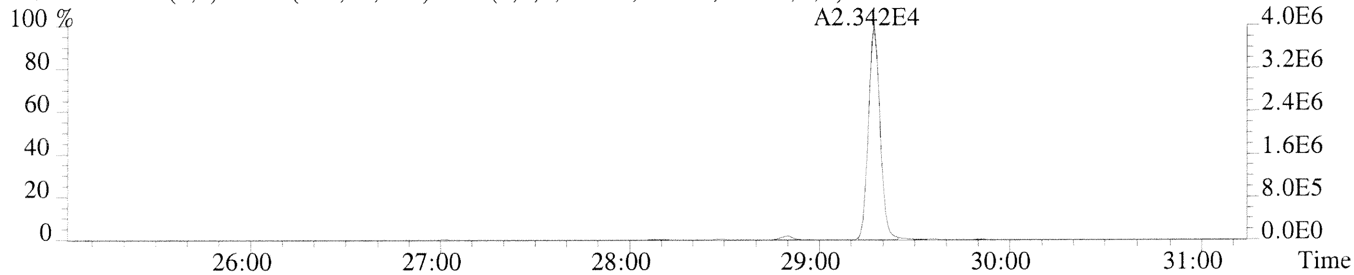
CLIENT ID.
ICAL CS3

#4 Filename 7392 Samp: 1 Inj: 1 Acquired: 3-MAY-12 09:15:36
Processed: 3-MAY-12 09:51:321 LAB. ID: ICAL CS3

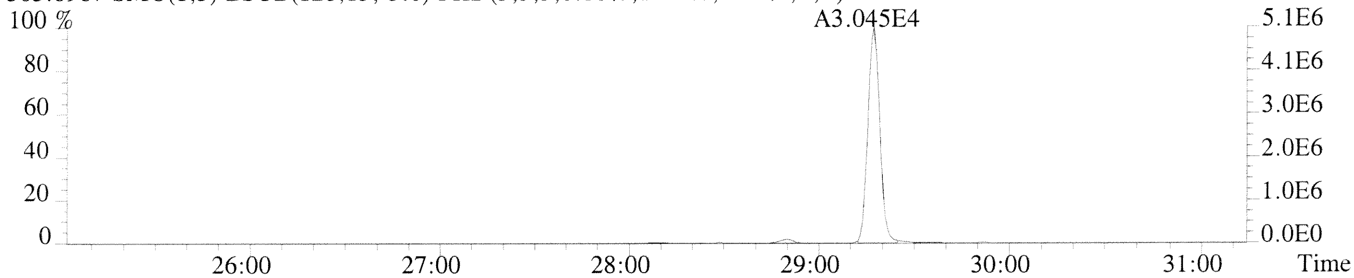
Name	Signal 1	Noise 1	S/N Rat.1	Signal 2	Noise 2	S/N Rat.2
2,3,7,8-TCDF	4.01e+06	1.02e+03	4.0e+03	5.07e+06	1.24e+03	4.1e+03
1,2,3,7,8-PeCDF	2.86e+07	1.20e+03	2.4e+04	1.83e+07	2.02e+03	9.0e+03
2,3,4,7,8-PeCDF	2.92e+07	1.20e+03	2.4e+04	1.89e+07	2.02e+03	9.3e+03
1,2,3,4,7,8-HxCDF	2.43e+07	3.14e+03	7.7e+03	1.96e+07	3.67e+03	5.3e+03
1,2,3,6,7,8-HxCDF	2.45e+07	3.14e+03	7.8e+03	1.98e+07	3.67e+03	5.4e+03
2,3,4,6,7,8-HxCDF	1.87e+07	3.14e+03	5.9e+03	1.49e+07	3.67e+03	4.1e+03
1,2,3,7,8,9-HxCDF	1.83e+07	3.14e+03	5.8e+03	1.42e+07	3.67e+03	3.9e+03
1,2,3,4,6,7,8-HpCDF	1.81e+07	4.75e+03	3.8e+03	1.75e+07	1.76e+03	1.0e+04
1,2,3,4,7,8,9-HpCDF	1.39e+07	4.75e+03	2.9e+03	1.35e+07	1.76e+03	7.7e+03
OCDF	1.80e+07	1.54e+03	1.2e+04	2.04e+07	2.30e+03	8.9e+03
2,3,7,8-TCDD	2.99e+06	1.16e+03	2.6e+03	3.87e+06	5.92e+02	6.5e+03
1,2,3,7,8-PeCDD	1.89e+07	1.21e+03	1.6e+04	1.18e+07	1.23e+03	9.6e+03
1,2,3,4,7,8-HxCDD	1.74e+07	2.21e+03	7.9e+03	1.37e+07	1.57e+03	8.7e+03
1,2,3,6,7,8-HxCDD	1.57e+07	2.21e+03	7.1e+03	1.26e+07	1.57e+03	8.0e+03
1,2,3,7,8,9-HxCDD	1.58e+07	2.21e+03	7.1e+03	1.24e+07	1.57e+03	7.9e+03
1,2,3,4,6,7,8-HpCDD	1.21e+07	1.94e+03	6.2e+03	1.14e+07	1.92e+03	5.9e+03
OCDD	1.70e+07	1.92e+03	8.8e+03	1.89e+07	2.27e+03	8.3e+03
13C-2,3,7,8-TCDF	4.17e+07	2.03e+03	2.1e+04	5.31e+07	2.42e+03	2.2e+04
13C-1,2,3,7,8-PeCDF	6.09e+07	1.48e+03	4.1e+04	3.79e+07	9.60e+02	4.0e+04
13C-2,3,4,7,8-PeCDF	5.73e+07	1.48e+03	3.9e+04	3.60e+07	9.60e+02	3.8e+04
13C-1,2,3,4,7,8-HxCDF	2.51e+07	1.86e+03	1.3e+04	4.76e+07	2.92e+03	1.6e+04
13C-1,2,3,6,7,8-HxCDF	2.52e+07	1.86e+03	1.4e+04	4.81e+07	2.92e+03	1.6e+04
13C-2,3,4,6,7,8-HxCDF	2.14e+07	1.86e+03	1.1e+04	4.07e+07	2.92e+03	1.4e+04
13C-1,2,3,7,8,9-HxCDF	1.96e+07	1.86e+03	1.1e+04	3.66e+07	2.92e+03	1.3e+04
13C-1,2,3,4,6,7,8-HpCDF	1.60e+07	7.86e+03	2.0e+03	3.57e+07	2.78e+03	1.3e+04
13C-1,2,3,4,7,8,9-HpCDF	1.22e+07	7.86e+03	1.5e+03	2.77e+07	2.78e+03	1.0e+04
13C-2,3,7,8-TCDD	3.06e+07	7.20e+03	4.2e+03	3.90e+07	2.25e+03	1.7e+04
13C-1,2,3,7,8-PeCDD	3.62e+07	9.32e+02	3.9e+04	2.24e+07	9.08e+02	2.5e+04
13C-1,2,3,4,7,8-HxCDD	2.98e+07	2.20e+03	1.4e+04	2.35e+07	2.29e+03	1.0e+04
13C-1,2,3,6,7,8-HxCDD	3.32e+07	2.20e+03	1.5e+04	2.61e+07	2.29e+03	1.1e+04
13C-1,2,3,4,6,7,8-HpCDD	2.33e+07	1.51e+03	1.5e+04	2.18e+07	1.30e+03	1.7e+04
13C-OCDD	3.18e+07	1.38e+03	2.3e+04	3.47e+07	1.38e+03	2.5e+04
13C-1,2,3,4-TCDD	3.43e+07	7.20e+03	4.8e+03	4.30e+07	2.25e+03	1.9e+04
13C-1,2,3,7,8,9-HxCDD	3.02e+07	2.20e+03	1.4e+04	2.36e+07	2.29e+03	1.0e+04
37Cl-2,3,7,8-TCDD	6.98e+06	1.03e+03	6.8e+03			

File: 7392 #1-517 Acq: 3-MAY-2012 09:15:36 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:ICAL CS3

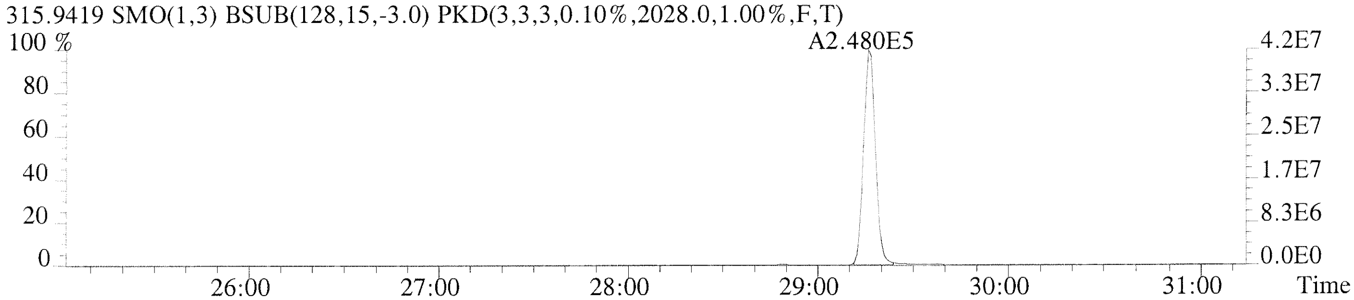
303.9016 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,1016.0,1.00%,F,T)



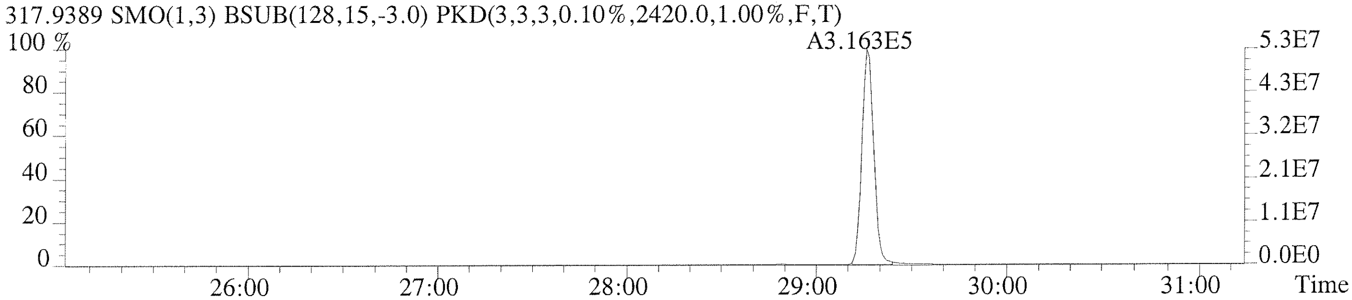
305.8987 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,1244.0,1.00%,F,T)



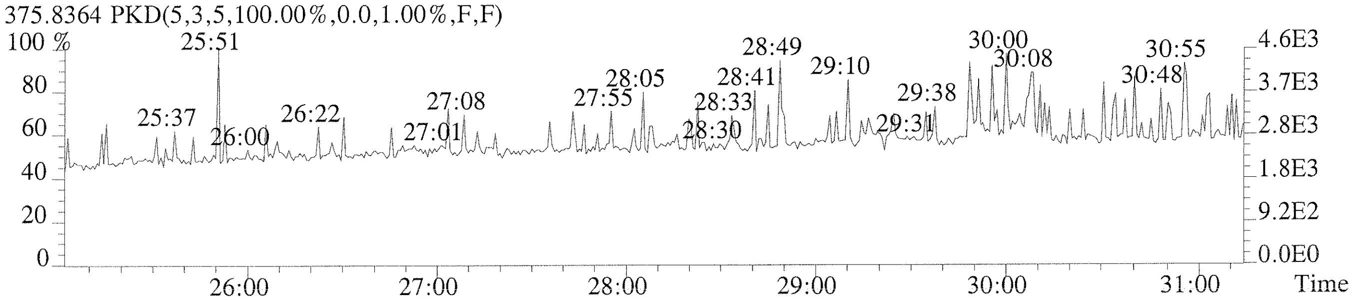
315.9419 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,2028.0,1.00%,F,T)



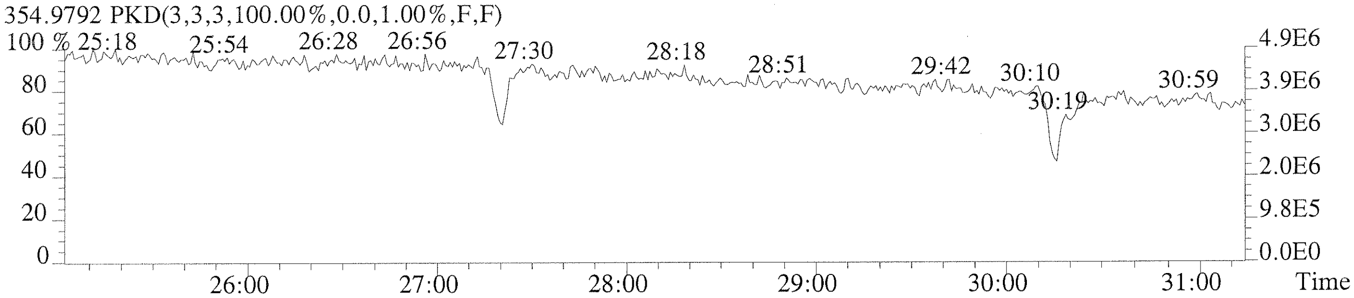
317.9389 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,2420.0,1.00%,F,T)

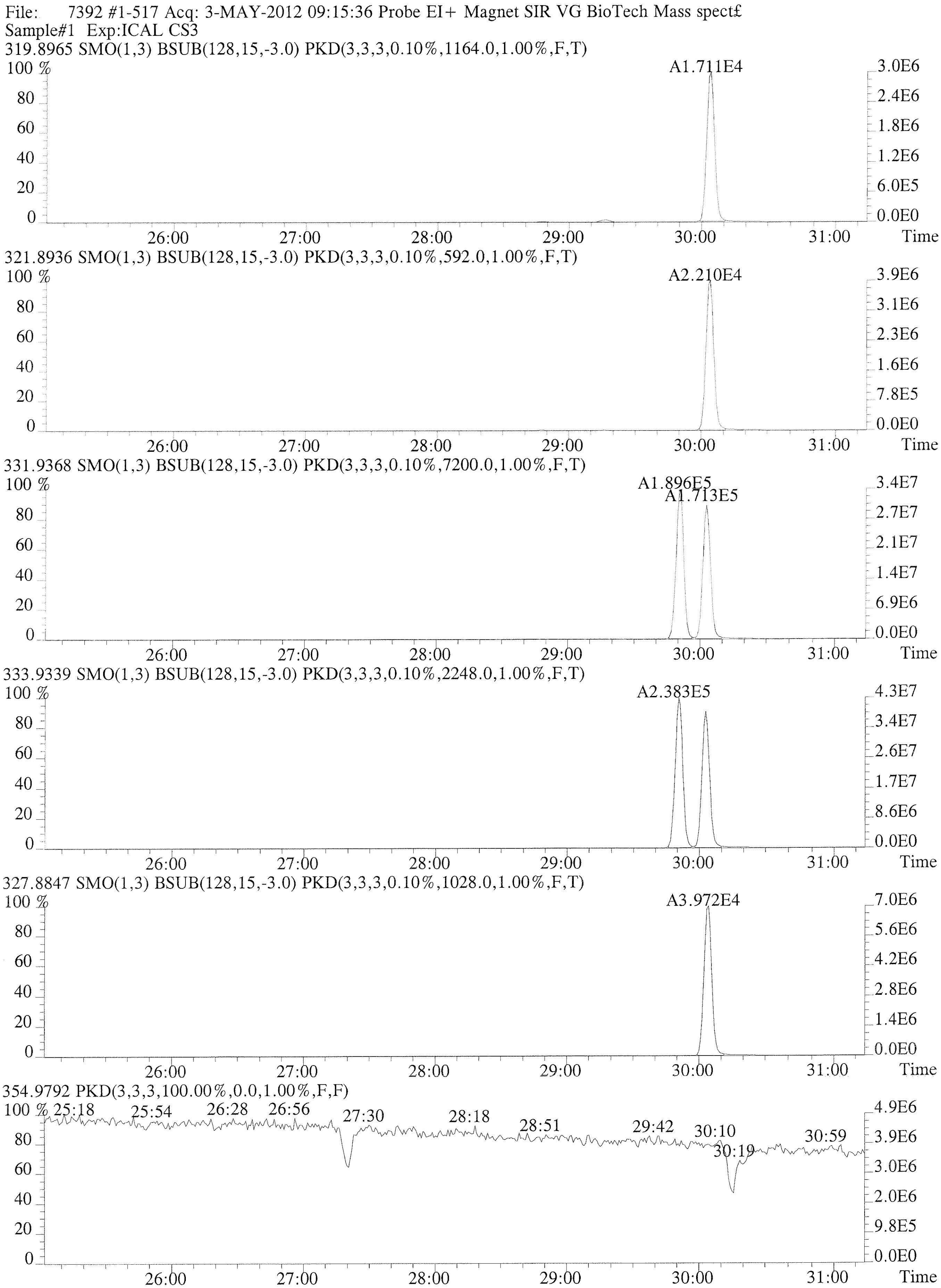


375.8364 PKD(5,3,5,100.00%,0.0,1.00%,F,F)



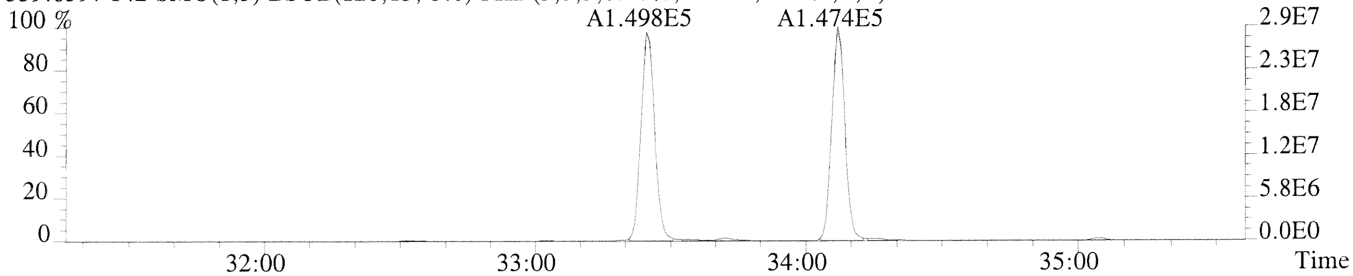
354.9792 PKD(3,3,3,100.00%,0.0,1.00%,F,F)



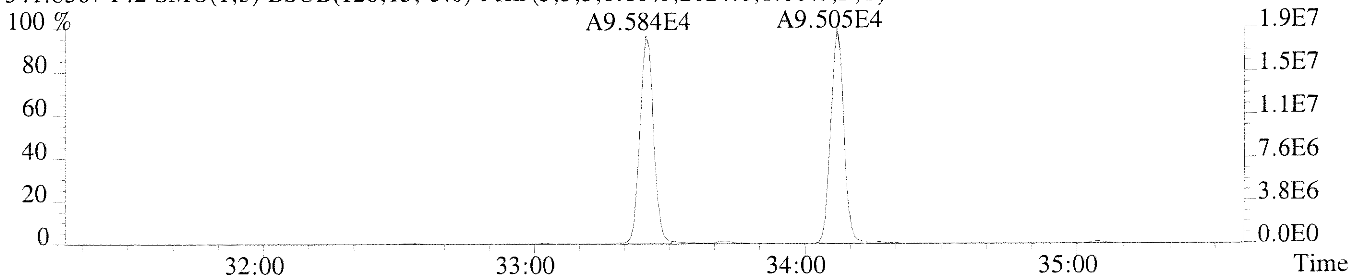

File: 7392 #1-517 Acq: 3-MAY-2012 09:15:36 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:ICAL CS3
319.8965 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,1164.0,1.00%,F,T)
A1.711E4
3.0E6 2.4E6 1.8E6 1.2E6 6.0E5 0.0E0
321.8936 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,592.0,1.00%,F,T)
A2.210E4
3.9E6 3.1E6 2.3E6 1.6E6 7.8E5 0.0E0
331.9368 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,7200.0,1.00%,F,T)
A1.896E5
A1.713E5
3.4E7 2.7E7 2.1E7 1.4E7 6.9E6 0.0E0
333.9339 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,2248.0,1.00%,F,T)
A2.383E5
4.3E7 3.4E7 2.6E7 1.7E7 8.6E6 0.0E0
327.8847 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,1028.0,1.00%,F,T)
A3.972E4
7.0E6 5.6E6 4.2E6 2.8E6 1.4E6 0.0E0
354.9792 PKD(3,3,3,100.00%,0.0,1.00%,F,F)
25:18 25:54 26:28 26:56 27:30 28:18 28:51 29:42 30:10 30:19 30:59
4.9E6 3.9E6 3.0E6 2.0E6 9.8E5 0.0E0
100 % 80 60 40 20 0
26:00 27:00 28:00 29:00 30:00 31:00 Time

File: 7392 #1-394 Acq: 3-MAY-2012 09:15:36 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:ICAL CS3

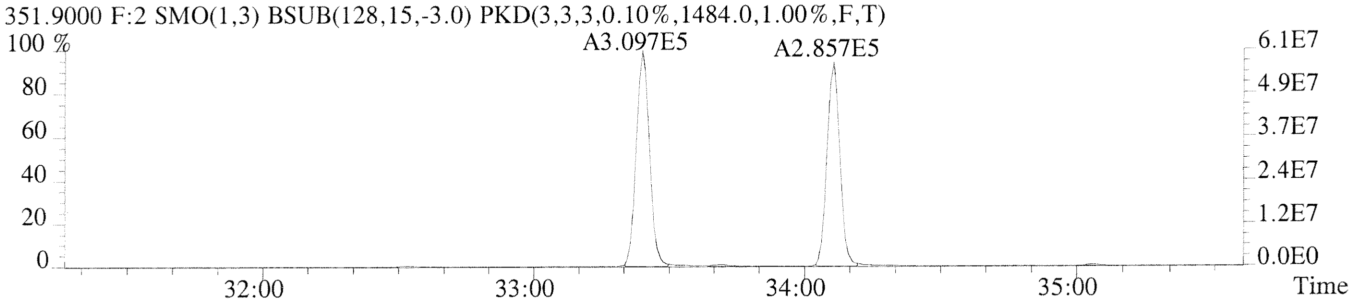
339.8597 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,1200.0,1.00%,F,T)



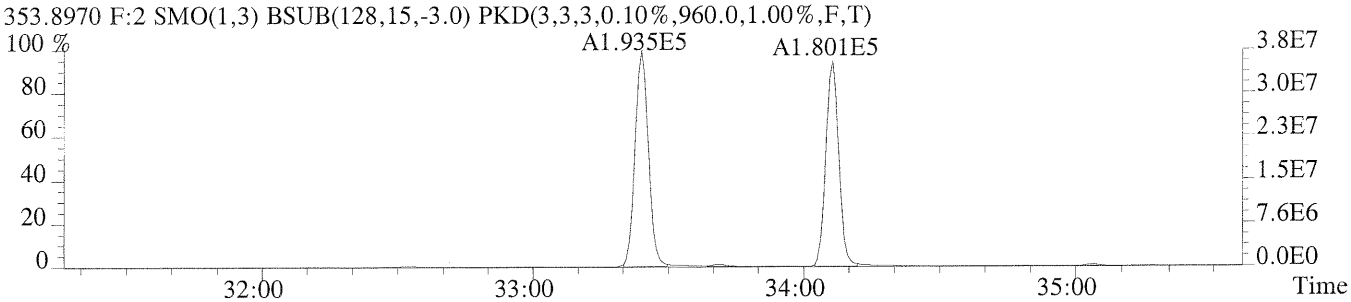
341.8567 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,2024.0,1.00%,F,T)



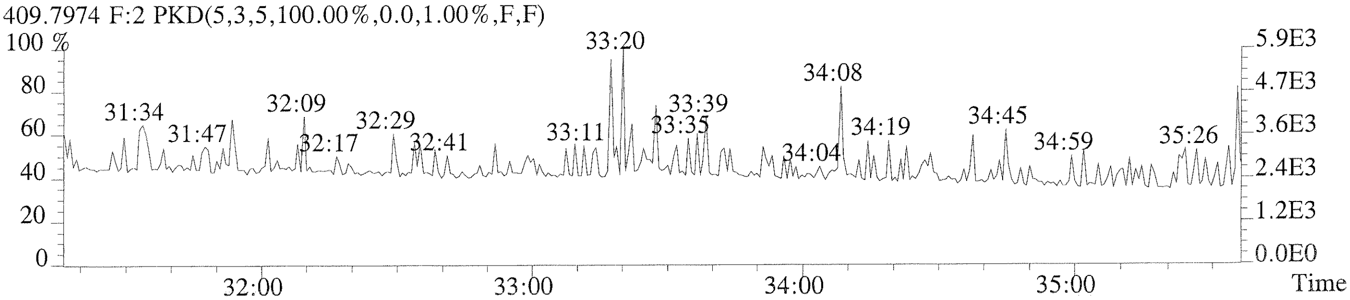
351.9000 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,1484.0,1.00%,F,T)



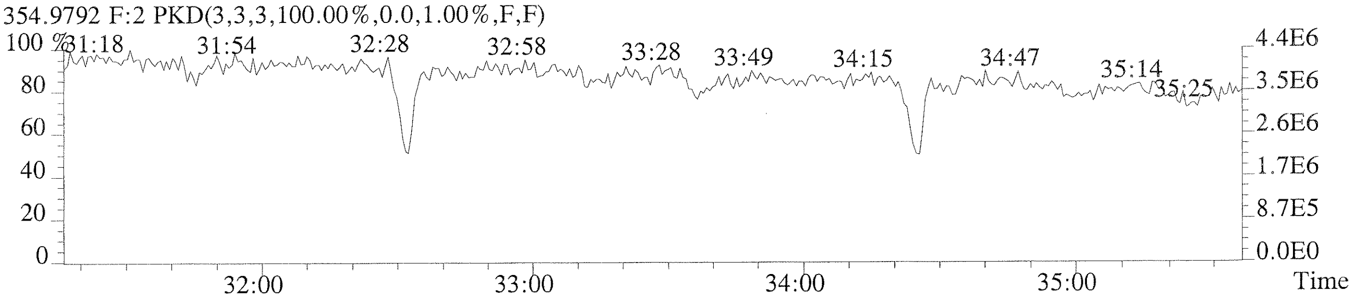
353.8970 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,960.0,1.00%,F,T)



409.7974 F:2 PKD(5,3,5,100.00%,0.0,1.00%,F,F)

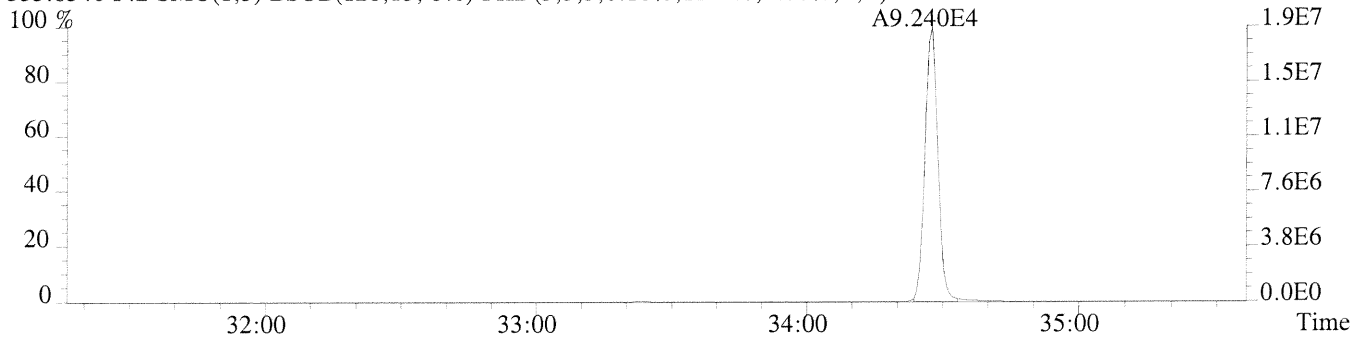


354.9792 F:2 PKD(3,3,3,100.00%,0.0,1.00%,F,F)

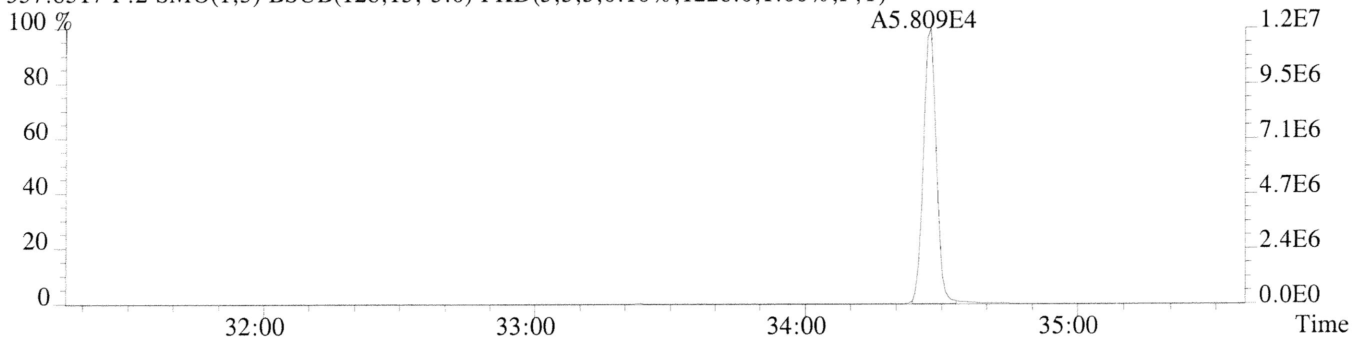


File: 7392 #1-394 Acq: 3-MAY-2012 09:15:36 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:ICAL CS3

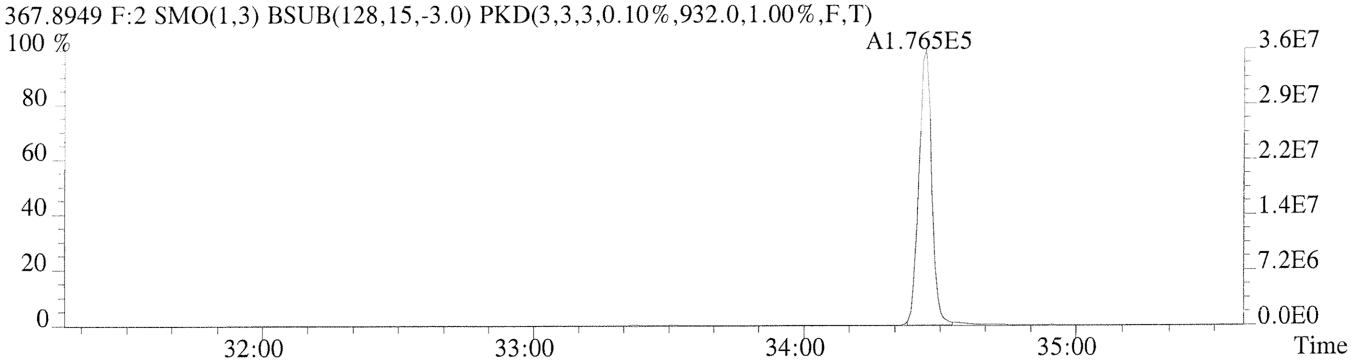
355.8546 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,1212.0,1.00%,F,T)



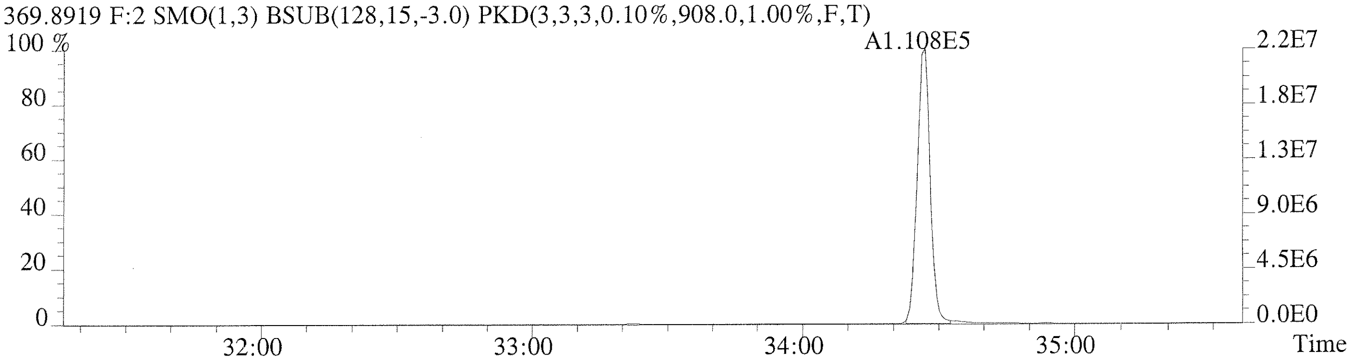
357.8517 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,1228.0,1.00%,F,T)



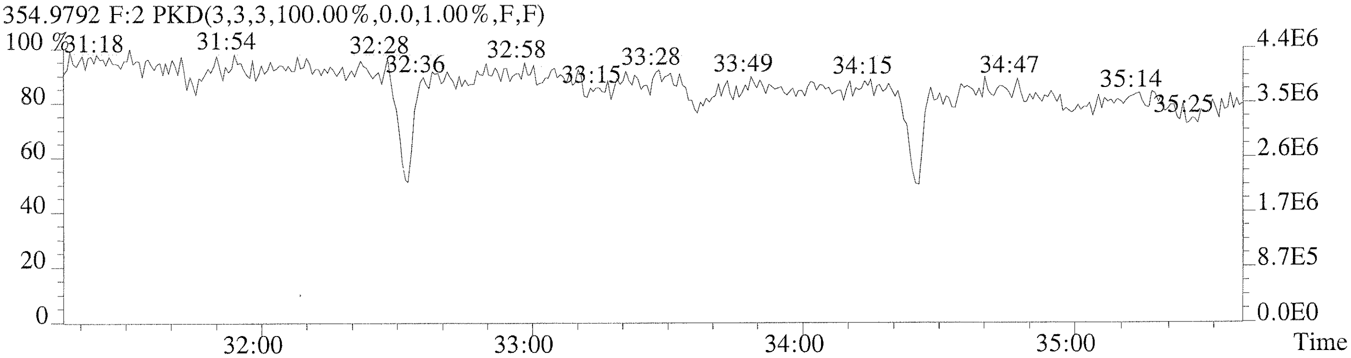
367.8949 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,932.0,1.00%,F,T)



369.8919 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,908.0,1.00%,F,T)

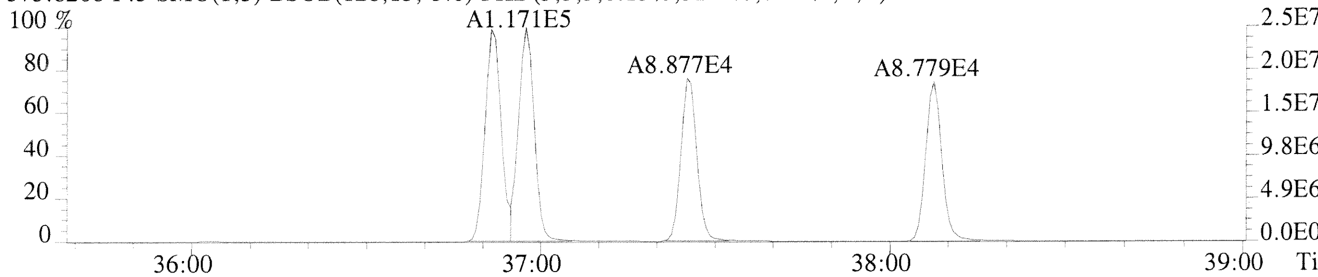


354.9792 F:2 PKD(3,3,3,100.00%,0.0,1.00%,F,F)

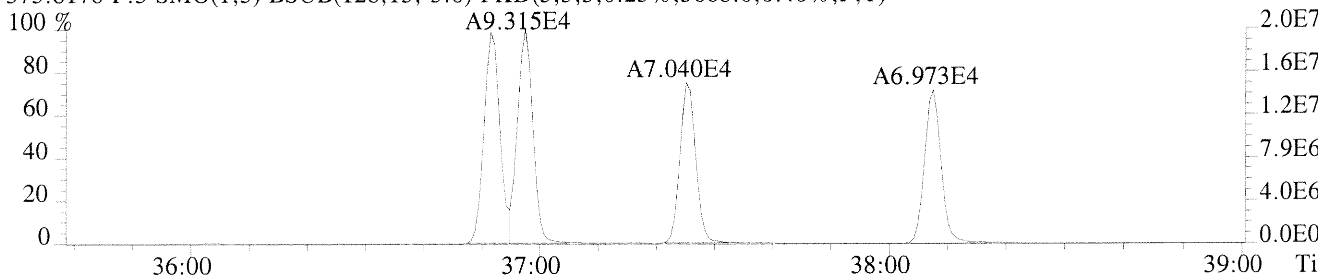


File: 7392 #1-306 Acq: 3-MAY-2012 09:15:36 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:ICAL CS3

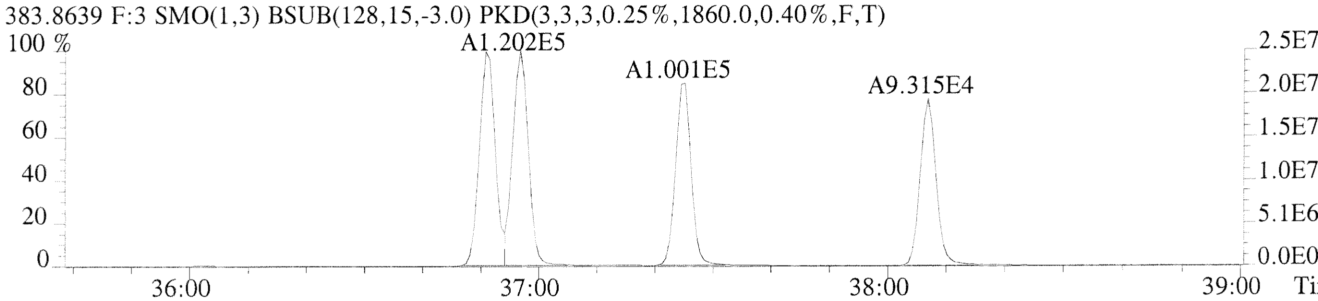
373.8208 F:3 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,3144.0,0.40%,F,T)



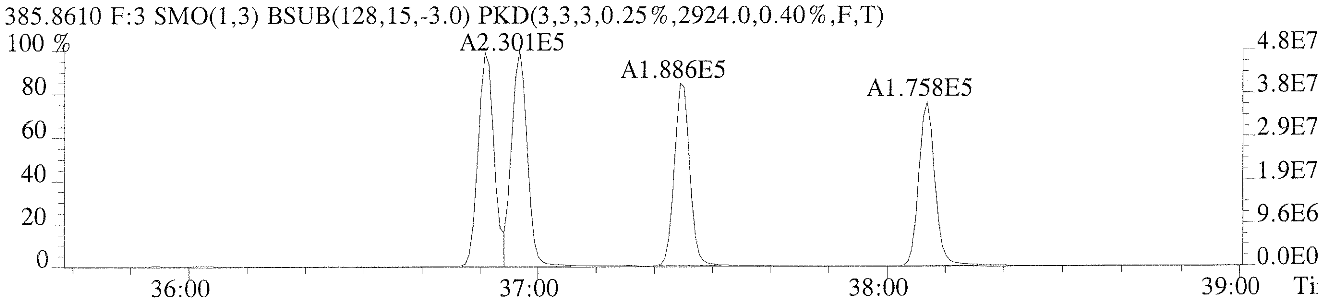
375.8178 F:3 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,3668.0,0.40%,F,T)



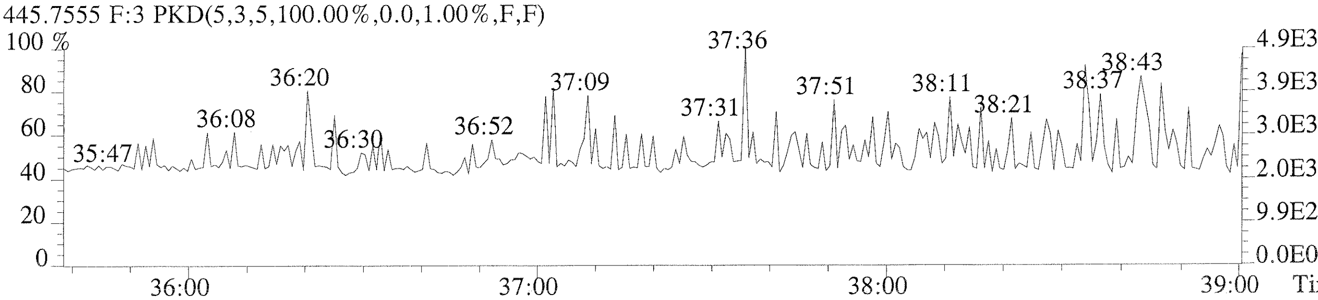
383.8639 F:3 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,1860.0,0.40%,F,T)



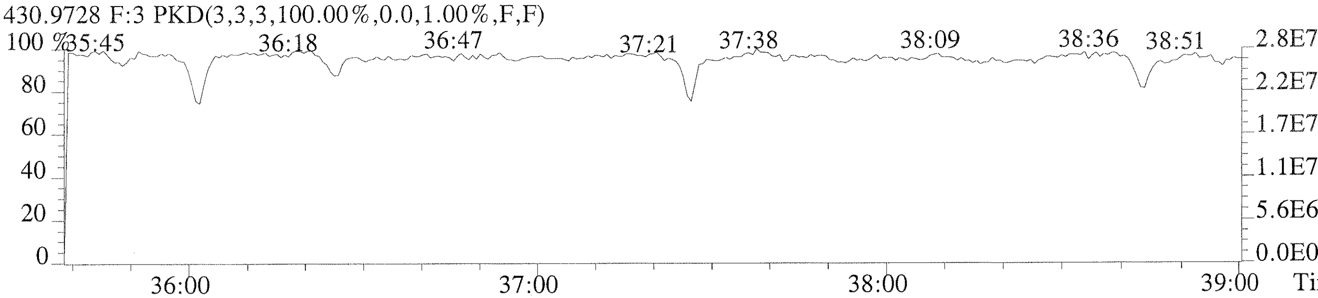
385.8610 F:3 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,2924.0,0.40%,F,T)



445.7555 F:3 PKD(5,3,5,100.00%,0.0,1.00%,F,F)

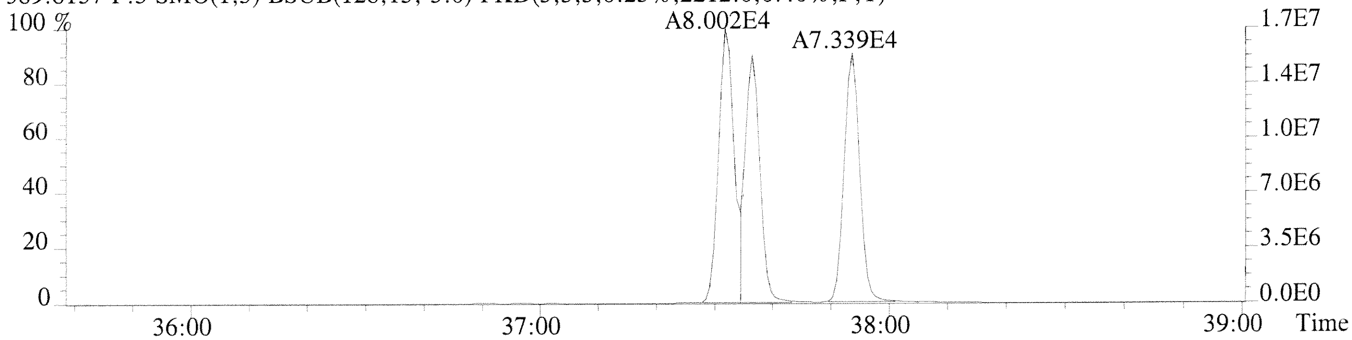


430.9728 F:3 PKD(3,3,3,100.00%,0.0,1.00%,F,F)

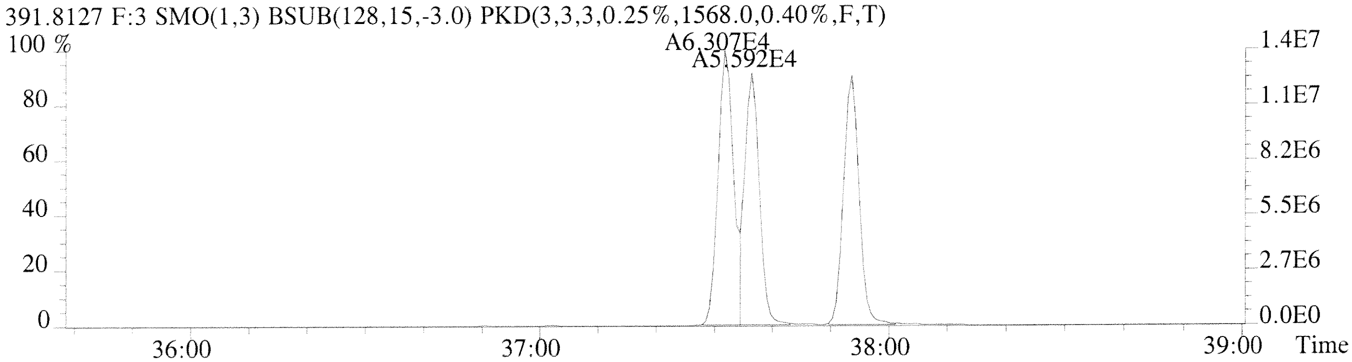


File: 7392 #1-306 Acq: 3-MAY-2012 09:15:36 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:ICAL CS3

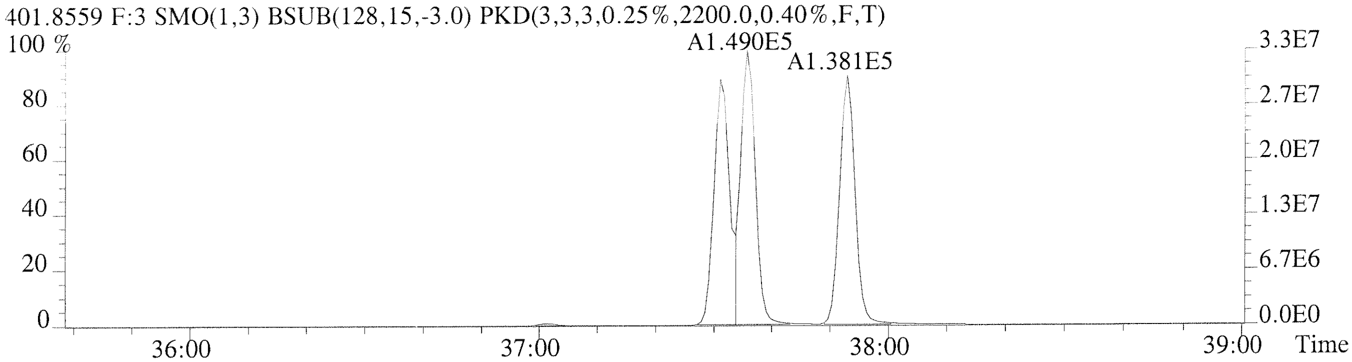
389.8157 F:3 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,2212.0,0.40%,F,T)



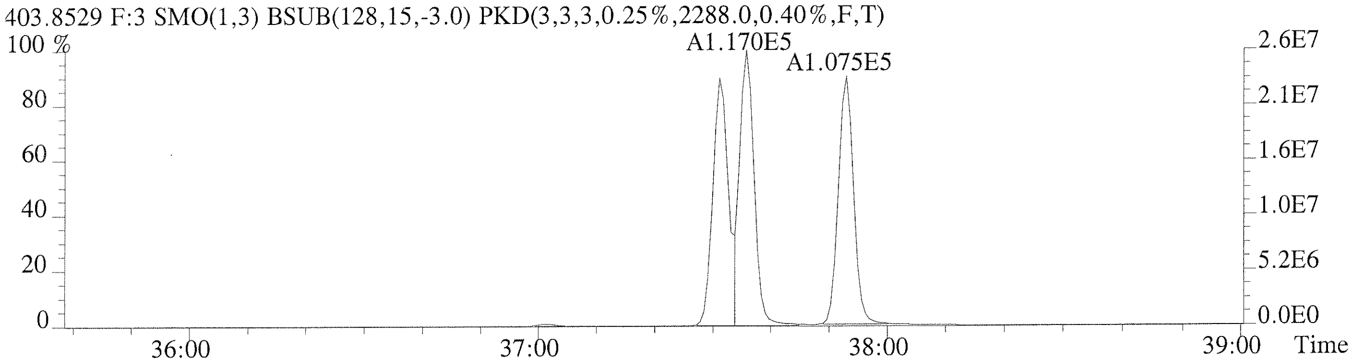
391.8127 F:3 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,1568.0,0.40%,F,T)



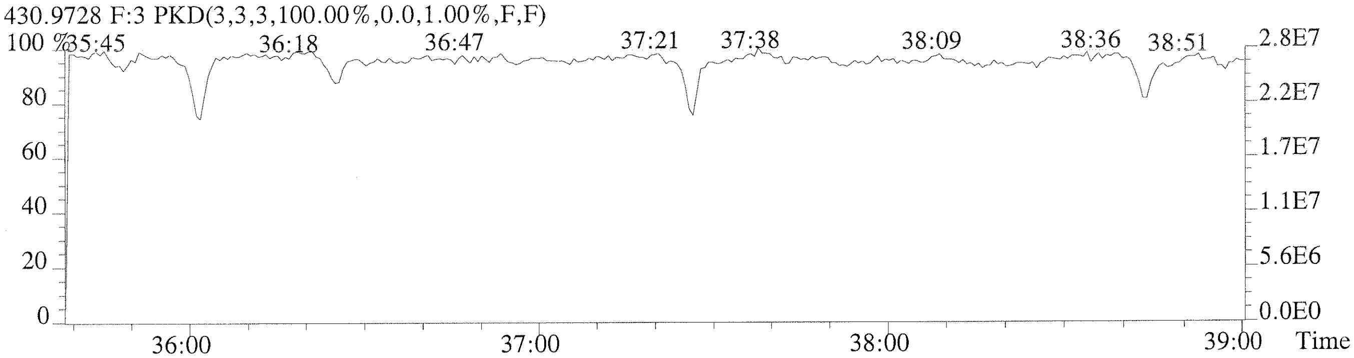
401.8559 F:3 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,2200.0,0.40%,F,T)



403.8529 F:3 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,2288.0,0.40%,F,T)

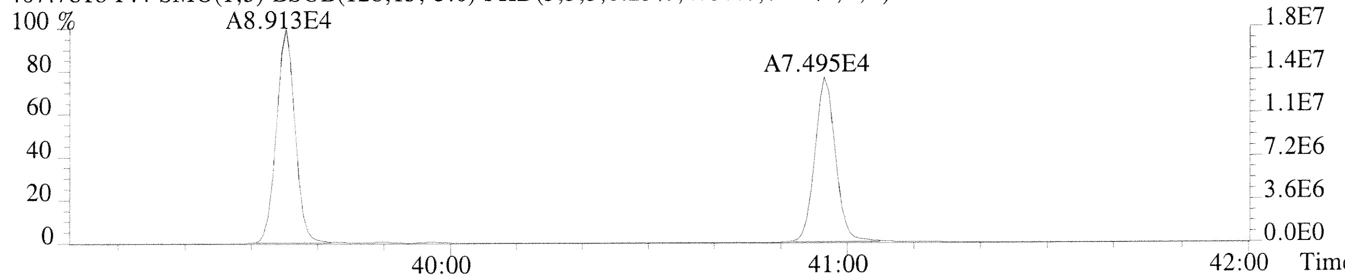


430.9728 F:3 PKD(3,3,3,100.00%,0.0,1.00%,F,F)

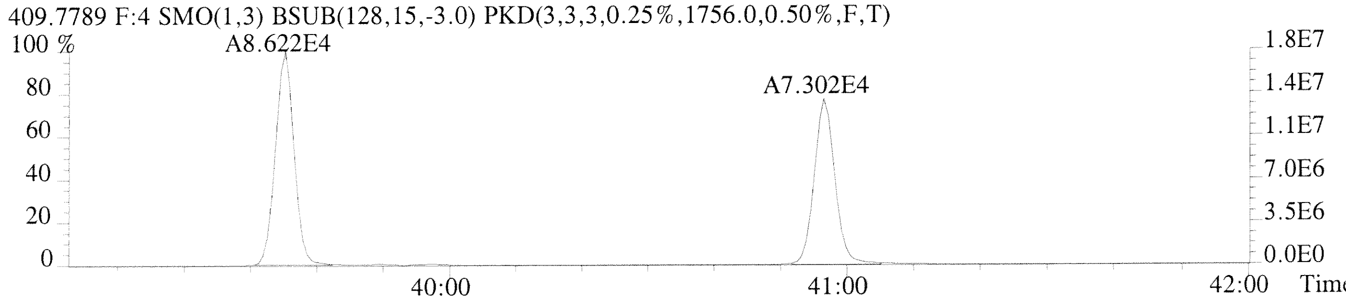


File: 7392 #1-269 Acq: 3-MAY-2012 09:15:36 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:ICAL CS3

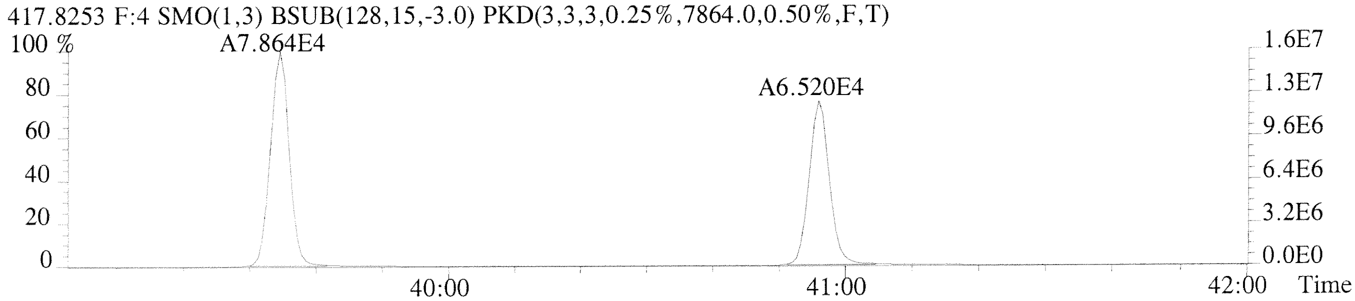
407.7818 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,4752.0,0.50%,F,T)



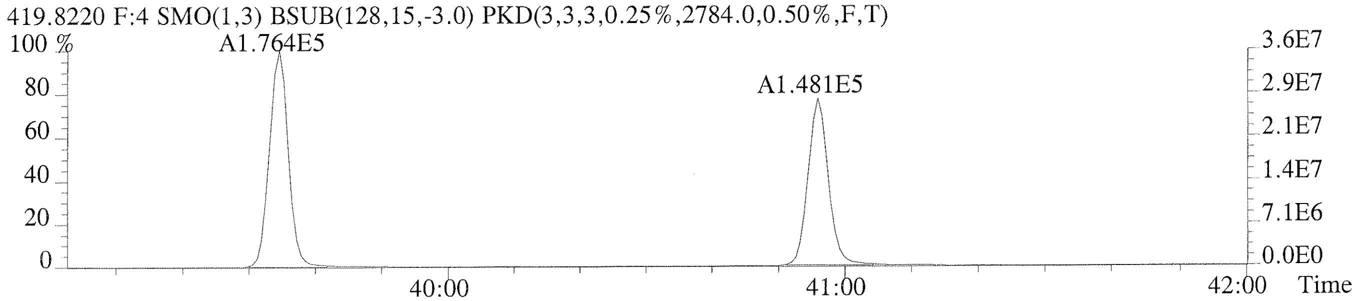
409.7789 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,1756.0,0.50%,F,T)



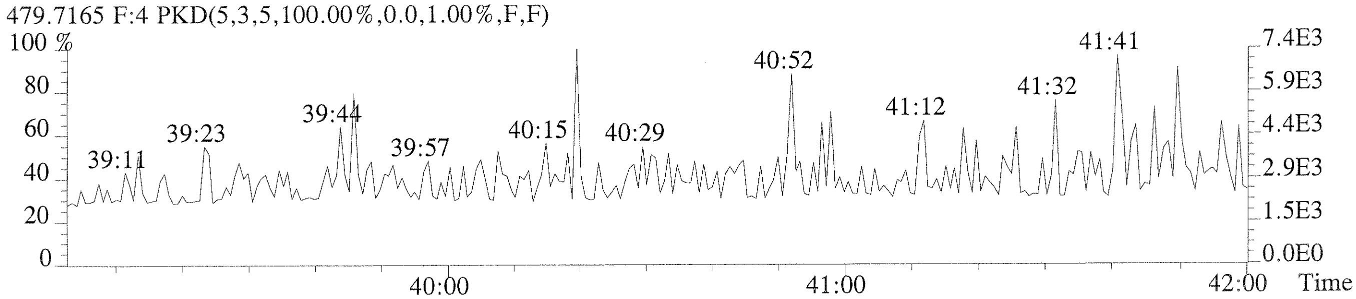
417.8253 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,7864.0,0.50%,F,T)



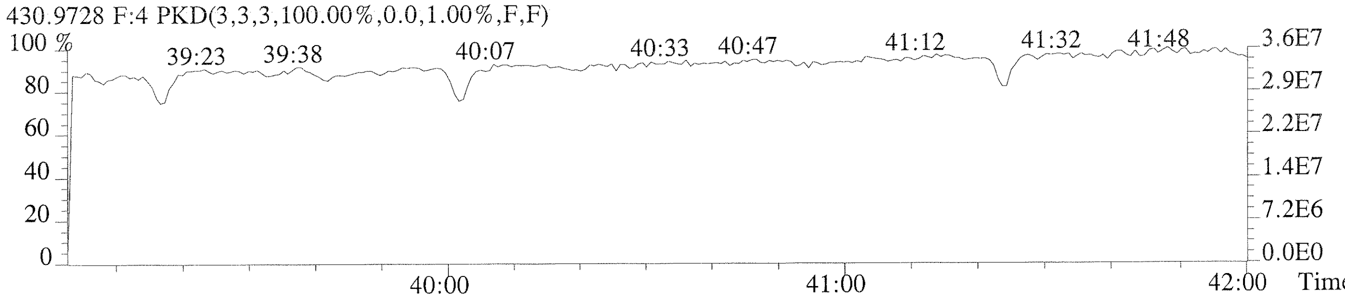
419.8220 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,2784.0,0.50%,F,T)



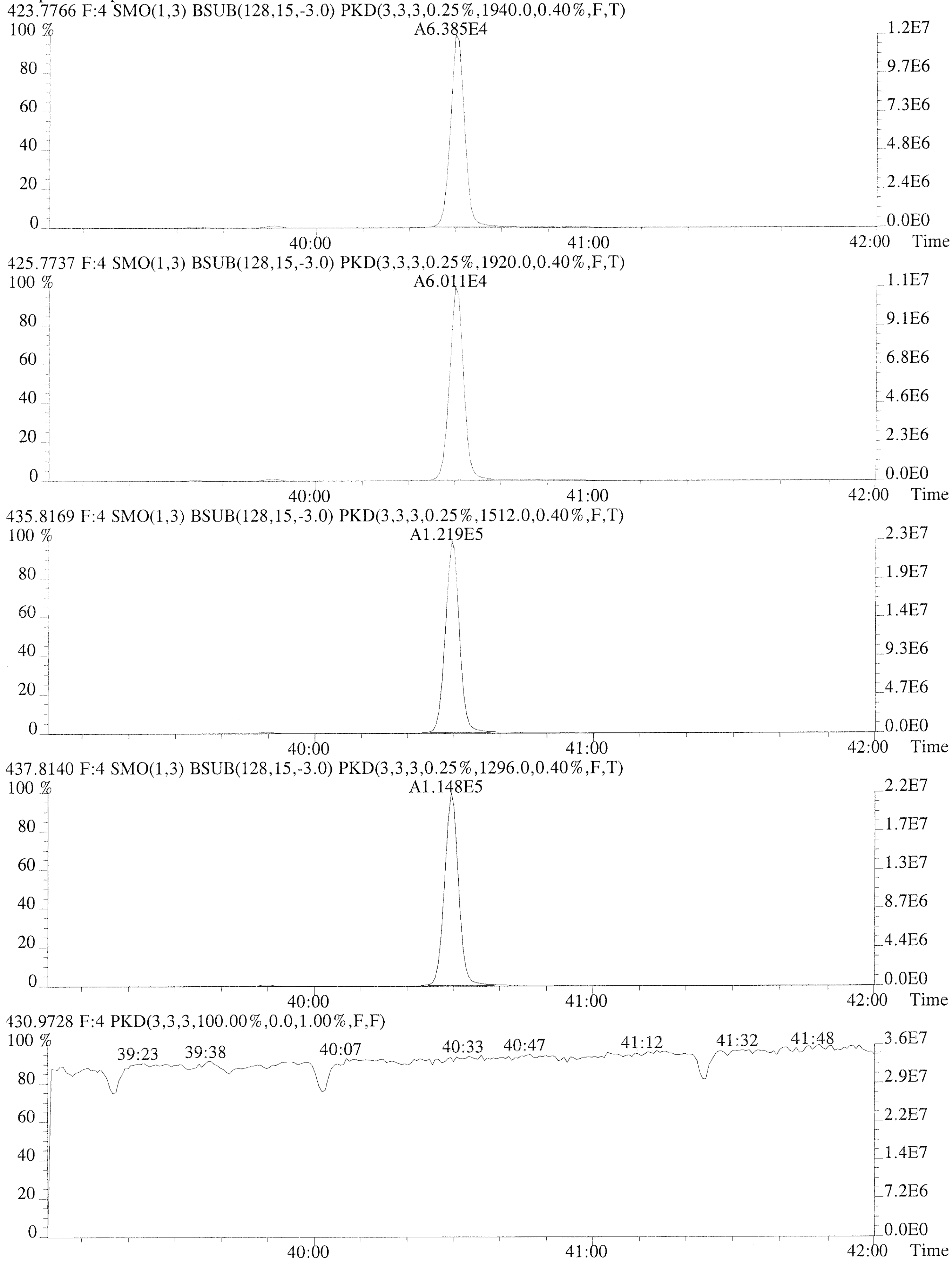
479.7165 F:4 PKD(5,3,5,100.00%,0.0,1.00%,F,F)



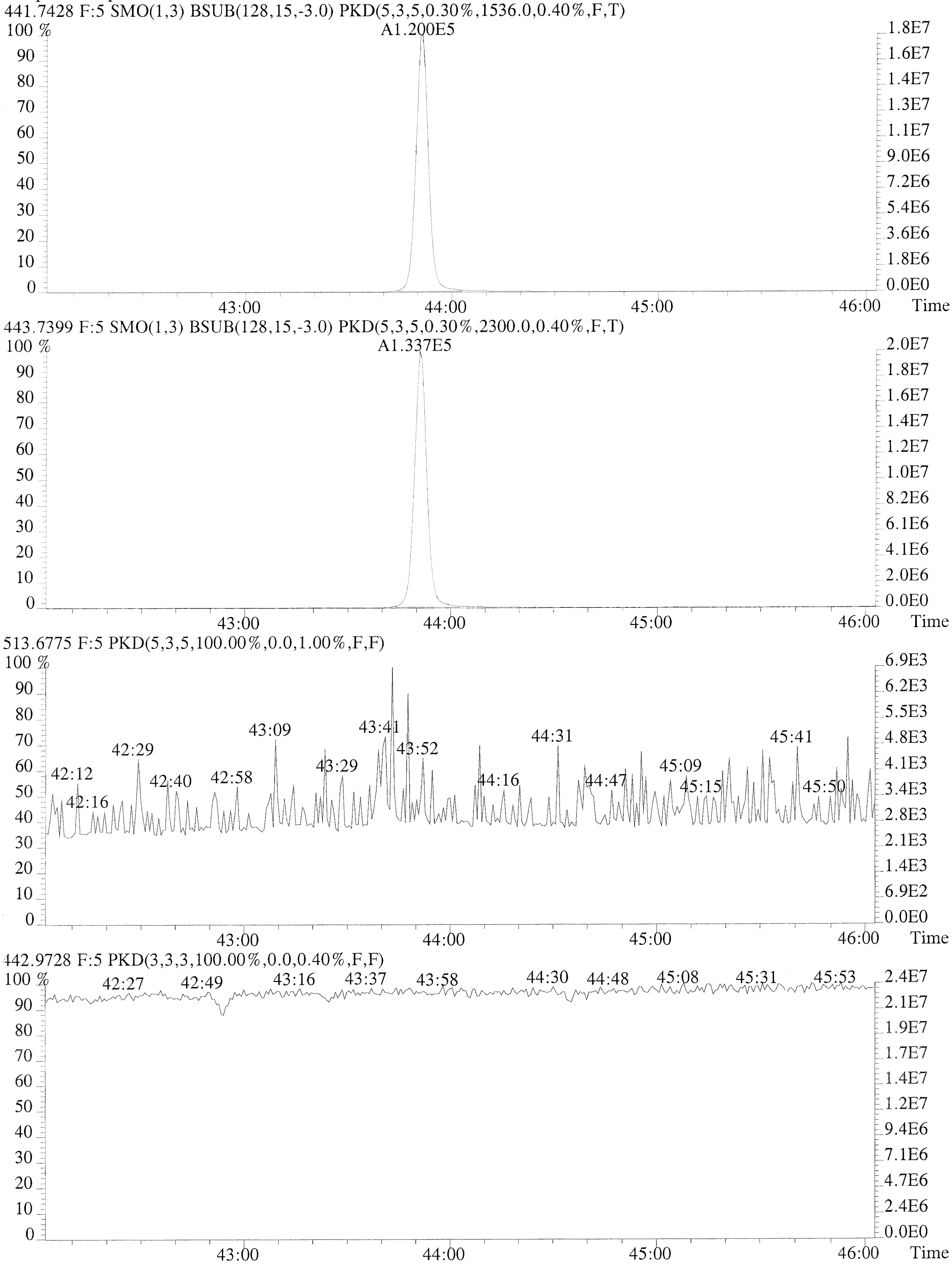
430.9728 F:4 PKD(3,3,3,100.00%,0.0,1.00%,F,F)



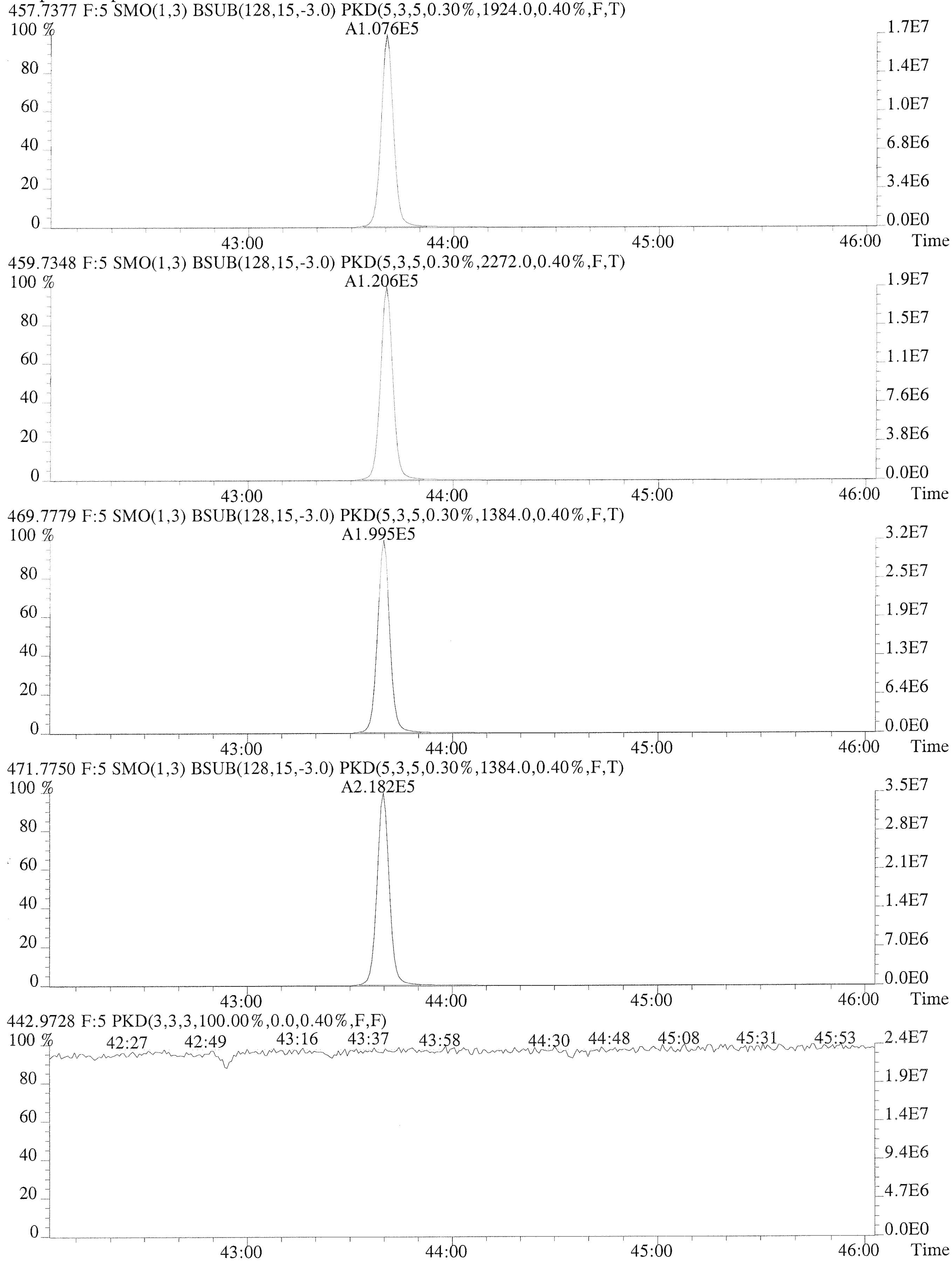
File: 7392 #1-269 Acq: 3-MAY-2012 09:15:36 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:ICAL CS3



File: 7392 #1-369 Acq: 3-MAY-2012 09:15:36 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:ICAL CS3



File: 7392 #1-369 Acq: 3-MAY-2012 09:15:36 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:ICAL CS3



Sample Response Summary CLIENT ID.
ICAL CS4

#5 Filename 7393 #1 Samp: 1 Inj: 1 Acquired: 3-MAY-12 10:13:02
Processed: 3-MAY-12 11:46:51 LAB. ID: ICAL CS4

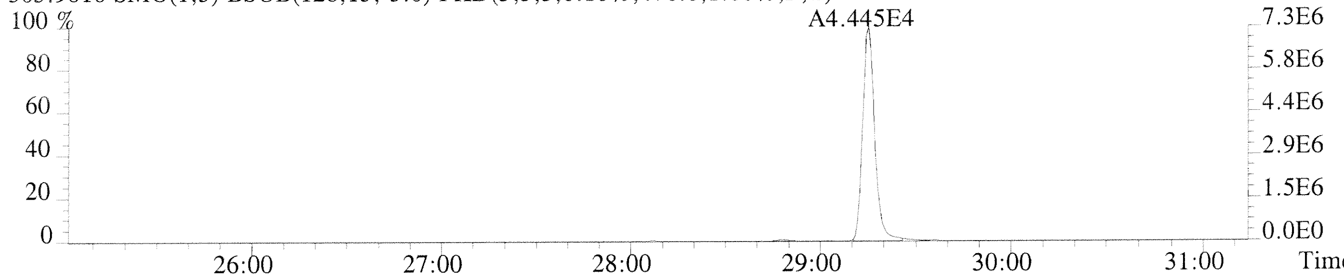
Typ	Name	RT-1	Resp 1	Resp 2	Ratio	Meet	Mod?	RRT
Unk	2,3,7,8-TCDF	29:15	4.445e+04	5.766e+04	0.77	yes	no	1.001
Unk	1,2,3,7,8-PeCDF	33:23	3.748e+05	2.403e+05	1.56	yes	no	1.000
Unk	2,3,4,7,8-PeCDF	34:05	3.697e+05	2.346e+05	1.58	yes	no	1.000
Unk	1,2,3,4,7,8-HxCDF	36:49	3.513e+05	2.803e+05	1.25	yes	no	1.000
Unk	1,2,3,6,7,8-HxCDF	36:55	3.918e+05	3.100e+05	1.26	yes	no	1.000
Unk	2,3,4,6,7,8-HxCDF	37:23	3.553e+05	2.861e+05	1.24	yes	no	1.000
Unk	1,2,3,7,8,9-HxCDF	38:06	3.083e+05	2.465e+05	1.25	yes	no	1.000
Unk	1,2,3,4,6,7,8-HpCDF	39:33	3.057e+05	2.958e+05	1.03	yes	no	1.000
Unk	1,2,3,4,7,8,9-HpCDF	40:55	2.365e+05	2.306e+05	1.03	yes	no	1.000
Unk	OCDF	43:49	3.447e+05	3.838e+05	0.90	yes	no	1.004
Unk	2,3,7,8-TCDD	30:01	3.548e+04	4.522e+04	0.78	yes	no	1.000
Unk	1,2,3,7,8-PeCDD	34:25	2.662e+05	1.701e+05	1.56	yes	no	1.000
Unk	1,2,3,4,7,8-HxCDD	37:30	2.491e+05	1.986e+05	1.25	yes	no	1.000
Unk	1,2,3,6,7,8-HxCDD	37:34	2.698e+05	2.130e+05	1.27	yes	no	1.000
Unk	1,2,3,7,8,9-HxCDD	37:52	2.662e+05	2.122e+05	1.25	yes	no	1.008
Unk	1,2,3,4,6,7,8-HpCDD	40:28	2.134e+05	2.034e+05	1.05	yes	no	1.000
Unk	OCDD	43:38	2.994e+05	3.343e+05	0.90	yes	no	1.000
IS	13C-2,3,7,8-TCDF	29:14	1.210e+05	1.544e+05	0.78	yes	no	0.981
IS	13C-1,2,3,7,8-PeCDF	33:22	1.841e+05	1.178e+05	1.56	yes	no	1.120
IS	13C-2,3,4,7,8-PeCDF	34:04	1.908e+05	1.217e+05	1.57	yes	no	1.143
IS	13C-1,2,3,4,7,8-HxCDF	36:49	8.603e+04	1.663e+05	0.52	yes	no	0.973
IS	13C-1,2,3,6,7,8-HxCDF	36:55	1.035e+05	1.979e+05	0.52	yes	no	0.975
IS	13C-2,3,4,6,7,8-HxCDF	37:23	9.518e+04	1.822e+05	0.52	yes	no	0.988
IS	13C-1,2,3,7,8,9-HxCDF	38:05	8.067e+04	1.562e+05	0.52	yes	no	1.006
IS	13C-1,2,3,4,6,7,8-HpCDF	39:33	6.598e+04	1.500e+05	0.44	yes	no	1.045
IS	13C-1,2,3,4,7,8,9-HpCDF	40:54	5.476e+04	1.241e+05	0.44	yes	no	1.081
IS	13C-2,3,7,8-TCDD	30:01	9.017e+04	1.144e+05	0.79	yes	no	1.007
IS	13C-1,2,3,7,8-PeCDD	34:24	1.401e+05	8.927e+04	1.57	yes	no	1.154
IS	13C-1,2,3,4,7,8-HxCDD	37:29	1.184e+05	9.341e+04	1.27	yes	no	0.990
IS	13C-1,2,3,6,7,8-HxCDD	37:34	1.279e+05	1.020e+05	1.25	yes	no	0.993
IS	13C-1,2,3,4,6,7,8-HpCDD	40:27	1.028e+05	9.798e+04	1.05	yes	no	1.069
IS	13C-OCDD	43:38	1.326e+05	1.468e+05	0.90	yes	no	1.153
RS/RT	13C-1,2,3,4-TCDD	29:48	9.499e+04	1.200e+05	0.79	yes	no	*
RS/RT	13C-1,2,3,7,8,9-HxCDD	37:51	1.297e+05	1.027e+05	1.26	yes	no	*
C/Up	37Cl-2,3,7,8-TCDD	30:01	8.380e+04				no	1.007

Signal/Noise Height Ratio Summary   CLIENT ID.
ICAL CS4

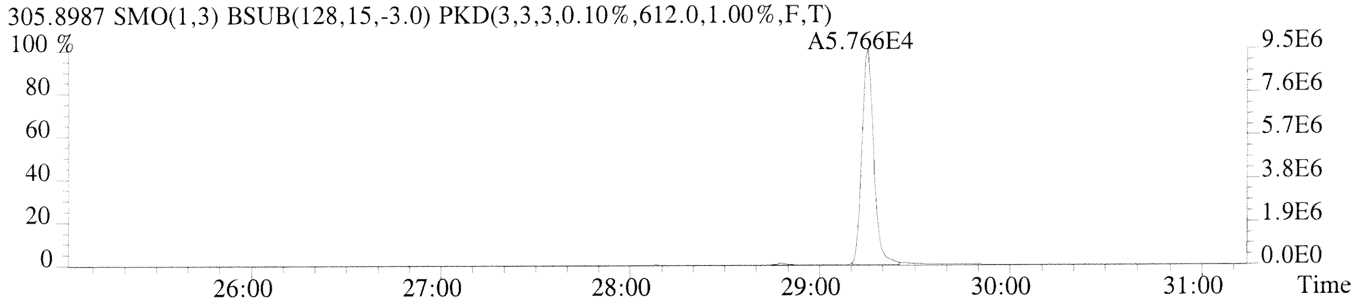
#5 Filename 7393 Samp: 1 Inj: 1 Acquired: 3-MAY-12 10:13:02
~essed: 3-MAY-12 11:46:511 LAB. ID: ICAL CS4

Name	Signal 1	Noise 1	S/N Rat.1	Signal 2	Noise 2	S/N Rat.2
2,3,7,8-TCDF	7.29e+06	4.76e+02	1.5e+04	9.53e+06	6.12e+02	1.6e+04
1,2,3,7,8-PeCDF	7.33e+07	4.20e+02	1.7e+05	4.69e+07	2.03e+03	2.3e+04
2,3,4,7,8-PeCDF	7.44e+07	4.20e+02	1.8e+05	4.71e+07	2.03e+03	2.3e+04
1,2,3,4,7,8-HxCDF	8.05e+07	2.62e+03	3.1e+04	6.39e+07	8.15e+03	7.8e+03
1,2,3,6,7,8-HxCDF	8.15e+07	2.62e+03	3.1e+04	6.42e+07	8.15e+03	7.9e+03
2,3,4,6,7,8-HxCDF	7.80e+07	2.62e+03	3.0e+04	6.29e+07	8.15e+03	7.7e+03
1,2,3,7,8,9-HxCDF	6.37e+07	2.62e+03	2.4e+04	5.05e+07	8.15e+03	6.2e+03
1,2,3,4,6,7,8-HpCDF	6.23e+07	8.94e+03	7.0e+03	5.97e+07	2.17e+04	2.8e+03
1,2,3,4,7,8,9-HpCDF	4.36e+07	8.94e+03	4.9e+03	4.25e+07	2.17e+04	2.0e+03
OCDF	5.48e+07	5.40e+02	1.0e+05	6.14e+07	7.92e+02	7.8e+04
2,3,7,8-TCDD	6.18e+06	5.60e+02	1.1e+04	7.90e+06	4.48e+02	1.8e+04
1,2,3,7,8-PeCDD	5.26e+07	7.60e+02	6.9e+04	3.38e+07	4.52e+02	7.5e+04
1,2,3,4,7,8-HxCDD	5.94e+07	6.76e+02	8.8e+04	4.68e+07	7.52e+02	6.2e+04
1,2,3,6,7,8-HxCDD	5.65e+07	6.76e+02	8.4e+04	4.46e+07	7.52e+02	5.9e+04
1,2,3,7,8,9-HxCDD	5.77e+07	6.76e+02	8.5e+04	4.57e+07	7.52e+02	6.1e+04
1,2,3,4,6,7,8-HpCDD	4.14e+07	1.14e+03	3.6e+04	3.99e+07	1.34e+03	3.0e+04
OCDD	4.79e+07	8.40e+02	5.7e+04	5.39e+07	8.08e+02	6.7e+04
13C-2,3,7,8-TCDF	2.04e+07	1.56e+03	1.3e+04	2.61e+07	1.91e+03	1.4e+04
13C-1,2,3,7,8-PeCDF	3.66e+07	4.56e+02	8.0e+04	2.35e+07	4.48e+02	5.2e+04
13C-2,3,4,7,8-PeCDF	3.91e+07	4.56e+02	8.6e+04	2.48e+07	4.48e+02	5.5e+04
13C-1,2,3,4,7,8-HxCDF	1.98e+07	9.40e+02	2.1e+04	3.81e+07	1.84e+03	2.1e+04
13C-1,2,3,6,7,8-HxCDF	2.17e+07	9.40e+02	2.3e+04	4.14e+07	1.84e+03	2.2e+04
13C-2,3,4,6,7,8-HxCDF	2.09e+07	9.40e+02	2.2e+04	4.02e+07	1.84e+03	2.2e+04
13C-1,2,3,7,8,9-HxCDF	1.71e+07	9.40e+02	1.8e+04	3.26e+07	1.84e+03	1.8e+04
13C-1,2,3,4,6,7,8-HpCDF	1.38e+07	3.88e+03	3.6e+03	3.08e+07	8.80e+03	3.5e+03
13C-1,2,3,4,7,8,9-HpCDF	1.02e+07	3.88e+03	2.6e+03	2.34e+07	8.80e+03	2.7e+03
13C-2,3,7,8-TCDD	1.62e+07	6.25e+03	2.6e+03	2.05e+07	1.44e+03	1.4e+04
13C-1,2,3,7,8-PeCDD	2.83e+07	4.88e+02	5.8e+04	1.80e+07	6.20e+02	2.9e+04
13C-1,2,3,4,7,8-HxCDD	2.86e+07	2.47e+03	1.2e+04	2.24e+07	1.67e+03	1.3e+04
13C-1,2,3,6,7,8-HxCDD	2.68e+07	2.47e+03	1.1e+04	2.14e+07	1.67e+03	1.3e+04
13C-1,2,3,4,6,7,8-HpCDD	2.05e+07	1.32e+03	1.6e+04	1.95e+07	1.56e+03	1.3e+04
13C-OCDD	2.17e+07	7.00e+02	3.1e+04	2.39e+07	5.12e+02	4.7e+04
13C-1,2,3,4-TCDD	1.73e+07	6.25e+03	2.8e+03	2.19e+07	1.44e+03	1.5e+04
13C-1,2,3,7,8,9-HxCDD	2.88e+07	2.47e+03	1.2e+04	2.27e+07	1.67e+03	1.4e+04
37Cl-2,3,7,8-TCDD	1.47e+07	8.32e+02	1.8e+04			

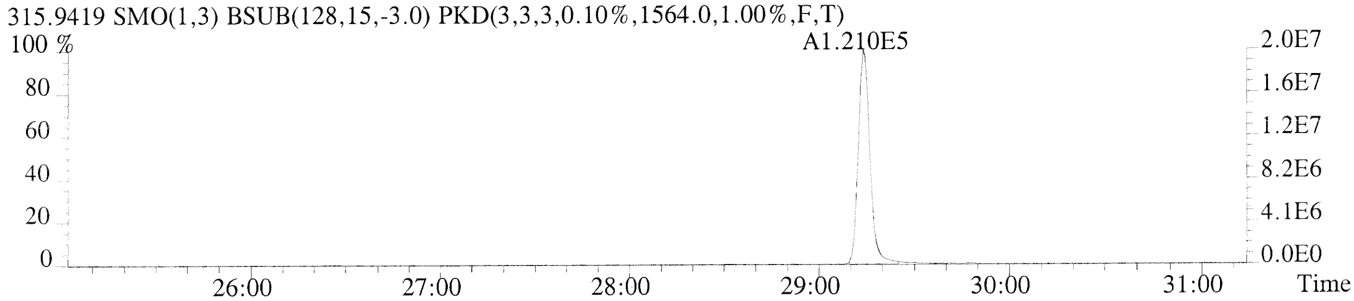
File: 7393 #1-517 Acq: 3-MAY-2012 10:13:02 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:ICAL CS4
303.9016 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,476.0,1.00%,F,T)



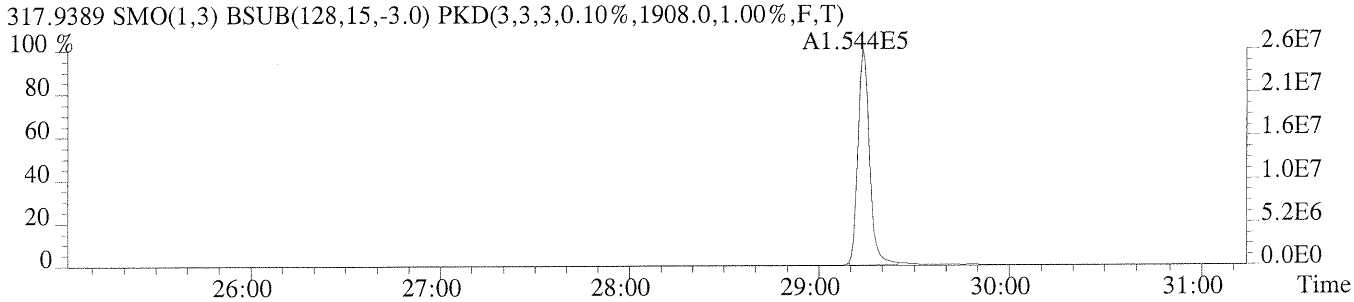
305.8987 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,612.0,1.00%,F,T)



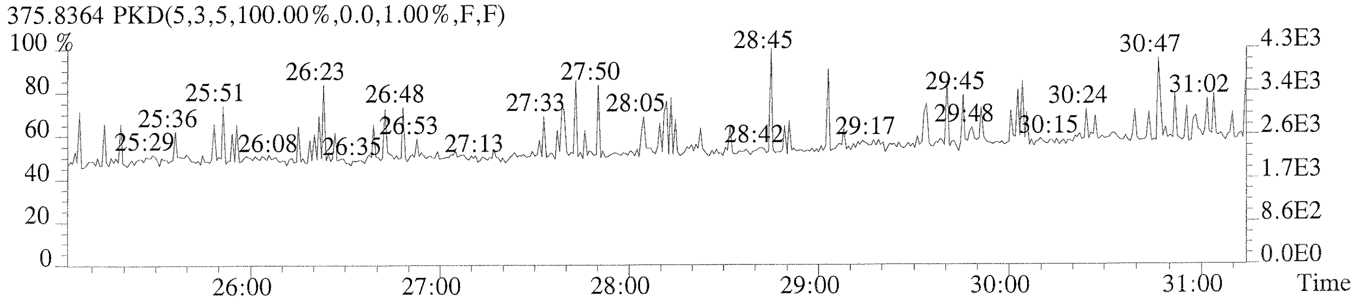
315.9419 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,1564.0,1.00%,F,T)



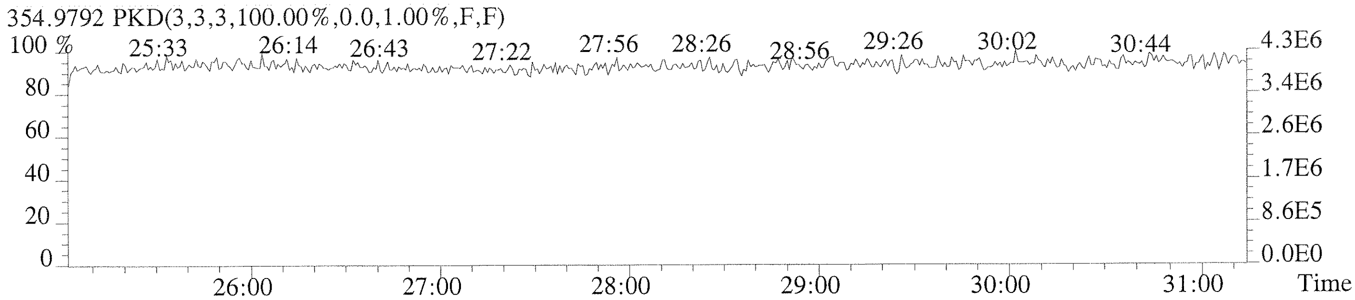
317.9389 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,1908.0,1.00%,F,T)



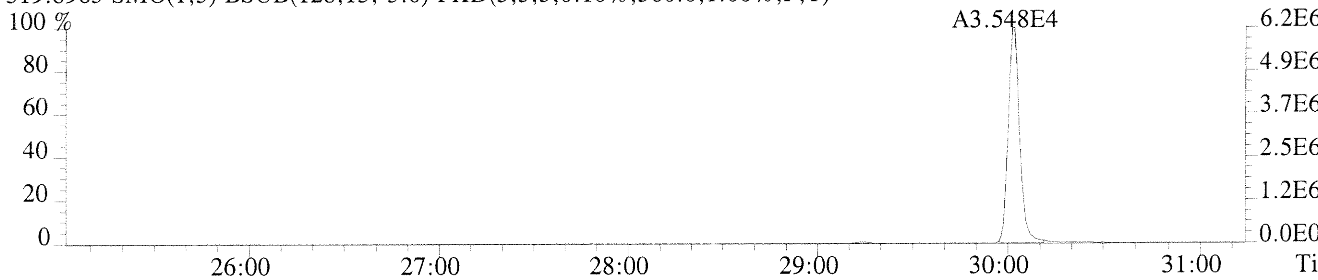
375.8364 PKD(5,3,5,100.00%,0.0,1.00%,F,F)



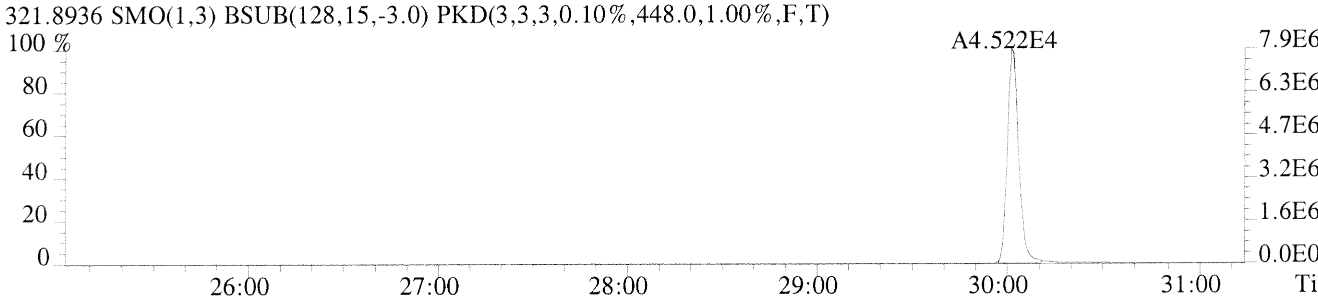
354.9792 PKD(3,3,3,100.00%,0.0,1.00%,F,F)



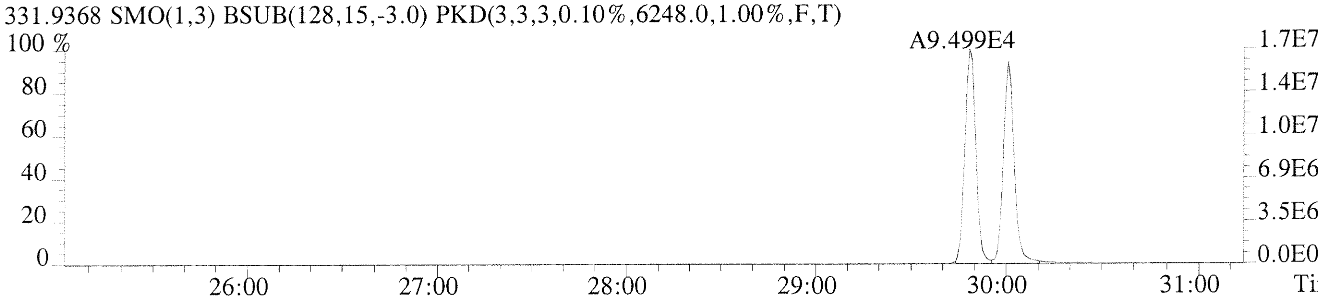
File: 7393 #1-517 Acq: 3-MAY-2012 10:13:02 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:ICAL CS4
319.8965 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,560.0,1.00%,F,T)



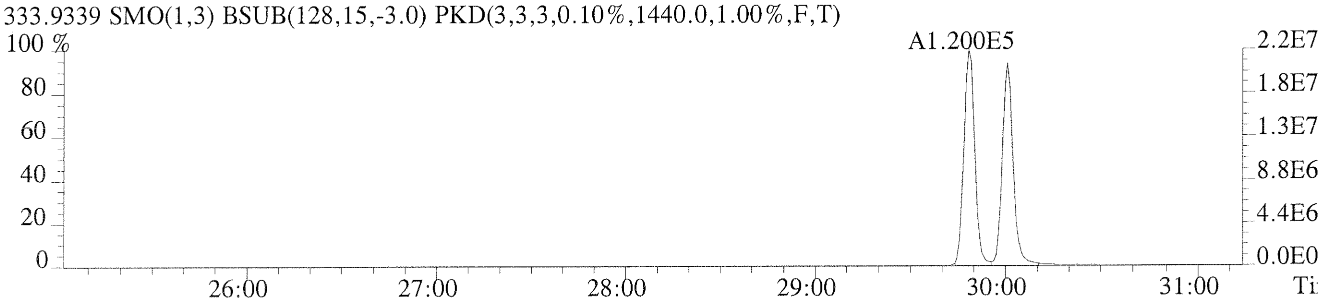
321.8936 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,448.0,1.00%,F,T)



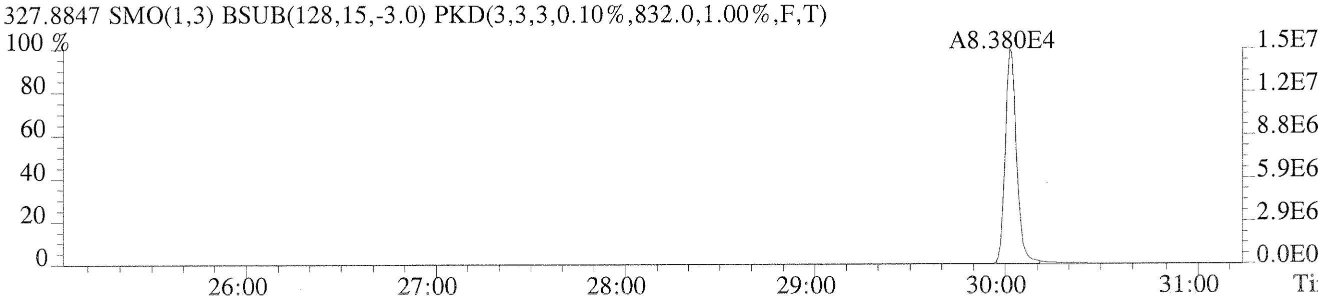
331.9368 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,6248.0,1.00%,F,T)



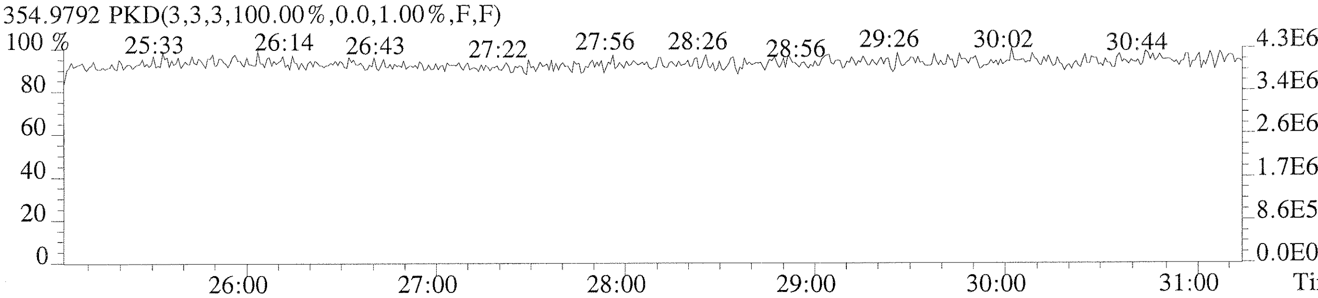
333.9339 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,1440.0,1.00%,F,T)



327.8847 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,832.0,1.00%,F,T)

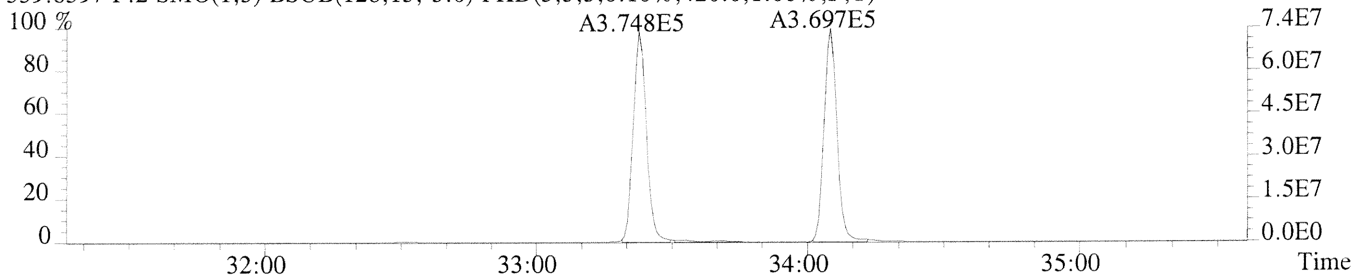


354.9792 PKD(3,3,3,100.00%,0.0,1.00%,F,F)

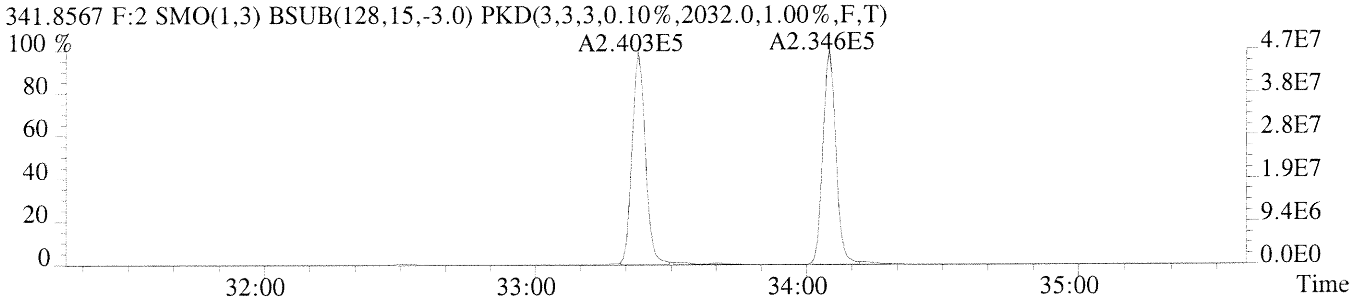


File: 7393 #1-394 Acq: 3-MAY-2012 10:13:02 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:ICAL CS4

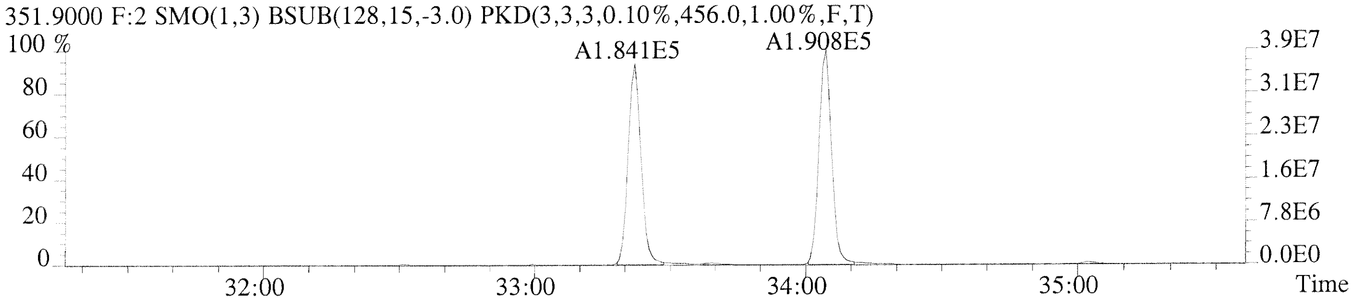
339.8597 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,420.0,1.00%,F,T)



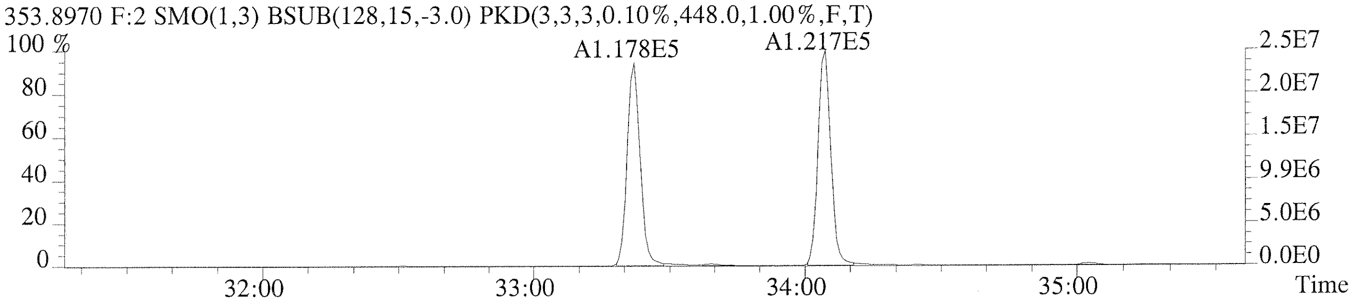
341.8567 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,2032.0,1.00%,F,T)



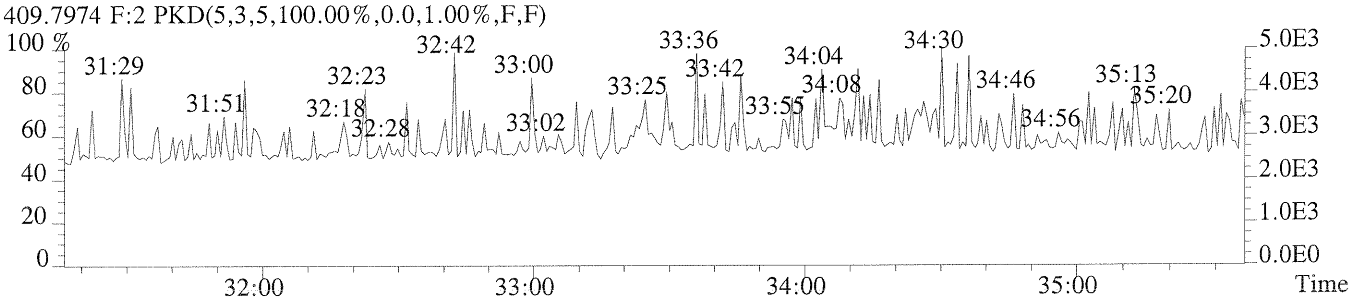
351.9000 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,456.0,1.00%,F,T)



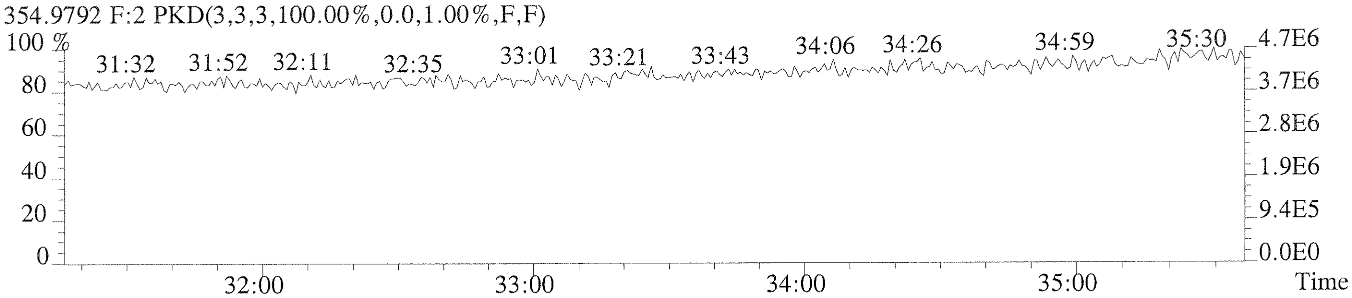
353.8970 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,448.0,1.00%,F,T)



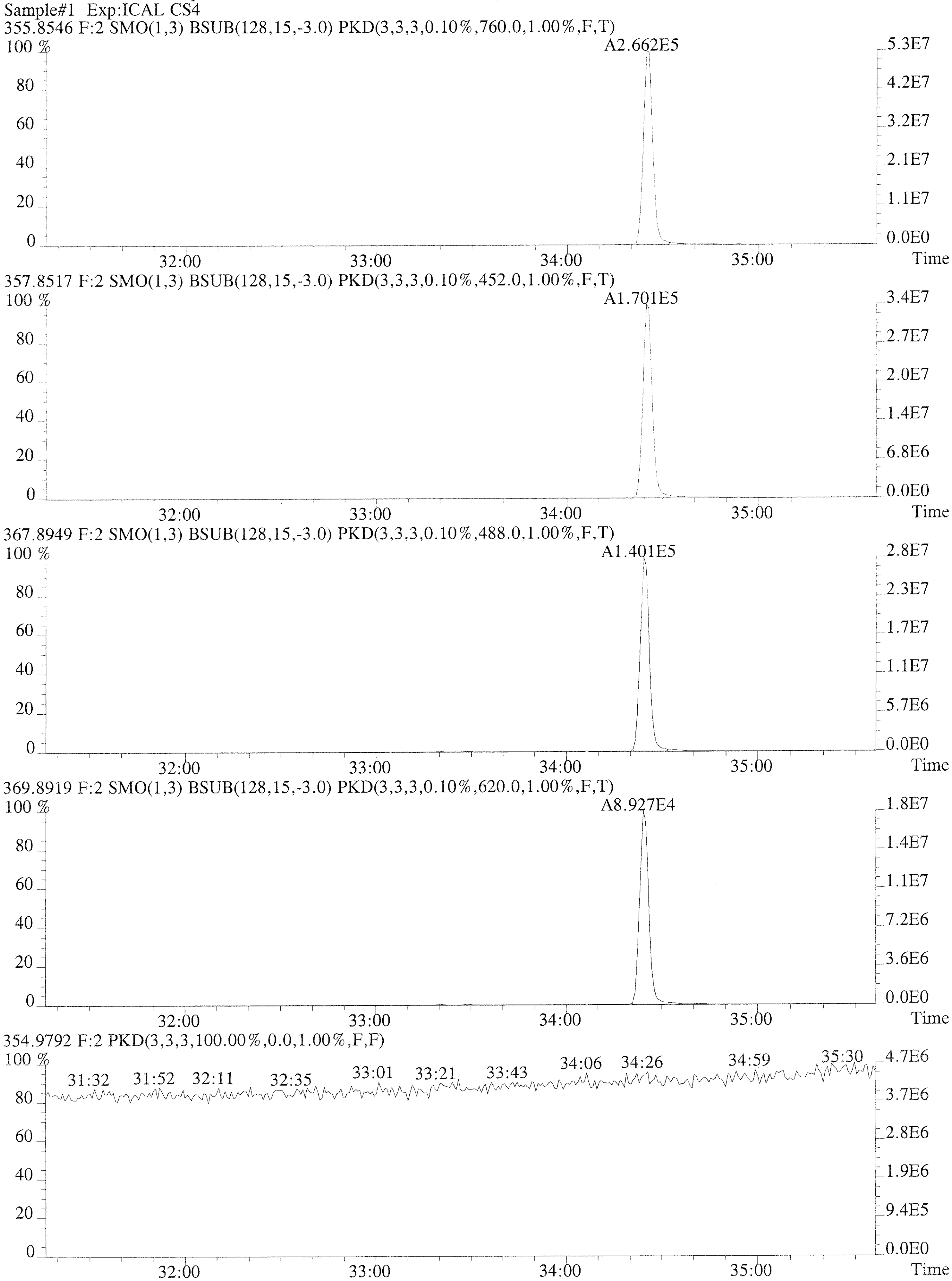
409.7974 F:2 PKD(5,3,5,100.00%,0.0,1.00%,F,F)



354.9792 F:2 PKD(3,3,3,100.00%,0.0,1.00%,F,F)

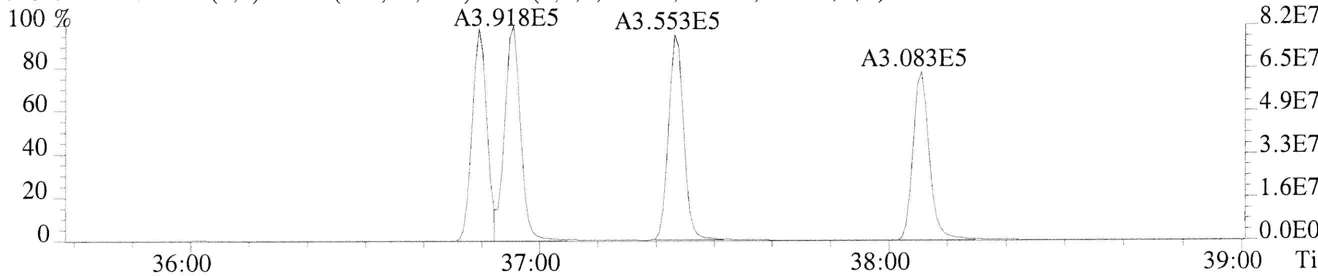


File: 7393 #1-394 Acq: 3-MAY-2012 10:13:02 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:ICAL CS4

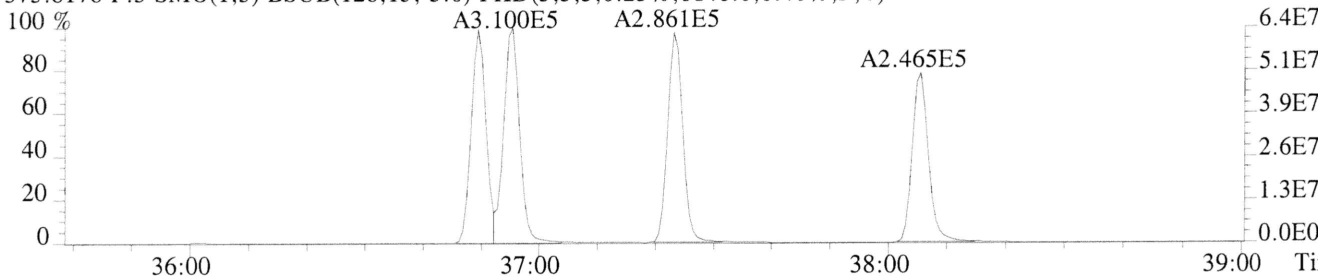


File: 7393 #1-306 Acq: 3-MAY-2012 10:13:02 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:ICAL CS4

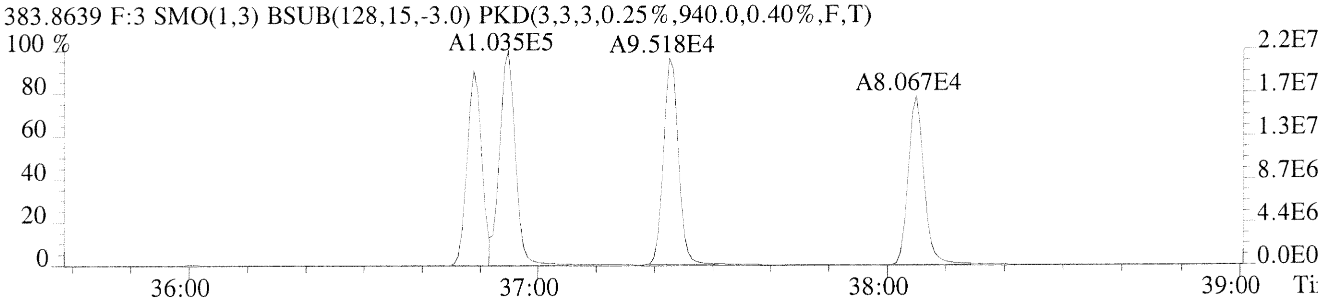
373.8208 F:3 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,2624.0,0.40%,F,T)



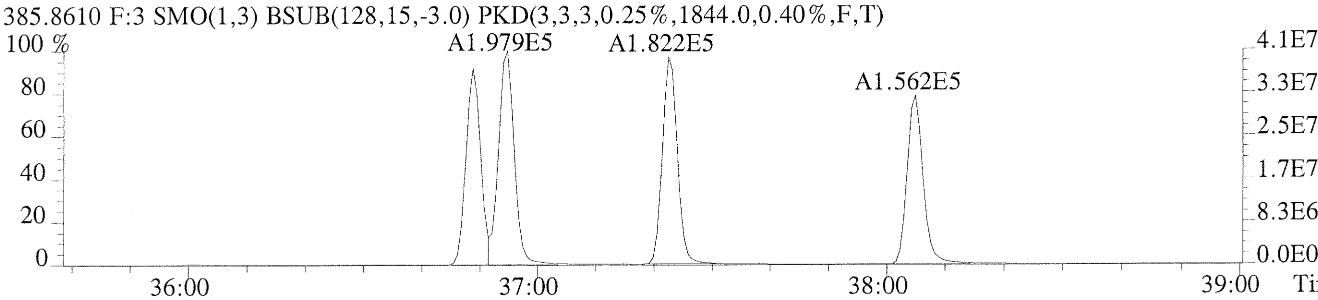
375.8178 F:3 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,8148.0,0.40%,F,T)



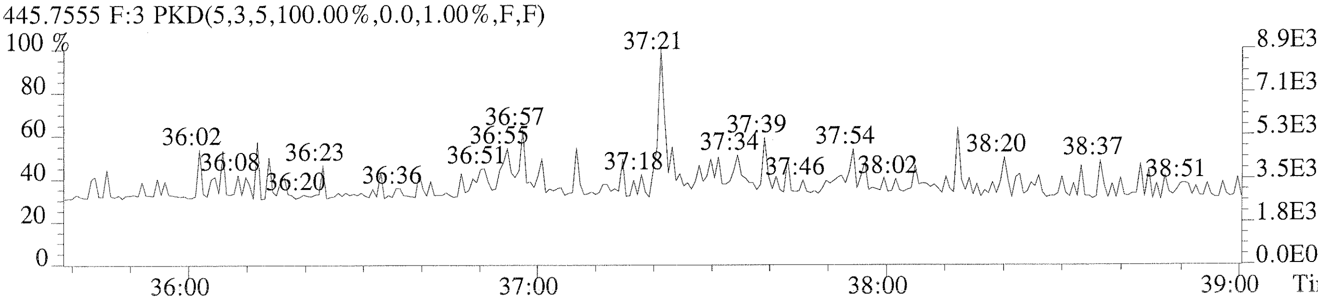
383.8639 F:3 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,940.0,0.40%,F,T)



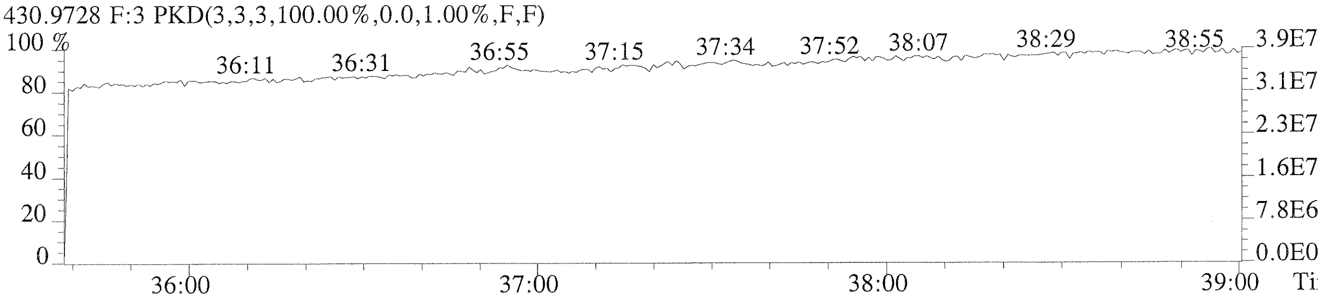
385.8610 F:3 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,1844.0,0.40%,F,T)



445.7555 F:3 PKD(5,3,5,100.00%,0.0,1.00%,F,F)

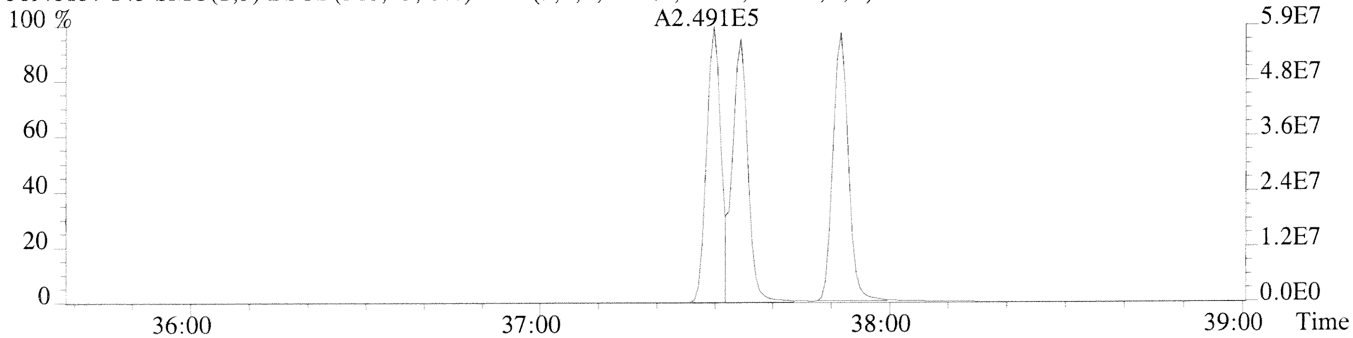


430.9728 F:3 PKD(3,3,3,100.00%,0.0,1.00%,F,F)

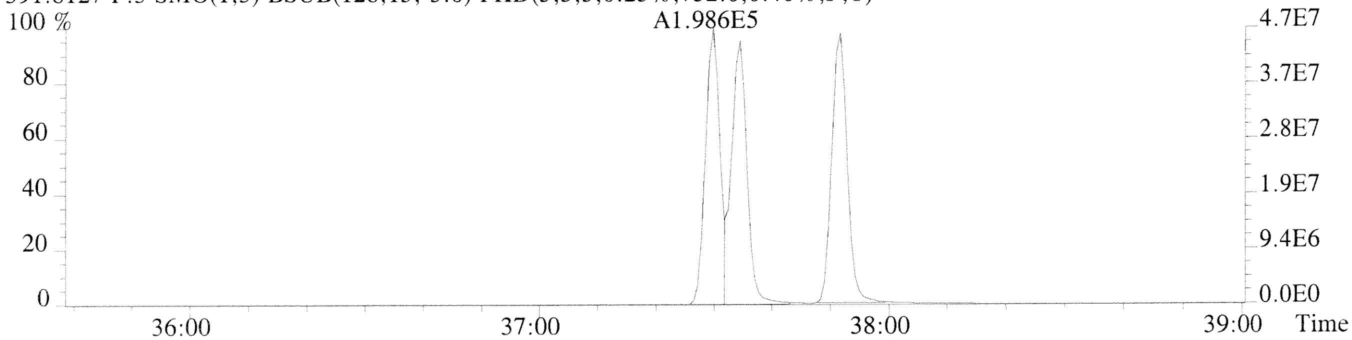


File: 7393 #1-306 Acq: 3-MAY-2012 10:13:02 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:ICAL CS4

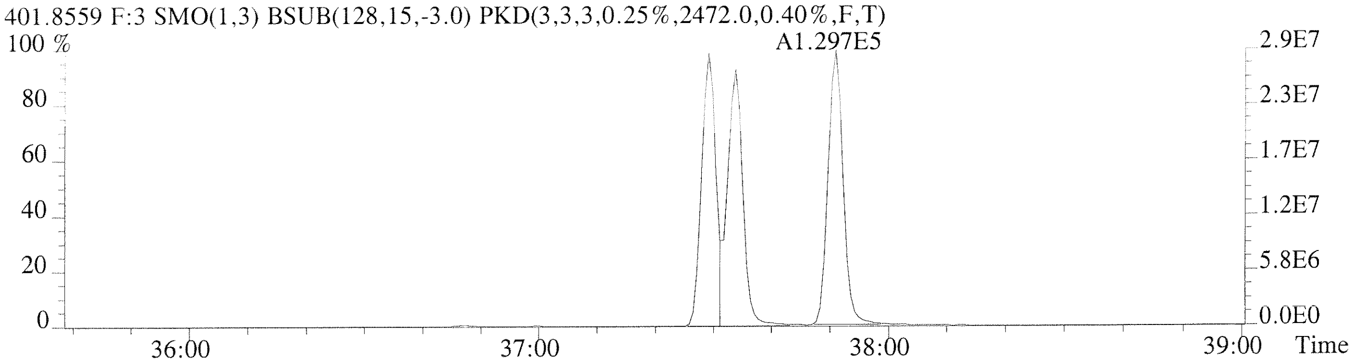
389.8157 F:3 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,676.0,0.40%,F,T)



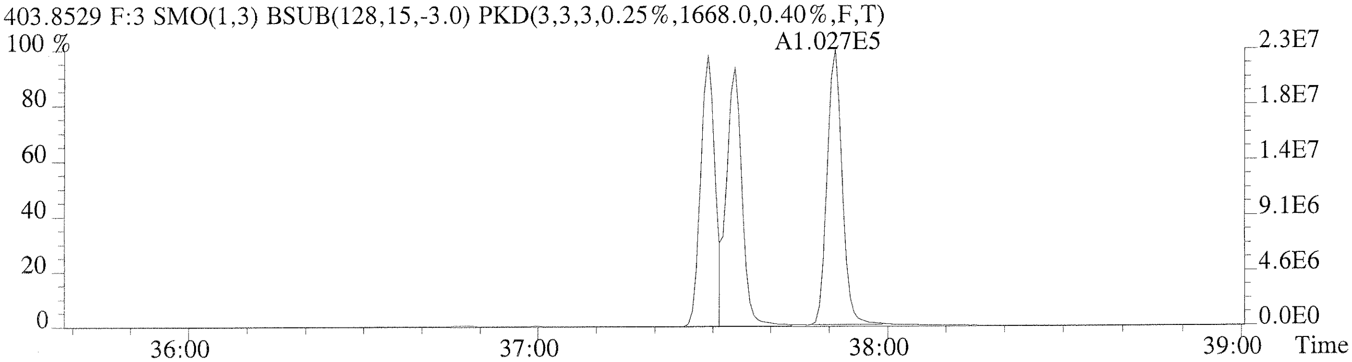
391.8127 F:3 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,752.0,0.40%,F,T)



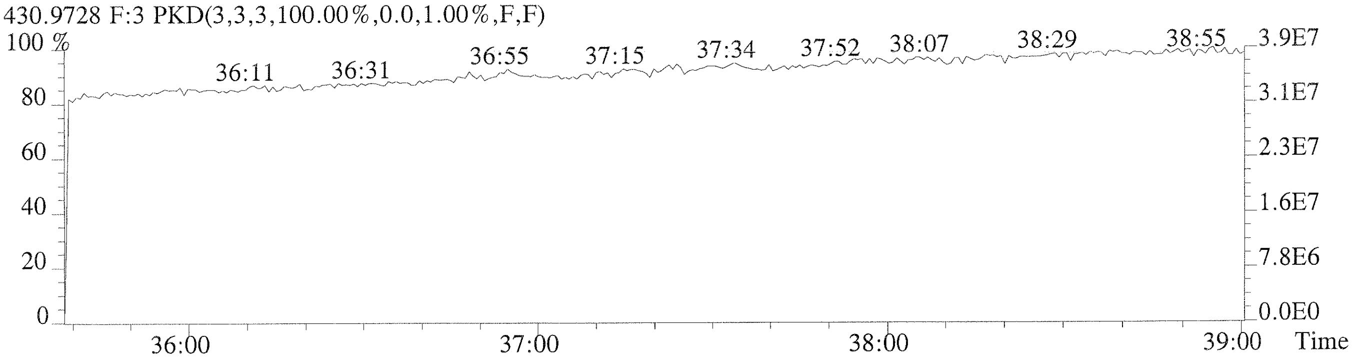
401.8559 F:3 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,2472.0,0.40%,F,T)



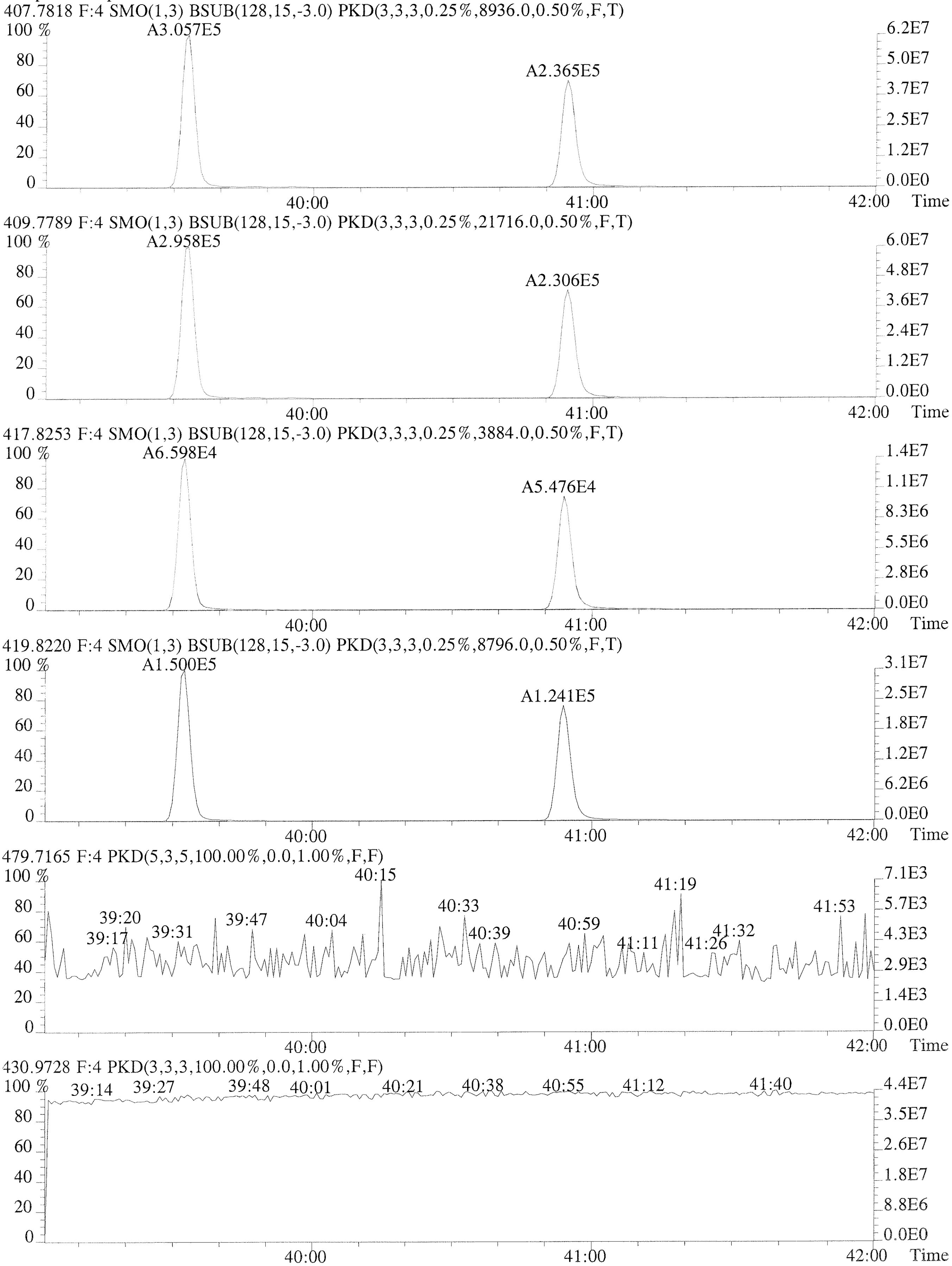
403.8529 F:3 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,1668.0,0.40%,F,T)



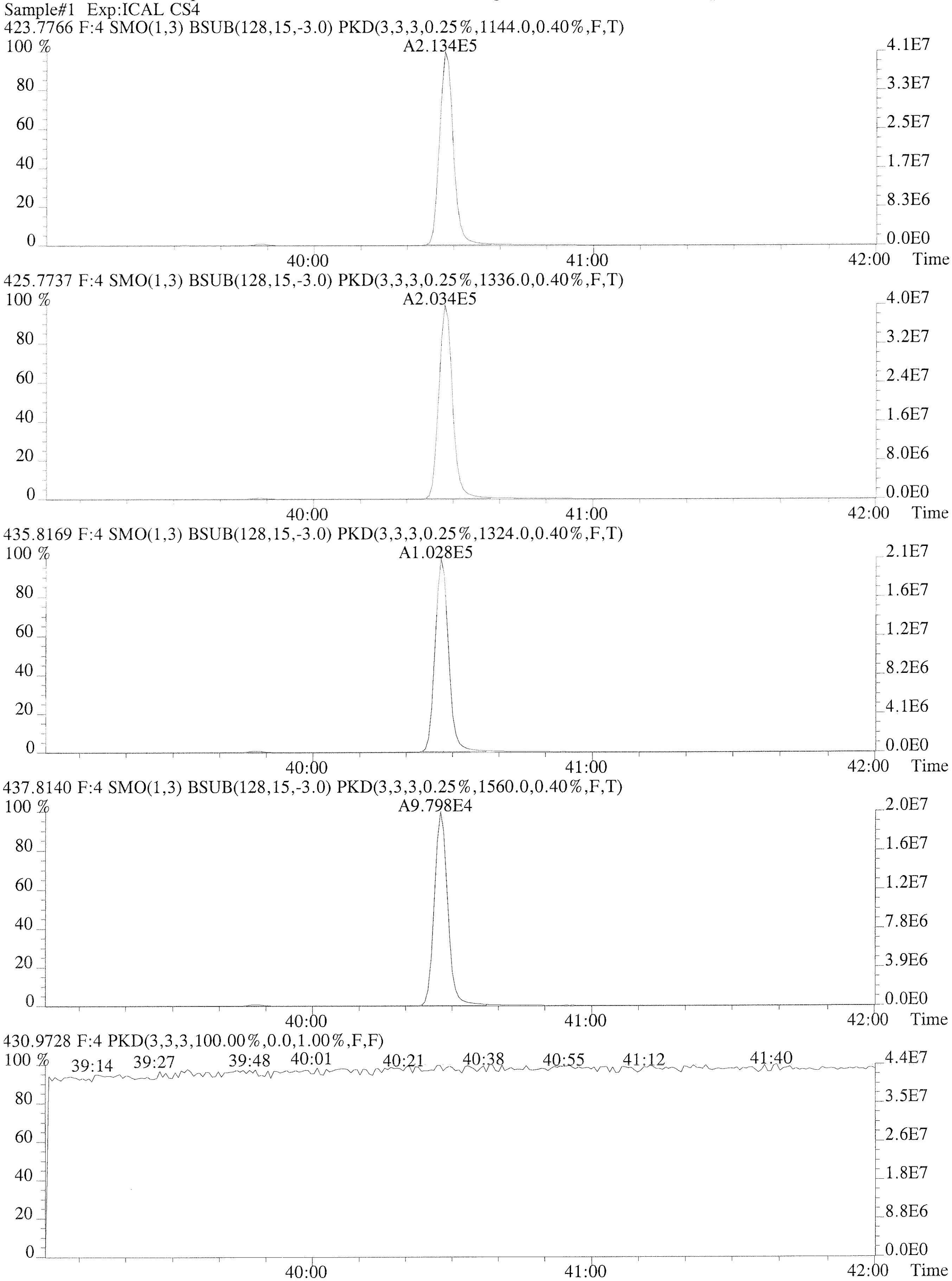
430.9728 F:3 PKD(3,3,3,100.00%,0.0,1.00%,F,F)



File: 7393 #1-269 Acq: 3-MAY-2012 10:13:02 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:ICAL CS4

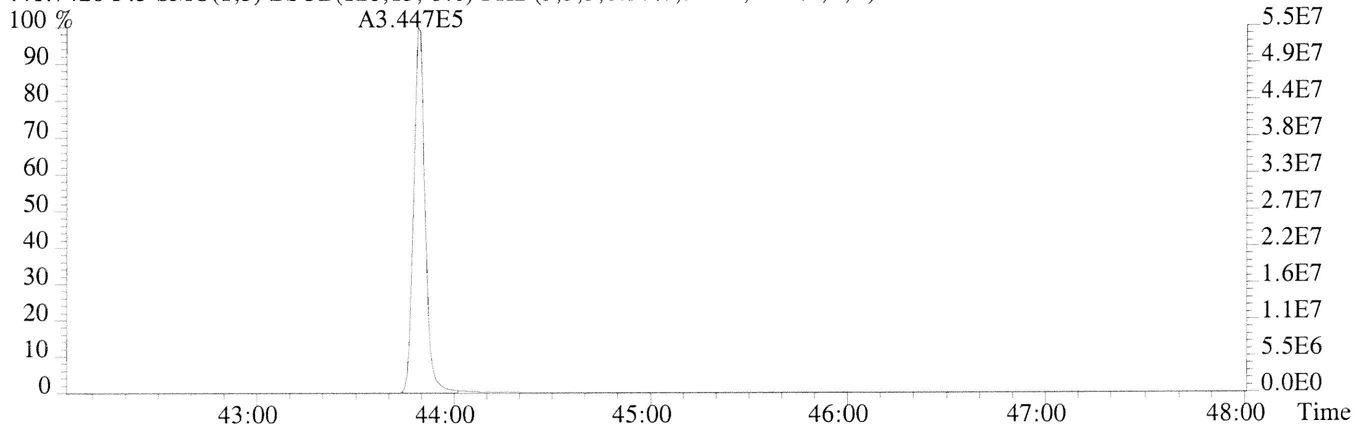


File: 7393 #1-269 Acq: 3-MAY-2012 10:13:02 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:ICAL CS4

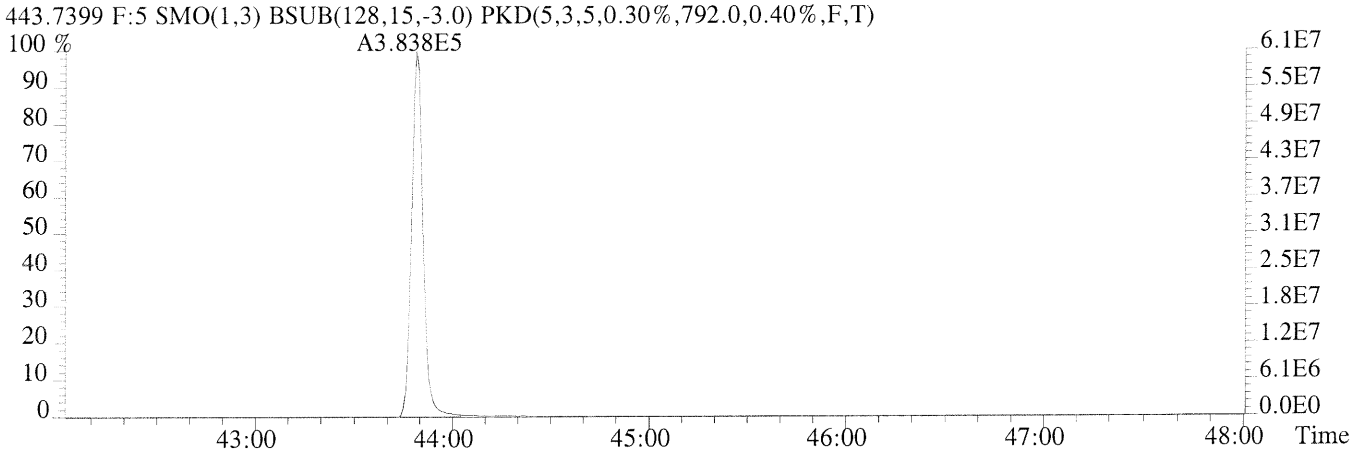


File: 7393 #1-549 Acq: 3-MAY-2012 10:13:02 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:ICAL CS4

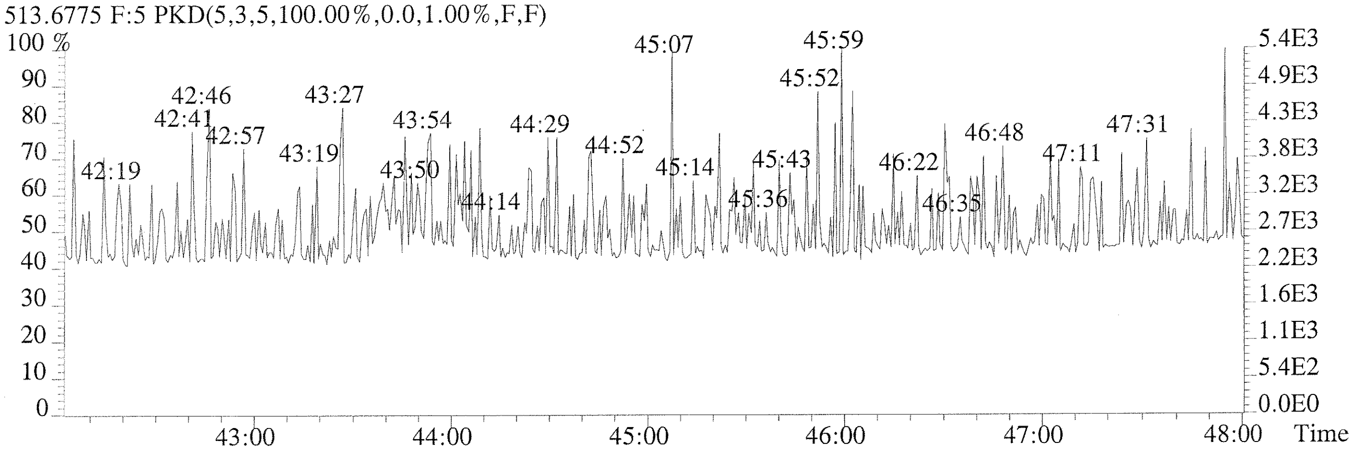
441.7428 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(5,3,5,0.30%,540.0,0.40%,F,T)



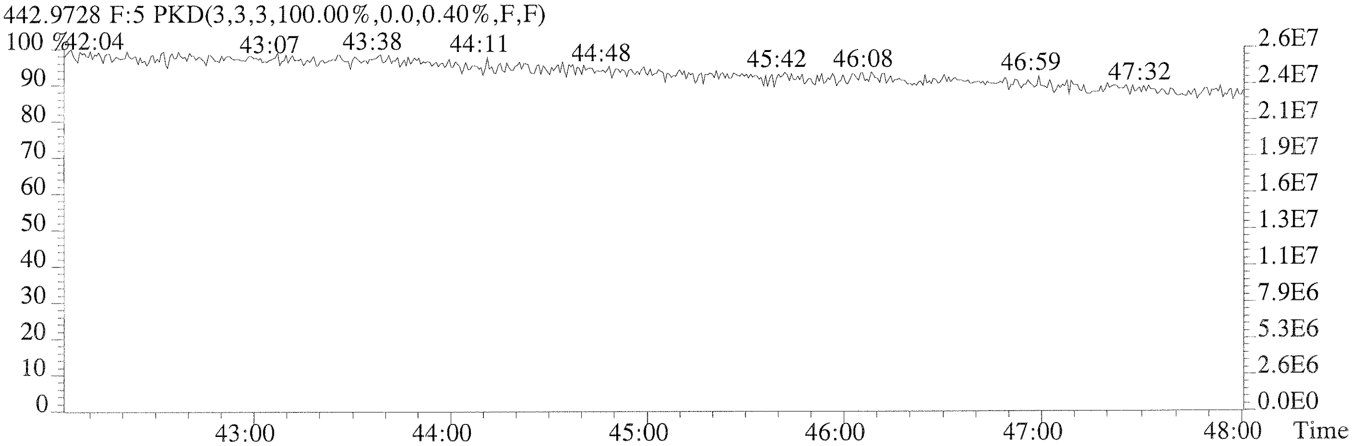
443.7399 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(5,3,5,0.30%,792.0,0.40%,F,T)



513.6775 F:5 PKD(5,3,5,100.00%,0.0,1.00%,F,F)

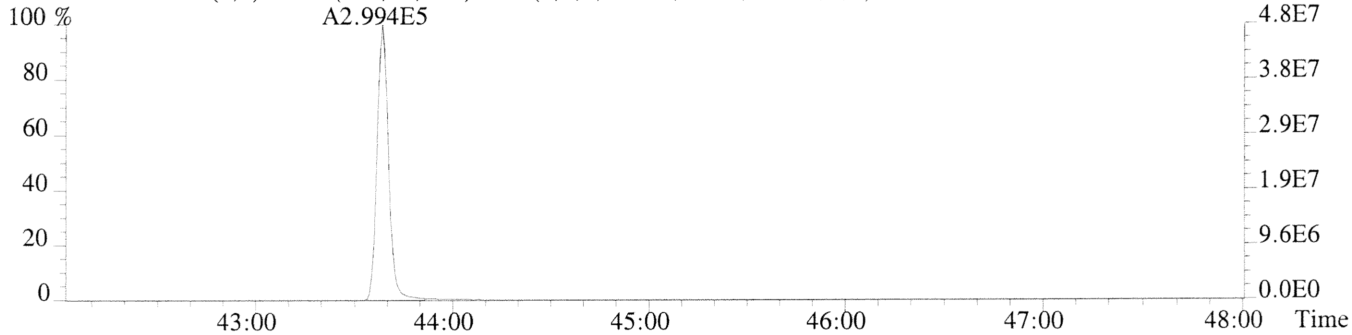


442.9728 F:5 PKD(3,3,3,100.00%,0.0,0.40%,F,F)

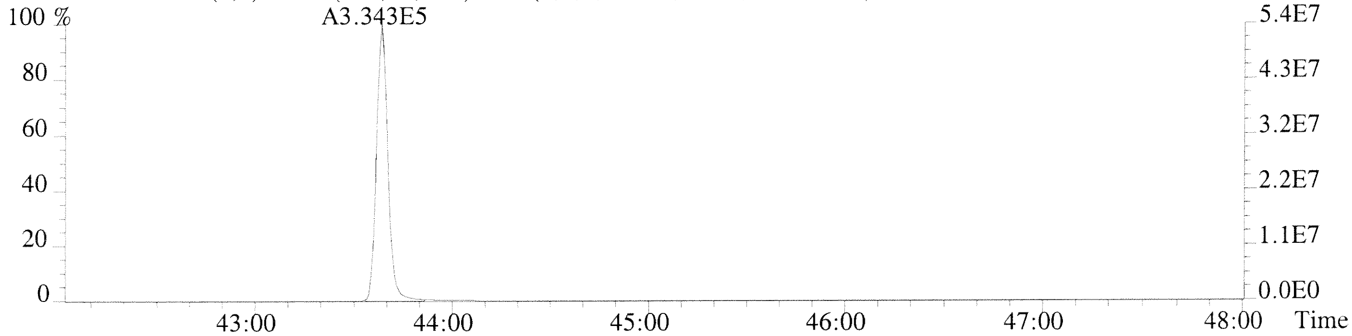


File: 7393 #1-549 Acq: 3-MAY-2012 10:13:02 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:ICAL CS4

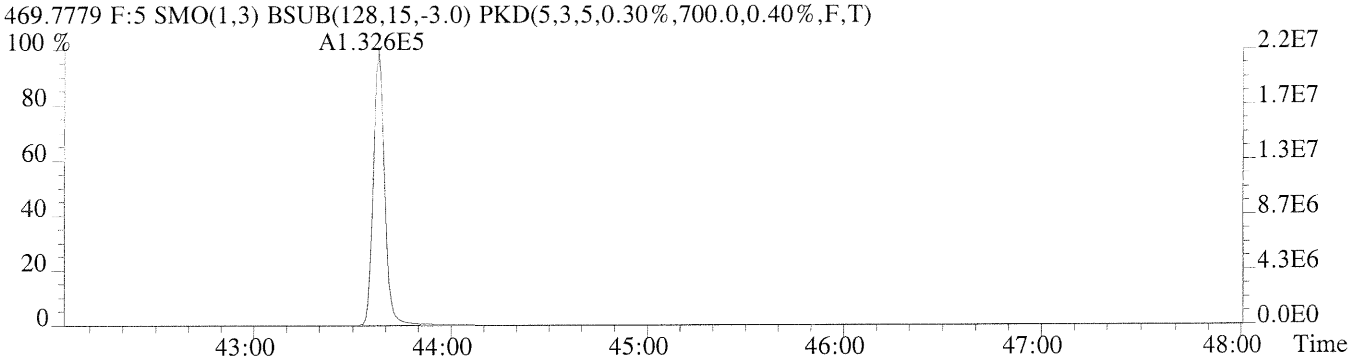
457.7377 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(5,3,5,0.30%,840.0,0.40%,F,T)



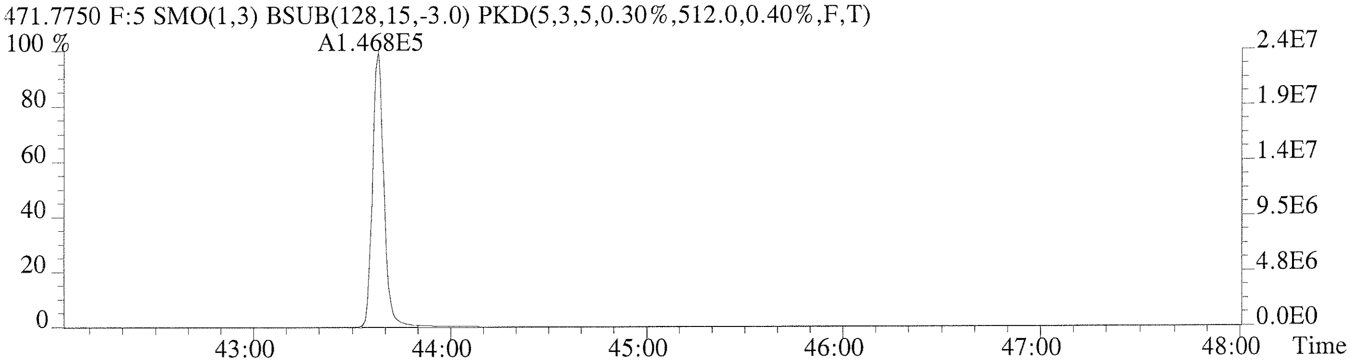
459.7348 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(5,3,5,0.30%,808.0,0.40%,F,T)



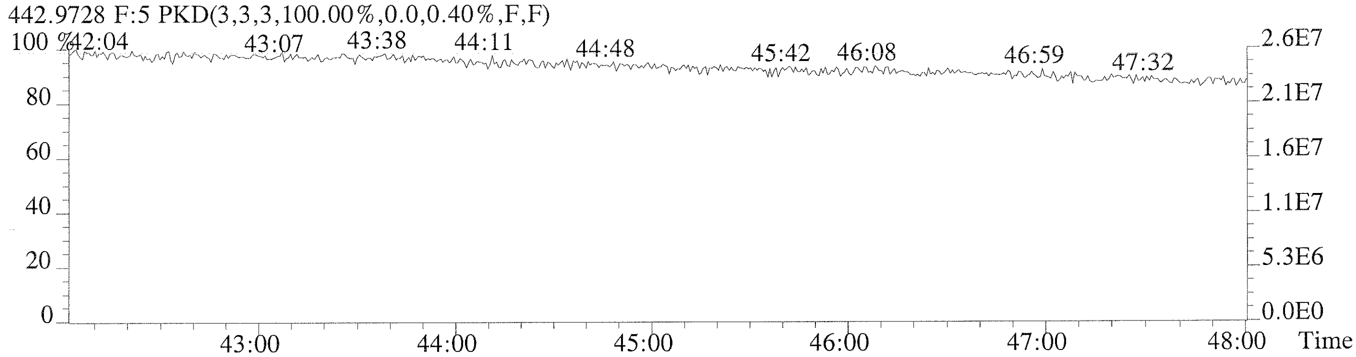
469.7779 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(5,3,5,0.30%,700.0,0.40%,F,T)



471.7750 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(5,3,5,0.30%,512.0,0.40%,F,T)



442.9728 F:5 PKD(3,3,3,100.00%,0.0,0.40%,F,F)



Sample Response Summary CLIENT ID.
ICAL CS5

#6 Filename 7394 #1 Samp: 1 Inj: 1 Acquired: 3-MAY-12 11:11:27
...essed: 3-MAY-12 11:46:53 LAB. ID: ICAL CS5

Typ	Name	RT-1	Resp 1	Resp 2	Ratio	Meet	Mod?	RRT
Unk	2,3,7,8-TCDF	29:15	1.749e+05	2.261e+05	0.77	yes	no	1.001
Unk	1,2,3,7,8-PeCDF	33:23	1.543e+06	9.877e+05	1.56	yes	no	1.000
Unk	2,3,4,7,8-PeCDF	34:05	1.454e+06	9.330e+05	1.56	yes	no	1.000
Unk	1,2,3,4,7,8-HxCDF	36:49	1.369e+06	1.093e+06	1.25	yes	no	1.000
Unk	1,2,3,6,7,8-HxCDF	36:55	1.476e+06	1.177e+06	1.25	yes	no	1.000
Unk	2,3,4,6,7,8-HxCDF	37:23	1.360e+06	1.091e+06	1.25	yes	no	1.000
Unk	1,2,3,7,8,9-HxCDF	38:05	1.204e+06	9.655e+05	1.25	yes	no	1.000
Unk	1,2,3,4,6,7,8-HpCDF	39:33	1.188e+06	1.152e+06	1.03	yes	no	1.000
Unk	1,2,3,4,7,8,9-HpCDF	40:55	9.379e+05	9.055e+05	1.04	yes	no	1.000
Unk	OCDF	43:49	1.424e+06	1.577e+06	0.90	yes	no	1.004
Unk	2,3,7,8-TCDD	30:01	1.425e+05	1.839e+05	0.77	yes	no	1.000
Unk	1,2,3,7,8-PeCDD	34:25	1.044e+06	6.654e+05	1.57	yes	no	1.000
Unk	1,2,3,4,7,8-HxCDD	37:30	9.651e+05	7.756e+05	1.24	yes	no	1.000
Unk	1,2,3,6,7,8-HxCDD	37:34	9.907e+05	7.905e+05	1.25	yes	no	1.000
Unk	1,2,3,7,8,9-HxCDD	37:51	1.022e+06	8.127e+05	1.26	yes	no	1.008
Unk	1,2,3,4,6,7,8-HpCDD	40:28	8.285e+05	8.024e+05	1.03	yes	no	1.000
Unk	OCDD	43:38	1.202e+06	1.344e+06	0.89	yes	no	1.000
IS	13C-2,3,7,8-TCDF	29:14	9.202e+04	1.183e+05	0.78	yes	no	0.981
IS	13C-1,2,3,7,8-PeCDF	33:22	1.475e+05	9.464e+04	1.56	yes	no	1.120
IS	13C-2,3,4,7,8-PeCDF	34:04	1.484e+05	9.509e+04	1.56	yes	no	1.143
IS	13C-1,2,3,4,7,8-HxCDF	36:49	6.706e+04	1.290e+05	0.52	yes	no	0.973
IS	13C-1,2,3,6,7,8-HxCDF	36:55	7.795e+04	1.486e+05	0.52	yes	no	0.975
IS	13C-2,3,4,6,7,8-HxCDF	37:22	7.187e+04	1.381e+05	0.52	yes	no	0.987
IS	13C-1,2,3,7,8,9-HxCDF	38:05	6.121e+04	1.214e+05	0.50	yes	no	1.006
IS	13C-1,2,3,4,6,7,8-HpCDF	39:33	5.097e+04	1.154e+05	0.44	yes	no	1.045
IS	13C-1,2,3,4,7,8,9-HpCDF	40:54	4.219e+04	9.583e+04	0.44	yes	no	1.081
IS	13C-2,3,7,8-TCDD	30:01	7.153e+04	9.105e+04	0.79	yes	no	1.007
IS	13C-1,2,3,7,8-PeCDD	34:24	1.075e+05	6.939e+04	1.55	yes	no	1.154
IS	13C-1,2,3,4,7,8-HxCDD	37:29	9.022e+04	7.187e+04	1.26	yes	no	0.990
IS	13C-1,2,3,6,7,8-HxCDD	37:34	9.374e+04	7.468e+04	1.26	yes	no	0.993
IS	13C-1,2,3,4,6,7,8-HpCDD	40:27	8.044e+04	7.560e+04	1.06	yes	no	1.069
IS	13C-OCDD	43:38	1.055e+05	1.169e+05	0.90	yes	no	1.153
S/RT	13C-1,2,3,4-TCDD	29:48	6.882e+04	8.859e+04	0.78	yes	no	*
S/RT	13C-1,2,3,7,8,9-HxCDD	37:51	1.009e+05	8.058e+04	1.25	yes	no	*
C/Up	37Cl-2,3,7,8-TCDD	30:01	3.388e+05				no	1.007

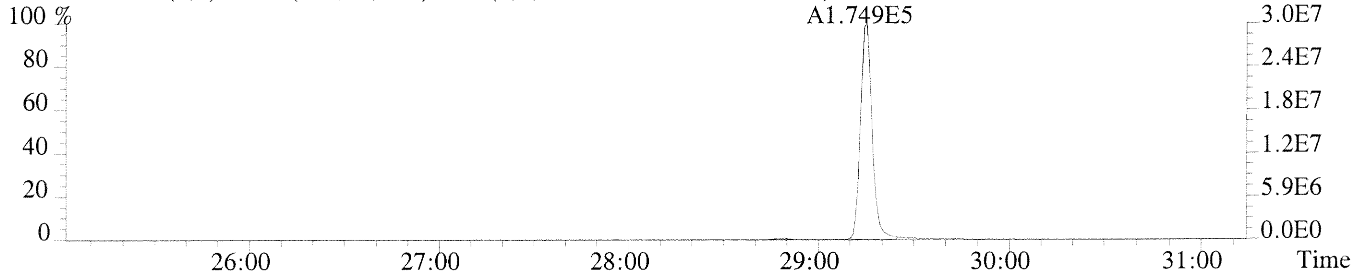
Signal/Noise Height Ratio Summary CLIENT ID.
ICAL CS5

#6 Filename 7394 Samp: 1 Inj: 1 Acquired: 3-MAY-12 11:11:27
Processed: 3-MAY-12 11:46:531 LAB. ID: ICAL CS5

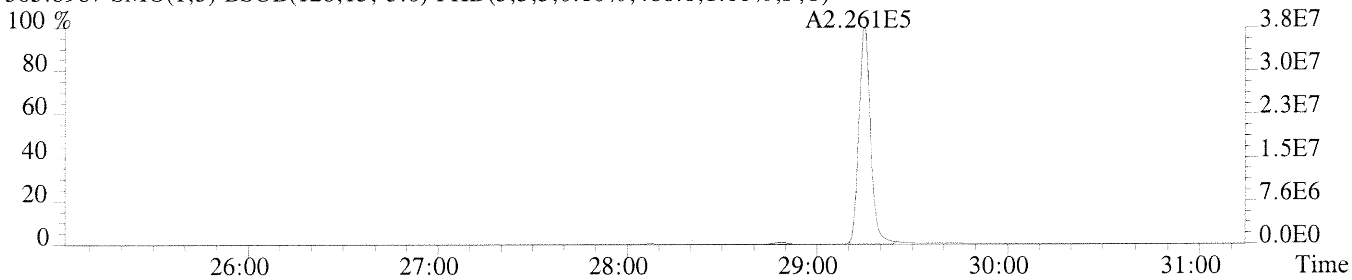
Name	Signal 1	Noise 1	S/N Rat.1	Signal 2	Noise 2	S/N Rat.2
2,3,7,8-TCDF	2.96e+07	2.32e+02	1.3e+05	3.80e+07	4.88e+02	7.8e+04
1,2,3,7,8-PeCDF	3.23e+08	6.16e+02	5.2e+05	2.06e+08	7.76e+02	2.7e+05
2,3,4,7,8-PeCDF	3.07e+08	6.16e+02	5.0e+05	1.96e+08	7.76e+02	2.5e+05
1,2,3,4,7,8-HxCDF	3.19e+08	2.03e+03	1.6e+05	2.54e+08	4.31e+03	5.9e+04
1,2,3,6,7,8-HxCDF	3.21e+08	2.03e+03	1.6e+05	2.53e+08	4.31e+03	5.9e+04
2,3,4,6,7,8-HxCDF	3.11e+08	2.03e+03	1.5e+05	2.50e+08	4.31e+03	5.8e+04
1,2,3,7,8,9-HxCDF	2.58e+08	2.03e+03	1.3e+05	2.08e+08	4.31e+03	4.8e+04
1,2,3,4,6,7,8-HpCDF	2.47e+08	1.65e+04	1.5e+04	2.42e+08	2.36e+04	1.0e+04
1,2,3,4,7,8,9-HpCDF	1.80e+08	1.65e+04	1.1e+04	1.73e+08	2.36e+04	7.3e+03
OCDF	2.33e+08	7.32e+02	3.2e+05	2.60e+08	6.56e+02	4.0e+05
2,3,7,8-TCDD	2.62e+07	2.88e+02	9.1e+04	3.36e+07	4.60e+02	7.3e+04
1,2,3,7,8-PeCDD	2.22e+08	4.92e+02	4.5e+05	1.42e+08	6.40e+02	2.2e+05
1,2,3,4,7,8-HxCDD	2.31e+08	5.88e+02	3.9e+05	1.84e+08	7.48e+02	2.5e+05
1,2,3,6,7,8-HxCDD	2.18e+08	5.88e+02	3.7e+05	1.73e+08	7.48e+02	2.3e+05
1,2,3,7,8,9-HxCDD	2.26e+08	5.88e+02	3.8e+05	1.83e+08	7.48e+02	2.4e+05
1,2,3,4,6,7,8-HpCDD	1.67e+08	2.52e+03	6.6e+04	1.61e+08	7.24e+02	2.2e+05
OCDD	2.02e+08	6.12e+02	3.3e+05	2.27e+08	9.04e+02	2.5e+05
13C-2,3,7,8-TCDF	1.63e+07	1.25e+03	1.3e+04	2.08e+07	1.67e+03	1.2e+04
13C-1,2,3,7,8-PeCDF	3.12e+07	9.60e+01	3.2e+05	1.99e+07	5.96e+02	3.3e+04
13C-2,3,4,7,8-PeCDF	3.16e+07	9.60e+01	3.3e+05	2.02e+07	5.96e+02	3.4e+04
13C-1,2,3,4,7,8-HxCDF	1.57e+07	1.18e+03	1.3e+04	2.99e+07	7.68e+02	3.9e+04
13C-1,2,3,6,7,8-HxCDF	1.72e+07	1.18e+03	1.5e+04	3.24e+07	7.68e+02	4.2e+04
13C-2,3,4,6,7,8-HxCDF	1.64e+07	1.18e+03	1.4e+04	3.16e+07	7.68e+02	4.1e+04
13C-1,2,3,7,8,9-HxCDF	1.32e+07	1.18e+03	1.1e+04	2.61e+07	7.68e+02	3.4e+04
13C-1,2,3,4,6,7,8-HpCDF	1.07e+07	2.24e+03	4.8e+03	2.41e+07	3.67e+03	6.6e+03
13C-1,2,3,4,7,8,9-HpCDF	8.11e+06	2.24e+03	3.6e+03	1.85e+07	3.67e+03	5.0e+03
13C-2,3,7,8-TCDD	1.33e+07	5.30e+03	2.5e+03	1.68e+07	1.35e+03	1.2e+04
13C-1,2,3,7,8-PeCDD	2.30e+07	5.68e+02	4.0e+04	1.50e+07	3.28e+02	4.6e+04
13C-1,2,3,4,7,8-HxCDD	2.18e+07	1.88e+03	1.2e+04	1.72e+07	1.47e+03	1.2e+04
13C-1,2,3,6,7,8-HxCDD	2.06e+07	1.88e+03	1.1e+04	1.64e+07	1.47e+03	1.1e+04
13C-1,2,3,4,6,7,8-HpCDD	1.64e+07	2.18e+03	7.5e+03	1.55e+07	8.92e+02	1.7e+04
13C-OCDD	1.78e+07	4.12e+02	4.3e+04	1.96e+07	3.72e+02	5.3e+04
13C-1,2,3,4-TCDD	1.24e+07	5.30e+03	2.3e+03	1.60e+07	1.35e+03	1.2e+04
13C-1,2,3,7,8,9-HxCDD	2.27e+07	1.88e+03	1.2e+04	1.79e+07	1.47e+03	1.2e+04
37Cl-2,3,7,8-TCDD	6.20e+07	1.04e+03	6.0e+04			

File: 7394 #1-517 Acq: 3-MAY-2012 11:11:27 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:ICAL CS5

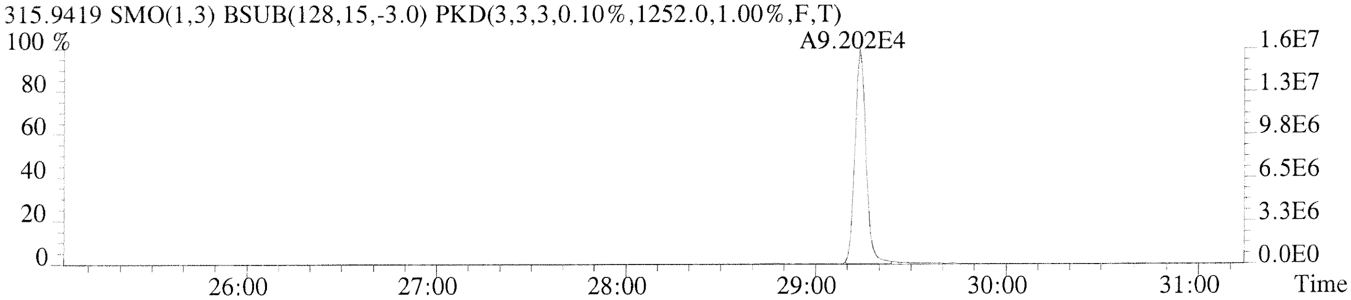
303.9016 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,232.0,1.00%,F,T)



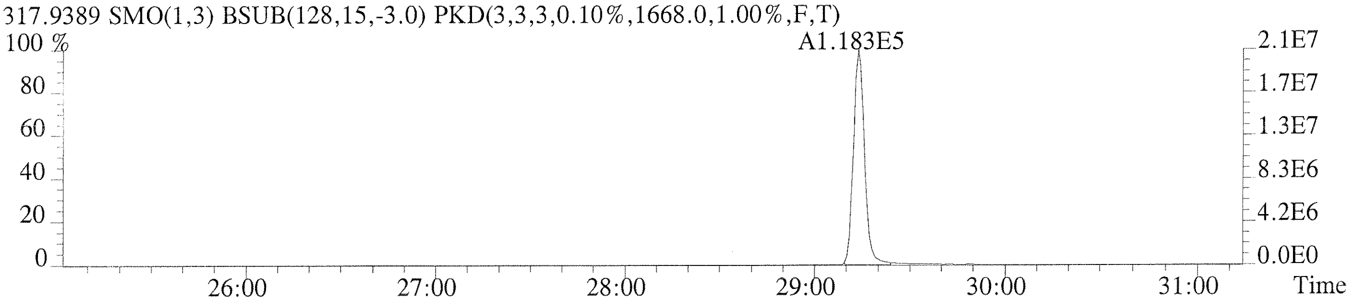
305.8987 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,488.0,1.00%,F,T)



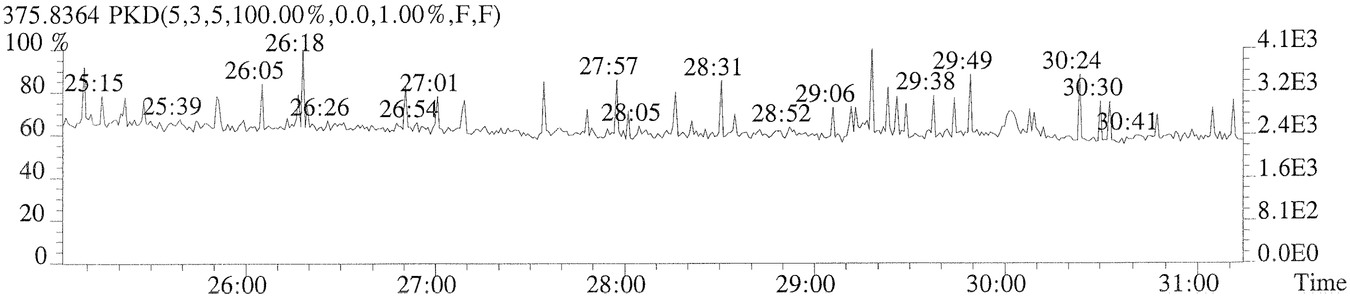
315.9419 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,1252.0,1.00%,F,T)



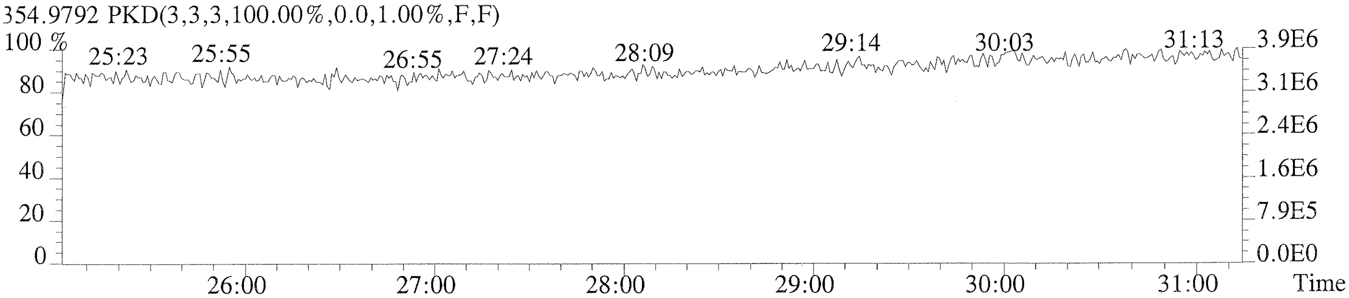
317.9389 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,1668.0,1.00%,F,T)



375.8364 PKD(5,3,5,100.00%,0.0,1.00%,F,F)

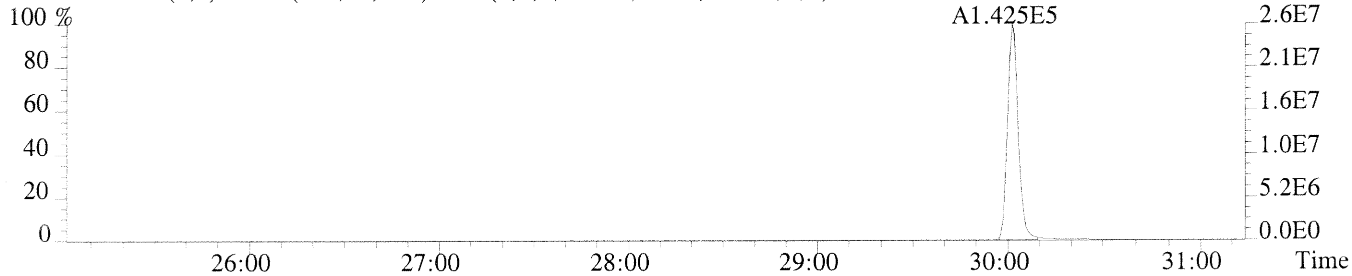


354.9792 PKD(3,3,3,100.00%,0.0,1.00%,F,F)

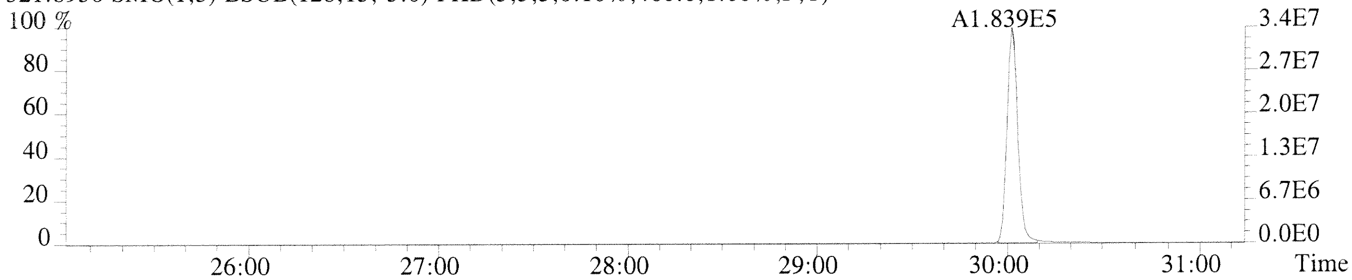


File: 7394 #1-517 Acq: 3-MAY-2012 11:11:27 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:ICAL CS5

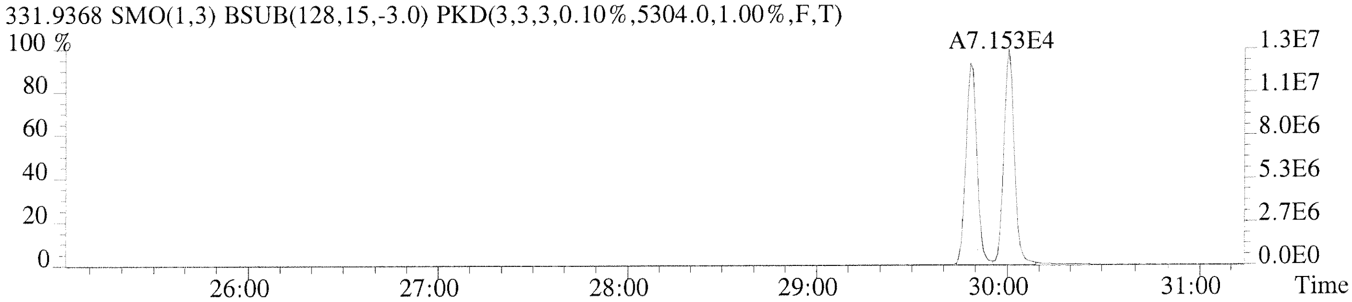
319.8965 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,288.0,1.00%,F,T)



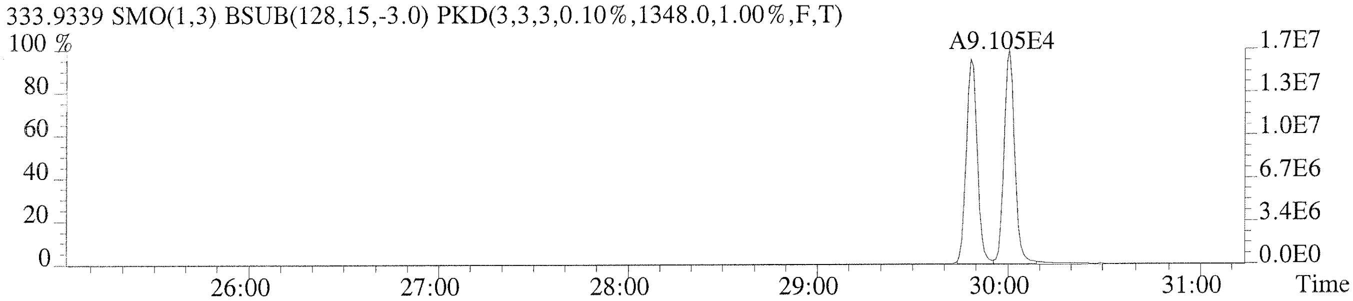
321.8936 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,460.0,1.00%,F,T)



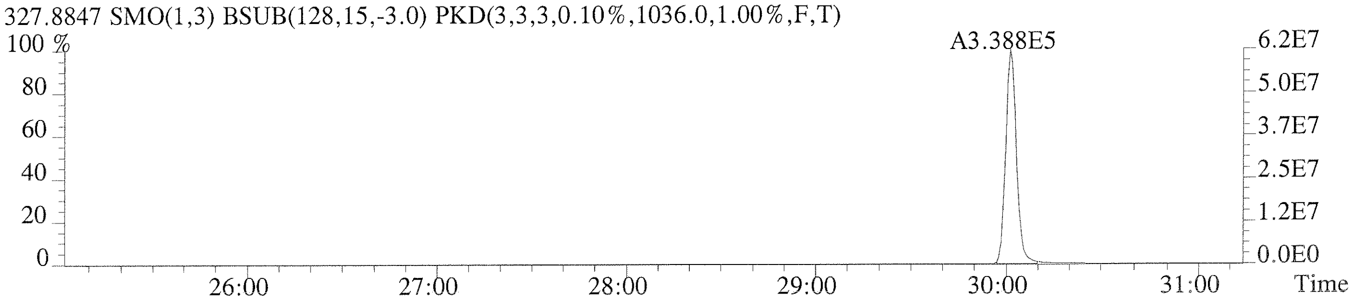
331.9368 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,5304.0,1.00%,F,T)



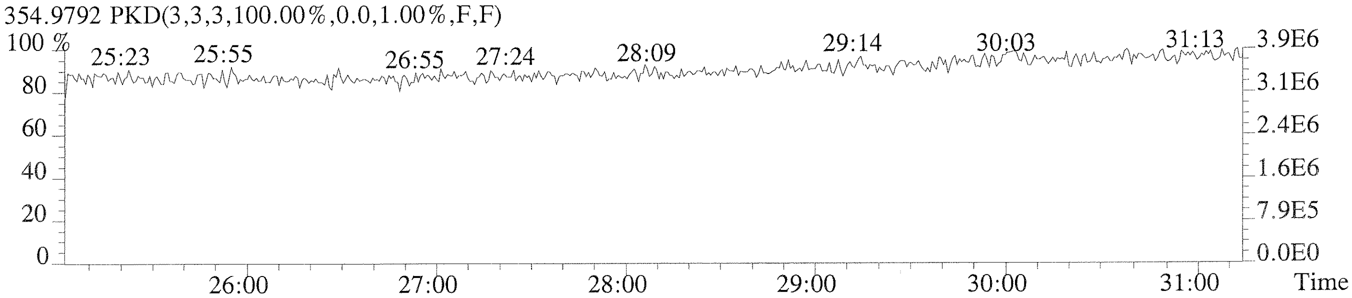
333.9339 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,1348.0,1.00%,F,T)



327.8847 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,1036.0,1.00%,F,T)

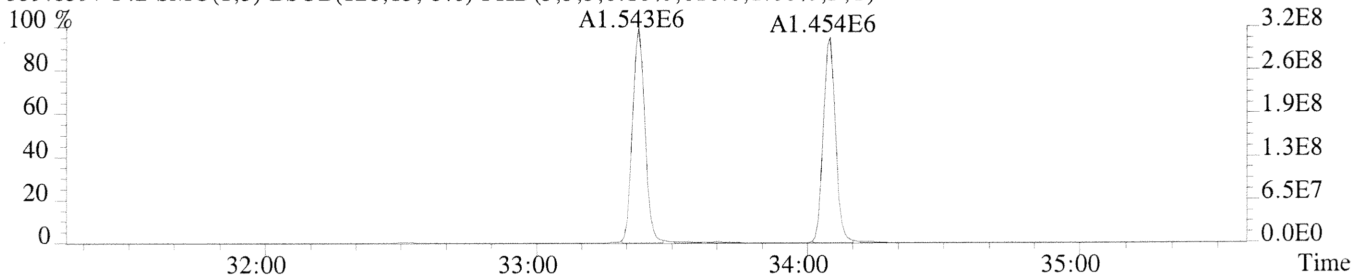


354.9792 PKD(3,3,3,100.00%,0.0,1.00%,F,F)

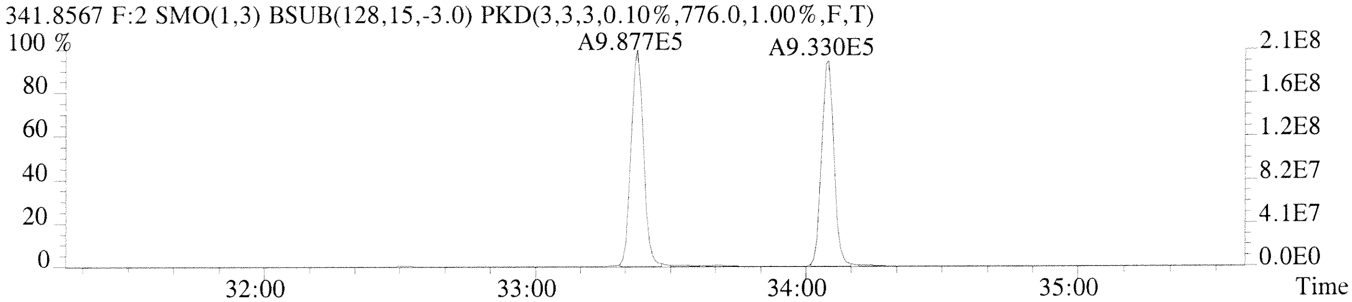


File 7394 #1-394 Acq: 3-MAY-2012 11:11:27 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:ICAL CS5

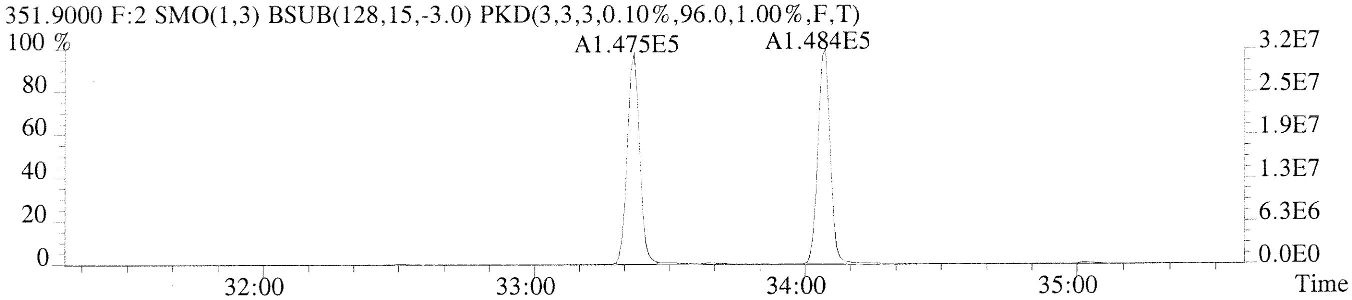
339.8597 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,616.0,1.00%,F,T)



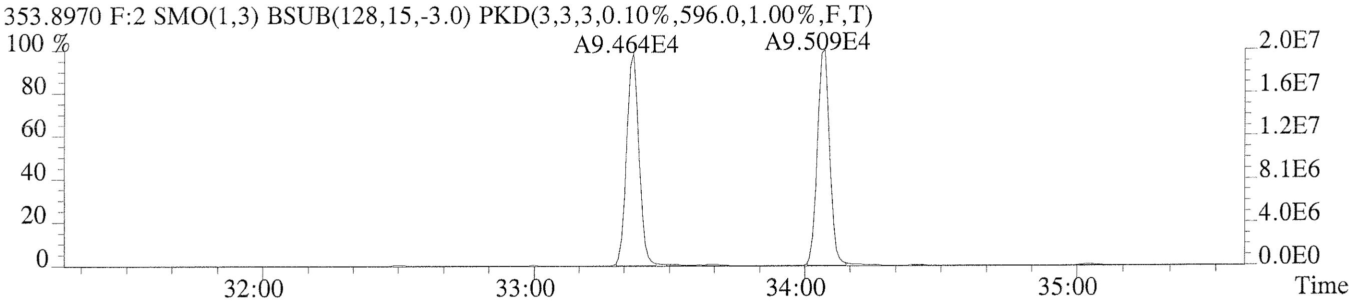
341.8567 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,776.0,1.00%,F,T)



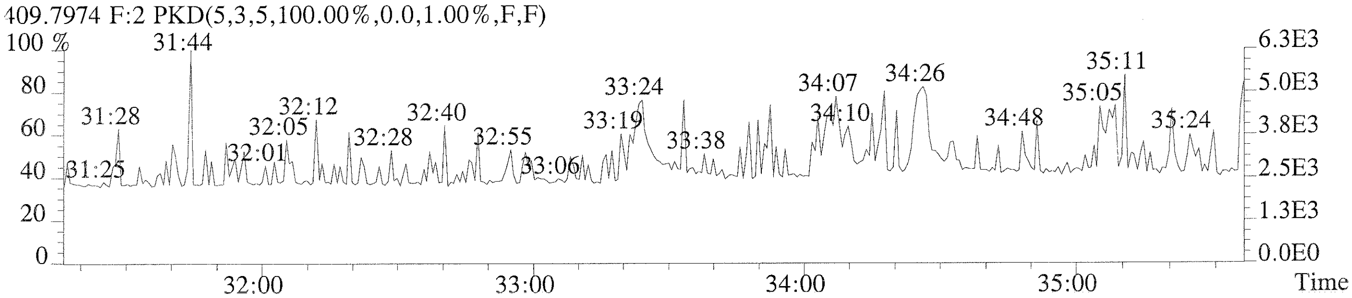
351.9000 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,96.0,1.00%,F,T)



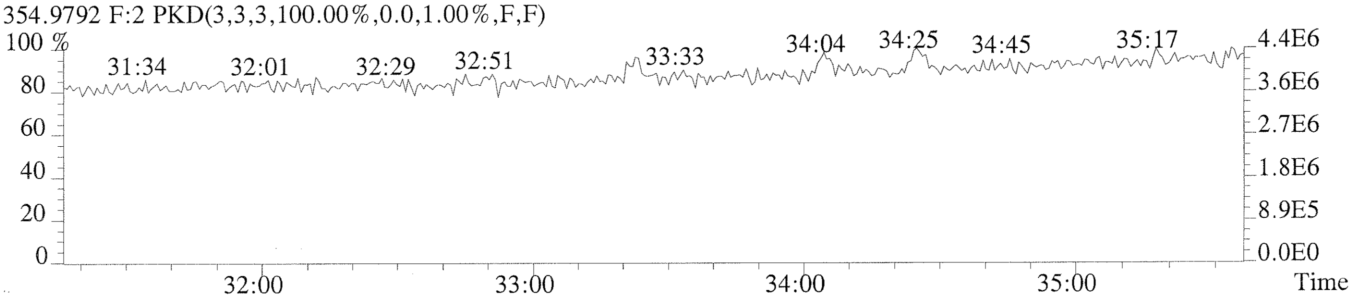
353.8970 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,596.0,1.00%,F,T)



409.7974 F:2 PKD(5,3,5,100.00%,0.0,1.00%,F,F)

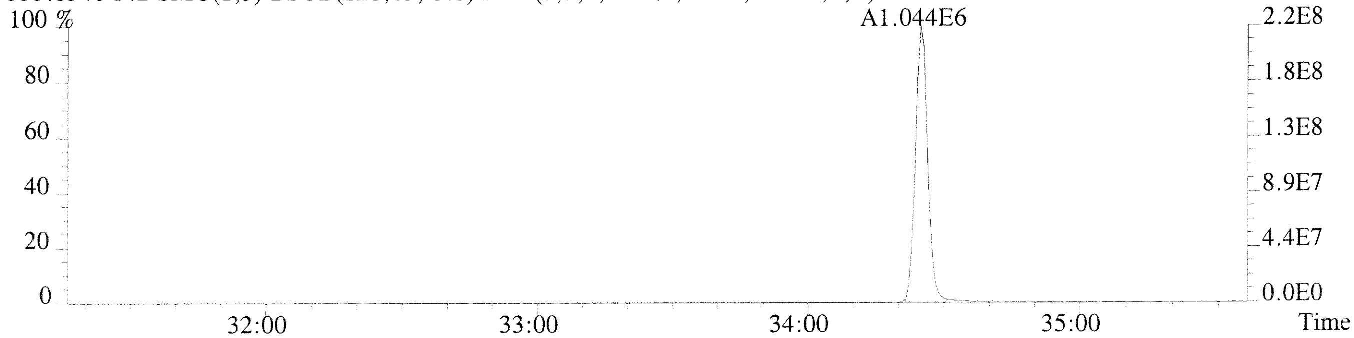


354.9792 F:2 PKD(3,3,3,100.00%,0.0,1.00%,F,F)

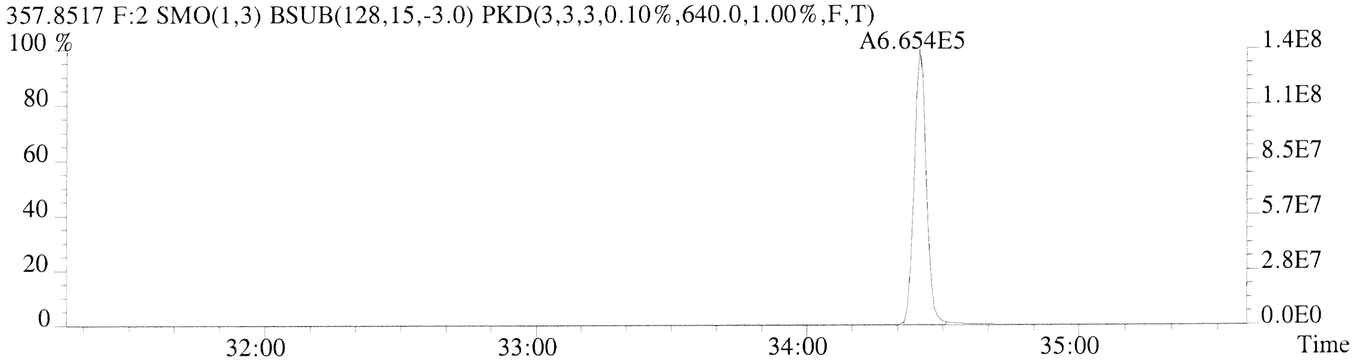


File: 7394 #1-394 Acq: 3-MAY-2012 11:11:27 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:ICAL CS5

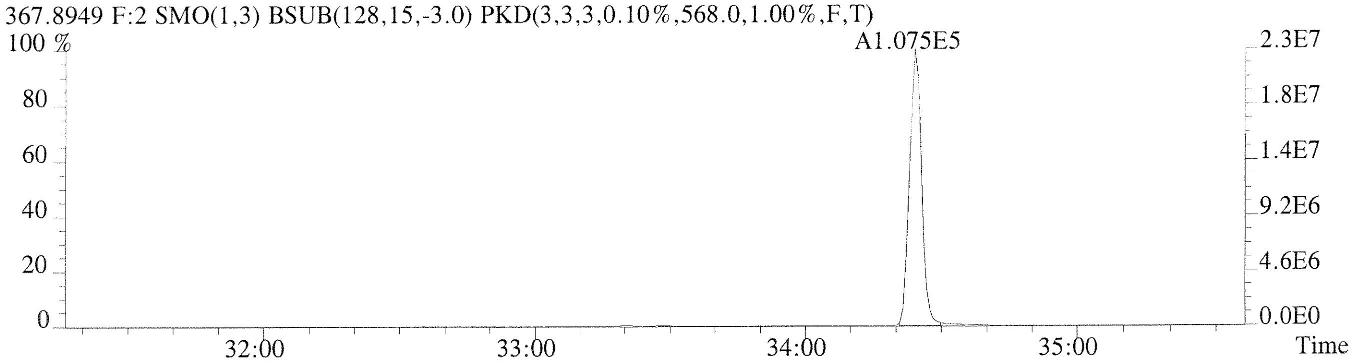
355.8546 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,492.0,1.00%,F,T)



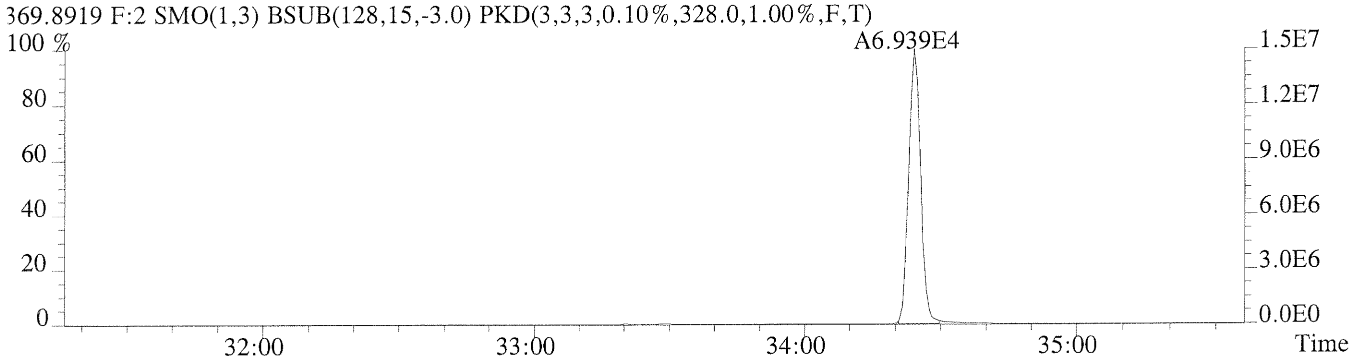
357.8517 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,640.0,1.00%,F,T)



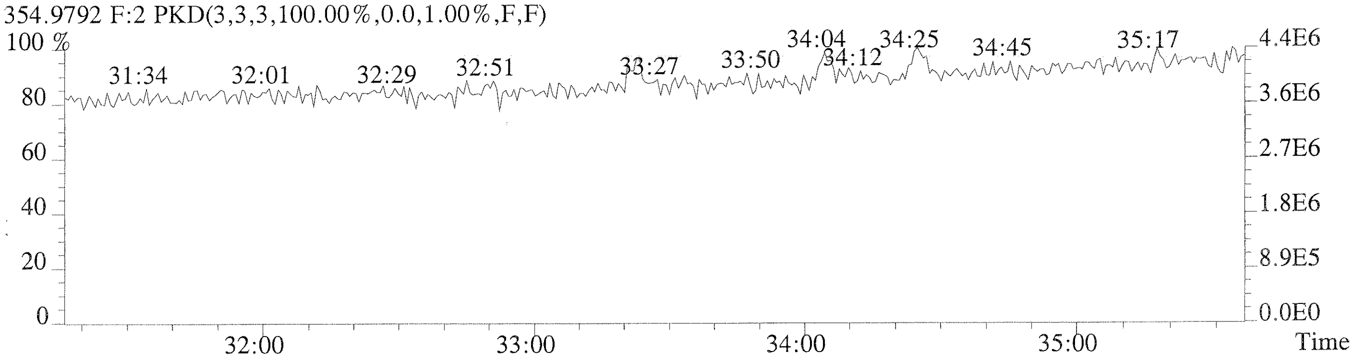
367.8949 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,568.0,1.00%,F,T)



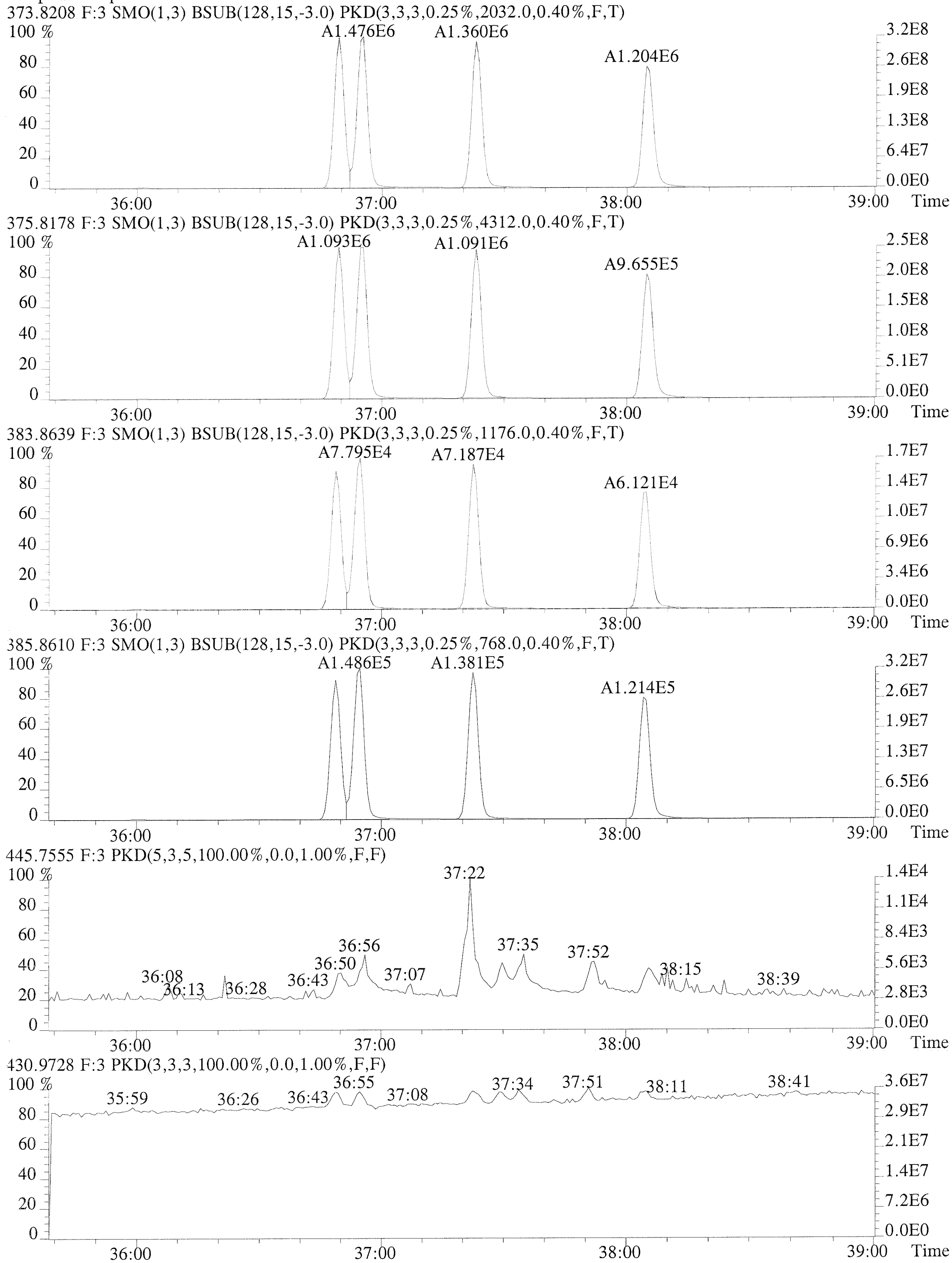
369.8919 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,328.0,1.00%,F,T)



354.9792 F:2 PKD(3,3,3,100.00%,0.0,1.00%,F,F)

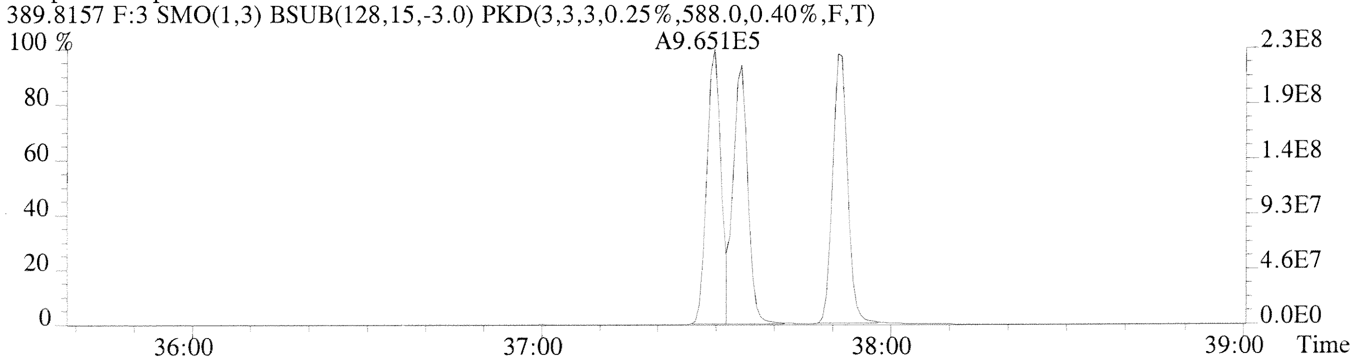


File: 7394 #1-306 Acq: 3-MAY-2012 11:11:27 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:ICAL CS5

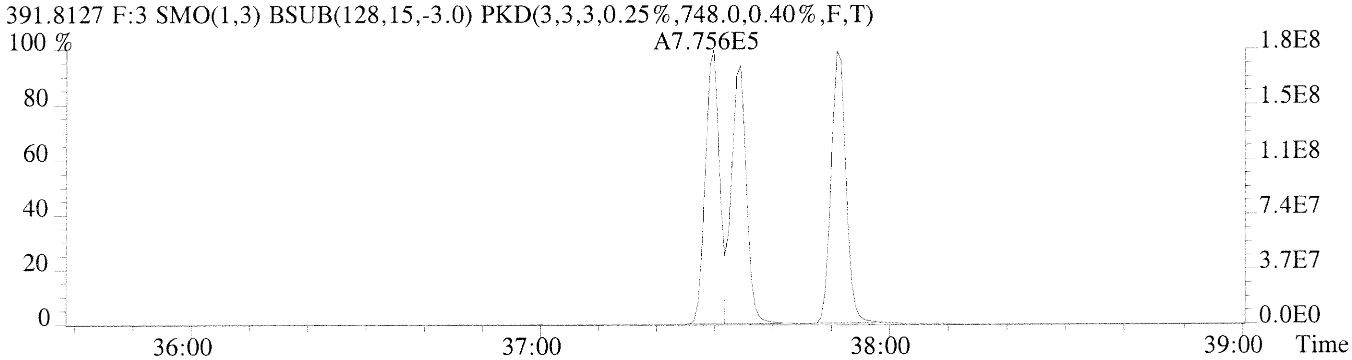


File: 7394 #1-306 Acq: 3-MAY-2012 11:11:27 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:ICAL CS5

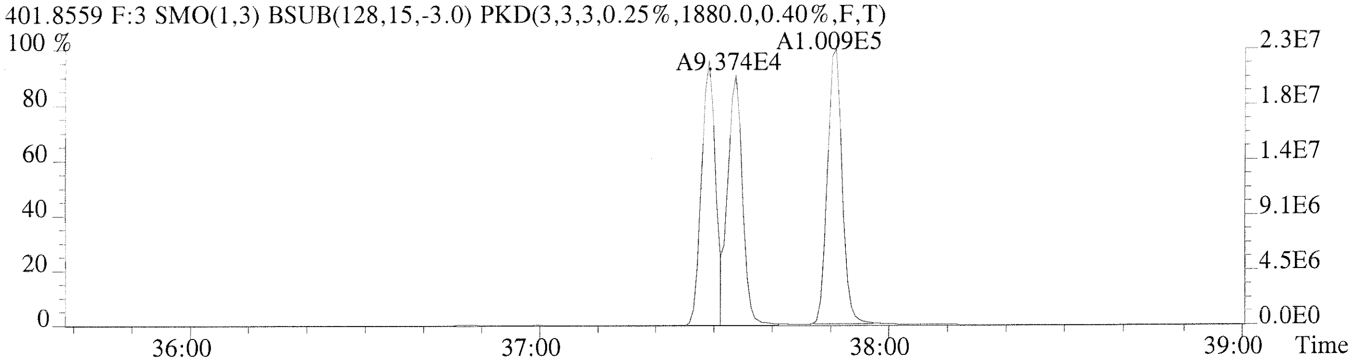
389.8157 F:3 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,588.0,0.40%,F,T)



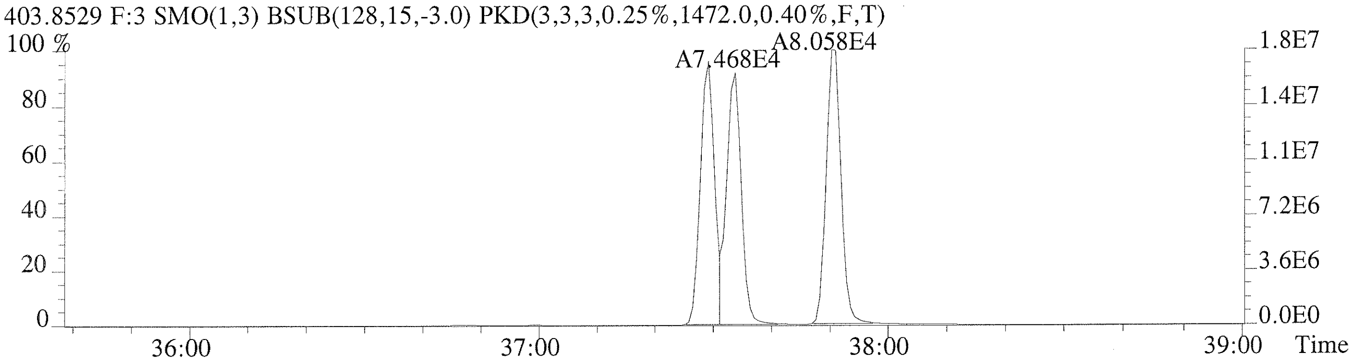
391.8127 F:3 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,748.0,0.40%,F,T)



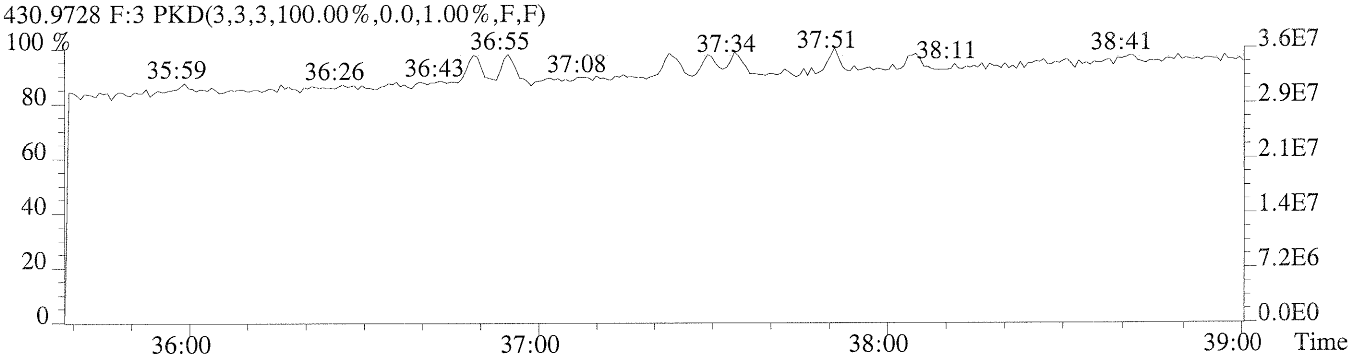
401.8559 F:3 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,1880.0,0.40%,F,T)



403.8529 F:3 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,1472.0,0.40%,F,T)

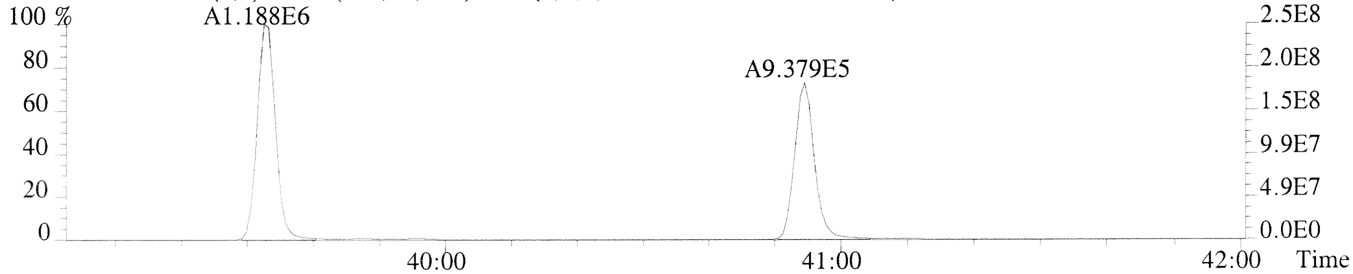


430.9728 F:3 PKD(3,3,3,100.00%,0.0,1.00%,F,F)

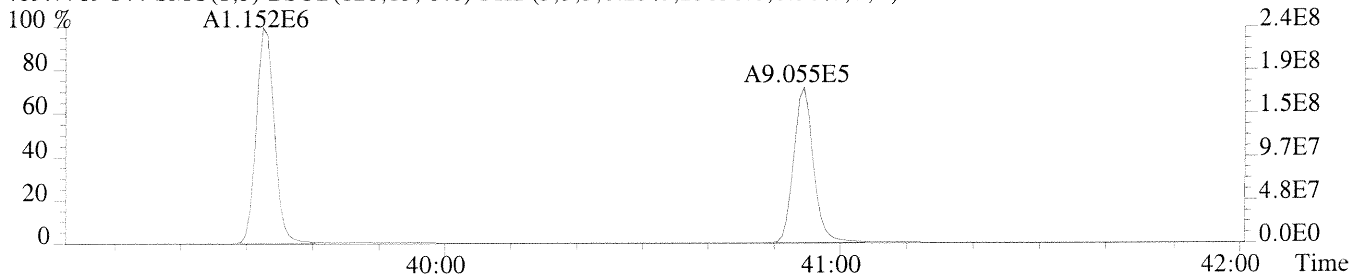


File: 7394 #1-270 Acq: 3-MAY-2012 11:11:27 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:ICAL CS5

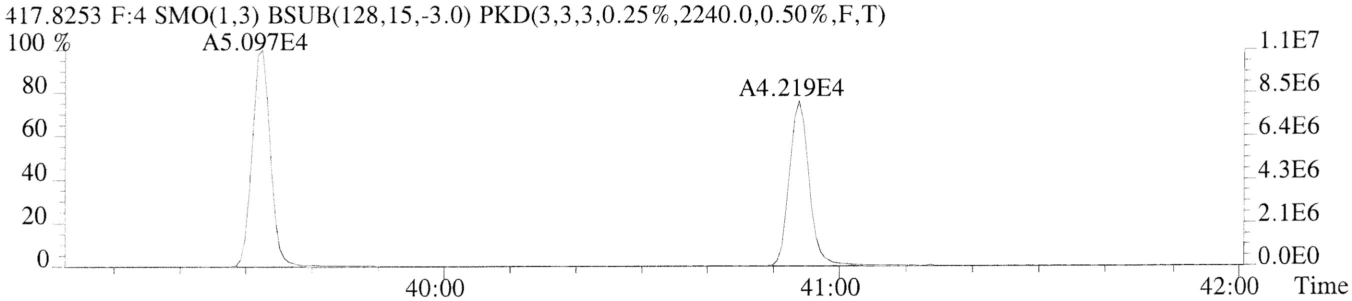
407.7818 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,16536.0,0.50%,F,T)



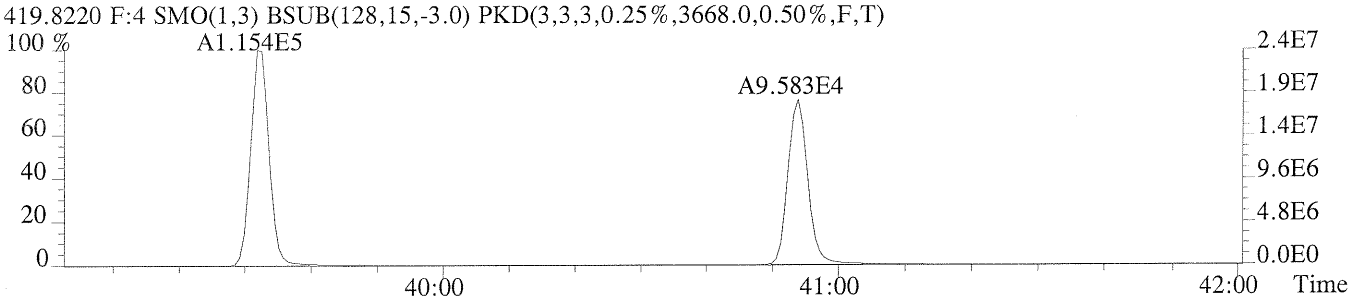
409.7789 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,23636.0,0.50%,F,T)



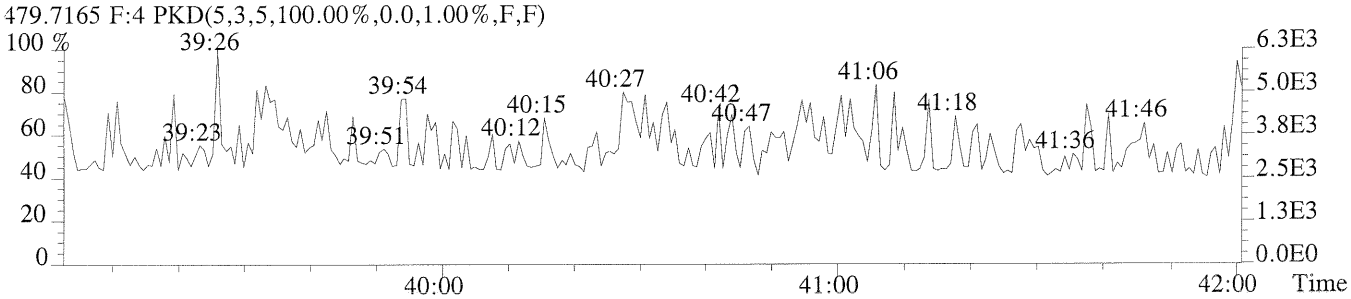
417.8253 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,2240.0,0.50%,F,T)



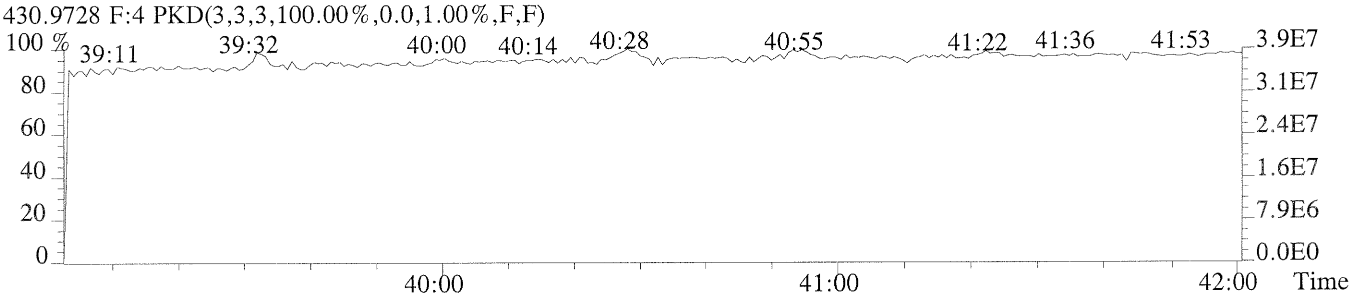
419.8220 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,3668.0,0.50%,F,T)



479.7165 F:4 PKD(5,3,5,100.00%,0.0,1.00%,F,F)

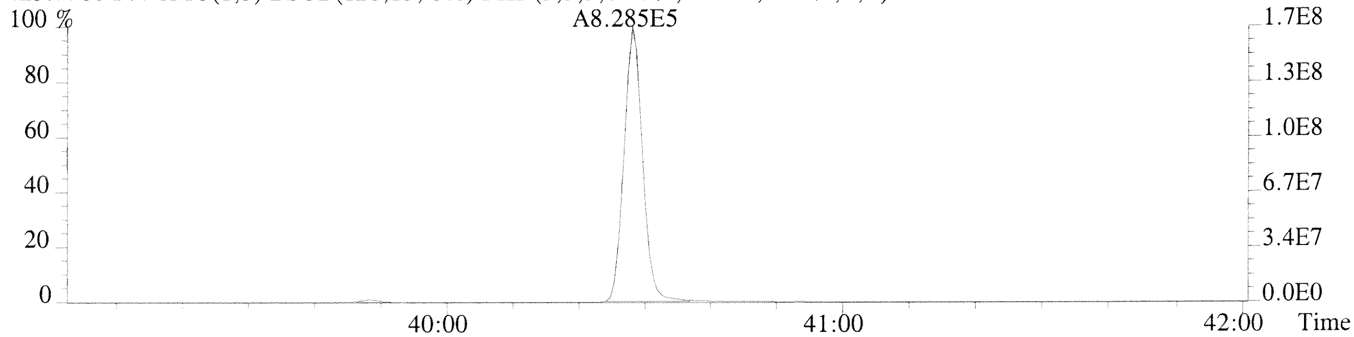


430.9728 F:4 PKD(3,3,3,100.00%,0.0,1.00%,F,F)

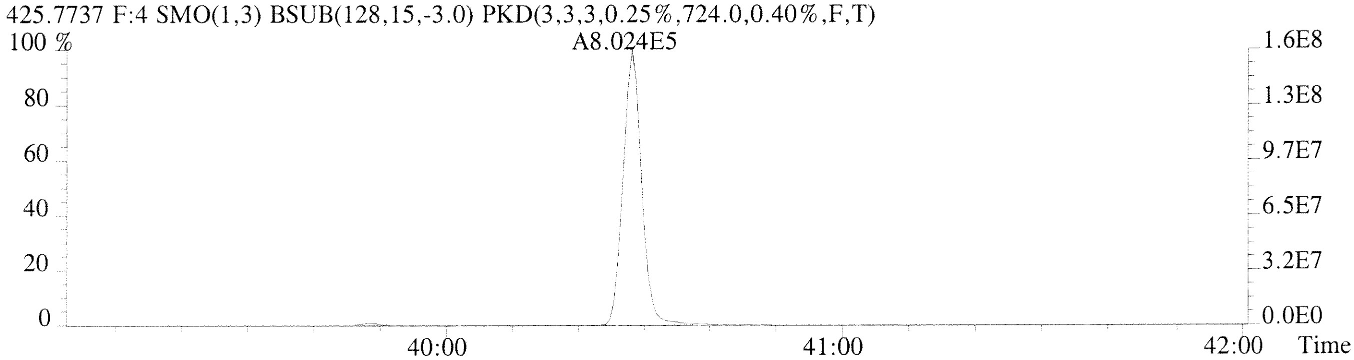


File: 7394 #1-270 Acq: 3-MAY-2012 11:11:27 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:ICAL CS5

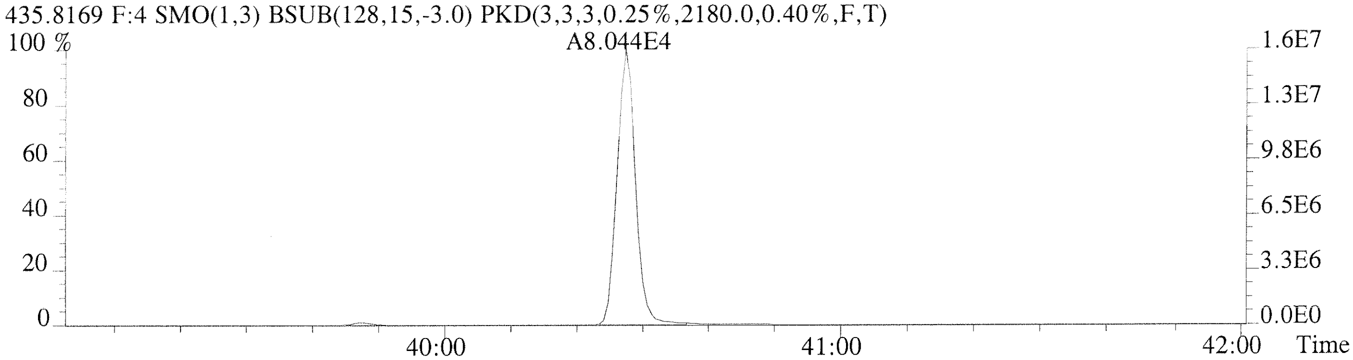
423.7766 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,2524.0,0.40%,F,T)



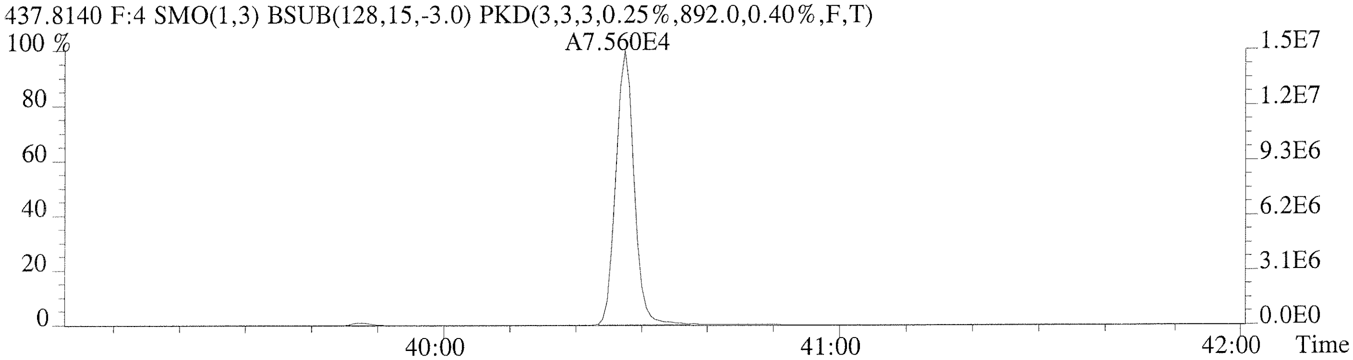
425.7737 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,724.0,0.40%,F,T)



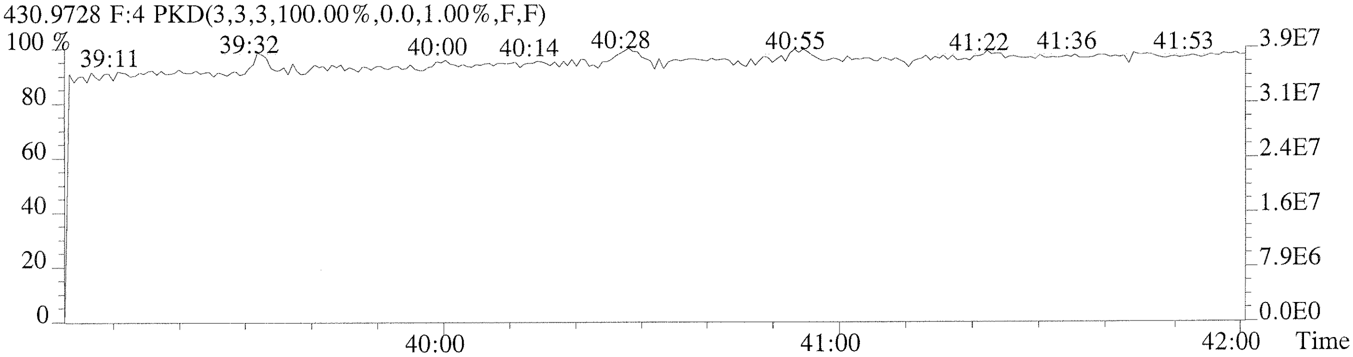
435.8169 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,2180.0,0.40%,F,T)



437.8140 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,892.0,0.40%,F,T)

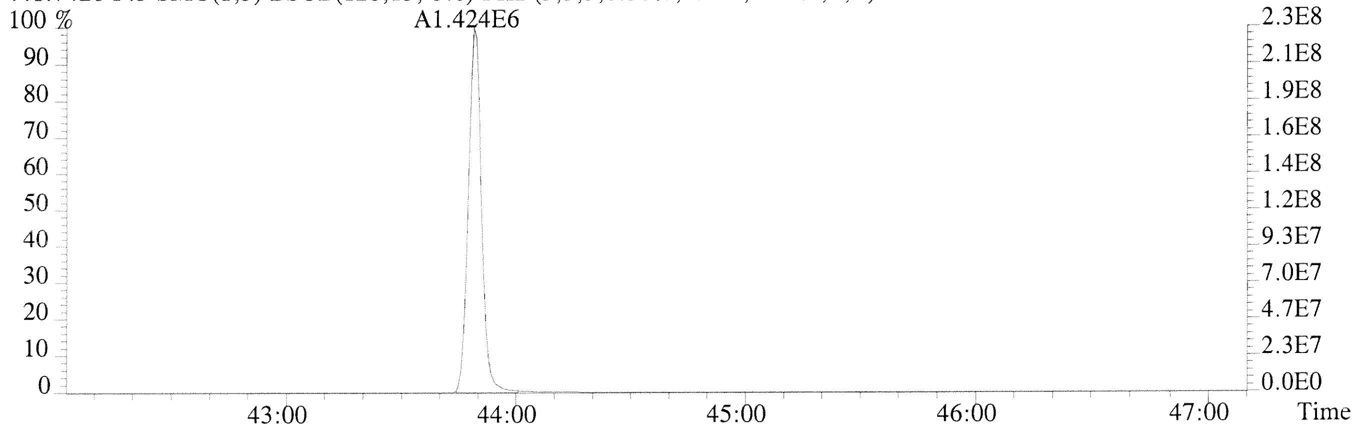


430.9728 F:4 PKD(3,3,3,100.00%,0.0,1.00%,F,F)

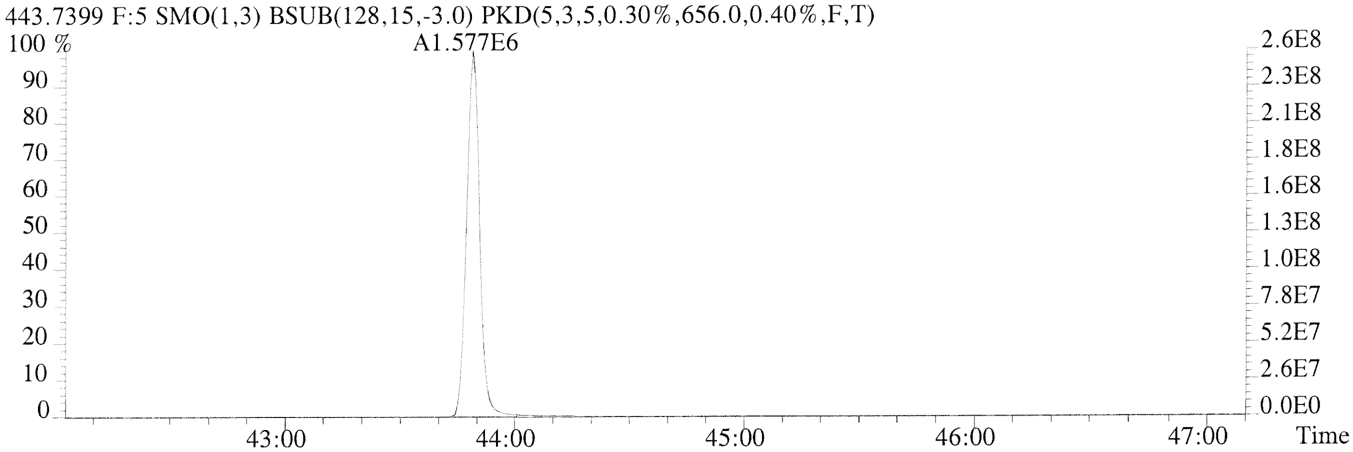


File: 7394 #1-471 Acq: 3-MAY-2012 11:11:27 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:ICAL CS5

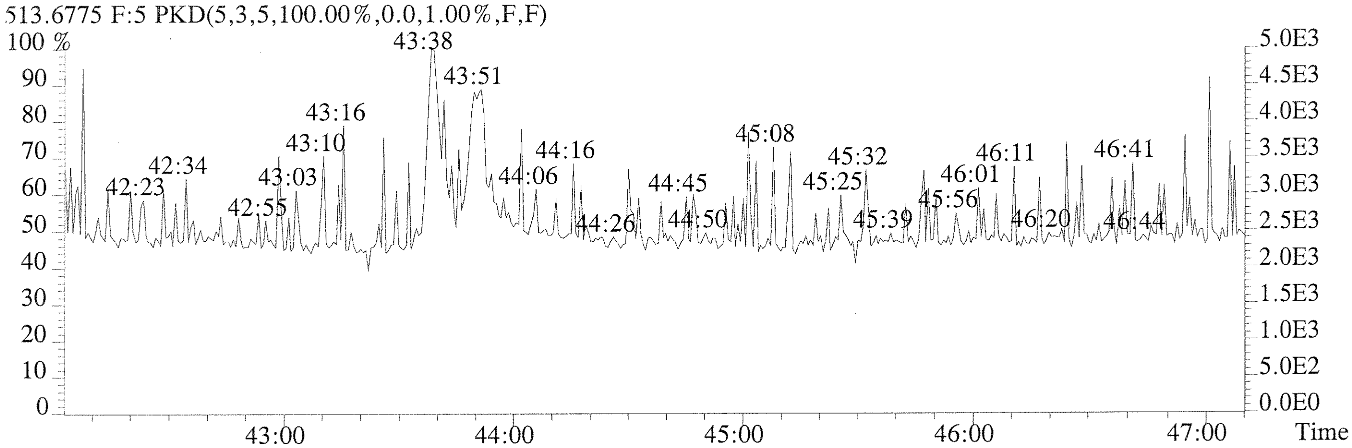
441.7428 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(5,3,5,0.30%,732.0,0.40%,F,T)



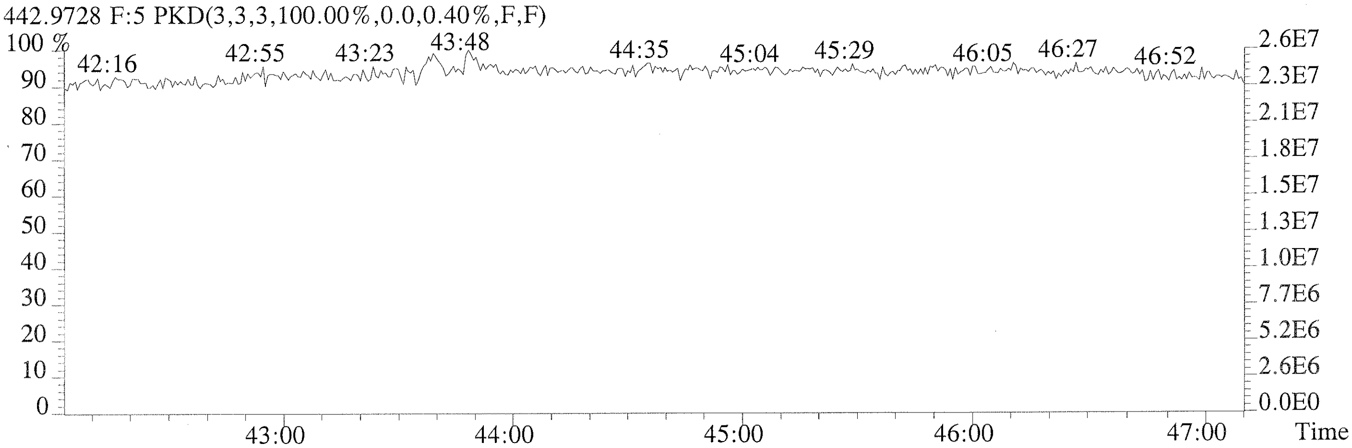
443.7399 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(5,3,5,0.30%,656.0,0.40%,F,T)



513.6775 F:5 PKD(5,3,5,100.00%,0.0,1.00%,F,F)

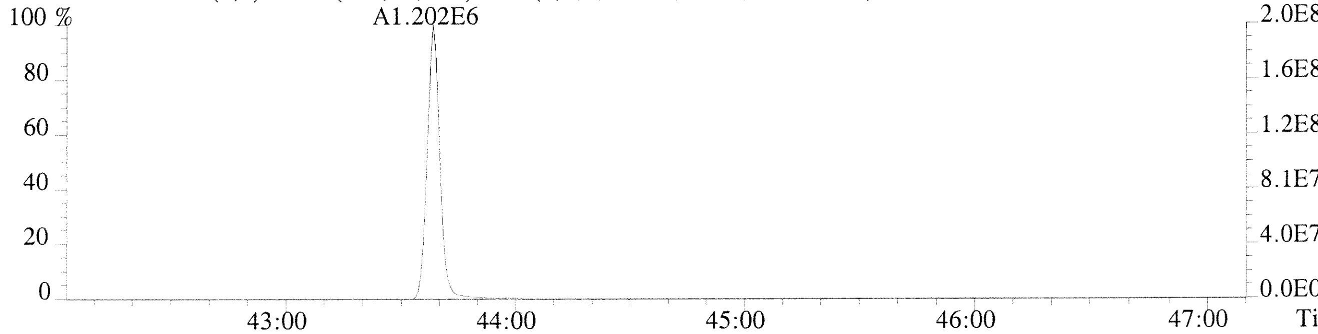


442.9728 F:5 PKD(3,3,3,100.00%,0.0,0.40%,F,F)

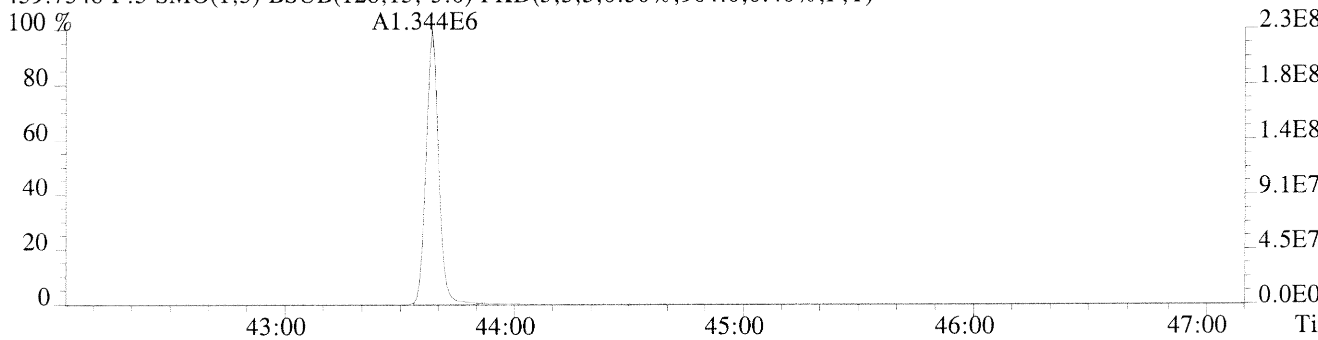


File: 7394 #1-471 Acq: 3-MAY-2012 11:11:27 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:ICAL CS5

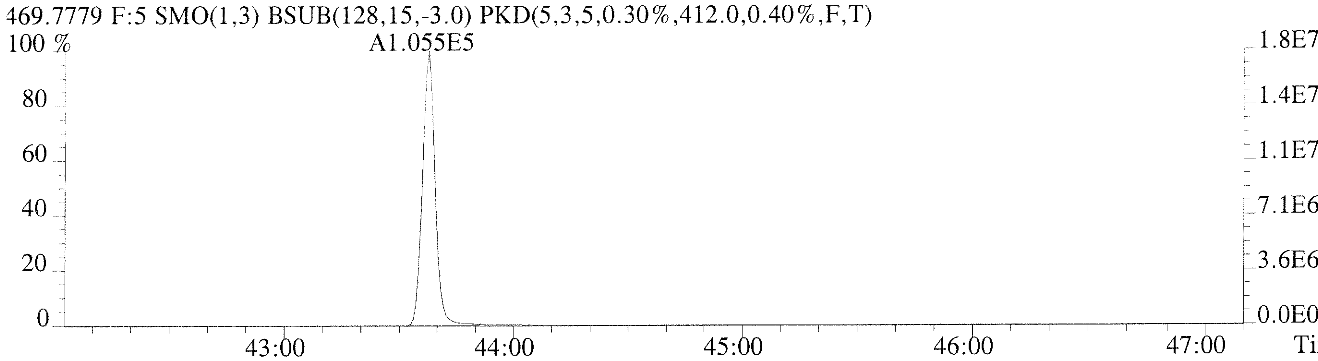
457.7377 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(5,3,5,0.30%,612.0,0.40%,F,T)



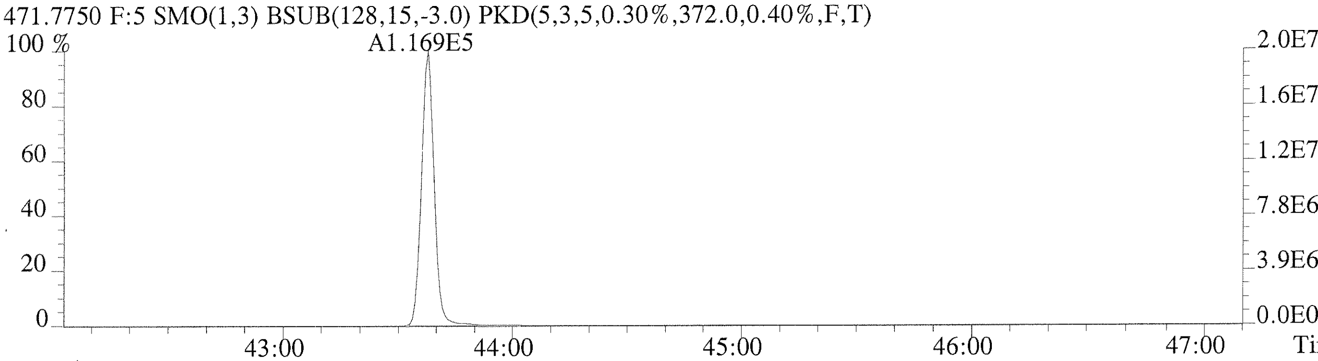
459.7348 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(5,3,5,0.30%,904.0,0.40%,F,T)



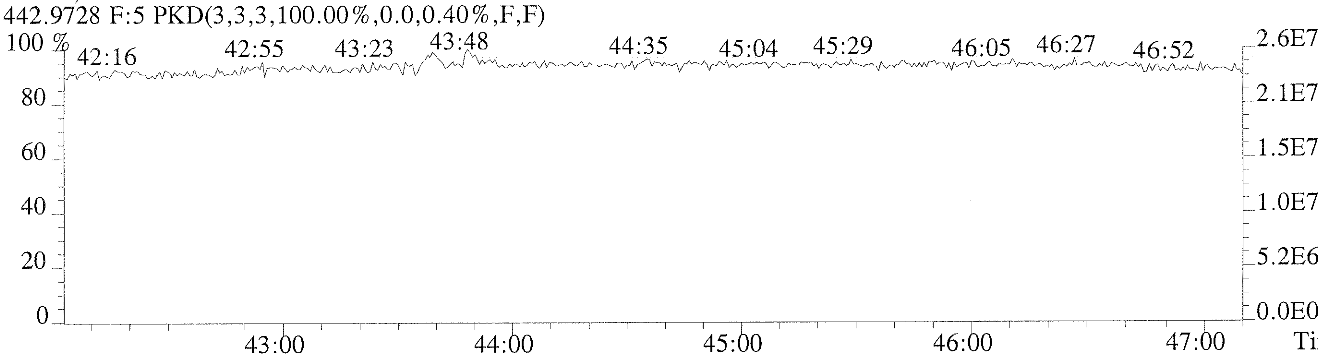
469.7779 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(5,3,5,0.30%,412.0,0.40%,F,T)



471.7750 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(5,3,5,0.30%,372.0,0.40%,F,T)



442.9728 F:5 PKD(3,3,3,100.00%,0.0,0.40%,F,F)



FORM 4A
PCDD/PCDF CALIBRATION VERIFICATION

Lab Name: Episode No.:

Contract No.: SAS No.:

Initial Calibration Date: 05/03/12

Instrument ID: E-HRMS-04 GC Column ID: DB-5

VER Data Filename: 7395 Analysis Date: 3-MAY-12 Time: 12:23:07

TIVE ANALYTES	M/Z'S FORMING RATIO (1)	ION ABUND. RATIO	QC LIMITS (2)	CONC. FOUND	CONC. RANGE (3) (ng/mL)	%RSD (4)
3,7,8-TCDD	M/M+2	0.77	0.65-0.89	10.0	7.8 - 12.	-0.2
2,3,7,8-PeCDD	M+2/M+4	1.55	1.32-1.78	54	39 - 65	7.4
2,3,4,7,8-HxCDD	M+2/M+4	1.25	1.05-1.43	50	39 - 64	0.2
2,3,6,7,8-HxCDD	M+2/M+4	1.26	1.05-1.43	49	39 - 64	-2.9
2,3,7,8,9-HxCDD	M+2/M+4	1.22	1.05-1.43	46	41 - 61	-8.1
2,3,4,6,7,8-HpCDD	M+2/M+4	1.04	0.88-1.20	53	43 - 58	7.0
DD	M+2/M+4	0.90	0.76-1.02	96	79 - 126	-3.8
3,7,8-TCDF	M/M+2	0.76	0.65-0.89	9.3	8.4 - 12.	-7.3
2,3,7,8-PeCDF	M+2/M+4	1.56	1.32-1.78	48	41 - 60	-3.5
3,4,7,8-PeCDF	M+2/M+4	1.56	1.32-1.78	52	41 - 61	3.4
2,3,4,7,8-HxCDF	M+2/M+4	1.28	1.05-1.43	47	45 - 56	-6.3
2,3,6,7,8-HxCDF	M+2/M+4	1.18	1.05-1.43	50	44 - 57	-0.6
2,3,7,8,9-HxCDF	M+2/M+4	1.24	1.05-1.43	47	45 - 56	-6.5
3,4,6,7,8-HxCDF	M+2/M+4	1.22	1.05-1.43	51	44 - 57	1.4
2,3,4,6,7,8-HpCDF	M+2/M+4	1.03	0.88-1.20	50	45 - 55	0.0
2,3,4,7,8,9-HpCDF	M+2/M+4	1.03	0.88-1.20	54	43 - 58	8.2
CDF	M+2/M+4	0.91	0.76-1.02	101	63 - 159	0.7

1) See Table 8, Method 1613B, for m/z specifications.

2) Ion Abundance Ratio Control Limits as specified in Table 9, Method 1613B.

3) Contract-required concentration range as specified in Table 6, Method 1613B, under VER.

4) The beginning CCAL %RSD for the 17 unlabeled standard must not exceed +/- 20%, Section 7.7.4.1. The ending CCAL must not exceed +/-25%, Section 8.3.2.4, Method 8290

3/2012

USEPA - ITD

FORM 4B
PCDD/PCDF CALIBRATION VERIFICATION

Lab Name: Episode No.:

Contract No.: SAS No.:

Initial Calibration Date: 05/03/12

Instrument ID: E-HRMS-04 GC Column ID: DB-5

VER Data Filename: 7395 Analysis Date: 3-MAY-12 Time: 12:23:07

	M/Z'S FORMING RATIO (1)	ION ABUND. RATIO	QC LIMITS (2)	CONC. FOUND	CONC. RANGE (3) (ng/mL)	%RSD (5)
ELED COMPOUNDS						
-2,3,7,8-TCDD	M/M+2	0.78	0.65-0.89	100	82 - 121	-0.3
C-1,2,3,7,8-PeCDD	M+2/M+4	1.59	1.32-1.78	99	62 - 160	-1.5
C-1,2,3,4,7,8-HxCDD	M+2/M+4	1.27	1.05-1.43	102	85 - 117	1.9
C-1,2,3,6,7,8-HxCDD	M+2/M+4	1.27	1.05-1.43	113	85 - 118	13.2
C-1,2,3,4,6,7,8-HpCDD	M+2/M+4	1.06	0.88-1.20	94	72 - 138	-5.8
-OCDD	M+2/M+4	0.91	0.76-1.02	195	96 - 415	-2.4
-2,3,7,8-TCDF	M/M+2	0.78	0.65-0.89	111	71 - 140	11.3
-1,2,3,7,8-PeCDF	M+2/M+4	1.58	1.32-1.78	104	76 - 130	4.2
-2,3,4,7,8-PeCDF	M+2/M+4	1.60	1.32-1.78	103	77 - 130	2.8
-1,2,3,4,7,8-HxCDF	M/M+2	0.52	0.43-0.59	108	76 - 131	8.2
-1,2,3,6,7,8-HxCDF	M/M+2	0.52	0.43-0.59	103	70 - 143	2.8
C-1,2,3,7,8,9-HxCDF	M/M+2	0.52	0.43-0.59	107	74 - 135	7.4
-2,3,4,6,7,8-HxCDF	M/M+2	0.52	0.43-0.59	112	73 - 137	11.7
C-1,2,3,4,6,7,8-HpCDF	M/M+2	0.45	0.37-0.51	109	78 - 129	8.5
C-1,2,3,4,7,8,9-HpCDF	M/M+2	0.45	0.37-0.51	99	77 - 129	-1.2
LEANUP STANDARD						
Cl-2,3,7,8-TCDD				10.4	7.8 - 12.7	4.1

) See Table 8, Method 1613B, for m/z specifications.
) Ion Abundance Ratio Control Limits as specified in Table 9, Method 1613B.
) Contract-required concentration range, as specified in Table 6, Method 1613B, under VER.
) No ion abundance ratio; report concentration found.
) The beginnning CCAL %RSD for the labeled standard must not exceed +/- 30% Section 7.7.4.2. The ending CCAL must not exceed +/- 35%, Sec 8.3.2.4 (8290)

3/2012

Sample Response Summary CLIENT ID.
2ND SOURCE VER

#7 Filename 7395 #1 Samp: 1 Inj: 1 Acquired: 3-MAY-12 12:23:07
essed: 3-MAY-12 13:32:10 LAB. ID: 2ND SOURCE VER

Typ	Name	RT-1	Resp 1	Resp 2	Ratio	Meet	Mod?	RRT
Unk	2,3,7,8-TCDF	29:16	1.034e+04	1.355e+04	0.76	yes	no	1.000
Unk	1,2,3,7,8-PeCDF	33:23	7.410e+04	4.762e+04	1.56	yes	no	1.000
Unk	2,3,4,7,8-PeCDF	34:06	7.637e+04	4.910e+04	1.56	yes	no	1.000
Unk	1,2,3,4,7,8-HxCDF	36:50	6.678e+04	5.211e+04	1.28	yes	no	1.000
Unk	1,2,3,6,7,8-HxCDF	36:56	7.056e+04	5.999e+04	1.18	yes	no	1.000
Unk	2,3,4,6,7,8-HxCDF	37:24	6.993e+04	5.726e+04	1.22	yes	no	1.000
Unk	1,2,3,7,8,9-HxCDF	38:06	5.472e+04	4.419e+04	1.24	yes	no	1.000
Unk	1,2,3,4,6,7,8-HpCDF	39:34	6.021e+04	5.855e+04	1.03	yes	no	1.000
Unk	1,2,3,4,7,8,9-HpCDF	40:55	4.630e+04	4.483e+04	1.03	yes	no	1.000
Unk	OCDF	43:50	6.326e+04	6.940e+04	0.91	yes	no	1.004
Unk	2,3,7,8-TCDD	30:03	7.836e+03	1.020e+04	0.77	yes	no	1.001
Unk	1,2,3,7,8-PeCDD	34:26	5.481e+04	3.533e+04	1.55	yes	no	1.000
Unk	1,2,3,4,7,8-HxCDD	37:30	4.720e+04	3.764e+04	1.25	yes	no	1.000
Unk	1,2,3,6,7,8-HxCDD	37:35	5.261e+04	4.186e+04	1.26	yes	no	1.000
Unk	1,2,3,7,8,9-HxCDD	37:52	4.685e+04	3.830e+04	1.22	yes	no	1.008
Unk	1,2,3,4,6,7,8-HpCDD	40:29	3.924e+04	3.775e+04	1.04	yes	no	1.000
Unk	OCDD	43:39	5.477e+04	6.078e+04	0.90	yes	no	1.000
IS	13C-2,3,7,8-TCDF	29:15	1.189e+05	1.529e+05	0.78	yes	no	0.981
IS	13C-1,2,3,7,8-PeCDF	33:23	1.566e+05	9.893e+04	1.58	yes	no	1.119
IS	13C-2,3,4,7,8-PeCDF	34:05	1.566e+05	9.777e+04	1.60	yes	no	1.143
IS	13C-1,2,3,4,7,8-HxCDF	36:49	6.964e+04	1.350e+05	0.52	yes	no	0.973
IS	13C-1,2,3,6,7,8-HxCDF	36:55	7.721e+04	1.481e+05	0.52	yes	no	0.975
IS	13C-2,3,4,6,7,8-HxCDF	37:23	7.386e+04	1.421e+05	0.52	yes	no	0.987
IS	13C-1,2,3,7,8,9-HxCDF	38:06	6.103e+04	1.173e+05	0.52	yes	no	1.006
IS	13C-1,2,3,4,6,7,8-HpCDF	39:33	5.245e+04	1.167e+05	0.45	yes	no	1.045
IS	13C-1,2,3,4,7,8,9-HpCDF	40:55	3.917e+04	8.699e+04	0.45	yes	no	1.081
IS	13C-2,3,7,8-TCDD	30:01	7.773e+04	1.002e+05	0.78	yes	no	1.006
IS	13C-1,2,3,7,8-PeCDD	34:26	1.073e+05	6.744e+04	1.59	yes	no	1.154
IS	13C-1,2,3,4,7,8-HxCDD	37:30	8.801e+04	6.955e+04	1.27	yes	no	0.990
IS	13C-1,2,3,6,7,8-HxCDD	37:34	1.050e+05	8.245e+04	1.27	yes	no	0.992
IS	13C-1,2,3,4,6,7,8-HpCDD	40:28	7.024e+04	6.645e+04	1.06	yes	no	1.069
IS	13C-OCDD	43:38	9.639e+04	1.058e+05	0.91	yes	no	1.153
S/RT	13C-1,2,3,4-TCDD	29:50	8.402e+04	1.075e+05	0.78	yes	no	*
S/RT	13C-1,2,3,7,8,9-HxCDD	37:52	9.128e+04	7.225e+04	1.26	yes	no	*
C/Up	37Cl-2,3,7,8-TCDD	30:03	1.905e+04				no	1.007

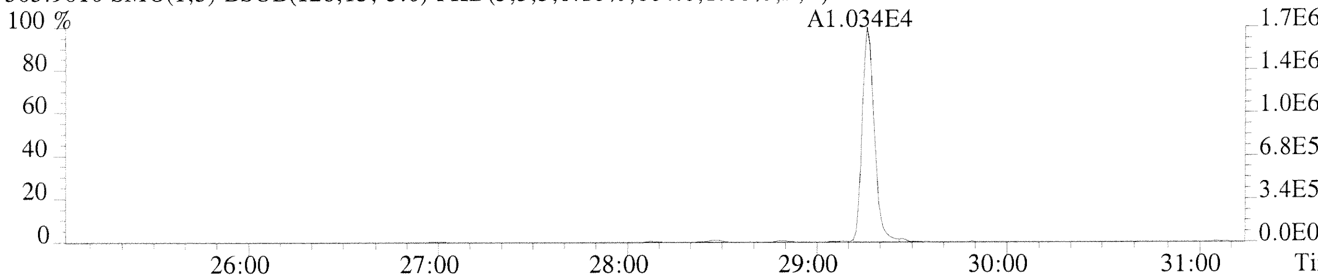
Signal/Noise Height Ratio Summary   CLIENT ID.
2ND SOURCE VER

#7 Filename 7395   Samp: 1   Inj: 1   Acquired: 3-MAY-12 12:23:07
cessed: 3-MAY-12 13:32:101   LAB. ID: 2ND SOURCE VER

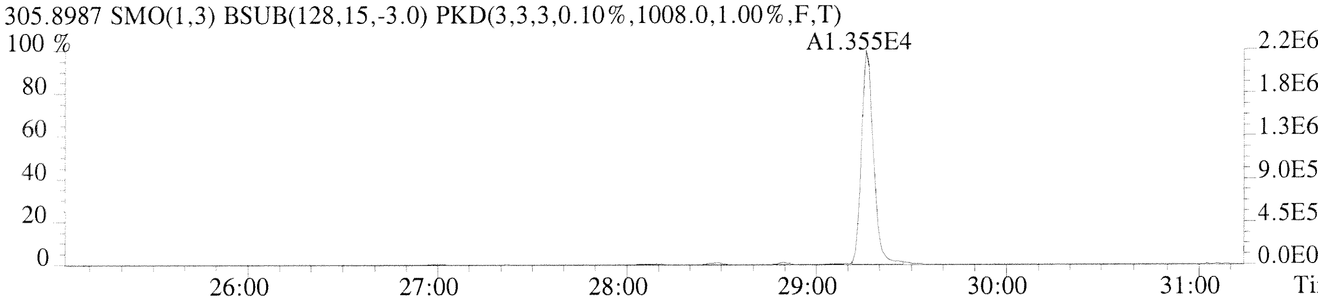
Name	Signal 1	Noise 1	S/N Rat.1	Signal 2	Noise 2	S/N Rat.2
2,3,7,8-TCDF	1.70e+06	6.04e+02	2.8e+03	2.25e+06	1.01e+03	2.2e+03
1,2,3,7,8-PeCDF	1.36e+07	1.41e+03	9.7e+03	8.79e+06	1.40e+03	6.3e+03
2,3,4,7,8-PeCDF	1.48e+07	1.41e+03	1.0e+04	9.51e+06	1.40e+03	6.8e+03
1,2,3,4,7,8-HxCDF	1.44e+07	2.98e+03	4.8e+03	1.16e+07	2.04e+03	5.7e+03
1,2,3,6,7,8-HxCDF	1.46e+07	2.98e+03	4.9e+03	1.19e+07	2.04e+03	5.8e+03
2,3,4,6,7,8-HxCDF	1.48e+07	2.98e+03	5.0e+03	1.21e+07	2.04e+03	5.9e+03
1,2,3,7,8,9-HxCDF	1.07e+07	2.98e+03	3.6e+03	8.70e+06	2.04e+03	4.3e+03
1,2,3,4,6,7,8-HpCDF	1.16e+07	7.28e+03	1.6e+03	1.15e+07	6.70e+03	1.7e+03
1,2,3,4,7,8,9-HpCDF	8.20e+06	7.28e+03	1.1e+03	7.96e+06	6.70e+03	1.2e+03
OCDF	9.42e+06	3.16e+02	3.0e+04	1.05e+07	8.16e+02	1.3e+04
2,3,7,8-TCDD	1.34e+06	5.92e+02	2.3e+03	1.69e+06	6.56e+02	2.6e+03
1,2,3,7,8-PeCDD	1.06e+07	8.24e+02	1.3e+04	6.84e+06	3.28e+02	2.1e+04
1,2,3,4,7,8-HxCDD	1.11e+07	1.86e+03	6.0e+03	8.80e+06	5.60e+02	1.6e+04
1,2,3,6,7,8-HxCDD	1.06e+07	1.86e+03	5.7e+03	8.42e+06	5.60e+02	1.5e+04
1,2,3,7,8,9-HxCDD	9.88e+06	1.86e+03	5.3e+03	7.88e+06	5.60e+02	1.4e+04
1,2,3,4,6,7,8-HpCDD	7.24e+06	2.93e+03	2.5e+03	7.04e+06	7.96e+02	8.8e+03
OCDD	8.57e+06	1.00e+03	8.5e+03	9.46e+06	9.24e+02	1.0e+04
13C-2,3,7,8-TCDF	1.98e+07	1.60e+03	1.2e+04	2.55e+07	1.79e+03	1.4e+04
13C-1,2,3,7,8-PeCDF	2.99e+07	2.12e+02	1.4e+05	1.91e+07	1.68e+02	1.1e+05
13C-2,3,4,7,8-PeCDF	3.12e+07	2.12e+02	1.5e+05	1.96e+07	1.68e+02	1.2e+05
13C-1,2,3,4,7,8-HxCDF	1.51e+07	1.45e+03	1.0e+04	2.93e+07	1.79e+03	1.6e+04
13C-1,2,3,6,7,8-HxCDF	1.59e+07	1.45e+03	1.1e+04	3.06e+07	1.79e+03	1.7e+04
13C-2,3,4,6,7,8-HxCDF	1.56e+07	1.45e+03	1.1e+04	3.01e+07	1.79e+03	1.7e+04
13C-1,2,3,7,8,9-HxCDF	1.22e+07	1.45e+03	8.4e+03	2.36e+07	1.79e+03	1.3e+04
13C-1,2,3,4,6,7,8-HpCDF	1.03e+07	5.66e+03	1.8e+03	2.28e+07	9.11e+03	2.5e+03
13C-1,2,3,4,7,8,9-HpCDF	7.07e+06	5.66e+03	1.2e+03	1.58e+07	9.11e+03	1.7e+03
13C-2,3,7,8-TCDD	1.34e+07	6.58e+03	2.0e+03	1.74e+07	1.32e+03	1.3e+04
13C-1,2,3,7,8-PeCDD	2.08e+07	7.84e+02	2.7e+04	1.30e+07	5.04e+02	2.6e+04
13C-1,2,3,4,7,8-HxCDD	2.10e+07	2.56e+03	8.2e+03	1.65e+07	1.95e+03	8.5e+03
13C-1,2,3,6,7,8-HxCDD	2.13e+07	2.56e+03	8.3e+03	1.68e+07	1.95e+03	8.6e+03
13C-1,2,3,4,6,7,8-HpCDD	1.33e+07	1.25e+03	1.1e+04	1.26e+07	4.00e+02	3.2e+04
13C-OCDD	1.52e+07	3.16e+02	4.8e+04	1.66e+07	3.20e+02	5.2e+04
13C-1,2,3,4-TCDD	1.50e+07	6.58e+03	2.3e+03	1.92e+07	1.32e+03	1.5e+04
13C-1,2,3,7,8,9-HxCDD	1.94e+07	2.56e+03	7.6e+03	1.55e+07	1.95e+03	7.9e+03
37Cl-2,3,7,8-TCDD	3.32e+06	5.12e+02	6.5e+03			

File 7395 #1-517 Acq: 3-MAY-2012 12:23:07 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:2ND SOURCE VERIFICATION

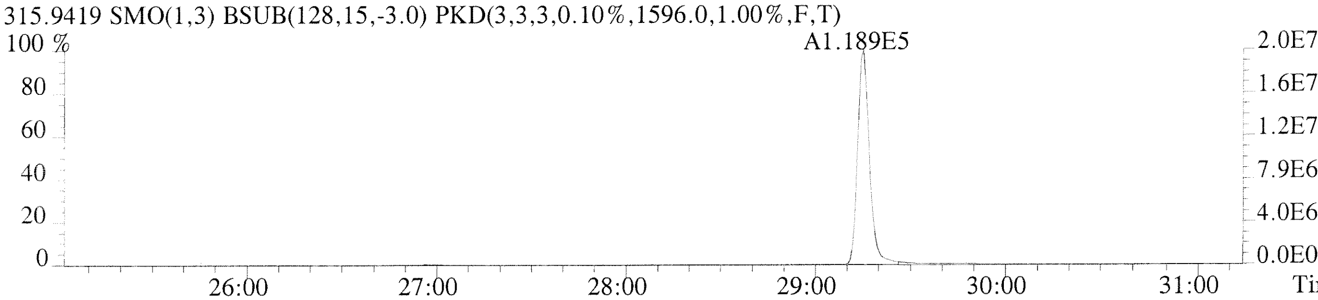
303.9016 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,604.0,1.00%,F,T)



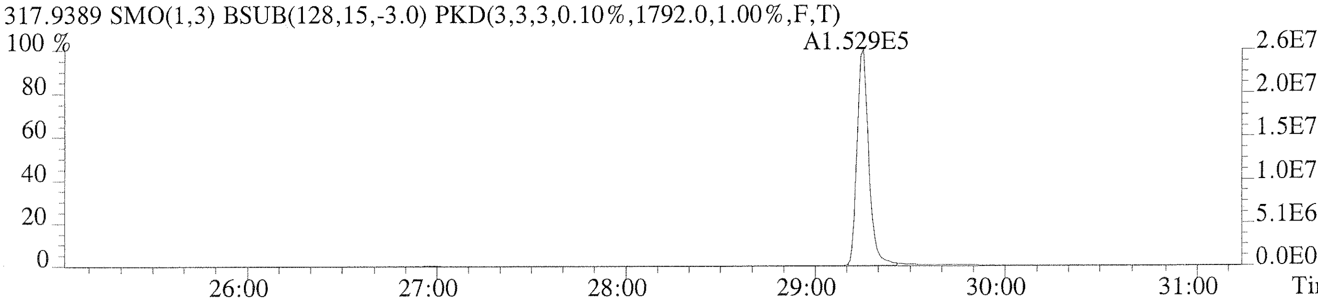
305.8987 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,1008.0,1.00%,F,T)



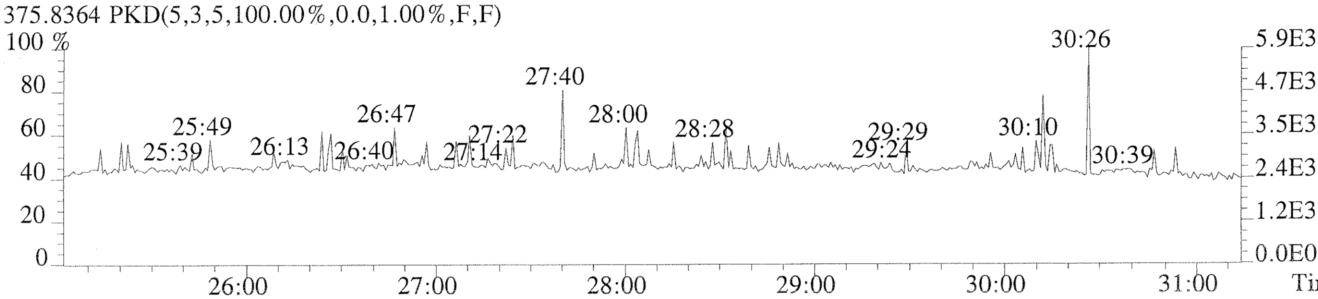
315.9419 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,1596.0,1.00%,F,T)



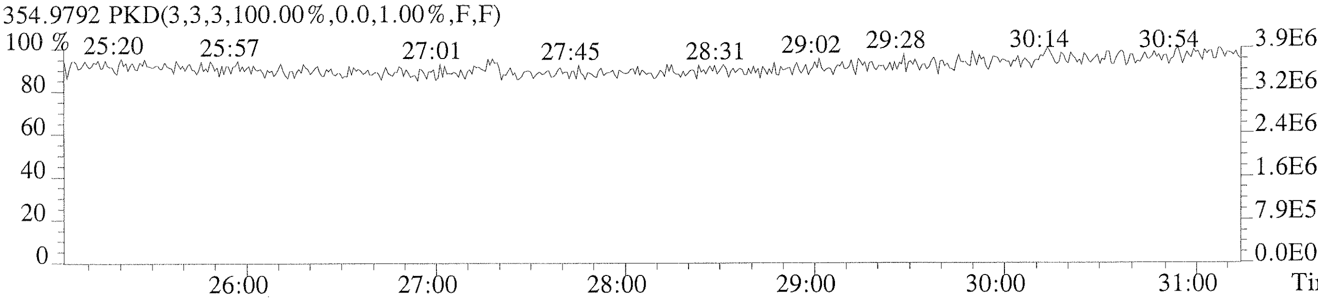
317.9389 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,1792.0,1.00%,F,T)



375.8364 PKD(5,3,5,100.00%,0.0,1.00%,F,F)

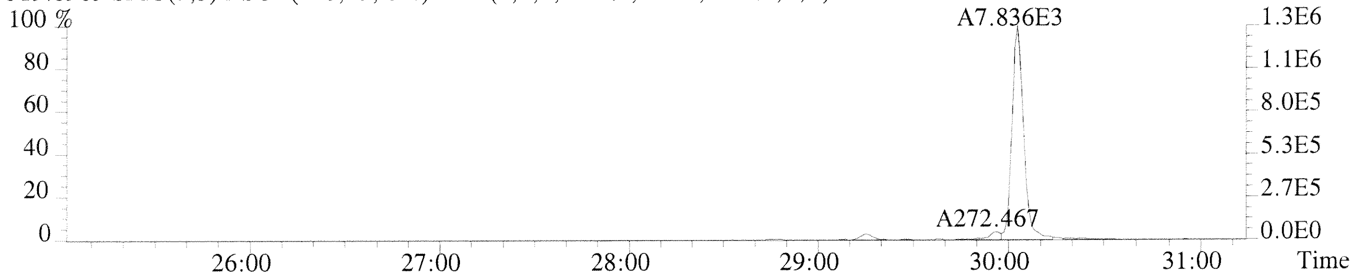


354.9792 PKD(3,3,3,100.00%,0.0,1.00%,F,F)

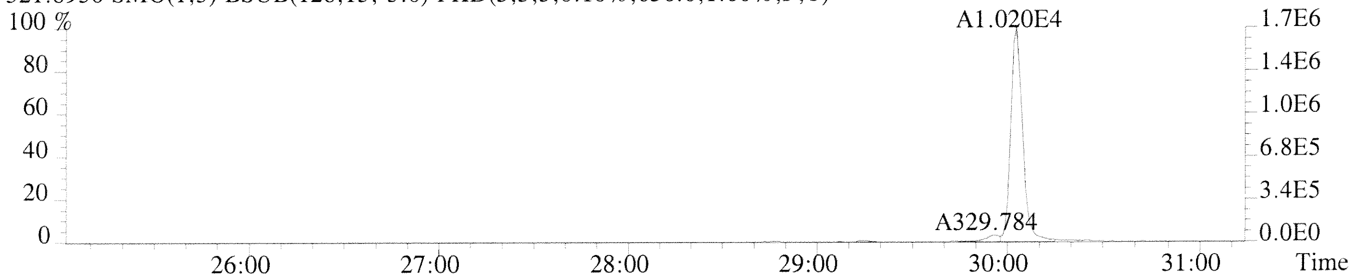


File: 7395 #1-517 Acq: 3-MAY-2012 12:23:07 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:2ND SOURCE VERIFICATION

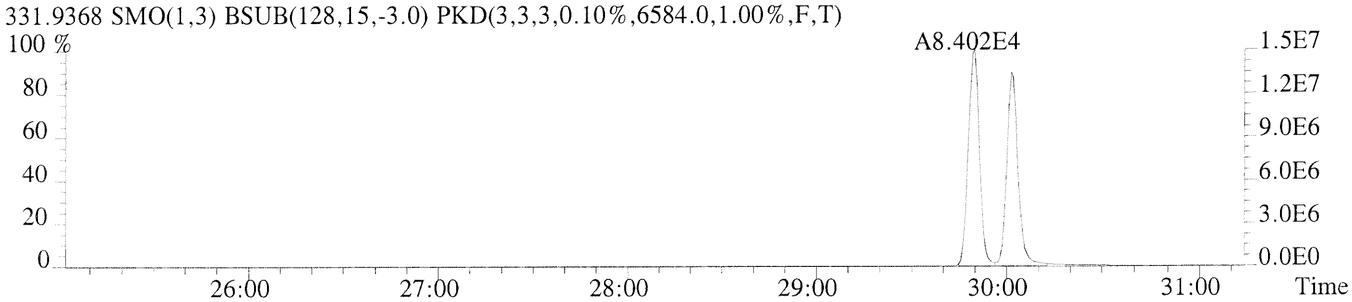
319.8965 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,592.0,1.00%,F,T)



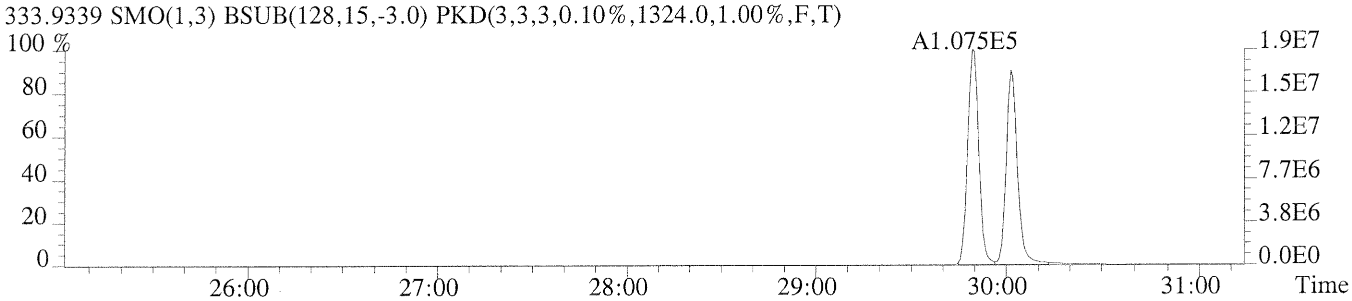
321.8936 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,656.0,1.00%,F,T)



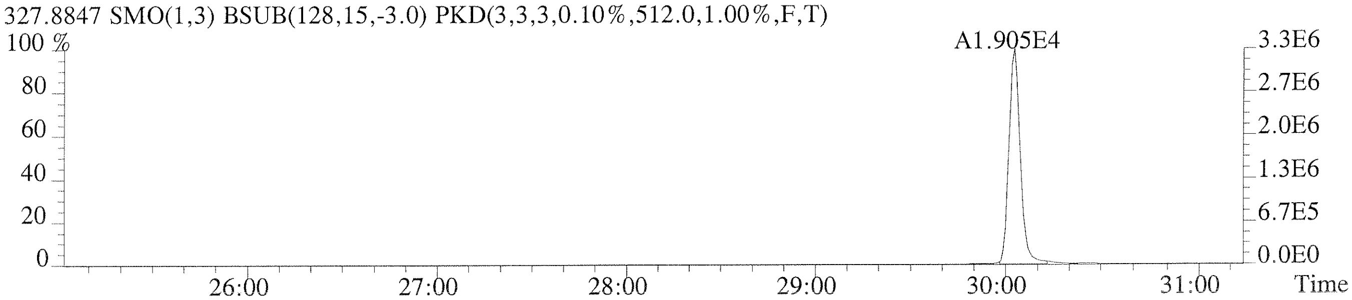
331.9368 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,6584.0,1.00%,F,T)



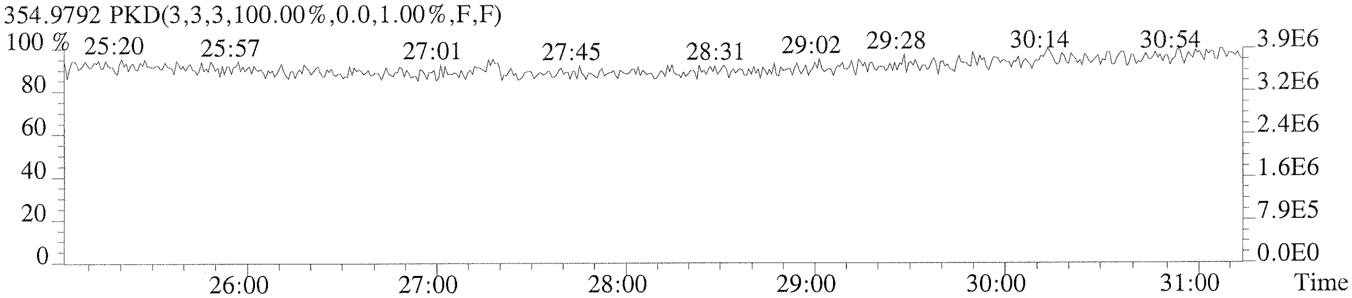
333.9339 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,1324.0,1.00%,F,T)



327.8847 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,512.0,1.00%,F,T)

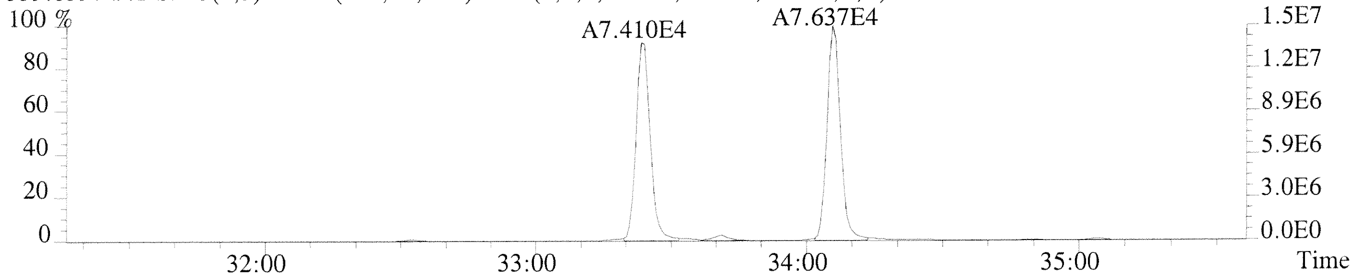


354.9792 PKD(3,3,3,100.00%,0.0,1.00%,F,F)

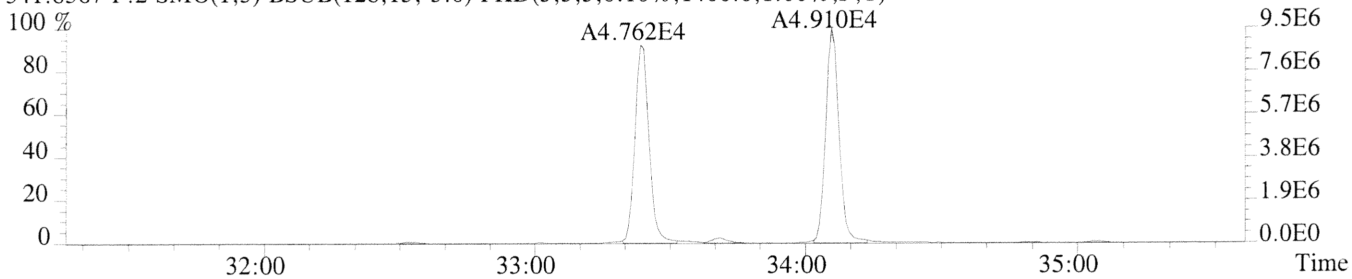


File: 7395 #1-394 Acq: 3-MAY-2012 12:23:07 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:2ND SOURCE VERIFICATION

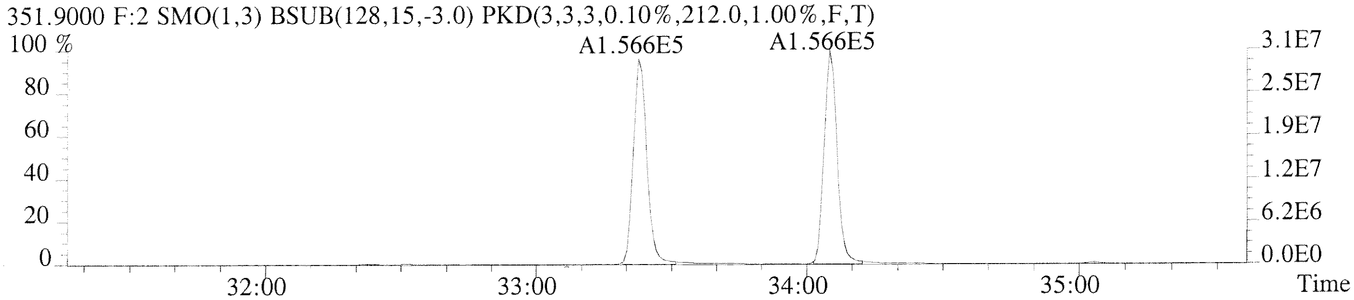
339.8597 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,1408.0,1.00%,F,T)



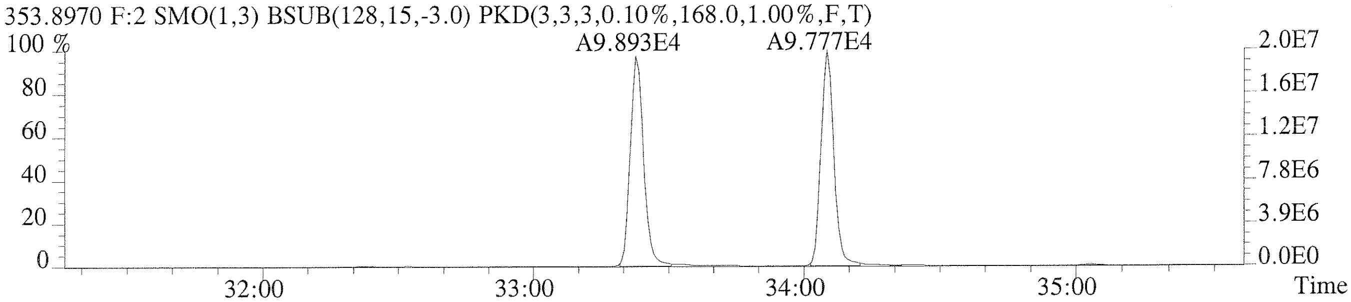
341.8567 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,1400.0,1.00%,F,T)



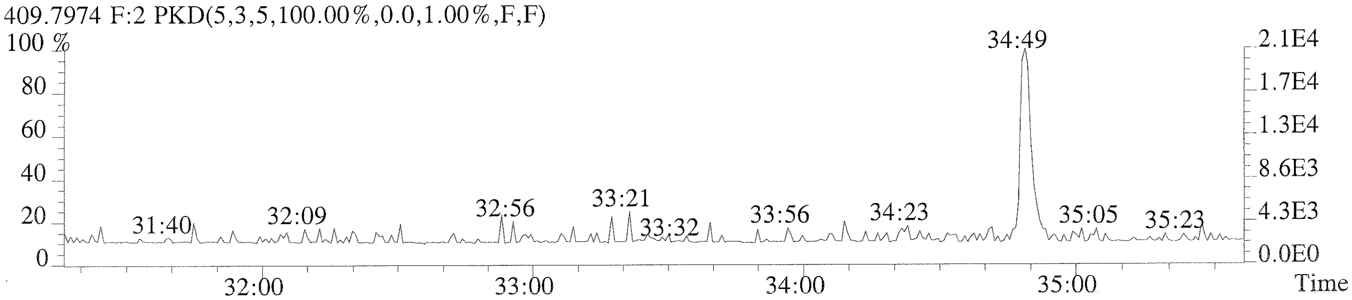
351.9000 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,212.0,1.00%,F,T)



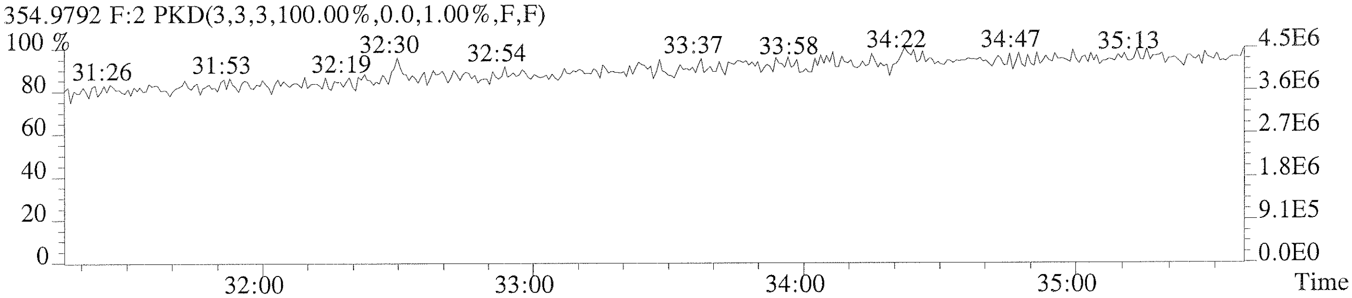
353.8970 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,168.0,1.00%,F,T)



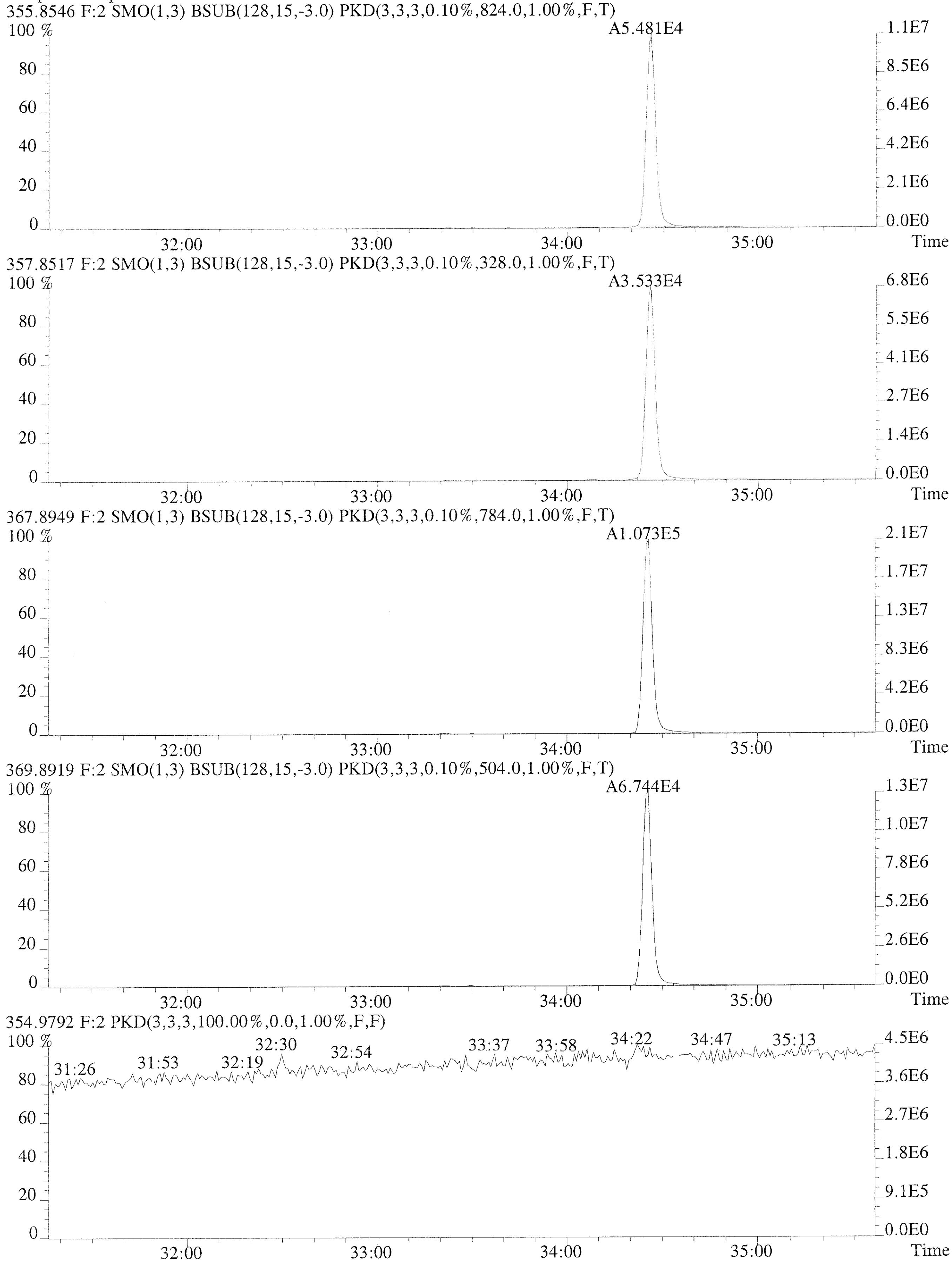
409.7974 F:2 PKD(5,3,5,100.00%,0.0,1.00%,F,F)



354.9792 F:2 PKD(3,3,3,100.00%,0.0,1.00%,F,F)

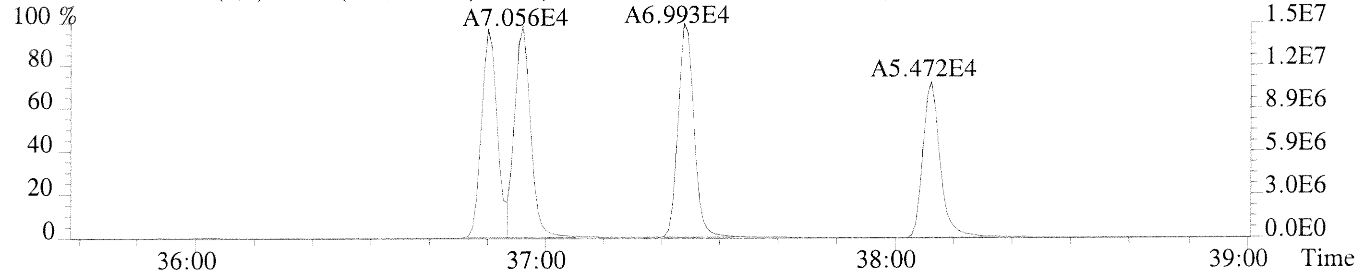


File: 7395 #1-394 Acq: 3-MAY-2012 12:23:07 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:2ND SOURCE VERIFICATION

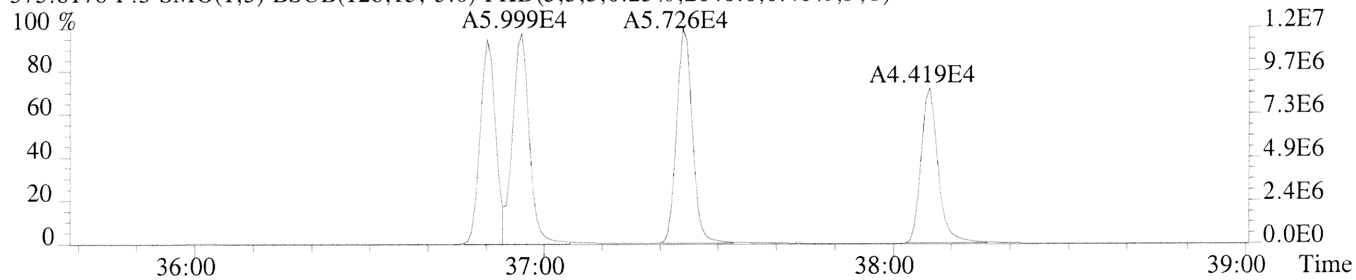


File: 7395 #1-306 Acq: 3-MAY-2012 12:23:07 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:2ND SOURCE VERIFICATION

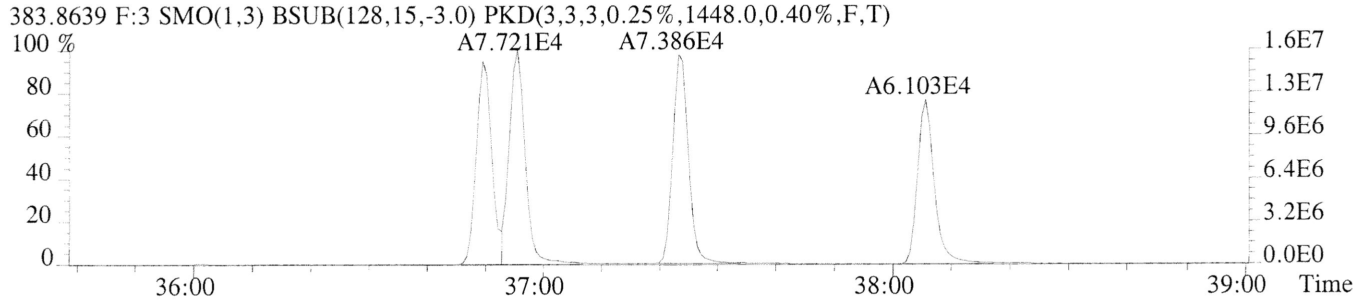
373.8208 F:3 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,2980.0,0.40%,F,T)



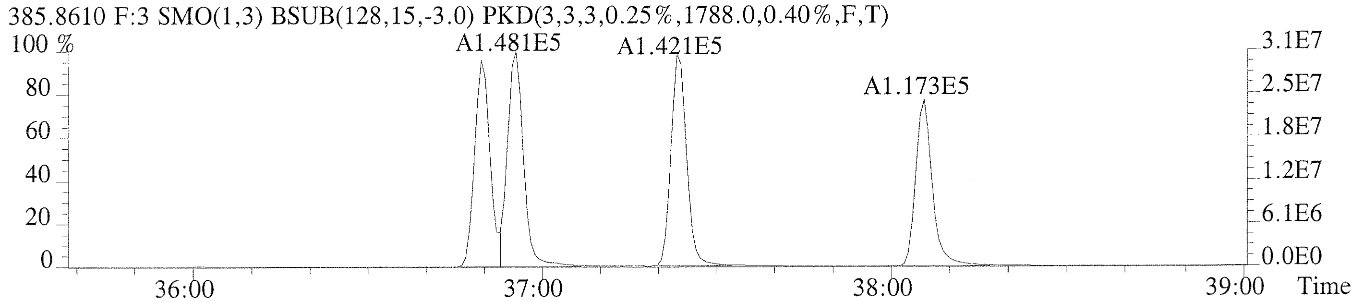
375.8178 F:3 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,2040.0,0.40%,F,T)



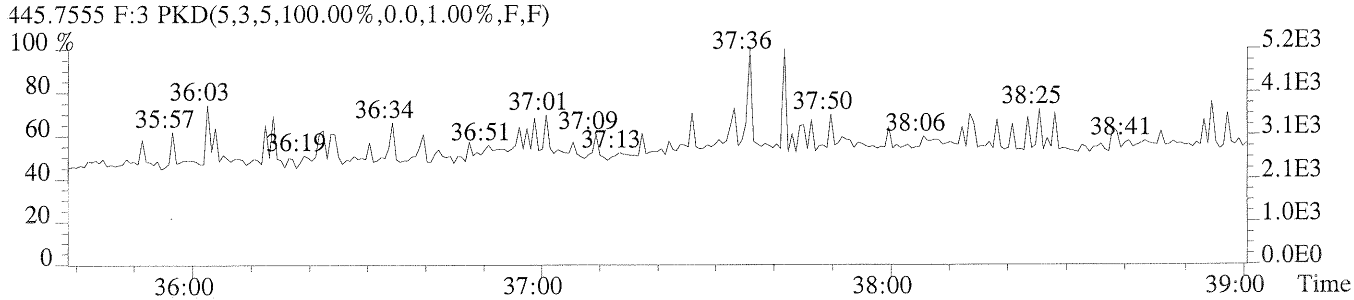
383.8639 F:3 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,1448.0,0.40%,F,T)



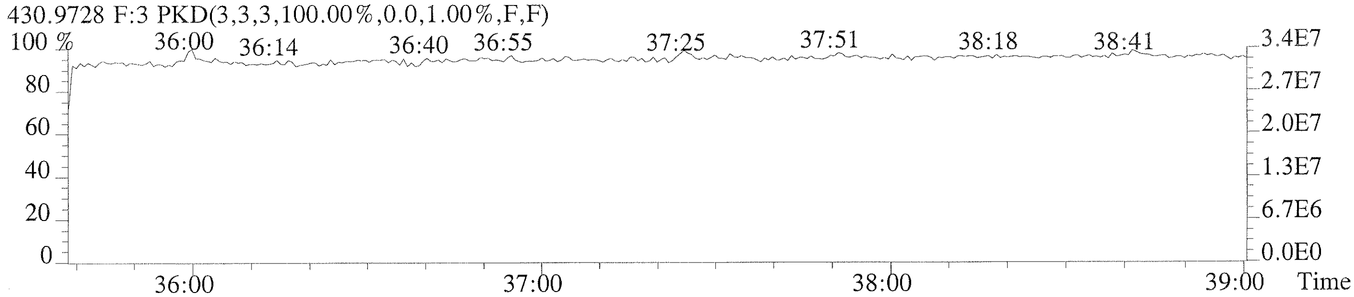
385.8610 F:3 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,1788.0,0.40%,F,T)



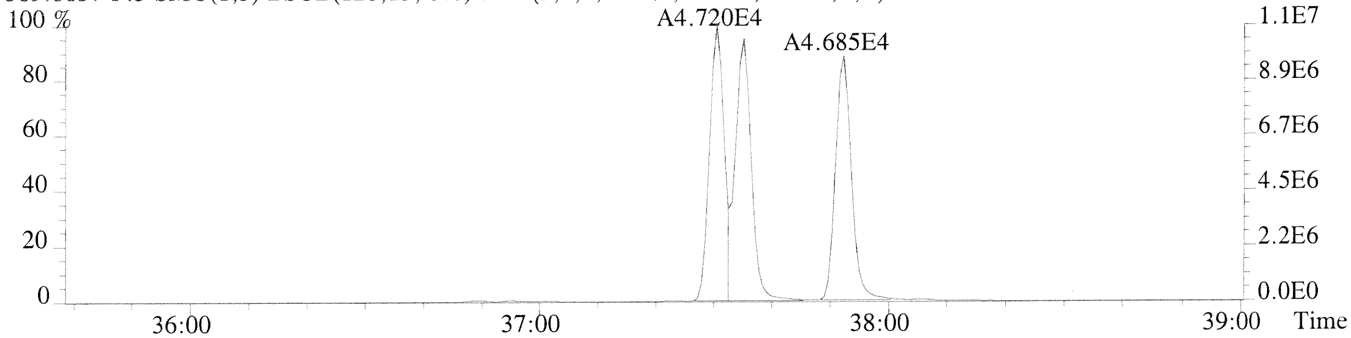
445.7555 F:3 PKD(5,3,5,100.00%,0.0,1.00%,F,F)



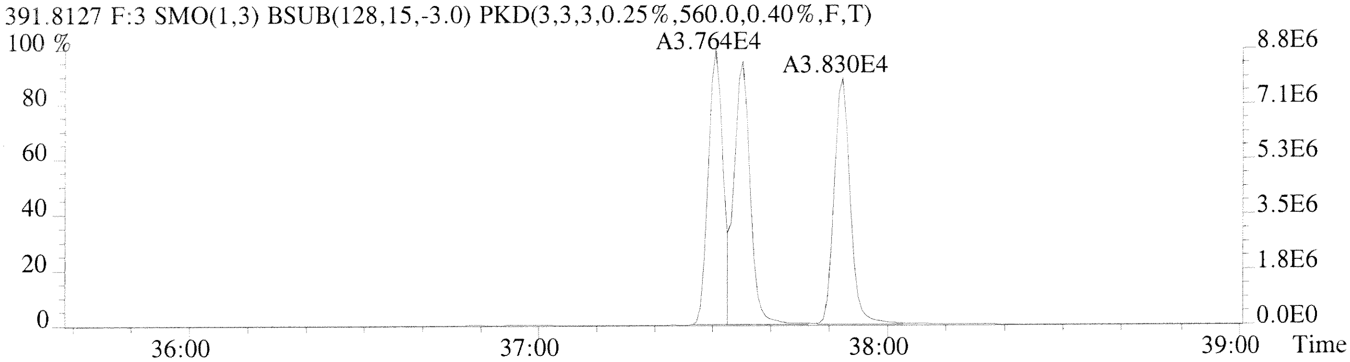
430.9728 F:3 PKD(3,3,3,100.00%,0.0,1.00%,F,F)



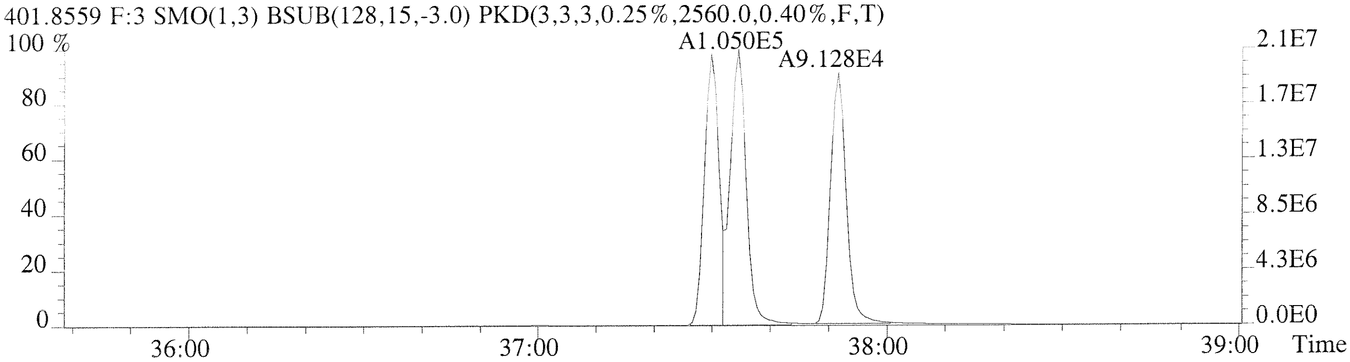
File: 7395 #1-306 Acq: 3-MAY-2012 12:23:07 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:2ND SOURCE VERIFICATION
389.8157 F:3 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,1864.0,0.40%,F,T)



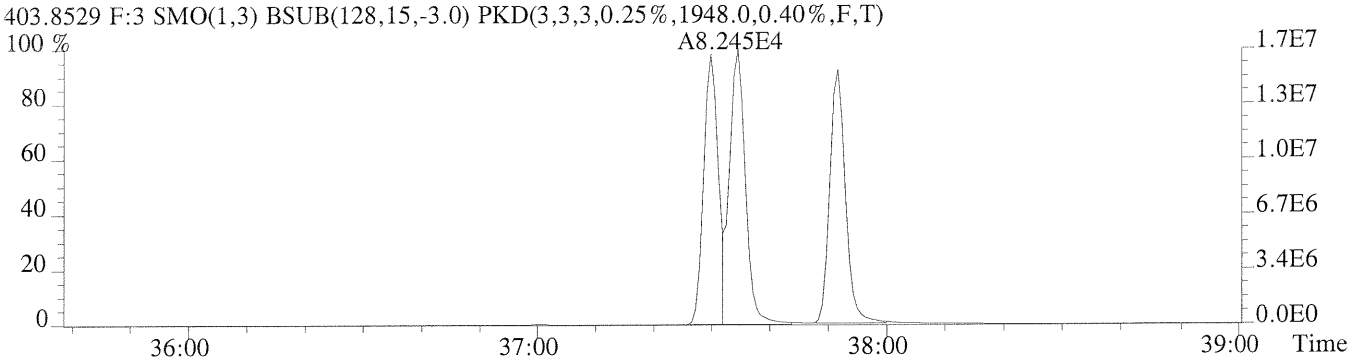
391.8127 F:3 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,560.0,0.40%,F,T)



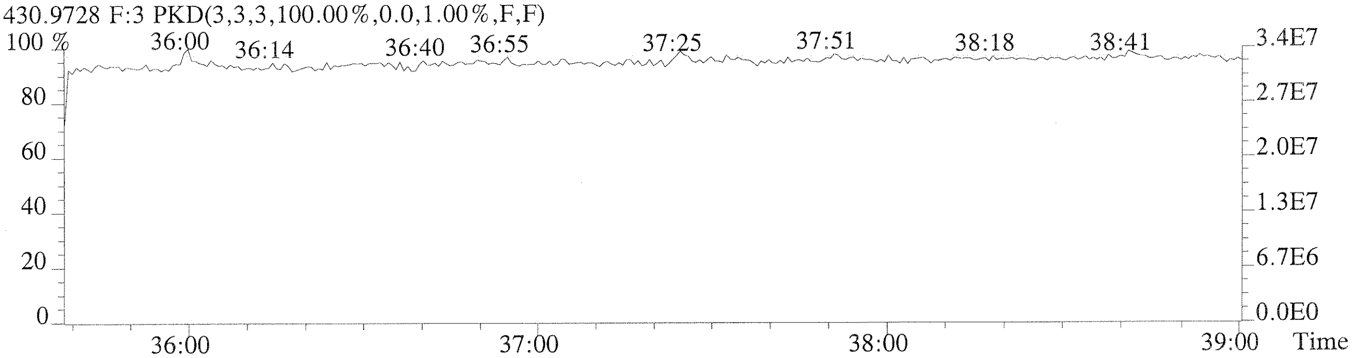
401.8559 F:3 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,2560.0,0.40%,F,T)



403.8529 F:3 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,1948.0,0.40%,F,T)

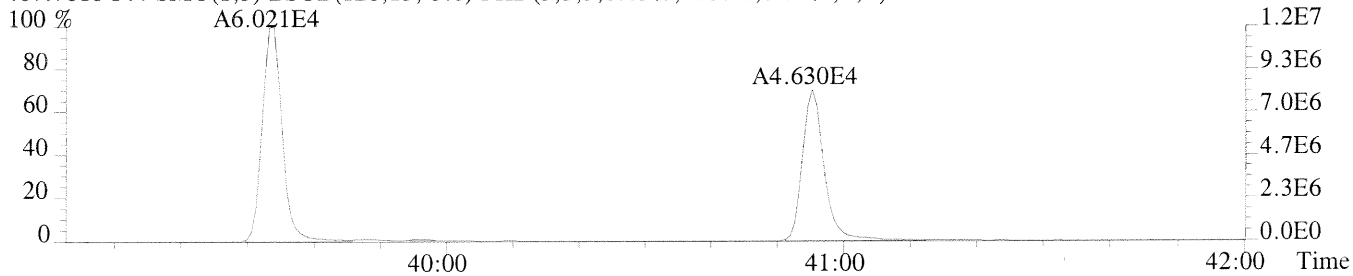


430.9728 F:3 PKD(3,3,3,100.00%,0.0,1.00%,F,F)

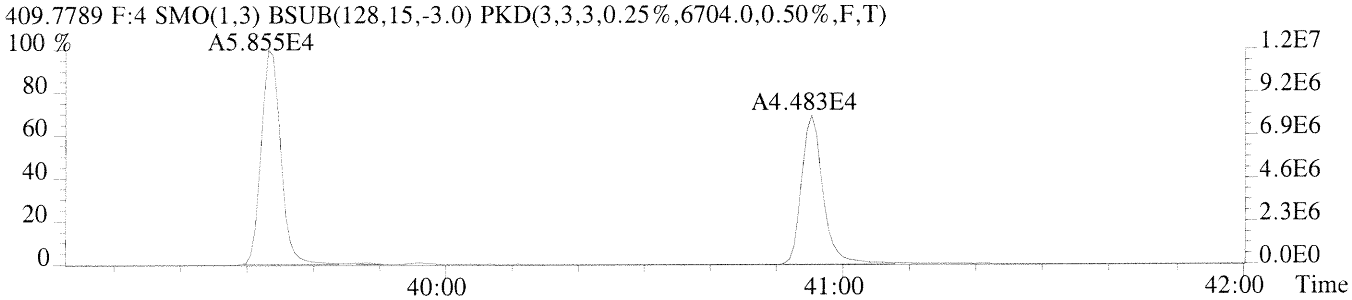


File: 7395 #1-269 Acq: 3-MAY-2012 12:23:07 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:2ND SOURCE VERIFICATION

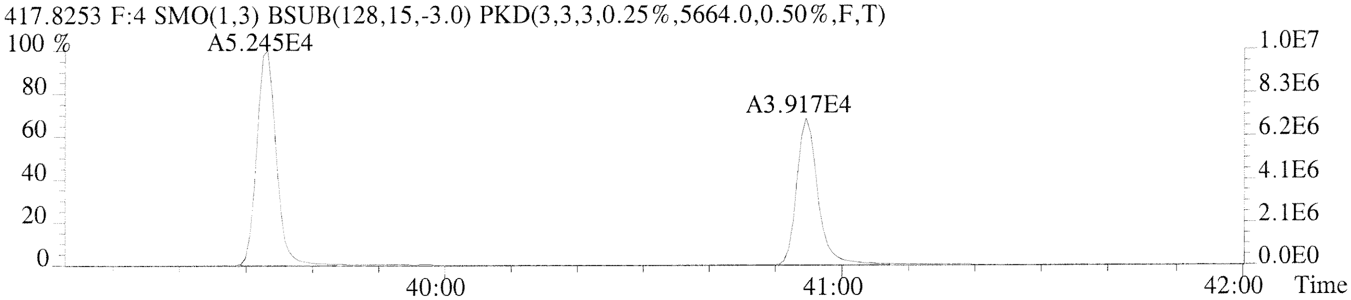
407.7818 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,7280.0,0.50%,F,T)



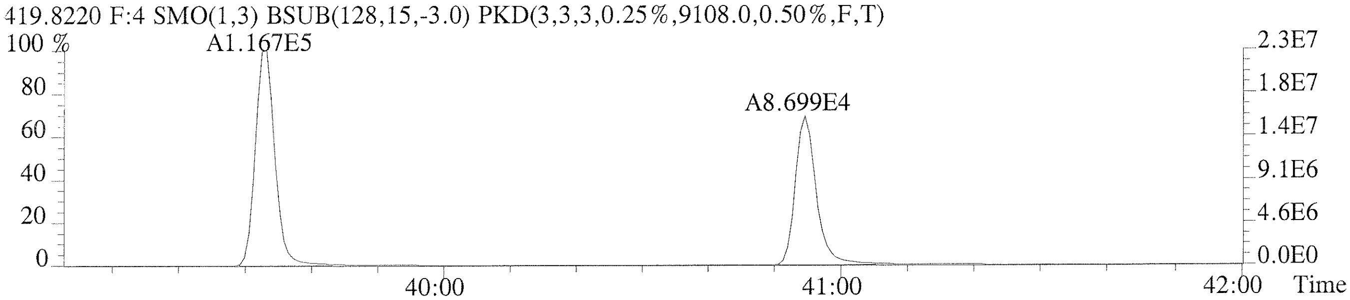
409.7789 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,6704.0,0.50%,F,T)



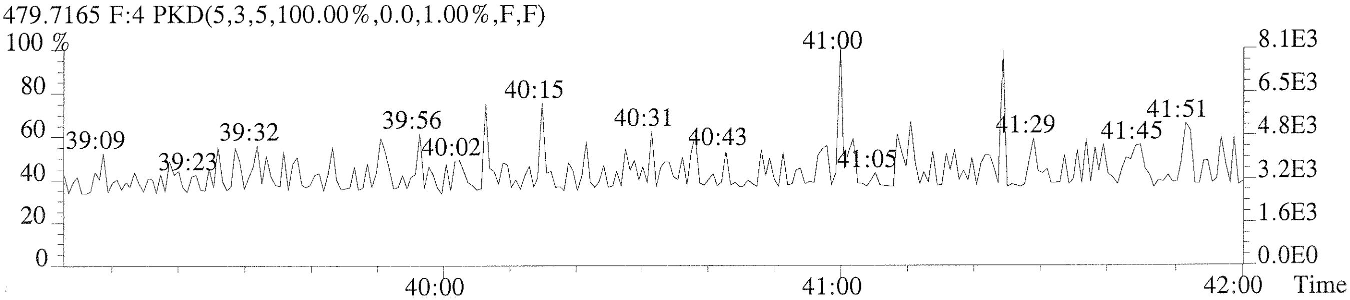
417.8253 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,5664.0,0.50%,F,T)



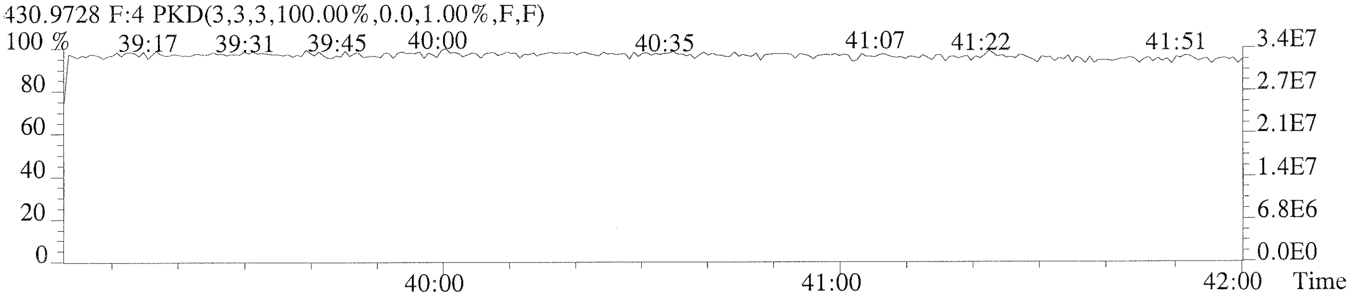
419.8220 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,9108.0,0.50%,F,T)



479.7165 F:4 PKD(5,3,5,100.00%,0.0,1.00%,F,F)

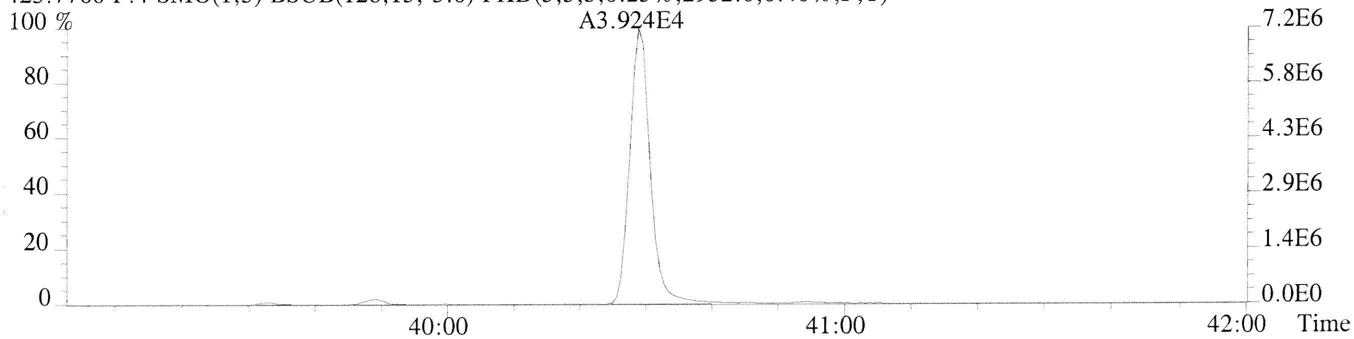


430.9728 F:4 PKD(3,3,3,100.00%,0.0,1.00%,F,F)

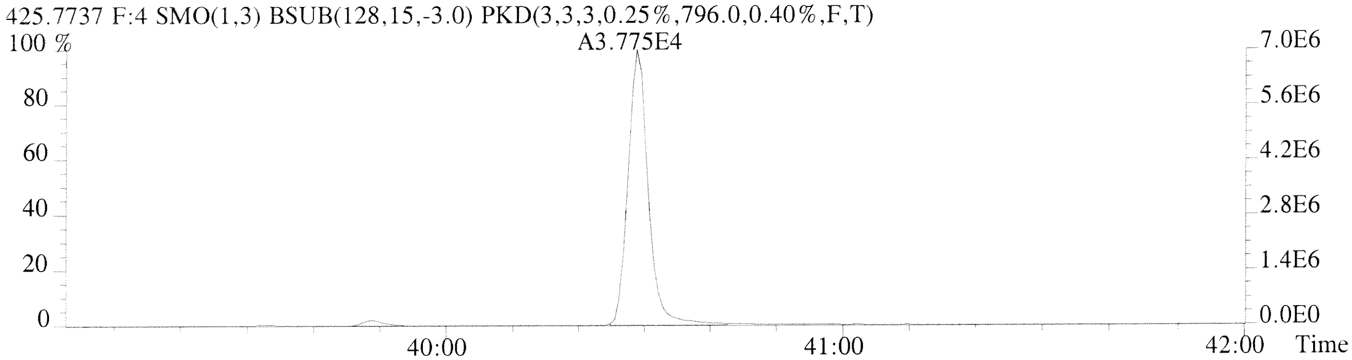


File: 7395 #1-269 Acq: 3-MAY-2012 12:23:07 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:2ND SOURCE VERIFICATION

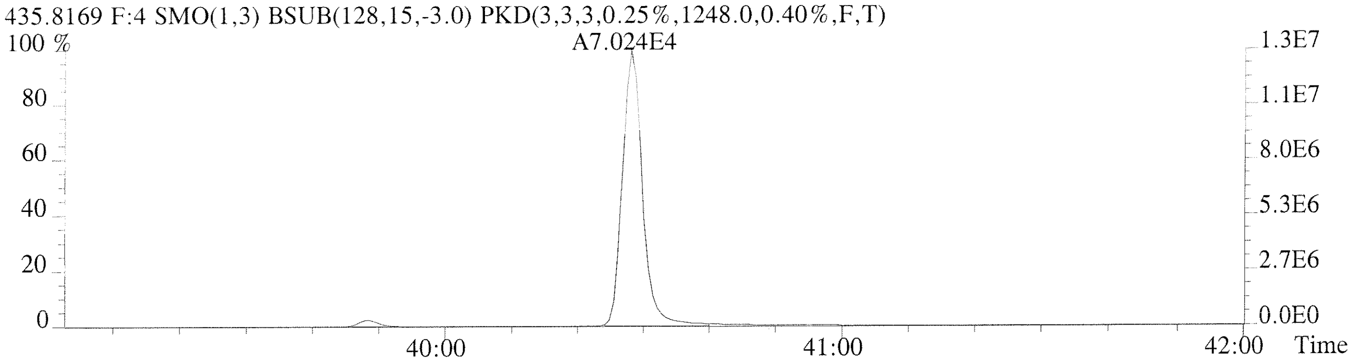
423.7766 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,2932.0,0.40%,F,T)



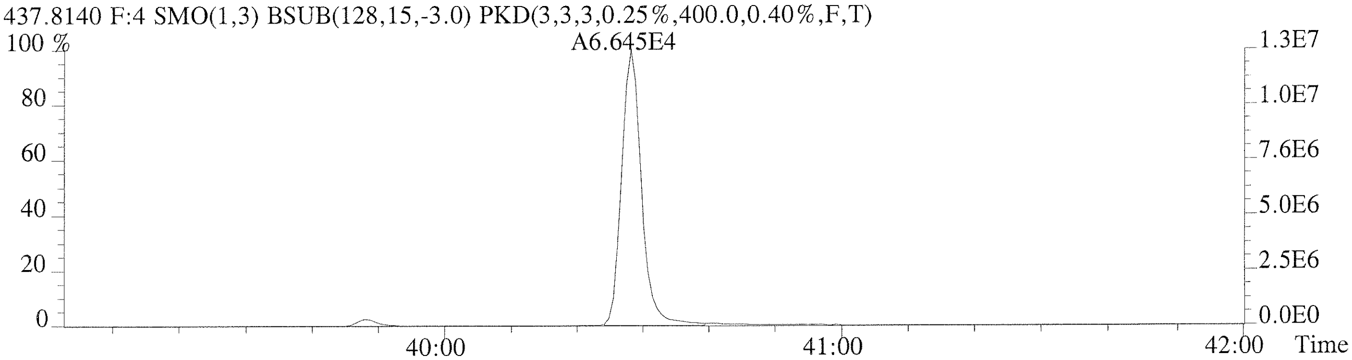
425.7737 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,796.0,0.40%,F,T)



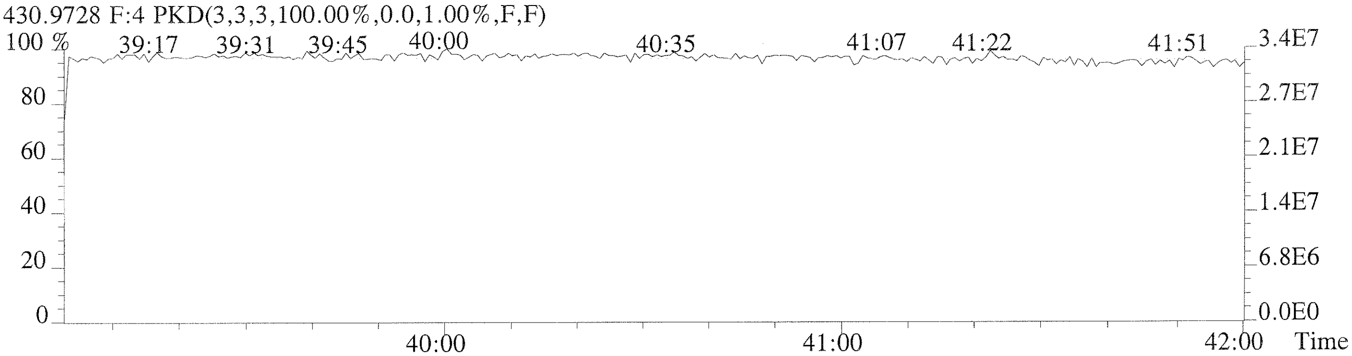
435.8169 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,1248.0,0.40%,F,T)



437.8140 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,400.0,0.40%,F,T)

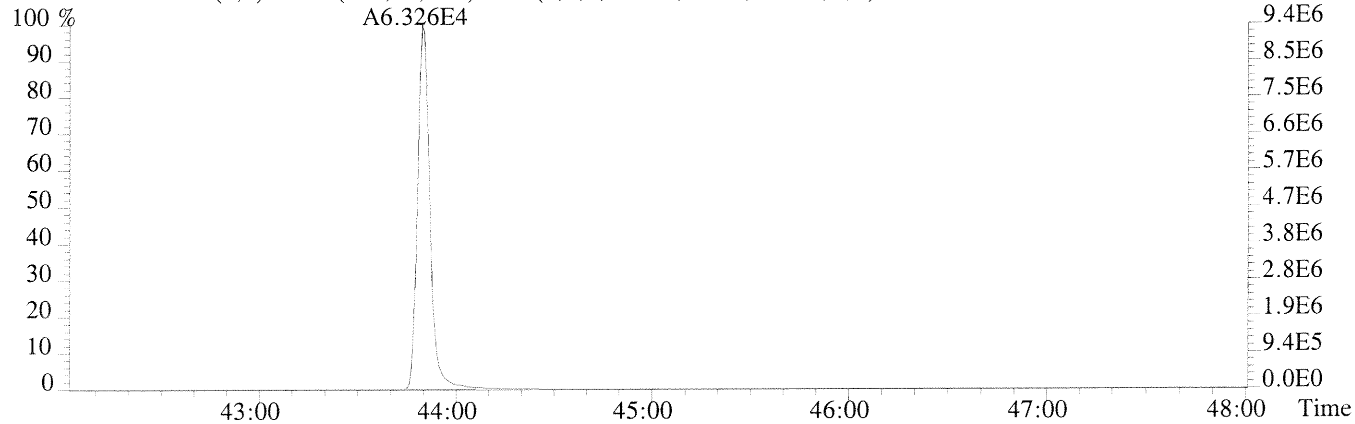


430.9728 F:4 PKD(3,3,3,100.00%,0.0,1.00%,F,F)

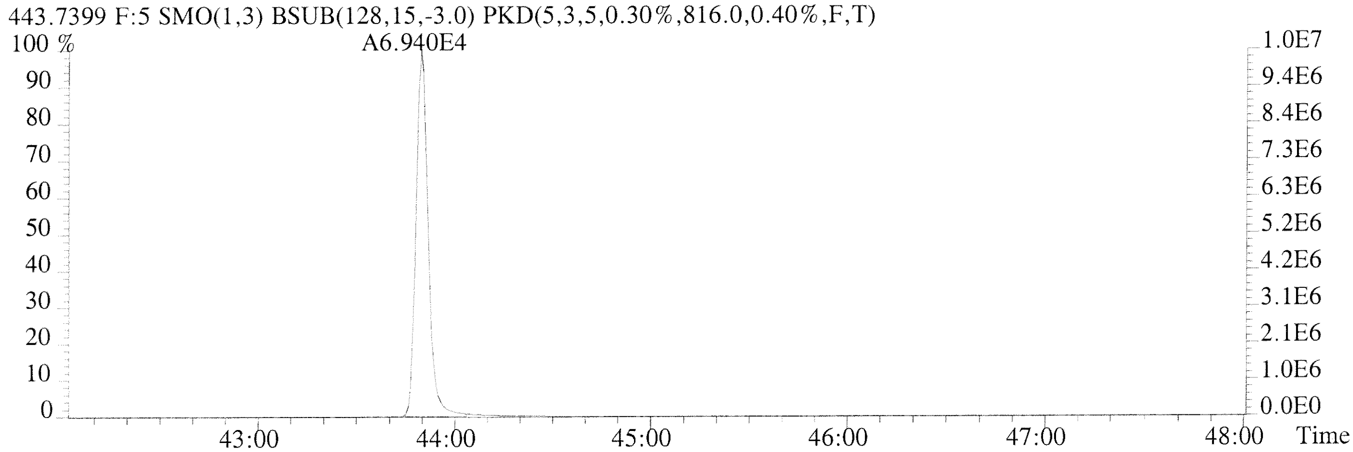


File: 7395 #1-549 Acq: 3-MAY-2012 12:23:07 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:2ND SOURCE VERIFICATION

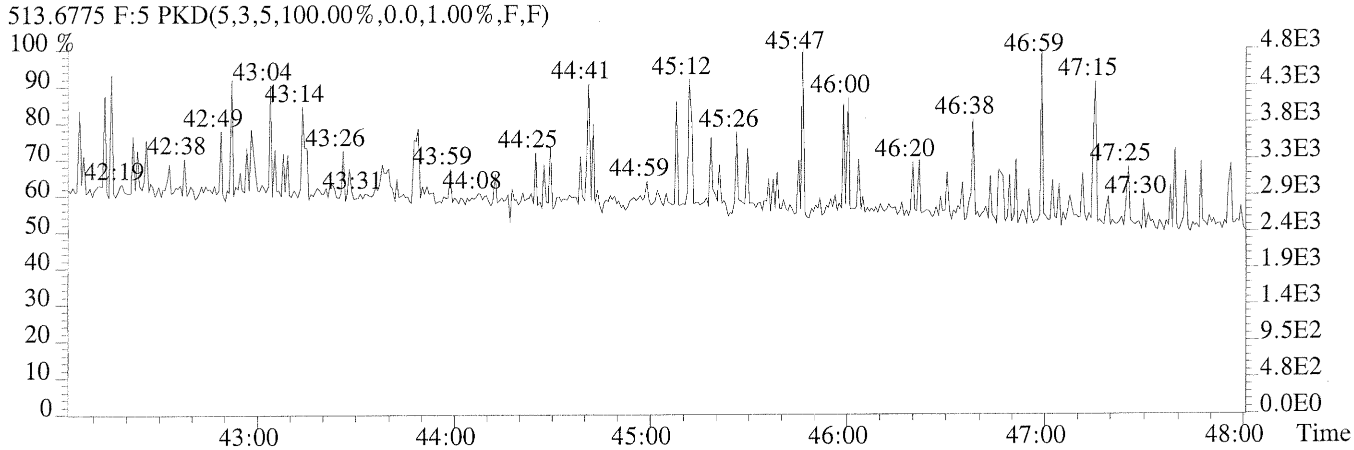
441.7428 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(5,3,5,0.30%,316.0,0.40%,F,T)



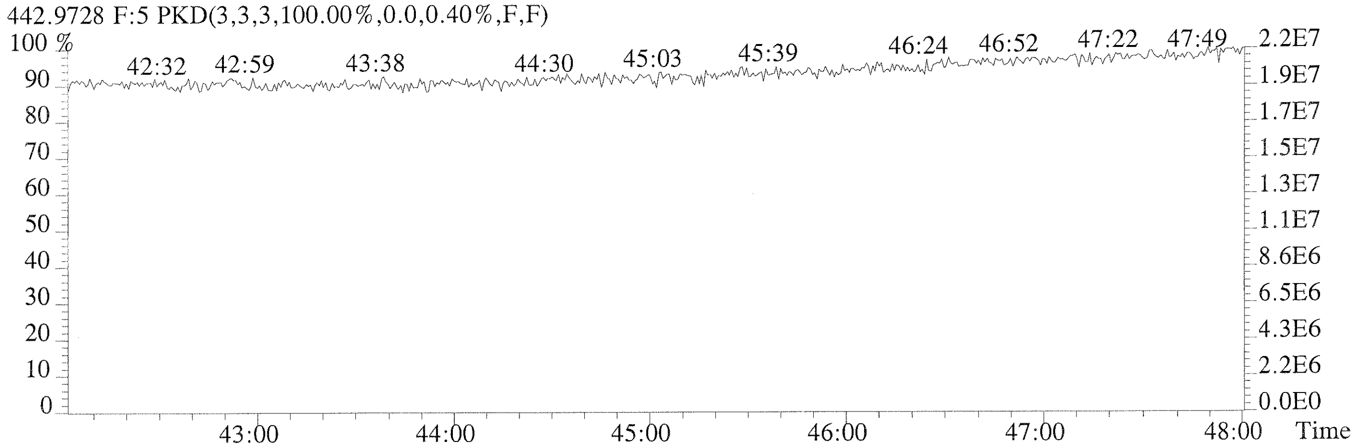
443.7399 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(5,3,5,0.30%,816.0,0.40%,F,T)



513.6775 F:5 PKD(5,3,5,100.00%,0.0,1.00%,F,F)

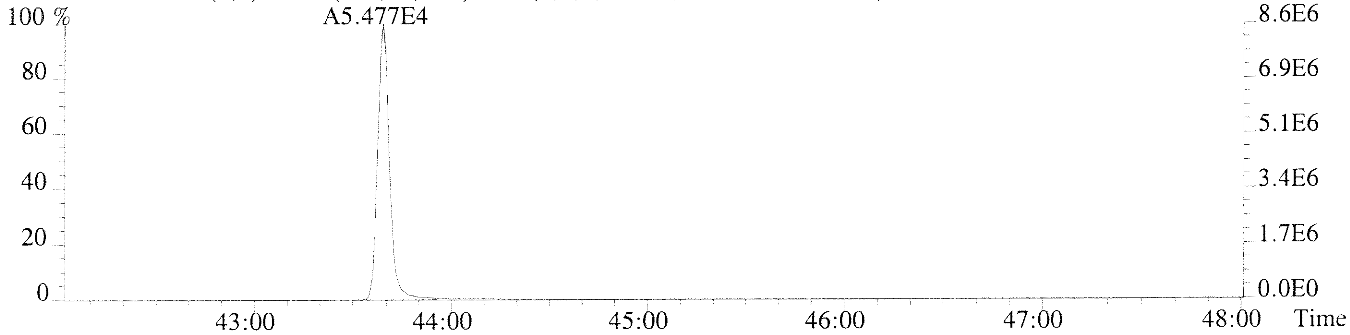


442.9728 F:5 PKD(3,3,3,100.00%,0.0,0.40%,F,F)

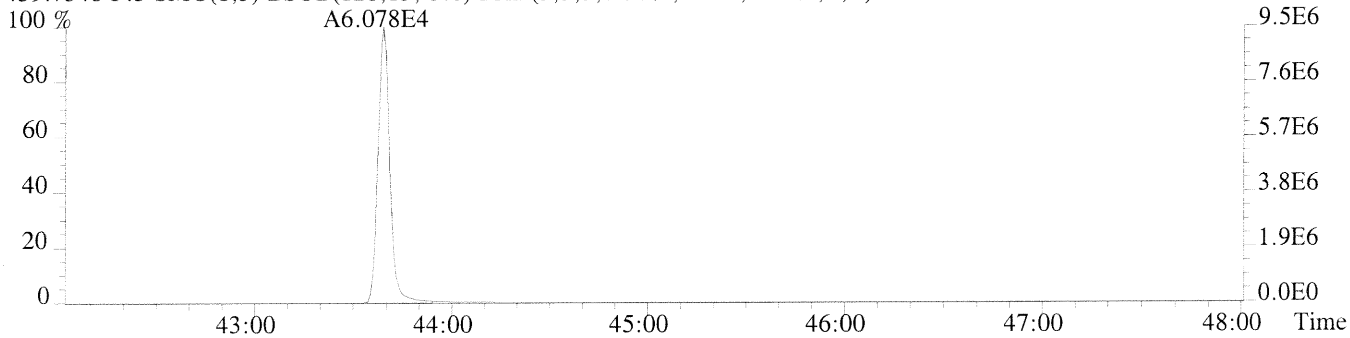


File: 7395 #1-549 Acq: 3-MAY-2012 12:23:07 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:2ND SOURCE VERIFICATION

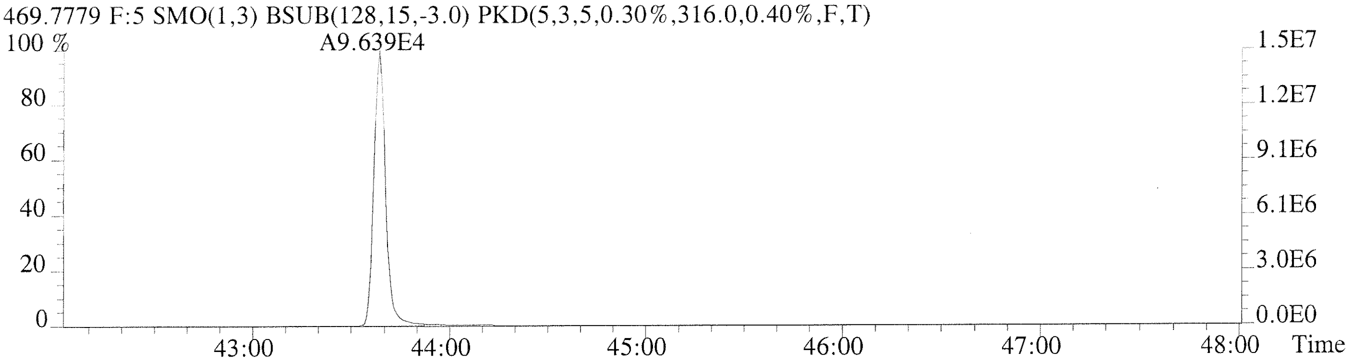
457.7377 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(5,3,5,0.30%,1004.0,0.40%,F,T)



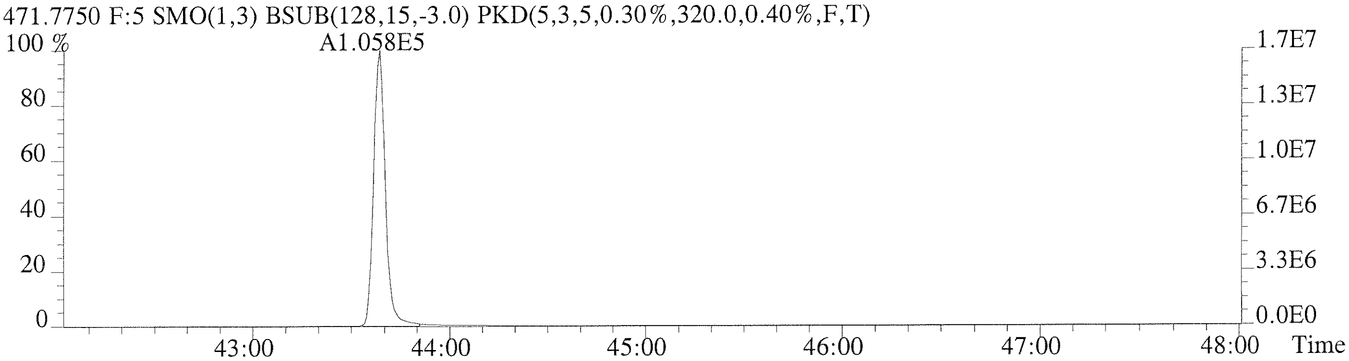
459.7348 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(5,3,5,0.30%,924.0,0.40%,F,T)



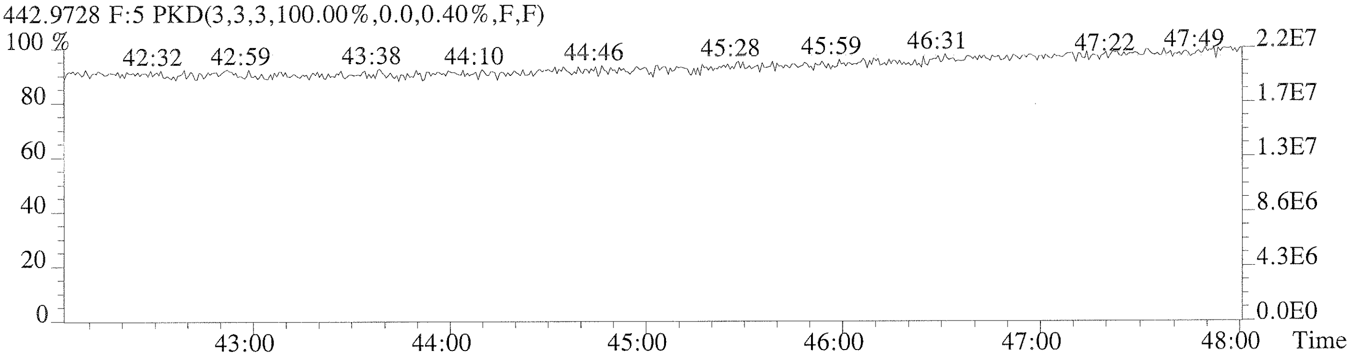
469.7779 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(5,3,5,0.30%,316.0,0.40%,F,T)



471.7750 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(5,3,5,0.30%,320.0,0.40%,F,T)



442.9728 F:5 PKD(3,3,3,100.00%,0.0,0.40%,F,F)



USEPA -
7DFA
CDD/CDF CONTINUING CALIBRATION SUMMARY
HIGH RESOLUTION

Lab Name: Contract No.:
Lab Code: Case No.: TO No.: SDG No.: 193
GC Column: DB-5 ID: 0.25(mm) Instrument ID: E-HRMS-03
Lab File ID: 3290 Analysis Date: 19-JUN-12 Time: 10:02:59
Init. Calib. Time.: 05:13 Init. Calib. Date(s).: 04/23/12

Target Analytes	SELECTED IONS	RR/ RRF	MEAN RR/ RRF	%D	%D FLAG	ION RATIO	ION RATIO FLAG	ION RATIO QC lIMITS
2,3,7,8-TCDD	320/322	0.99	0.98	1.36		0.76		0.65-0.89
2,3,7,8-TCDF	304/306	0.91	0.93	-2.46		0.76		0.65-0.89
1,2,3,7,8-PeCDF	340/342	0.96	1.00	-4.42		1.54		1.32-1.78
1,2,3,7,8-PeCDD	356/358	0.96	0.91	4.73		1.57		1.32-1.78
2,3,4,7,8-PeCDF	340/342	1.02	0.96	5.66		1.51		1.32-1.78
1,2,3,4,7,8-HxCDF	374/376	1.19	1.22	-2.71		1.20		1.05-1.43
1,2,3,6,7,8-HxCDF	374/376	1.19	1.14	4.82		1.20		1.05-1.43
1,2,3,4,7,8-HxCDD	390/392	1.11	1.00	11.22		1.28		1.05-1.43
1,2,3,6,7,8-HxCDD	390/392	0.91	0.98	-6.82		1.24		1.05-1.43
1,2,3,7,8,9-HxCDD	390/392	1.08	1.04	4.03		1.26		1.05-1.43
2,3,4,6,7,8-HxCDF	374/376	1.14	1.14	-0.24		1.19		1.05-1.43
1,2,3,7,8,9-HxCDF	374/376	1.15	1.16	-1.14		1.23		1.05-1.43
1,2,3,4,6,7,8-HpCDF	408/410	1.38	1.39	-1.03		1.01		0.88-1.20
1,2,3,4,6,7,8-HpCDD	424/426	1.00	1.00	0.06		1.05		0.88-1.20
1,2,3,4,7,8,9-HpCDF	408/410	1.39	1.33	4.37		1.01		0.88-1.20
OCDD	458/460	0.98	1.05	-6.75		0.88		0.76-1.02
OCDF	442/444	1.19	1.23	-3.17		0.89		0.76-1.02
Labeled Compoubds								
13C-2,3,7,8-TCDD	332/334	1.04	1.00	4.17		0.79		0.65-0.89
13C-1,2,3,7,8-PeCDD	368/370	0.93	0.82	13.37		1.57		1.32-1.78
13C-1,2,3,4,7,8-HxCDD	402/404	0.92	0.93	-0.97		1.27		1.05-1.43
13C-1,2,3,6,7,8-HxCDD	402/404	1.00	0.94	6.22		1.28		1.05-1.43
13C-1,2,3,4,6,7,8-HpCDD	424/426	0.89	0.82	8.74		1.06		0.88-1.20
13C-OCDD	470/472	0.76	0.59	27.94		0.90		0.76-1.02
13C-2,3,7,8-TCDF	316/318	1.36	1.28	6.04		0.78		0.65-0.89
13C-1,2,3,7,8-PeCDF	352/354	1.28	1.10	16.34		1.57		1.32-1.78
13C-2,3,4,7,8-PeCDF	352/354	1.21	1.07	13.99		1.57		1.32-1.78
13C-1,2,3,4,7,8-HxCDF	384/386	1.11	1.06	4.53		0.52		0.43-0.59
13C-1,2,3,6,7,8-HxCDF	384/386	1.18	1.19	-0.75		0.52		0.43-0.59
13C-2,3,4,6,7,8-HxCDF	384/386	1.14	1.10	3.75		0.52		0.43-0.59
13C-1,2,3,7,8,9-HxCDF	384/386	1.07	0.98	8.86		0.53		0.43-0.59
13C-1,2,3,4,6,7,8-HpCDF	418/420	0.92	0.84	9.95		0.45		0.37-0.51
13C-1,2,3,4,7,8,9-HpCDF	418/420	0.79	0.71	12.05		0.44		0.37-0.51
CLEAN-UP								
37Cl-2,3,7,8-TCDD	328/NA	1.06	1.04	1.65		NA		NA
Internal Standards								
13C-1,2,3,4-TCDD	332/334	NA	NA	NA	NA	0.80		0.65-0.89
13C-1,2,3,7,8,9-HxCDD	402/404	NA	NA	NA	NA	1.26		1.05-1.43

The laboratory must flag any analyte which does not meet criteria for percent Difference (%D) or ion abundance ratio by placing an asterisk in the the appropriate flag column.

USEPA -
7DFA
CDD/CDF CONTINUING CALIBRATION SUMMARY
HIGH RESOLUTION

Lab Name: Contract No.:
Lab Code: Case No.: TO No.: SDG No.: 193
GC Column: DB-5 ID: 0.25(mm) Instrument ID: E-HRMS-03
Lab File ID: 8295 Analysis Date: 19-JUN-12 Time: 16:30:11
Init. Calib. Time.: 05:13 Init. Calib. Date(s).: 04/23/12

Target Analytes	SELECTED IONS	RR/ RRF	MEAN RR/ RRF	%D	%D FLAG	ION RATIO	ION RATIO FLAG	ION RATIO QC lIMITS
2,3,7,8-TCDD	320/322	1.00	0.98	2.51		0.78		0.65-0.89
2,3,7,8-TCDF	304/306	0.91	0.93	-1.66		0.76		0.65-0.89
1,2,3,7,8-PeCDF	340/342	0.95	1.00	-4.81		1.56		1.32-1.78
1,2,3,7,8-PeCDD	356/358	0.96	0.91	5.03		1.54		1.32-1.78
2,3,4,7,8-PeCDF	340/342	1.02	0.96	6.45		1.55		1.32-1.78
1,2,3,4,7,8-HxCDF	374/376	1.20	1.22	-1.45		1.23		1.05-1.43
1,2,3,6,7,8-HxCDF	374/376	1.22	1.14	7.00		1.23		1.05-1.43
1,2,3,4,7,8-HxCDD	390/392	1.11	1.00	11.05		1.26		1.05-1.43
1,2,3,6,7,8-HxCDD	390/392	0.91	0.98	-7.36		1.31		1.05-1.43
1,2,3,7,8,9-HxCDD	390/392	1.04	1.04	-0.02		1.27		1.05-1.43
2,3,4,6,7,8-HxCDF	374/376	1.14	1.14	0.06		1.20		1.05-1.43
1,2,3,7,8,9-HxCDF	374/376	1.15	1.16	-1.52		1.24		1.05-1.43
1,2,3,4,6,7,8-HpCDF	408/410	1.40	1.39	0.24		1.03		0.88-1.20
1,2,3,4,6,7,8-HpCDD	424/426	1.00	1.00	0.19		1.07		0.88-1.20
1,2,3,4,7,8,9-HpCDF	408/410	1.44	1.33	7.56		1.05		0.88-1.20
OCDD	458/460	0.98	1.05	-7.32		0.89		0.76-1.02
OCDF	442/444	1.16	1.23	-5.07		0.90		0.76-1.02
Labeled Compoubds								
13C-2,3,7,8-TCDD	332/334	1.07	1.00	6.88		0.79		0.65-0.89
13C-1,2,3,7,8-PeCDD	368/370	0.93	0.82	13.90		1.58		1.32-1.78
13C-1,2,3,4,7,8-HxCDD	402/404	1.04	0.93	11.77		1.28		1.05-1.43
13C-1,2,3,6,7,8-HxCDD	402/404	1.07	0.94	14.38		1.27		1.05-1.43
13C-1,2,3,4,6,7,8-HpCDD	424/426	0.99	0.82	21.19		1.07		0.88-1.20
13C-OCDD	470/472	0.78	0.59	31.20		0.91		0.76-1.02
13C-2,3,7,8-TCDF	316/318	1.33	1.28	3.92		0.78		0.65-0.89
13C-1,2,3,7,8-PeCDF	352/354	1.26	1.10	14.32		1.58		1.32-1.78
13C-2,3,4,7,8-PeCDF	352/354	1.20	1.07	12.55		1.59		1.32-1.78
13C-1,2,3,4,7,8-HxCDF	384/386	1.29	1.06	21.67		0.53		0.43-0.59
13C-1,2,3,6,7,8-HxCDF	384/386	1.26	1.19	5.44		0.53		0.43-0.59
13C-2,3,4,6,7,8-HxCDF	384/386	1.21	1.10	9.72		0.53		0.43-0.59
13C-1,2,3,7,8,9-HxCDF	384/386	1.11	0.98	13.73		0.53		0.43-0.59
13C-1,2,3,4,6,7,8-HpCDF	418/420	0.81	0.84	-2.69		0.46		0.37-0.51
13C-1,2,3,4,7,8,9-HpCDF	418/420	0.81	0.71	14.72		0.46		0.37-0.51
CLEAN-UP								
37Cl-2,3,7,8-TCDD	328/NA	1.11	1.04	6.78		NA		NA
Internal Standards								
13C-1,2,3,4-TCDD	332/334	NA	NA	NA	NA	0.80		0.65-0.89
13C-1,2,3,7,8,9-HxCDD	402/404	NA	NA	NA	NA	1.30		1.05-1.43

The laboratory must flag any analyte which does not meet criteria for percent Difference (%D) or ion abundance ratio by placing an asterisk in the appropriate flag column.

USEPA -
7DFA
CDD/CDF CONTINUING CALIBRATION SUMMARY
HIGH RESOLUTION

Lab Name: - Contract No.:
Lab Code: Case No.: TO No.: SDG No.: 192
GC Column: DB-5 ID: 0.25(mm) Instrument ID: E-HRMS-04
Lab File ID: 8344 Analysis Date: 12-JUL-12 Time: 09:27:51
Init. Calib. Time.: 05:17 Init. Calib. Date(s).: 05/03/12

Target Analytes	SELECTED IONS	RR/ RRF	MEAN RR/ RRF	%D	%D FLAG	ION RATIO	ION RATIO FLAG	ION RATIO QC lIMITS
2,3,7,8-TCDD	320/322	1.00	1.01	-1.58		0.78		0.65-0.89
2,3,7,8-TCDF	304/306	0.92	0.95	-2.85		0.78		0.65-0.89
1,2,3,7,8-PeCDF	340/342	0.92	0.99	-6.38		1.53		1.32-1.78
1,2,3,7,8-PeCDD	356/358	0.94	0.96	-1.99		1.58		1.32-1.78
2,3,4,7,8-PeCDF	340/342	0.99	0.95	3.42		1.56		1.32-1.78
1,2,3,4,7,8-HxCDF	374/376	1.14	1.24	-8.00		1.21		1.05-1.43
1,2,3,6,7,8-HxCDF	374/376	1.16	1.17	-0.82		1.23		1.05-1.43
1,2,3,4,7,8-HxCDD	390/392	1.22	1.07	13.22		1.25		1.05-1.43
1,2,3,6,7,8-HxCDD	390/392	0.87	1.04	-15.71		1.24		1.05-1.43
1,2,3,7,8,9-HxCDD	390/392	0.98	1.07	-9.11		1.22		1.05-1.43
2,3,4,6,7,8-HxCDF	374/376	1.08	1.16	-7.13		1.21		1.05-1.43
1,2,3,7,8,9-HxCDF	374/376	1.09	1.19	-7.66		1.23		1.05-1.43
1,2,3,4,6,7,8-HpCDF	408/410	1.27	1.40	-9.29		1.01		0.88-1.20
1,2,3,4,6,7,8-HpCDD	424/426	1.02	1.05	-2.85		1.04		0.88-1.20
1,2,3,4,7,8,9-HpCDF	408/410	1.31	1.34	-2.23		1.00		0.88-1.20
OCDD	458/460	1.02	1.19	-14.40		0.90		0.76-1.02
OCDF	442/444	1.19	1.30	-8.96		0.89		0.76-1.02
Labeled Compoubds								
13C-2,3,7,8-TCDD	332/334	0.94	0.93	1.05		0.78		0.65-0.89
13C-1,2,3,7,8-PeCDD	368/370	0.79	0.93	-14.29		1.60		1.32-1.78
13C-1,2,3,4,7,8-HxCDD	402/404	0.93	0.95	-1.93		1.28		1.05-1.43
13C-1,2,3,6,7,8-HxCDD	402/404	1.14	1.01	12.17		1.27		1.05-1.43
13C-1,2,3,4,6,7,8-HpCDD	424/426	0.87	0.89	-2.23		1.06		0.88-1.20
13C-OCDD	470/472	0.77	0.63	21.15		0.91		0.76-1.02
13C-2,3,7,8-TCDF	316/318	1.40	1.28	9.92		0.78		0.65-0.89
13C-1,2,3,7,8-PeCDF	352/354	1.21	1.28	-5.73		1.61		1.32-1.78
13C-2,3,4,7,8-PeCDF	352/354	1.18	1.29	-8.61		1.59		1.32-1.78
13C-1,2,3,4,7,8-HxCDF	384/386	1.22	1.16	5.55		0.52		0.43-0.59
13C-1,2,3,6,7,8-HxCDF	384/386	1.24	1.34	-7.74		0.52		0.43-0.59
13C-2,3,4,6,7,8-HxCDF	384/386	1.18	1.18	0.19		0.52		0.43-0.59
13C-1,2,3,7,8,9-HxCDF	384/386	1.02	1.02	0.77		0.53		0.43-0.59
13C-1,2,3,4,6,7,8-HpCDF	418/420	1.08	0.95	12.83		0.44		0.37-0.51
13C-1,2,3,4,7,8,9-HpCDF	418/420	0.82	0.78	5.34		0.43		0.37-0.51
CLEAN-UP								
37Cl-2,3,7,8-TCDD	328/NA	0.96	0.96	0.76		NA		NA
Internal Standards								
13C-1,2,3,4-TCDD	332/334	NA	NA	NA	NA	0.80		0.65-0.89
13C-1,2,3,7,8,9-HxCDD	402/404	NA	NA	NA	NA	1.27		1.05-1.43

The laboratory must flag any analyte which does not meet criteria for percent Difference (%D) or ion abundance ratio by placing an asterisk in the appropriate flag column.

USEPA -
7DFA
CDD/CDF CONTINUING CALIBRATION SUMMARY
HIGH RESOLUTION

Lab Name: Contract No.:
Lab Code: Case No.: TO No.: SDG No.: 193
GC Column: DB-5 ID: 0.25(mm) Instrument ID: E-HRMS-04
Lab File ID: 8349 Analysis Date: 12-JUL-12 Time: 16:15:34
Init. Calib. Time.: 05:17 Init. Calib. Date(s).: 05/03/12

Target Analytes	SELECTED IONS	RR/ RRF	MEAN RR/ RRF	%D	%D FLAG	ION RATIO	ION RATIO FLAG	ION RATIO QC lIMITS
2,3,7,8-TCDD	320/322	1.01	1.01	-0.03		0.79		0.65-0.89
2,3,7,8-TCDF	304/306	0.94	0.95	-0.76		0.76		0.65-0.89
1,2,3,7,8-PeCDF	340/342	0.94	0.99	-5.19		1.53		1.32-1.78
1,2,3,7,8-PeCDD	356/358	0.97	0.96	0.44		1.55		1.32-1.78
2,3,4,7,8-PeCDF	340/342	1.00	0.95	4.67		1.56		1.32-1.78
1,2,3,4,7,8-HxCDF	374/376	1.15	1.24	-6.88		1.23		1.05-1.43
1,2,3,6,7,8-HxCDF	374/376	1.15	1.17	-1.36		1.25		1.05-1.43
1,2,3,4,7,8-HxCDD	390/392	1.10	1.07	2.03		1.26		1.05-1.43
1,2,3,6,7,8-HxCDD	390/392	0.94	1.04	-9.39		1.25		1.05-1.43
1,2,3,7,8,9-HxCDD	390/392	1.04	1.07	-2.94		1.26		1.05-1.43
2,3,4,6,7,8-HxCDF	374/376	1.10	1.16	-5.54		1.27		1.05-1.43
1,2,3,7,8,9-HxCDF	374/376	1.11	1.19	-6.04		1.23		1.05-1.43
1,2,3,4,6,7,8-HpCDF	408/410	1.30	1.40	-7.42		1.01		0.88-1.20
1,2,3,4,6,7,8-HpCDD	424/426	1.00	1.05	-5.00		1.05		0.88-1.20
1,2,3,4,7,8,9-HpCDF	408/410	1.32	1.34	-1.01		0.98		0.88-1.20
OCDD	458/460	1.00	1.19	-15.85		0.89		0.76-1.02
OCDF	442/444	1.17	1.30	-10.02		0.89		0.76-1.02
Labeled Compoubds								
13C-2,3,7,8-TCDD	332/334	0.90	0.93	-3.96		0.78		0.65-0.89
13C-1,2,3,7,8-PeCDD	368/370	0.67	0.93	-28.01		1.61		1.32-1.78
13C-1,2,3,4,7,8-HxCDD	402/404	0.96	0.95	1.68		1.28		1.05-1.43
13C-1,2,3,6,7,8-HxCDD	402/404	1.03	1.01	2.11		1.29		1.05-1.43
13C-1,2,3,4,6,7,8-HpCDD	424/426	0.88	0.89	-1.00		1.05		0.88-1.20
13C-OCDD	470/472	0.63	0.63	-0.65		0.91		0.76-1.02
13C-2,3,7,8-TCDF	316/318	1.31	1.28	3.01		0.80		0.65-0.89
13C-1,2,3,7,8-PeCDF	352/354	1.06	1.28	-16.88		1.61		1.32-1.78
13C-2,3,4,7,8-PeCDF	352/354	0.98	1.29	-24.19		1.60		1.32-1.78
13C-1,2,3,4,7,8-HxCDF	384/386	1.33	1.16	15.34		0.53		0.43-0.59
13C-1,2,3,6,7,8-HxCDF	384/386	1.36	1.34	1.24		0.52		0.43-0.59
13C-2,3,4,6,7,8-HxCDF	384/386	1.28	1.18	8.02		0.53		0.43-0.59
13C-1,2,3,7,8,9-HxCDF	384/386	1.04	1.02	2.24		0.53		0.43-0.59
13C-1,2,3,4,6,7,8-HpCDF	418/420	1.02	0.95	6.59		0.44		0.37-0.51
13C-1,2,3,4,7,8,9-HpCDF	418/420	0.74	0.78	-4.75		0.44		0.37-0.51
CLEAN-UP								
37Cl-2,3,7,8-TCDD	328/NA	0.91	0.96	-4.62		NA		NA
Internal Standards								
13C-1,2,3,4-TCDD	332/334	NA	NA	NA	NA	0.78		0.65-0.89
13C-1,2,3,7,8,9-HxCDD	402/404	NA	NA	NA	NA	1.27		1.05-1.43

The laboratory must flag any analyte which does not meet criteria for percent Difference (%D) or ion abundance ratio by placing an asterisk in the appropriate flag column.

USEPA -
7DFB
CDD/CDF CONTINUING CALIBRATION RETENTION TIME SUMMARY
HIGH RESOLUTION

Lab Name: Contract No.:
Lab Code: Case No.: TO No.: SDG No.: 193
GC Column: DB-5 ID: 0.25(mm) Instrument ID: E-HRMS-03
Lab File ID: 8290 Analysis Date: 19-JUN-12 Time: 10:02:59
Init. Calib. Time.: 05:13 Init. Calib. Date(s).: 04/23/12

Target Analytes	RRT	RT
2,3,7,8-TCDD	1.001	29:11
2,3,7,8-TCDF	1.001	28:19
1,2,3,7,8-PeCDF	1.001	32:47
1,2,3,7,8-PeCDD	1.000	33:53
2,3,4,7,8-PeCDF	1.000	33:31
1,2,3,4,7,8-HxCDF	1.000	36:23
1,2,3,6,7,8-HxCDF	1.000	36:29
1,2,3,4,7,8-HxCDD	1.000	37:05
1,2,3,6,7,8-HxCDD	1.000	37:09
1,2,3,7,8,9-HxCDD	1.008	37:26
2,3,4,6,7,8-HxCDF	1.000	36:57
1,2,3,7,8,9-HxCDF	1.000	37:40
1,2,3,4,6,7,8-HpCDF	1.000	39:07
1,2,3,4,6,7,8-HpCDD	1.000	40:00
1,2,3,4,7,8,9-HpCDF	1.000	40:23
OCDD	1.000	43:01
OCDF	1.004	43:10
Labeled Compoubds		
13C-2,3,7,8-TCDD	1.007	29:10
13C-1,2,3,7,8-PeCDD	1.170	33:52
13C-1,2,3,4,7,8-HxCDD	0.990	37:04
13C-1,2,3,6,7,8-HxCDD	0.992	37:09
13C-1,2,3,4,6,7,8-HpCDD	1.068	39:59
13C-OCDD	1.149	43:00
13C-2,3,7,8-TCDF	0.978	28:18
13C-1,2,3,7,8-PeCDF	1.132	32:46
13C-2,3,4,7,8-PeCDF	1.158	33:31
13C-1,2,3,4,7,8-HxCDF	0.972	36:22
13C-1,2,3,6,7,8-HxCDF	0.974	36:28
13C-2,3,4,6,7,8-HxCDF	0.987	36:57
13C-1,2,3,7,8,9-HxCDF	1.006	37:39
13C-1,2,3,4,6,7,8-HpCDF	1.045	39:06
13C-1,2,3,4,7,8,9-HpCDF	1.079	40:23
CLEAN-UP		
37Cl-2,3,7,8-TCDD	NA	29:11
Internal Standards		
13C-1,2,3,4-TCDD	NA	28:57
13C-1,2,3,7,8,9-HxCDD	NA	37:26

RRT = (RT of analyte)/(rt of appropriate labeled compound)

USEPA -
7DFB
CDD/CDF CONTINUING CALIBRATION RETENTION TIME SUMMARY
HIGH RESOLUTION

Lab Name: Contract No.:
Lab Code: Case No.: TO No.: SDG No.: 193
GC Column: DB-5 ID: 0.25(mm) Instrument ID: E-HRMS-03
Lab File ID: 8295 Analysis Date: 19-JUN-12 Time: 16:30:11
Init. Calib. Time.: 05:13 Init. Calib. Date(s).: 04/23/12

Target Analytes	RRT	RT
2,3,7,8-TCDD	1.001	29:14
2,3,7,8-TCDF	1.001	28:22
1,2,3,7,8-PeCDF	1.001	32:49
1,2,3,7,8-PeCDD	1.000	33:55
2,3,4,7,8-PeCDF	1.000	33:33
1,2,3,4,7,8-HxCDF	1.000	36:25
1,2,3,6,7,8-HxCDF	1.000	36:30
1,2,3,4,7,8-HxCDD	1.000	37:07
1,2,3,6,7,8-HxCDD	1.000	37:11
1,2,3,7,8,9-HxCDD	1.008	37:28
2,3,4,6,7,8-HxCDF	1.000	36:59
1,2,3,7,8,9-HxCDF	1.000	37:42
1,2,3,4,6,7,8-HpCDF	1.000	39:09
1,2,3,4,6,7,8-HpCDD	1.000	40:02
1,2,3,4,7,8,9-HpCDF	1.000	40:25
OCDD	1.000	43:02
OCDF	1.003	43:11
Labeled Compoubds		
13C-2,3,7,8-TCDD	1.007	29:12
13C-1,2,3,7,8-PeCDD	1.170	33:54
13C-1,2,3,4,7,8-HxCDD	0.990	37:06
13C-1,2,3,6,7,8-HxCDD	0.992	37:11
13C-1,2,3,4,6,7,8-HpCDD	1.068	40:01
13C-OCDD	1.149	43:02
13C-2,3,7,8-TCDF	0.978	28:20
13C-1,2,3,7,8-PeCDF	1.132	32:48
13C-2,3,4,7,8-PeCDF	1.158	33:33
13C-1,2,3,4,7,8-HxCDF	0.972	36:24
13C-1,2,3,6,7,8-HxCDF	0.974	36:30
13C-2,3,4,6,7,8-HxCDF	0.987	36:59
13C-1,2,3,7,8,9-HxCDF	1.006	37:41
13C-1,2,3,4,6,7,8-HpCDF	1.044	39:08
13C-1,2,3,4,7,8,9-HpCDF	1.079	40:25
CLEAN-UP		
37Cl-2,3,7,8-TCDD	NA	29:14
Internal Standards		
13C-1,2,3,4-TCDD	NA	28:59
13C-1,2,3,7,8,9-HxCDD	NA	37:28

RRT = (RT of analyte)/(rt of appropriate labeled compound)

USEPA -
7DFB
CDD/CDF CONTINUING CALIBRATION RETENTION TIME SUMMARY
HIGH RESOLUTION

Lab Name: Contract No.:
Lab Code: Case No.: TO No.: SDG No.: 192
GC Column: DB-5 ID: 0.25(mm) Instrument ID: E-HRMS-04
Lab File ID: 8344 Analysis Date: 12-JUL-12 Time: 09:27:51
Init. Calib. Time.: 05:17 Init. Calib. Date(s).: 05/03/12

Target Analytes	RRT	RT
2,3,7,8-TCDD	1.001	29:05
2,3,7,8-TCDF	1.001	28:12
1,2,3,7,8-PeCDF	1.001	32:48
1,2,3,7,8-PeCDD	1.001	34:00
2,3,4,7,8-PeCDF	1.000	33:36
1,2,3,4,7,8-HxCDF	1.000	36:45
1,2,3,6,7,8-HxCDF	1.000	36:51
1,2,3,4,7,8-HxCDD	1.000	37:36
1,2,3,6,7,8-HxCDD	1.000	37:42
1,2,3,7,8,9-HxCDD	1.009	38:02
2,3,4,6,7,8-HxCDF	1.000	37:27
1,2,3,7,8,9-HxCDF	1.000	38:15
1,2,3,4,6,7,8-HpCDF	1.000	40:04
1,2,3,4,6,7,8-HpCDD	1.001	41:18
1,2,3,4,7,8,9-HpCDF	1.000	41:42
OCDD	1.000	45:25
OCDF	1.001	45:28
Labeled Compoubds		
13C-2,3,7,8-TCDD	1.008	29:04
13C-1,2,3,7,8-PeCDD	1.177	33:58
13C-1,2,3,4,7,8-HxCDD	0.989	37:36
13C-1,2,3,6,7,8-HxCDD	0.991	37:41
13C-1,2,3,4,6,7,8-HpCDD	1.085	41:16
13C-OCDD	1.195	45:25
13C-2,3,7,8-TCDF	0.976	28:10
13C-1,2,3,7,8-PeCDF	1.136	32:47
13C-2,3,4,7,8-PeCDF	1.164	33:35
13C-1,2,3,4,7,8-HxCDF	0.966	36:44
13C-1,2,3,6,7,8-HxCDF	0.969	36:51
13C-2,3,4,6,7,8-HxCDF	0.985	37:26
13C-1,2,3,7,8,9-HxCDF	1.006	38:14
13C-1,2,3,4,6,7,8-HpCDF	1.054	40:04
13C-1,2,3,4,7,8,9-HpCDF	1.096	41:41
CLEAN-UP		
37Cl-2,3,7,8-TCDD	NA	29:05
Internal Standards		
13C-1,2,3,4-TCDD	NA	28:51
13C-1,2,3,7,8,9-HxCDD	NA	38:01

RRT = (RT of analyte)/(rt of appropriate labeled compound)

USEPA -
7DFB
CDD/CDF CONTINUING CALIBRATION RETENTION TIME SUMMARY
HIGH RESOLUTION

Lab Name: - Contract No.:
Lab Code: Case No.: TO No.: SDG No.: 193
GC Column: DB-5 ID: 0.25(mm) Instrument ID: E-HRMS-04
Lab File ID: 8349 Analysis Date: 12-JUL-12 Time: 16:15:34
Init. Calib. Time.: 05:17 Init. Calib. Date(s).: 05/03/12

Target Analytes	RRT	RT
2,3,7,8-TCDD	1.001	29:04
2,3,7,8-TCDF	1.000	28:10
1,2,3,7,8-PeCDF	1.001	32:48
1,2,3,7,8-PeCDD	1.000	33:59
2,3,4,7,8-PeCDF	1.000	33:36
1,2,3,4,7,8-HxCDF	1.000	36:45
1,2,3,6,7,8-HxCDF	1.000	36:51
1,2,3,4,7,8-HxCDD	1.000	37:36
1,2,3,6,7,8-HxCDD	1.000	37:42
1,2,3,7,8,9-HxCDD	1.009	38:02
2,3,4,6,7,8-HxCDF	1.000	37:26
1,2,3,7,8,9-HxCDF	1.000	38:14
1,2,3,4,6,7,8-HpCDF	1.000	40:03
1,2,3,4,6,7,8-HpCDD	1.000	41:16
1,2,3,4,7,8,9-HpCDF	1.001	41:41
OCDD	1.000	45:27
OCDF	1.001	45:29
Labeled Compoubds		
13C-2,3,7,8-TCDD	1.008	29:03
13C-1,2,3,7,8-PeCDD	1.178	33:58
13C-1,2,3,4,7,8-HxCDD	0.989	37:36
13C-1,2,3,6,7,8-HxCDD	0.991	37:41
13C-1,2,3,4,6,7,8-HpCDD	1.085	41:15
13C-OCDD	1.195	45:26
13C-2,3,7,8-TCDF	0.977	28:10
13C-1,2,3,7,8-PeCDF	1.137	32:47
13C-2,3,4,7,8-PeCDF	1.165	33:35
13C-1,2,3,4,7,8-HxCDF	0.966	36:44
13C-1,2,3,6,7,8-HxCDF	0.969	36:51
13C-2,3,4,6,7,8-HxCDF	0.985	37:26
13C-1,2,3,7,8,9-HxCDF	1.005	38:13
13C-1,2,3,4,6,7,8-HpCDF	1.053	40:02
13C-1,2,3,4,7,8,9-HpCDF	1.096	41:39
CLEAN-UP		
37Cl-2,3,7,8-TCDD	NA	29:04
Internal Standards		
13C-1,2,3,4-TCDD	NA	28:50
13C-1,2,3,7,8,9-HxCDD	NA	38:01

RRT = (RT of analyte)/(rt of appropriate labeled compound)

USEPA -
7DFA
CDD/CDF CONTINUING CALIBRATION SUMMARY
HIGH RESOLUTION

Lab Name: Contract No.:
Lab Code: Case No.: TO No.: SDG No.: 193
GC Column: DB-5 ID: 0.25(mm) Instrument ID: E-HRMS-04
Lab File ID: 8231 Analysis Date: 6-JUL-12 Time: 06:10:10
Init. Calib. Time.: 05:13 Init. Calib. Date(s).: 05/03/12

Target Analytes	SELECTED IONS	RR/ RRF	MEAN RR/ RRF	%D	%D FLAG	ION RATIO	ION RATIO FLAG	ION RATIO QC lIMITS
2,3,7,8-TCDD	320/322	2.06	1.01	103.16		0.77		0.65-0.89
2,3,7,8-TCDF	304/306	2.02	0.95	113.57		0.76		0.65-0.89
1,2,3,7,8-PeCDF	340/342	2.02	0.99	104.80		1.59		1.32-1.78
1,2,3,7,8-PeCDD	356/358	2.03	0.96	111.50		1.58		1.32-1.78
2,3,4,7,8-PeCDF	340/342	2.12	0.95	122.51		1.59		1.32-1.78
1,2,3,4,7,8-HxCDF	374/376	2.43	1.24	95.87		1.25		1.05-1.43
1,2,3,6,7,8-HxCDF	374/376	2.43	1.17	108.45		1.24		1.05-1.43
1,2,3,4,7,8-HxCDD	390/392	2.43	1.07	126.09		1.27		1.05-1.43
1,2,3,6,7,8-HxCDD	390/392	1.92	1.04	85.27		1.28		1.05-1.43
1,2,3,7,8,9-HxCDD	390/392	2.33	1.07	116.44		1.27		1.05-1.43
2,3,4,6,7,8-HxCDF	374/376	2.32	1.16	99.87		1.24		1.05-1.43
1,2,3,7,8,9-HxCDF	374/376	2.32	1.19	95.58		1.26		1.05-1.43
1,2,3,4,6,7,8-HpCDF	408/410	2.77	1.40	97.12		1.04		0.88-1.20
1,2,3,4,6,7,8-HpCDD	424/426	2.09	1.05	98.37		1.05		0.88-1.20
1,2,3,4,7,8,9-HpCDF	408/410	2.78	1.34	108.32		1.04		0.88-1.20
OCDD	458/460	2.06	1.19	73.48		0.91		0.76-1.02
OCDF	442/444	2.67	1.30	104.90		0.89		0.76-1.02
Labeled Compoubds								
13C-2,3,7,8-TCDD	332/334	0.96	0.93	2.45		0.79		0.65-0.89
13C-1,2,3,7,8-PeCDD	368/370	0.83	0.93	-10.88		1.60		1.32-1.78
13C-1,2,3,4,7,8-HxCDD	402/404	0.89	0.95	-6.19		1.38		1.05-1.43
13C-1,2,3,6,7,8-HxCDD	402/404	0.99	1.01	-1.76		1.18		1.05-1.43
13C-1,2,3,4,6,7,8-HpCDD	424/426	0.96	0.89	8.72		1.06		0.88-1.20
13C-OCDD	470/472	0.79	0.63	25.11		0.90		0.76-1.02
13C-2,3,7,8-TCDF	316/318	1.45	1.28	13.49		0.79		0.65-0.89
13C-1,2,3,7,8-PeCDF	352/354	1.36	1.28	5.91		1.59		1.32-1.78
13C-2,3,4,7,8-PeCDF	352/354	1.29	1.29	-0.54		1.58		1.32-1.78
13C-1,2,3,4,7,8-HxCDF	384/386	1.34	1.16	15.62		0.52		0.43-0.59
13C-1,2,3,6,7,8-HxCDF	384/386	1.40	1.34	4.54		0.52		0.43-0.59
13C-2,3,4,6,7,8-HxCDF	384/386	1.34	1.18	13.11		0.53		0.43-0.59
13C-1,2,3,7,8,9-HxCDF	384/386	1.21	1.02	19.54		0.52		0.43-0.59
13C-1,2,3,4,6,7,8-HpCDF	418/420	1.14	0.95	20.03		0.44		0.37-0.51
13C-1,2,3,4,7,8,9-HpCDF	418/420	0.93	0.78	19.66		0.44		0.37-0.51
CLEAN-UP								
37Cl-2,3,7,8-TCDD	328/NA	1.95	0.96	104.13		NA		NA
Internal Standards								
13C-1,2,3,4-TCDD	332/334	NA	NA	NA	NA	0.79		0.65-0.89
13C-1,2,3,7,8,9-HxCDD	402/404	NA	NA	NA	NA	1.27		1.05-1.43

The laboratory must flag any analyte which does not meet criteria for percent Difference (%D) or ion abundance ratio by placing an asterisk in the appropriate flag column.

FORM VII-HR CDD-1 DLM02.2

USEPA -
7DFA
CDD/CDF CONTINUING CALIBRATION SUMMARY
HIGH RESOLUTION

Lab Name: Contract No.:
Lab Code: Case No.: TO No.: SDG No.: 193
GC Column: DB-5 ID: 0.25(mm) Instrument ID: E-HRMS-04
Lab File ID: 8240 Analysis Date: 6-JUL-12 Time: 14:38:40
Init. Calib. Time.: 05:17 Init. Calib. Date(s).: 05/03/12

Target Analytes	SELECTED IONS	RR/ RRF	MEAN RR/ RRF	%D	%D FLAG	ION RATIO	ION RATIO FLAG	ION RATIO QC lIMITS
2,3,7,8-TCDD	320/322	2.08	1.01	104.66		0.79		0.65-0.89
2,3,7,8-TCDF	304/306	2.02	0.95	113.24		0.74		0.65-0.89
1,2,3,7,8-PeCDF	340/342	2.02	0.99	104.55		1.56		1.32-1.78
1,2,3,7,8-PeCDD	356/358	2.03	0.96	110.81		1.60		1.32-1.78
2,3,4,7,8-PeCDF	340/342	2.15	0.95	125.11		1.58		1.32-1.78
1,2,3,4,7,8-HxCDF	374/376	2.45	1.24	97.71		1.24		1.05-1.43
1,2,3,6,7,8-HxCDF	374/376	2.44	1.17	109.44		1.27		1.05-1.43
1,2,3,4,7,8-HxCDD	390/392	2.32	1.07	115.67		1.26		1.05-1.43
1,2,3,6,7,8-HxCDD	390/392	1.96	1.04	88.47		1.28		1.05-1.43
1,2,3,7,8,9-HxCDD	390/392	2.19	1.07	104.07		1.25		1.05-1.43
2,3,4,6,7,8-HxCDF	374/376	2.33	1.16	100.28		1.25		1.05-1.43
1,2,3,7,8,9-HxCDF	374/376	2.35	1.19	98.03		1.27		1.05-1.43
1,2,3,4,6,7,8-HpCDF	408/410	2.76	1.40	96.27		1.05		0.88-1.20
1,2,3,4,6,7,8-HpCDD	424/426	2.08	1.05	97.87		1.05		0.88-1.20
1,2,3,4,7,8,9-HpCDF	408/410	2.80	1.34	109.80		1.05		0.88-1.20
OCDD	458/460	2.10	1.19	76.67		0.91		0.76-1.02
OCDF	442/444	2.67	1.30	105.07		0.91		0.76-1.02
Labeled Compoubds								
13C-2,3,7,8-TCDD	332/334	0.90	0.93	-3.93		0.78		0.65-0.89
13C-1,2,3,7,8-PeCDD	368/370	0.72	0.93	-21.75		1.61		1.32-1.78
13C-1,2,3,4,7,8-HxCDD	402/404	0.96	0.95	1.04		1.26		1.05-1.43
13C-1,2,3,6,7,8-HxCDD	402/404	1.03	1.01	2.12		1.27		1.05-1.43
13C-1,2,3,4,6,7,8-HpCDD	424/426	0.95	0.89	6.67		1.06		0.88-1.20
13C-OCDD	470/472	0.74	0.63	16.85		0.90		0.76-1.02
13C-2,3,7,8-TCDF	316/318	1.39	1.28	9.00		0.79		0.65-0.89
13C-1,2,3,7,8-PeCDF	352/354	1.23	1.28	-4.26		1.61		1.32-1.78
13C-2,3,4,7,8-PeCDF	352/354	1.14	1.29	-11.56		1.60		1.32-1.78
13C-1,2,3,4,7,8-HxCDF	384/386	1.40	1.16	21.33		0.52		0.43-0.59
13C-1,2,3,6,7,8-HxCDF	384/386	1.46	1.34	9.25		0.52		0.43-0.59
13C-2,3,4,6,7,8-HxCDF	384/386	1.36	1.18	15.38		0.52		0.43-0.59
13C-1,2,3,7,8,9-HxCDF	384/386	1.18	1.02	15.87		0.53		0.43-0.59
13C-1,2,3,4,6,7,8-HpCDF	418/420	1.19	0.95	24.81		0.45		0.37-0.51
13C-1,2,3,4,7,8,9-HpCDF	418/420	0.90	0.78	14.88		0.43		0.37-0.51
CLEAN-UP								
37Cl-2,3,7,8-TCDD	328/NA	1.81	0.96	89.76		NA		NA
Internal Standards								
13C-1,2,3,4-TCDD	332/334	NA	NA	NA	NA	0.80		0.65-0.89
13C-1,2,3,7,8,9-HxCDD	402/404	NA	NA	NA	NA	1.28		1.05-1.43

The laboratory must flag any analyte which does not meet criteria for percent Difference (%D) or ion abundance ratio by placing an asterisk in the appropriate flag column.

RW/CS3 Daily Calibration QC Checklist

Calibration File Name 8290- 8295

Date: 06/19/12

Circle one: Beginning / Ending

Method: 1613 / 1613E / VCP / Tetra / TCDD Only / TCDF Conf / VCP Conf / 8280 / M23 / TO-9A

Retention Window/Column Performance Check:	Analyst	Second Check
Windows in and first and last eluters labeled	✓	✓
Column Performance shows less than or equal to 25% valley between column specific 2378 isomer and its closest eluters	✓	✓
No QC ion deflections affect column specific 2378 isomer or its closest eluters (HRMS Only)	✓	✓

CS3 Continuing Calibration	Analyst	Second Check
Percent RSD within method criteria	✓	✓
All relative abundance ratios meet method criteria	✓	✓
No QC ion deflections of greater than 20% (HRMS Only)	✓	✓
Mass spectrometer resolution greater than or equal to 10,000 and documented (HRMS Only)	✓	✓
2378-TCDD elutes at 25 minutes or later on the DB-5 column	✓	✓
Signal-to-noise of all target analytes and their labeled standards at least 10:1	✓	✓
Valley between labeled 123478 and 123678 HxCDD peaks less than or equal to 50% (LRMS Only)	N/A	N/A
Ending Calibration injected prior to end of 12 hour clock	✓	✓

Analyst: ______________ ________ Second QC: ______ ____________

ccalqc.xls 02/08/00

USEPA -

5DFC
PCDD/PCDF/PCB ANALYTICAL SEQUENCE SUMMARY

Lab Name: Contract:

Lab Code: Case No.: SDG No.: 3

GC Column: DB-5 ID: 0.25 (mm) Instrument ID: E-HRMS-03

Init. Calib. Date: 04/23/12

Init. Calib.Times: 05:13:56

THE ANALYTICAL SEQUENCE OF STANDARDS, SAMPLES, BLANKS, AND LABORATORY CONTROL SAMPLES (LCSs) IS AS FOLLOWS:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
WINDOW DEFINE		8289	19-JUN-12	07:55:52
CCAL CS3	CCAL CS3	8290	19-JUN-12	10:02:59
METHOD BLANK	200341-01	8291	19-JUN-12	11:19:02
LCS	200341-02	8292	19-JUN-12	12:05:47
DLCS	200341-03	8293	19-JUN-12	12:53:28
193	00584-001RE	8294	19-JUN-12	15:25:50
CCAL CS3	CCAL CS3	8295	19-JUN-12	16:30:11
WINDOW DEFINE		8296	19-JUN-12	17:41:15

Sample List Report MassLynx 4.1

Sample List: C:\MassLynx\ PRO\SampleDB\ 20619.SPL

Last Modified: Tuesday, June 19, 2012 15:16:24 Central Daylight Time

Printed: Tuesday, June 19, 2012 18:35:42 Central Daylight Time

e: 8290res

	Date	Time	File Name	Sample ID	Client ID	Analyst	Comments	GC Met	Acq Met	Column
1	06/19/12	07:55	8289	WINDOW DEFINE	D12-56-2		HRMS check 07:29	8290	8290	DB-5
2		10:02	8290	CCAL CS3	D12-83-1		HRMS Check 09:59	8290	8290	DB-5
3		11:19	8291	200341-01	MB			8290	8290	DB-5
4		12:05	8292	200341-02	LCS			8290	8290	DB-5
5		12:53	8293	200341-03	DLCS			8290	8290	DB-5
6		15:25	8294	)0584-001RE	193			8290	8290	DB-5
7		16:30	8295	CCAL CS3	D12-83-1		HRMS Check 17:37	8290	8290	DB-5
8		17:41	8296	WINDOW DEFINE	D12-56-2		HRMS Check 18:31	8290	8290	DB-5
9			---	---	---			8290	8290	DB-5
10			---	---	---			8290	8290	DB-5
11			---	---	---			8290	8290	DB-5
12			---	---	---			8290	8290	DB-5
13			---	---	---			8290	8290	DB-5
14			---	---	---			8290	8290	DB-5
15			---	---	---			8290	8290	DB-5
16			---	---	---			8290	8290	DB-5
17			---	---	---			8290	8290	DB-5
18			---	---	---			8290	8290	DB-5
19			---	---	---			8290	8290	DB-5
20			---	---	---			8290	8290	---
21			---	---	---			---	---	---
22			---	---	---			---	---	---
23			---	---	---			---	---	---
24			---	---	---			8290	8290_	---
25			---	---	---			8290	8290_	---
26			---	---	---			8290	8290_	---
27			---	---	---			8290	8290_	---
28	---	---	---	---	---	---	---	8290	8290_	---
29	---	---	---	---	---	---	---	8290	8290_	---
30	---	---	---	---	---	---	---	8290	8290_	---
31	---	---	---	---	---	---	---	8290	8290_	---
32	---	---	---	---	---	---	---	8290	8290_	---
33	---	---	---	---	---	---	---	8290	8290_	---
34	---	---	---	---	---	---	---	8290	8290_	---
35	---	---	---	---	---	---	Reviewed By: _	8290	8290_	---
36	---	---	---	---	---	---	---	8290	8290_	---
37	---	---	---	---	---	---	---	8290	8290_	---
38	---	---	---	---	---	---	---	8290	8290	---
39	---	---	---	---	---	---	---	8290	8290	---

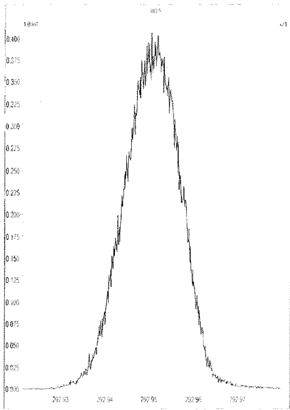
20/12

082

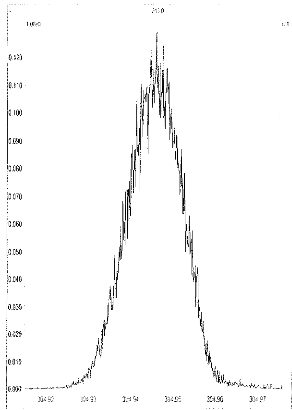
File: Experiment: 8290 .exp Reference: Pfk.ref Function: 1 @ 200 (ppm)

Printed: Tuesday, June 19, 2012 07:29:27 Central Daylight Time

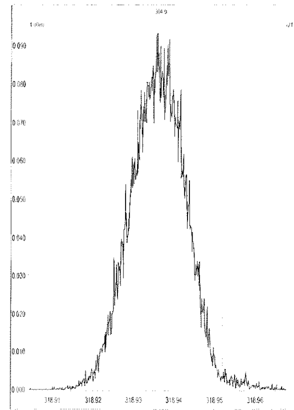
M 292.9824 R 10372



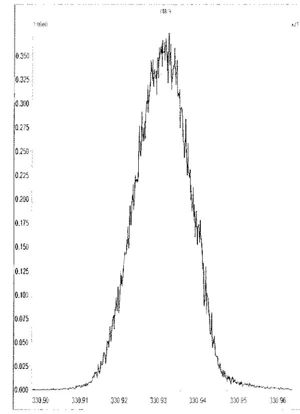
M 304.9824 R 10506



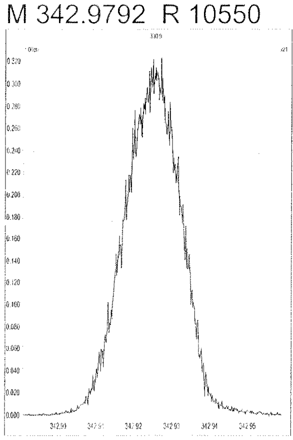
M 318.9792 R 10594



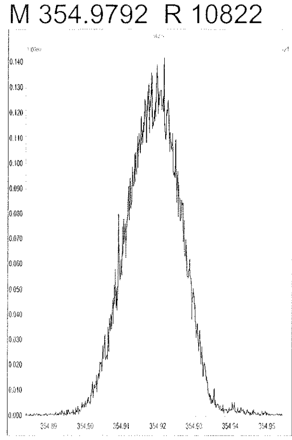
M 330.9792 R 10728



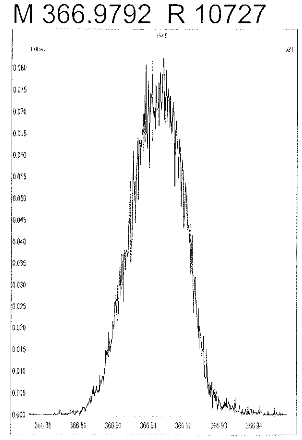
M 342.9792 R 10550



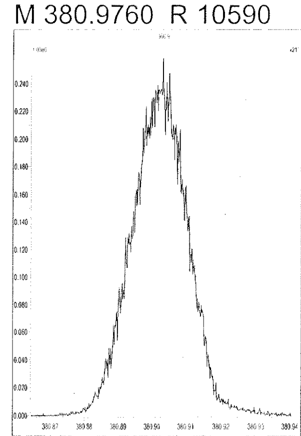
M 354.9792 R 10822



M 366.9792 R 10727



M 380.9760 R 10590

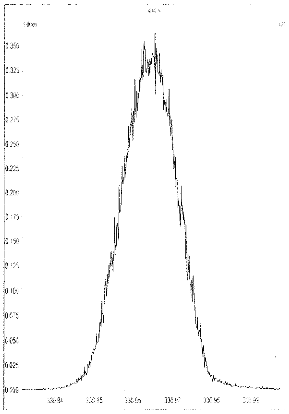


Experiment Calibration Report **MassLynx 4.1**

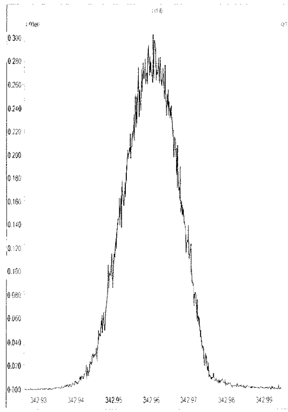
File: Experiment: 8290 exp Reference: Pfk.ref Function: 2 @ 200 (ppm)

Printed: Tuesday, June 19, 2012 07:30:07 Central Daylight Time

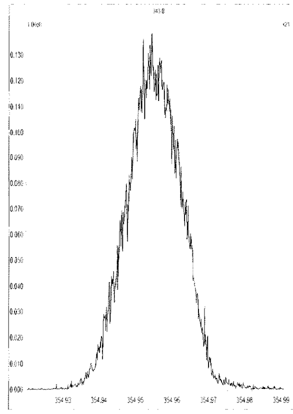
M 330.9792 R 10638



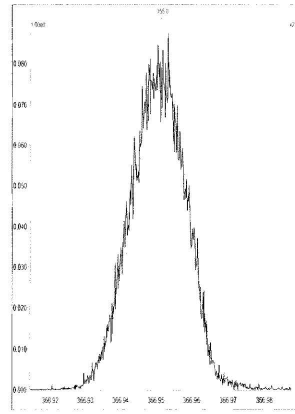
M 342.9792 R 10732



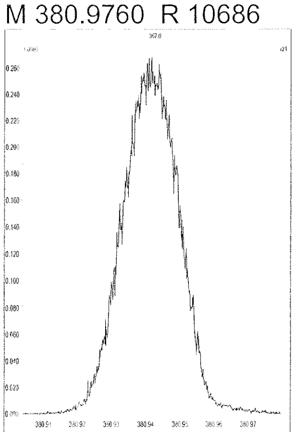
M 354.9792 R 10505



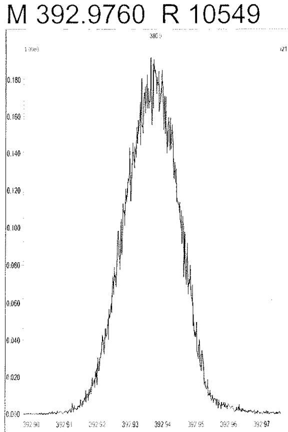
M 366.9792 R 10821



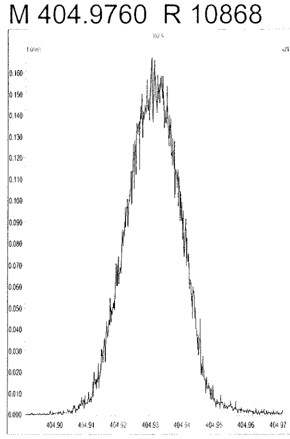
M 380.9760 R 10686



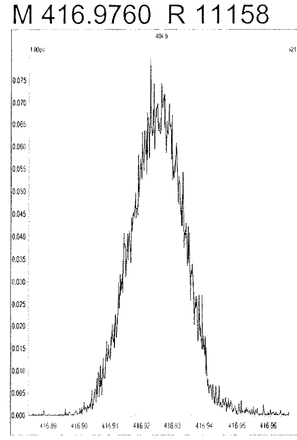
M 392.9760 R 10549



M 404.9760 R 10868



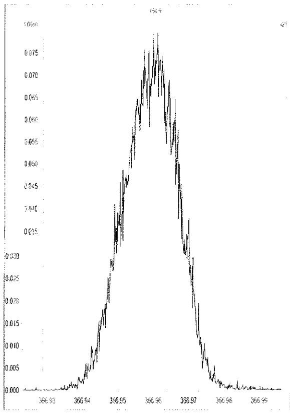
M 416.9760 R 11158



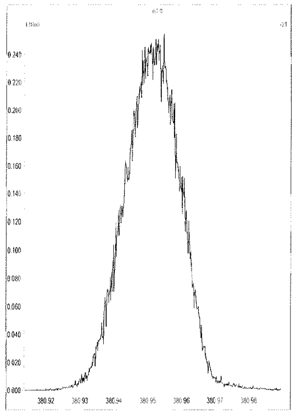
File: Experiment: 8290 exp Reference: Pfk.ref Function: 3 @ 200 (ppm)

Printed: Tuesday, June 19, 2012 07:30:51 Central Daylight Time

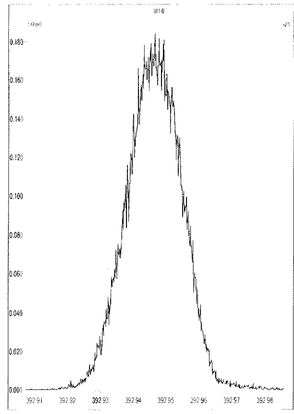
M 366.9792 R 10637



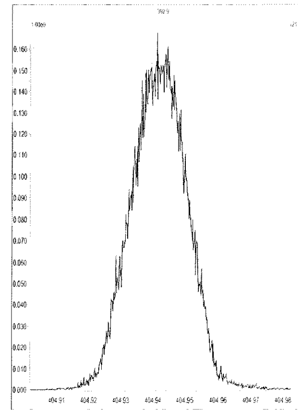
M 380.9760 R 10375



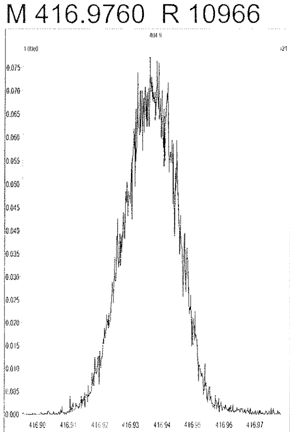
M 392.9760 R 10594



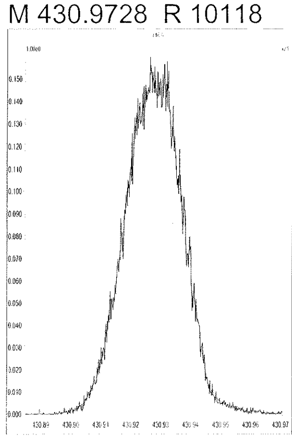
M 404.9760 R 11012



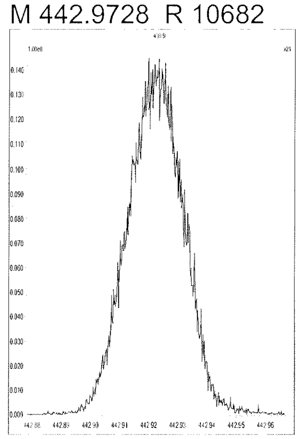
M 416.9760 R 10966



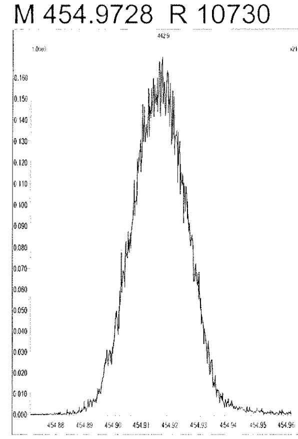
M 430.9728 R 10118



M 442.9728 R 10682



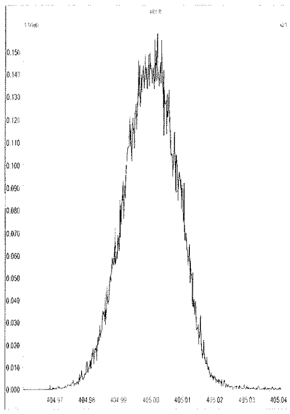
M 454.9728 R 10730



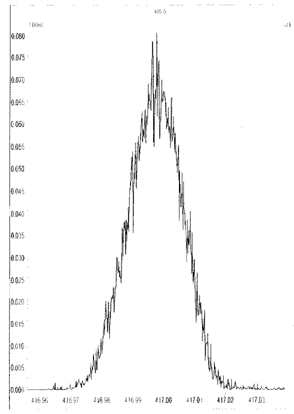
File: Experiment: 8290 .exp Reference: Pfk.ref Function: 4 @ 200 (ppm)

Printed: Tuesday, June 19, 2012 07:31:32 Central Daylight Time

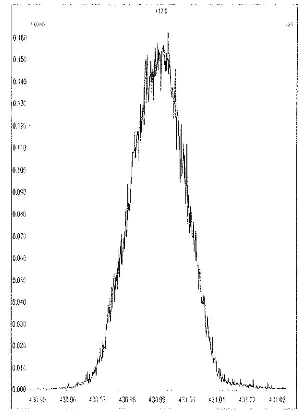
M 404.9760 R 10461



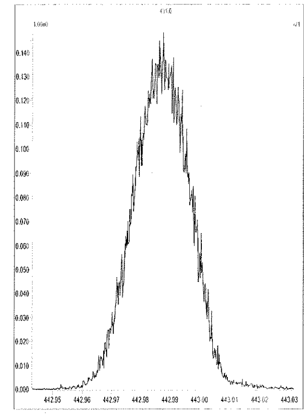
M 416.9760 R 10637



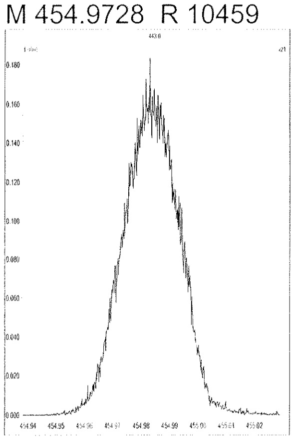
M 430.9728 R 10636



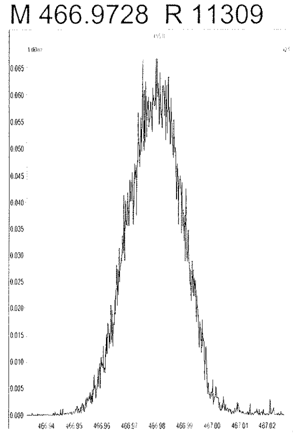
M 442.9728 R 10417



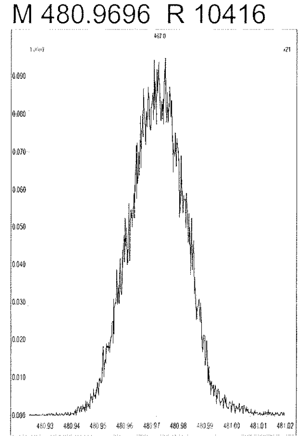
M 454.9728 R 10459



M 466.9728 R 11309



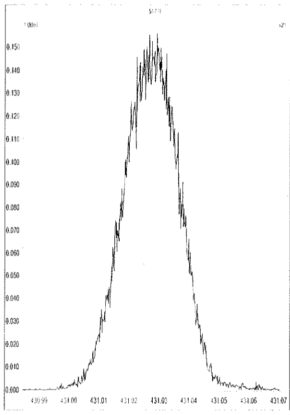
M 480.9696 R 10416



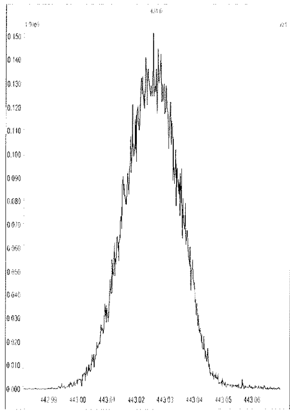
File: Experiment: 8290 .exp Reference: Pfk.ref Function: 5 @ 200 (ppm)

Printed: Tuesday, June 19, 2012 07:32:16 Central Daylight Time

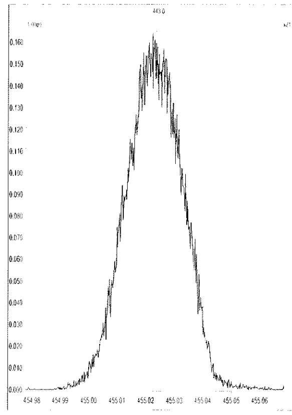
M 430.9728 R 10287



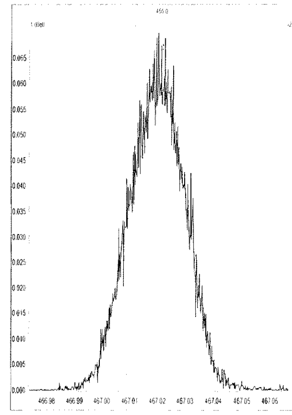
M 442.9728 R 10505



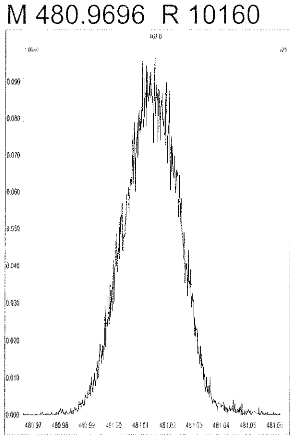
M 454.9728 R 10775



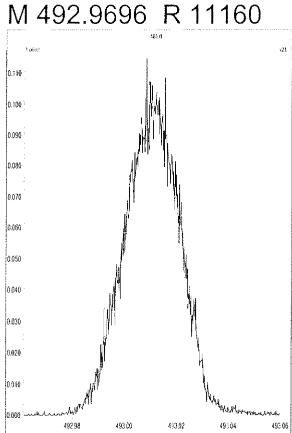
M 466.9728 R 10871



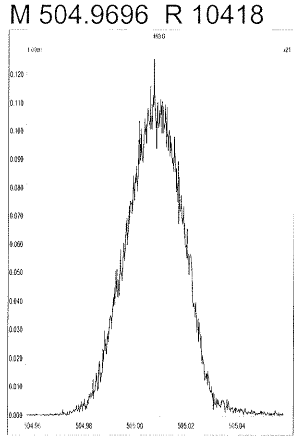
M 480.9696 R 10160



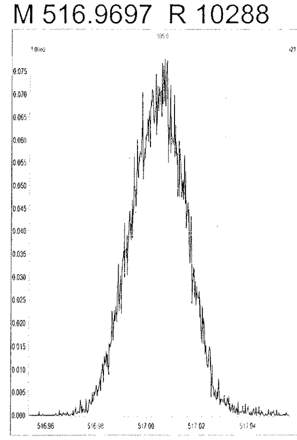
M 492.9696 R 11160



M 504.9696 R 10418



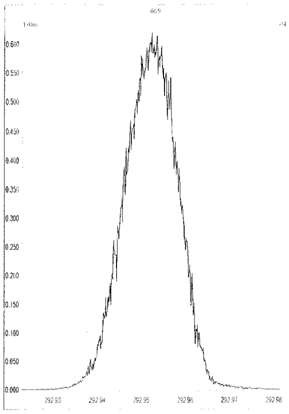
M 516.9697 R 10288



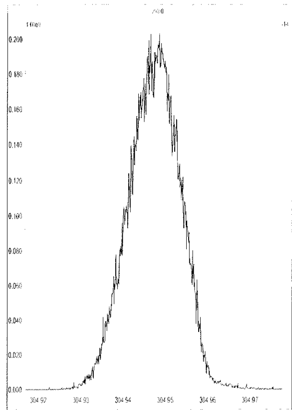
File: Experiment: 8290 .exp Reference: Pfk.ref Function: 1 @ 200 (ppm)

Printed: Tuesday, June 19, 2012 09:59:15 Central Daylight Time

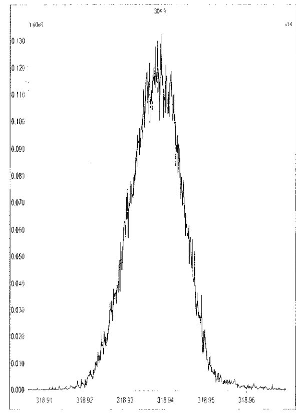
M 292.9824 R 11012



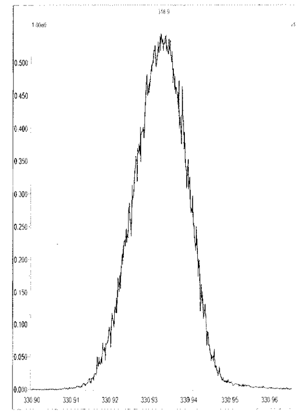
M 304.9824 R 11412



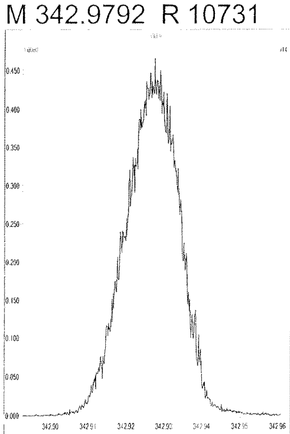
M 318.9792 R 10679



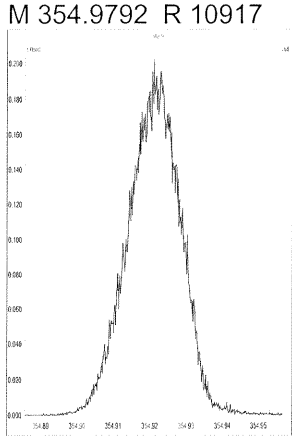
M 330.9792 R 10821



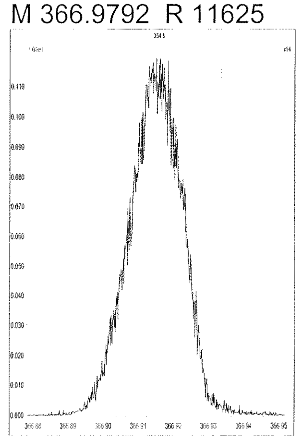
M 342.9792 R 10731



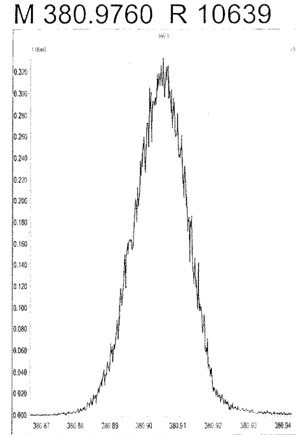
M 354.9792 R 10917



M 366.9792 R 11625



M 380.9760 R 10639

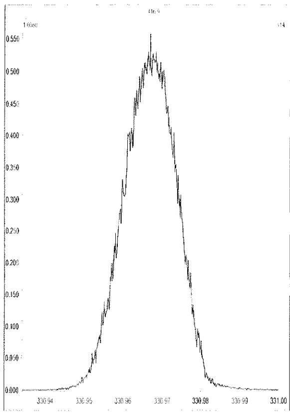


Experiment Calibration Report **MassLynx 4.1** Page 1 of 1

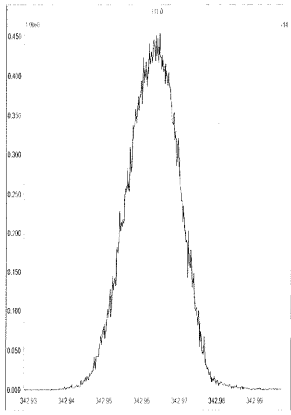
File: Experiment: 8290 .exp Reference: Pfk.ref Function: 2 @ 200 (ppm)

Printed: Tuesday, June 19, 2012 10:00:12 Central Daylight Time

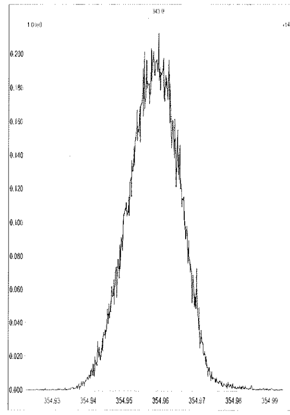
M 330.9792 R 11312



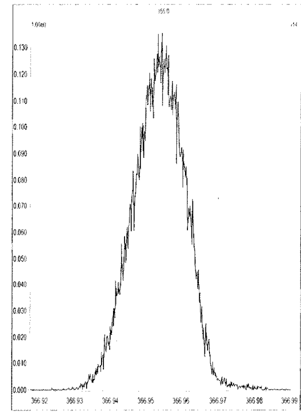
M 342.9792 R 11016



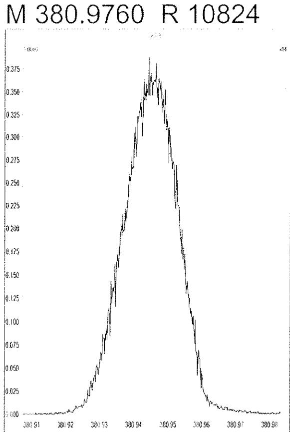
M 354.9792 R 11411



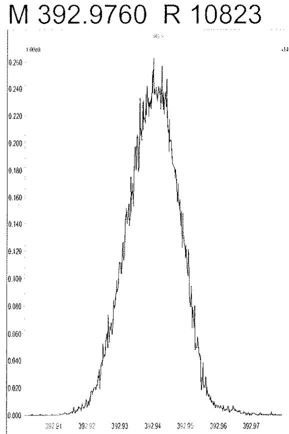
M 366.9792 R 11414



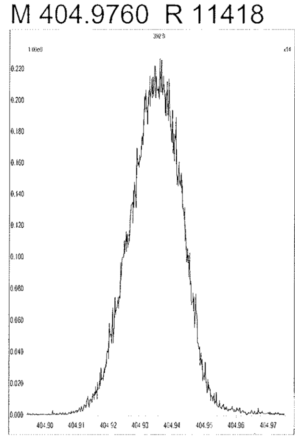
M 380.9760 R 10824



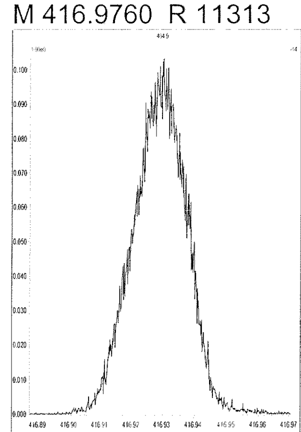
M 392.9760 R 10823



M 404.9760 R 11418



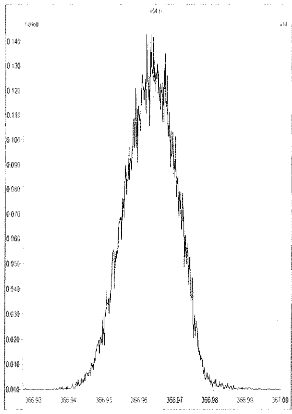
M 416.9760 R 11313



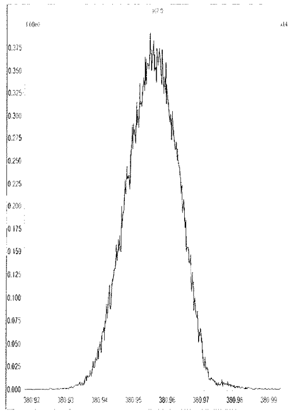
File: Experiment: 8290 .exp Reference: Pfk.ref Function: 3 @ 200 (ppm)

Printed: Tuesday, June 19, 2012 10:00:55 Central Daylight Time

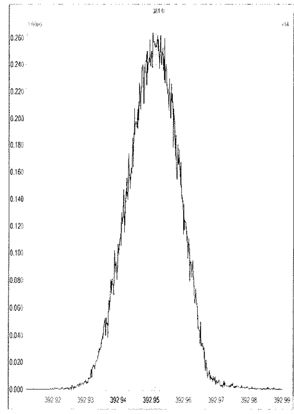
M 366.9792 R 11363



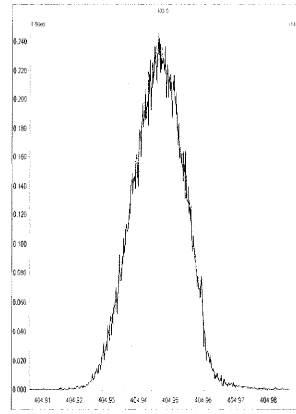
M 380.9760 R 11060



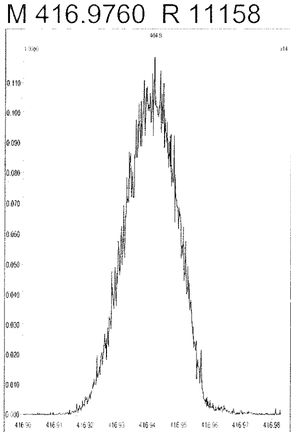
M 392.9760 R 11112



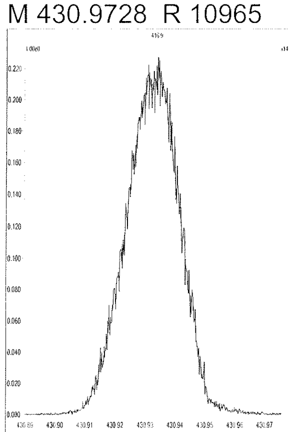
M 404.9760 R 11260



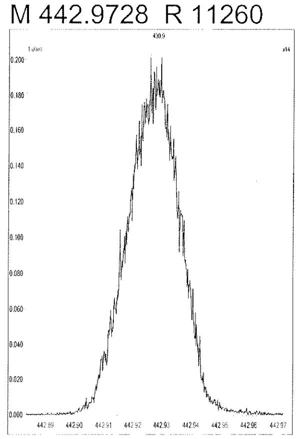
M 416.9760 R 11158



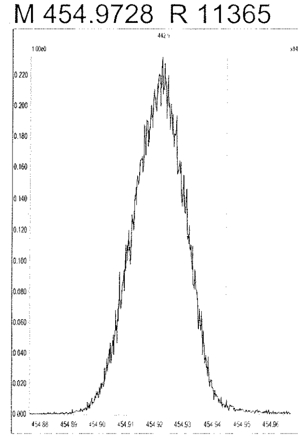
M 430.9728 R 10965



M 442.9728 R 11260



M 454.9728 R 11365

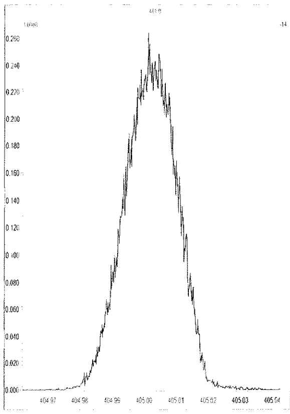


Experiment Calibration Report **MassLynx 4.1**

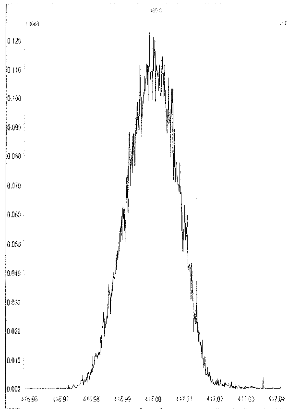
File: Experiment: 8290 .exp Reference: Pfk.ref Function: 4 @ 200 (ppm)

Printed: Tuesday, June 19, 2012 10:01:37 Central Daylight Time

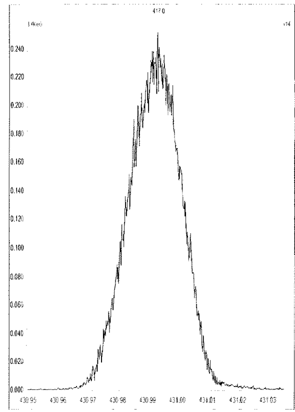
M 404.9760 R 11161



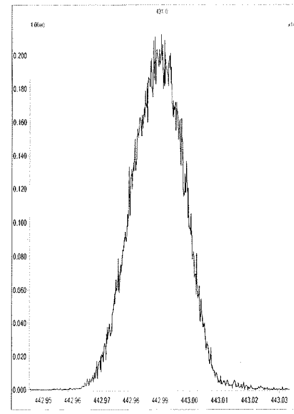
M 416.9760 R 11164



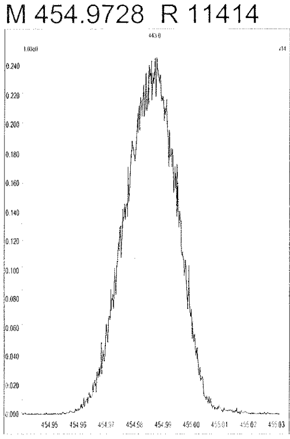
M 430.9728 R 11259



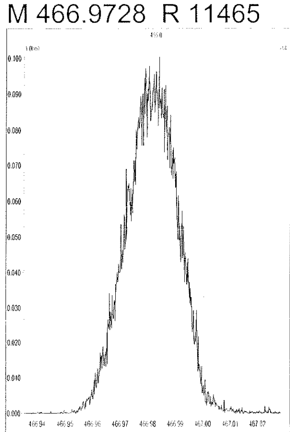
M 442.9728 R 11161



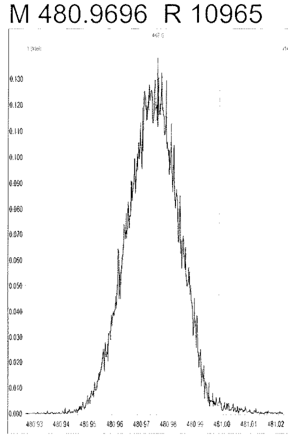
M 454.9728 R 11414



M 466.9728 R 11465



M 480.9696 R 10965

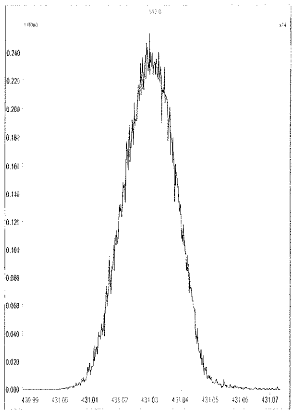


Experiment Calibration Report **MassLynx 4.1** Page 1 of 1

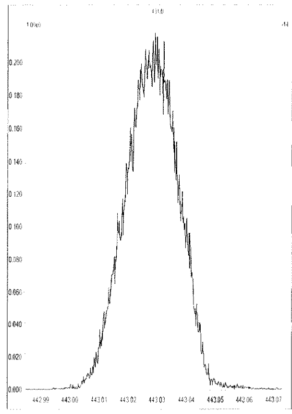
File: Experiment: 8290 .exp Reference: Pfk.ref Function: 5 @ 200 (ppm)

Printed: Tuesday, June 19, 2012 10:02:17 Central Daylight Time

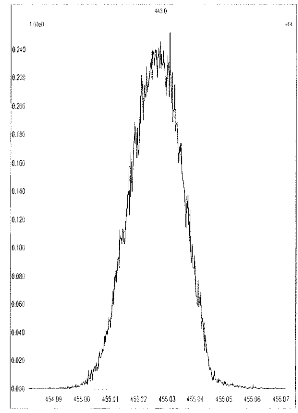
M 430.9728 R 11414



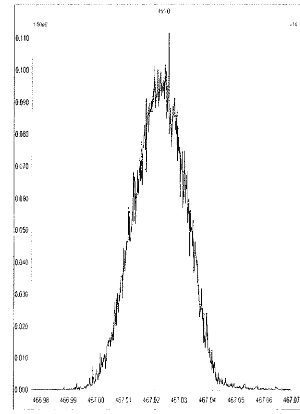
M 442.9728 R 11259



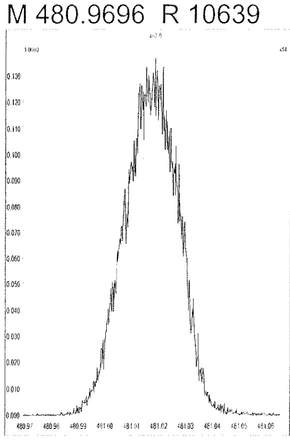
M 454.9728 R 10869



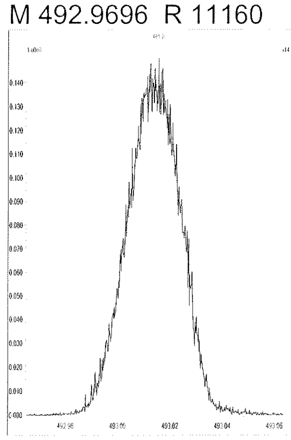
M 466.9728 R 11362



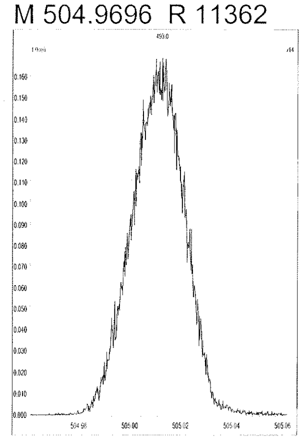
M 480.9696 R 10639



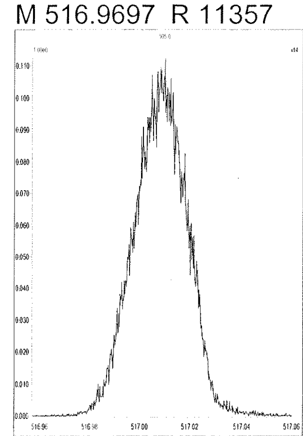
M 492.9696 R 11160



M 504.9696 R 11362



M 516.9697 R 11357

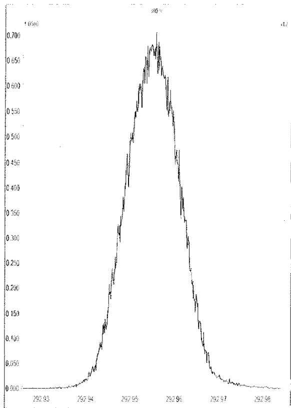


Experiment Calibration Report **MassLynx 4.1** Page 1 of 1

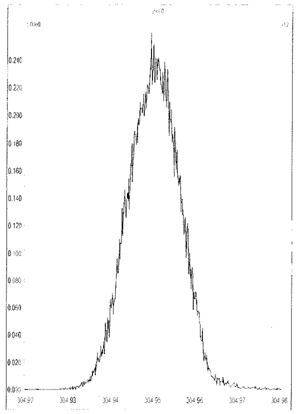
File: Experiment: 8290 exp Reference: Pfk.ref Function: 1 @ 200 (ppm)

Printed: Tuesday, June 19, 2012 17:37:05 Central Daylight Time

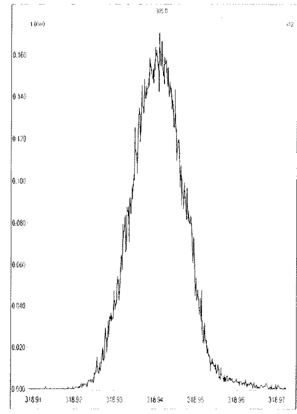
M 292.9824 R 11012



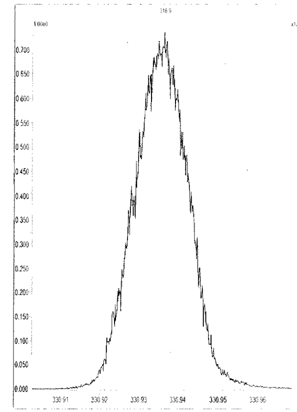
M 304.9824 R 11158



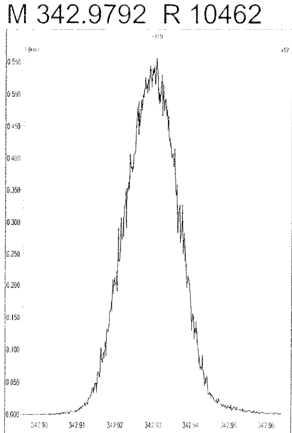
M 318.9792 R 10639



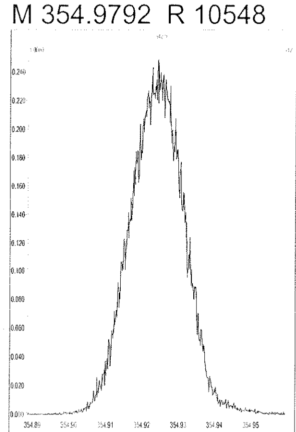
M 330.9792 R 10774



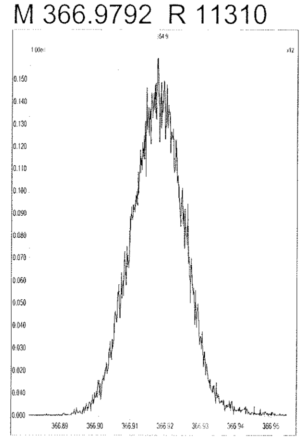
M 342.9792 R 10462



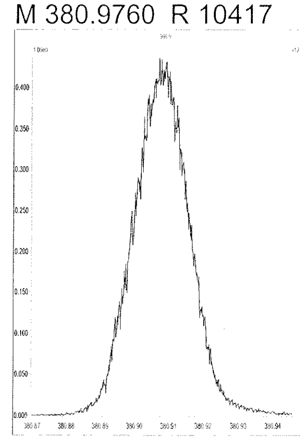
M 354.9792 R 10548



M 366.9792 R 11310



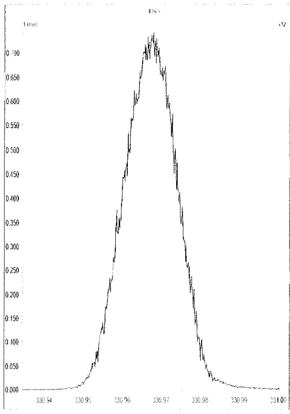
M 380.9760 R 10417



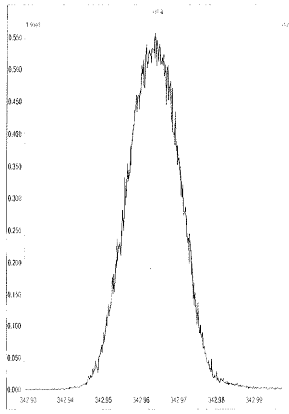
File: Experiment: 8290 .exp Reference: Pfk.ref Function: 2 @ 200 (ppm)

Printed: Tuesday, June 19, 2012 17:37:53 Central Daylight Time

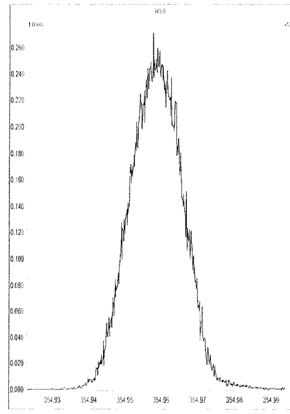
M 330.9792 R 10917



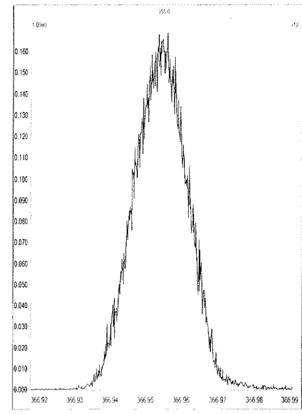
M 342.9792 R 10867



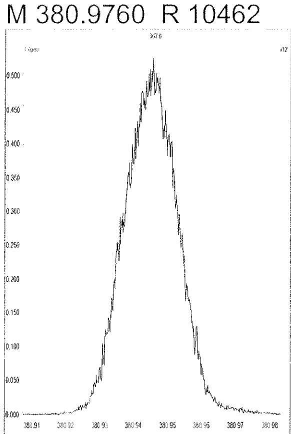
M 354.9792 R 11161



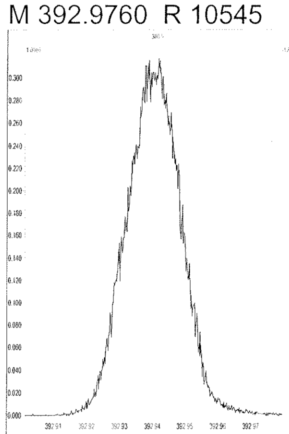
M 366.9792 R 11265



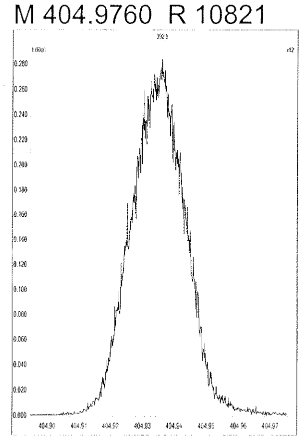
M 380.9760 R 10462



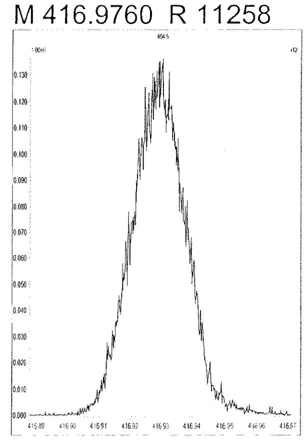
M 392.9760 R 10545



M 404.9760 R 10821



M 416.9760 R 11258

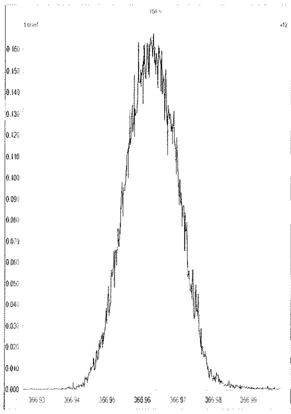


Experiment Calibration Report **MassLynx 4.1** Page 1 of 1

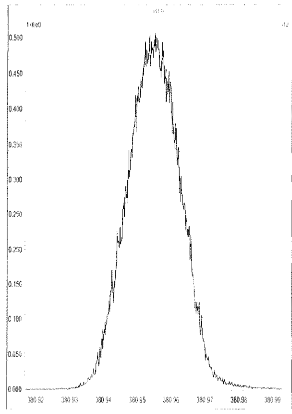
File: Experiment: 8290 .exp Reference: Pfk.ref Function: 3 @ 200 (ppm)

Printed: Tuesday, June 19, 2012 17:38:58 Central Daylight Time

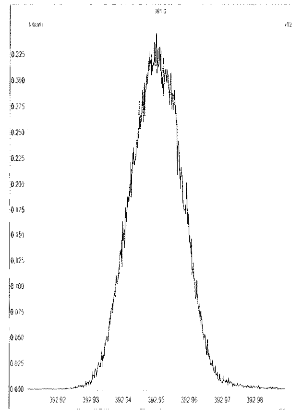
M 366.9792 R 10964



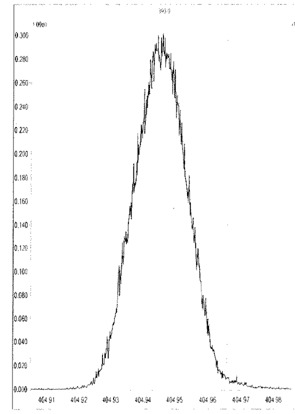
M 380.9760 R 10963



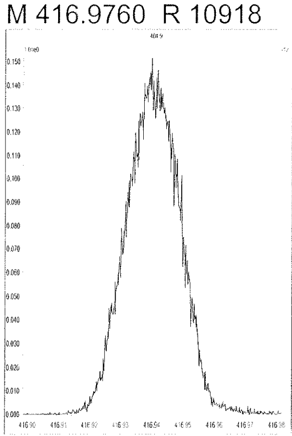
M 392.9760 R 10866



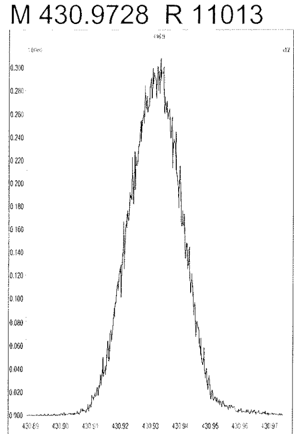
M 404.9760 R 10775



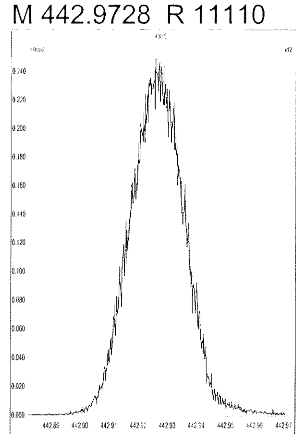
M 416.9760 R 10918



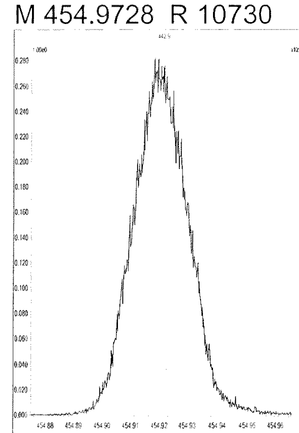
M 430.9728 R 11013



M 442.9728 R 11110



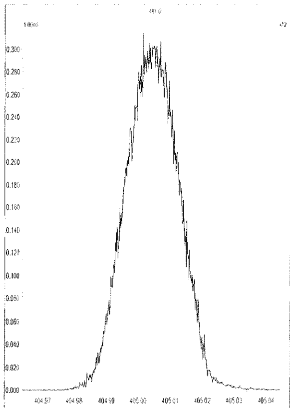
M 454.9728 R 10730



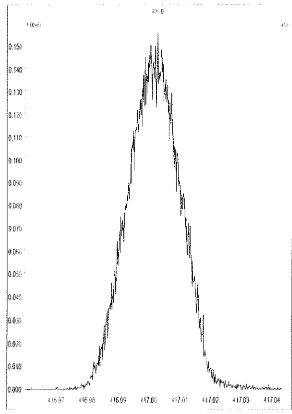
File: Experiment: 8290 .exp Reference: Pfk.ref Function: 4 @ 200 (ppm)

Printed: Tuesday, June 19, 2012 17:39:43 Central Daylight Time

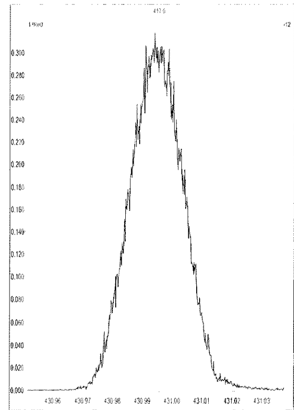
M 404.9760 R 11211



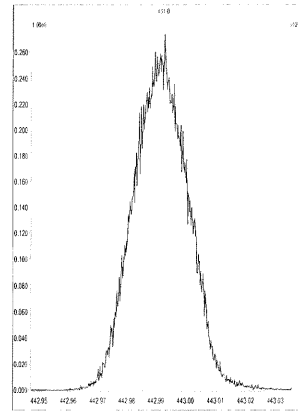
M 416.9760 R 10868



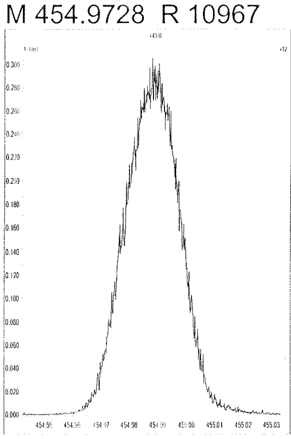
M 430.9728 R 10867



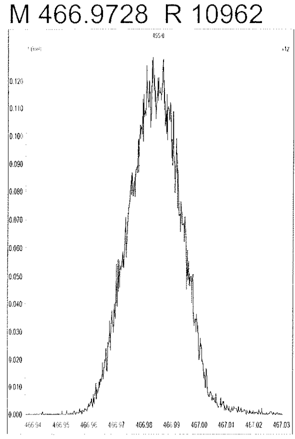
M 442.9728 R 11013



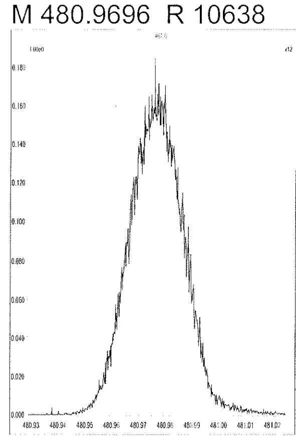
M 454.9728 R 10967



M 466.9728 R 10962



M 480.9696 R 10638



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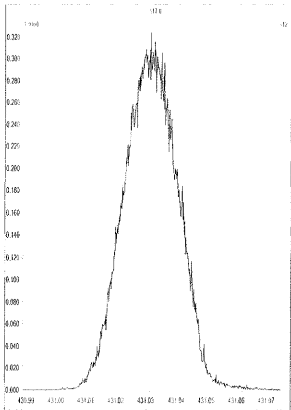
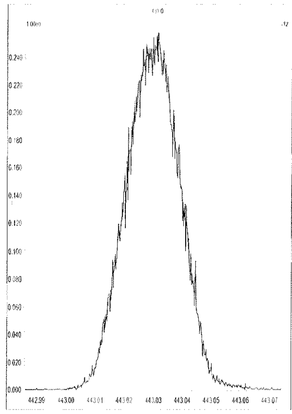
Printed: Tuesday, June 19, 2012 17:40:32 Central Daylight Time

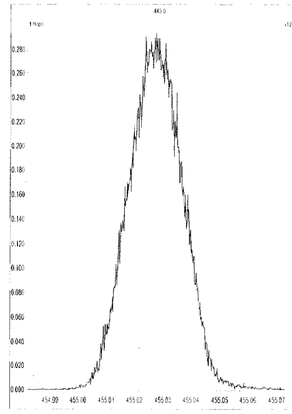
M 430.9728 R 10547



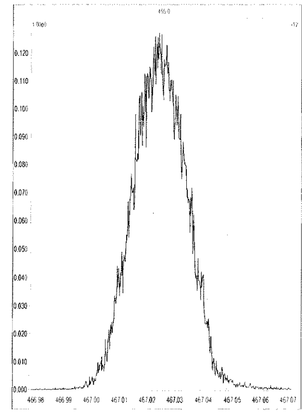
M 442.9728 R 11212



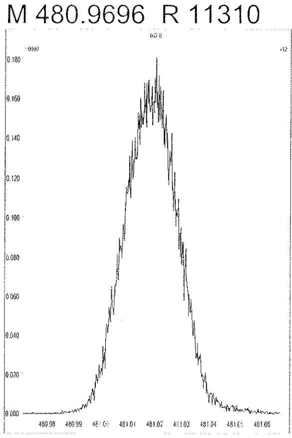
M 454.9728 R 10683



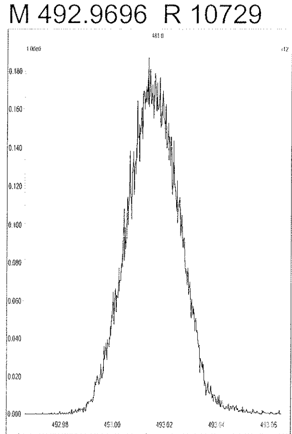
M 466.9728 R 11060



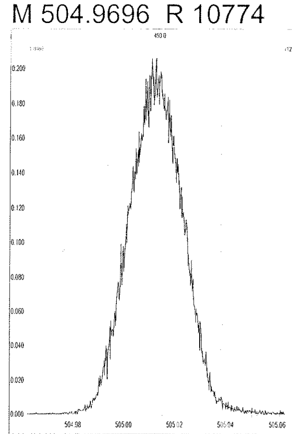
M 480.9696 R 11310



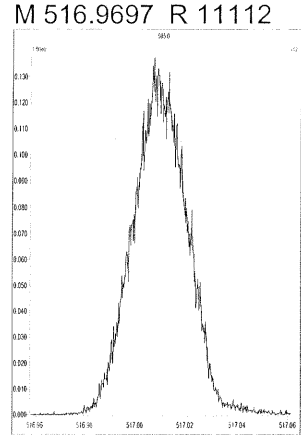
M 492.9696 R 10729



M 504.9696 R 10774



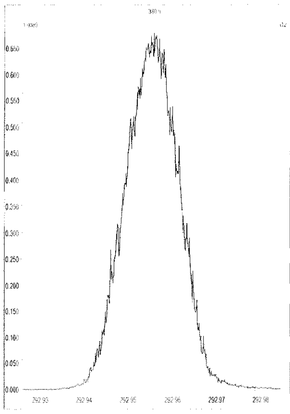
M 516.9697 R 11112



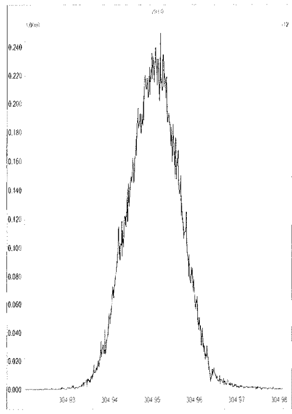
File: Experiment: 829C .exp Reference: Pfk.ref Function: 1 @ 200 (ppm)

Printed: Tuesday, June 19, 2012 18:31:01 Central Daylight Time

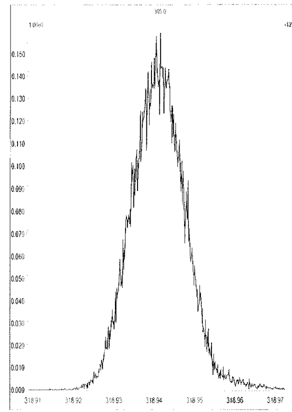
M 292.9824 R 10869



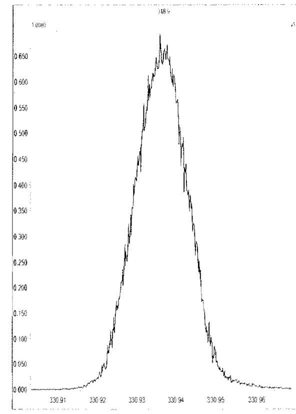
M 304.9824 R 11010



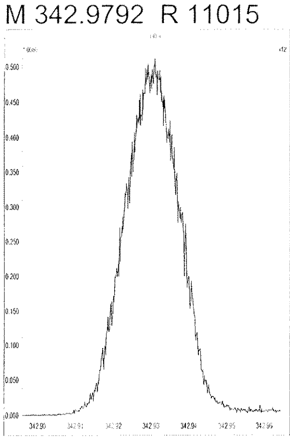
M 318.9792 R 10725



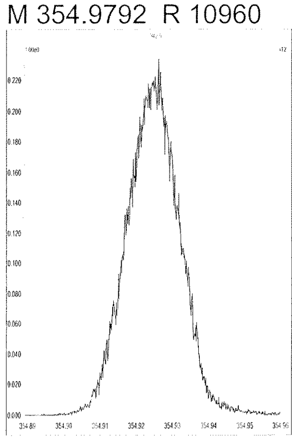
M 330.9792 R 10687



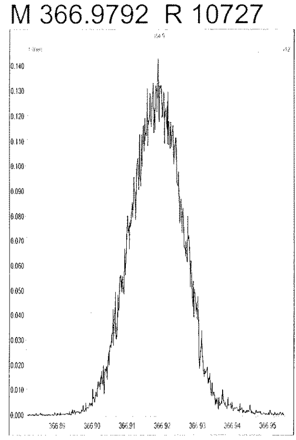
M 342.9792 R 11015



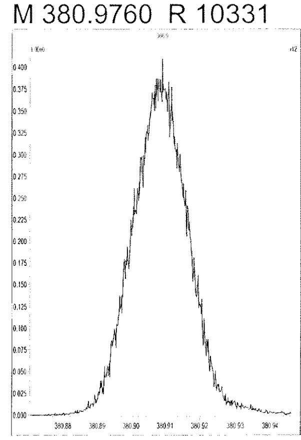
M 354.9792 R 10960



M 366.9792 R 10727



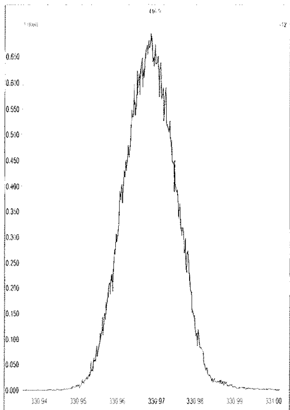
M 380.9760 R 10331



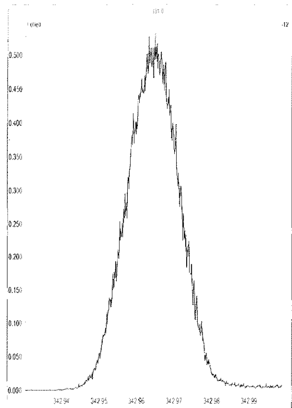
File: Experiment: 8290 .exp Reference: Pfk.ref Function: 2 @ 200 (ppm)

Printed: Tuesday, June 19, 2012 18:31:45 Central Daylight Time

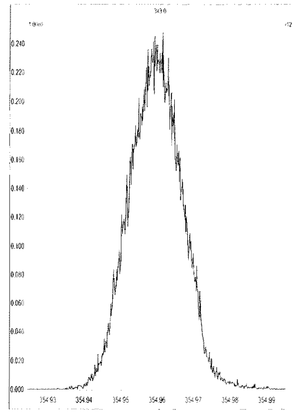
M 330.9792 R 11013



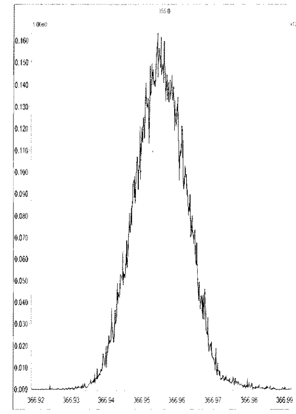
M 342.9792 R 10867



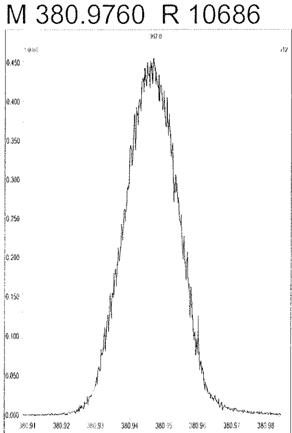
M 354.9792 R 10961



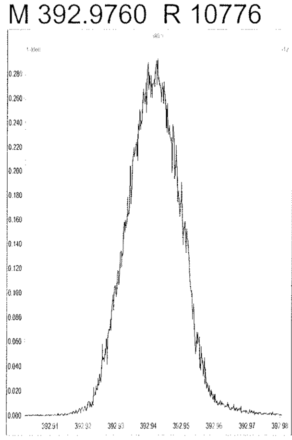
M 366.9792 R 11210



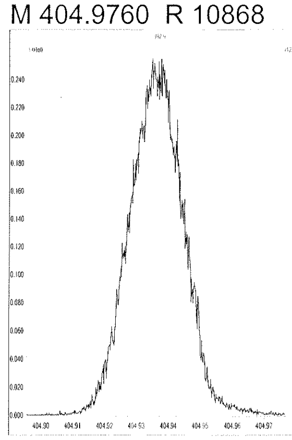
M 380.9760 R 10686



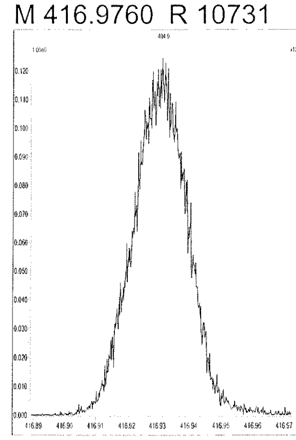
M 392.9760 R 10776



M 404.9760 R 10868



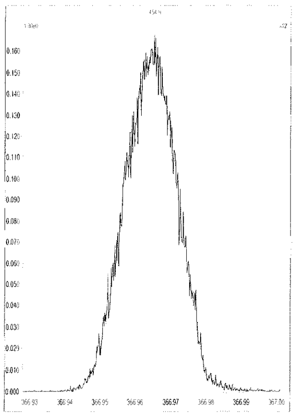
M 416.9760 R 10731



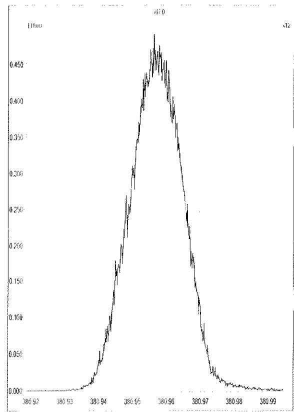
File: Experiment: 8290 .exp Reference: Pfk.ref Function: 3 @ 200 (ppm)

Printed: Tuesday, June 19, 2012 18:32:41 Central Daylight Time

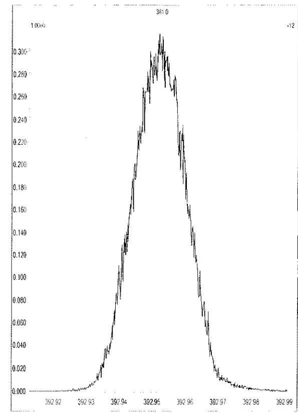
M 366.9792 R 11415



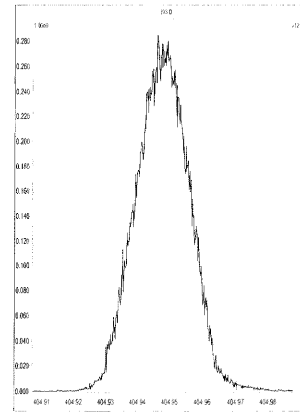
M 380.9760 R 10967



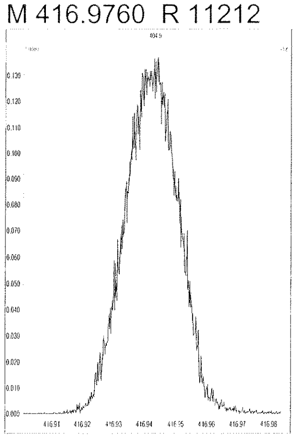
M 392.9760 R 11211



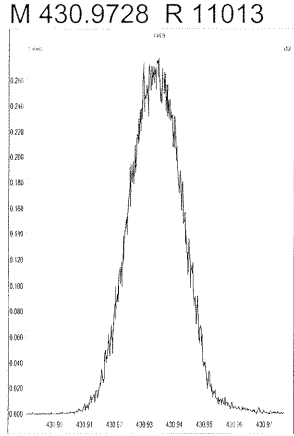
M 404.9760 R 10916



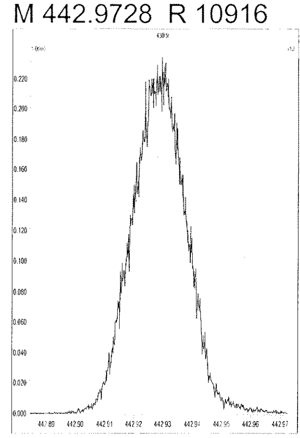
M 416.9760 R 11212



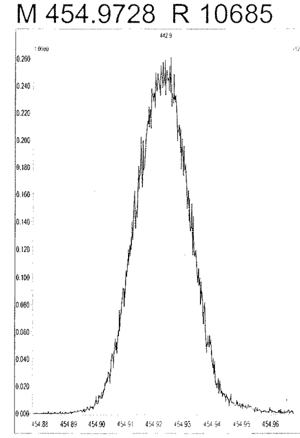
M 430.9728 R 11013



M 442.9728 R 10916



M 454.9728 R 10685



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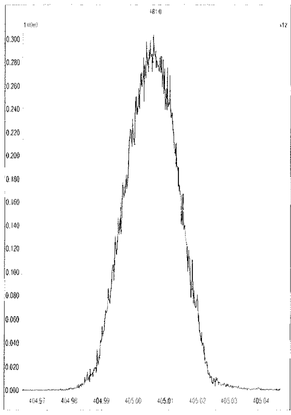
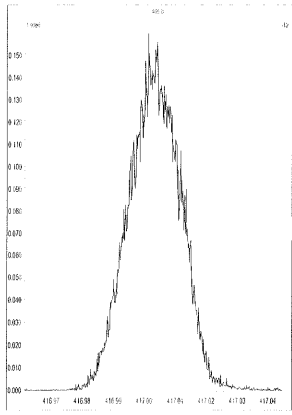
File: Experiment: 8290 .exp Reference: Pfk.ref Function: 4 @ 200 (ppm)

Printed: Tuesday, June 19, 2012 18:33:36 Central Daylight Time

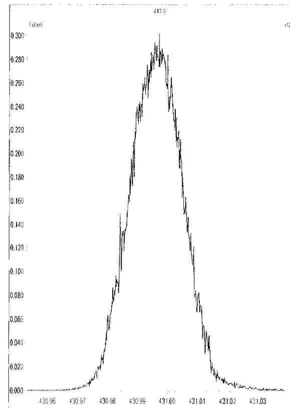
M 404.9760 R 11258



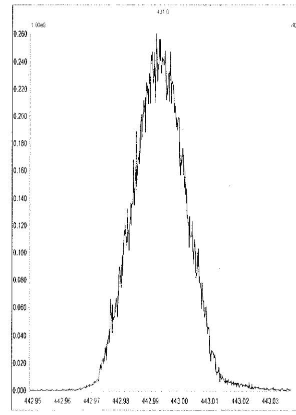
M 416.9760 R 11363



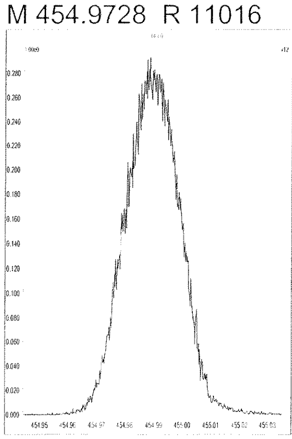
M 430.9728 R 11109



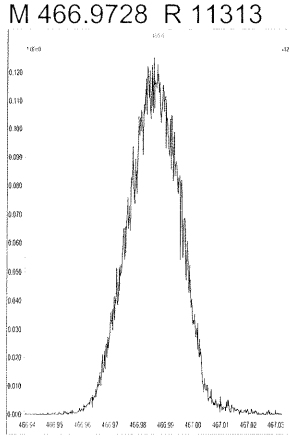
M 442.9728 R 11211



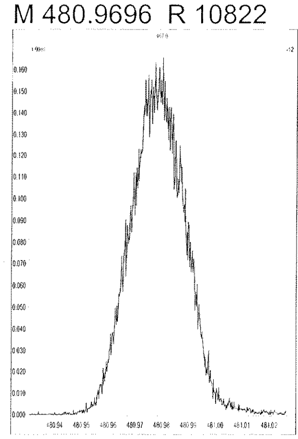
M 454.9728 R 11016



M 466.9728 R 11313



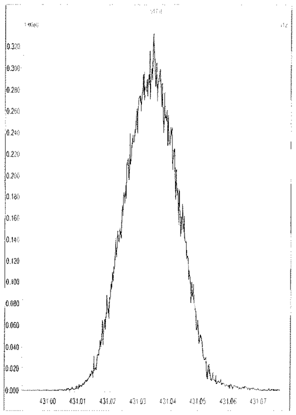
M 480.9696 R 10822



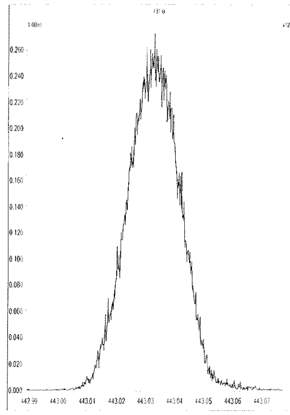
File: Experiment: 8290 .exp Reference: Pfk.ref Function: 5 @ 200 (ppm)

Printed: Tuesday, June 19, 2012 18:34:27 Central Daylight Time

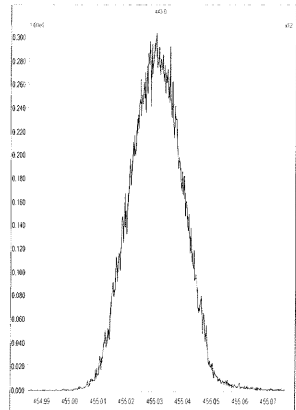
M 430.9728 R 11414



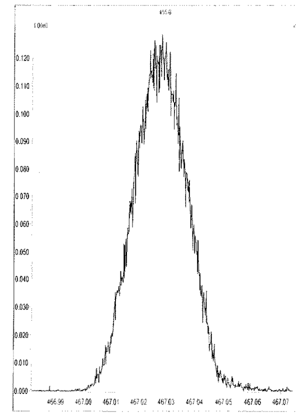
M 442.9728 R 11109



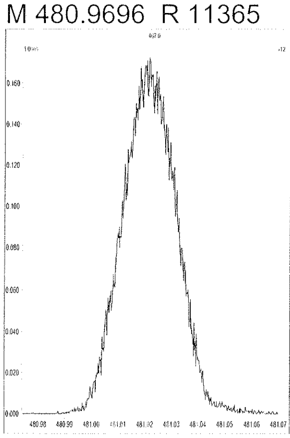
M 454.9728 R 11211



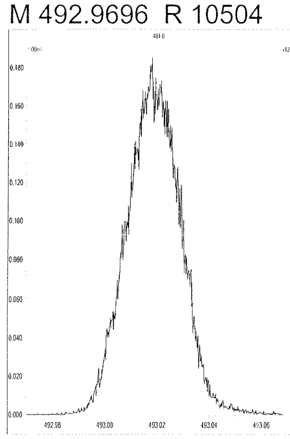
M 466.9728 R 11159



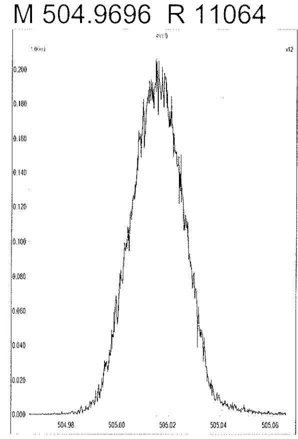
M 480.9696 R 11365



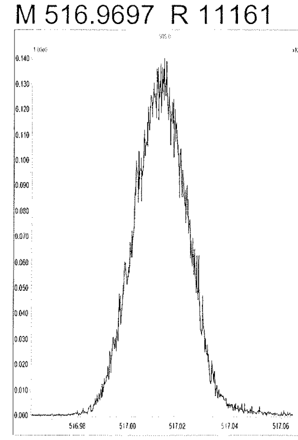
M 492.9696 R 10504



M 504.9696 R 11064



M 516.9697 R 11161



5DFA

WINDOW DEFINING MIX SUMMARY

CLIENT ID:

WDM

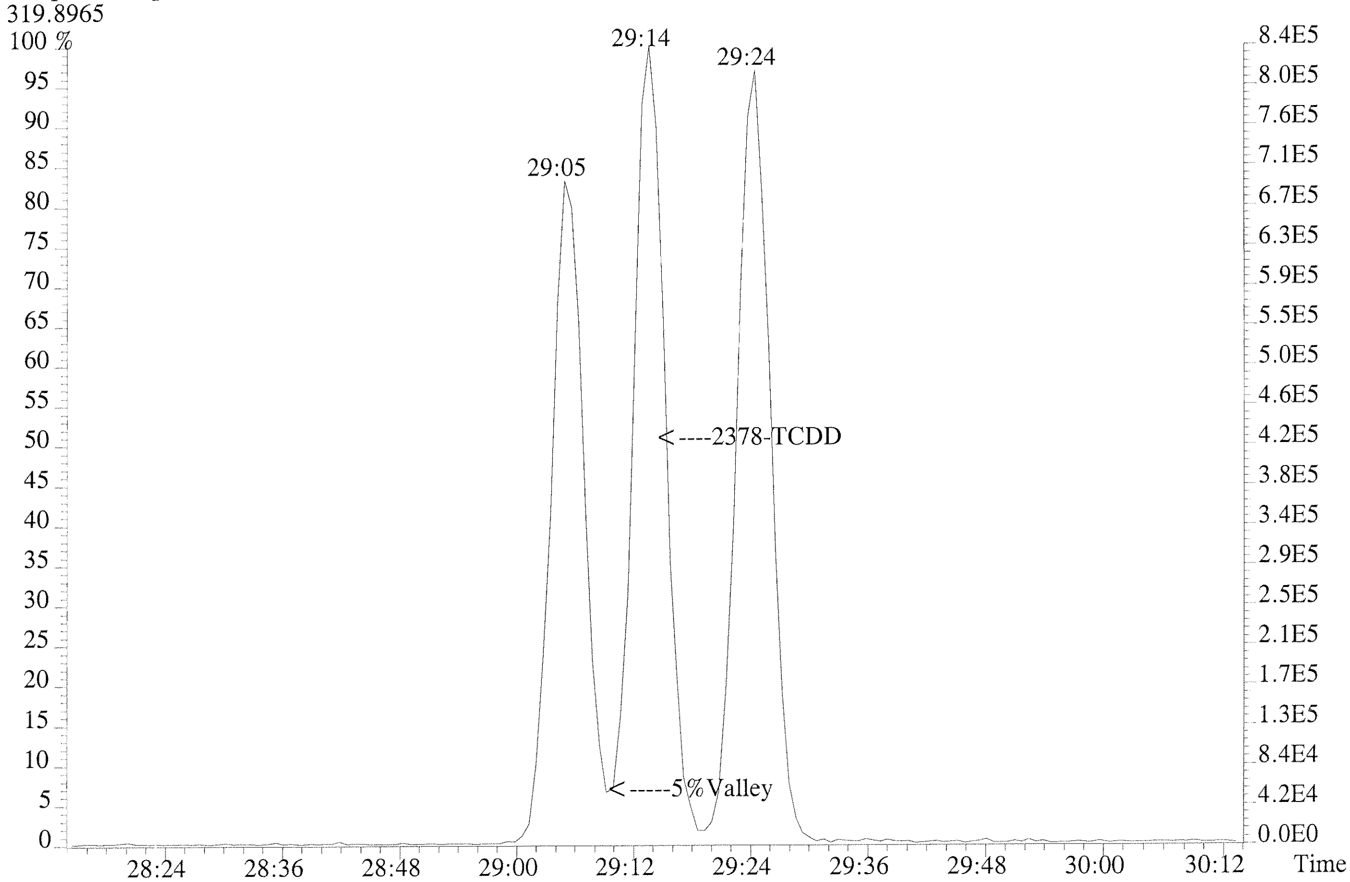
Lab Name:
Lab Code: Case No.: SDG No.:
GC Column: DB-5 ID: 0.25 (mm) Lab File ID: 8289
Date Analyzed: 19-JUN-2012
Time Analyzed: 07:55:52

Congener	Retention Time First Eluting	Retention Time Last Eluting
TCDF	24:16	30:21
TCDD	26:04	30:21
PeCDF	30:39	34:32
PeCDD	32:01	34:23
HxCDF	35:26	37:45
HxCDD	35:56	37:26
HpCDF	39:08	40:25
HpCDD	39:23	40:02

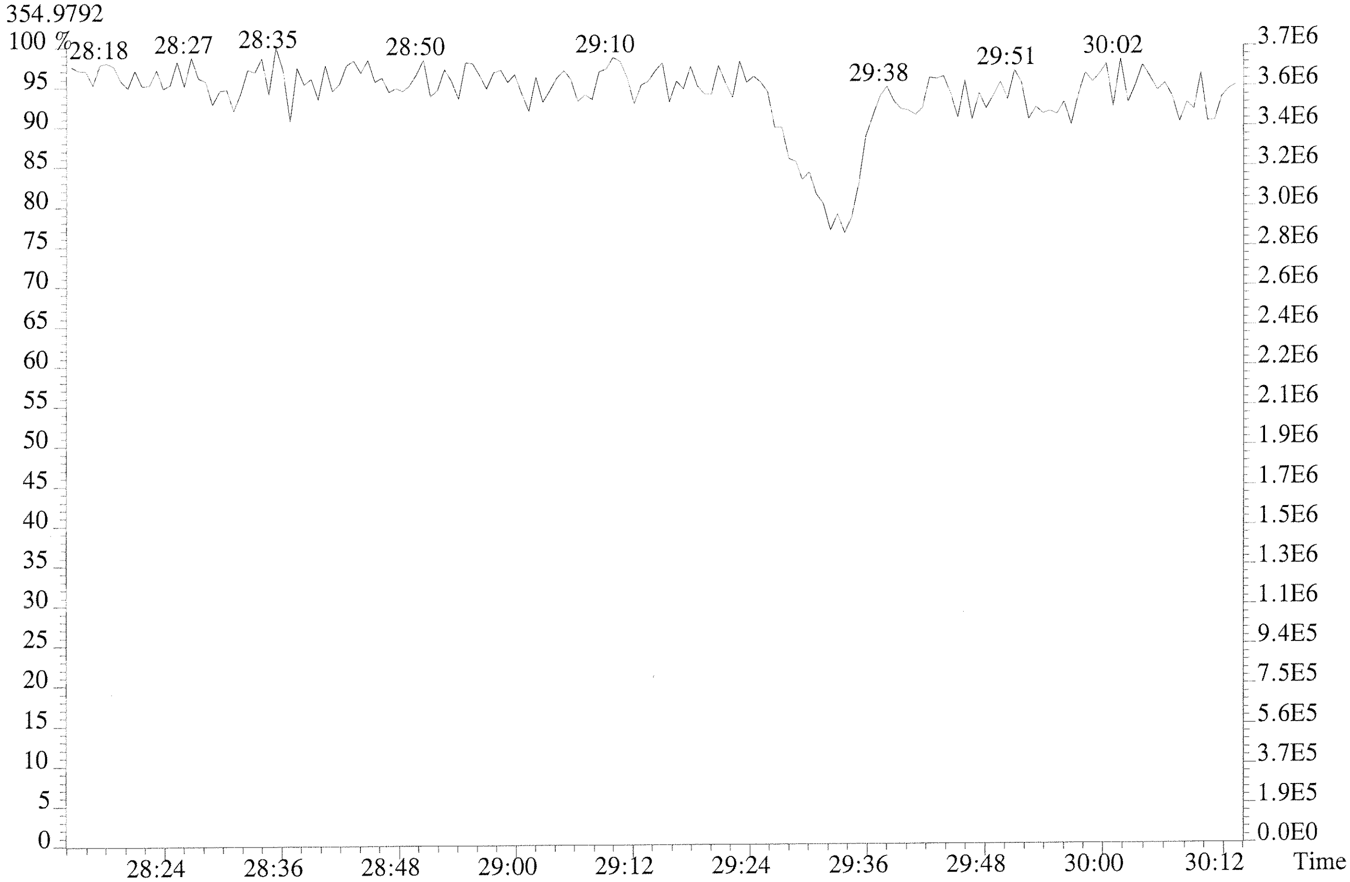
% Valley 2378-TCDD: 5 %

File: 8289 #1-535 Acq:19-JUN-2012 07:55:52 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:WINDOW DEFINE

319.8965

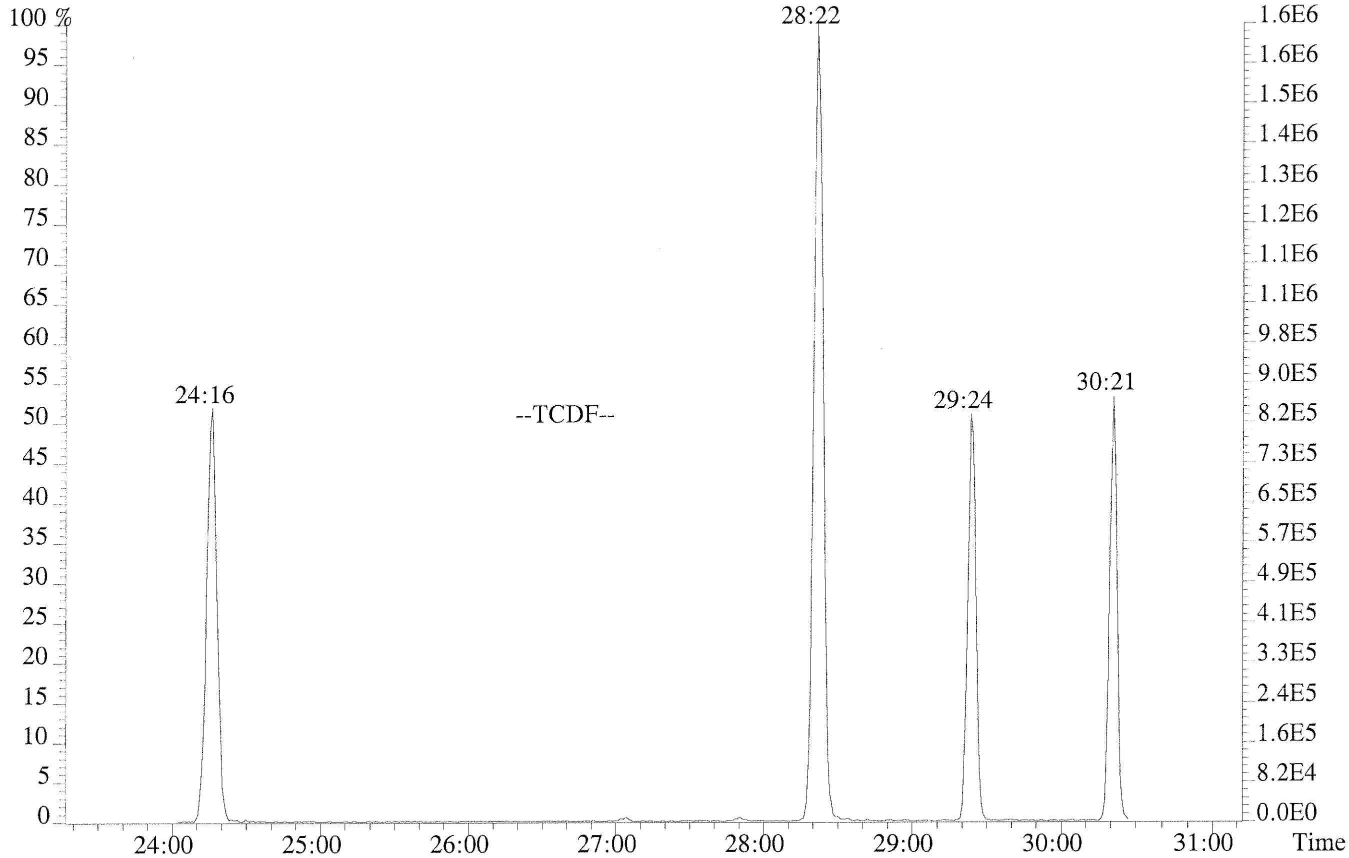


354.9792

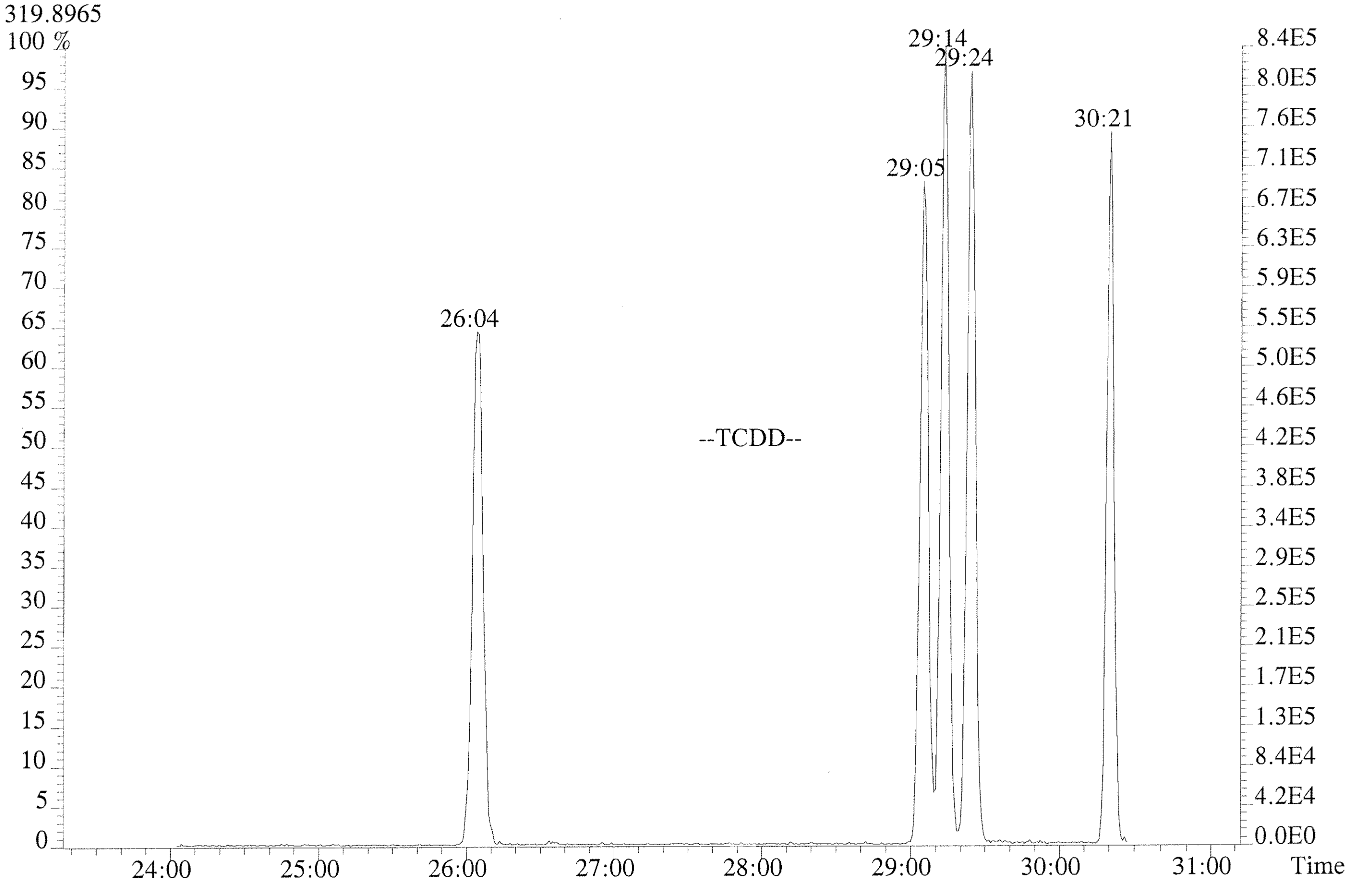


File: 3289 #1-535 Acq:19-JUN-2012 07:55:52 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:WINDOW DEFINE

303.9016

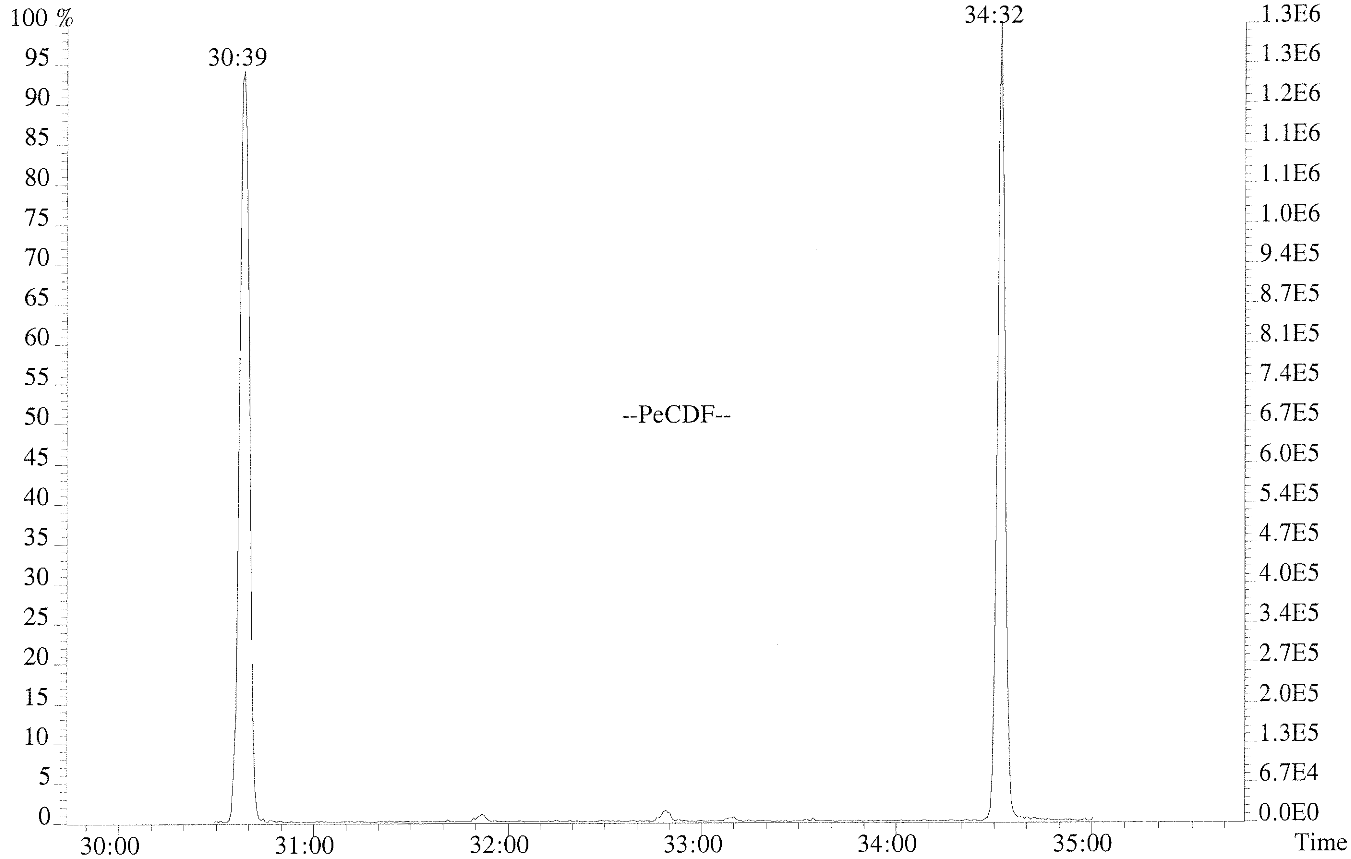


319.8965

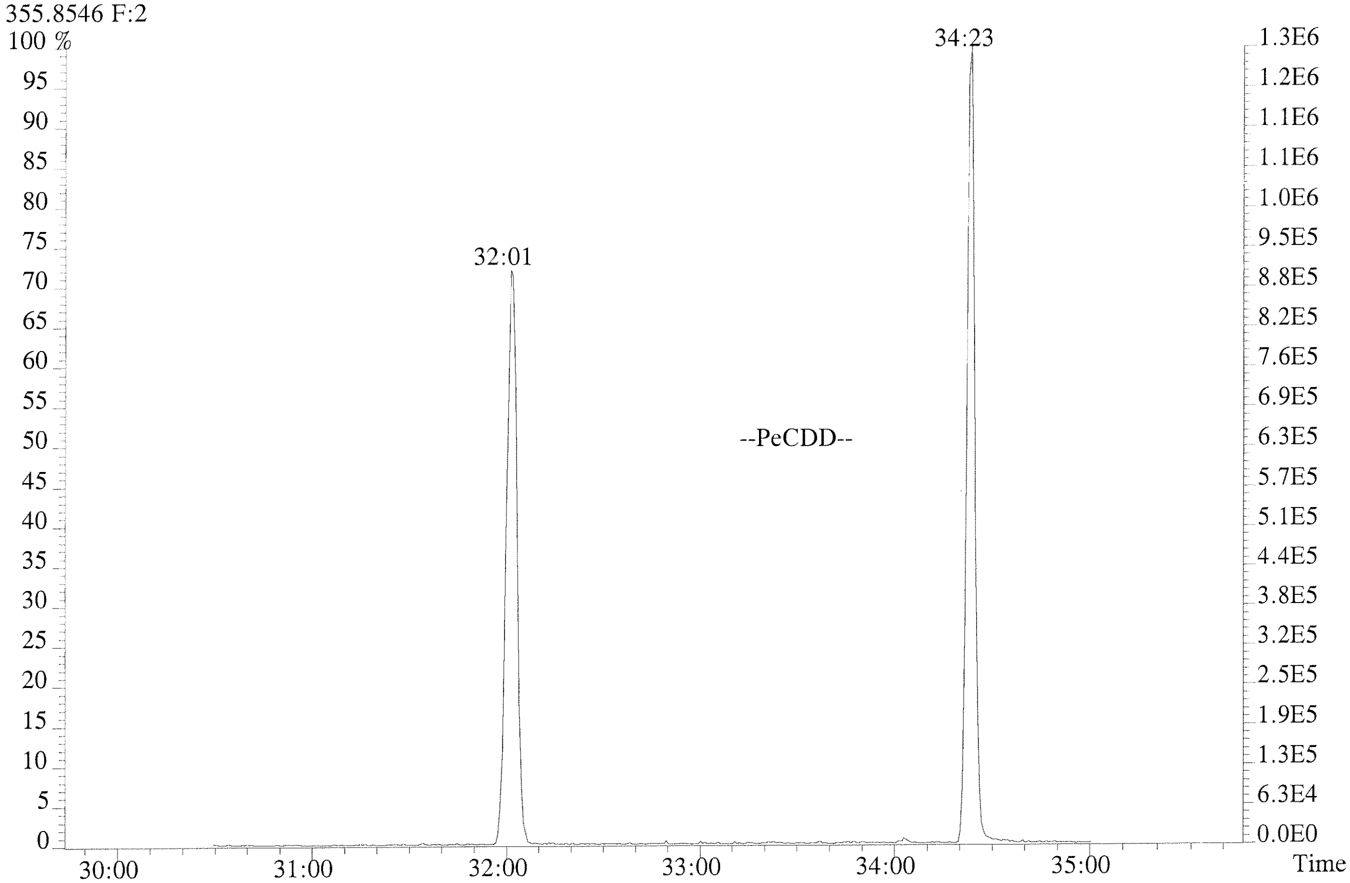


File: 3289 #1-411 Acq:19-JUN-2012 07:55:52 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:WINDOW DEFINE

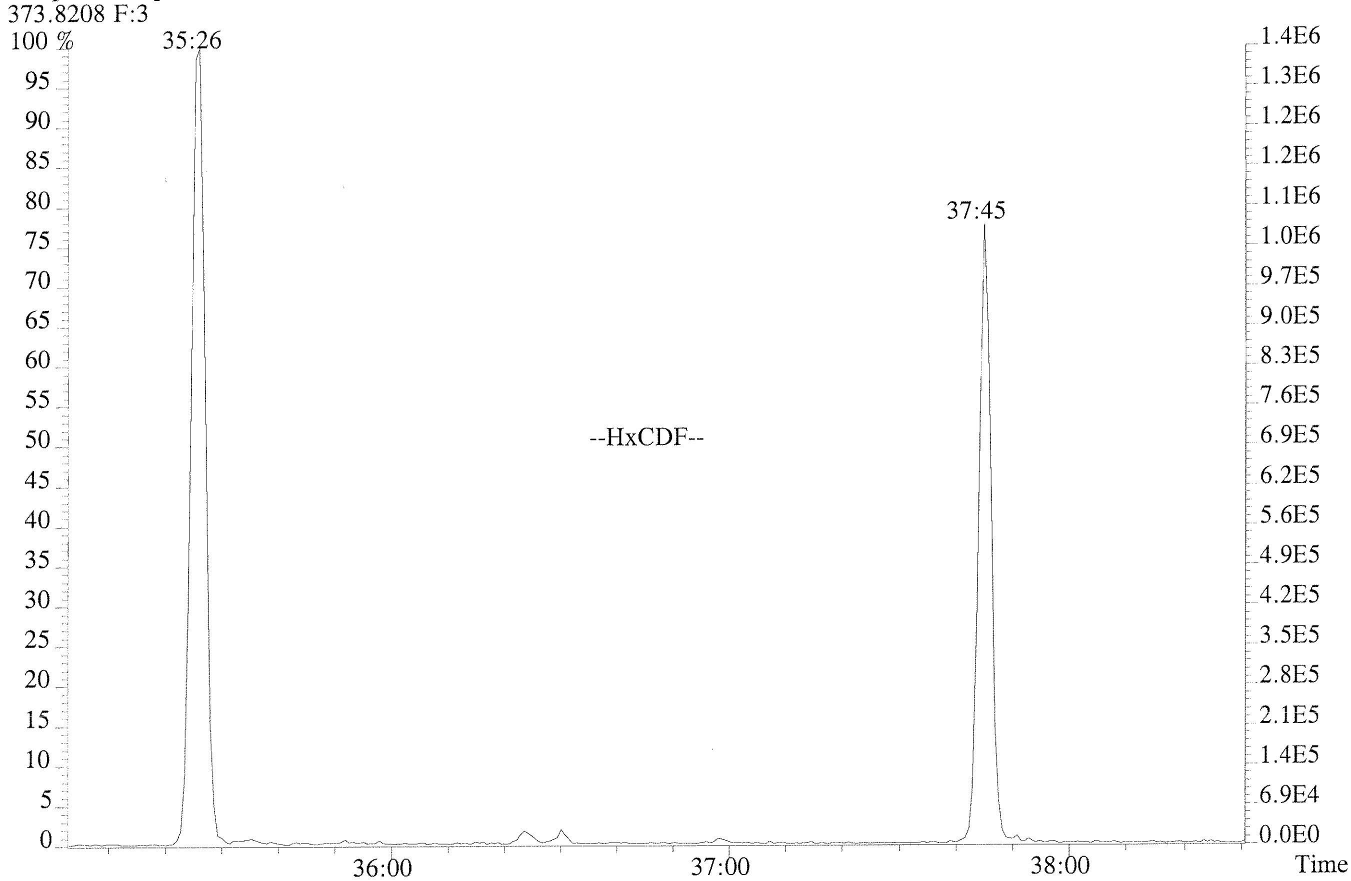
339.8597 F:2

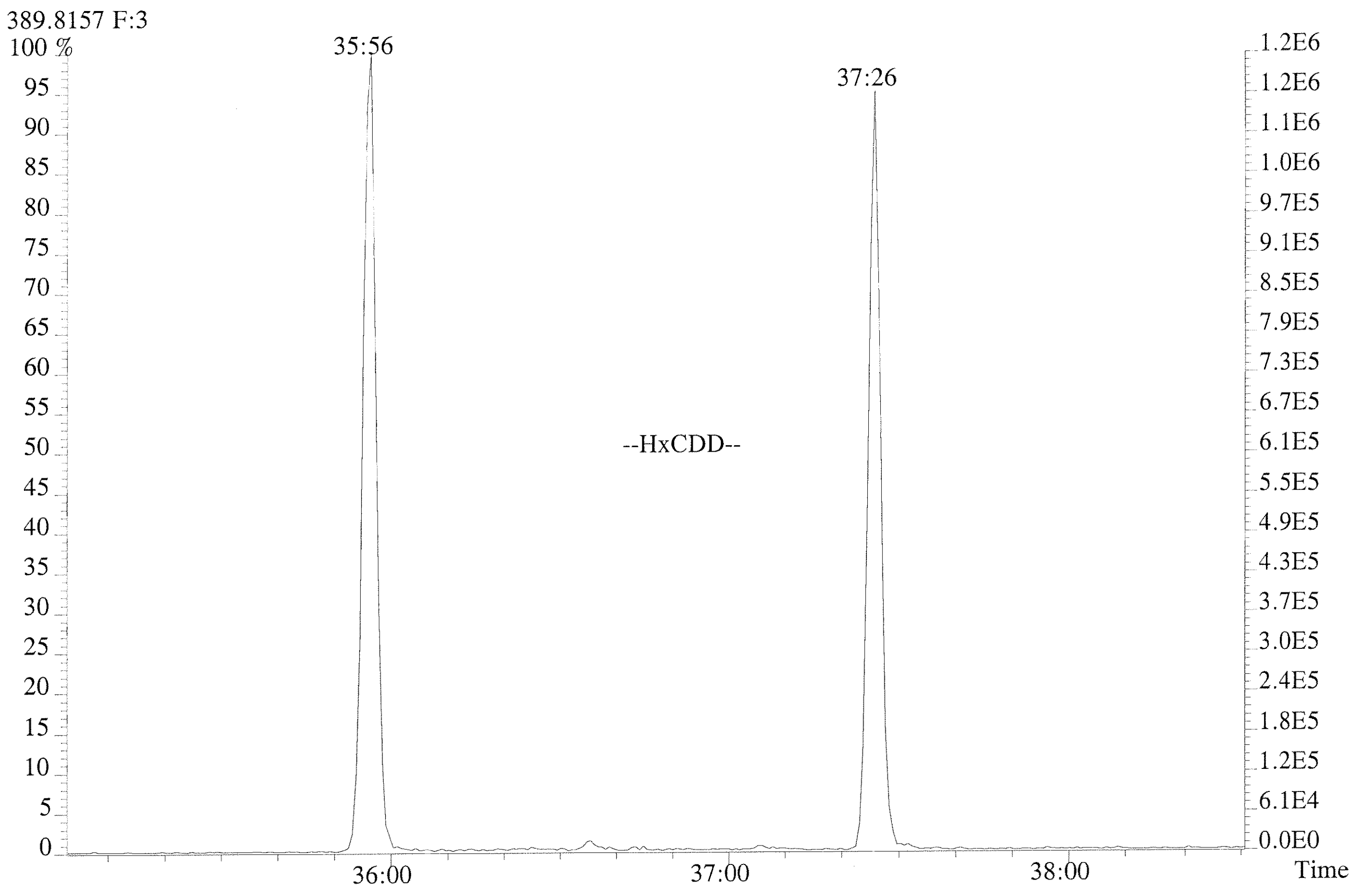


355.8546 F:2



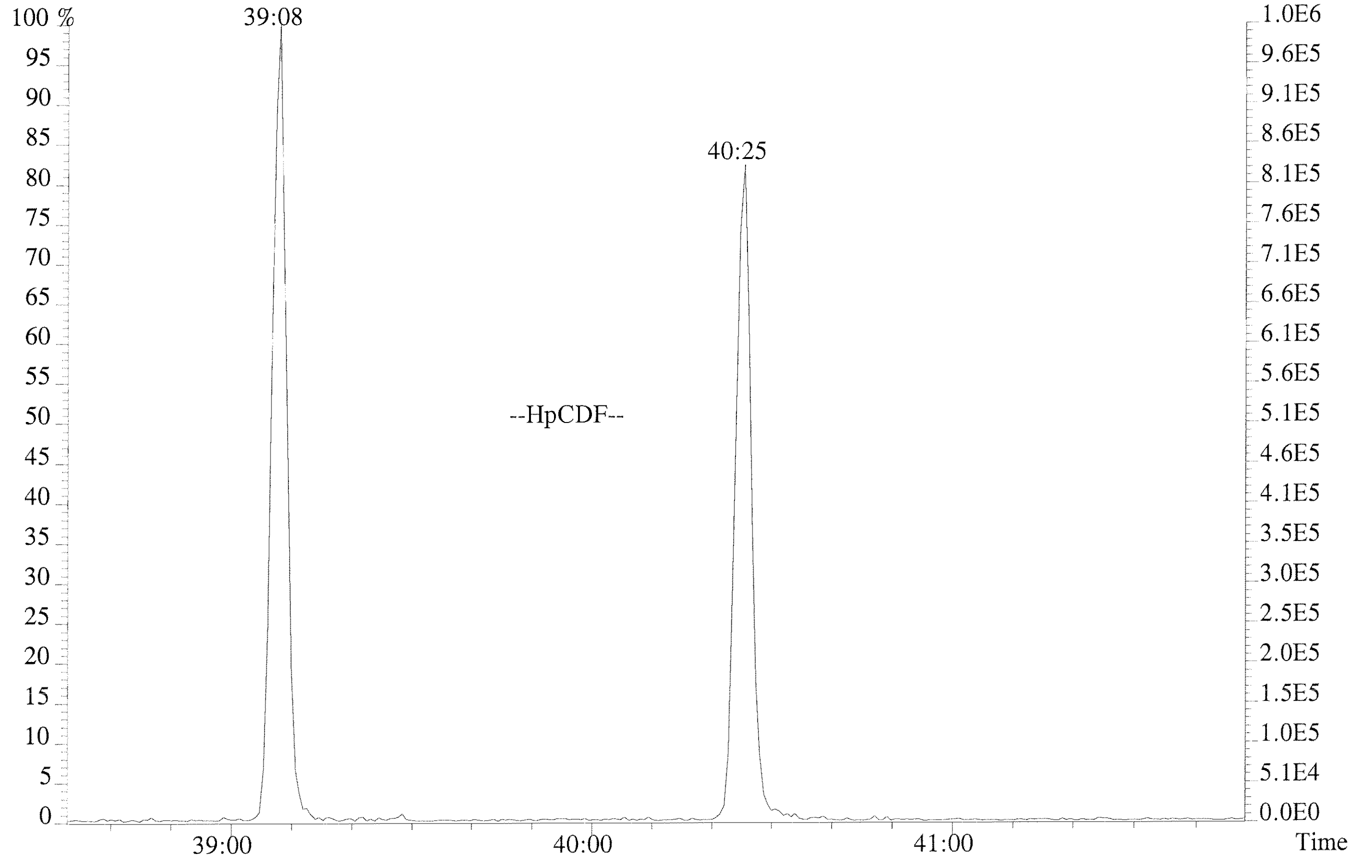
File: 8289 #1-315 Acq:19-JUN-2012 07:55:52 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:WINDOW DEFINE



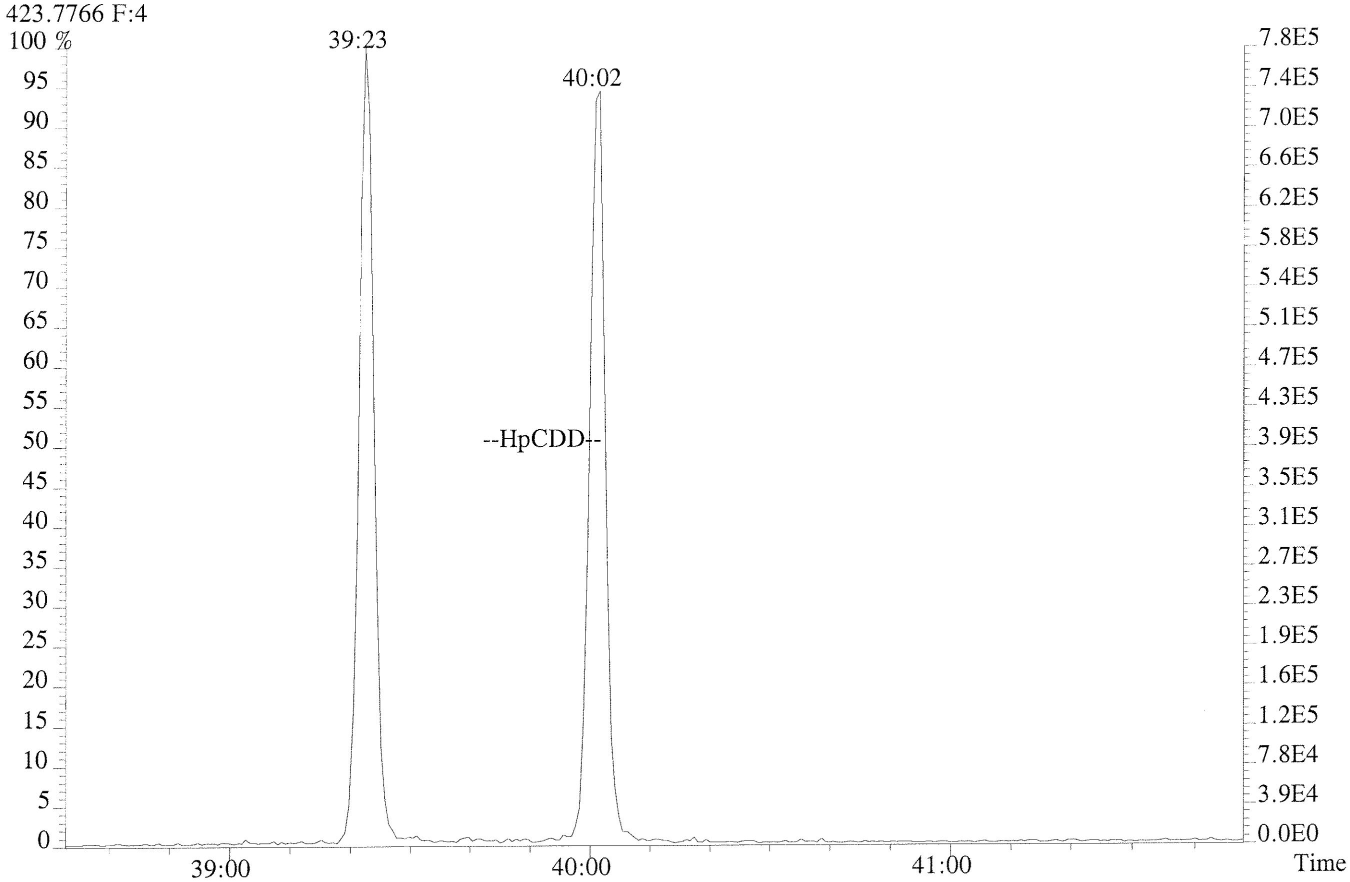


File: 8289 #1-296 Acq:19-JUN-2012 07:55:52 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:WINDOW DEFINE

407.7818 F:4



423.7766 F:4



USEPA -
7DFA
CDD/CDF CONTINUING CALIBRATION SUMMARY
HIGH RESOLUTION

Lab Name: Contract:
Lab Code: CASE NO.: TO NO.: SDG NO.:
GC Column: DB-5 ID: 0.25(mm) Instrument ID: AutoSpec-Premier
Lab File ID: 8290 Analysis Date: 19-JUN-12 Time: 10:02:59
Init. Calib. Time.: 05:13 Init. Calib. Date(s).: 04/23/12

Target Analytes	SELECTED IONS	RR/ RRF	MEAN RR/ RRF	%D	%D FLAG	ION RATIO	ION RATIO FLAG	ION RATIO QC lIMITS
2,3,7,8-TCDD	320/322	0.99	0.98	1.36		0.76		0.65-0.89
2,3,7,8-TCDF	304/306	0.91	0.93	-2.46		0.76		0.65-0.89
1,2,3,7,8-PeCDF	340/342	0.96	1.00	-4.42		1.54		1.32-1.78
1,2,3,7,8-PeCDD	356/358	0.96	0.91	4.73		1.57		1.32-1.78
2,3,4,7,8-PeCDF	340/342	1.02	0.96	5.66		1.51		1.32-1.78
1,2,3,4,7,8-HxCDF	374/376	1.19	1.22	-2.71		1.20		1.05-1.43
1,2,3,6,7,8-HxCDF	374/376	1.19	1.14	4.82		1.20		1.05-1.43
1,2,3,4,7,8-HxCDD	390/392	1.11	1.00	11.22		1.28		1.05-1.43
1,2,3,6,7,8-HxCDD	390/392	0.91	0.98	-6.82		1.24		1.05-1.43
1,2,3,7,8,9-HxCDD	390/392	1.08	1.04	4.03		1.26		1.05-1.43
2,3,4,6,7,8-HxCDF	374/376	1.14	1.14	-0.24		1.19		1.05-1.43
1,2,3,7,8,9-HxCDF	374/376	1.15	1.16	-1.14		1.23		1.05-1.43
1,2,3,4,6,7,8-HpCDF	408/410	1.38	1.39	-1.03		1.01		0.88-1.20
1,2,3,4,6,7,8-HpCDD	424/426	1.00	1.00	0.06		1.05		0.88-1.20
1,2,3,4,7,8,9-HpCDF	408/410	1.39	1.33	4.37		1.01		0.88-1.20
OCDD	458/460	0.98	1.05	-6.75		0.88		0.76-1.02
OCDF	442/444	1.19	1.23	-3.17		0.89		0.76-1.02
Labeled Compounds								
13C-2,3,7,8-TCDD	332/334	1.04	1.00	4.17		0.79		0.65-0.89
13C-1,2,3,7,8-PeCDD	368/370	0.93	0.82	13.37		1.57		1.32-1.78
13C-1,2,3,4,7,8-HxCDD	402/404	0.92	0.93	-0.97		1.27		1.05-1.43
13C-1,2,3,6,7,8-HxCDD	402/404	1.00	0.94	6.22		1.28		1.05-1.43
13C-1,2,3,4,6,7,8-HpCDD	424/426	0.89	0.82	8.74		1.06		0.88-1.20
13C-OCDD	470/472	0.76	0.59	27.94		0.90		0.76-1.02
13C-2,3,7,8-TCDF	316/318	1.36	1.28	6.04		0.78		0.65-0.89
13C-1,2,3,7,8-PeCDF	352/354	1.28	1.10	16.34		1.57		1.32-1.78
13C-2,3,4,7,8-PeCDF	352/354	1.21	1.07	13.99		1.57		1.32-1.78
13C-1,2,3,4,7,8-HxCDF	384/386	1.11	1.06	4.53		0.52		0.43-0.59
13C-1,2,3,6,7,8-HxCDF	384/386	1.18	1.19	-0.75		0.52		0.43-0.59
13C-2,3,4,6,7,8-HxCDF	384/386	1.14	1.10	3.75		0.52		0.43-0.59
13C-1,2,3,7,8,9-HxCDF	384/386	1.07	0.98	8.86		0.53		0.43-0.59
13C-1,2,3,4,6,7,8-HpCDF	418/420	0.92	0.84	9.95		0.45		0.37-0.51
13C-1,2,3,4,7,8,9-HpCDF	418/420	0.79	0.71	12.05		0.44		0.37-0.51
CLEAN-UP								
37Cl-2,3,7,8-TCDD	328/NA	1.06	1.04	1.65		NA		NA
Internal Standards								
13C-1,2,3,4-TCDD	332/334	NA	NA	NA	NA	0.80		0.65-0.89
13C-1,2,3,7,8,9-HxCDD	402/404	NA	NA	NA	NA	1.26		1.05-1.43

The laboratory must flag any analyte which does not meet criteria for percent Difference (%D) or ion abundance ratio by placing an asterisk in the appropriate flag column.

USEPA -
7DFB-FORM
CDD/CDF CONTINUING CALIBRATION RETENTION TIME SUMMARY
HIGH RESOLUTION

Lab Name: Contract:
Lab Code: CASE NO.: TO NO.: SDG No.:
GC Column: DB-5 ID: 0.25(mm) Instrument ID: AutoSpec-Premier
Analysis Date: 19-JUN-12 Time: 10:02:59
Lab File ID: 8290
Init. Calib. Time.: 05:13 Init. Calib. Date(s).: 04/23/12

Target Analytes	RRT	RT
2,3,7,8-TCDD	1.001	29:11
2,3,7,8-TCDF	1.001	28:19
1,2,3,7,8-PeCDF	1.001	32:47
1,2,3,7,8-PeCDD	1.000	33:53
2,3,4,7,8-PeCDF	1.000	33:31
1,2,3,4,7,8-HxCDF	1.000	36:23
1,2,3,6,7,8-HxCDF	1.000	36:29
1,2,3,4,7,8-HxCDD	1.000	37:05
1,2,3,6,7,8-HxCDD	1.000	37:09
1,2,3,7,8,9-HxCDD	1.008	37:26
2,3,4,6,7,8-HxCDF	1.000	36:57
1,2,3,7,8,9-HxCDF	1.000	37:40
1,2,3,4,6,7,8-HpCDF	1.000	39:07
1,2,3,4,6,7,8-HpCDD	1.000	40:00
1,2,3,4,7,8,9-HpCDF	1.000	40:23
OCDD	1.000	43:01
OCDF	1.004	43:10
Labeled Compounds		
13C-2,3,7,8-TCDD	1.007	29:10
13C-1,2,3,7,8-PeCDD	1.170	33:52
13C-1,2,3,4,7,8-HxCDD	0.990	37:04
13C-1,2,3,6,7,8-HxCDD	0.992	37:09
13C-1,2,3,4,6,7,8-HpCDD	1.068	39:59
13C-OCDD	1.149	43:00
13C-2,3,7,8-TCDF	0.978	28:18
13C-1,2,3,7,8-PeCDF	1.132	32:46
13C-2,3,4,7,8-PeCDF	1.158	33:31
13C-1,2,3,4,7,8-HxCDF	0.972	36:22
13C-1,2,3,6,7,8-HxCDF	0.974	36:28
13C-2,3,4,6,7,8-HxCDF	0.987	36:57
13C-1,2,3,7,8,9-HxCDF	1.006	37:39
13C-1,2,3,4,6,7,8-HpCDF	1.045	39:06
13C-1,2,3,4,7,8,9-HpCDF	1.079	40:23
CLEAN-UP		
37Cl-2,3,7,8-TCDD	NA	29:11
Internal Standards		
13C-1,2,3,4-TCDD	NA	28:57
13C-1,2,3,7,8,9-HxCDD	NA	37:26

RRT = (RT of analyte)/(RT of appropriate labeled compound)

DLM02.0(5/05)

FORM VII-HR CDD-2

Sample Response Summary CLIENT ID.
CCAL CS3

Run #7 Filename 8290 Samp: 1 Inj: 1 Acquired: 19-JUN-12 10:02:59
Processed: 20-JUN-12 11:08:59 Sample ID: CCAL CS3

	Typ	Name	RT-1	Resp 1	Resp 2	Ratio	Meet	Mod?	RRF
1	Unk	2,3,7,8-TCDF	28:19	5.292e+03	6.973e+03	0.76	yes	no	0.929
2	Unk	1,2,3,7,8-PeCDF	32:47	3.690e+04	2.400e+04	1.54	yes	no	1.002
3	Unk	2,3,4,7,8-PeCDF	33:31	3.703e+04	2.446e+04	1.51	yes	no	0.963
4	Unk	1,2,3,4,7,8-HxCDF	36:23	3.383e+04	2.819e+04	1.20	yes	no	1.221
5	Unk	1,2,3,6,7,8-HxCDF	36:29	3.623e+04	3.015e+04	1.20	yes	no	1.139
6	Unk	2,3,4,6,7,8-HxCDF	36:57	3.312e+04	2.778e+04	1.19	yes	no	1.139
7	Unk	1,2,3,7,8,9-HxCDF	37:40	3.183e+04	2.593e+04	1.23	yes	no	1.165
8	Unk	1,2,3,4,6,7,8-HpCDF	39:07	3.011e+04	2.966e+04	1.01	yes	no	1.394
9	Unk	1,2,3,4,7,8,9-HpCDF	40:23	2.613e+04	2.583e+04	1.01	yes	no	1.334
10	Unk	OCDF	43:10	3.991e+04	4.509e+04	0.89	yes	no	1.227
11	Unk	2,3,7,8-TCDD	29:11	4.442e+03	5.875e+03	0.76	yes	no	0.980
12	Unk	1,2,3,7,8-PeCDD	33:53	2.703e+04	1.724e+04	1.57	yes	no	0.915
13	Unk	1,2,3,4,7,8-HxCDD	37:05	2.706e+04	2.110e+04	1.28	yes	yes	1.001
14	Unk	1,2,3,6,7,8-HxCDD	37:09	2.362e+04	1.904e+04	1.24	yes	yes	0.978
15	Unk	1,2,3,7,8,9-HxCDD	37:26	2.720e+04	2.157e+04	1.26	yes	no	1.041
16	Unk	1,2,3,4,6,7,8-HpCDD	40:00	2.143e+04	2.047e+04	1.05	yes	no	1.002
17	Unk	OCDD	43:01	3.298e+04	3.736e+04	0.88	yes	no	1.054
18	IS	13C-2,3,7,8-TCDF	28:18	5.917e+04	7.620e+04	0.78	yes	no	1.282
19	IS	13C-1,2,3,7,8-PeCDF	32:46	7.764e+04	4.953e+04	1.57	yes	no	1.098
20	IS	13C-2,3,4,7,8-PeCDF	33:31	7.383e+04	4.705e+04	1.57	yes	no	1.065
21	IS	13C-1,2,3,4,7,8-HxCDF	36:22	3.557e+04	6.883e+04	0.52	yes	no	1.062
22	IS	13C-1,2,3,6,7,8-HxCDF	36:28	3.812e+04	7.306e+04	0.52	yes	no	1.191
23	IS	13C-2,3,4,6,7,8-HxCDF	36:57	3.684e+04	7.035e+04	0.52	yes	no	1.098
24	IS	13C-1,2,3,7,8,9-HxCDF	37:39	3.454e+04	6.578e+04	0.53	yes	no	0.980
25	IS	13C-1,2,3,4,6,7,8-HpCDF	39:06	2.697e+04	5.965e+04	0.45	yes	no	0.837
26	IS	13C-1,2,3,4,7,8,9-HpCDF	40:23	2.296e+04	5.166e+04	0.44	yes	no	0.708
27	IS	13C-2,3,7,8-TCDD	29:10	4.596e+04	5.790e+04	0.79	yes	no	1.002
28	IS	13C-1,2,3,7,8-PeCDD	33:52	5.648e+04	3.593e+04	1.57	yes	no	0.819
29	IS	13C-1,2,3,4,7,8-HxCDD	37:04	4.835e+04	3.819e+04	1.27	yes	yes	0.929
30	IS	13C-1,2,3,6,7,8-HxCDD	37:09	5.259e+04	4.101e+04	1.28	yes	yes	0.937
31	IS	13C-1,2,3,4,6,7,8-HpCDD	39:59	4.291e+04	4.066e+04	1.06	yes	no	0.817
32	IS	13C-OCDD	43:00	6.771e+04	7.543e+04	0.90	yes	no	0.595
33	RS/RT	13C-1,2,3,4-TCDD	28:57	4.438e+04	5.517e+04	0.80	yes	no	-
34	RS/RT	13C-1,2,3,7,8,9-HxCDD	37:26	5.252e+04	4.155e+04	1.26	yes	no	-
35	C/Up	37Cl-2,3,7,8-TCDD	29:11	1.052e+04				no	1.039

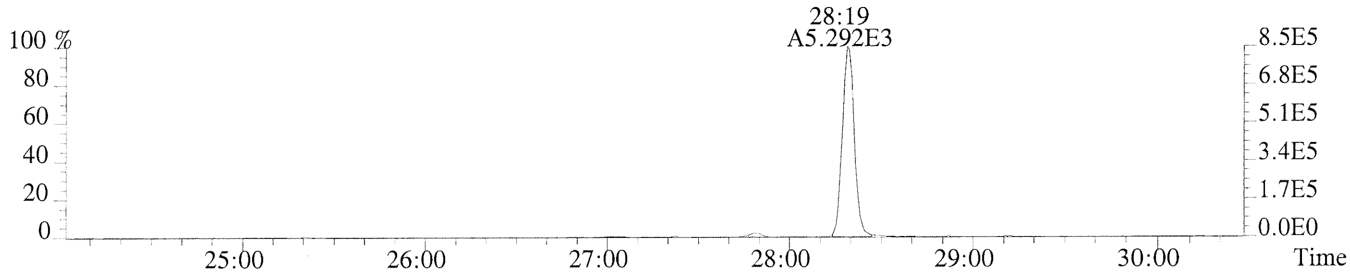
Signal/Noise Height Ratio Summary CLIENT ID.
CCAL CS3

Run #7 Filename 8290 Samp: 1 Inj: 1 Acquired: 19-JUN-12 10:02:59
Processed: 20-JUN-12 11:08:591 LAB. ID: CCAL CS3

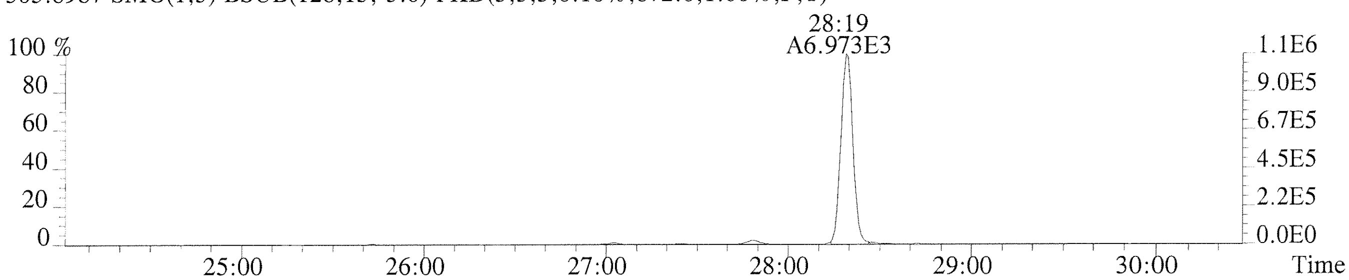
	Name	Signal 1	Noise 1	S/N Rat.1	Signal 2	Noise 2	S/N Rat.2
1	2,3,7,8-TCDF	8.49e+05	2.96e+02	2.9e+03	1.12e+06	8.72e+02	1.3e+03
2	1,2,3,7,8-PeCDF	6.92e+06	2.28e+02	3.0e+04	4.53e+06	4.52e+02	1.0e+04
3	2,3,4,7,8-PeCDF	7.26e+06	2.28e+02	3.2e+04	4.84e+06	4.52e+02	1.1e+04
4	1,2,3,4,7,8-HxCDF	7.12e+06	4.20e+02	1.7e+04	5.88e+06	3.36e+02	1.8e+04
5	1,2,3,6,7,8-HxCDF	7.33e+06	4.20e+02	1.7e+04	6.03e+06	3.36e+02	1.8e+04
6	2,3,4,6,7,8-HxCDF	7.03e+06	4.20e+02	1.7e+04	5.96e+06	3.36e+02	1.8e+04
7	1,2,3,7,8,9-HxCDF	6.68e+06	4.20e+02	1.6e+04	5.45e+06	3.36e+02	1.6e+04
8	1,2,3,4,6,7,8-HpCDF	5.66e+06	1.10e+03	5.1e+03	5.53e+06	1.09e+03	5.1e+03
9	1,2,3,4,7,8,9-HpCDF	4.56e+06	1.10e+03	4.1e+03	4.57e+06	1.09e+03	4.2e+03
10	OCDF	4.71e+06	3.76e+02	1.3e+04	5.24e+06	1.09e+03	4.8e+03
11	2,3,7,8-TCDD	7.78e+05	7.16e+02	1.1e+03	9.97e+05	6.76e+02	1.5e+03
12	1,2,3,7,8-PeCDD	5.44e+06	4.64e+02	1.2e+04	3.45e+06	2.96e+02	1.2e+04
13	1,2,3,4,7,8-HxCDD	5.76e+06	2.80e+02	2.1e+04	4.53e+06	4.80e+02	9.4e+03
14	1,2,3,6,7,8-HxCDD	5.16e+06	2.80e+02	1.8e+04	4.21e+06	4.80e+02	8.8e+03
15	1,2,3,7,8,9-HxCDD	5.87e+06	2.80e+02	2.1e+04	4.68e+06	4.80e+02	9.7e+03
16	1,2,3,4,6,7,8-HpCDD	3.90e+06	4.36e+02	8.9e+03	3.70e+06	3.36e+02	1.1e+04
17	OCDD	3.37e+06	3.56e+02	9.5e+03	3.87e+06	2.36e+02	1.6e+04
18	13C-2,3,7,8-TCDF	9.61e+06	5.80e+02	1.7e+04	1.24e+07	7.04e+02	1.8e+04
19	13C-1,2,3,7,8-PeCDF	1.44e+07	2.68e+02	5.4e+04	9.26e+06	5.40e+02	1.7e+04
20	13C-2,3,4,7,8-PeCDF	1.48e+07	2.68e+02	5.5e+04	9.43e+06	5.40e+02	1.7e+04
21	13C-1,2,3,4,7,8-HxCDF	7.40e+06	4.68e+02	1.6e+04	1.42e+07	8.60e+02	1.7e+04
22	13C-1,2,3,6,7,8-HxCDF	7.69e+06	4.68e+02	1.6e+04	1.46e+07	8.60e+02	1.7e+04
23	13C-2,3,4,6,7,8-HxCDF	7.72e+06	4.68e+02	1.6e+04	1.49e+07	8.60e+02	1.7e+04
24	13C-1,2,3,7,8,9-HxCDF	7.11e+06	4.68e+02	1.5e+04	1.37e+07	8.60e+02	1.6e+04
25	13C-1,2,3,4,6,7,8-HpCDF	5.06e+06	1.05e+03	4.8e+03	1.12e+07	1.18e+03	9.5e+03
26	13C-1,2,3,4,7,8,9-HpCDF	4.05e+06	1.05e+03	3.9e+03	9.05e+06	1.18e+03	7.7e+03
27	13C-2,3,7,8-TCDD	7.80e+06	1.91e+03	4.1e+03	9.78e+06	5.32e+02	1.8e+04
28	13C-1,2,3,7,8-PeCDD	1.13e+07	5.12e+02	2.2e+04	7.24e+06	3.92e+02	1.8e+04
29	13C-1,2,3,4,7,8-HxCDD	1.02e+07	4.64e+02	2.2e+04	8.09e+06	5.72e+02	1.4e+04
30	13C-1,2,3,6,7,8-HxCDD	1.16e+07	4.64e+02	2.5e+04	9.16e+06	5.72e+02	1.6e+04
31	13C-1,2,3,4,6,7,8-HpCDD	7.65e+06	5.28e+02	1.4e+04	7.24e+06	4.64e+02	1.6e+04
32	13C-OCDD	6.94e+06	4.24e+02	1.6e+04	7.83e+06	2.32e+02	3.4e+04
33	13C-1,2,3,4-TCDD	7.70e+06	1.91e+03	4.0e+03	9.52e+06	5.32e+02	1.8e+04
34	13C-1,2,3,7,8,9-HxCDD	1.12e+07	4.64e+02	2.4e+04	8.87e+06	5.72e+02	1.6e+04
35	37Cl-2,3,7,8-TCDD	1.82e+06	3.32e+02	5.5e+03			

File: 8290 #1-536 Acq:19-JUN-2012 10:02:59 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:CCAL CS3

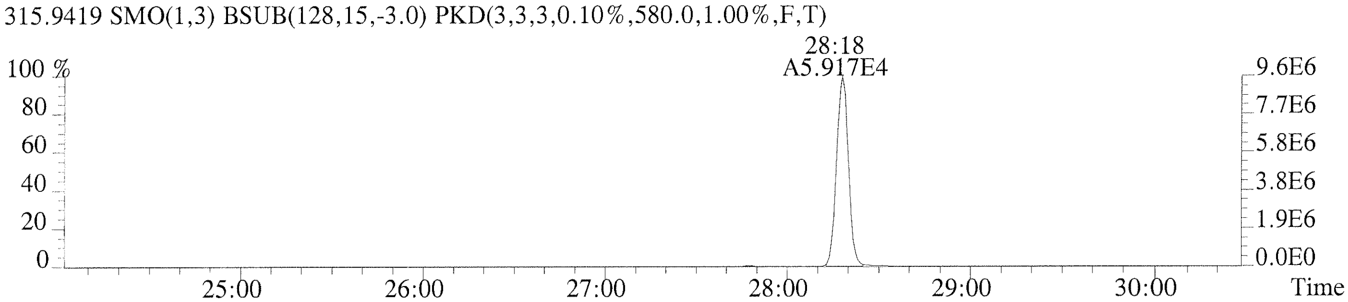
303.9016 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,296.0,1.00%,F,T)



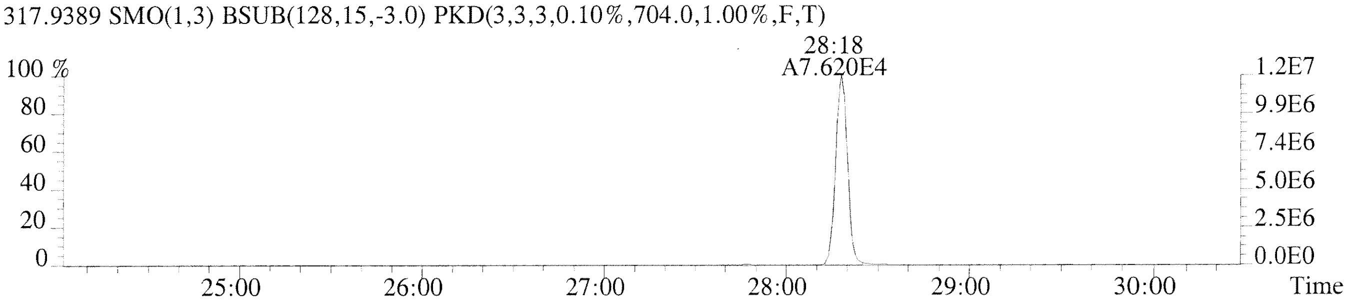
305.8987 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,872.0,1.00%,F,T)



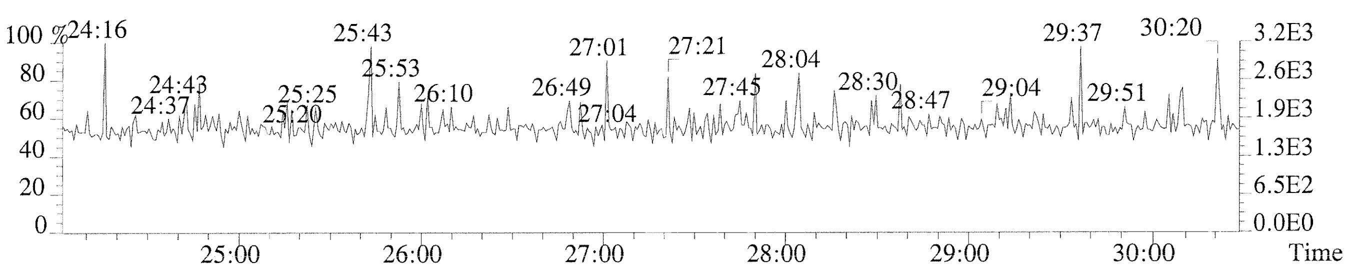
315.9419 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,580.0,1.00%,F,T)



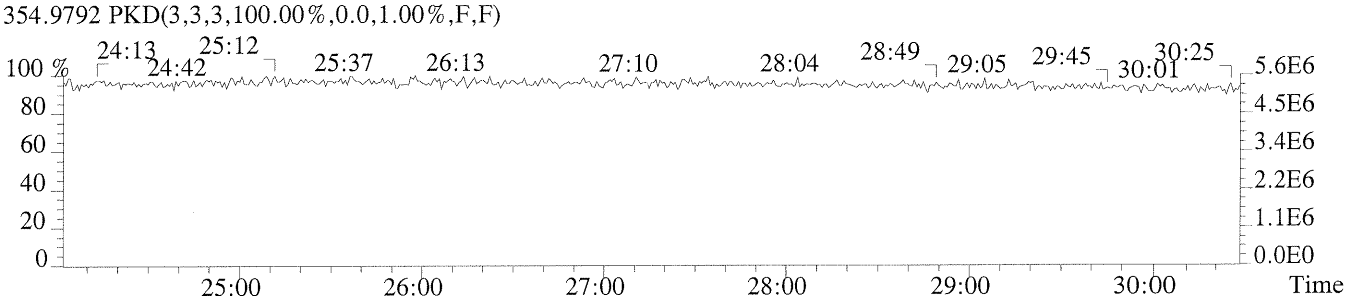
317.9389 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,704.0,1.00%,F,T)



375.8364 PKD(5,3,5,100.00%,0.0,1.00%,F,F)

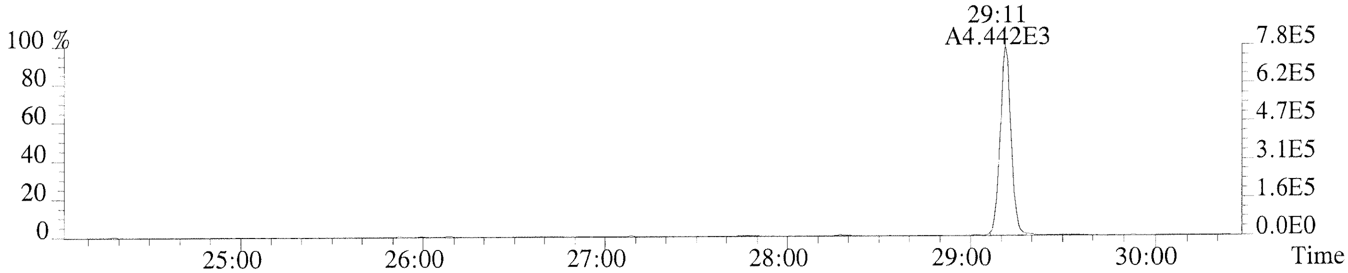


354.9792 PKD(3,3,3,100.00%,0.0,1.00%,F,F)

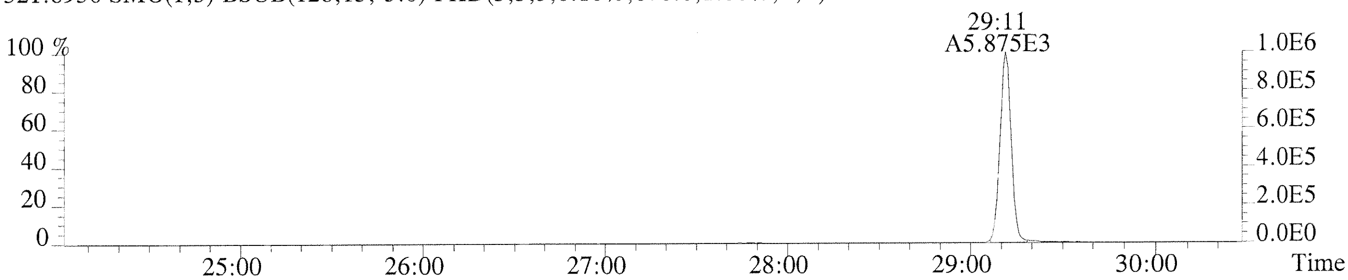


File: 8290 #1-536 Acq:19-JUN-2012 10:02:59 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:CCAL CS3

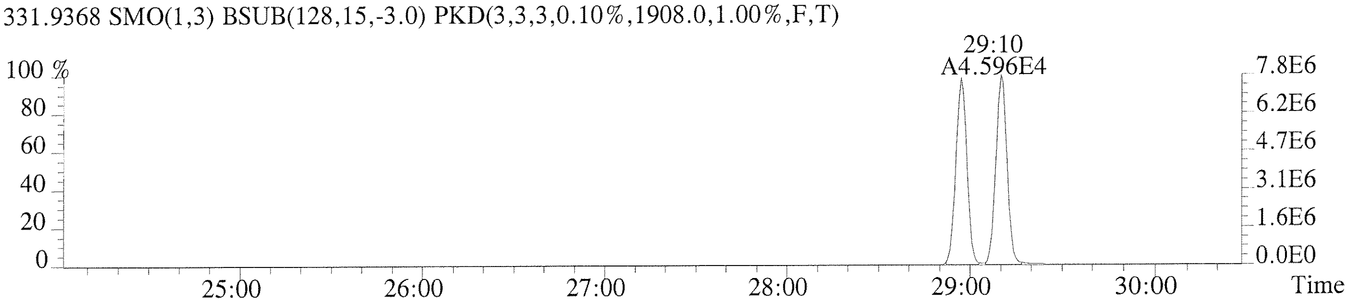
319.8965 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,716.0,1.00%,F,T)



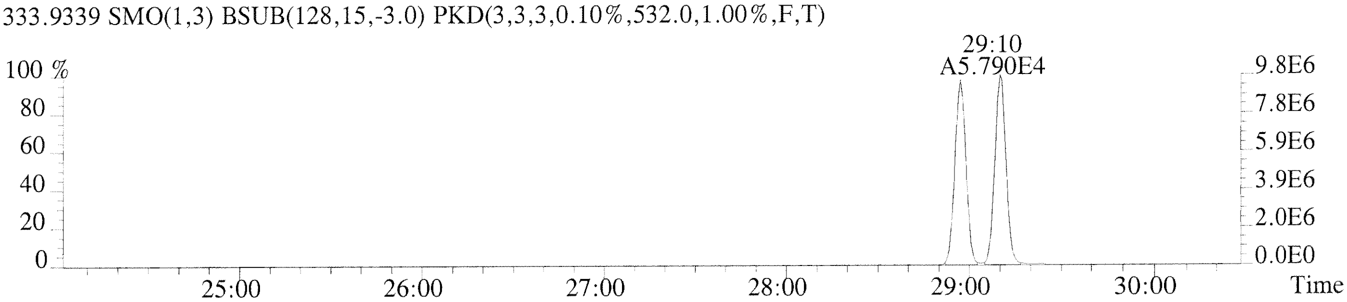
321.8936 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,676.0,1.00%,F,T)



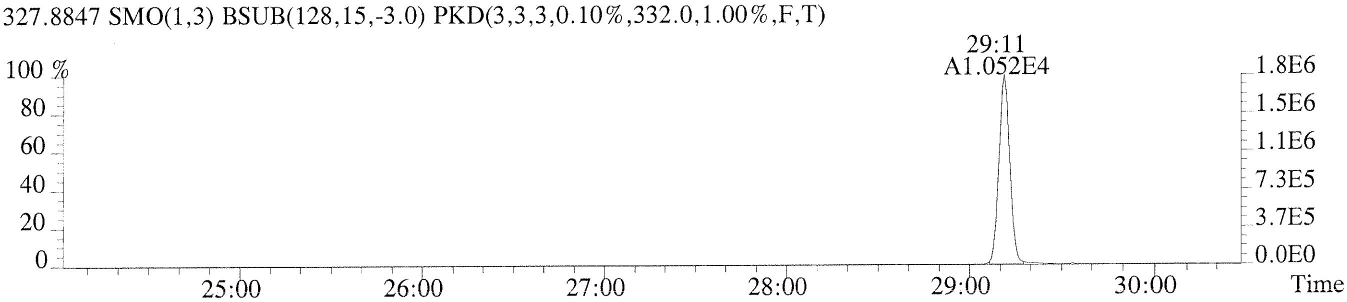
331.9368 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,1908.0,1.00%,F,T)



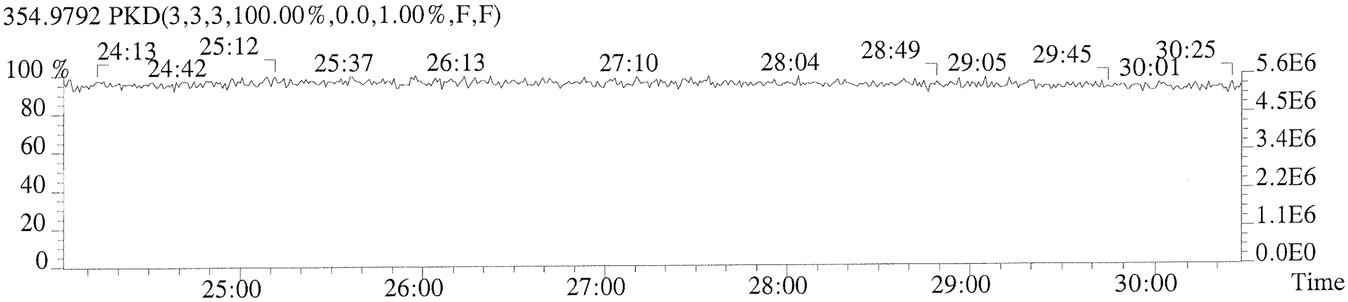
333.9339 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,532.0,1.00%,F,T)



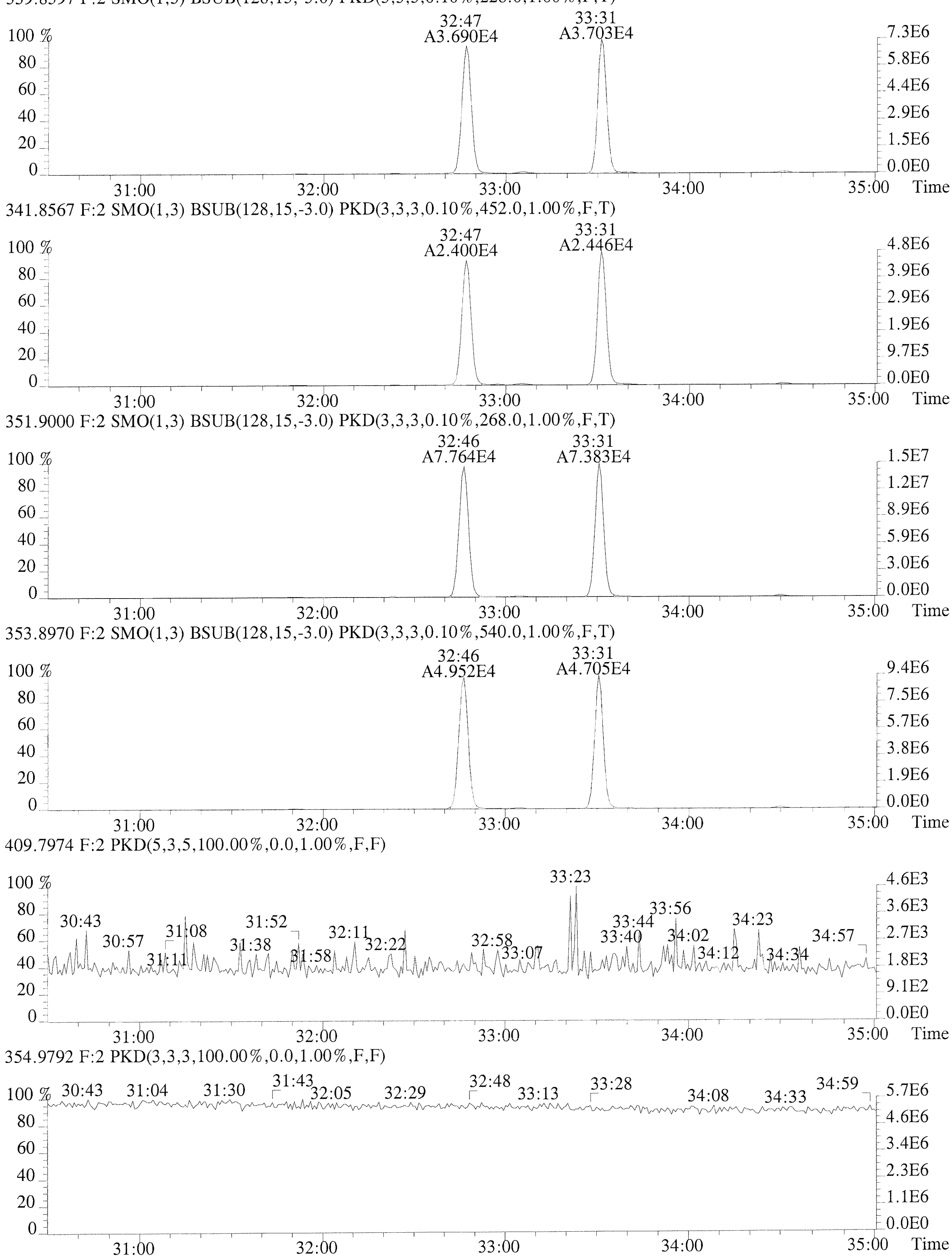
327.8847 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,332.0,1.00%,F,T)



354.9792 PKD(3,3,3,100.00%,0.0,1.00%,F,F)

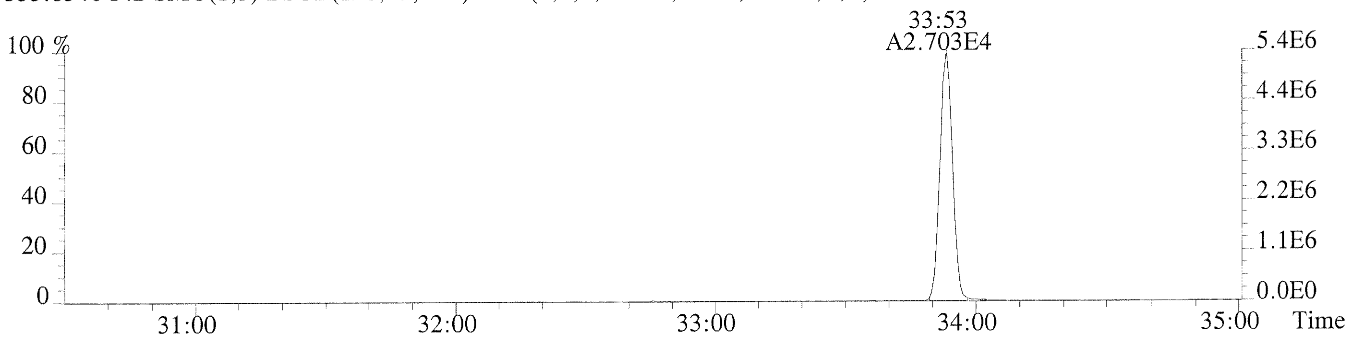


File: 8290 #1-410 Acq:19-JUN-2012 10:02:59 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:CCAL CS3

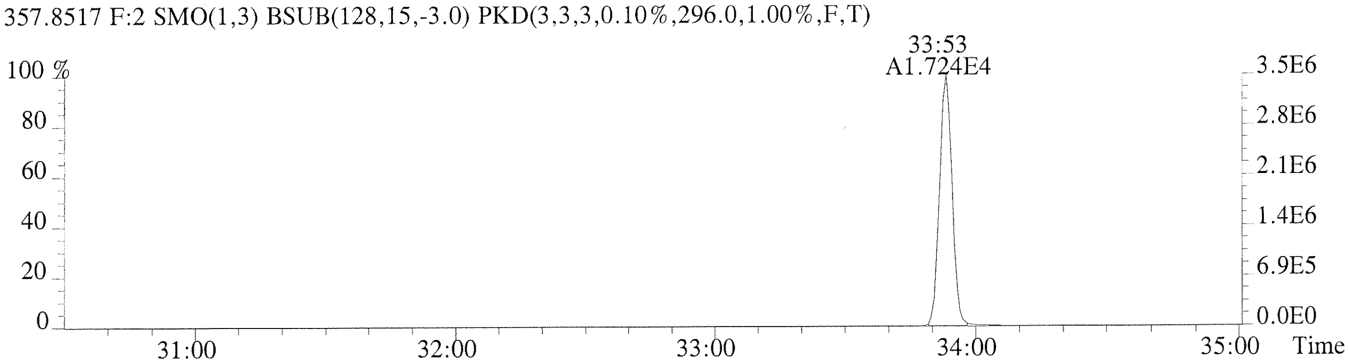


File: 8290 #1-410 Acq:19-JUN-2012 10:02:59 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:CCAL CS3

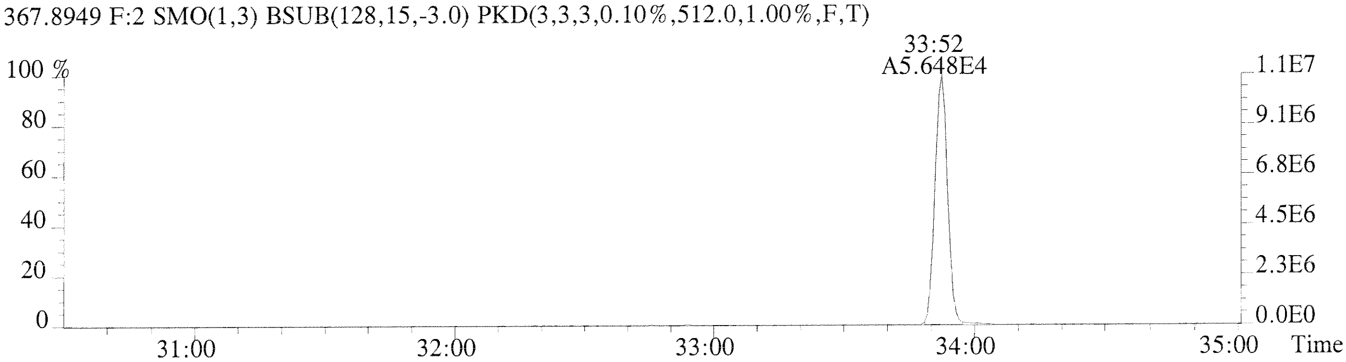
355.8546 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,464.0,1.00%,F,T)



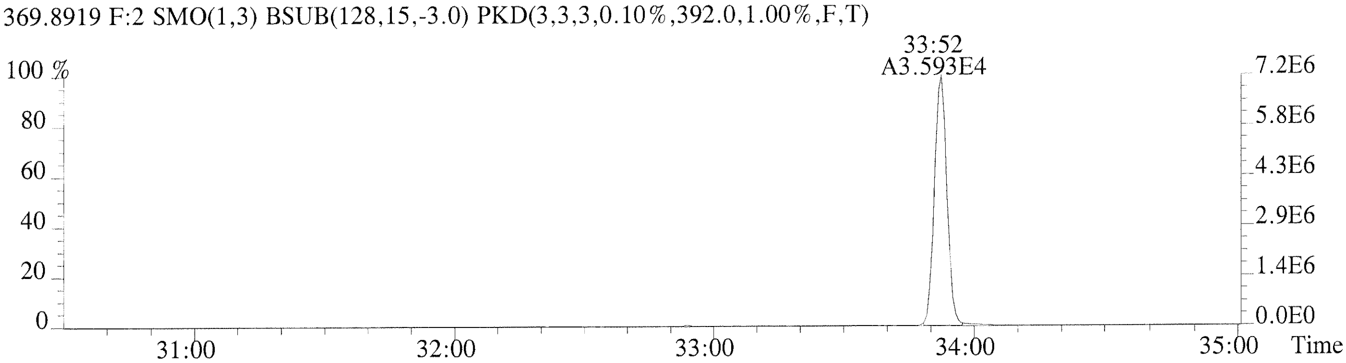
357.8517 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,296.0,1.00%,F,T)



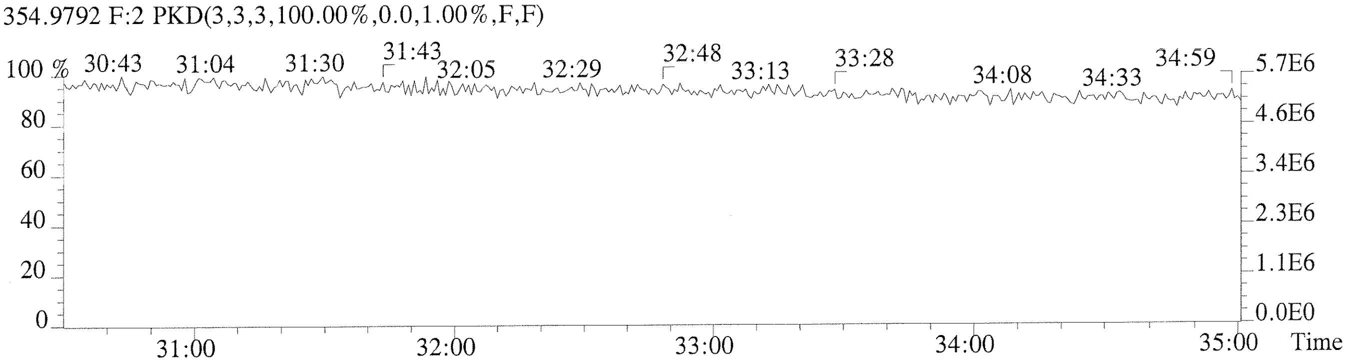
367.8949 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,512.0,1.00%,F,T)



369.8919 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,392.0,1.00%,F,T)

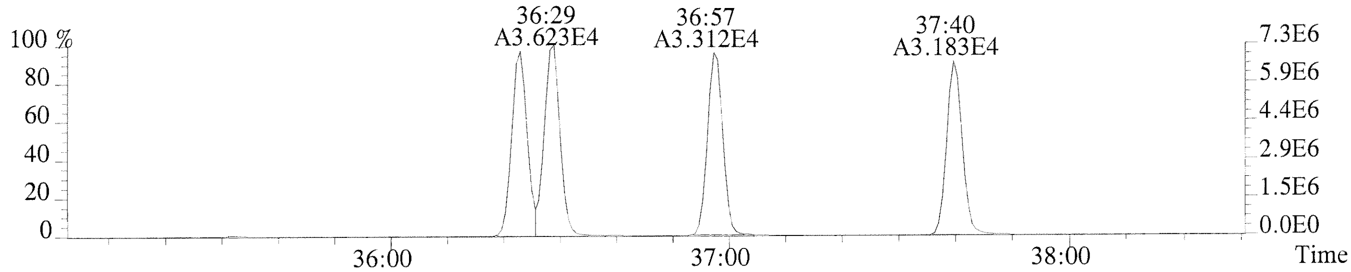


354.9792 F:2 PKD(3,3,3,100.00%,0.0,1.00%,F,F)

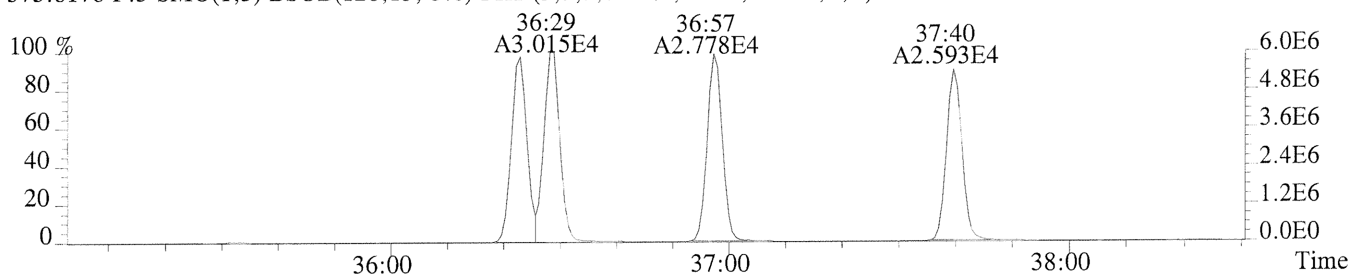


File: 8290 #1-315 Acq:19-JUN-2012 10:02:59 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:CCAL CS3

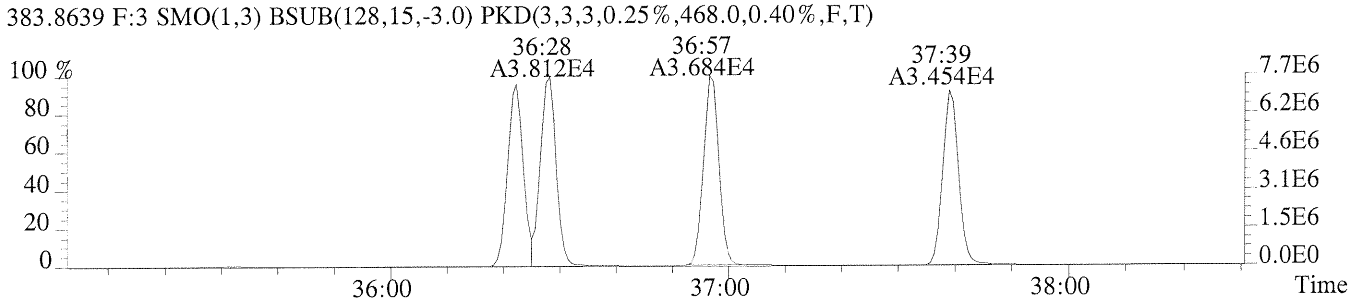
373.8208 F:3 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,420.0,0.40%,F,T)



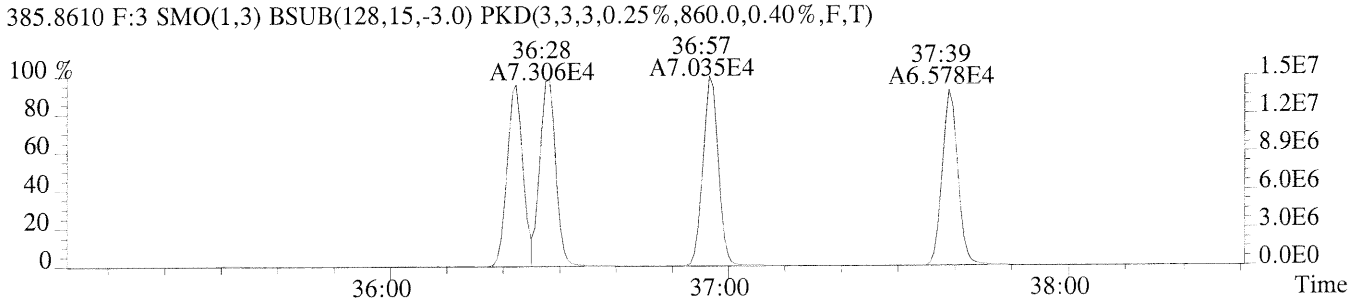
375.8178 F:3 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,336.0,0.40%,F,T)



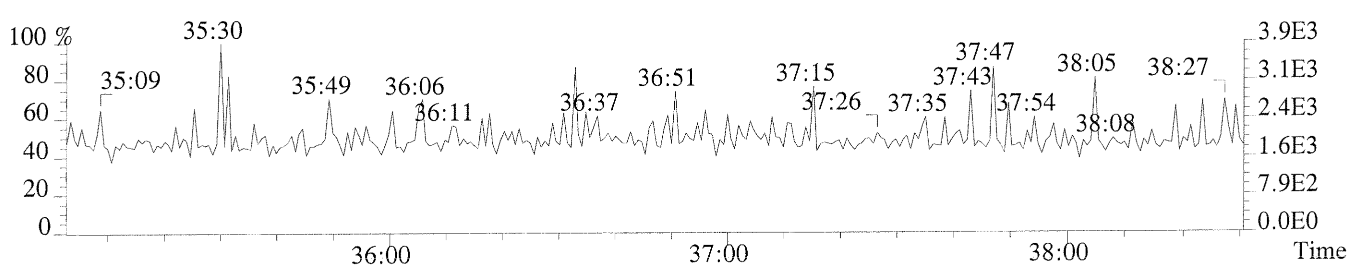
383.8639 F:3 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,468.0,0.40%,F,T)



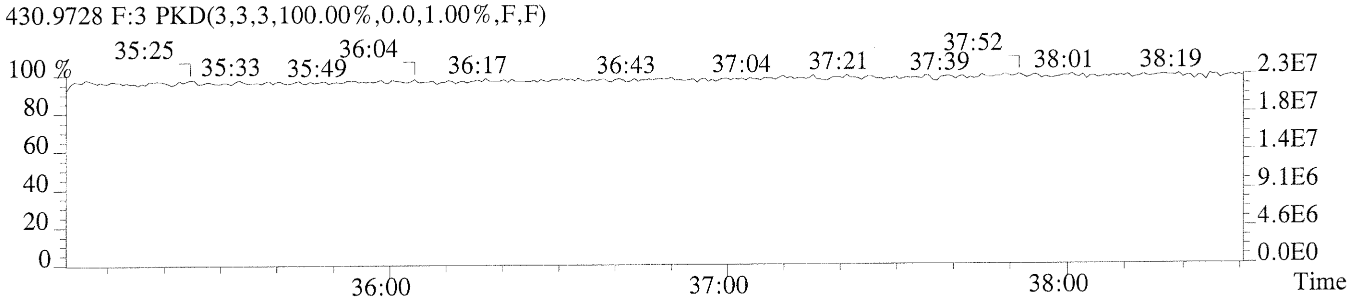
385.8610 F:3 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,860.0,0.40%,F,T)



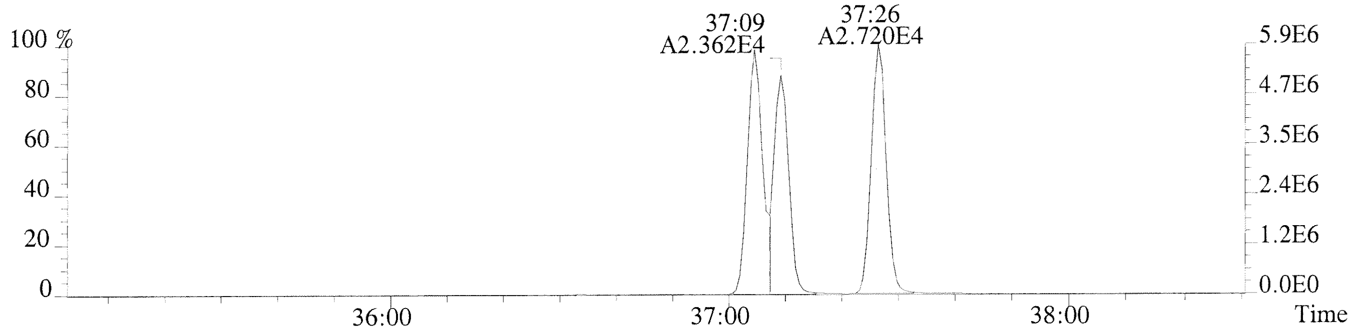
445.7555 F:3 PKD(5,3,5,100.00%,0.0,1.00%,F,F)



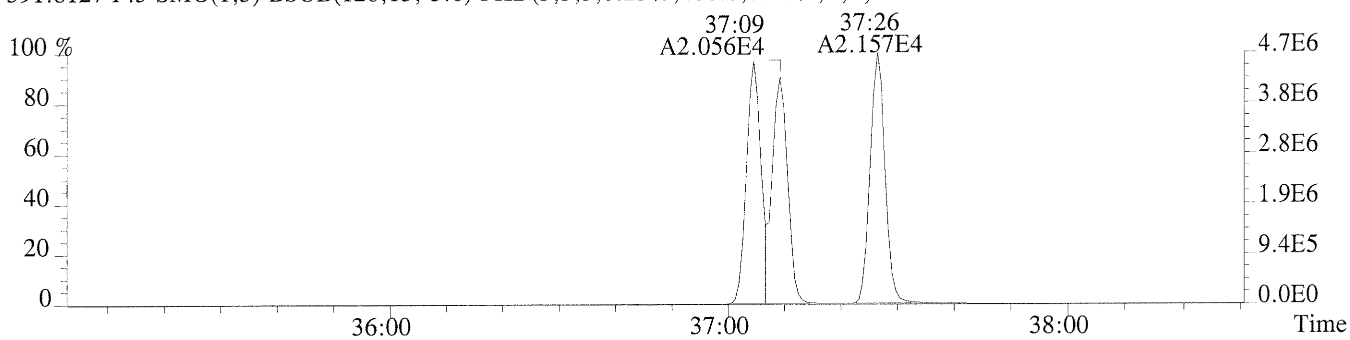
430.9728 F:3 PKD(3,3,3,100.00%,0.0,1.00%,F,F)



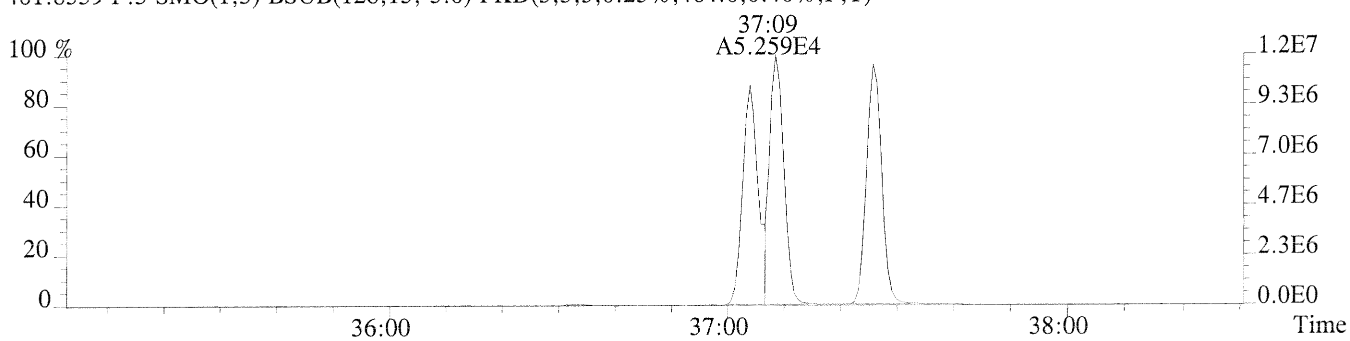
File: 8290 #1-315 Acq:19-JUN-2012 10:02:59 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:CCAL CS3
389.8157 F:3 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,280.0,0.40%,F,T)



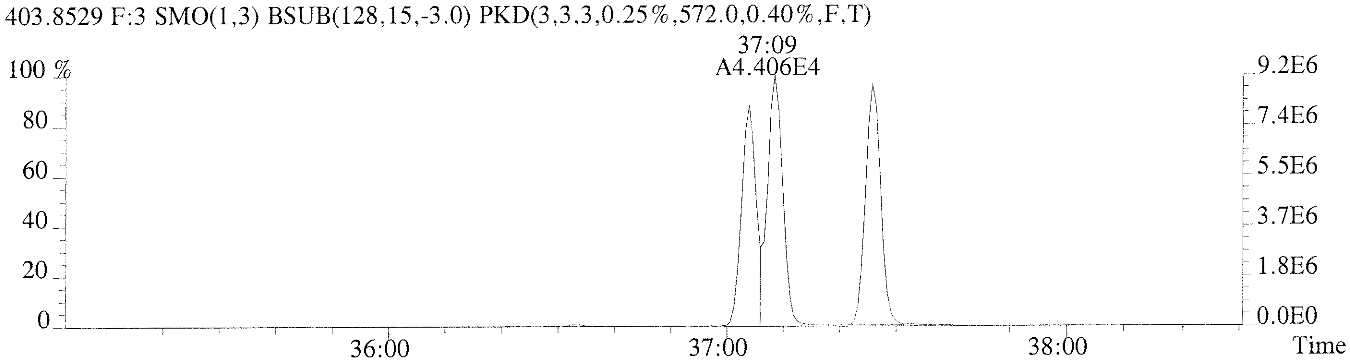
391.8127 F:3 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,480.0,0.40%,F,T)



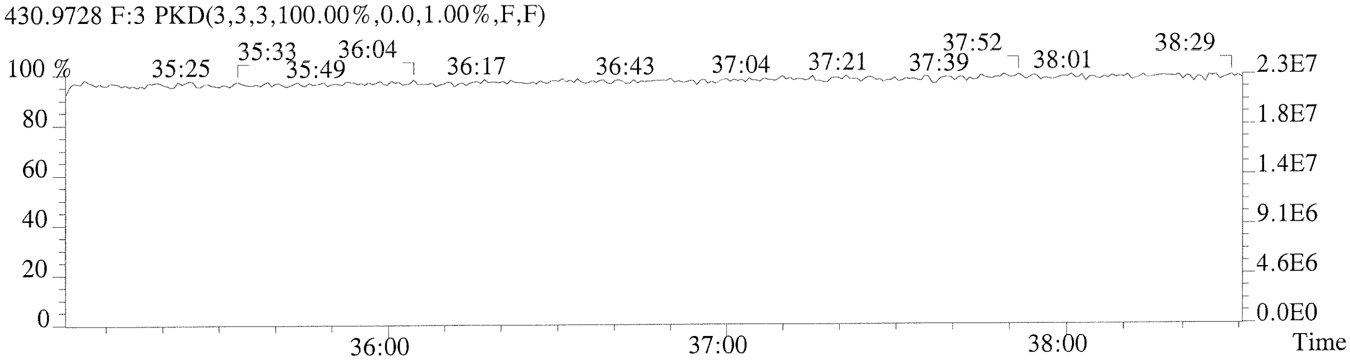
401.8559 F:3 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,464.0,0.40%,F,T)



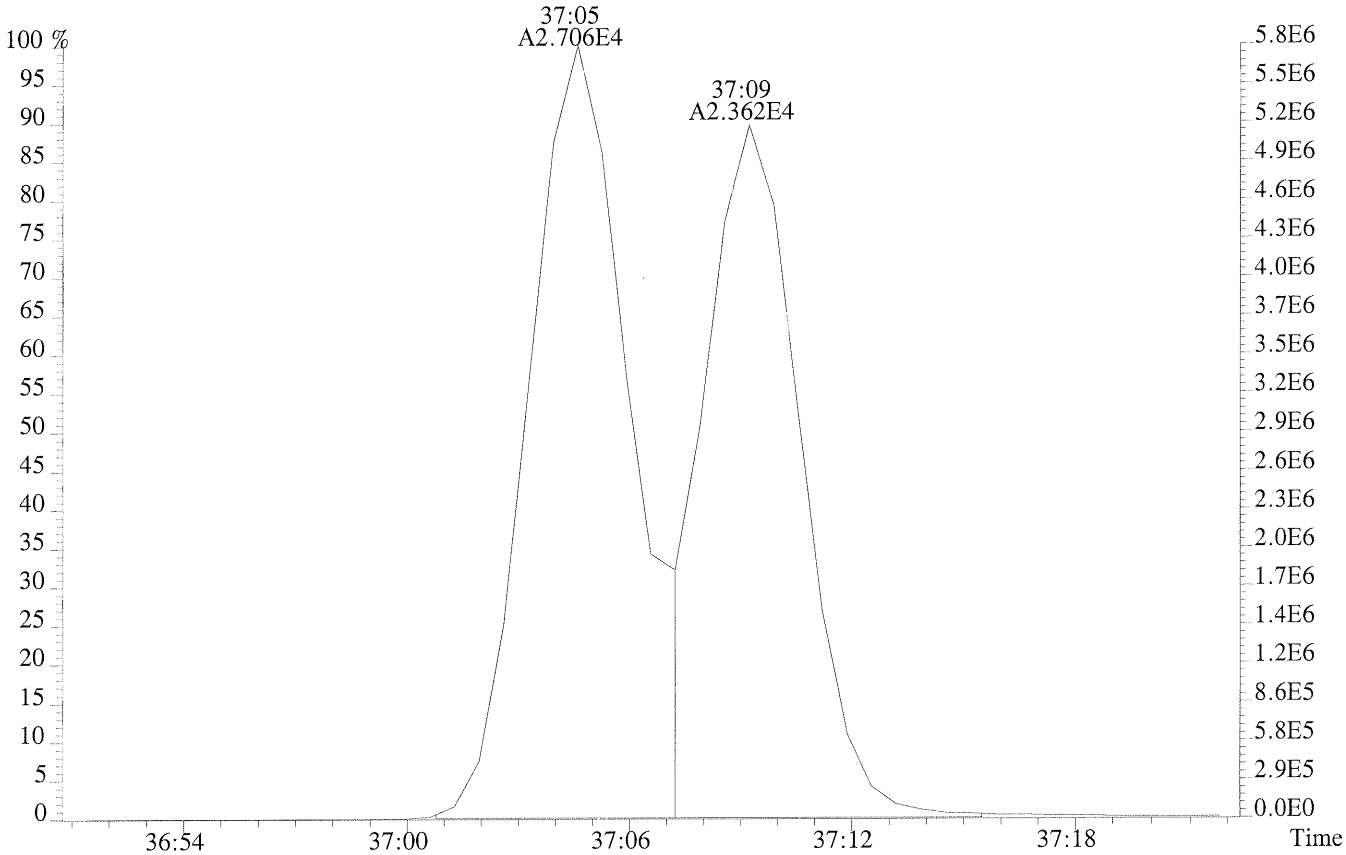
403.8529 F:3 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,572.0,0.40%,F,T)



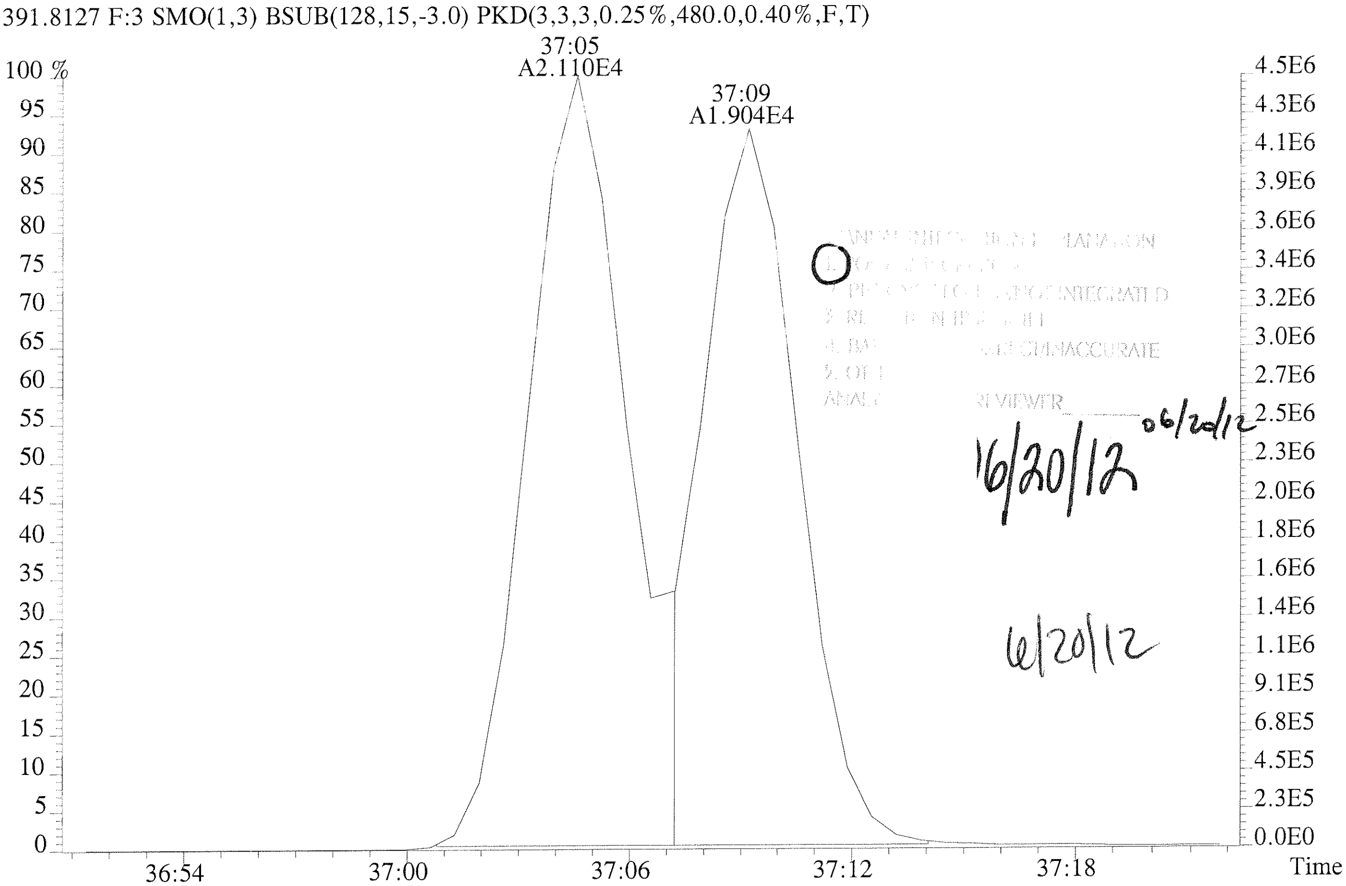
430.9728 F:3 PKD(3,3,3,100.00%,0.0,1.00%,F,F)



File: 8290 #1-315 Acq:19-JUN-2012 10:02:59 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:CCAL CS3
389.8157 F:3 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,280.0,0.40%,F,T)

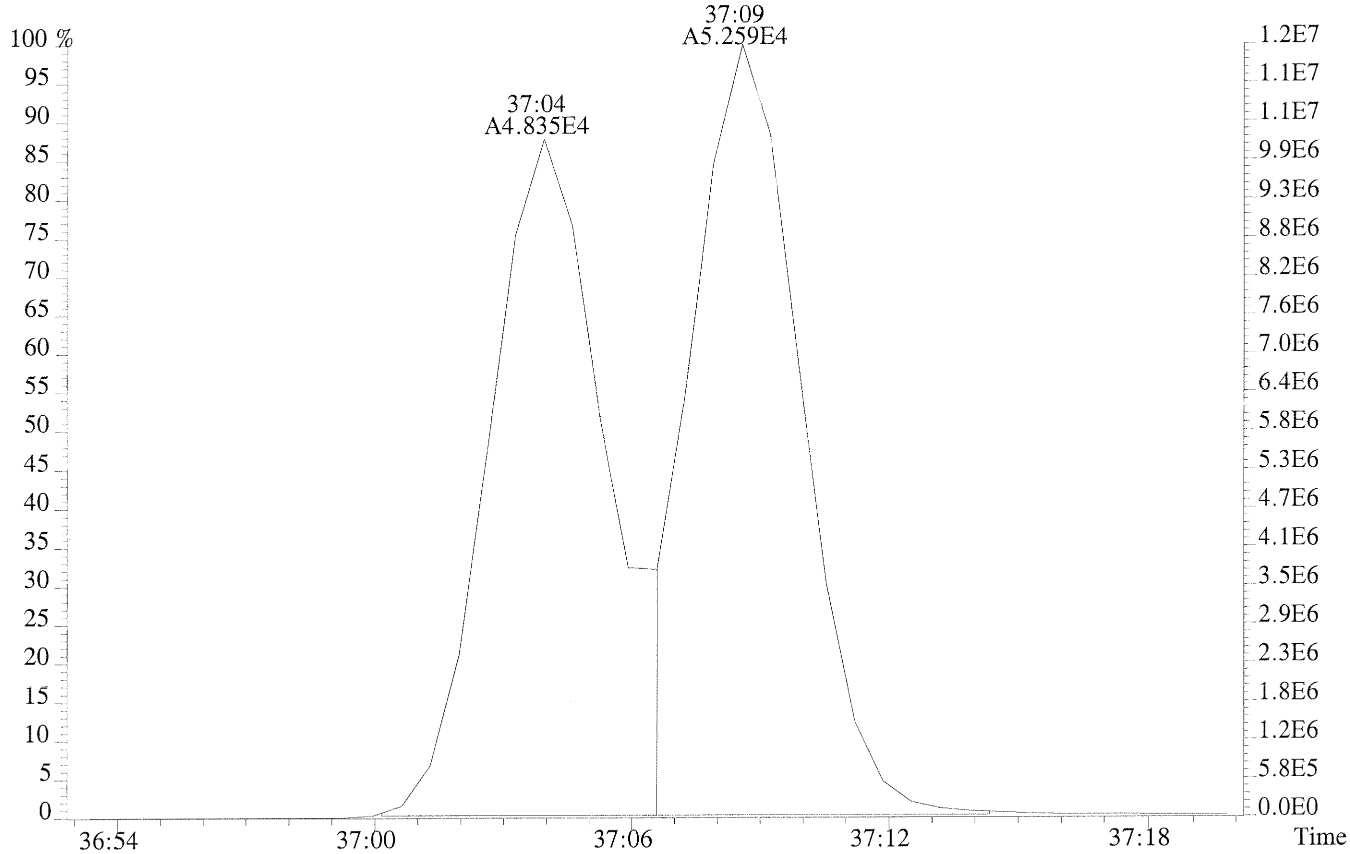


391.8127 F:3 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,480.0,0.40%,F,T)

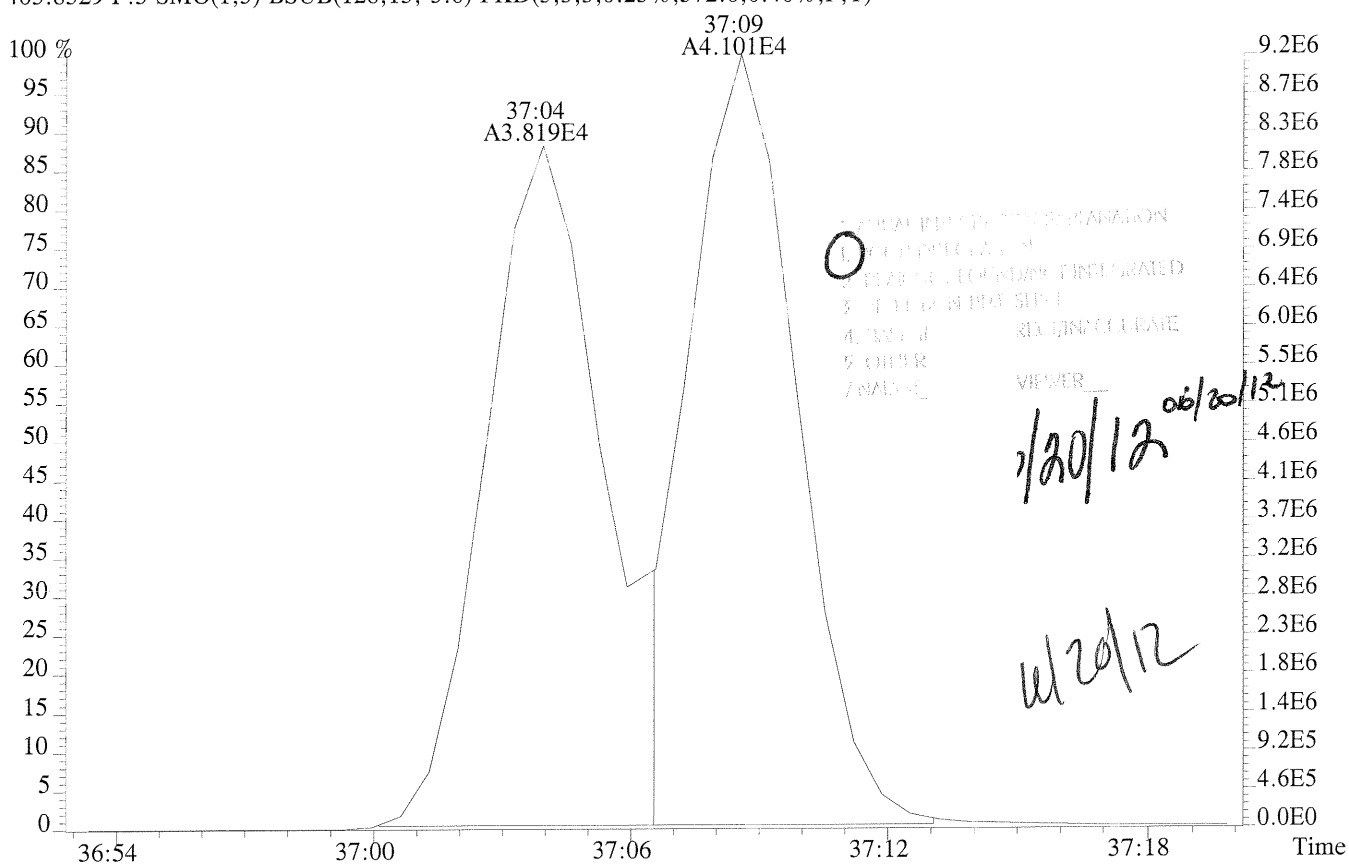


REVIEWER 06/20/12
6/20/12
6/20/12

File:. 3290 #1-315 Acq:19-JUN-2012 10:02:59 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:CCAL CS3
401.8559 F:3 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,464.0,0.40%,F,T)



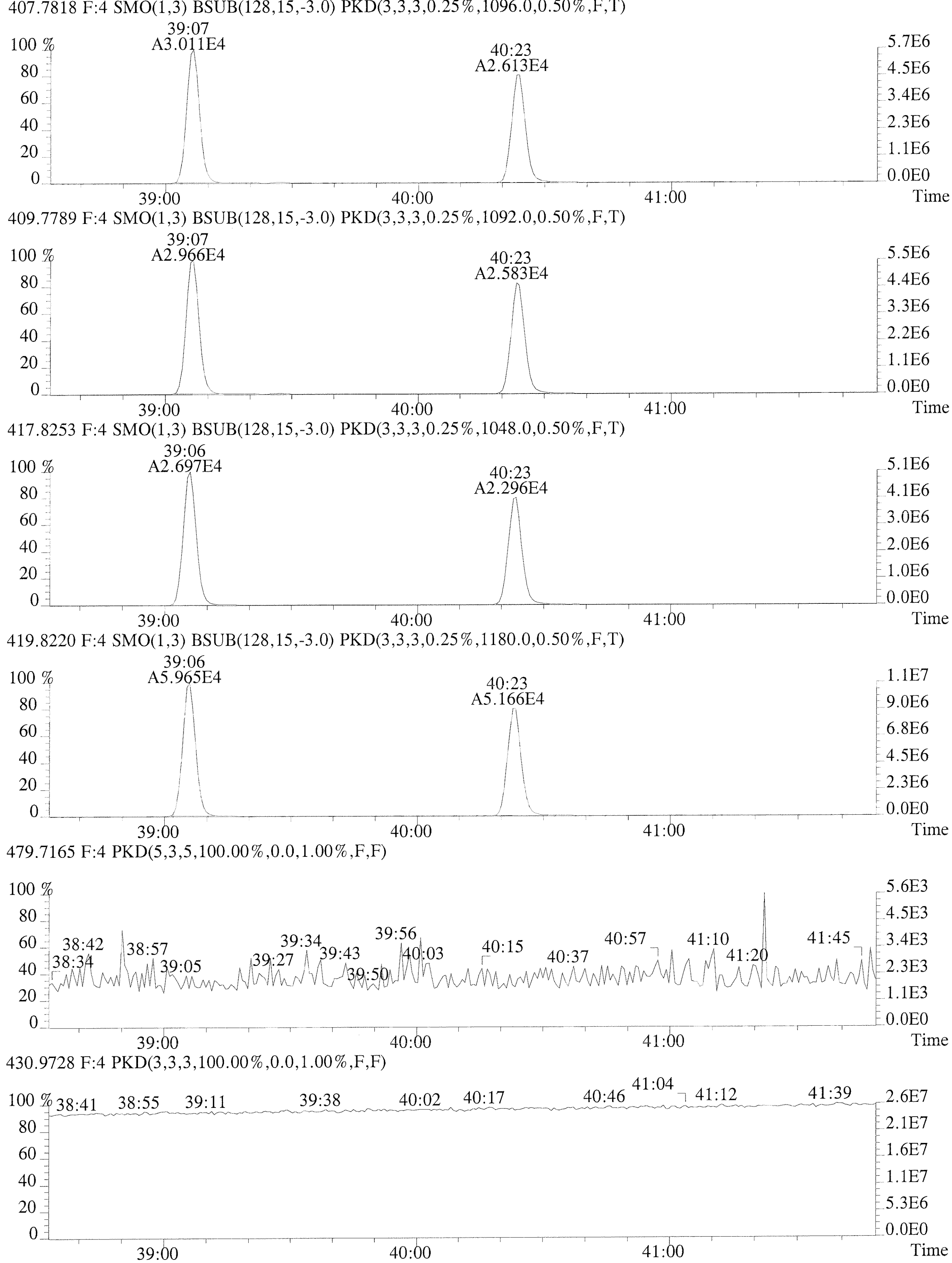
403.8529 F:3 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,572.0,0.40%,F,T)



6/20/12 06/20/12

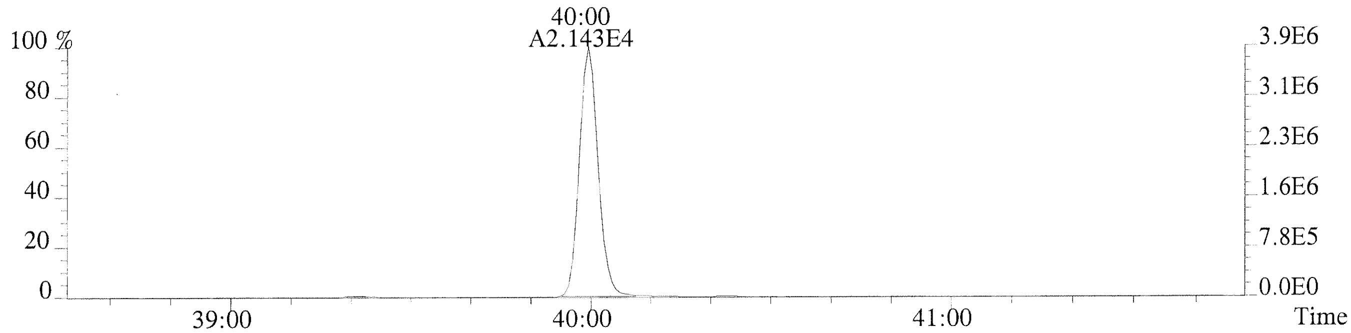
6/20/12

File: 8290 #1-296 Acq:19-JUN-2012 10:02:59 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:CCAL CS3

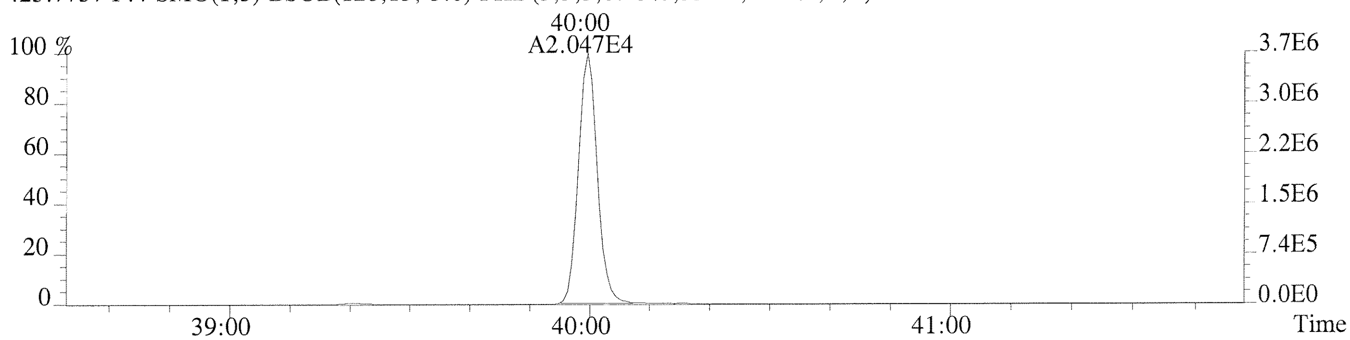


File: 3290 #1-296 Acq:19-JUN-2012 10:02:59 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:CCAL CS3

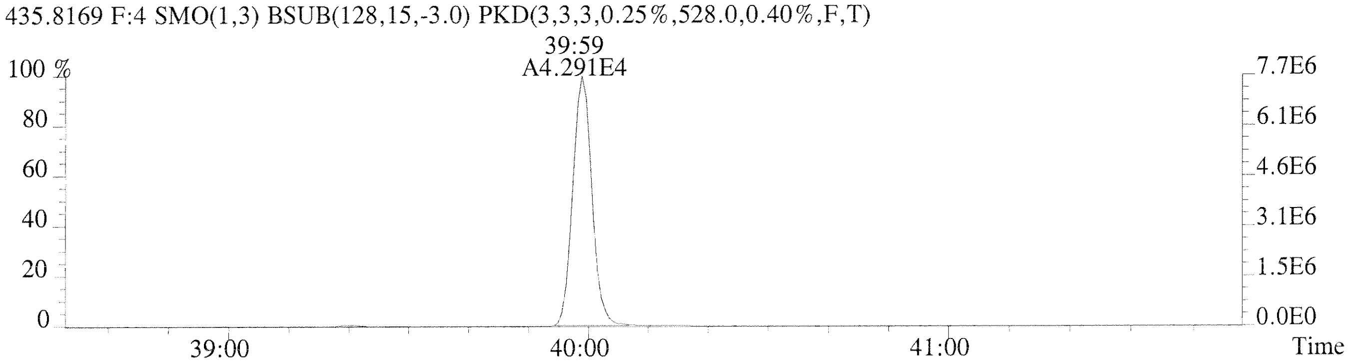
423.7766 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,436.0,0.40%,F,T)



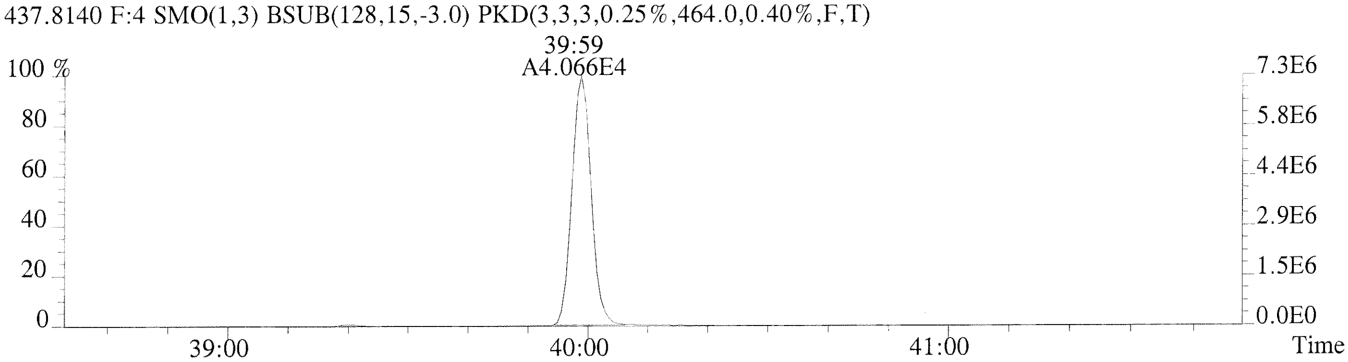
425.7737 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,336.0,0.40%,F,T)



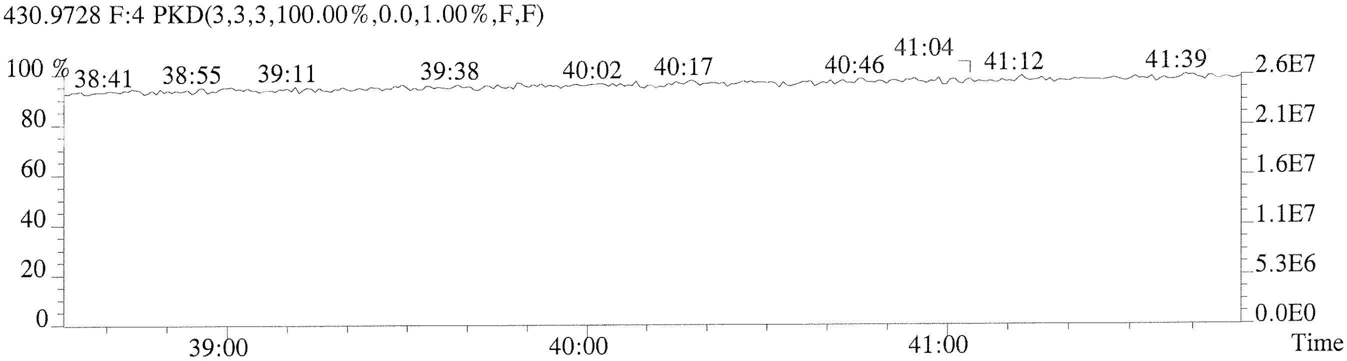
435.8169 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,528.0,0.40%,F,T)



437.8140 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,464.0,0.40%,F,T)

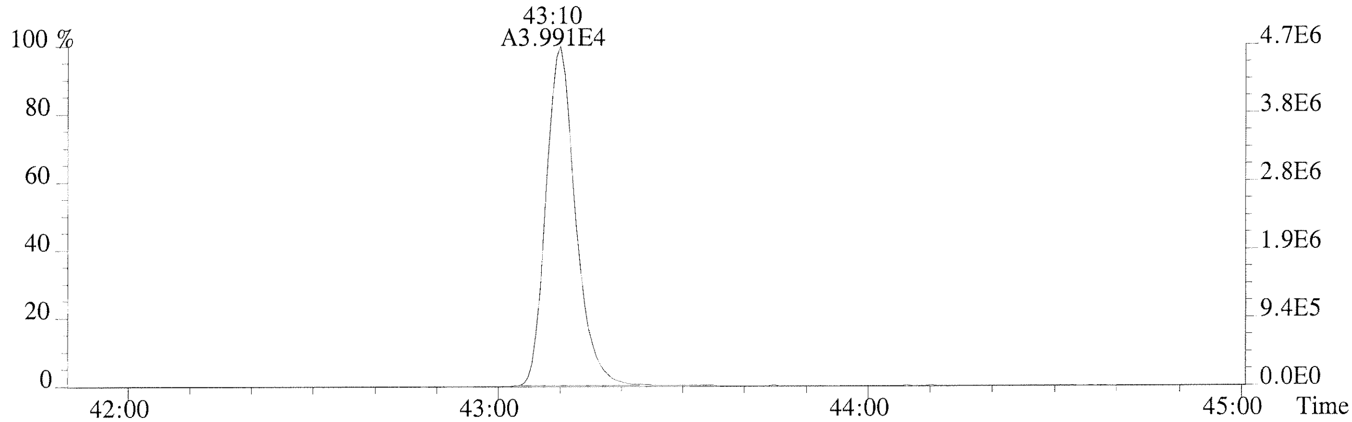


430.9728 F:4 PKD(3,3,3,100.00%,0.0,1.00%,F,F)

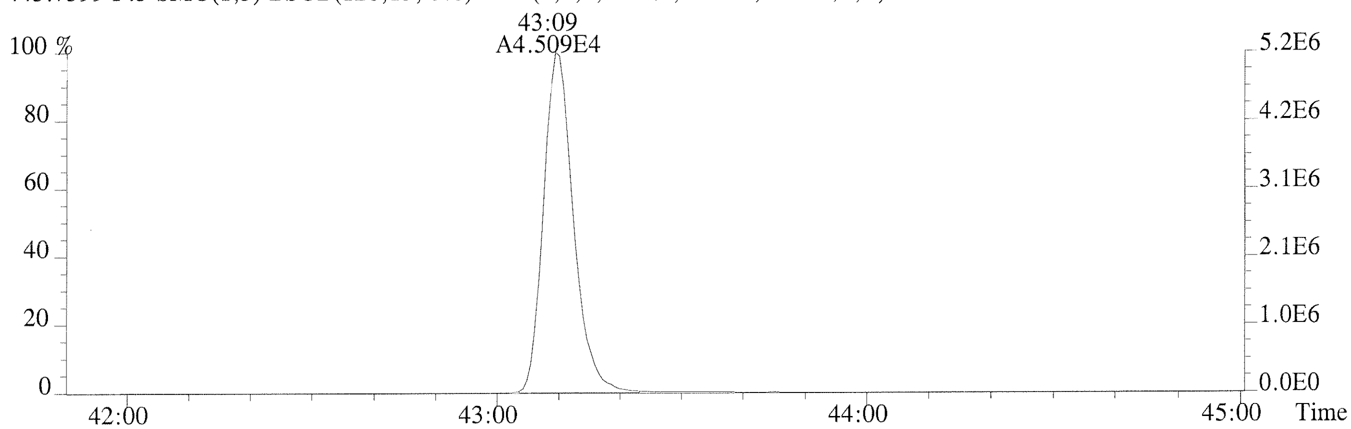


File: 8290 #1-292 Acq:19-JUN-2012 10:02:59 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:CCAL CS3

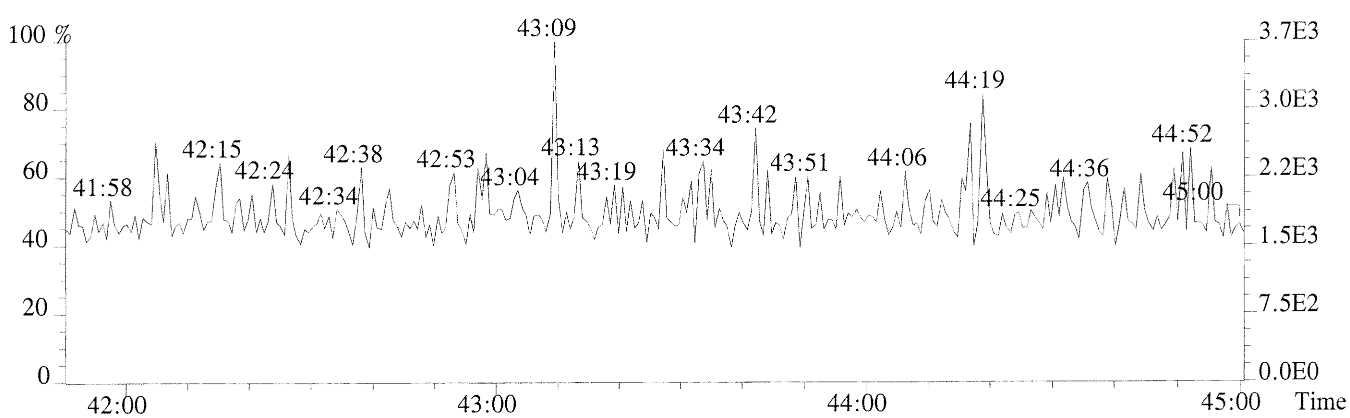
441.7428 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(5,3,5,0.30%,376.0,0.40%,F,T)



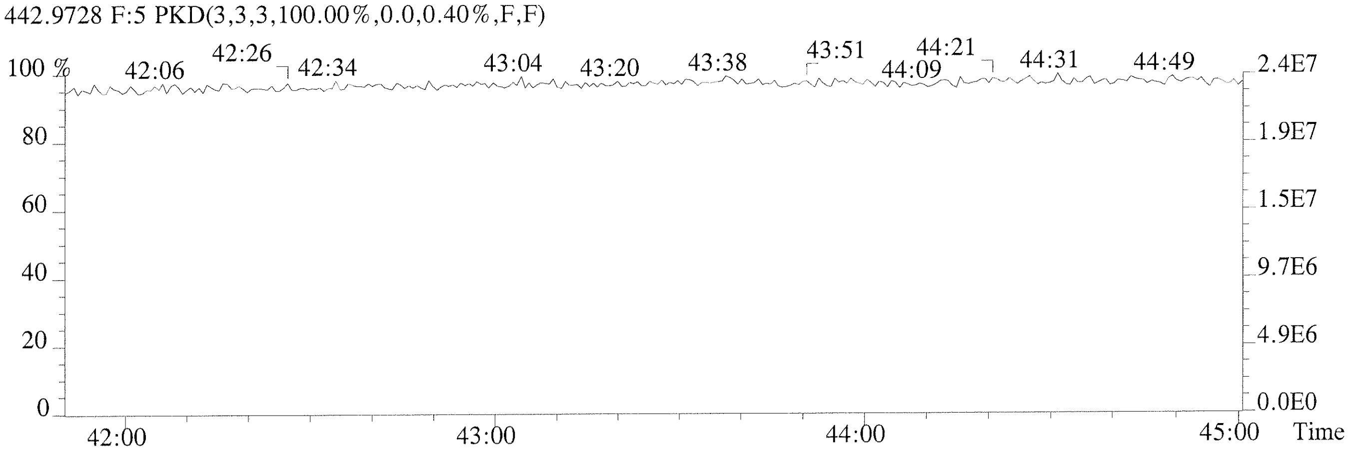
443.7399 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(5,3,5,0.30%,1088.0,0.40%,F,T)



513.6775 F:5 PKD(5,3,5,100.00%,0.0,1.00%,F,F)

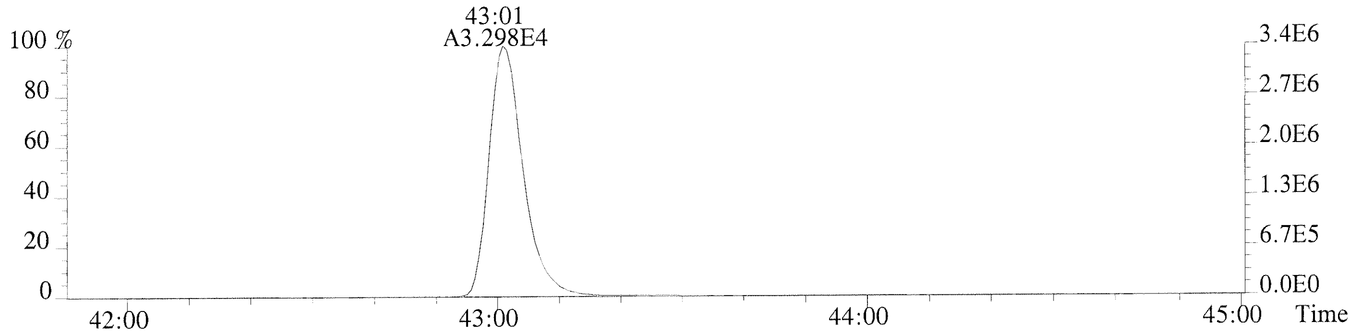


442.9728 F:5 PKD(3,3,3,100.00%,0.0,0.40%,F,F)

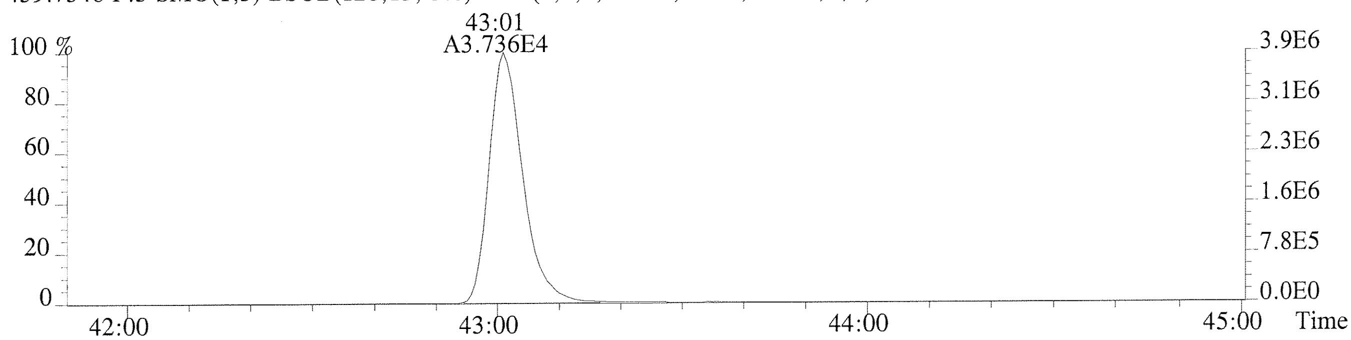


File: 8290 #1-292 Acq:19-JUN-2012 10:02:59 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:CCAL CS3

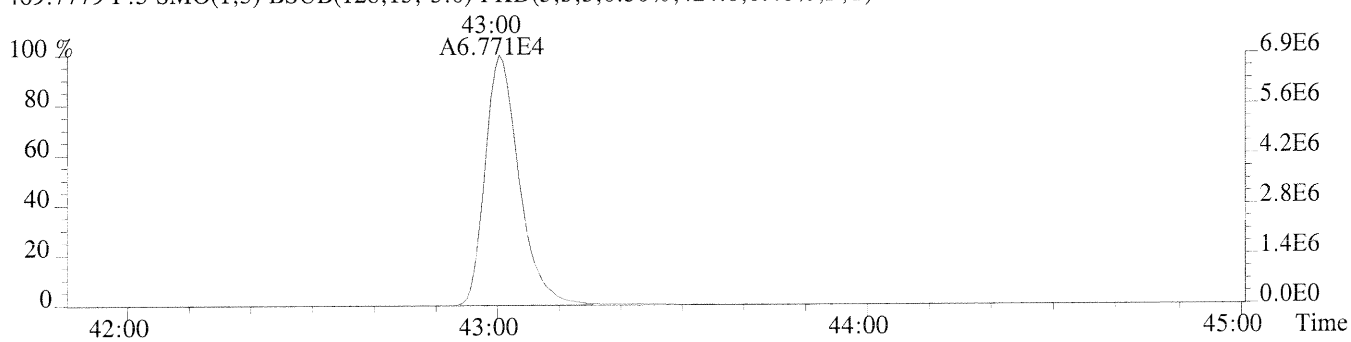
457.7377 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(5,3,5,0.30%,356.0,0.40%,F,T)



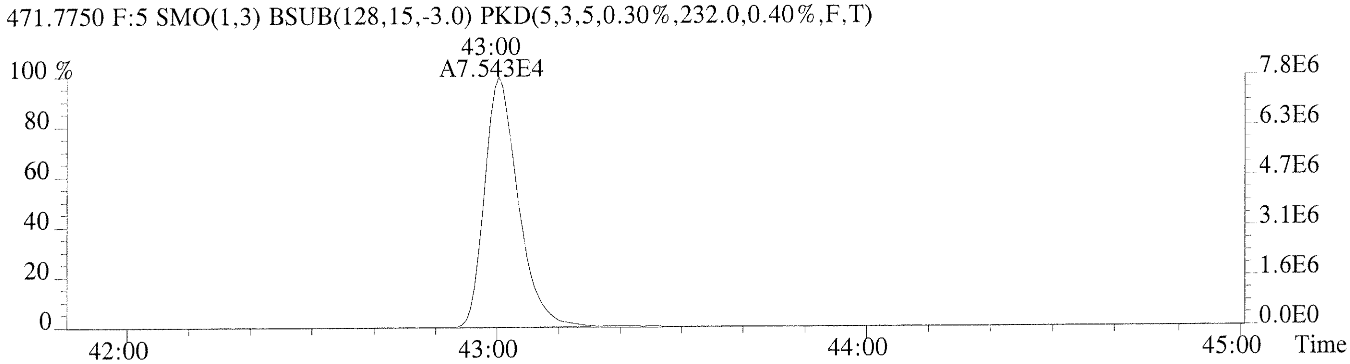
459.7348 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(5,3,5,0.30%,236.0,0.40%,F,T)



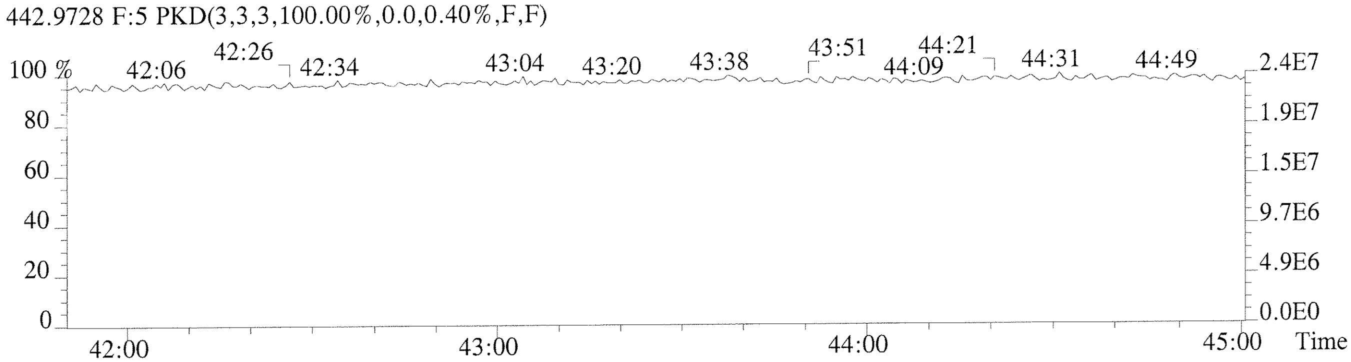
469.7779 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(5,3,5,0.30%,424.0,0.40%,F,T)



471.7750 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(5,3,5,0.30%,232.0,0.40%,F,T)



442.9728 F:5 PKD(3,3,3,100.00%,0.0,0.40%,F,F)



USEPA -
7DFA
CDD/CDF CONTINUING CALIBRATION SUMMARY
HIGH RESOLUTION

Lab Name: Contract:
Lab Code: CASE NO.: TO NO.: SDG NO.: 3
GC Column: DB-5 ID: 0.25(mm) Instrument ID: AutoSpec-Premier
Lab File ID: 8295 Analysis Date: 19-JUN-12 Time: 16:30:11
Init. Calib. Time.: 05:13 Init. Calib. Date(s).: 04/23/12

Target Analytes	SELECTED IONS	RR/ RRF	MEAN RR/ RRF	%D	%D FLAG	ION RATIO	ION RATIO FLAG	ION RATIO QC lIMITS
2,3,7,8-TCDD	320/322	1.00	0.98	2.51		0.78		0.65-0.89
2,3,7,8-TCDF	304/306	0.91	0.93	-1.66		0.76		0.65-0.89
1,2,3,7,8-PeCDF	340/342	0.95	1.00	-4.81		1.56		1.32-1.78
1,2,3,7,8-PeCDD	356/358	0.96	0.91	5.03		1.54		1.32-1.78
2,3,4,7,8-PeCDF	340/342	1.02	0.96	6.45		1.55		1.32-1.78
1,2,3,4,7,8-HxCDF	374/376	1.20	1.22	-1.45		1.23		1.05-1.43
1,2,3,6,7,8-HxCDF	374/376	1.22	1.14	7.00		1.23		1.05-1.43
1,2,3,4,7,8-HxCDD	390/392	1.11	1.00	11.05		1.26		1.05-1.43
1,2,3,6,7,8-HxCDD	390/392	0.91	0.98	-7.36		1.31		1.05-1.43
1,2,3,7,8,9-HxCDD	390/392	1.04	1.04	-0.02		1.27		1.05-1.43
2,3,4,6,7,8-HxCDF	374/376	1.14	1.14	0.06		1.20		1.05-1.43
1,2,3,7,8,9-HxCDF	374/376	1.15	1.16	-1.52		1.24		1.05-1.43
1,2,3,4,6,7,8-HpCDF	408/410	1.40	1.39	0.24		1.03		0.88-1.20
1,2,3,4,6,7,8-HpCDD	424/426	1.00	1.00	0.19		1.07		0.88-1.20
1,2,3,4,7,8,9-HpCDF	408/410	1.44	1.33	7.56		1.05		0.88-1.20
OCDD	458/460	0.98	1.05	-7.32		0.89		0.76-1.02
OCDF	442/444	1.16	1.23	-5.07		0.90		0.76-1.02
Labeled Compounds								
13C-2,3,7,8-TCDD	332/334	1.07	1.00	6.88		0.79		0.65-0.89
13C-1,2,3,7,8-PeCDD	368/370	0.93	0.82	13.90		1.58		1.32-1.78
13C-1,2,3,4,7,8-HxCDD	402/404	1.04	0.93	11.77		1.28		1.05-1.43
13C-1,2,3,6,7,8-HxCDD	402/404	1.07	0.94	14.38		1.27		1.05-1.43
13C-1,2,3,4,6,7,8-HpCDD	424/426	0.99	0.82	21.19		1.07		0.88-1.20
13C-OCDD	470/472	0.78	0.59	31.20		0.91		0.76-1.02
13C-2,3,7,8-TCDF	316/318	1.33	1.28	3.92		0.78		0.65-0.89
13C-1,2,3,7,8-PeCDF	352/354	1.26	1.10	14.32		1.58		1.32-1.78
13C-2,3,4,7,8-PeCDF	352/354	1.20	1.07	12.55		1.59		1.32-1.78
13C-1,2,3,4,7,8-HxCDF	384/386	1.29	1.06	21.67		0.53		0.43-0.59
13C-1,2,3,6,7,8-HxCDF	384/386	1.26	1.19	5.44		0.53		0.43-0.59
13C-2,3,4,6,7,8-HxCDF	384/386	1.21	1.10	9.72		0.53		0.43-0.59
13C-1,2,3,7,8,9-HxCDF	384/386	1.11	0.98	13.73		0.53		0.43-0.59
13C-1,2,3,4,6,7,8-HpCDF	418/420	0.81	0.84	-2.69		0.46		0.37-0.51
13C-1,2,3,4,7,8,9-HpCDF	418/420	0.81	0.71	14.72		0.46		0.37-0.51
CLEAN-UP								
37Cl-2,3,7,8-TCDD	328/NA	1.11	1.04	6.78		NA		NA
Internal Standards								
13C-1,2,3,4-TCDD	332/334	NA	NA	NA	NA	0.80		0.65-0.89
13C-1,2,3,7,8,9-HxCDD	402/404	NA	NA	NA	NA	1.30		1.05-1.43

The laboratory must flag any analyte which does not meet criteria for percent Difference (%D) or ion abundance ratio by placing an asterisk in the appropriate flag column.

USEPA -
7DFB-FORM
CDD/CDF CONTINUING CALIBRATION RETENTION TIME SUMMARY
HIGH RESOLUTION

Lab Name: Contract:
Lab Code: CASE NO.: TO NO.: SDG No.: 3
GC Column: DB-5 ID: 0.25(mm) Instrument ID: AutoSpec-Premier
Analysis Date: 19-JUN-12 Time: 16:30:11
Lab File ID: 8295
Init. Calib. Time.: 05:13 Init. Calib. Date(s).: 04/23/12

Target Analytes	RRT	RT
2,3,7,8-TCDD	1.001	29:14
2,3,7,8-TCDF	1.001	28:22
1,2,3,7,8-PeCDF	1.001	32:49
1,2,3,7,8-PeCDD	1.000	33:55
2,3,4,7,8-PeCDF	1.000	33:33
1,2,3,4,7,8-HxCDF	1.000	36:25
1,2,3,6,7,8-HxCDF	1.000	36:30
1,2,3,4,7,8-HxCDD	1.000	37:07
1,2,3,6,7,8-HxCDD	1.000	37:11
1,2,3,7,8,9-HxCDD	1.008	37:28
2,3,4,6,7,8-HxCDF	1.000	36:59
1,2,3,7,8,9-HxCDF	1.000	37:42
1,2,3,4,6,7,8-HpCDF	1.000	39:09
1,2,3,4,6,7,8-HpCDD	1.000	40:02
1,2,3,4,7,8,9-HpCDF	1.000	40:25
OCDD	1.000	43:02
OCDF	1.003	43:11
Labeled Compounds		
13C-2,3,7,8-TCDD	1.007	29:12
13C-1,2,3,7,8-PeCDD	1.170	33:54
13C-1,2,3,4,7,8-HxCDD	0.990	37:06
13C-1,2,3,6,7,8-HxCDD	0.992	37:11
13C-1,2,3,4,6,7,8-HpCDD	1.068	40:01
13C-OCDD	1.149	43:02
13C-2,3,7,8-TCDF	0.978	28:20
13C-1,2,3,7,8-PeCDF	1.132	32:48
13C-2,3,4,7,8-PeCDF	1.158	33:33
13C-1,2,3,4,7,8-HxCDF	0.972	36:24
13C-1,2,3,6,7,8-HxCDF	0.974	36:30
13C-2,3,4,6,7,8-HxCDF	0.987	36:59
13C-1,2,3,7,8,9-HxCDF	1.006	37:41
13C-1,2,3,4,6,7,8-HpCDF	1.044	39:08
13C-1,2,3,4,7,8,9-HpCDF	1.079	40:25
CLEAN-UP		
37Cl-2,3,7,8-TCDD	NA	29:14
Internal Standards		
13C-1,2,3,4-TCDD	NA	28:59
13C-1,2,3,7,8,9-HxCDD	NA	37:28

RRT = (RT of analyte)/(RT of appropriate labeled compound)

DLM02.0(5/05)

FORM VII-HR CDD-2

Sample Response Summary

CLIENT ID.
CCAL CS3

Run #12 Filename 8295 Samp: 1 Inj: 1 Acquired: 19-JUN-12 16:30:11
Processed: 20-JUN-12 11:09:27 Sample ID: CCAL CS3

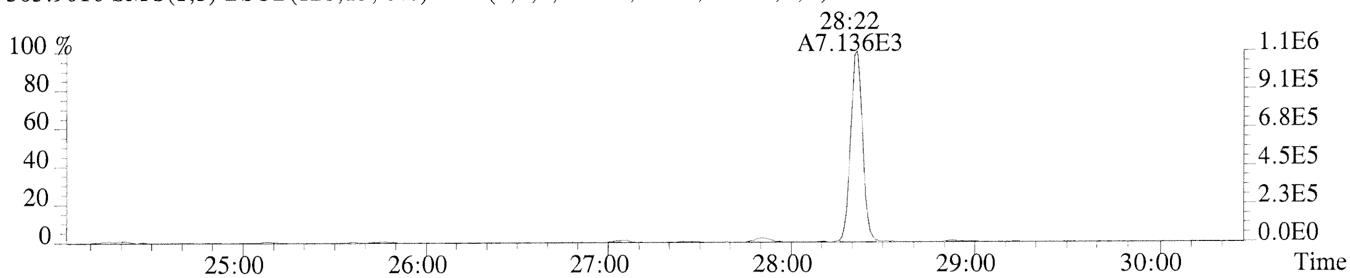
	Typ	Name	RT-1	Resp 1	Resp 2	Ratio	Meet	Mod?	RRF
1	Unk	2,3,7,8-TCDF	28:22	7.136e+03	9.413e+03	0.76	yes	no	0.929
2	Unk	1,2,3,7,8-PeCDF	32:49	4.964e+04	3.175e+04	1.56	yes	no	1.002
3	Unk	2,3,4,7,8-PeCDF	33:33	5.076e+04	3.277e+04	1.55	yes	no	0.963
4	Unk	1,2,3,4,7,8-HxCDF	36:25	4.430e+04	3.594e+04	1.23	yes	no	1.221
5	Unk	1,2,3,6,7,8-HxCDF	36:30	4.357e+04	3.542e+04	1.23	yes	no	1.139
6	Unk	2,3,4,6,7,8-HxCDF	36:59	3.864e+04	3.225e+04	1.20	yes	no	1.139
7	Unk	1,2,3,7,8,9-HxCDF	37:42	3.657e+04	2.938e+04	1.24	yes	no	1.165
8	Unk	1,2,3,4,6,7,8-HpCDF	39:09	2.990e+04	2.889e+04	1.03	yes	no	1.394
9	Unk	1,2,3,4,7,8,9-HpCDF	40:25	3.080e+04	2.937e+04	1.05	yes	no	1.334
10	Unk	OCDF	43:11	4.447e+04	4.930e+04	0.90	yes	no	1.227
11	Unk	2,3,7,8-TCDD	29:14	6.393e+03	8.228e+03	0.78	yes	no	0.980
12	Unk	1,2,3,7,8-PeCDD	33:55	3.693e+04	2.399e+04	1.54	yes	no	0.915
13	Unk	1,2,3,4,7,8-HxCDD	37:07	3.319e+04	2.636e+04	1.26	yes	no	1.001
14	Unk	1,2,3,6,7,8-HxCDD	37:11	2.840e+04	2.171e+04	1.31	yes	no	0.978
15	Unk	1,2,3,7,8,9-HxCDD	37:28	3.170e+04	2.496e+04	1.27	yes	no	1.041
16	Unk	1,2,3,4,6,7,8-HpCDD	40:02	2.655e+04	2.475e+04	1.07	yes	no	1.002
17	Unk	OCDD	43:02	3.698e+04	4.169e+04	0.89	yes	no	1.054
18	IS	13C-2,3,7,8-TCDF	28:20	7.955e+04	1.016e+05	0.78	yes	no	1.282
19	IS	13C-1,2,3,7,8-PeCDF	32:48	1.045e+05	6.613e+04	1.58	yes	no	1.098
20	IS	13C-2,3,4,7,8-PeCDF	33:33	1.002e+05	6.282e+04	1.59	yes	no	1.065
21	IS	13C-1,2,3,4,7,8-HxCDF	36:24	4.617e+04	8.716e+04	0.53	yes	no	1.062
22	IS	13C-1,2,3,6,7,8-HxCDF	36:30	4.505e+04	8.455e+04	0.53	yes	no	1.191
23	IS	13C-2,3,4,6,7,8-HxCDF	36:59	4.309e+04	8.128e+04	0.53	yes	no	1.098
24	IS	13C-1,2,3,7,8,9-HxCDF	37:41	3.986e+04	7.515e+04	0.53	yes	no	0.980
25	IS	13C-1,2,3,4,6,7,8-HpCDF	39:08	2.635e+04	5.776e+04	0.46	yes	no	0.837
26	IS	13C-1,2,3,4,7,8,9-HpCDF	40:25	2.632e+04	5.751e+04	0.46	yes	no	0.708
27	IS	13C-2,3,7,8-TCDD	29:12	6.417e+04	8.136e+04	0.79	yes	no	1.002
28	IS	13C-1,2,3,7,8-PeCDD	33:54	7.764e+04	4.917e+04	1.58	yes	no	0.819
29	IS	13C-1,2,3,4,7,8-HxCDD	37:06	6.016e+04	4.702e+04	1.28	yes	no	0.929
30	IS	13C-1,2,3,6,7,8-HxCDD	37:11	6.198e+04	4.862e+04	1.27	yes	no	0.937
31	IS	13C-1,2,3,4,6,7,8-HpCDD	40:01	5.290e+04	4.930e+04	1.07	yes	no	0.817
32	IS	13C-OCDD	43:02	7.683e+04	8.424e+04	0.91	yes	no	0.595
33	RS/RT	13C-1,2,3,4-TCDD	28:59	6.034e+04	7.561e+04	0.80	yes	no	-
34	RS/RT	13C-1,2,3,7,8,9-HxCDD	37:28	5.835e+04	4.486e+04	1.30	yes	no	-
35	C/Up	37Cl-2,3,7,8-TCDD	29:14	1.509e+04				no	1.039

Signal/Noise Height Ratio Summary CLIENT ID.
CCAL CS3

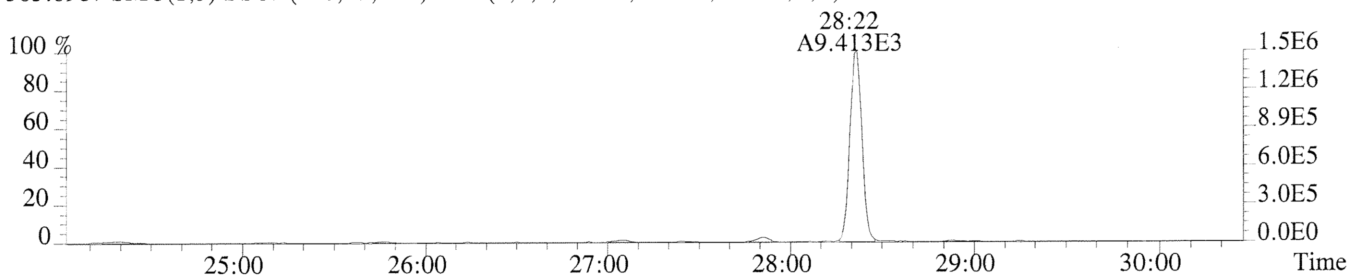
Run #12 Filename 3295 Samp: 1 Inj: 1 Acquired: 19-JUN-12 16:30:11
Processed: 20-JUN-12 11:09:271 LAB. ID: CCAL CS3

	Name	Signal 1	Noise 1	S/N Rat.1	Signal 2	Noise 2	S/N Rat.2
1	2,3,7,8-TCDF	1.14e+06	7.44e+02	1.5e+03	1.49e+06	1.90e+03	7.8e+02
2	1,2,3,7,8-PeCDF	9.13e+06	1.27e+03	7.2e+03	5.80e+06	2.23e+03	2.6e+03
3	2,3,4,7,8-PeCDF	1.00e+07	1.27e+03	7.9e+03	6.50e+06	2.23e+03	2.9e+03
4	1,2,3,4,7,8-HxCDF	9.09e+06	1.15e+03	7.9e+03	7.33e+06	1.88e+03	3.9e+03
5	1,2,3,6,7,8-HxCDF	8.94e+06	1.15e+03	7.8e+03	7.33e+06	1.88e+03	3.9e+03
6	2,3,4,6,7,8-HxCDF	7.96e+06	1.15e+03	6.9e+03	6.70e+06	1.88e+03	3.6e+03
7	1,2,3,7,8,9-HxCDF	7.75e+06	1.15e+03	6.7e+03	6.27e+06	1.88e+03	3.3e+03
8	1,2,3,4,6,7,8-HpCDF	5.63e+06	1.84e+03	3.1e+03	5.41e+06	1.88e+03	2.9e+03
9	1,2,3,4,7,8,9-HpCDF	5.44e+06	1.84e+03	3.0e+03	5.18e+06	1.88e+03	2.8e+03
10	OCDF	5.07e+06	6.56e+02	7.7e+03	5.66e+06	1.16e+03	4.9e+03
11	2,3,7,8-TCDD	1.10e+06	7.12e+02	1.5e+03	1.41e+06	8.24e+02	1.7e+03
12	1,2,3,7,8-PeCDD	7.48e+06	1.06e+03	7.1e+03	4.83e+06	5.08e+02	9.5e+03
13	1,2,3,4,7,8-HxCDD	7.20e+06	7.32e+02	9.8e+03	5.71e+06	8.80e+02	6.5e+03
14	1,2,3,6,7,8-HxCDD	6.29e+06	7.32e+02	8.6e+03	4.87e+06	8.80e+02	5.5e+03
15	1,2,3,7,8,9-HxCDD	6.88e+06	7.32e+02	9.4e+03	5.43e+06	8.80e+02	6.2e+03
16	1,2,3,4,6,7,8-HpCDD	4.63e+06	9.84e+02	4.7e+03	4.27e+06	7.96e+02	5.4e+03
17	OCDD	3.67e+06	5.28e+02	7.0e+03	4.10e+06	1.18e+03	3.5e+03
18	13C-2,3,7,8-TCDF	1.28e+07	2.97e+03	4.3e+03	1.64e+07	2.20e+03	7.5e+03
19	13C-1,2,3,7,8-PeCDF	1.92e+07	1.00e+03	1.9e+04	1.22e+07	7.72e+02	1.6e+04
20	13C-2,3,4,7,8-PeCDF	1.98e+07	1.00e+03	2.0e+04	1.24e+07	7.72e+02	1.6e+04
21	13C-1,2,3,4,7,8-HxCDF	9.37e+06	6.60e+02	1.4e+04	1.78e+07	1.15e+03	1.5e+04
22	13C-1,2,3,6,7,8-HxCDF	9.11e+06	6.60e+02	1.4e+04	1.72e+07	1.15e+03	1.5e+04
23	13C-2,3,4,6,7,8-HxCDF	8.80e+06	6.60e+02	1.3e+04	1.67e+07	1.15e+03	1.5e+04
24	13C-1,2,3,7,8,9-HxCDF	8.39e+06	6.60e+02	1.3e+04	1.59e+07	1.15e+03	1.4e+04
25	13C-1,2,3,4,6,7,8-HpCDF	5.02e+06	1.50e+03	3.3e+03	1.09e+07	3.14e+03	3.5e+03
26	13C-1,2,3,4,7,8,9-HpCDF	4.65e+06	1.50e+03	3.1e+03	1.02e+07	3.14e+03	3.2e+03
27	13C-2,3,7,8-TCDD	1.09e+07	4.19e+03	2.6e+03	1.39e+07	1.61e+03	8.6e+03
28	13C-1,2,3,7,8-PeCDD	1.52e+07	1.37e+03	1.1e+04	9.67e+06	6.16e+02	1.6e+04
29	13C-1,2,3,4,7,8-HxCDD	1.29e+07	1.07e+03	1.2e+04	1.01e+07	7.72e+02	1.3e+04
30	13C-1,2,3,6,7,8-HxCDD	1.38e+07	1.07e+03	1.3e+04	1.09e+07	7.72e+02	1.4e+04
31	13C-1,2,3,4,6,7,8-HpCDD	9.18e+06	7.08e+02	1.3e+04	8.50e+06	9.24e+02	9.2e+03
32	13C-OCDD	7.62e+06	1.24e+03	6.1e+03	8.31e+06	6.04e+02	1.4e+04
33	13C-1,2,3,4-TCDD	1.05e+07	4.19e+03	2.5e+03	1.32e+07	1.61e+03	8.2e+03
34	13C-1,2,3,7,8,9-HxCDD	1.31e+07	1.07e+03	1.2e+04	1.01e+07	7.72e+02	1.3e+04
35	37Cl-2,3,7,8-TCDD	2.62e+06	9.12e+02	2.9e+03			

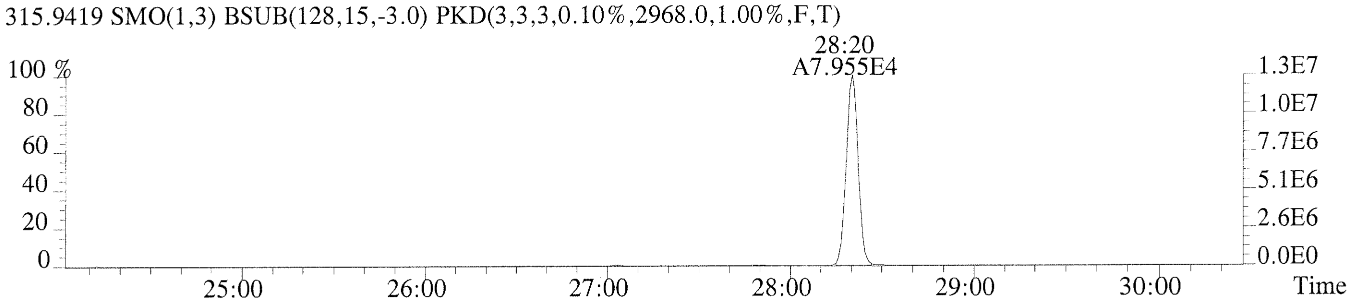
File: 8295 #1-535 Acq:19-JUN-2012 16:30:11 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:CCAL CS3
303.9016 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,744.0,1.00%,F,T)



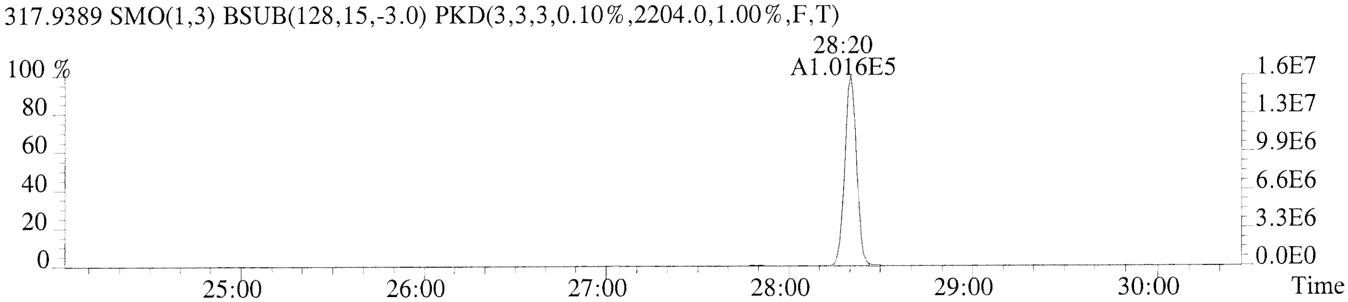
305.8987 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,1896.0,1.00%,F,T)



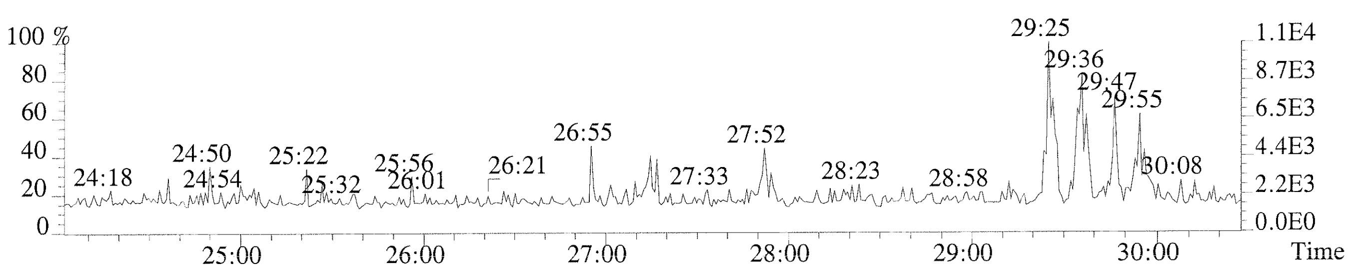
315.9419 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,2968.0,1.00%,F,T)



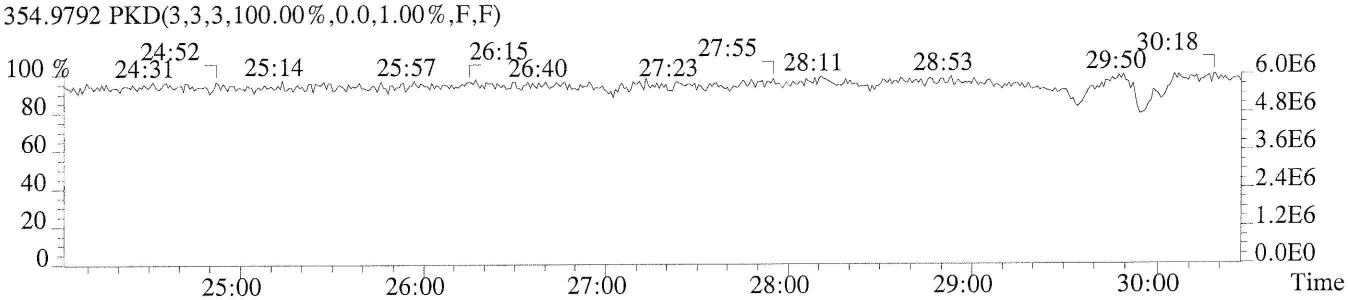
317.9389 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,2204.0,1.00%,F,T)



375.8364 PKD(5,3,5,100.00%,0.0,1.00%,F,F)

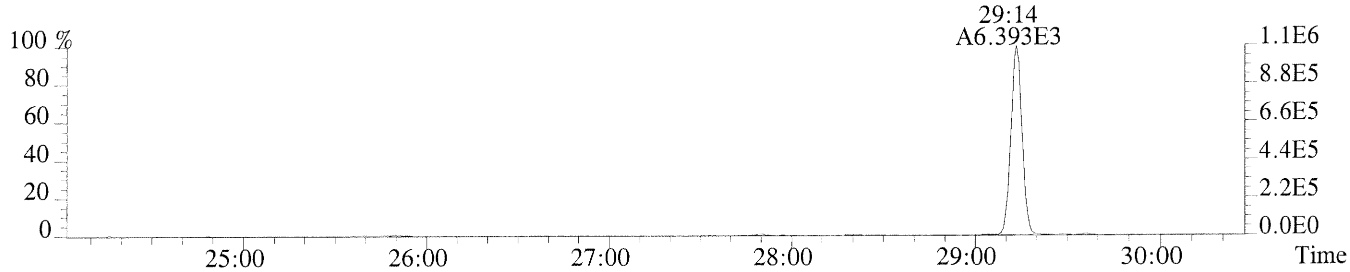


354.9792 PKD(3,3,3,100.00%,0.0,1.00%,F,F)

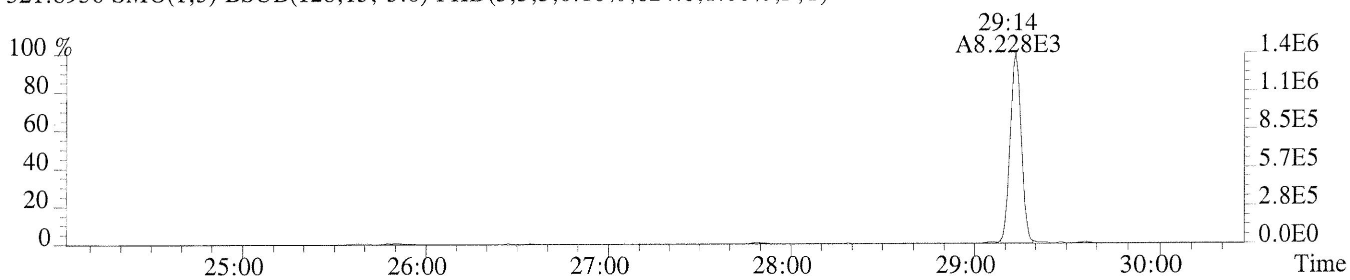


File:: 8295 #1-535 Acq:19-JUN-2012 16:30:11 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:CCAL CS3

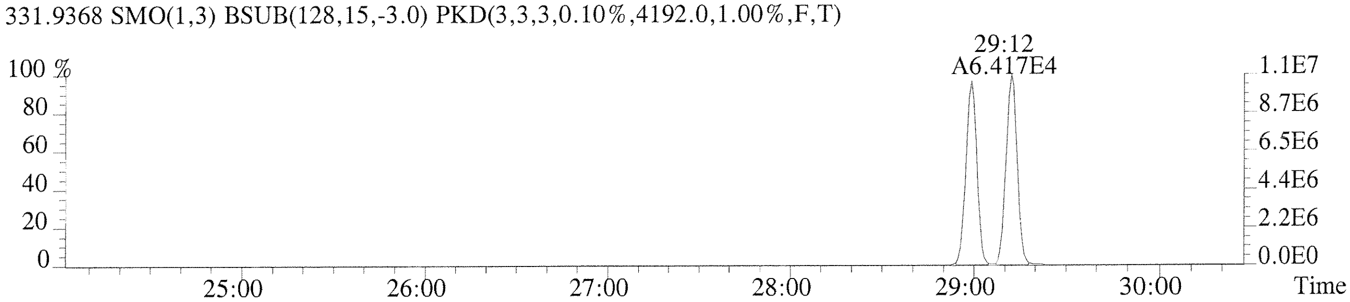
319.8965 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,712.0,1.00%,F,T)



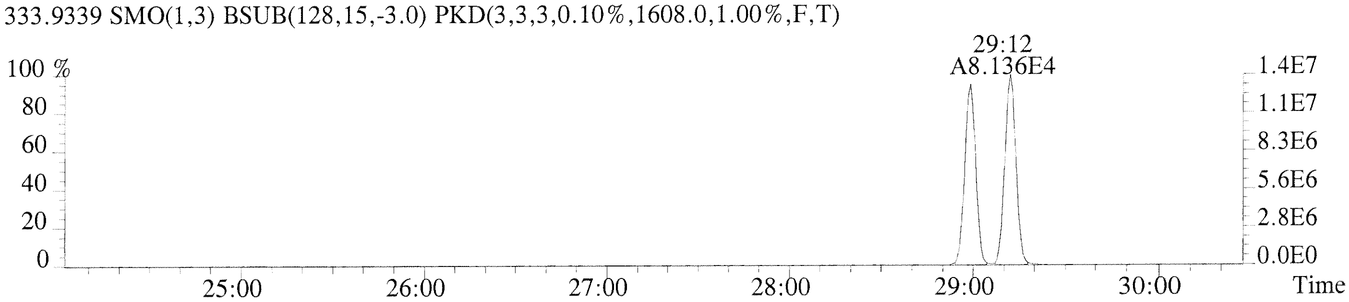
321.8936 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,824.0,1.00%,F,T)



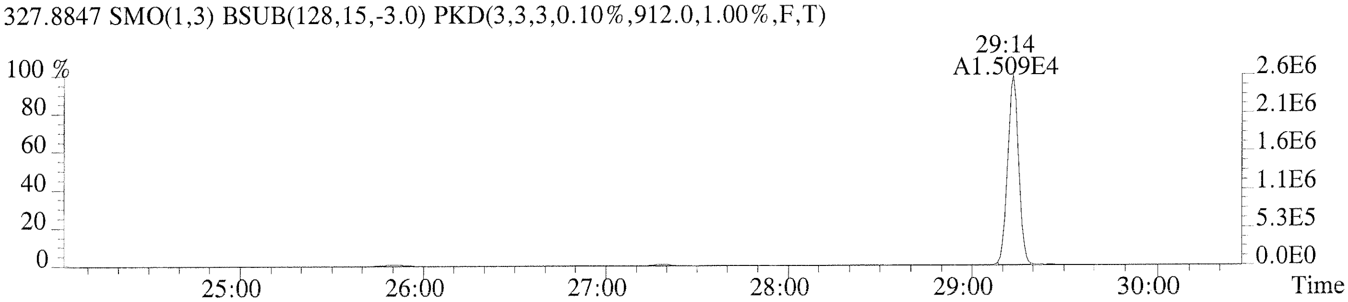
331.9368 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,4192.0,1.00%,F,T)



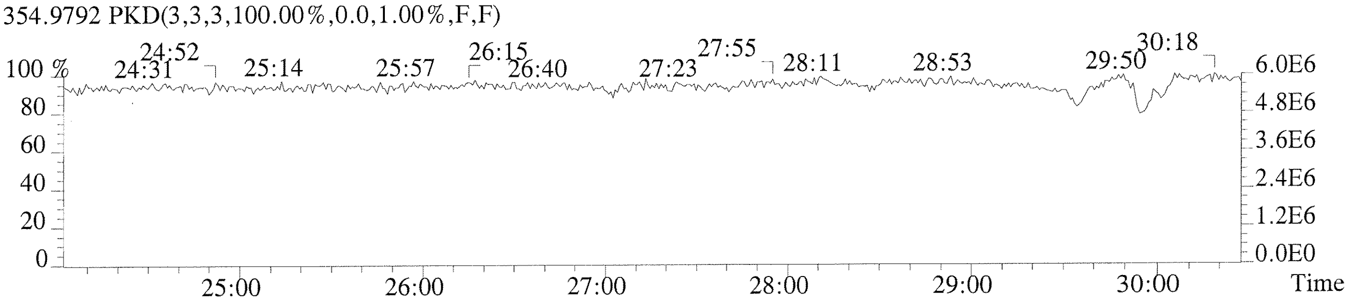
333.9339 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,1608.0,1.00%,F,T)



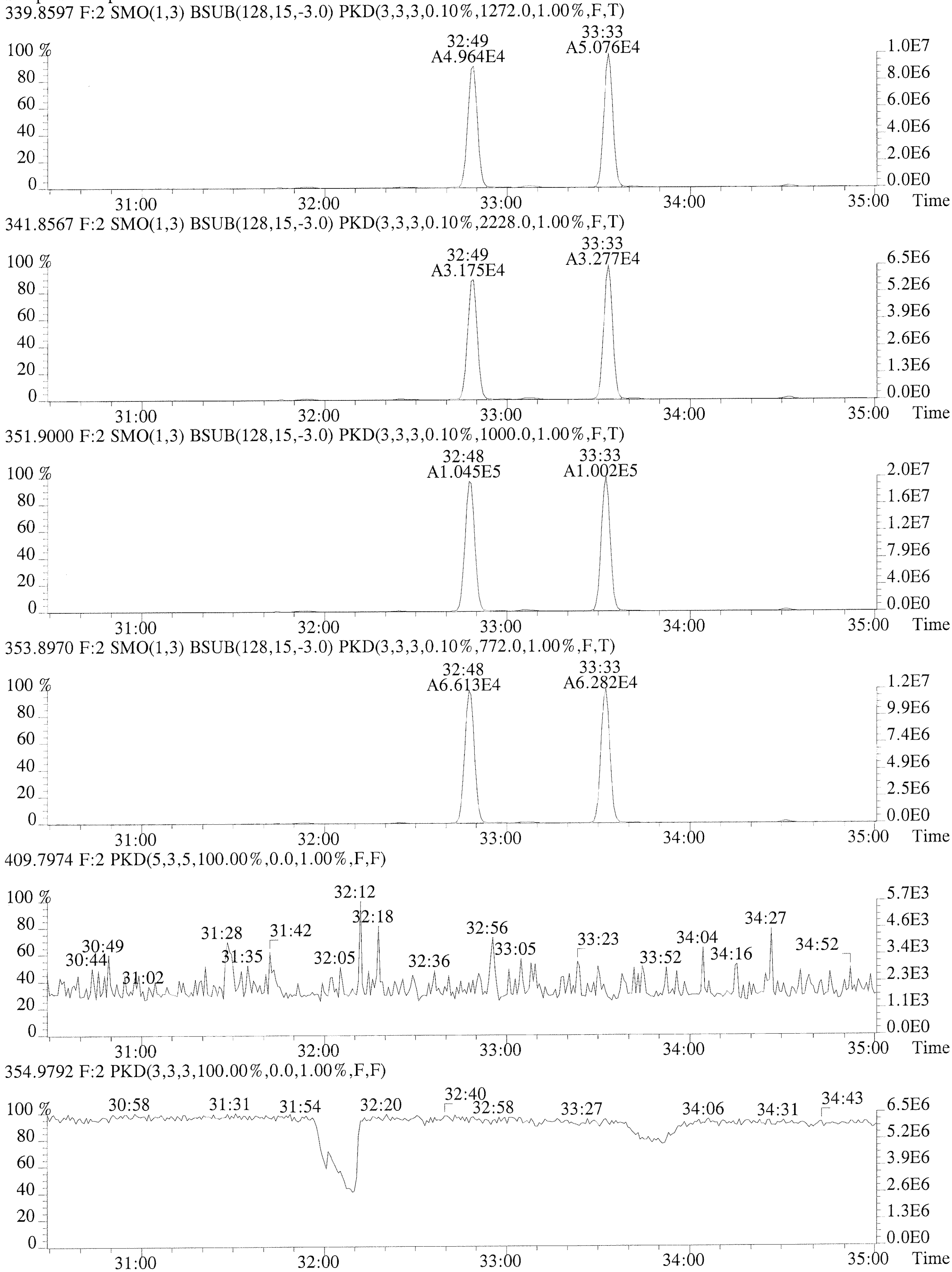
327.8847 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,912.0,1.00%,F,T)



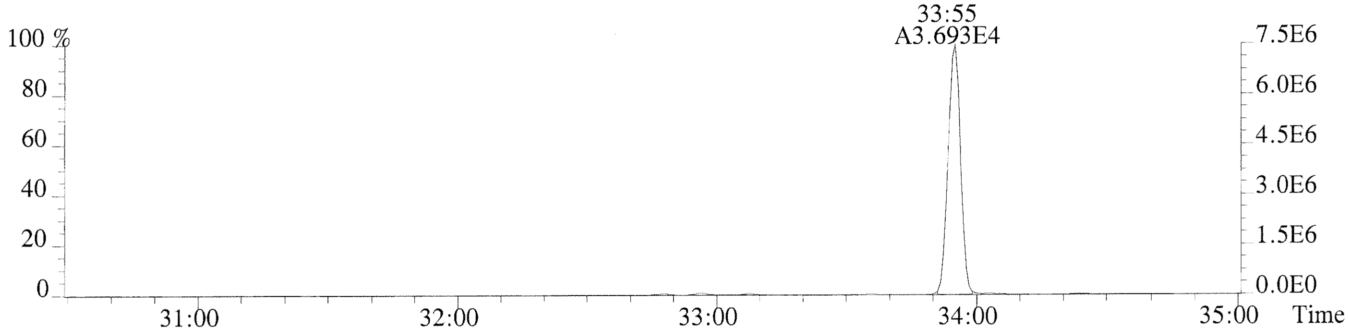
354.9792 PKD(3,3,3,100.00%,0.0,1.00%,F,F)



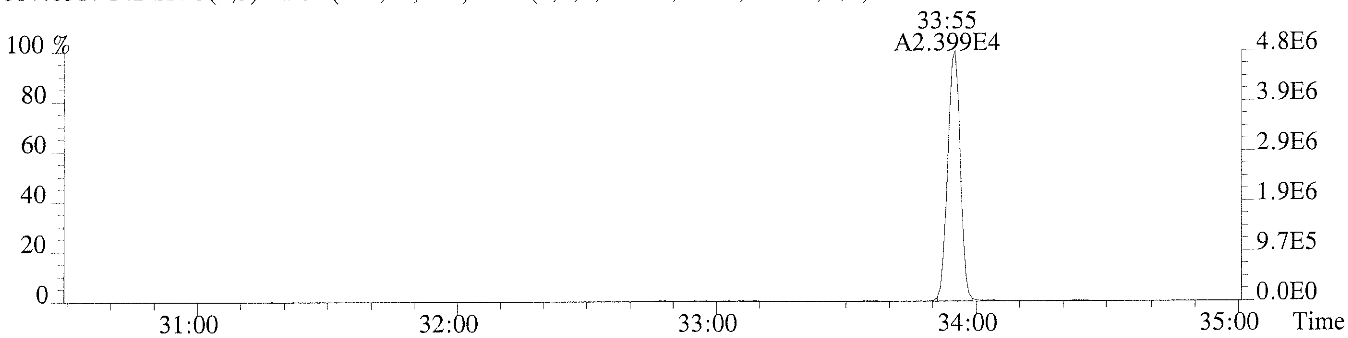
File: 8295 #1-411 Acq:19-JUN-2012 16:30:11 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:CCAL CS3



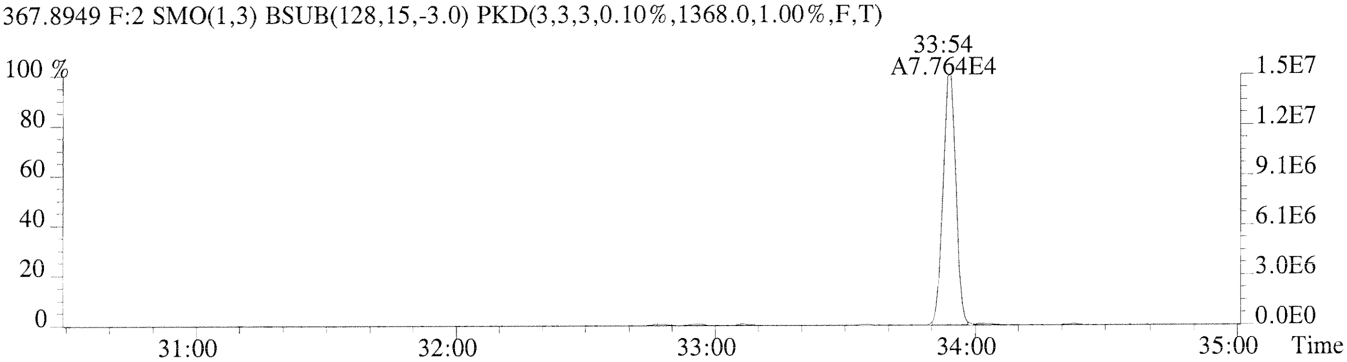
File: 3295 #1-411 Acq:19-JUN-2012 16:30:11 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:CCAL CS3
355.8546 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,1060.0,1.00%,F,T)



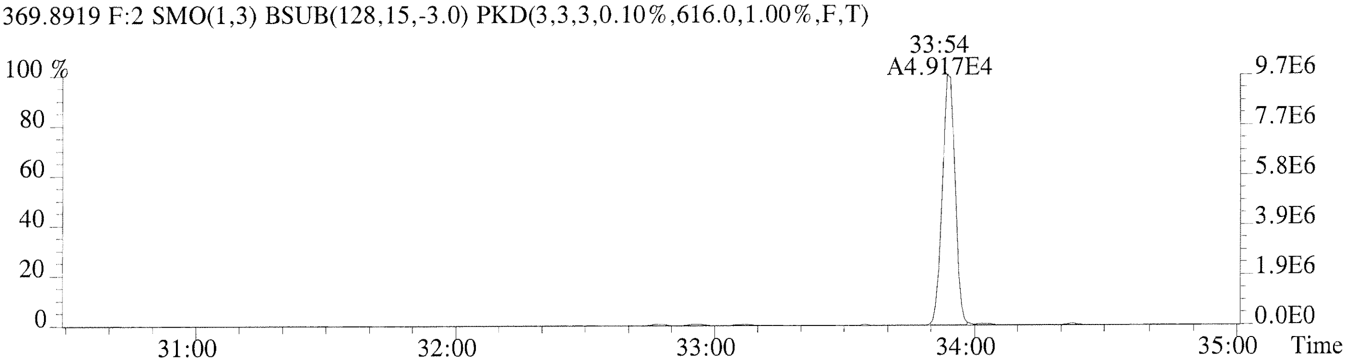
357.8517 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,508.0,1.00%,F,T)



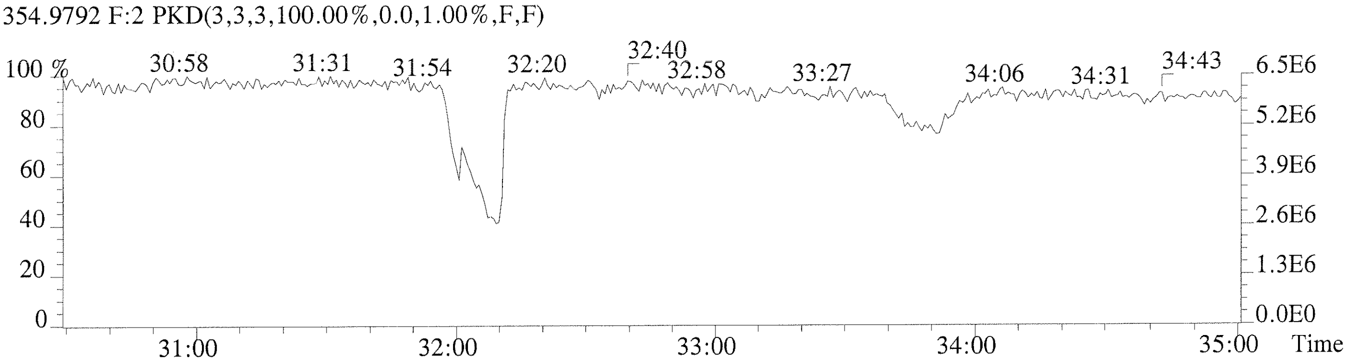
367.8949 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,1368.0,1.00%,F,T)



369.8919 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,616.0,1.00%,F,T)

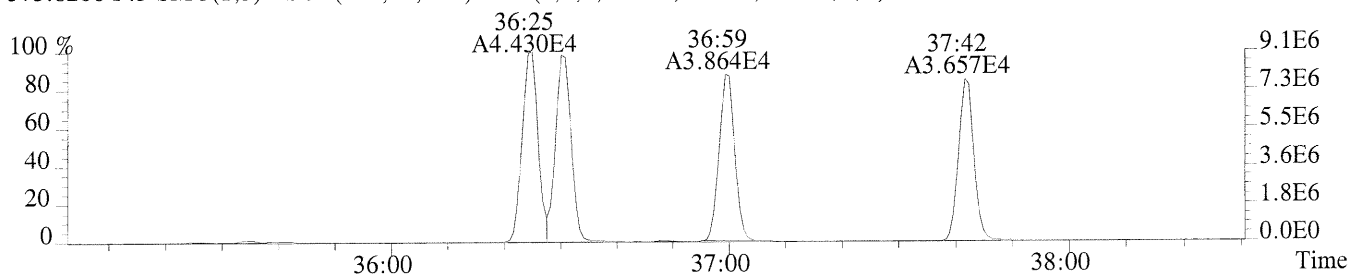


354.9792 F:2 PKD(3,3,3,100.00%,0.0,1.00%,F,F)

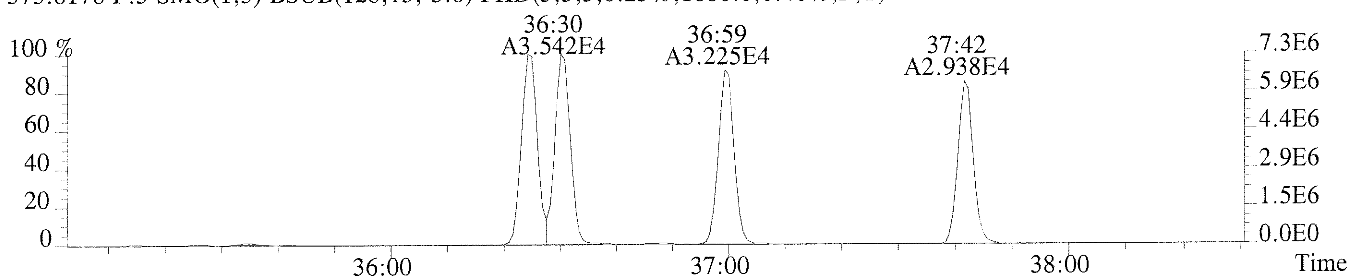


File: 8295 #1-315 Acq:19-JUN-2012 16:30:11 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:CCAL CS3

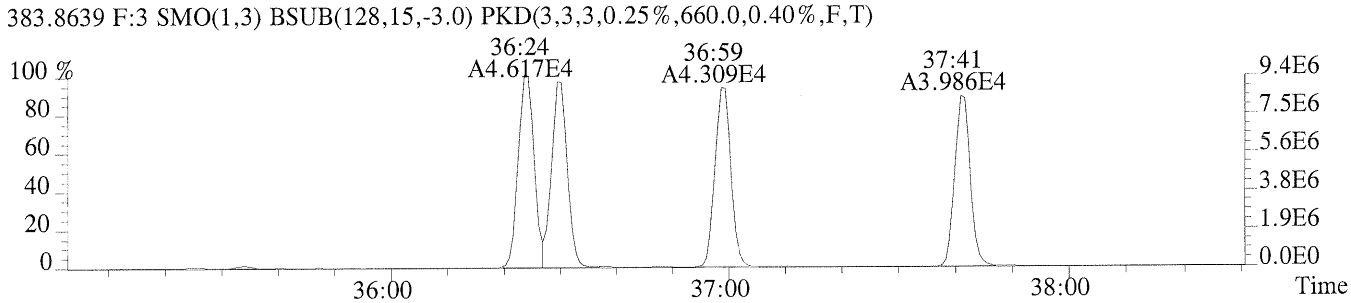
373.8208 F:3 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,1152.0,0.40%,F,T)



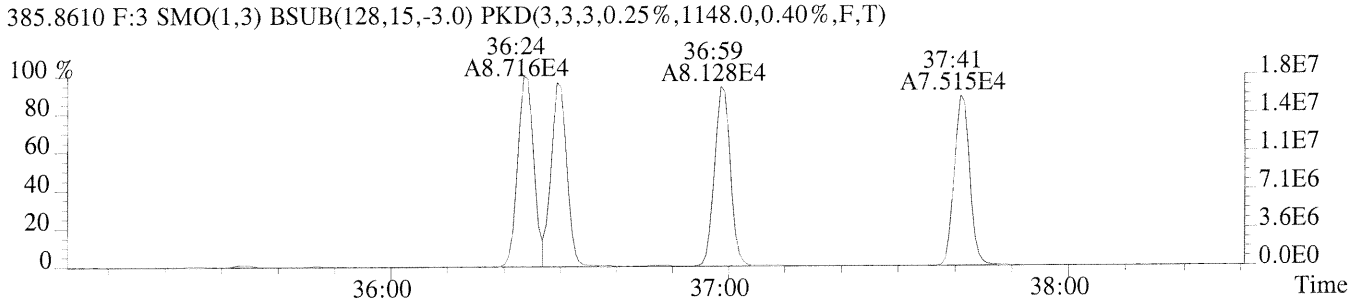
375.8178 F:3 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,1880.0,0.40%,F,T)



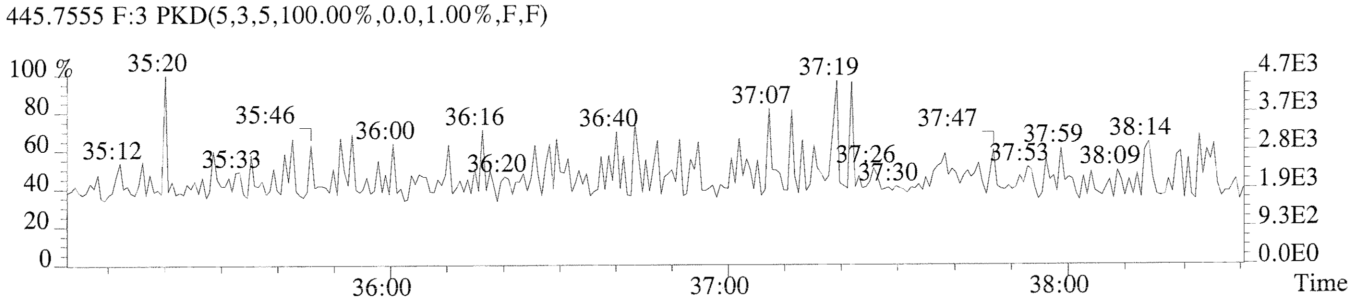
383.8639 F:3 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,660.0,0.40%,F,T)



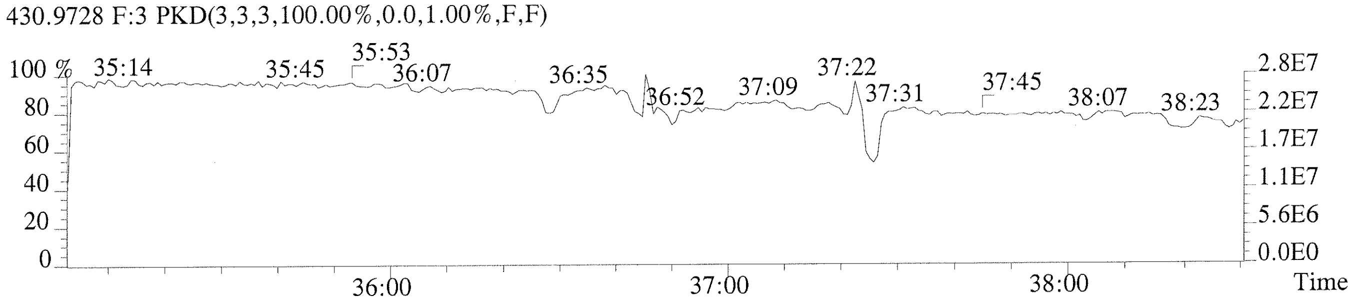
385.8610 F:3 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,1148.0,0.40%,F,T)



445.7555 F:3 PKD(5,3,5,100.00%,0.0,1.00%,F,F)

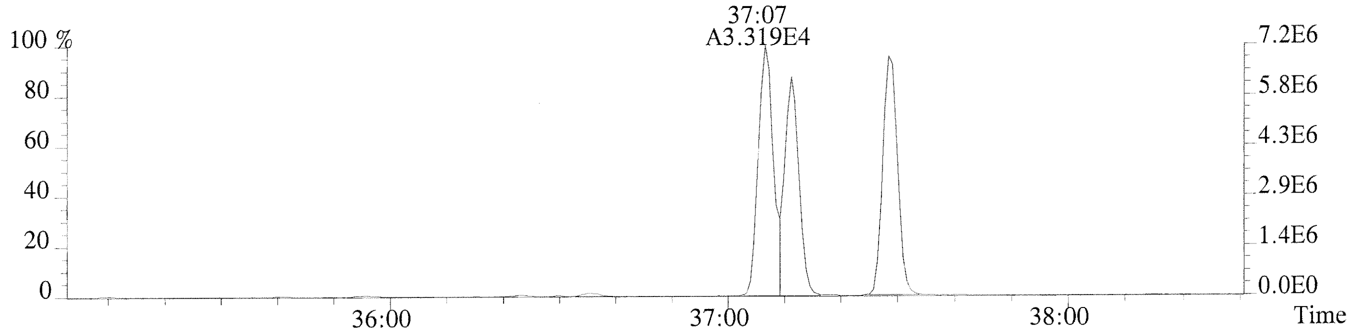


430.9728 F:3 PKD(3,3,3,100.00%,0.0,1.00%,F,F)

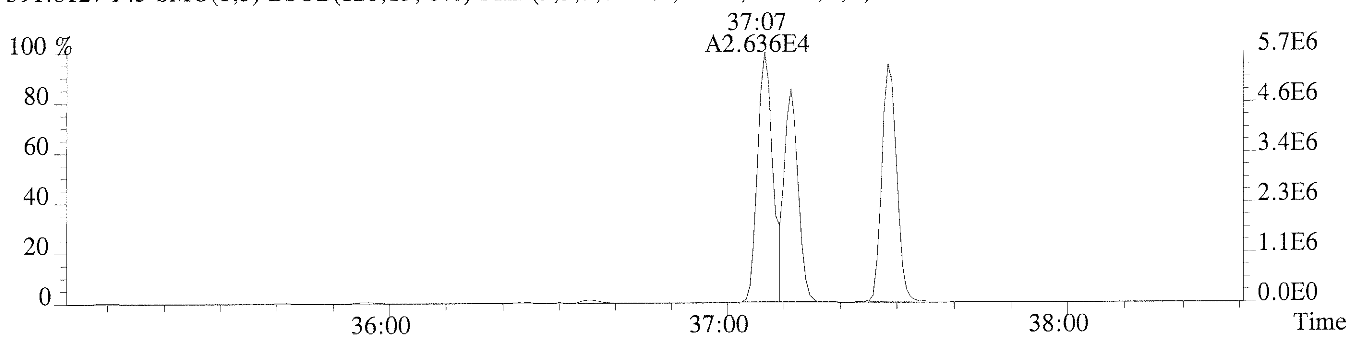


File: 3295 #1-315 Acq:19-JUN-2012 16:30:11 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:CCAL CS3

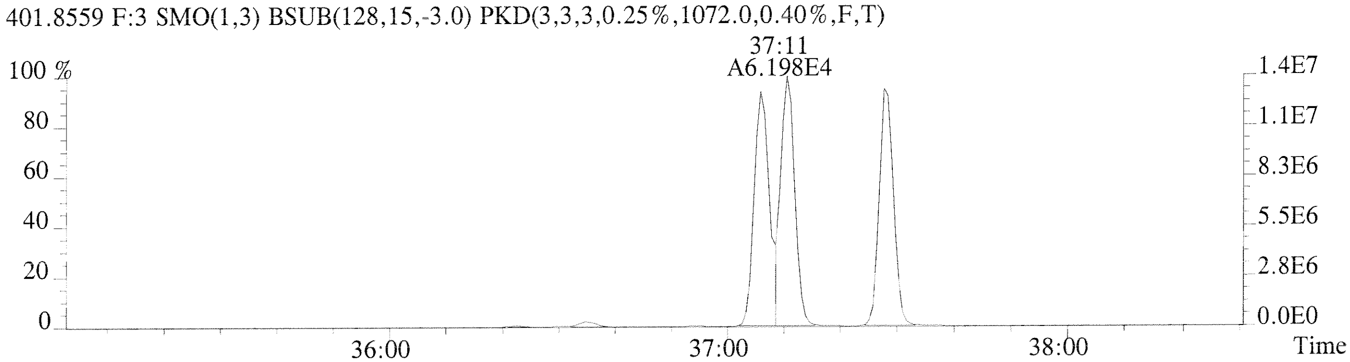
389.8157 F:3 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,732.0,0.40%,F,T)



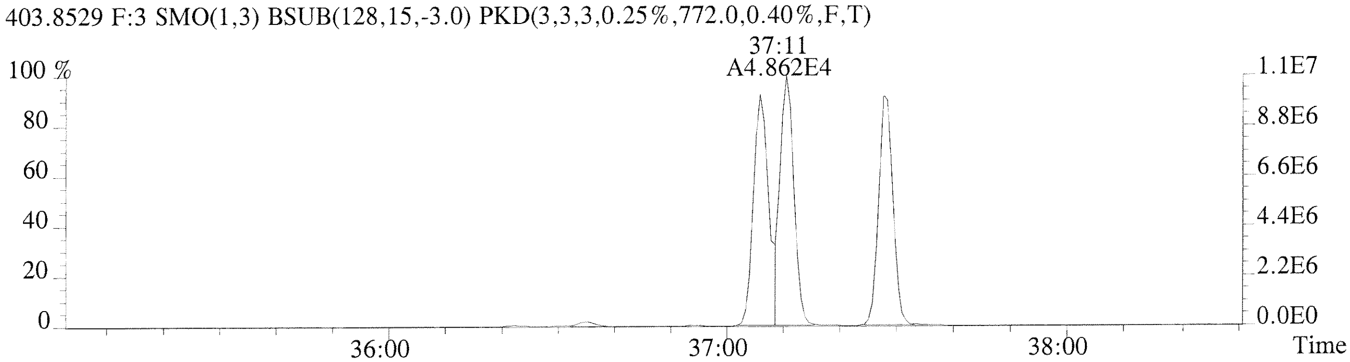
391.8127 F:3 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,880.0,0.40%,F,T)



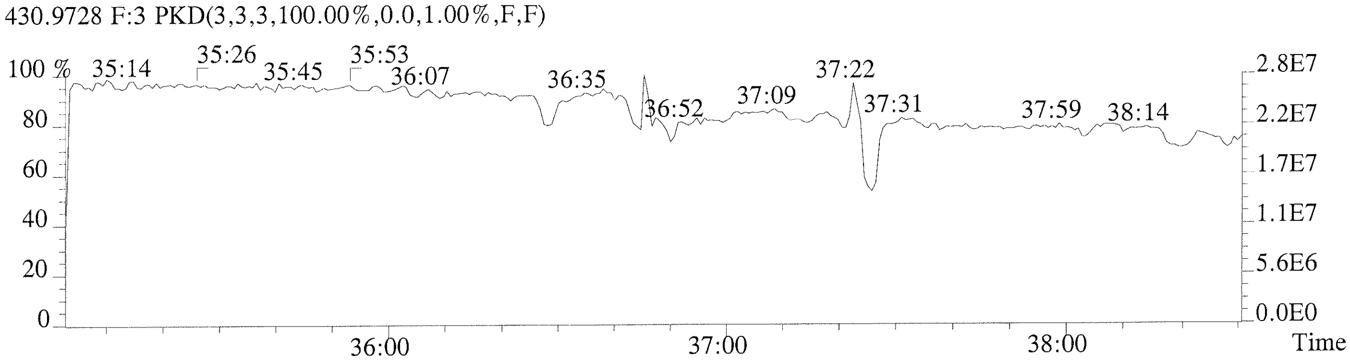
401.8559 F:3 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,1072.0,0.40%,F,T)



403.8529 F:3 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,772.0,0.40%,F,T)

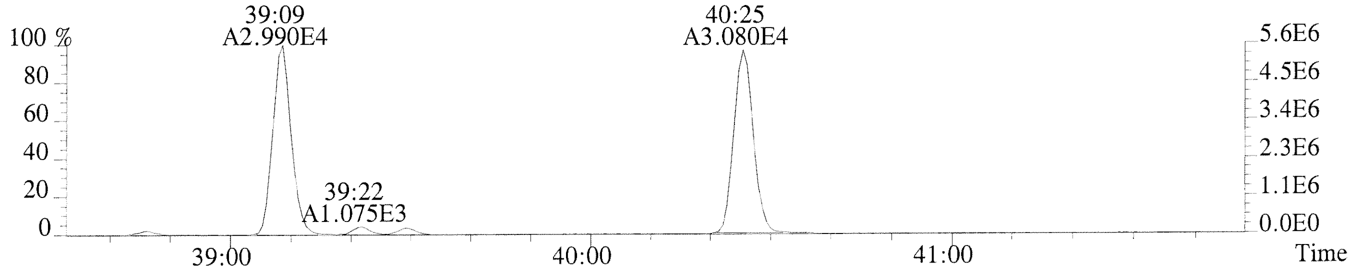


430.9728 F:3 PKD(3,3,3,100.00%,0.0,1.00%,F,F)

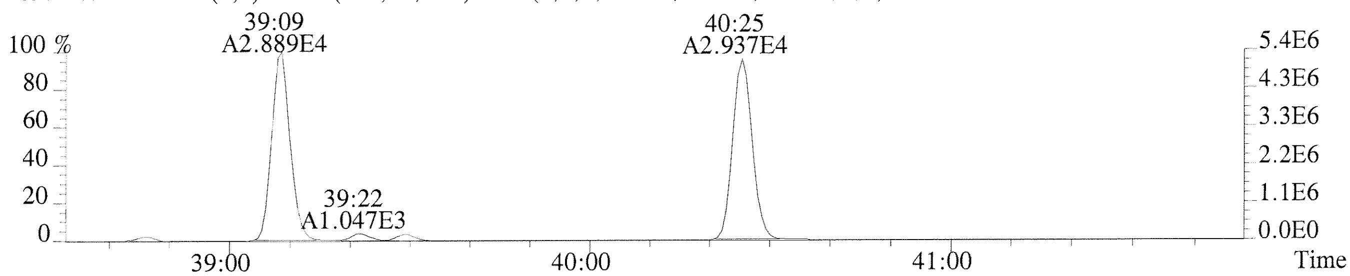


File: 8295 #1-296 Acq:19-JUN-2012 16:30:11 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:CCAL CS3

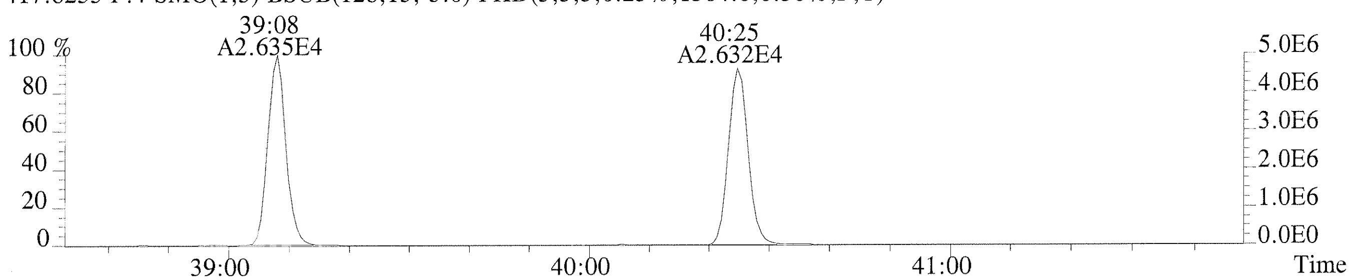
407.7818 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,1840.0,0.50%,F,T)



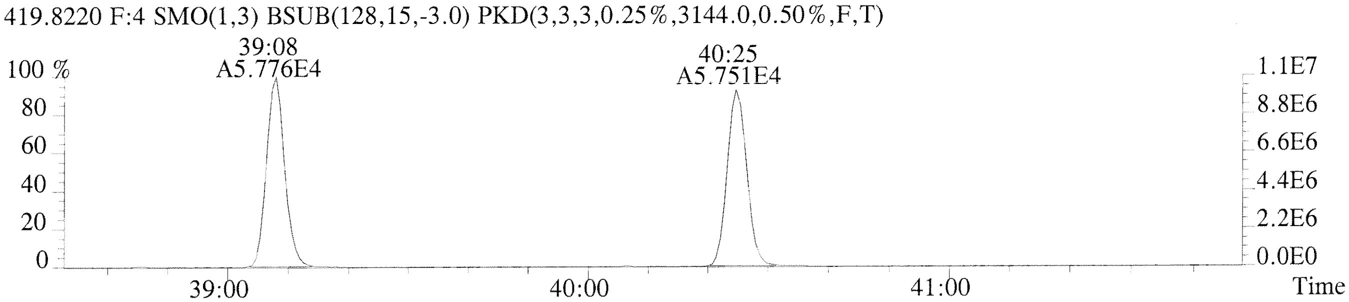
409.7789 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,1884.0,0.50%,F,T)



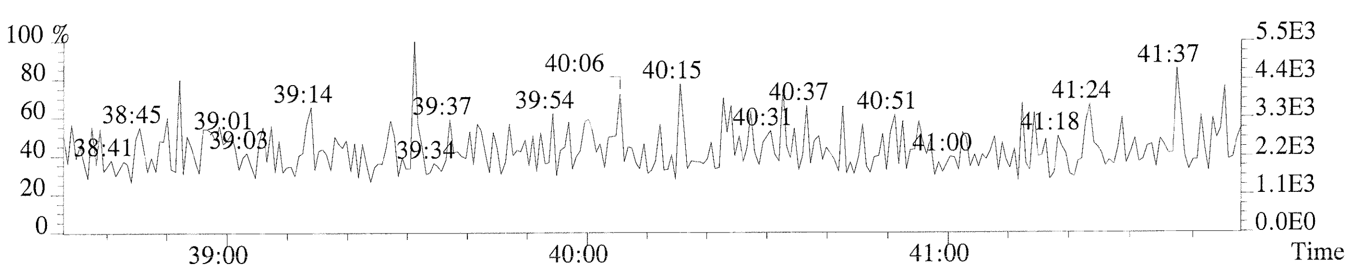
417.8253 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,1504.0,0.50%,F,T)



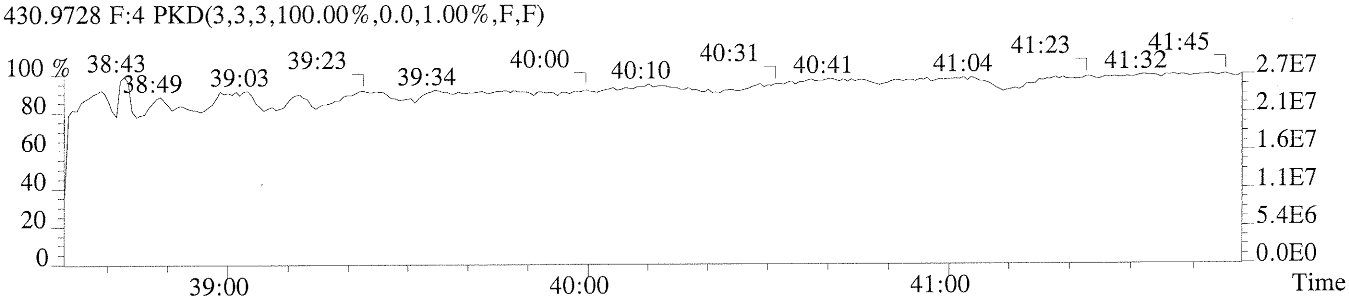
419.8220 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,3144.0,0.50%,F,T)



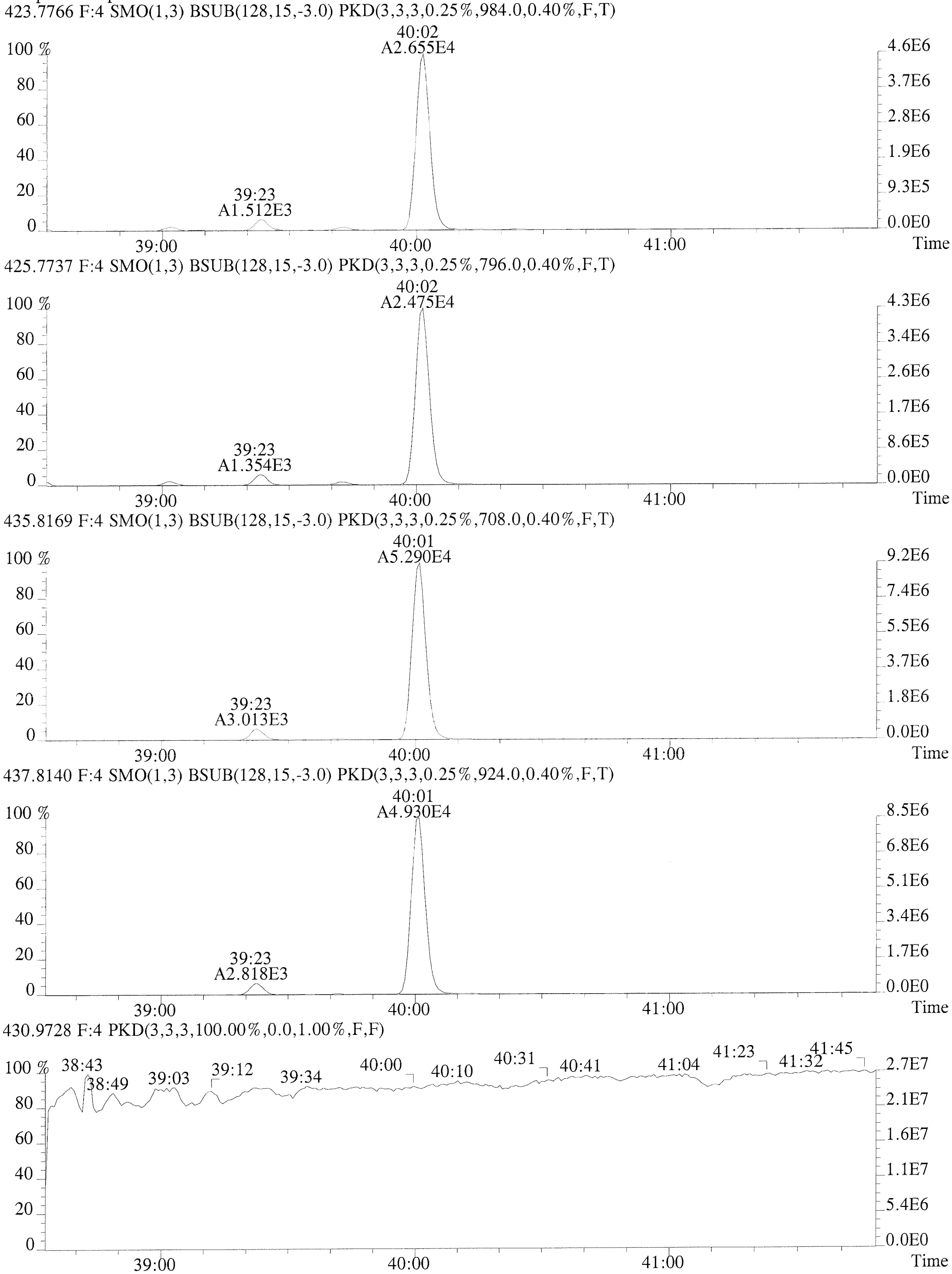
479.7165 F:4 PKD(5,3,5,100.00%,0.0,1.00%,F,F)



430.9728 F:4 PKD(3,3,3,100.00%,0.0,1.00%,F,F)

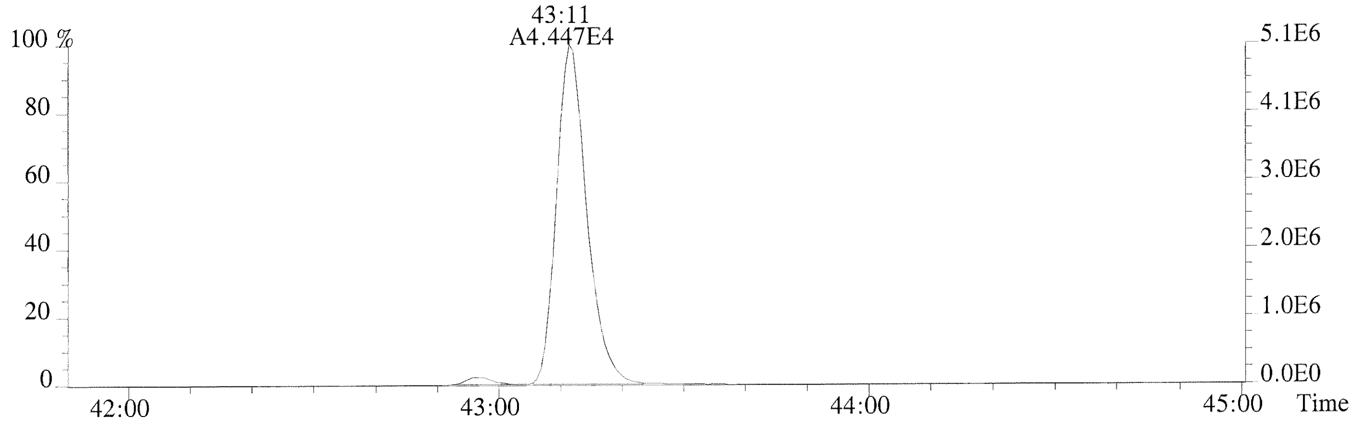


File:. 8295 #1-296 Acq:19-JUN-2012 16:30:11 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:CCAL CS3

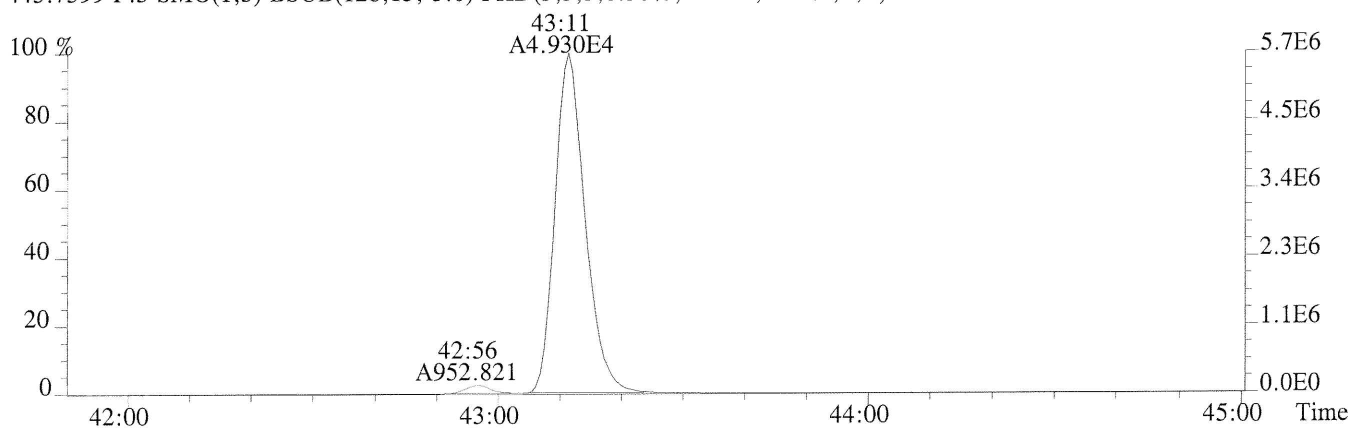


File: 8295 #1-292 Acq:19-JUN-2012 16:30:11 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:CCAL CS3

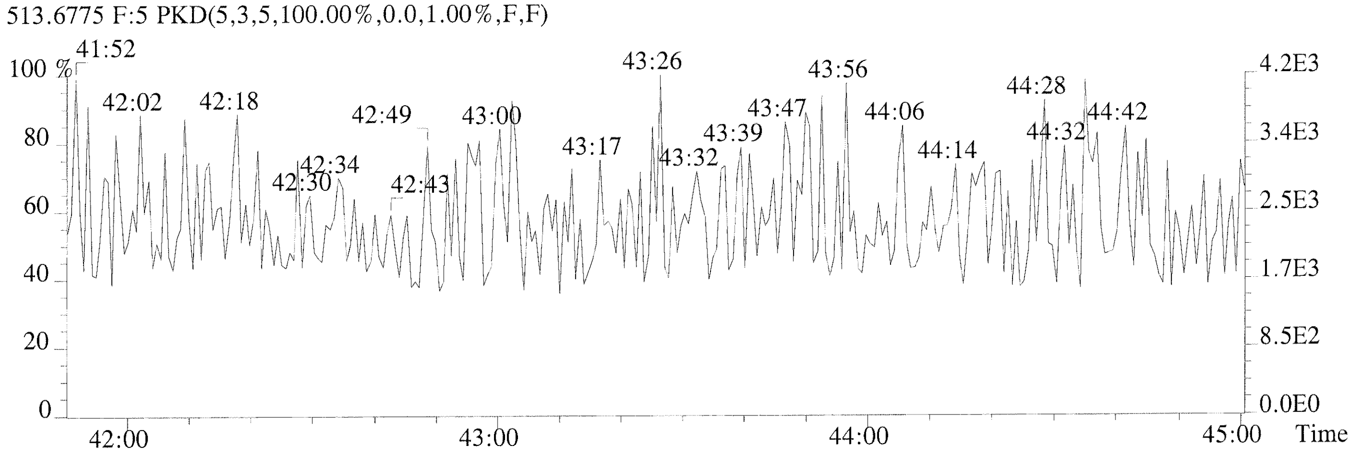
441.7428 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(5,3,5,0.30%,656.0,0.40%,F,T)



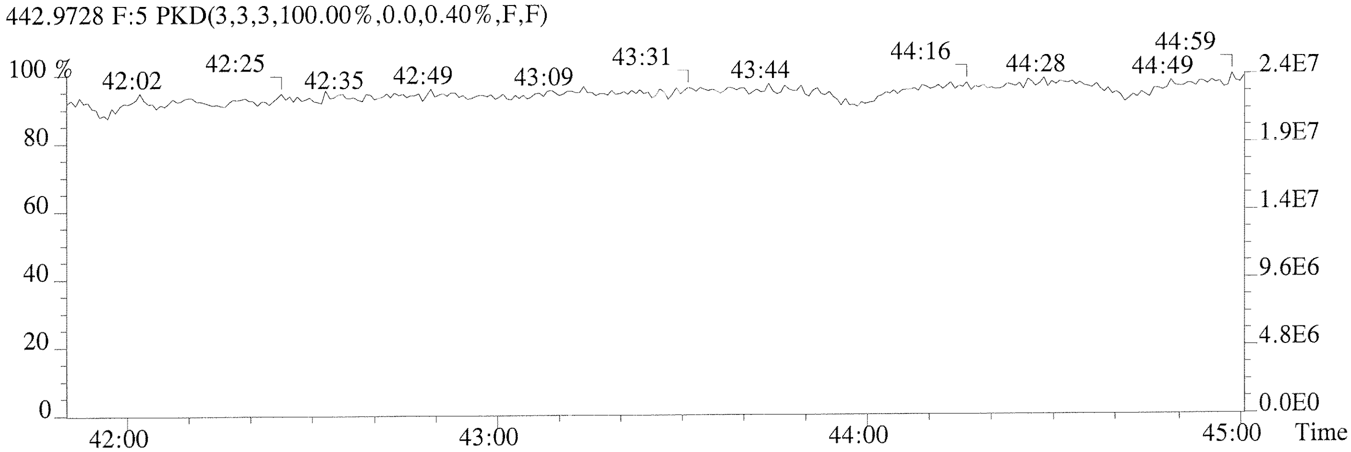
443.7399 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(5,3,5,0.30%,1156.0,0.40%,F,T)



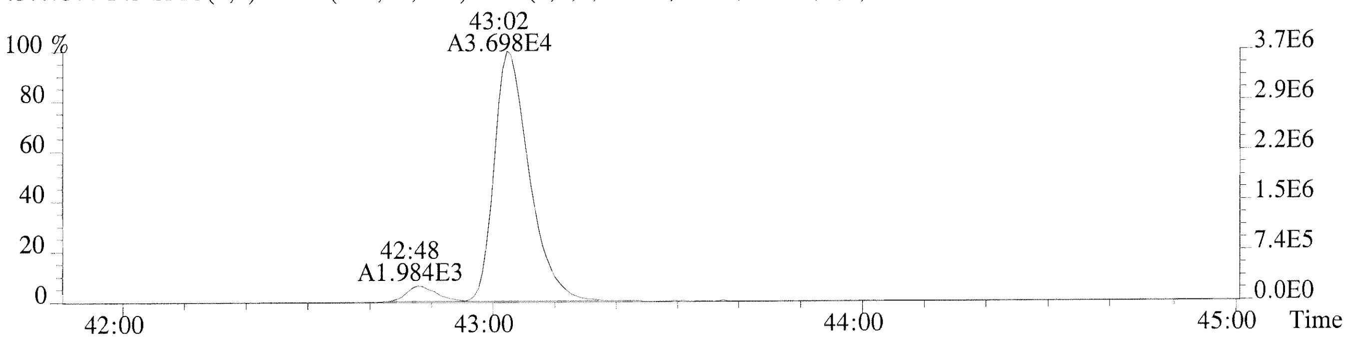
513.6775 F:5 PKD(5,3,5,100.00%,0.0,1.00%,F,F)



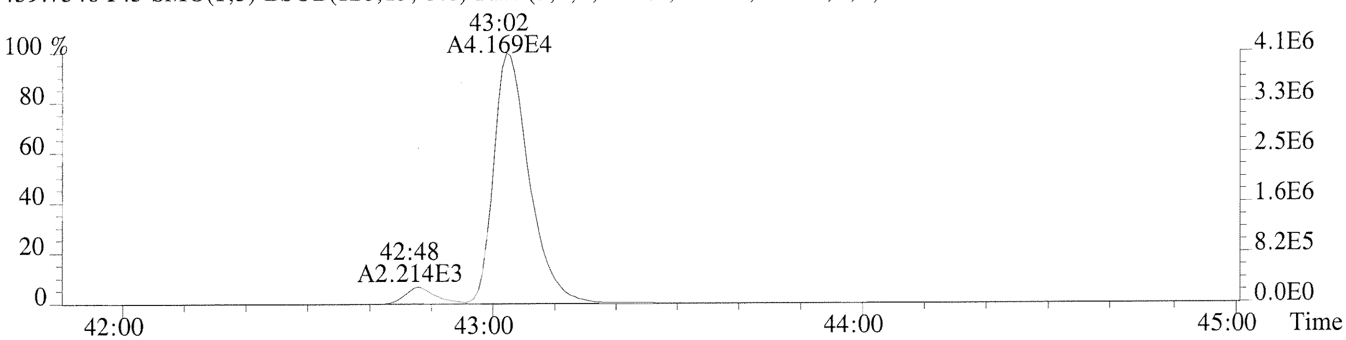
442.9728 F:5 PKD(3,3,3,100.00%,0.0,0.40%,F,F)



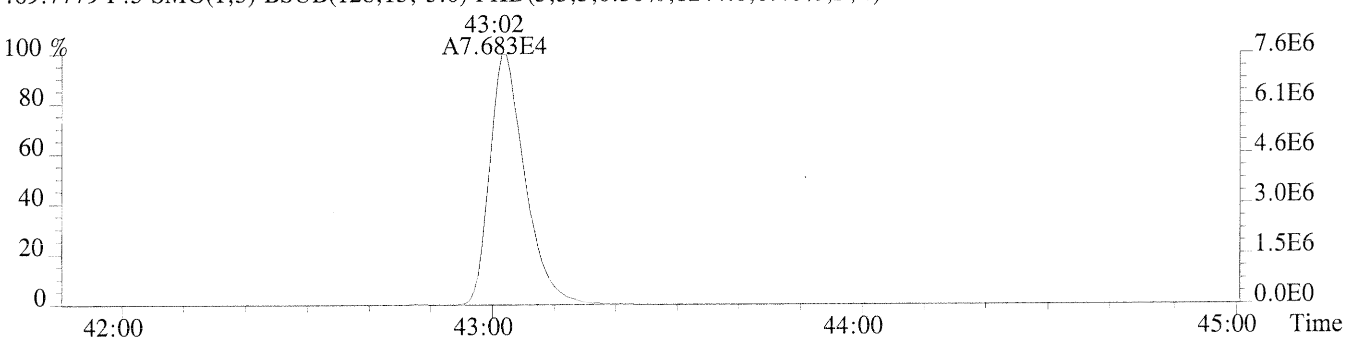
File: 8295 #1-292 Acq:19-JUN-2012 16:30:11 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:CCAL CS3
457.7377 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(5,3,5,0.30%,528.0,0.40%,F,T)



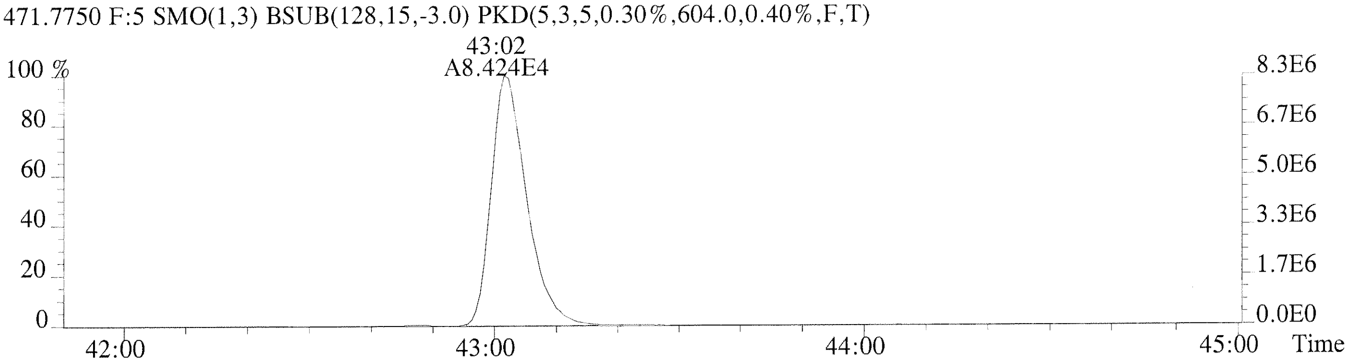
459.7348 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(5,3,5,0.30%,1176.0,0.40%,F,T)



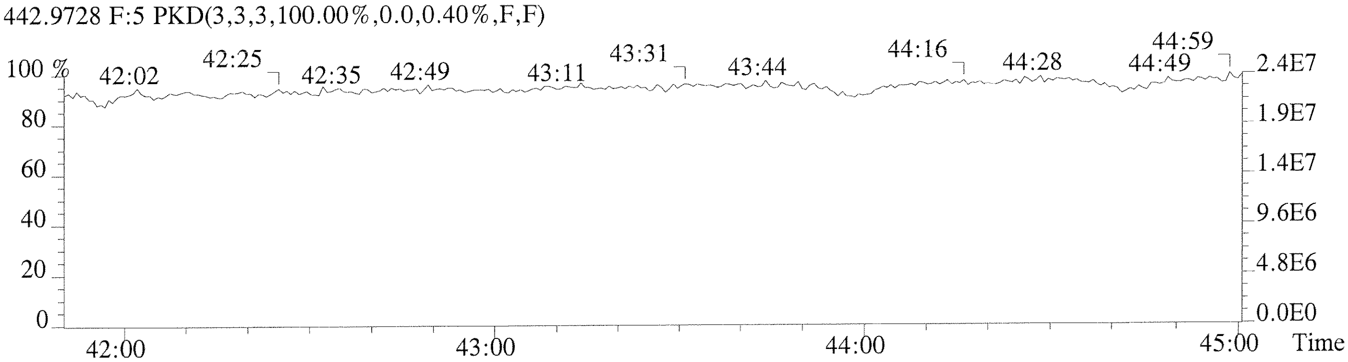
469.7779 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(5,3,5,0.30%,1244.0,0.40%,F,T)



471.7750 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(5,3,5,0.30%,604.0,0.40%,F,T)



442.9728 F:5 PKD(3,3,3,100.00%,0.0,0.40%,F,F)



5DFA

WINDOW DEFINING MIX SUMMARY

CLIENT ID:

WDM

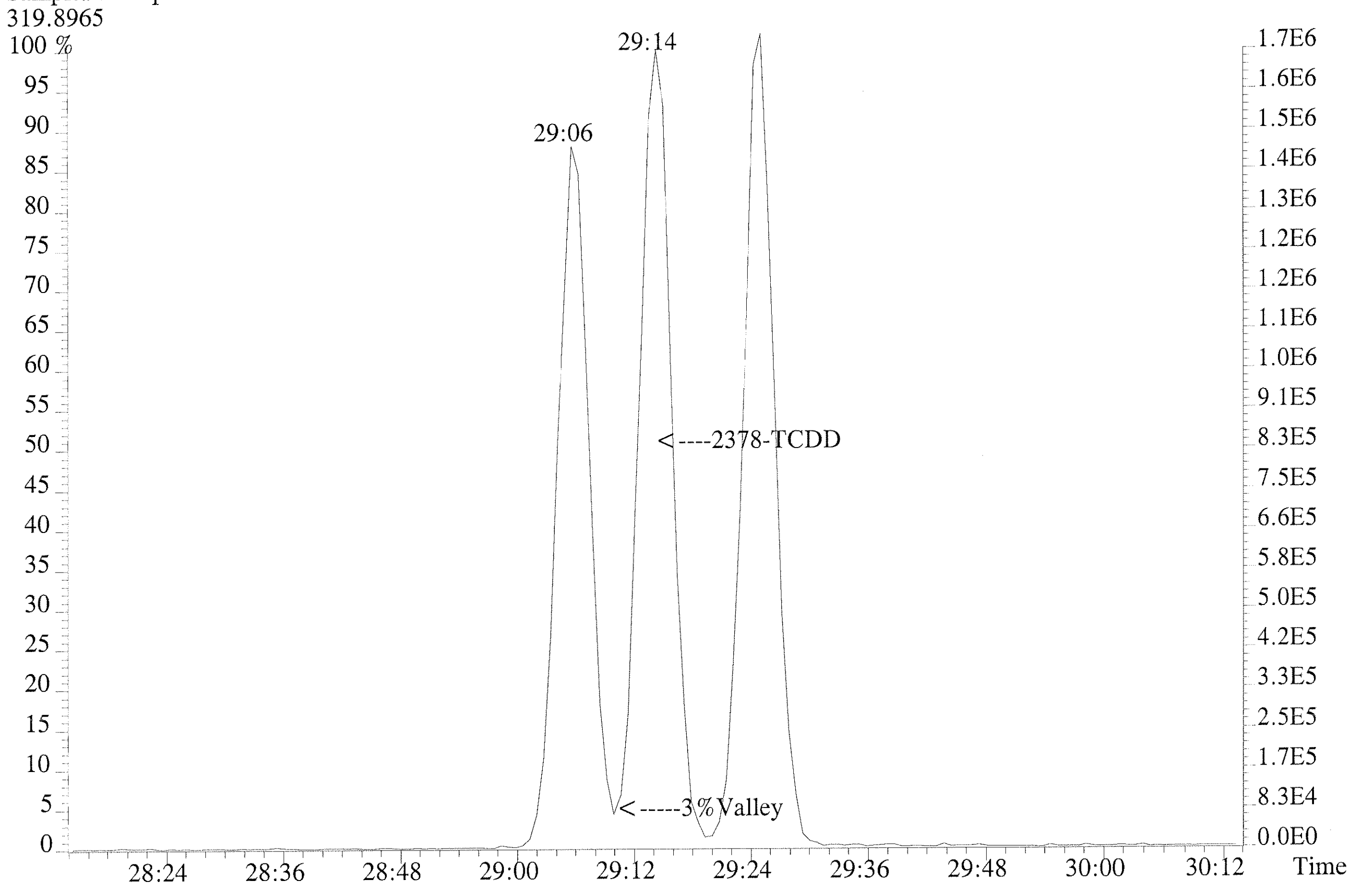
Lab Name:
Lab Code:
GC Column: DB-5

Case No.: ______________ SDG No.:
ID: 0.25 (mm) Lab File ID: 8296
Date Analyzed: 19-JUN-2012
Time Analyzed: 17:41:15

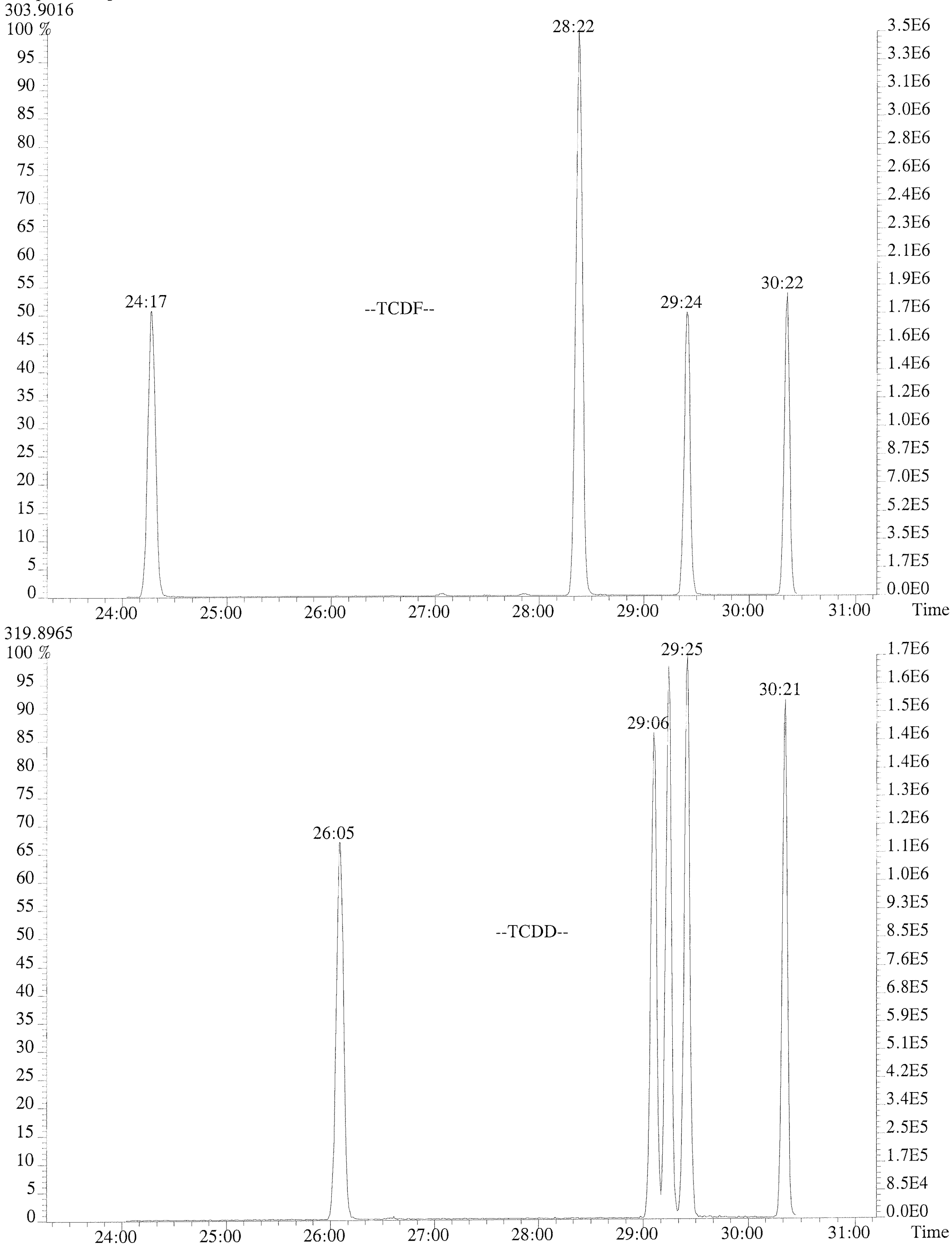
Congener	Retention Time First Eluting	Retention Time Last Eluting
TCDF	24:17	30:22
TCDD	26:05	30:21
PeCDF	30:39	34:32
PeCDD	32:02	34:23
HxCDF	35:26	37:46
HxCDD	35:56	37:26
HpCDF	39:08	40:25
HpCDD	39:23	40:02

% Valley 2378-TCDD: 3 %

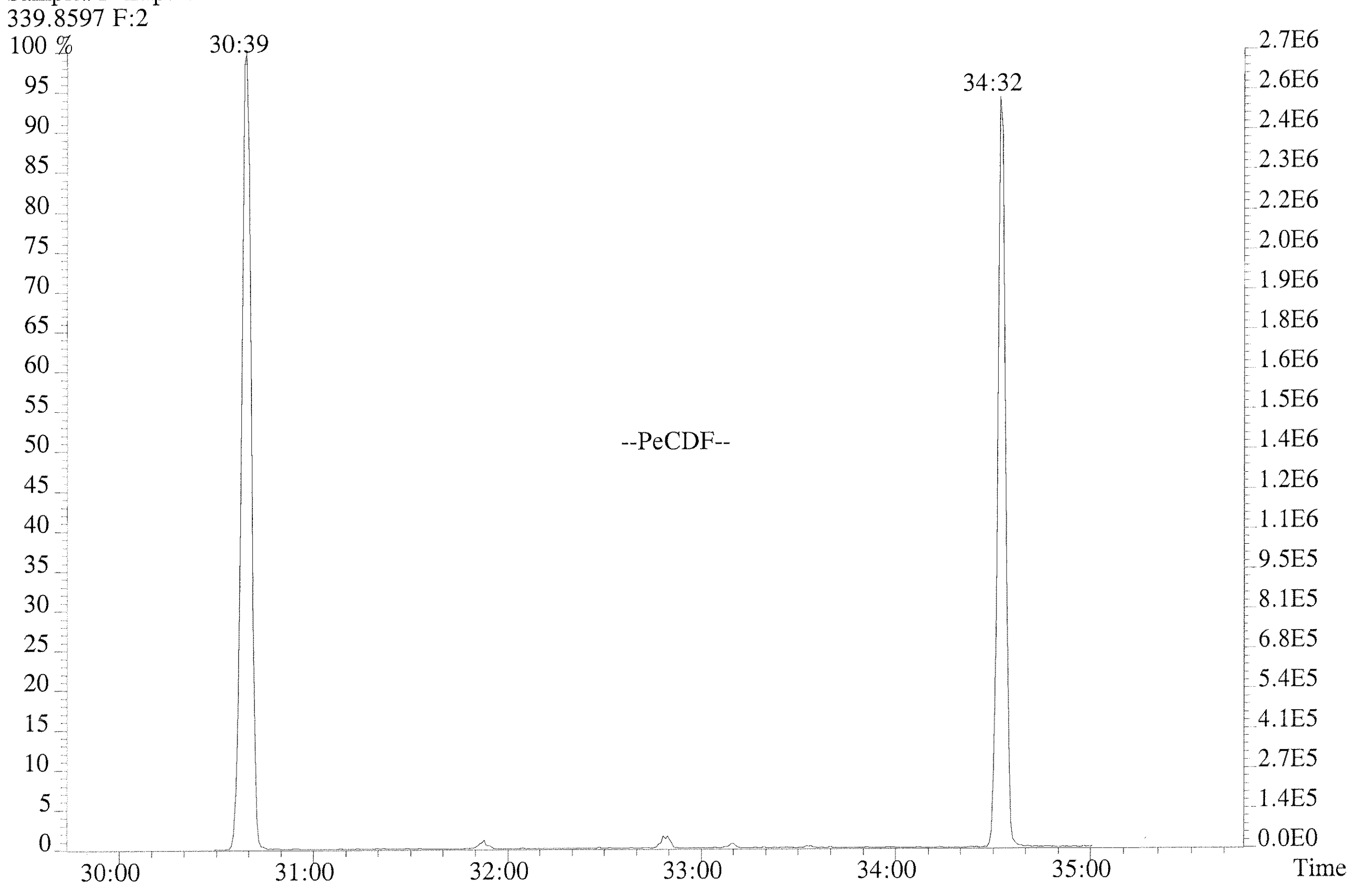
File: 3296 #1-535 Acq:19-JUN-2012 17:41:15 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:WINDOW DEFINE

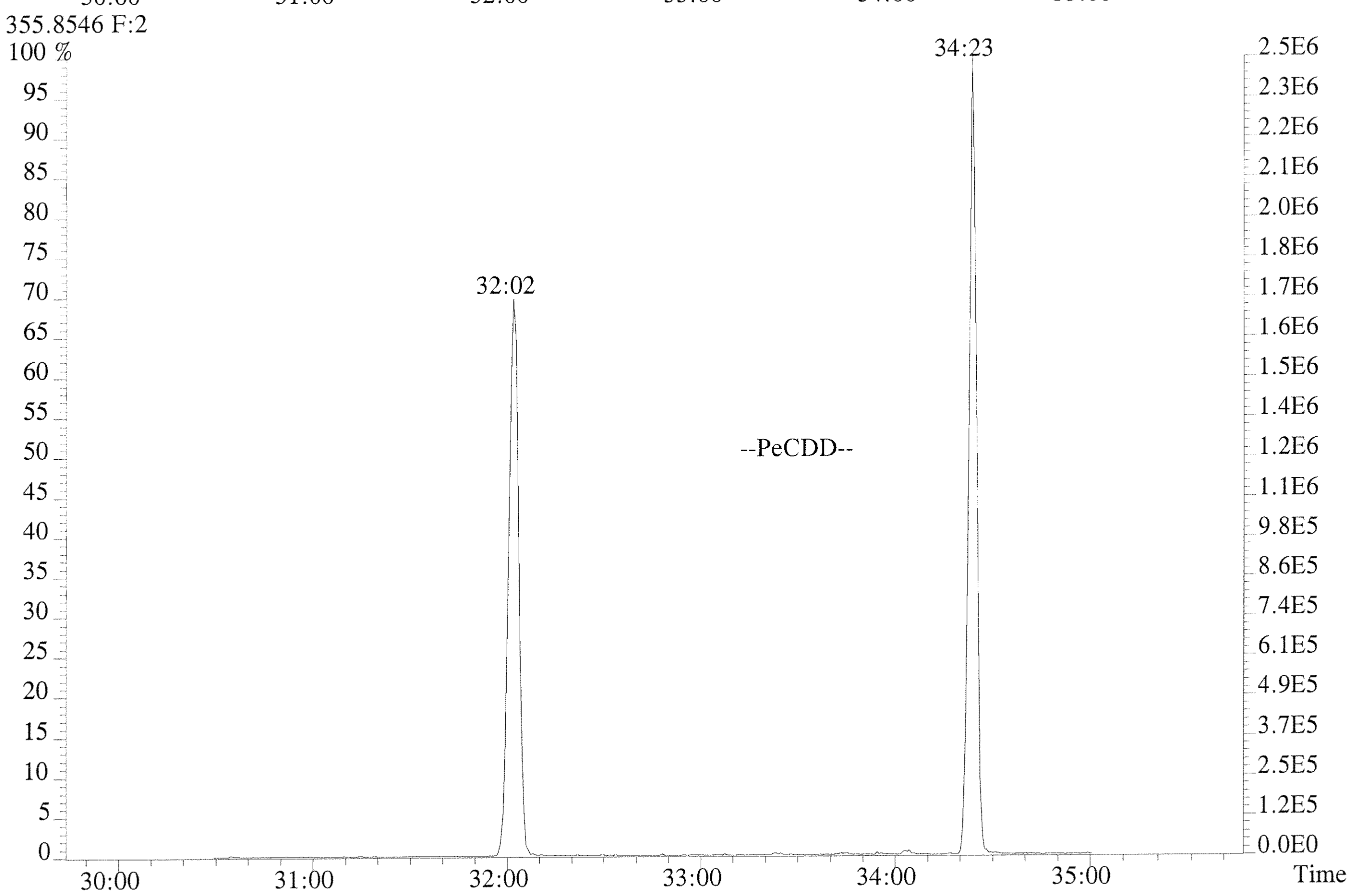


File: 3296 #1-535 Acq:19-JUN-2012 17:41:15 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:WINDOW DEFINE



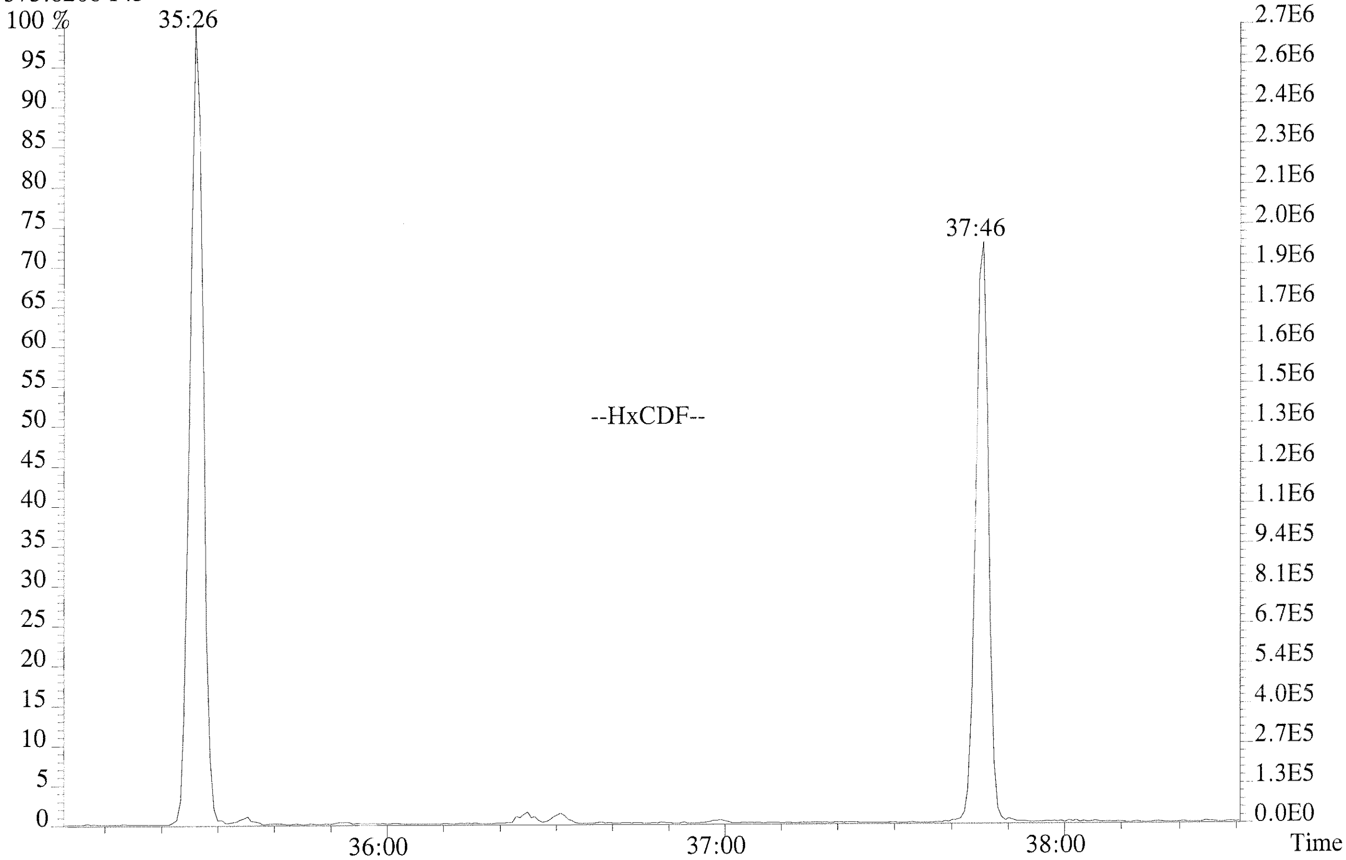
File 8296 #1-411 Acq:19-JUN-2012 17:41:15 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:WINDOW DEFINE



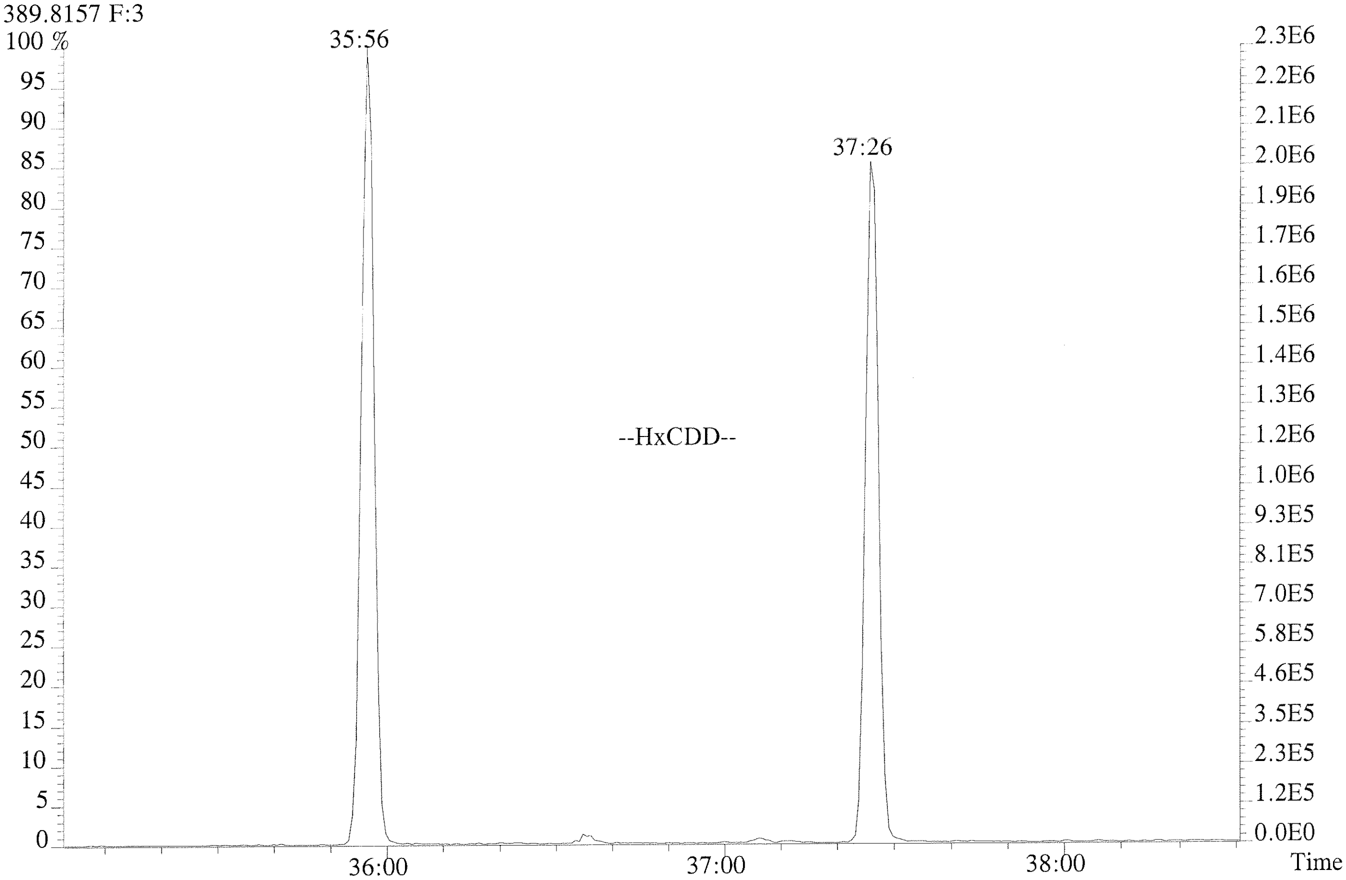


File: 8296 #1-315 Acq:19-JUN-2012 17:41:15 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:WINDOW DEFINE

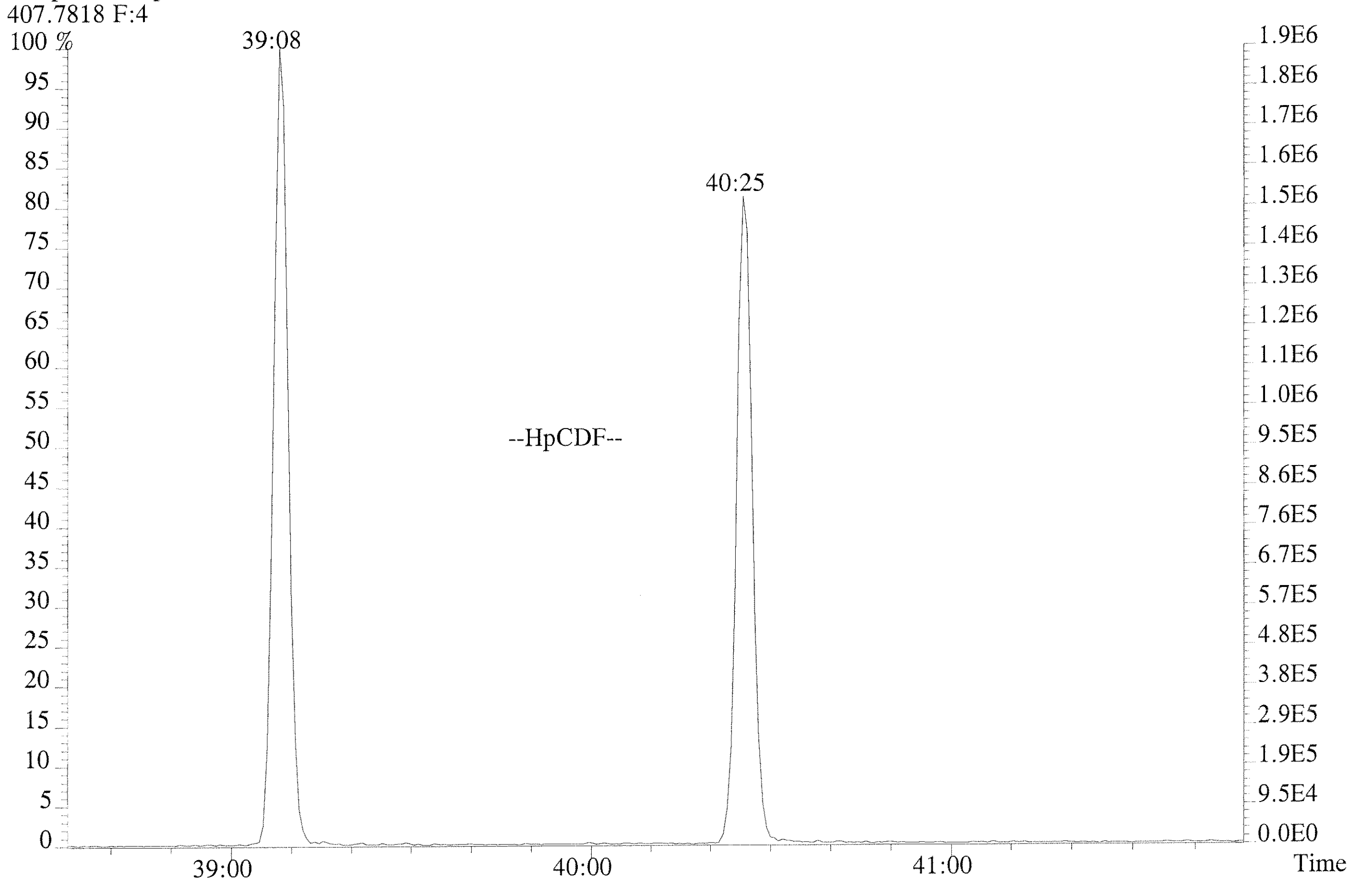
373.8208 F:3



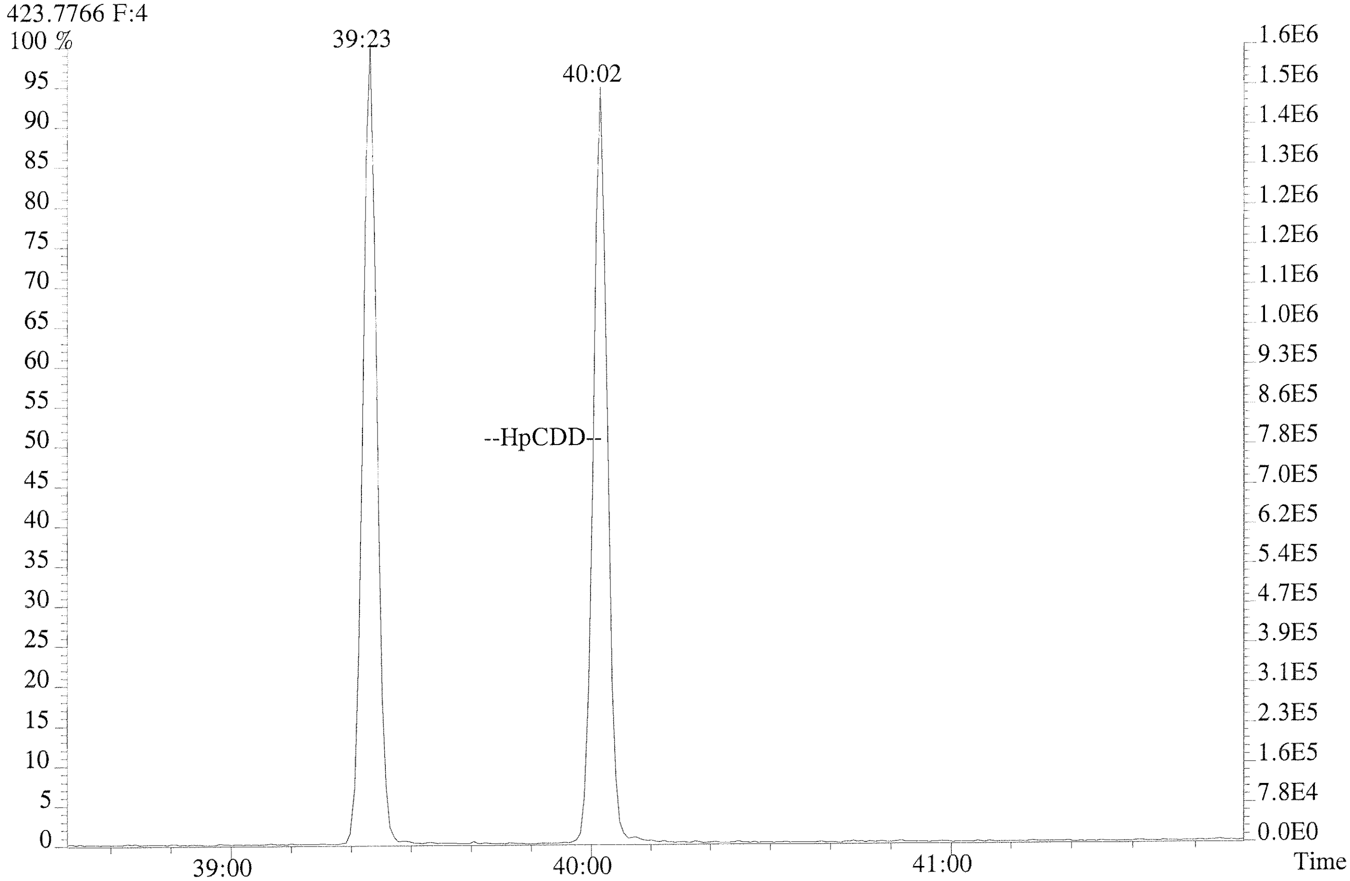
389.8157 F:3



File: 8296 #1-296 Acq:19-JUN-2012 17:41:15 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:WINDOW DEFINE
407.7818 F:4



423.7766 F:4



RW/CS3 Daily Calibration QC Checklist

Calibration File Name: 1977 - 7990 Circle one: Beginning / Ending

Date: 06/21/12

Method: 1613 / 1613E / VCP / Tetra / TCDD Only / TCDF Conf / VCP Conf / 8280 / M23 / TO-9A

Retention Window/Column Performance Check:

	Analyst	Second Check
Windows in and first and last eluters labeled	NA	N/A
Column Performance shows less than or equal to 25% valley between column specific 2378 isomer and its closest eluters	✓	✓
No QC ion deflections affect column specific 2378 isomer or its closest eluters (HRMS Only)	✓	✓

CS3 Continuing Calibration

	Analyst	Second Check
Percent RSD within method criteria	✓	✓
All relative abundance ratios meet method criteria	✓	✓
No QC ion deflections of greater than 20% (HRMS Only)	✓	✓
Mass spectrometer resolution greater than or equal to 10,000 and documented (HRMS Only)	✓	✓
2378-TCDD elutes at 25 minutes or later on the DB-5 column	NA	N/A
Signal-to-noise of all target analytes and their labeled standards at least 10:1	✓	✓
Valley between labeled 123478 and 123678 HxCDD peaks less than or equal to 50% (LRMS Only)	NA	N/A
Ending Calibration injected prior to end of 12 hour clock	✓	✓

Analyst: ________________ Second QC: ________________

ccalqc.xls 02/08/00

5DFC
PCDD/PCDF ANALYTICAL SEQUENCE SUMMARY

Lab Name: Contract:

Lab Code: Case No.: Client No.: SDG No.:

GC Column: DB-225 ID: 0.25 (mm) Instrument ID: E-HRMS-0

Init. Calib. Date: 09/09/11

Init. Calib.Times: 10:55:41

THE ANALYTICAL SEQUENCE OF STANDARDS, SAMPLES, BLANKS, AND LABORATORY CONTROL SAMPLES (LCSs) IS AS FOLLOWS:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
COLUMN PERFORM	COLUMN PERFORM	7976	21-JUN-12	06:41:55
CCAL CS3	CCAL CS3	7977	21-JUN-12	07:20:49
INST BLANK	INST BLANK	7978	21-JUN-12	08:13:02
193	00584-001RE	7979	21-JUN-12	08:44:39
BATTELLE 6811 BT	00709-001	7980	21-JUN-12	09:19:02
BATTELLE 6811 MT	00709-002	7981	21-JUN-12	09:53:24
BATTELLE 6811 TT	00709-003	7982	21-JUN-12	10:27:46
087-16 (SED-4)	00610-016	7983	21-JUN-12	11:02:09
087-17 (SED-DUP)	00610-017	7984	21-JUN-12	11:36:31
087-13 (SED-1)	00610-013	7985	21-JUN-12	12:10:54
087-13 (SED-1) MS	200303-03	7986	21-JUN-12	12:45:19
087-13 (SED-1) D╗	200303-04	7987	21-JUN-12	13:19:42
GF-B-15A-1-2.5	00626-002	7988	21-JUN-12	14:04:24
GF-B-10-1-1.25	00651-001	7989	21-JUN-12	14:35:06
CCAL CS3	CCAL CS3	7990	21-JUN-12	15:14:58
COLUMN PERFORM	COLUMN PERFORM	7991	21-JUN-12	16:23:09

Sample List Report **MassLynx 4.1**

Sample List: C:\MassLynx\ .PRO\SampleDB\ 20621.SPL

Last Modified: Thursday, June 21, 2012 16:59:29 Central Daylight Time

Printed: Thursday, June 21, 2012 17:00:25 Central Daylight Time

G:\ 7977RES

	Date	Time	File Name	Sample ID	Client ID		Comments	GC Met
1	06/21/12	06:41	7976	COLUMN PERFORMANCE	D4-59-1		HRMS Check 06:41	8290
2		07:20	7977	CCAL CS3	D12-83-1			8290
3		08:13	7978	INST BLANK	1613MB			TCDF
4		08:44	7979	00584-001RE	193			TCDF
5		09:19	7980	00709-001	Battelle 6811 BT			TCDF
6		09:53	7981	00709-002	Battelle 6811 MT			TCDF
7		10:27	7982	00709-003	Battelle 6811 TT			TCDF
8		11:02	7983	00610-016	24087-16 (SED-4)			TCDF
9		11:36	7984	00610-017	24087-17 (SED Dup)			TCDF
10		12:10	7985	00610-013	24087-13 (SED-1)			TCDF
11		12:45	7986	200303-03	24087-13 (SED-1) MS			TCDF
12		13:19	7987	200303-04	24087-13 (SED-1) DMS			TCDF
13		14:04	7988	0626-002	GF-B-15A-1-2.5			TCDF
14		14:35	7989	0651-001	GF-B-10-1-1.25			TCDF
15		15:14	7990	CCAL CS3	D12-83-1			TCDF
16		16:23	7991	COLUMN PERFORMANCE	D4-59-1		HRMS Check 16:58	TCDF
17			---	---	---			TCDF
18			---	---	---			TCDF
19			---	---	---			TCDF
20			---	---	---			TCDF
21			---	---	---			TCDF
22	---	---	---	---	---	---	---	TCDF
23	---	---	---	---	---	---	---	TCDF
24	---	---	---	---	---	---	---	---
25	---	---	---	---	---	---	---	---
26	---	---	---	---	---	---	---	TCDF
27	---	---	---	---	---	---	---	TCDF
28	---	---	---	---	---	---	---	TCDF
29	---	---	---	---	---	---	---	---
30	---	---	---	---	---	---	---	8290
31	---	---	---	---	---	---	---	8290
32	---	---	---	---	---	---		---

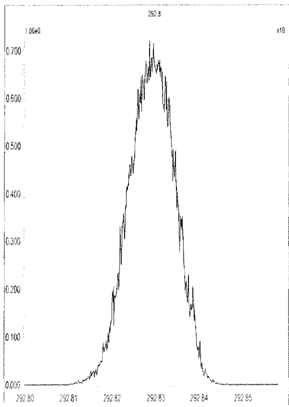
Reviewed by: 06/21/12

027

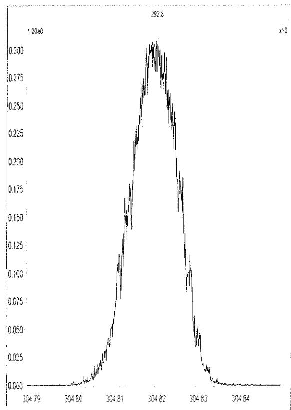
File: Experiment: tcdf.exp Reference: pfk.ref Function: 1 @ 200 (ppm)

Printed: Thursday, June 21, 2012 06:41:13 Central Daylight Time

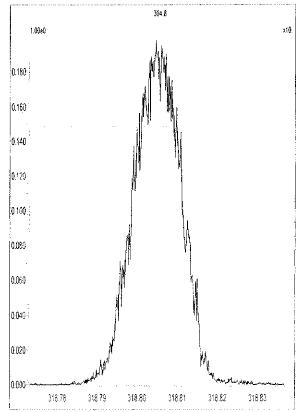
M 292.9824 R 12136



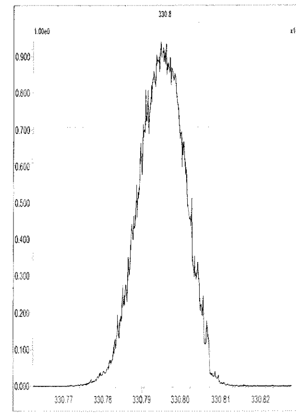
M 304.9824 R 12374



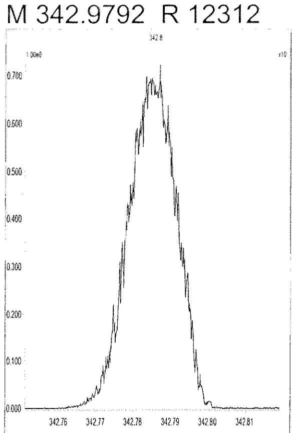
M 318.9792 R 12564



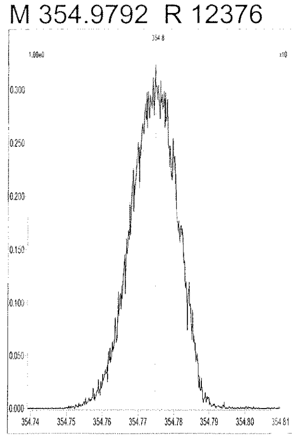
M 330.9792 R 12499



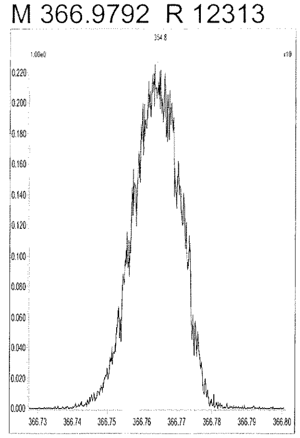
M 342.9792 R 12312



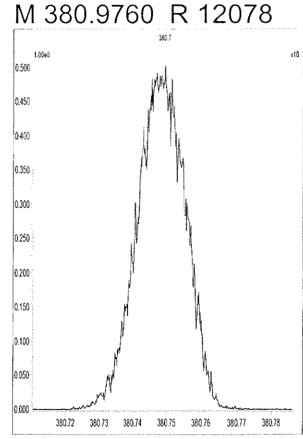
M 354.9792 R 12376



M 366.9792 R 12313



M 380.9760 R 12078

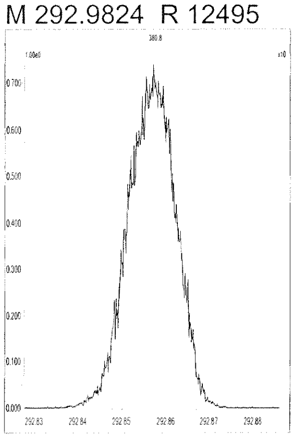


Experiment Calibration Report **MassLynx 4.1** Page 1 of 1

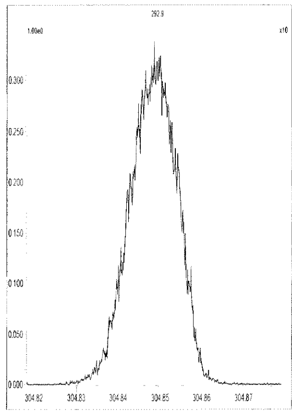
File: Experiment: tcdf.exp Reference: pfk.ref Function: 1 @ 200 (ppm)

Printed: Thursday, June 21, 2012 16:58:35 Central Daylight Time

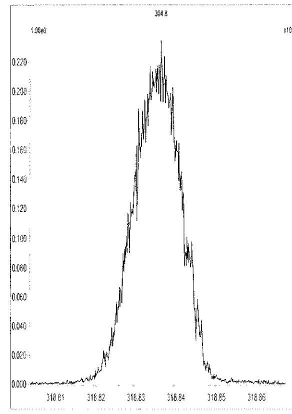
M 292.9824 R 12495



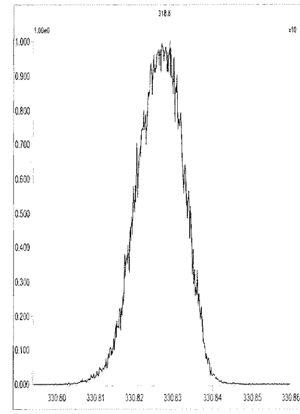
M 304.9824 R 12320



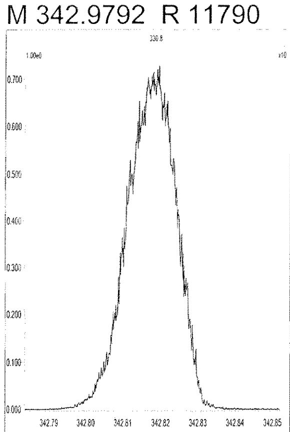
M 318.9792 R 12192



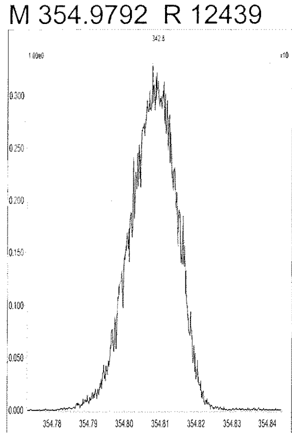
M 330.9792 R 12130



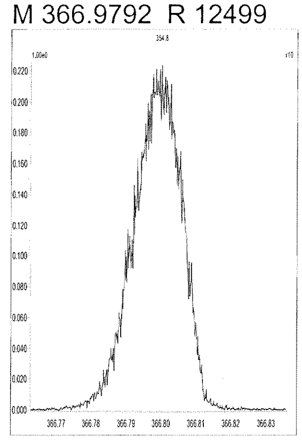
M 342.9792 R 11790



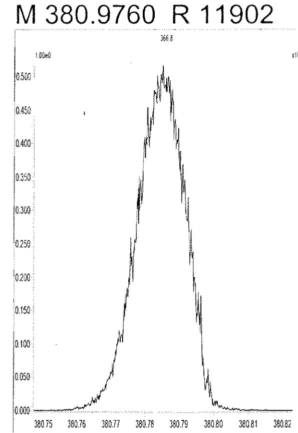
M 354.9792 R 12439



M 366.9792 R 12499



M 380.9760 R 11902



USEPA -
5DFB

PCDD/PCDF WINDOW DEFINING MIX SUMMARY

EPA SAMPLE NO.

COLUMN PERFORMANCE

Lab Name:
Lab Code: Case No.: ______________ SDG No.:
GC Column: DB-225 ID: 0.25 (mm) Lab File ID: 7976
Date Analyzed: 21-JUN-2012
Time Analyzed: 06:41:55

Instrument ID: E-HRMS-04

Percent Valley determination for DB-5 (or equivalent) column-
For the Column Performance Solution beginning the 12-hour period:

1478-TCDD/2378-TCDD: na

QUALITY CONTROL (QC) LIMITS: na

Percent Valley between the TCDD isomers must be less than or equal to 25%

Percent Valley determination for DB-225 (or equivalent) column-
For the Column Performance Solution beginning the 12-hour period:

2347-TCDF/2378-TCDF/1239-TCDF: 19 %

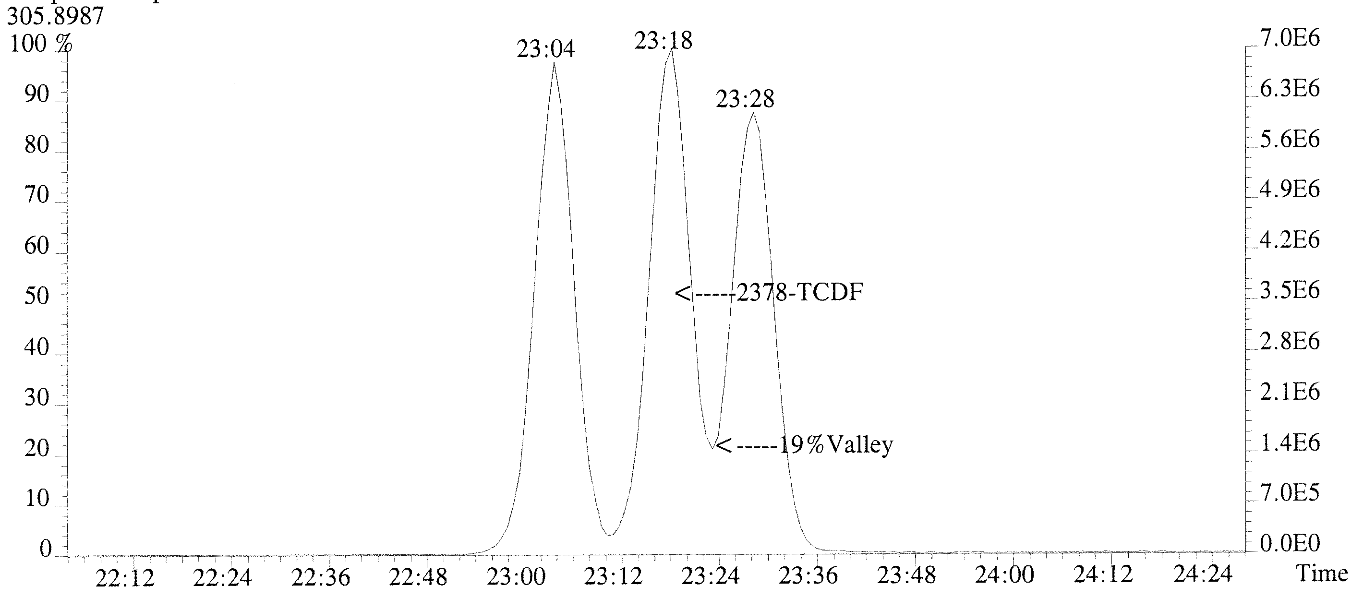
QUALITY CONTROL (QC) LIMITS:

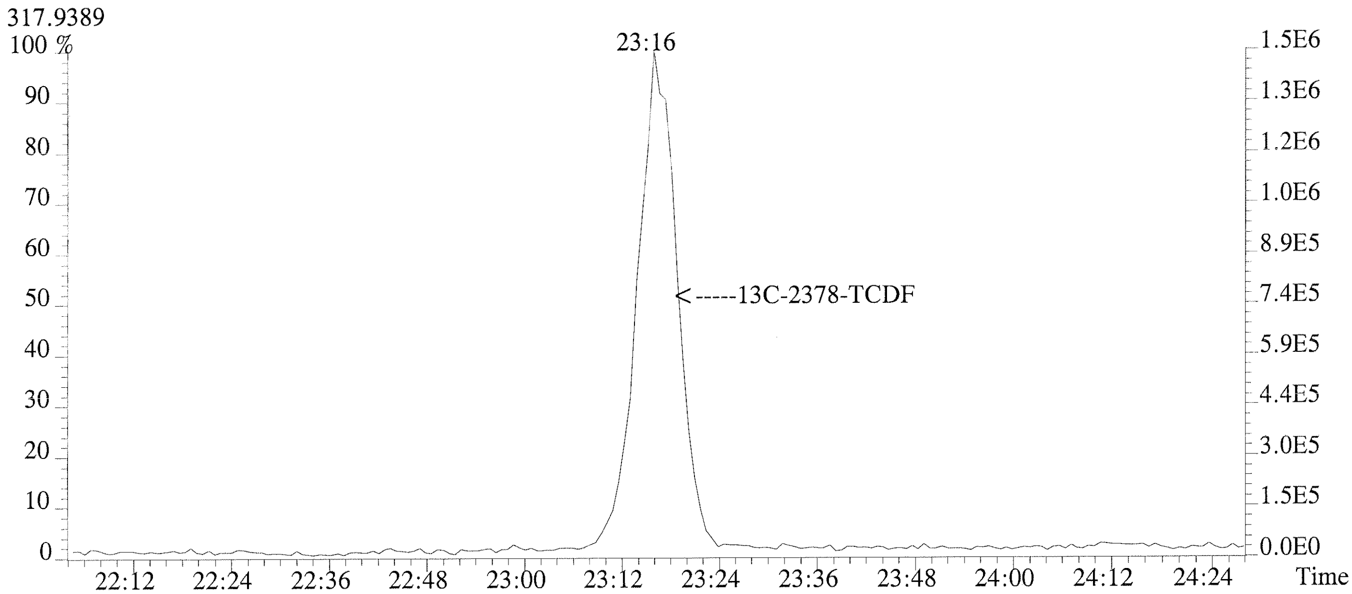
Percent Valley between the TCDF/TCDF isomers must be less than or equal to 25%

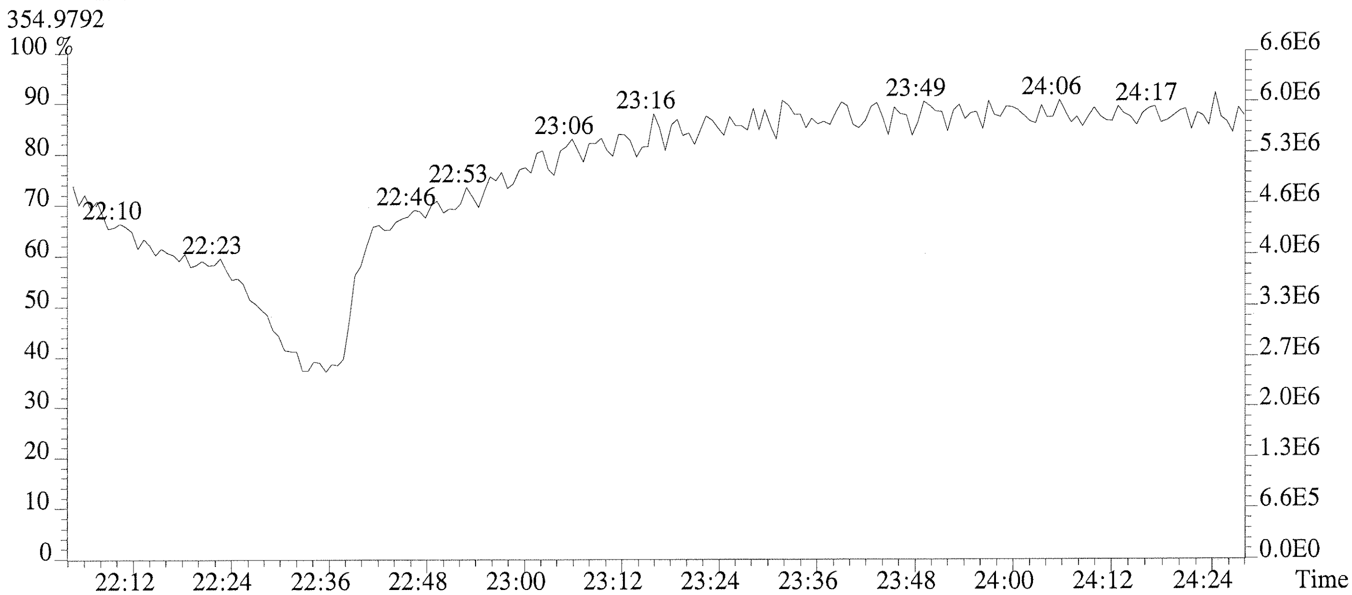
Reference: Section 15.4.2 Method 1613

Analyst:

File: 7976 #1-1084 Acq:21-JUN-2012 06:41:55 Probe EI+ Magnet SIR VG BioTech Mass spec£
Sample#1 Exp:COLUMN PERFORMANCE







USEPA - ITD

FORM 4A
TCDF CALIBRATION VERIFICATION

Lab Name: Contract No.:

Lab Code: Case No.: Client No: SDG No.:

Initial Calibration Date: 09/09/11

Instrument ID.: AutoSpec_Premier GC COLUMN ID: DB-225

VER Data Filename: 7977 Analysis Date: 21-JUN-12 Time: 07:20:49

	M/Z'S FORMING RATIO (1)	ION ABUND. RATIO	QC LIMITS (2)	CCAL. RRF	MEAN RRF	%D (3)
NATIVE ANALYTES						
2,3,7,8-TCDF	M/M+2	0.73	0.65-0.89	1.00	0.88	14.01
Labeled Compounds						
13C-2,3,7,8-TCDF	M/M+2	0.81	0.65-0.89	1.12	1.29	-13.02
Cleanup Standard						
37Cl-2,3,7,8-TCDD				0.82	0.97	-15.52

Sample Response Summary

EPA SAMPLE NO.
CCAL CS3

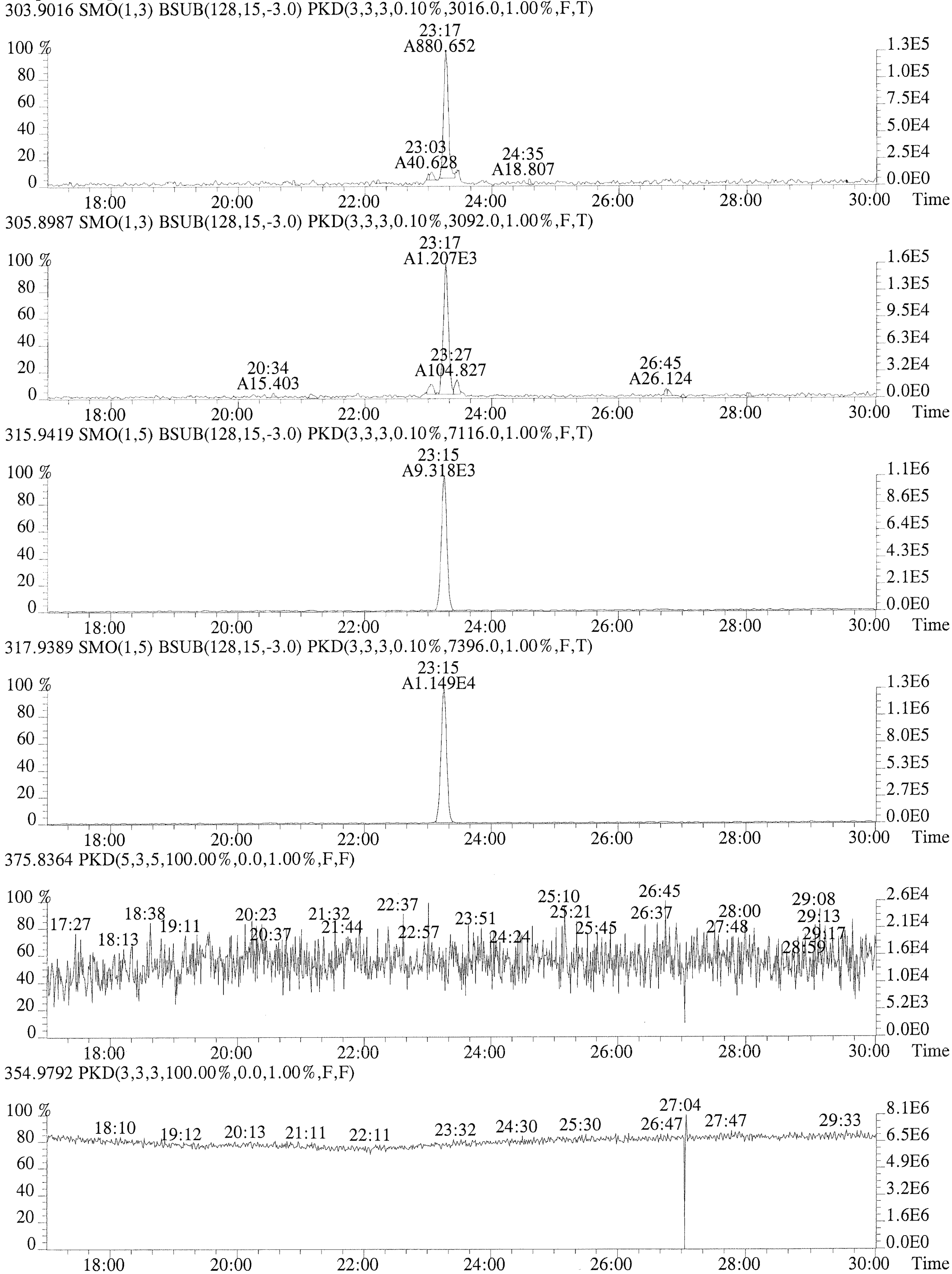
Run #7 Filename 7977 Samp: 1 Inj: 1 Acquired: 21-JUN-12 07:20:49
Processed: 21-JUN-12 10:44:49 Sample ID: CCAL CS3

	Typ	Name	RT-1	Resp 1	Resp 2	Ratio	Meet	Mod?
1	Unk	2,3,7,8-TCDF	23:17	8.807e+02	1.207e+03	0.73	yes	no
2	IS	13C-2,3,7,8-TCDF	23:15	9.318e+03	1.149e+04	0.81	yes	no
3	RS/RT	13C-1,2,3,4-TCDD	21:36	8.163e+03	1.034e+04	0.79	yes	no
4	C/Up	37Cl-2,3,7,8-TCDD	21:22	1.519e+03				no

Signal/Noise Height Ratio Summary

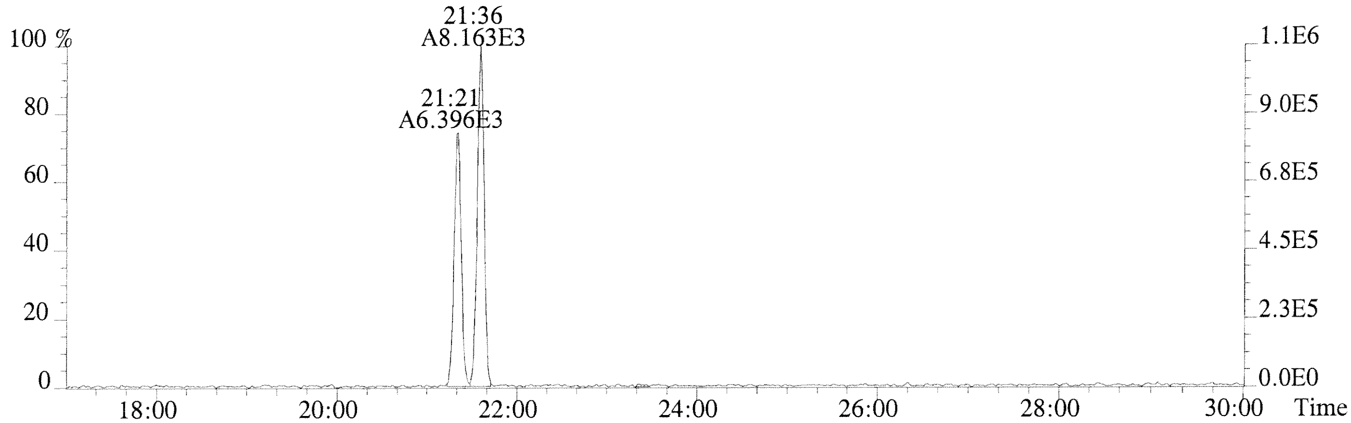
	Name	Signal 1	Noise 1	S/N Rat.1	Signal 2	Noise 2	S/N
1	2,3,7,8-TCDF	1.18e+05	3.02e+03	3.9e+01	1.53e+05	3.09e+03	5.0e+01
2	13C-2,3,7,8-TCDF	1.06e+06	7.12e+03	1.5e+02	1.32e+06	7.40e+03	1.8e+02
3	13C-1,2,3,4-TCDD	1.12e+06	7.37e+03	1.5e+02	1.42e+06	5.89e+03	2.4e+02
4	37Cl-2,3,7,8-TCDD	1.96e+05	3.32e+03	5.9e+01			

File: 7977 #1-1084 Acq:21-JUN-2012 07:20:49 Probe EI+ Magnet SIR VG BioTech Mass spec£
Sample#1 Exp:CCAL CS3

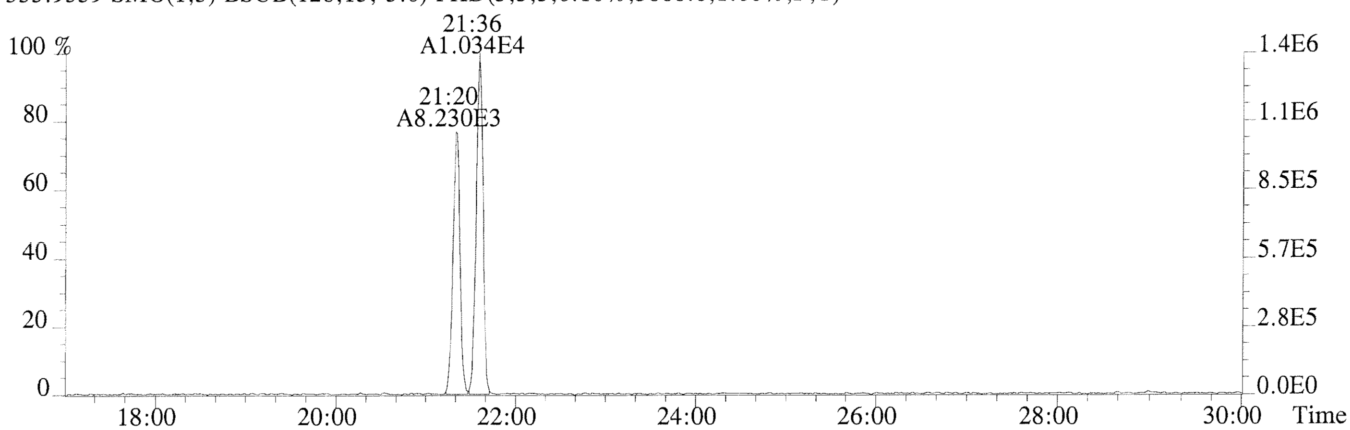


File: 7977 #1-1084 Acq:21-JUN-2012 07:20:49 Probe EI+ Magnet SIR VG BioTech Mass spec£
Sample#1 Exp:CCAL CS3

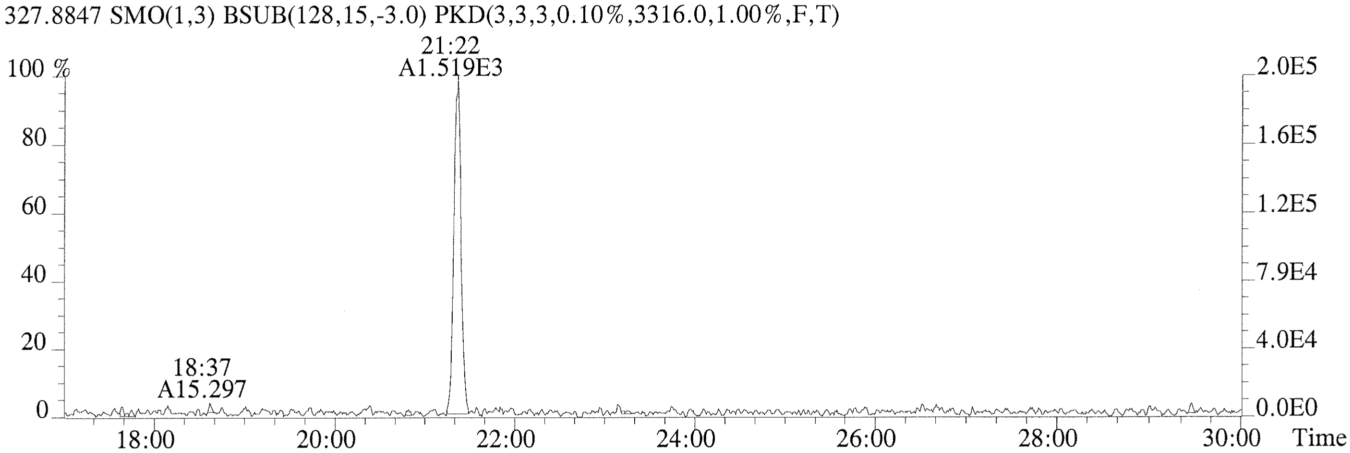
331.9368 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,7368.0,1.00%,F,T)



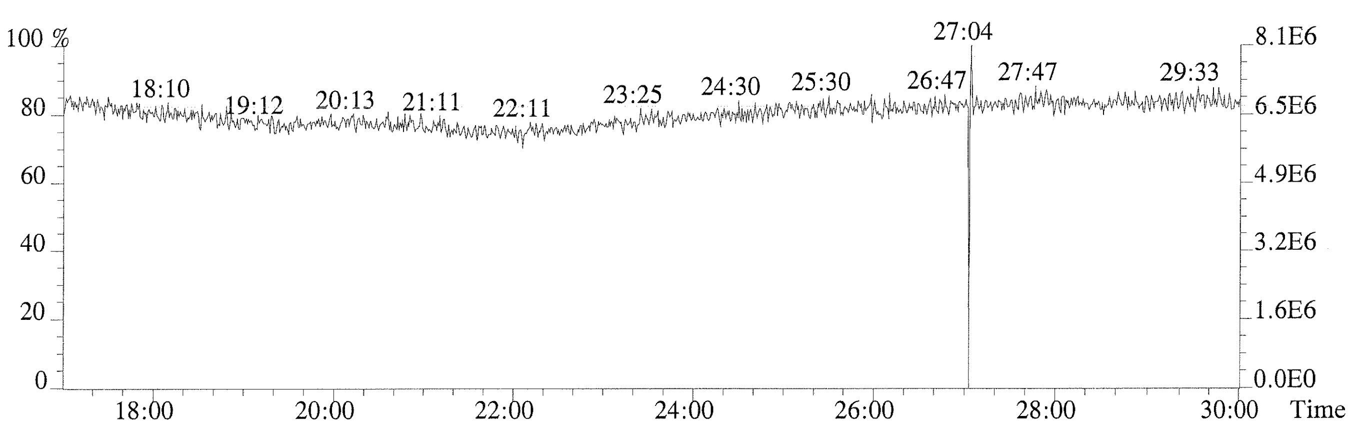
333.9339 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,5888.0,1.00%,F,T)



327.8847 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,3316.0,1.00%,F,T)



354.9792 PKD(3,3,3,100.00%,0.0,1.00%,F,F)



FORM 4A
TCDF CALIBRATION VERIFICATION

Lab Name: Contract No.:

Lab Code: Case No.: Client No: SDG No.:

Initial Calibration Date: 09/09/11

Instrument ID.: AutoSpec_Premier GC COLUMN ID: DB-225

VER Data Filename: 7990 Analysis Date: 21-JUN-12 Time: 15:14:58

	M/Z'S FORMING RATIO (1)	ION ABUND. RATIO	QC LIMITS (2)	CCAL. RRF	MEAN RRF	%D (3)
NATIVE ANALYTES						
2,3,7,8-TCDF	M/M+2	0.81	0.65-0.89	0.93	0.88	5.62
Labeled Compounds						
13C-2,3,7,8-TCDF	M/M+2	0.78	0.65-0.89	1.12	1.29	-13.18
Cleanup Standard						
37Cl-2,3,7,8-TCDD				0.93	0.97	-4.21

Sample Response Summary

EPA SAMPLE NO.
CCAL CS3

Run #20 Filename 7990 Samp: 1 Inj: 1 Acquired: 21-JUN-12 15:14:58
Processed: 21-JUN-12 14:09:35 Sample ID: CCAL CS3

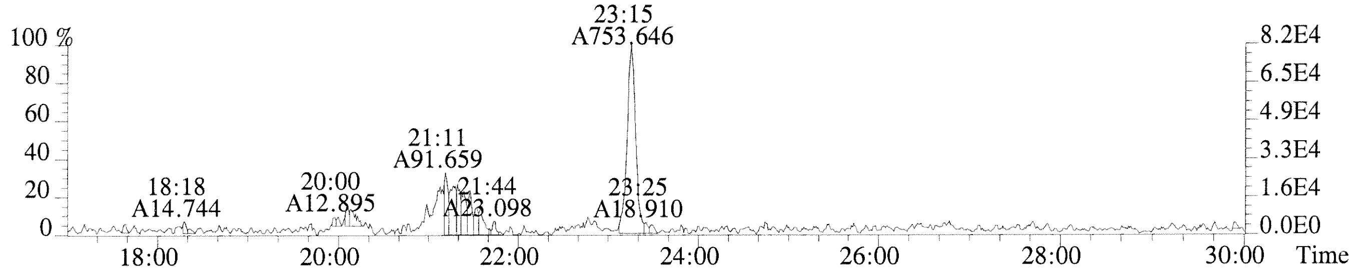
	Typ	Name	RT-1	Resp 1	Resp 2	Ratio	Meet	Mod?
1	Unk	2,3,7,8-TCDF	23:15	7.536e+02	9.309e+02	0.81	yes	no
2	IS	13C-2,3,7,8-TCDF	23:14	7.944e+03	1.018e+04	0.78	yes	no
3	RS/RT	13C-1,2,3,4-TCDD	21:34	7.182e+03	8.965e+03	0.80	yes	no
4	C/Up	37Cl-2,3,7,8-TCDD	21:21	1.503e+03				no

Signal/Noise Height Ratio Summary

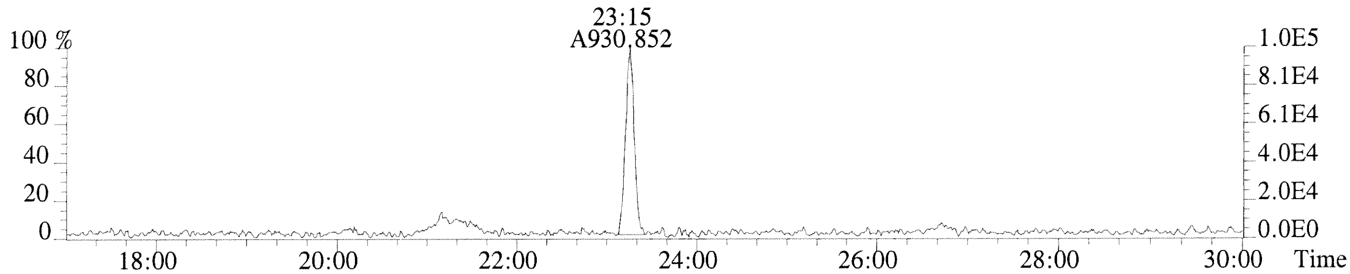
	Name	Signal 1	Noise 1	S/N Rat.1	Signal 2	Noise 2	S/N
1	2,3,7,8-TCDF	8.12e+04	2.76e+03	2.9e+01	9.88e+04	4.05e+03	2.4e+01
2	13C-2,3,7,8-TCDF	8.28e+05	1.21e+04	6.8e+01	1.08e+06	1.43e+04	7.5e+01
3	13C-1,2,3,4-TCDD	8.63e+05	9.21e+03	9.4e+01	1.07e+06	6.11e+03	1.7e+02
4	37Cl-2,3,7,8-TCDD	1.80e+05	4.46e+03	4.0e+01			

File: 7990 #1-1084 Acq:21-JUN-2012 15:14:58 Probe EI+ Magnet SIR VG BioTech Mass spec£
Sample#1 Exp:CCAL CS3

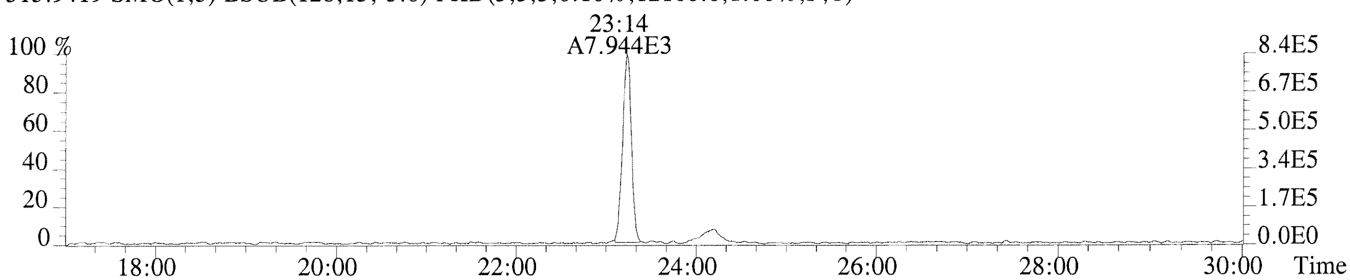
303.9016 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,2760.0,1.00%,F,T)



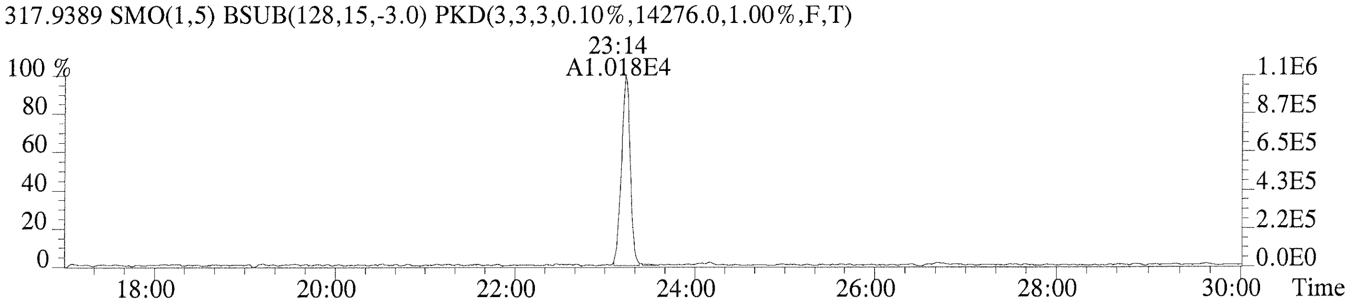
305.8987 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,4048.0,1.00%,F,T)



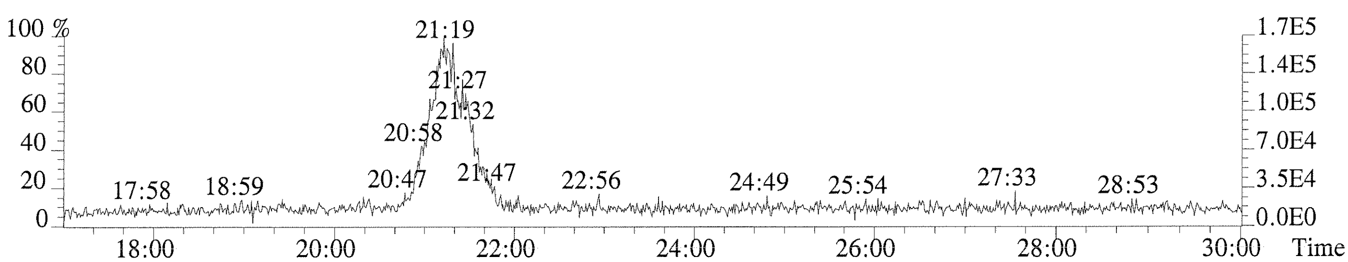
315.9419 SMO(1,5) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,12100.0,1.00%,F,T)



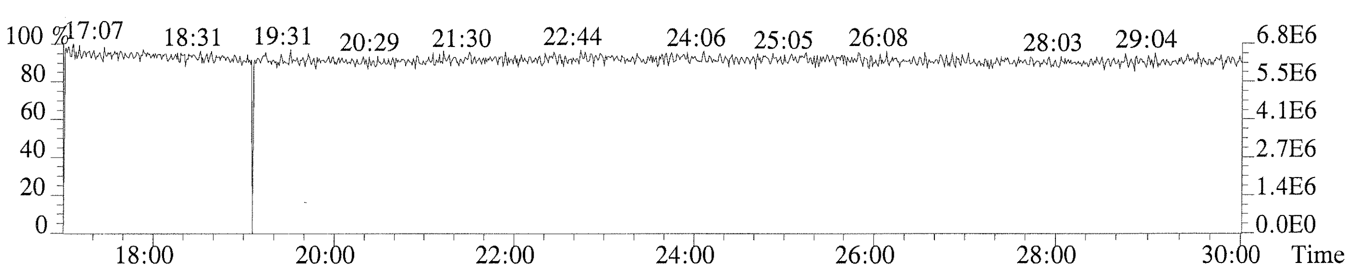
317.9389 SMO(1,5) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,14276.0,1.00%,F,T)



375.8364 PKD(5,3,5,100.00%,0.0,1.00%,F,F)



354.9792 PKD(3,3,3,100.00%,0.0,1.00%,F,F)



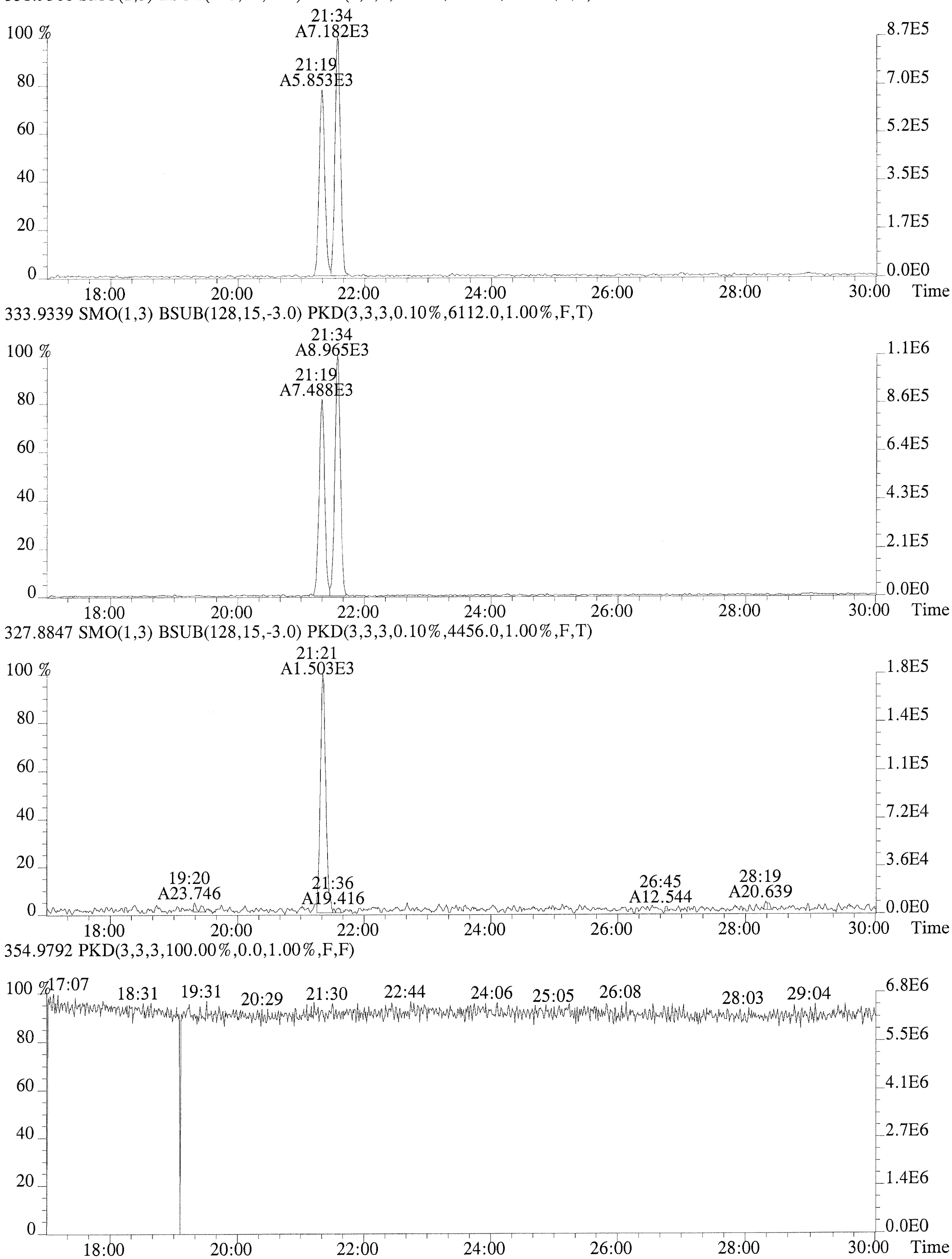
File: 7990 #1-1084 Acq:21-JUN-2012 15:14:58 Probe EI+ Magnet SIR VG BioTech Mass spec£
Sample#1 Exp:CCAL CS3

331.9368 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,9212.0,1.00%,F,T)

333.9339 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,6112.0,1.00%,F,T)

327.8847 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,4456.0,1.00%,F,T)

354.9792 PKD(3,3,3,100.00%,0.0,1.00%,F,F)



USEPA -
5DFB

PCDD/PCDF WINDOW DEFINING MIX SUMMARY

EPA SAMPLE NO.

COLUMN PERFORMANCE

Lab Name:
Lab Code: Case No.: ______________ SDG No.:
GC Column: DB-225 ID: 0.25 (mm) Lab File ID: 7991
Date Analyzed: 21-JUN-2012
Time Analyzed: 16:23:09

Instrument ID: E-HRMS-04

Percent Valley determination for DB-5 (or equivalent) column-
For the Column Performance Solution beginning the 12-hour period:

1478-TCDD/2378-TCDD: na

QUALITY CONTROL (QC) LIMITS: na

Percent Valley between the TCDD isomers must be less than or equal to 25%

Percent Valley determination for DB-225 (or equivalent) column-
For the Column Performance Solution beginning the 12-hour period:

2347-TCDF/2378-TCDF/1239-TCDF: 24 %

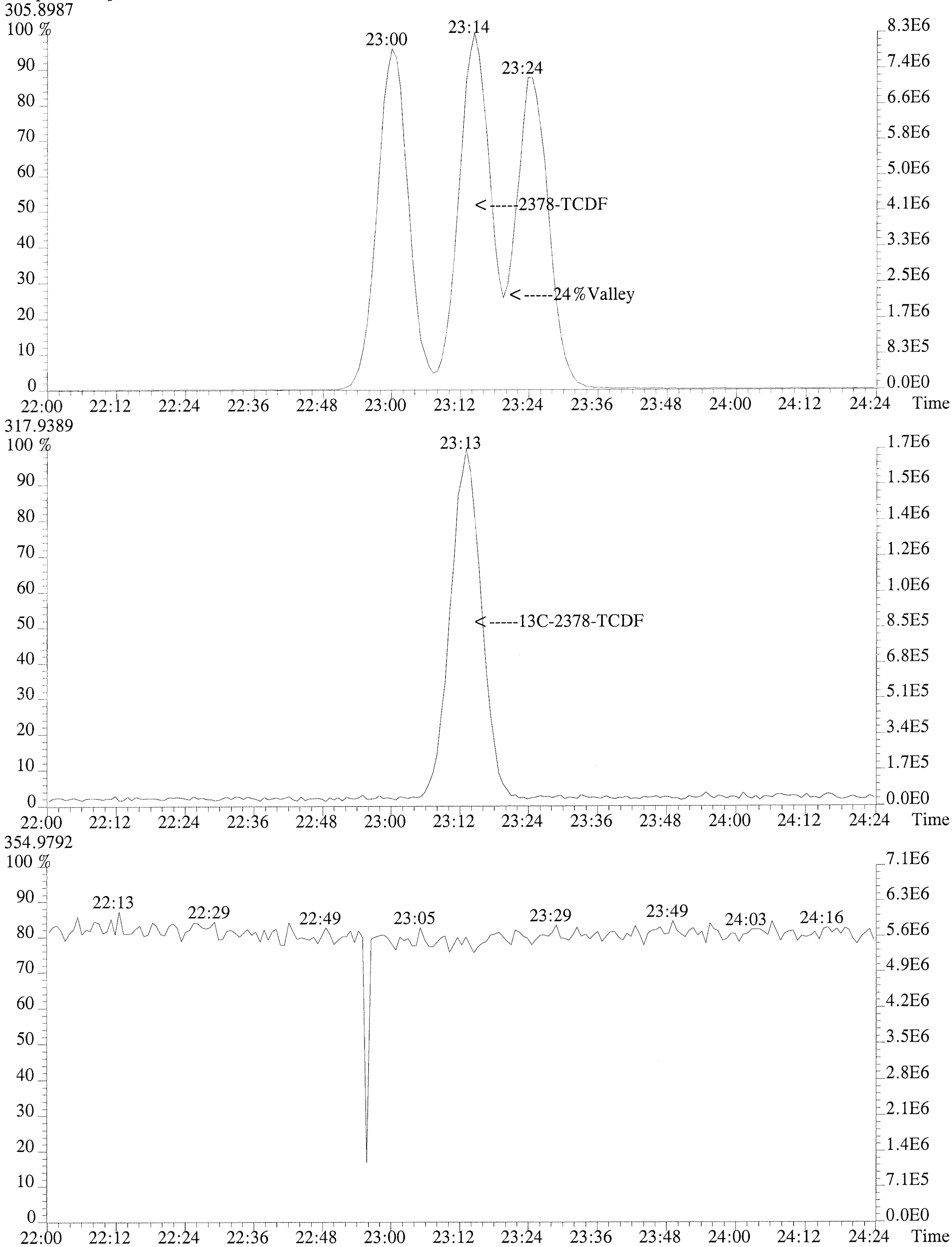
QUALITY CONTROL (QC) LIMITS:

Percent Valley between the TCDF/TCDF isomers must be less than or equal to 25%

Reference: Section 15.4.2 Method 1613

Analyst:

File: 7991 #1-852 Acq:21-JUN-2012 16:23:09 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:COLUMN PERFORMANCE



RW/CS3 Daily Calibration QC Checklist

Calibration File Name: 8231^ 8240 Circle one: Beginning / Ending

Date: 06 JULY '12

Method: 1613 / 1613E / VCP / Tetra / TCDD Only / TCDF Conf / VCP Conf / 8280 / M23 / TO-9A

Retention Window/Column Performance Check:

	Analyst	Second Check
Windows in and first and last eluters labeled	✓	✓
Column Performance shows less than or equal to 25% valley between column specific 2378 isomer and its closest eluters	✓	✓
No QC ion deflections affect column specific 2378 isomer or its closest eluters (HRMS Only)	✓	✓

CS3 Continuing Calibration

	Analyst	Second Check
Percent RSD within method criteria	✓	✓
All relative abundance ratios meet method criteria	✓	✓
No QC ion deflections of greater than 20% (HRMS Only)	✓	✓
Mass spectrometer resolution greater than or equal to 10,000 and documented (HRMS Only)	✓	✓
2378-TCDD elutes at 25 minutes or later on the DB-5 column	✓	✓
Signal-to-noise of all target analytes and their labeled standards at least 10:1	✓	✓
Valley between labeled 123478 and 123678 HxCDD peaks less than or equal to 50% (LRMS Only)	N.A.	NA
Ending Calibration injected prior to end of 12 hour clock	✓	✓

Analyst: ______ ______________ Second QC: _________ __________

ccalqc.xls 02/0

5DFC

PCDD/PCDF ANALYTICAL SEQUENCE SUMMARY

Lab Name: Contract:

Lab Code: Case No.: SDG No.:

GC Column: DB-5 ID: 0.25 (mm) Instrument ID: AutoSpec-Ultima

Init. Calib. Date: 05/03/12

Init. Calib.Times: 05:17

THE ANALYTICAL SEQUENCE OF STANDARDS, SAMPLES, BLANKS, AND LABORATORY CONTROL SAMPLES (LCSs) IS AS FOLLOWS:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
WINDOW DEFINE		8230	6-JUL-12	05:14:35
CCAL CS3		8231	6-JUL-12	06:10:10
LCS	200313-02	8232	6-JUL-12	07:18:59
DLCS	200313-03	8233	6-JUL-12	08:09:46
LCS	200360-02	8234	6-JUL-12	09:00:56
DLCS	200360-03	8235	6-JUL-12	09:52:12
METHOD BLANK	200313-01	8236	6-JUL-12	11:11:40
METHOD BLANK	200360-01	8237	6-JUL-12	12:02:09
238	00584-002	8238	6-JUL-12	12:53:25
240	00584-003	8239	6-JUL-12	13:44:34
CCAL CS3		8240	6-JUL-12	14:38:40

Sample List Report MassLynx 4.1

Sample List: C:\MassLynx\ .PRO\SampleDB' 20706.SPL

Last Modified: Friday, July 06, 2012 14:38:23 Central Daylight Time

Printed: Friday, July 06, 2012 16:45:10 Central Daylight Time

D: 8231RES

	Date	Time	File Name	Sample ID	Client ID		Comments	GC Met	Acq Met
1	07/06/12	05:14	8230	WINDOW DEFINE	D12-56-2		HRMS Check 05:10	8290	8290
2		06:10	8231	CCAL CS3	D12-83-1			8290	8290
3		07:18	8232	1200313-02	LCS			8290	8290
4		08:09	8233	1200313-03	DLCS			8290	8290
5		09:00	8234	1200360-02	LCS			8290	8290
6		09:52	8235	1200360-03	DLCS			8290	8290
7		11:11	8236	1200313-01	MB			8290	8290
8		12:02	8237	1200360-01	MB			8290	8290
9		12:53	8238	00584-002	238			8290	8290
10		13:44	8239	00584-003	240			8290	8290
11		14:38	8240	CCAL CS3	D12-83-1			8290	8290
12		15:36	8241	WINDOW DEFINE	D12-56-2		HRMS Check 16:40	8290	8290
13			---	---	---			8290	8290
14			---	---	---			8290	8290
15			---	---	---			8290	8290
16			---	---	---			8290	8290
17			---	---	---			8290	8290
18			---	---	---			8290	8290
19			---	---	---			8290	8290
20			---	---	---			8290	8290
21			---	---	---			8290	8290
22			---	---	---			8290	8290
23			---	---	---			8290	8290
24	---	---	---	---	---	---	---	---	---
25	---	---	---	---	---	---	---	TCDF	tcdf
26	---	---	---	---	---	---	---	---	---
27	---	---	---	---	---	---	---	---	---
28	---	---	---	---	---	---	---	TCDF	tcdf
29	---	---	---	---	---	---	---	TCDF	8290
30	---	---	---	---	---	---	---	TCDF	8290
31	---	---	---	---	---	---	---	---	---
32	---	---	---	---	---	---	---	8290	8290
33	---	---	---	---	---	---	---	8290	8280
34	---	---	---	---	---	---		---	---

Reviewed I

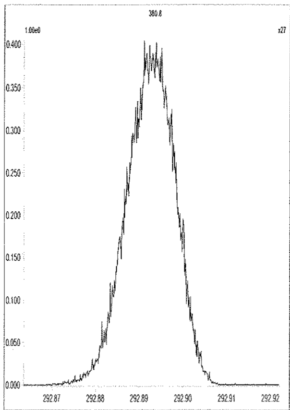
043

07/14/12

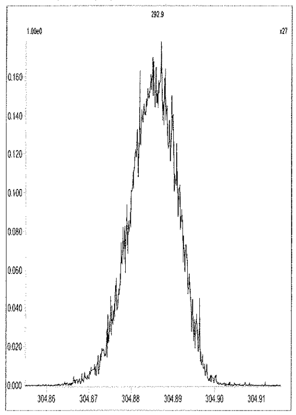
File: Experiment: 8290 ɘxp Reference: pfk.ref Function: 1 @ 200 (ppm)

Printed: Friday, July 06, 2012 05:10:46 Central Daylight Time

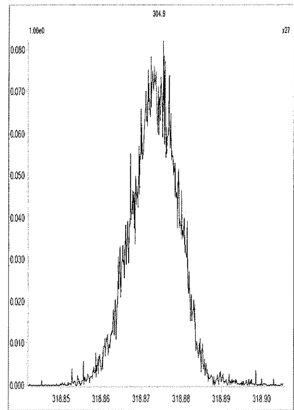
M 292.9824 R 11795



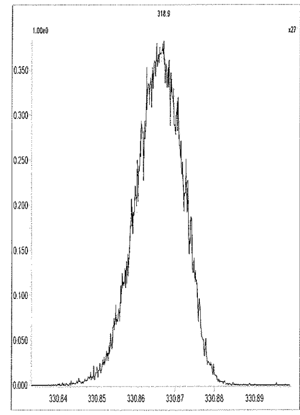
M 304.9824 R 12019



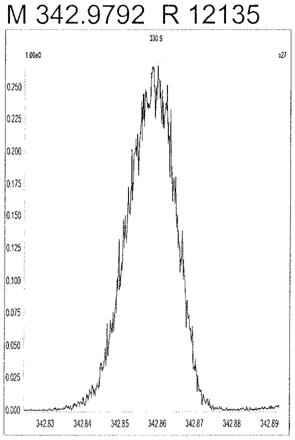
M 318.9792 R 12498



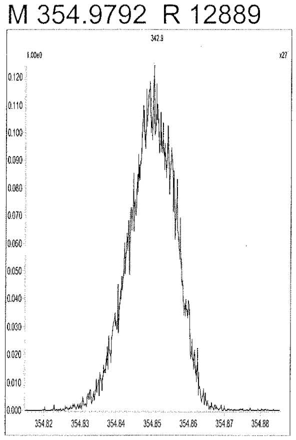
M 330.9792 R 11684



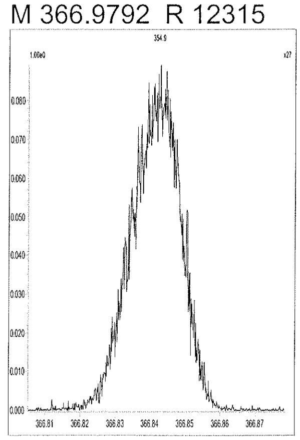
M 342.9792 R 12135



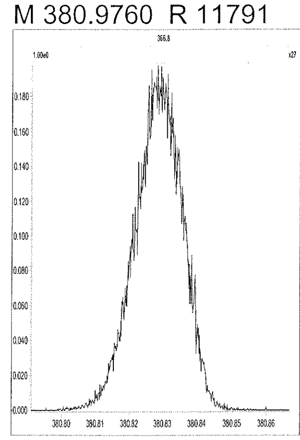
M 354.9792 R 12889



M 366.9792 R 12315



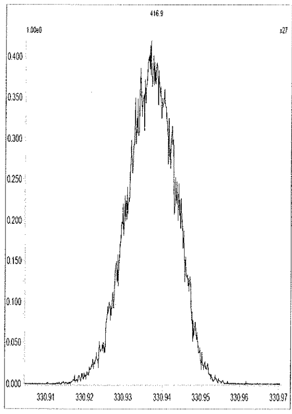
M 380.9760 R 11791



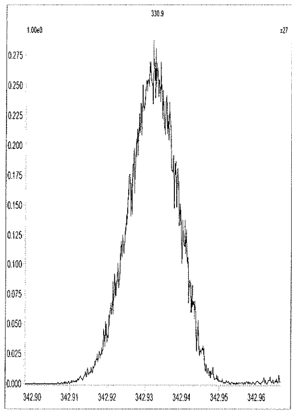
File: Experiment: 8290 .exp Reference: pfk.ref Function: 2 @ 200 (ppm)

Printed: Friday, July 06, 2012 05:11:13 Central Daylight Time

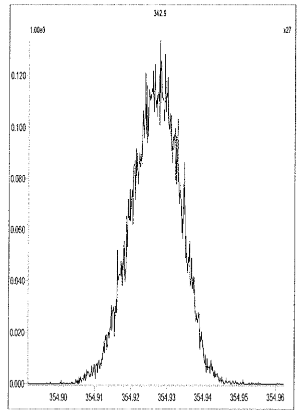
M 330.9792 R 11626



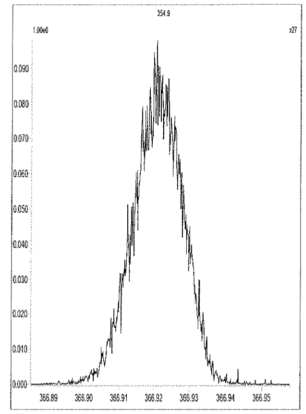
M 342.9792 R 11517



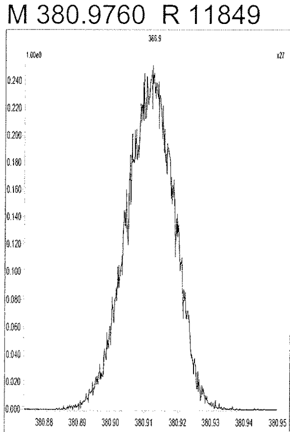
M 354.9792 R 11848



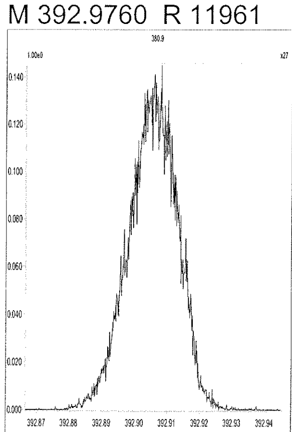
M 366.9792 R 11470



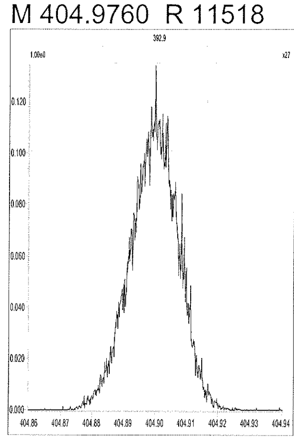
M 380.9760 R 11849



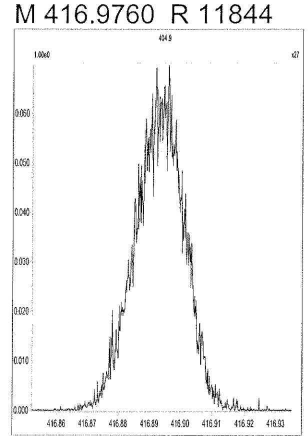
M 392.9760 R 11961



M 404.9760 R 11518



M 416.9760 R 11844

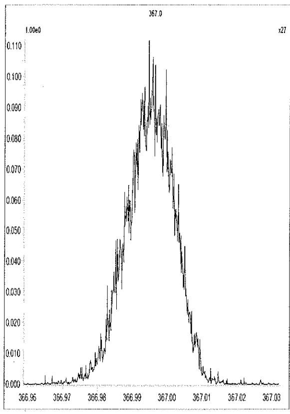


Experiment Calibration Report **MassLynx 4.1**

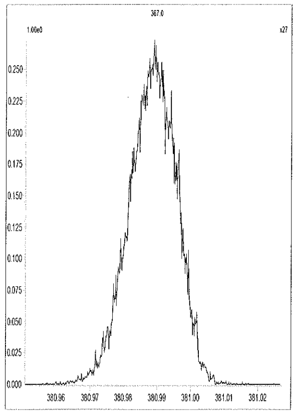
File: Experiment: 8290 exp Reference: pfk.ref Function: 3 @ 200 (ppm)

Printed: Friday, July 06, 2012 05:12:26 Central Daylight Time

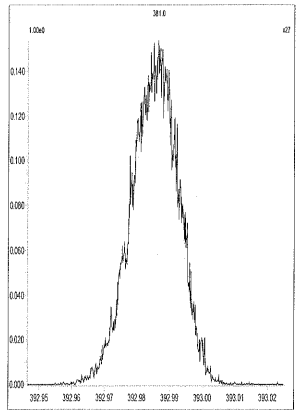
M 366.9792 R 11848



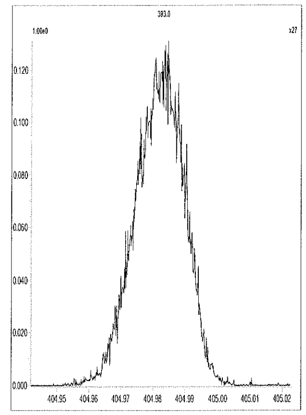
M 380.9760 R 11960



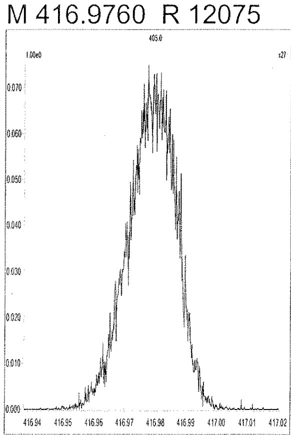
M 392.9760 R 11902



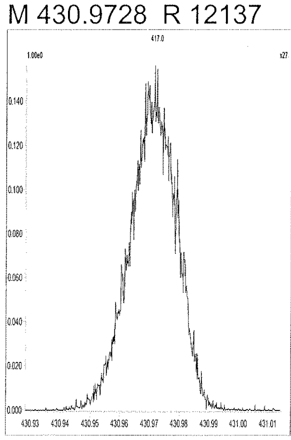
M 404.9760 R 11574



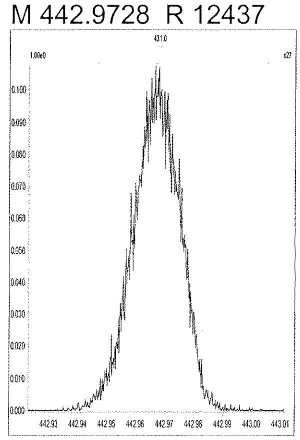
M 416.9760 R 12075



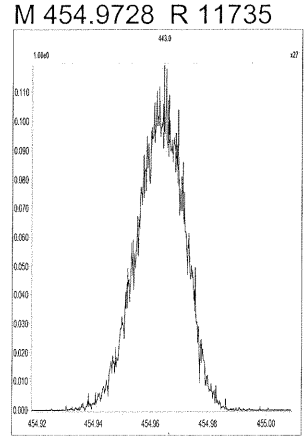
M 430.9728 R 12137



M 442.9728 R 12437



M 454.9728 R 11735

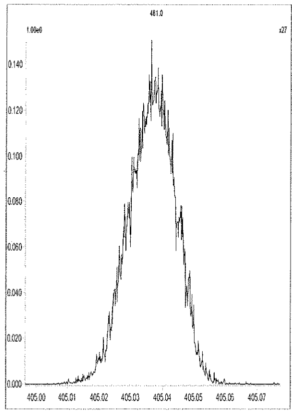


Experiment Calibration Report **MassLynx 4.1**

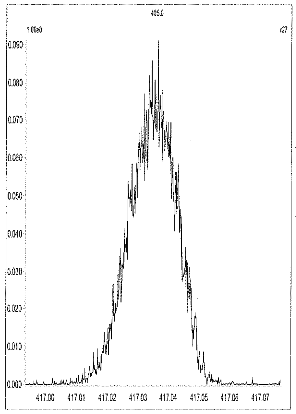
File: Experiment: 8290 exp Reference: pfk.ref Function: 4 @ 200 (ppm)

Printed: Friday, July 06, 2012 05:13:02 Central Daylight Time

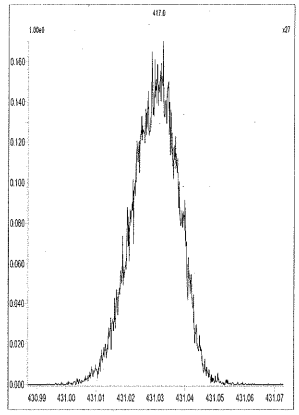
M 404.9760 R 11789



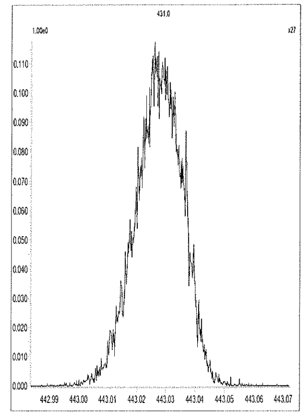
M 416.9760 R 12376



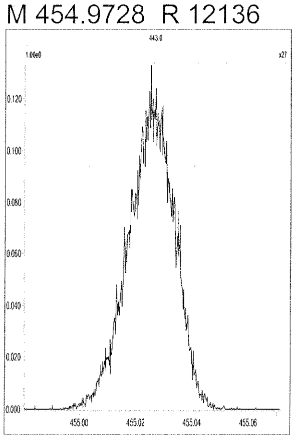
M 430.9728 R 12441



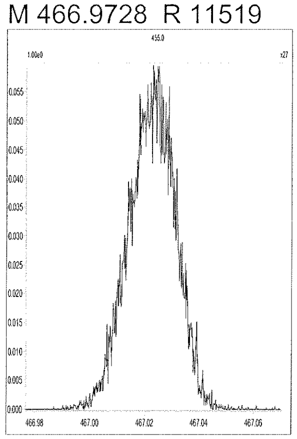
M 442.9728 R 11963



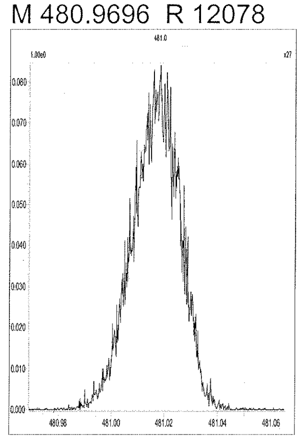
M 454.9728 R 12136



M 466.9728 R 11519



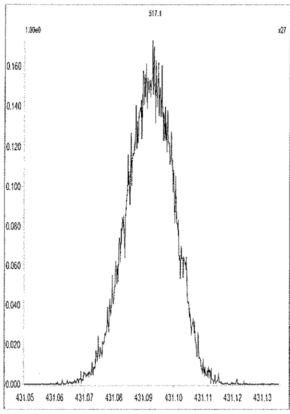
M 480.9696 R 12078



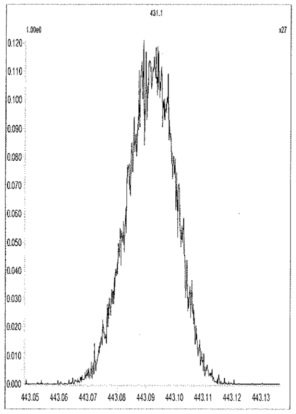
File: Experiment: 8290 exp Reference: pfk.ref Function: 5 @ 200 (ppm)

Printed: Friday, July 06, 2012 05:13:36 Central Daylight Time

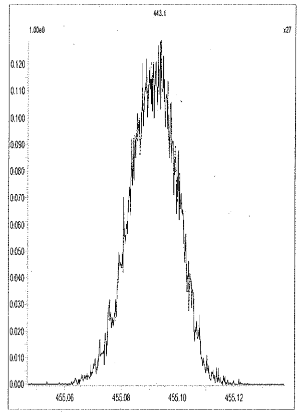
M 430.9728 R 11793



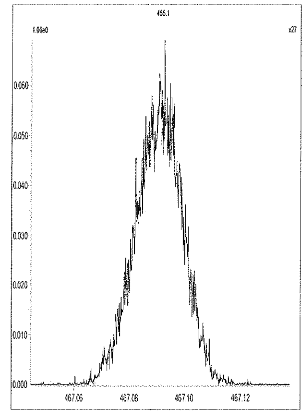
M 442.9728 R 11961



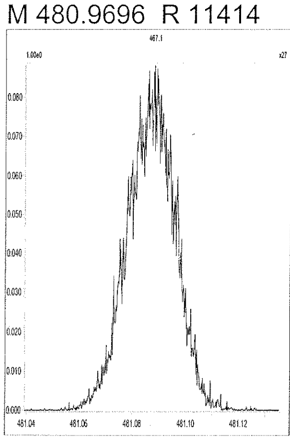
M 454.9728 R 11959



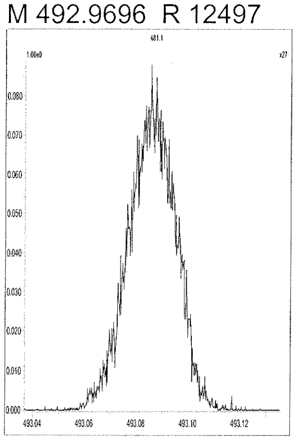
M 466.9728 R 11905



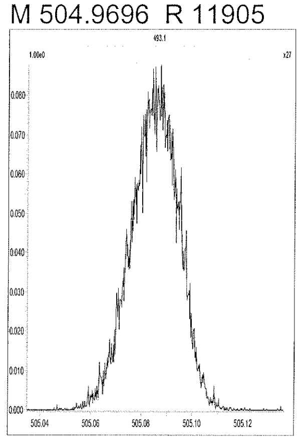
M 480.9696 R 11414



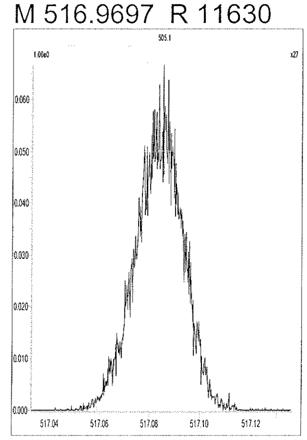
M 492.9696 R 12497



M 504.9696 R 11905



M 516.9697 R 11630

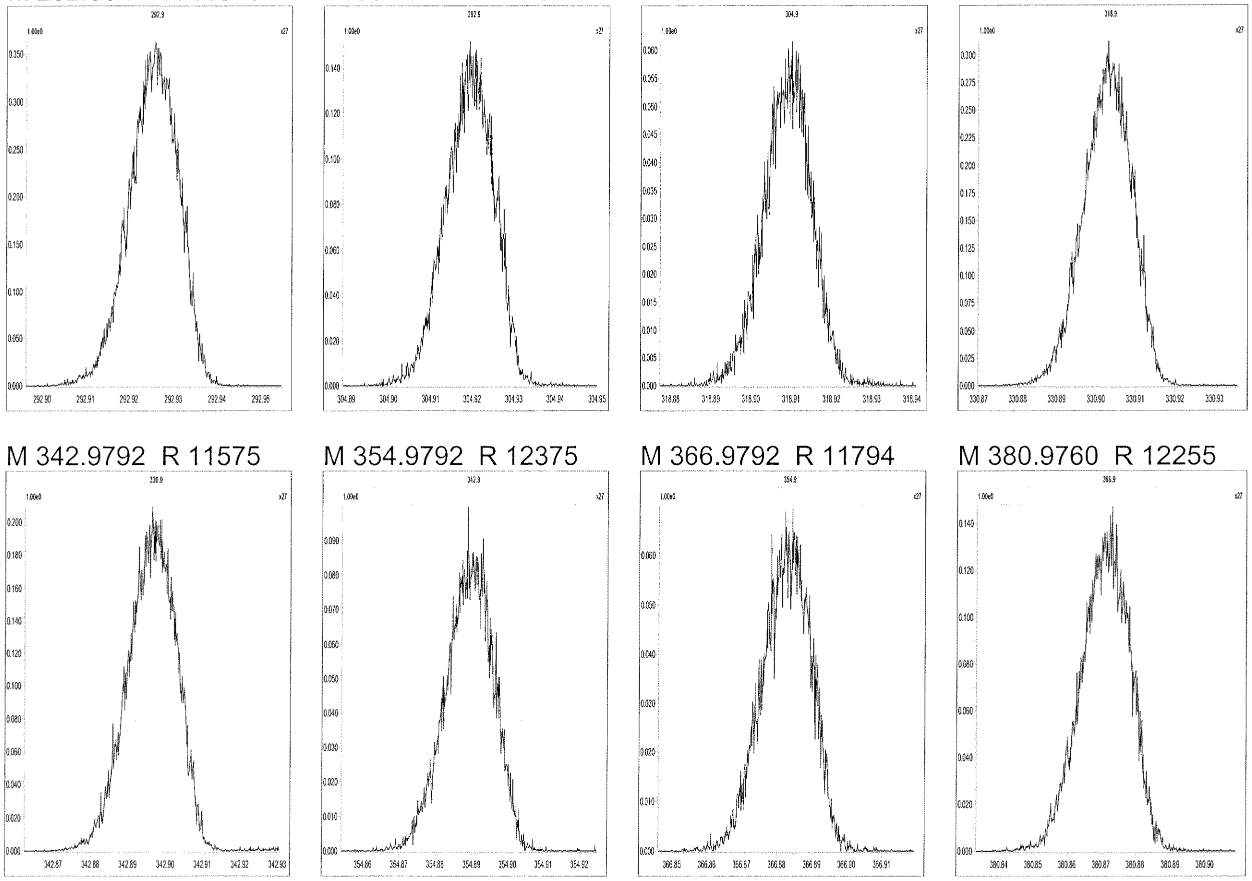


File: Experiment: 8290 .exp Reference: pfk.ref Function: 1 @ 200 (ppm)

Printed: Friday, July 06, 2012 16:40:01 Central Daylight Time

M 292.9824 R 11519 | M 304.9824 R 12079 | M 318.9792 R 12315 | M 330.9792 R 12318

M 342.9792 R 11575 | M 354.9792 R 12375 | M 366.9792 R 11794 | M 380.9760 R 12255

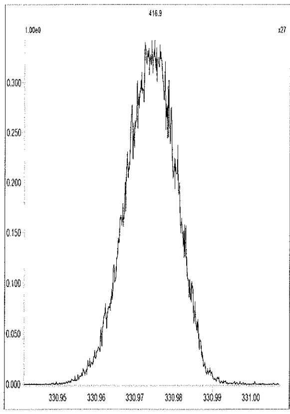


Experiment Calibration Report **MassLynx 4.1**

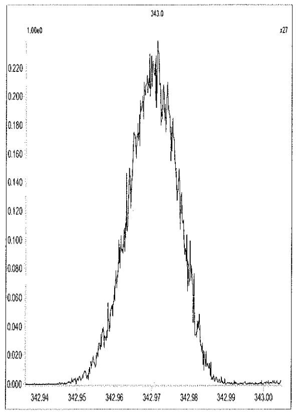
File: Experiment: 8290 exp Reference: pfk.ref Function: 2 @ 200 (ppm)

Printed: Friday, July 06, 2012 16:41:02 Central Daylight Time

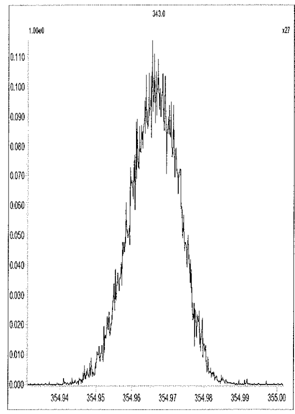
M 330.9792 R 10776



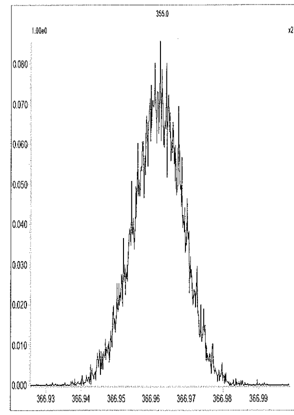
M 342.9792 R 11259



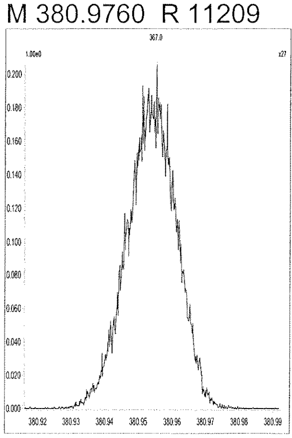
M 354.9792 R 11416



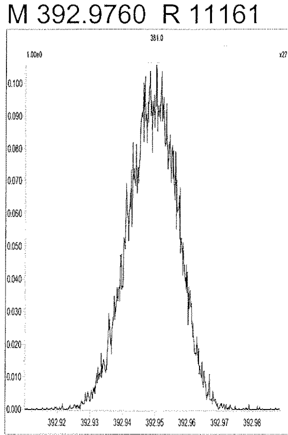
M 366.9792 R 11736



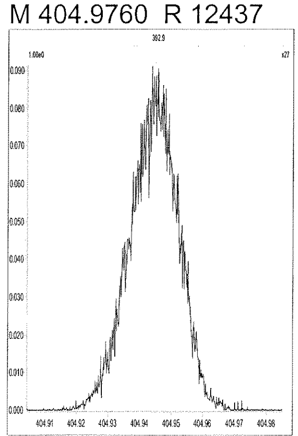
M 380.9760 R 11209



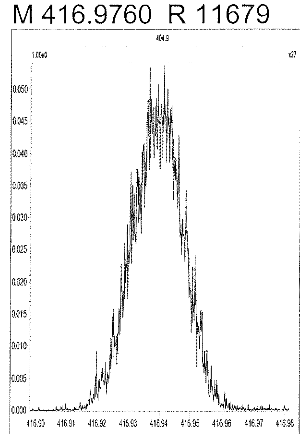
M 392.9760 R 11161



M 404.9760 R 12437



M 416.9760 R 11679



File: Experiment: 8290 .exp Reference: pfk.ref Function: 3 @ 200 (ppm)

Printed: Friday, July 06, 2012 16:41:58 Central Daylight Time

M 366.9792 R 11850

M 380.9760 R 11569

M 392.9760 R 11519

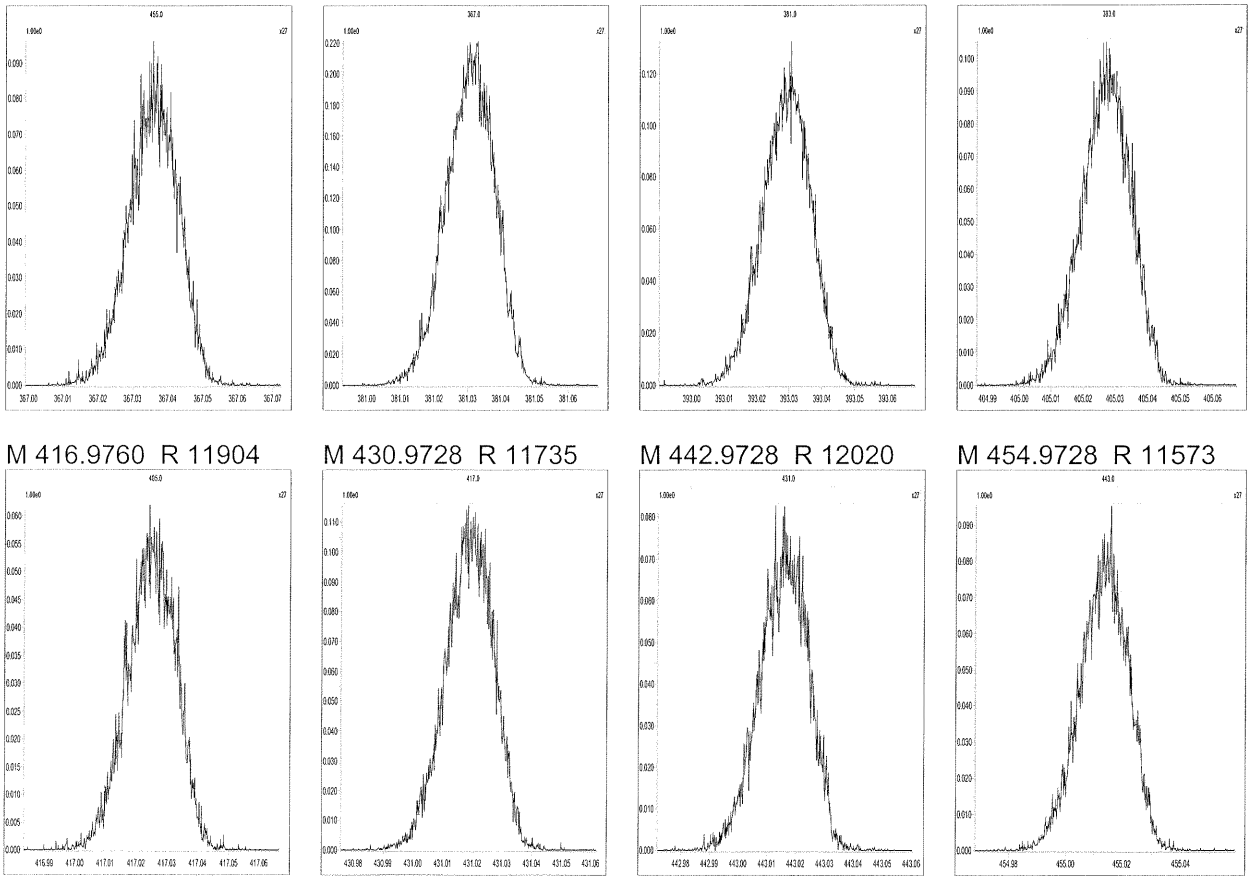
M 404.9760 R 12256

M 416.9760 R 11904

M 430.9728 R 11735

M 442.9728 R 12020

M 454.9728 R 11573

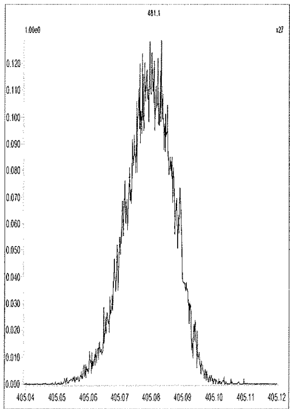


Experiment Calibration Report **MassLynx 4.1**

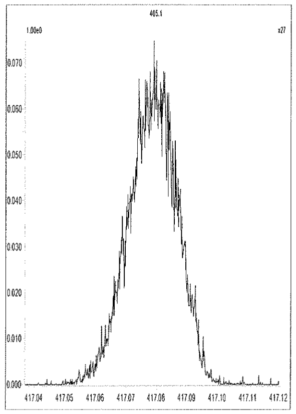
File: Experiment: 8290 .exp Reference: pfk.ref Function: 4 @ 200 (ppm)

Printed: Friday, July 06, 2012 16:43:06 Central Daylight Time

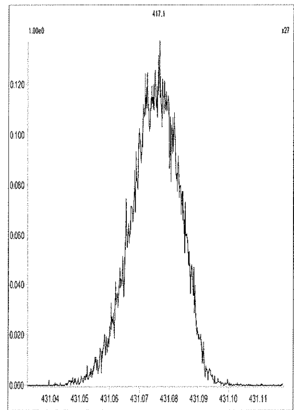
M 404.9760 R 11631



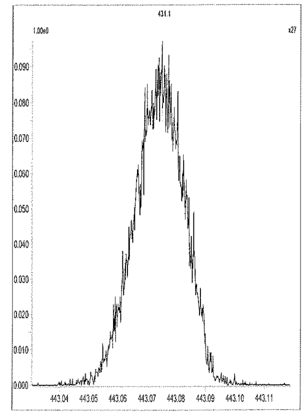
M 416.9760 R 11625



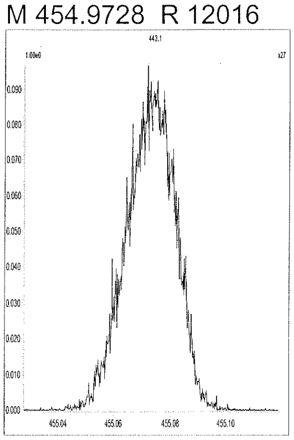
M 430.9728 R 12438



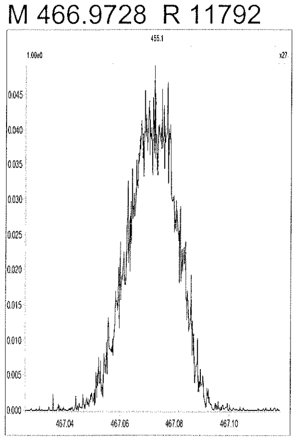
M 442.9728 R 11960



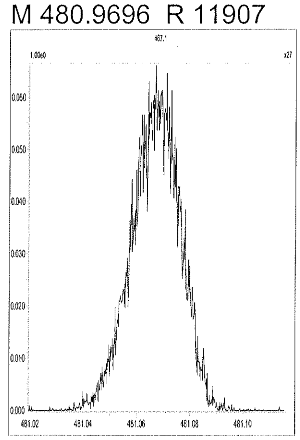
M 454.9728 R 12016



M 466.9728 R 11792



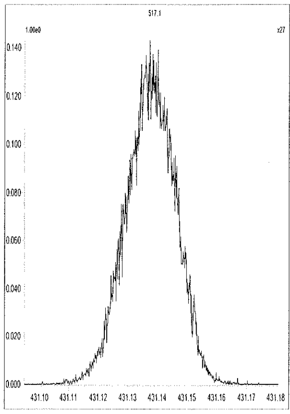
M 480.9696 R 11907



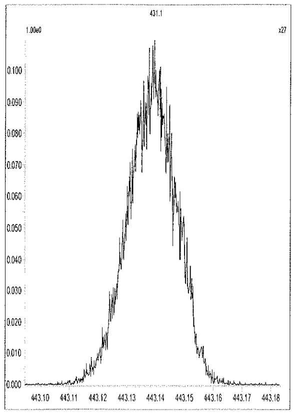
File: Experiment: 8290 exp Reference: pfk.ref Function: 5 @ 200 (ppm)

Printed: Friday, July 06, 2012 16:44:11 Central Daylight Time

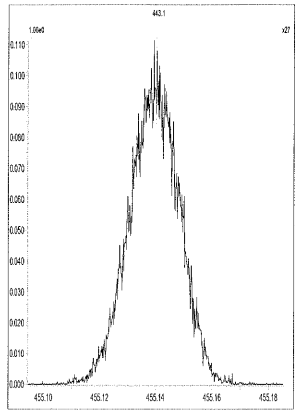
M 430.9728 R 10871



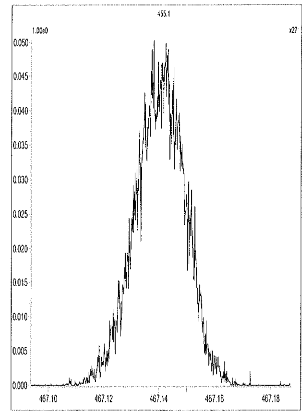
M 442.9728 R 11364



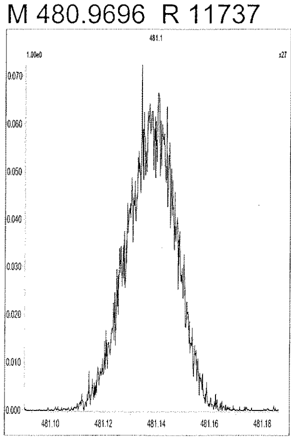
M 454.9728 R 11114



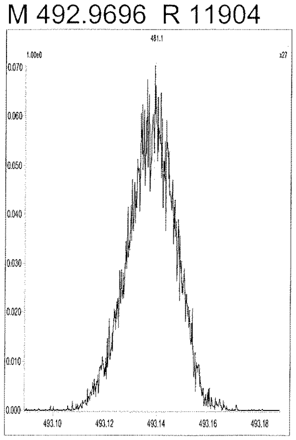
M 466.9728 R 11518



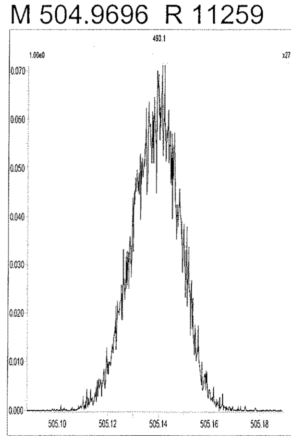
M 480.9696 R 11737



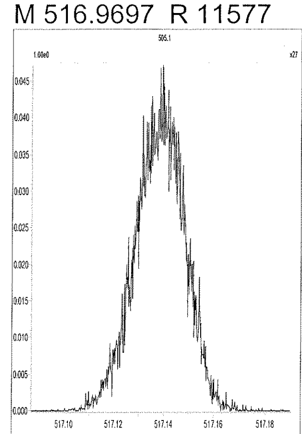
M 492.9696 R 11904



M 504.9696 R 11259



M 516.9697 R 11577



5DFA

WINDOW DEFINING MIX SUMMARY

CLIENT ID:

WDM

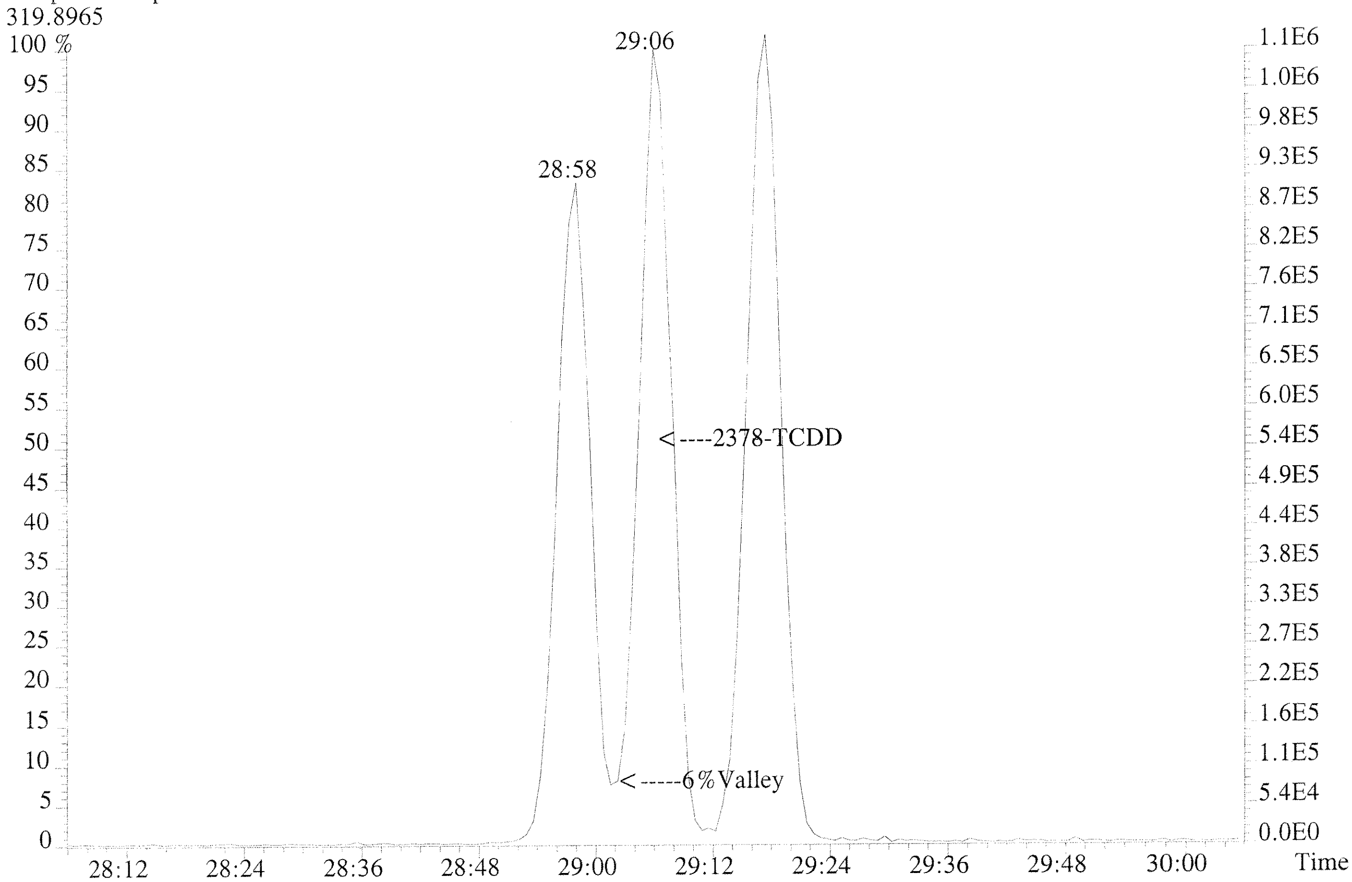
Lab Name:
Lab Code:
GC Column: DB-5

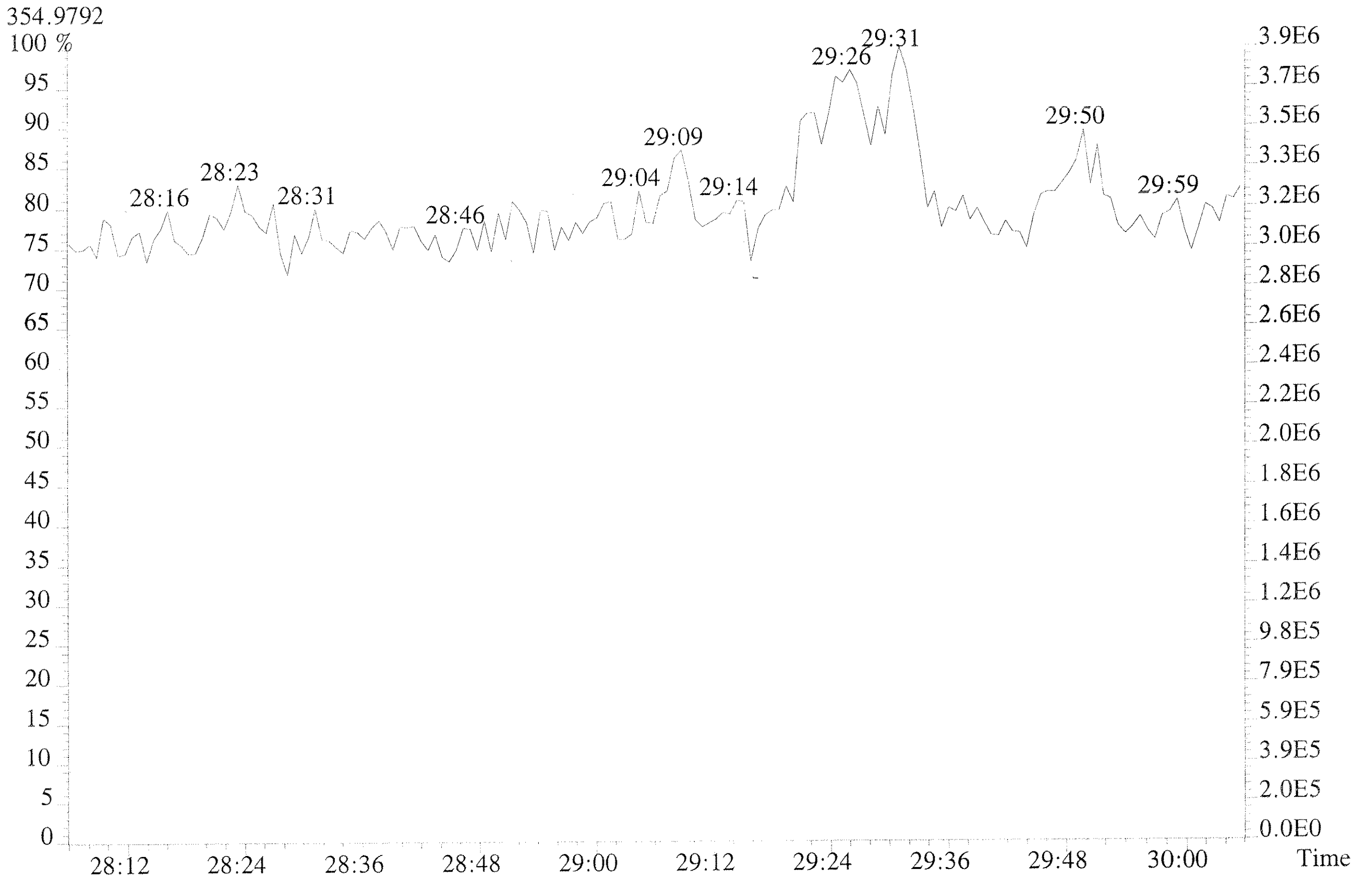
Case No.: ______________ SDG No.:
ID: 0.25 (mm) Lab File ID: 8230
Date Analyzed: 6-JUL-2012
Time Analyzed: 05:14:35

Congener	Retention Time First Eluting	Retention Time Last Eluting
TCDF	24:03	30:16
TCDD	25:51	30:15
PeCDF	30:33	34:37
PeCDD	31:59	34:28
HxCDF	35:35	38:13
HxCDD	36:10	37:52
HpCDF	39:54	41:29
HpCDD	40:15	41:03

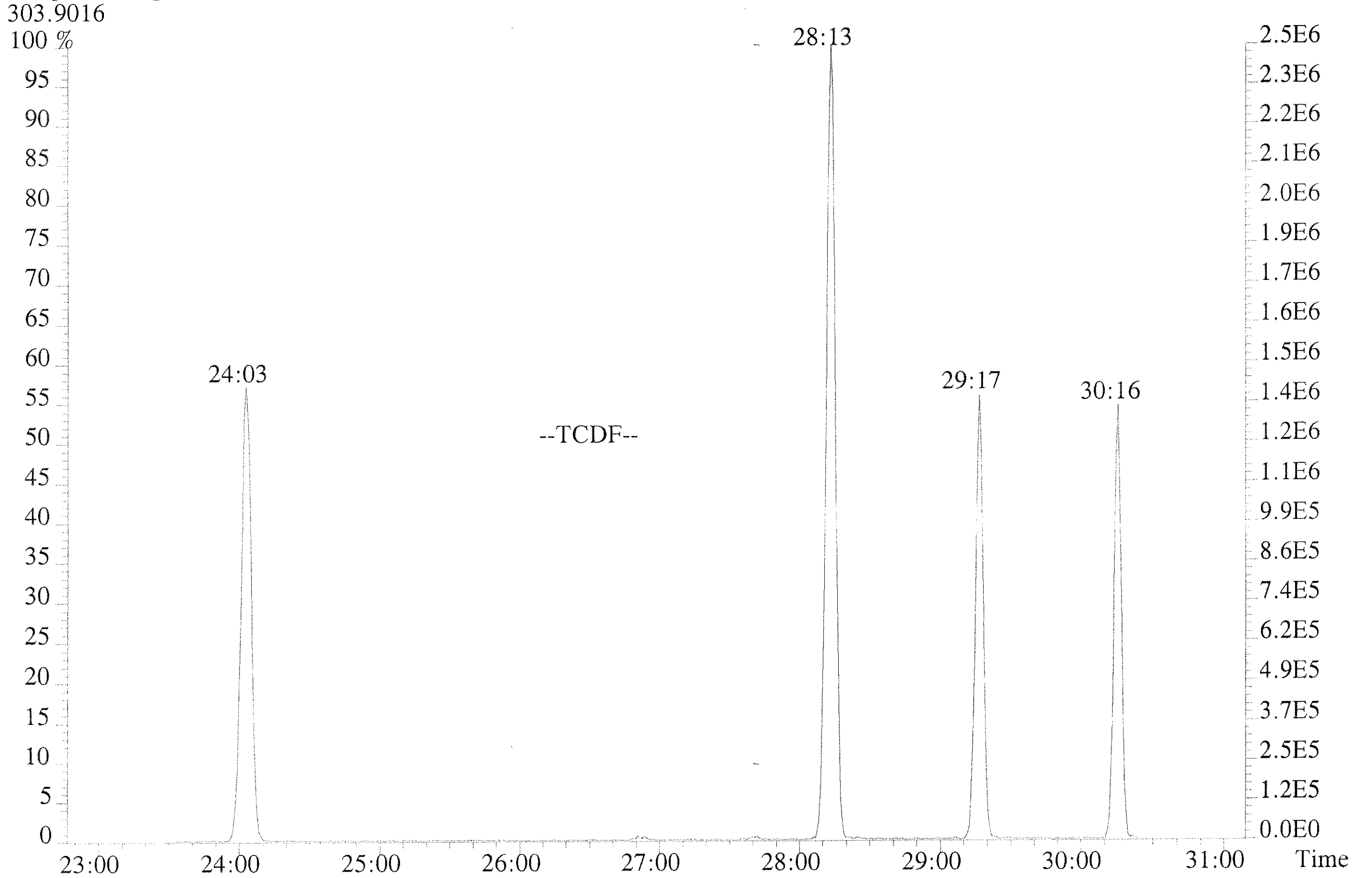
% Valley 2378-TCDD: 6 %

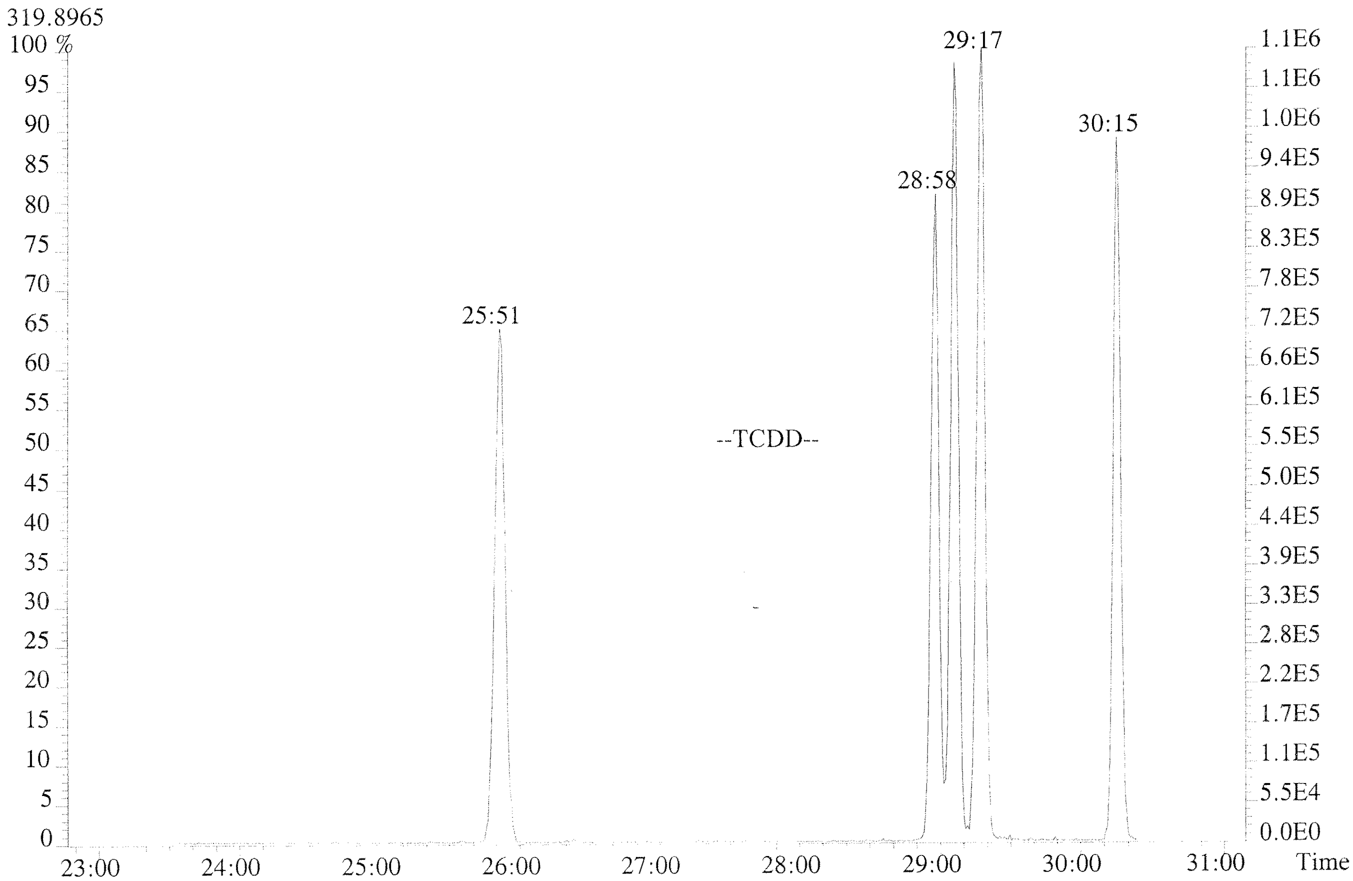
File: 8230 #1-572 Acq: 6-JUL-2012 05:14:35 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:WINDOW DEFINE





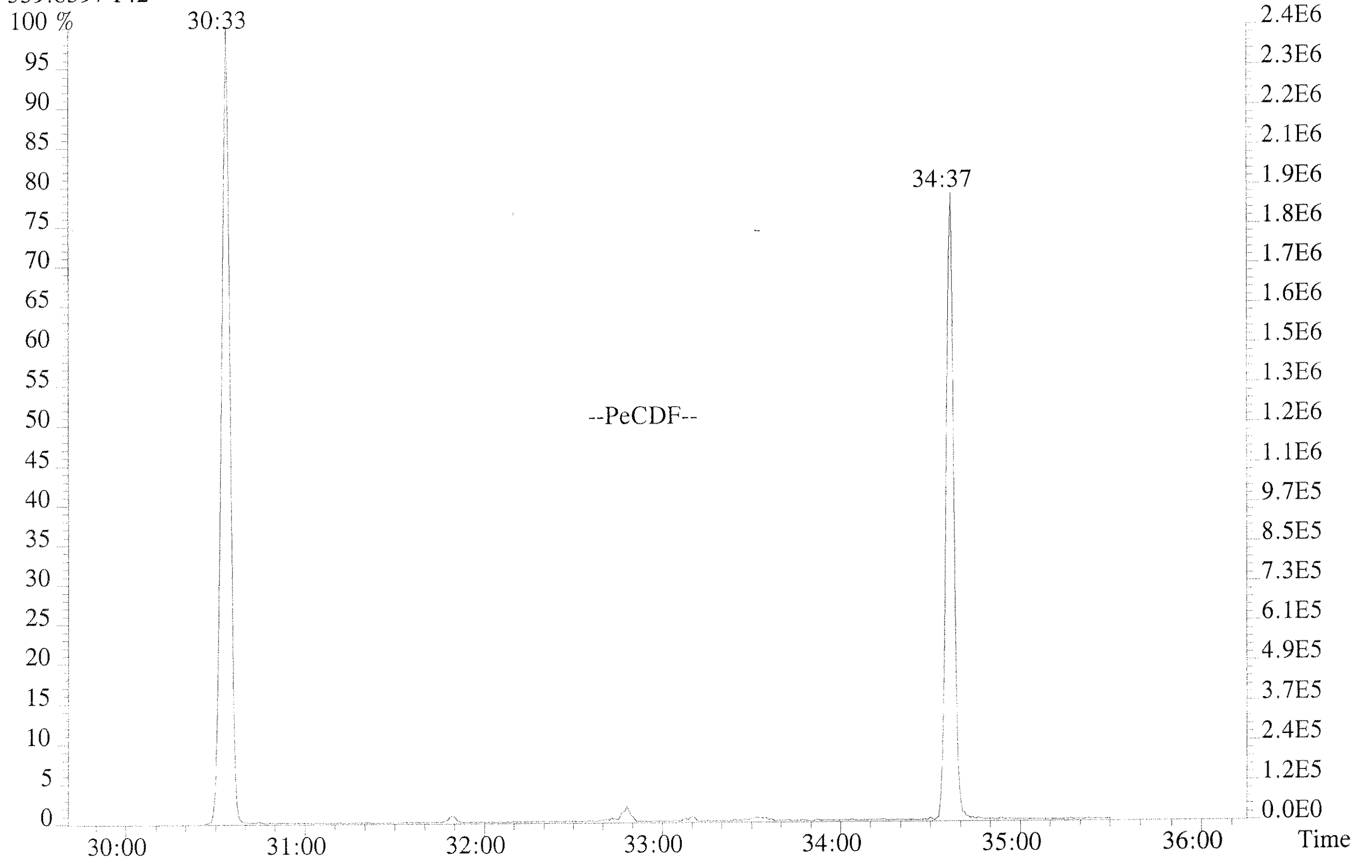
File: 8230 #1-572 Acq: 6-JUL-2012 05:14:35 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:WINDOW DEFINE



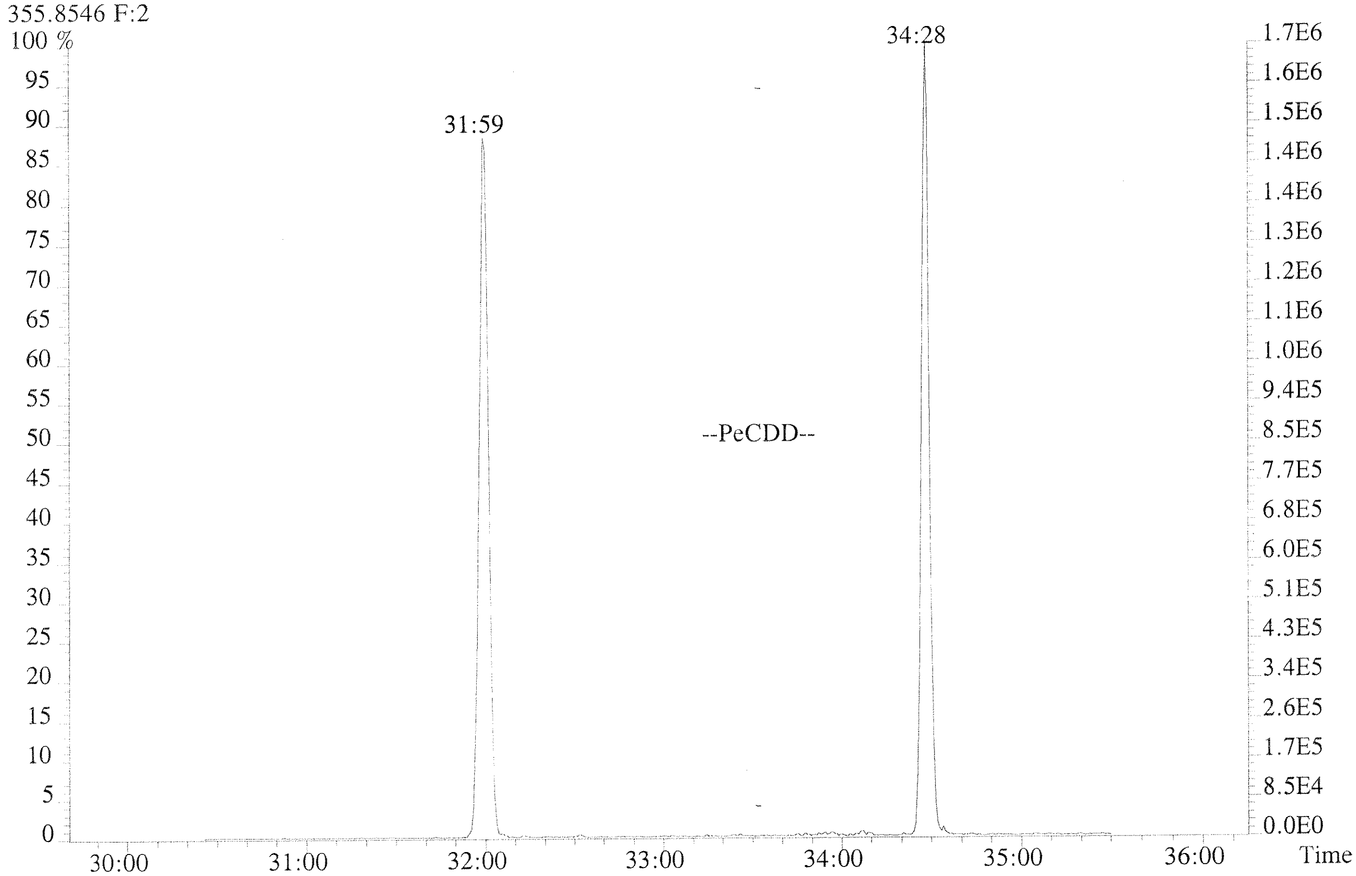


File: 8230 #1-461 Acq: 6-JUL-2012 05:14:35 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:WINDOW DEFINE

339.8597 F:2

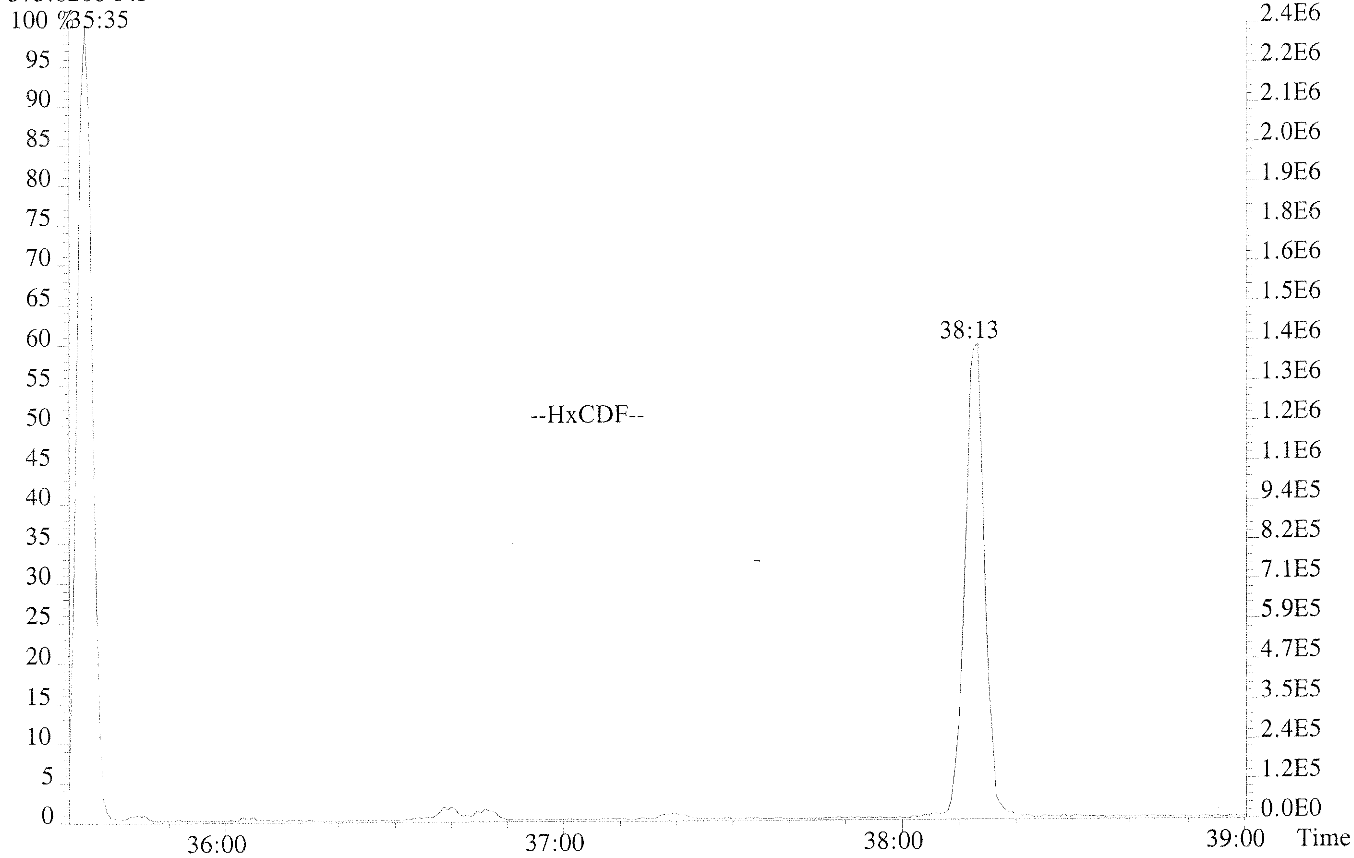


355.8546 F:2

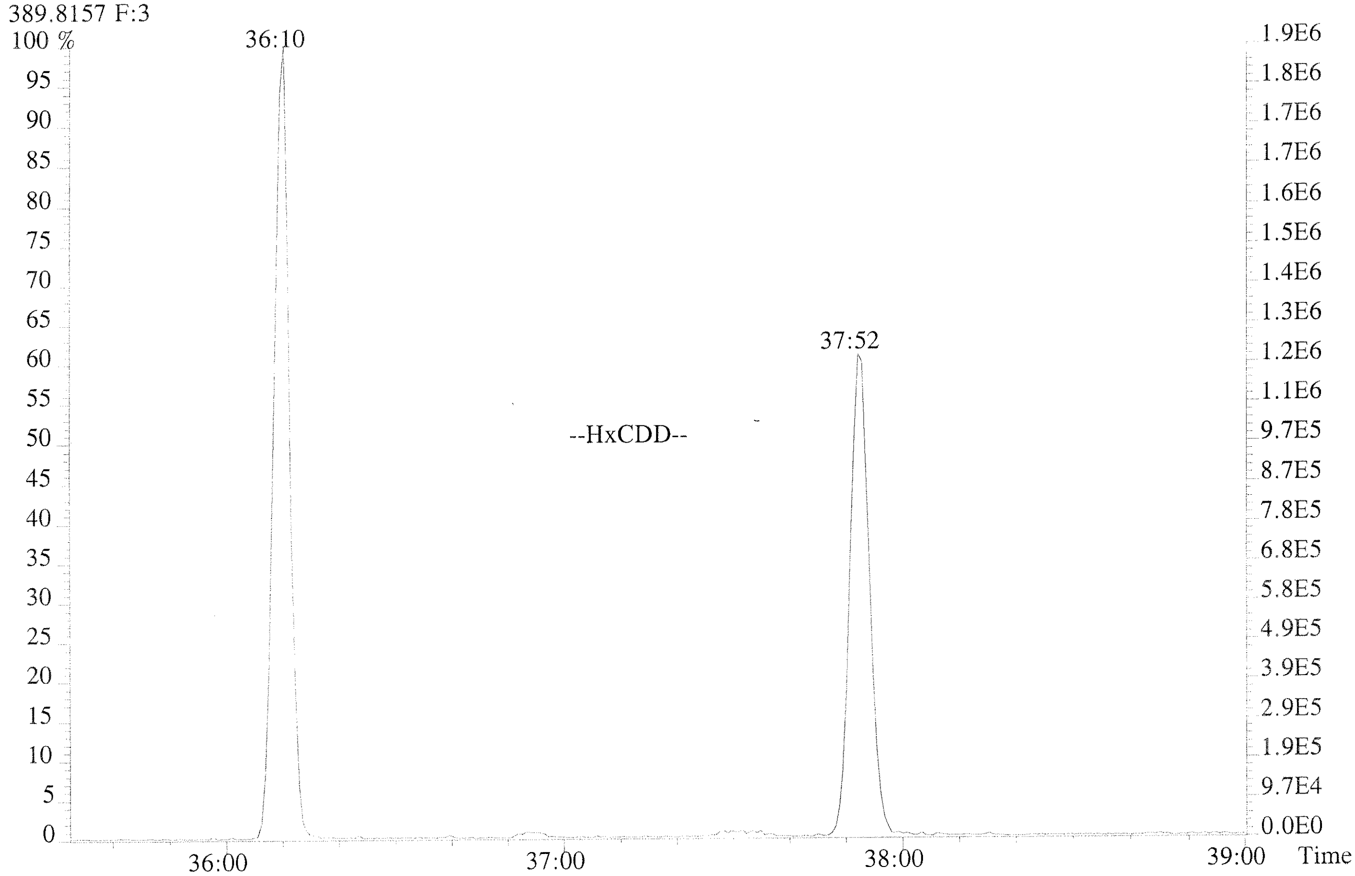


File: 8230 #1-315 Acq: 6-JUL-2012 05:14:35 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:WINDOW DEFINE

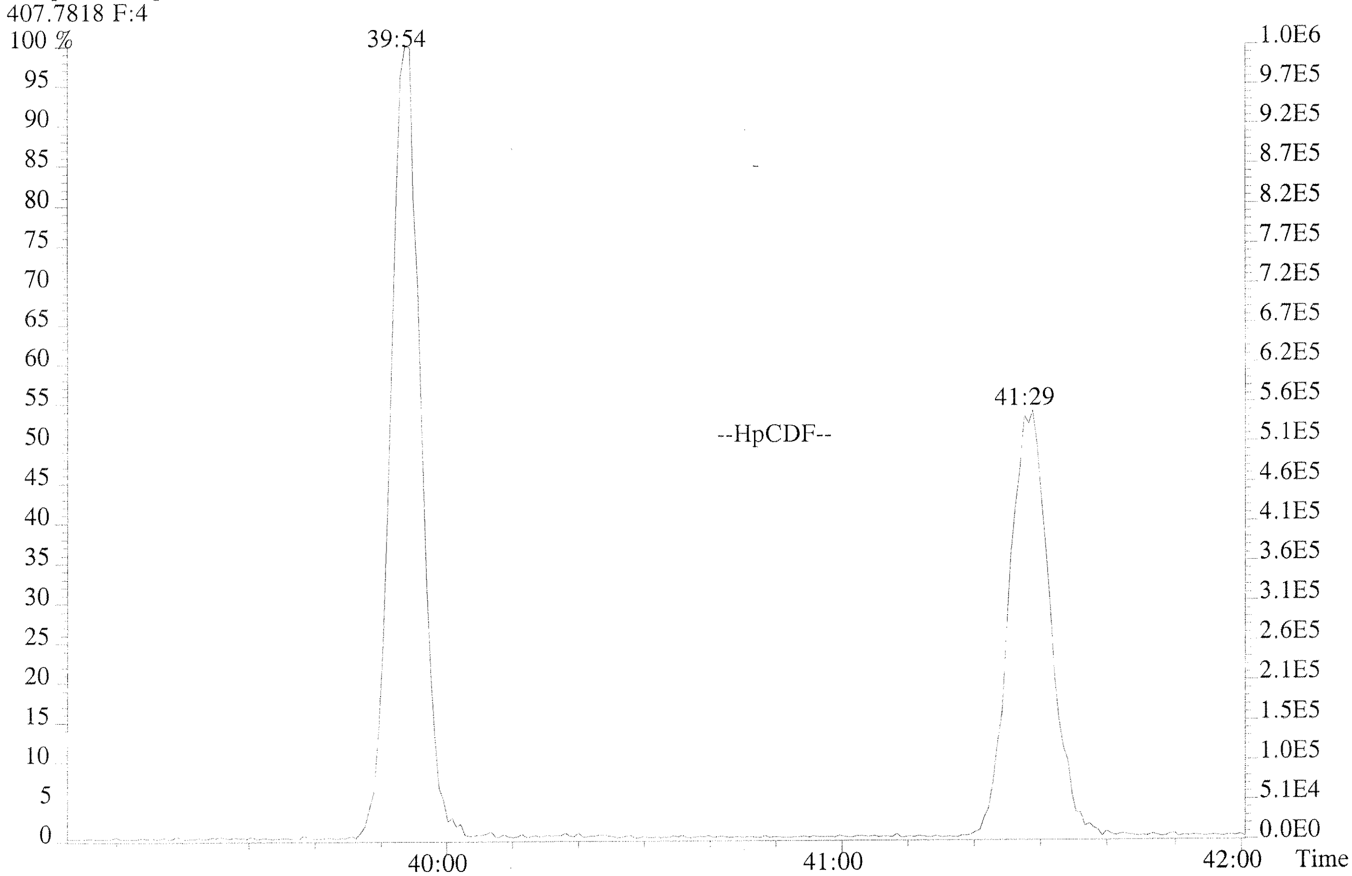
373.8208 F:3

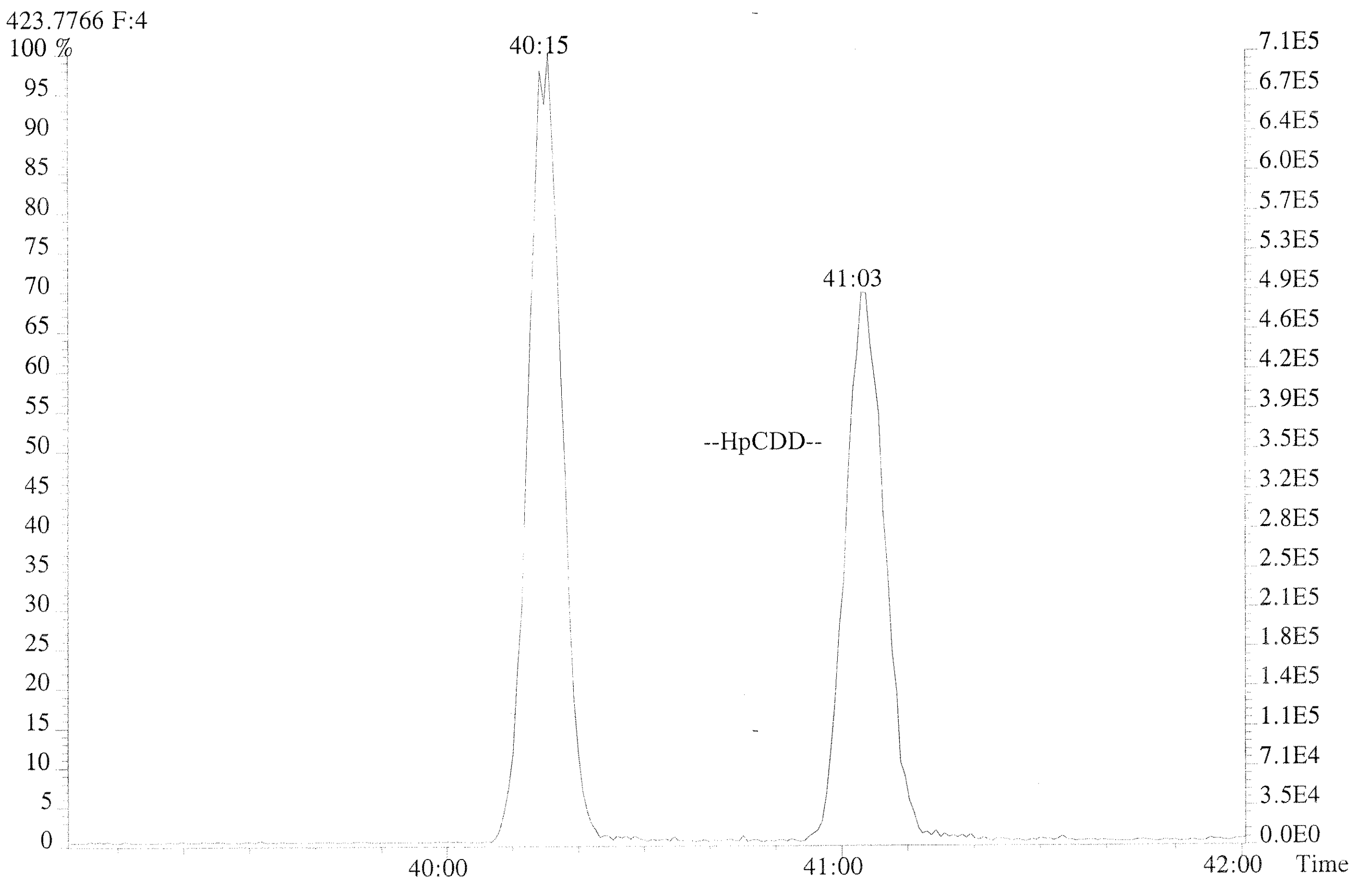


389.8157 F:3



File: 8230 #1-270 Acq: 6-JUL-2012 05:14:35 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:WINDOW DEFINE





FORM 4A
PCDD/PCDF CALIBRATION VERIFICATION

Lab Name: Episode No.:

Contract No.: SAS No.:

Initial Calibration Date: 05/03/12

Instrument ID: AutoSpec-Premier GC Column ID: DB-5

VER Data Filename: 8231 Analysis Date: 6-JUL-12 Time: 06:10:10

NATIVE ANALYTES	M/Z'S FORMING RATIO (1)	ION ABUND. RATIO	QC LIMITS (2)	CONC. FOUND	CONC. RANGE (3) (ng/mL)
2,3,7,8-TCDD	M/M+2	0.77	0.65-0.89	10.2	7.8 - 12.9
1,2,3,7,8-PeCDD	M+2/M+4	1.58	1.32-1.78	53	39 - 65
1,2,3,4,7,8-HxCDD	M+2/M+4	1.27	1.05-1.43	57	39 - 64
1,2,3,6,7,8-HxCDD	M+2/M+4	1.28	1.05-1.43	46	39 - 64
1,2,3,7,8,9-HxCDD	M+2/M+4	1.27	1.05-1.43	54	41 - 61
1,2,3,4,6,7,8-HpCDD	M+2/M+4	1.05	0.88-1.20	50	43 - 58
OCDD	M+2/M+4	0.91	0.76-1.02	87	79 - 126
2,3,7,8-TCDF	M/M+2	0.76	0.65-0.89	10.7	8.4 - 12.0
1,2,3,7,8-PeCDF	M+2/M+4	1.59	1.32-1.78	51	41 - 60
2,3,4,7,8-PeCDF	M+2/M+4	1.59	1.32-1.78	56	41 - 61
1,2,3,4,7,8-HxCDF	M+2/M+4	1.25	1.05-1.43	49	45 - 56
1,2,3,6,7,8-HxCDF	M+2/M+4	1.24	1.05-1.43	52	44 - 57
1,2,3,7,8,9-HxCDF	M+2/M+4	1.26	1.05-1.43	49	45 - 56
2,3,4,6,7,8-HxCDF	M+2/M+4	1.24	1.05-1.43	50	44 - 57
1,2,3,4,6,7,8-HpCDF	M+2/M+4	1.04	0.88-1.20	49	45 - 55
1,2,3,4,7,8,9-HpCDF	M+2/M+4	1.04	0.88-1.20	52	43 - 58
OCDF	M+2/M+4	0.89	0.76-1.02	102	63 - 159

(1) See Table 8, Method 1613, for m/z specifications.

(2) Ion Abundance Ratio Control Limits as specified in Table 9, Method 1613.

(3) Contract-required concentration range as specified in Table 6, Method 1613, under VER.

6/90

FORM 4B
PCDD/PCDF CALIBRATION VERIFICATION

Lab Name: Episode No.:

Contract No.: SAS No.:

Initial Calibration Date: 05/03/12

Instrument ID: AutoSpec-Premier GC Column ID: DB-5

VER Data Filename: 8231 Analysis Date: 6-JUL-12 Time: 06:10:10

	M/Z'S FORMING RATIO (1)	ION ABUND. RATIO	QC LIMITS (2)	CONC. FOUND	CONC. RANGE (3) (ng/mL)
LABELED COMPOUNDS					
13C-2,3,7,8-TCDD	M/M+2	0.79	0.65-0.89	102	82 - 121
13C-1,2,3,7,8-PeCDD	M+2/M+4	1.60	1.32-1.78	89	62 - 160
13C-1,2,3,4,7,8-HxCDD	M+2/M+4	1.38	1.05-1.43	94	85 - 117
13C-1,2,3,6,7,8-HxCDD	M+2/M+4	1.18	1.05-1.43	98	85 - 118
13C-1,2,3,4,6,7,8-HpCDD	M+2/M+4	1.06	0.88-1.20	109	72 - 138
13C-OCDD	M+2/M+4	0.90	0.76-1.02	250	96 - 415
13C-2,3,7,8-TCDF	M/M+2	0.79	0.65-0.89	113	71 - 140
13C-1,2,3,7,8-PeCDF	M+2/M+4	1.59	1.32-1.78	106	76 - 130
13C-2,3,4,7,8-PeCDF	M+2/M+4	1.58	1.32-1.78	99	77 - 130
13C-1,2,3,4,7,8-HxCDF	M/M+2	0.52	0.43-0.59	116	76 - 131
13C-1,2,3,6,7,8-HxCDF	M/M+2	0.52	0.43-0.59	105	70 - 143
13C-1,2,3,7,8,9-HxCDF	M/M+2	0.52	0.43-0.59	120	74 - 135
13C-2,3,4,6,7,8-HxCDF	M/M+2	0.53	0.43-0.59	113	73 - 137
13C-1,2,3,4,6,7,8-HpCDF	M/M+2	0.44	0.37-0.51	120	78 - 129
13C-1,2,3,4,7,8,9-HpCDF	M/M+2	0.44	0.37-0.51	120	77 - 129
CLEANUP STANDARD					
37Cl-2,3,7,8-TCDD				10.2	7.9 - 12.7

(1) See Table 8, Method 1613, for m/z specifications.

(2) Ion Abundance Ratio Control Limits as specified in Table 9, Method 1613.

(3) Contract-required concentration range, as specified in Table 6, Method 1613, under VER.

(4) No ion abundance ratio; report concentration found.

6/90

Sample Response Summary CLIENT ID.
CCAL CS3

Run #7 Filename 8231 #1 Samp: 1 Inj: 1 Acquired: 6-JUL-12 06:10:10
Processed: 14-JUL-12 09:22:54 LAB. ID: CCAL CS3

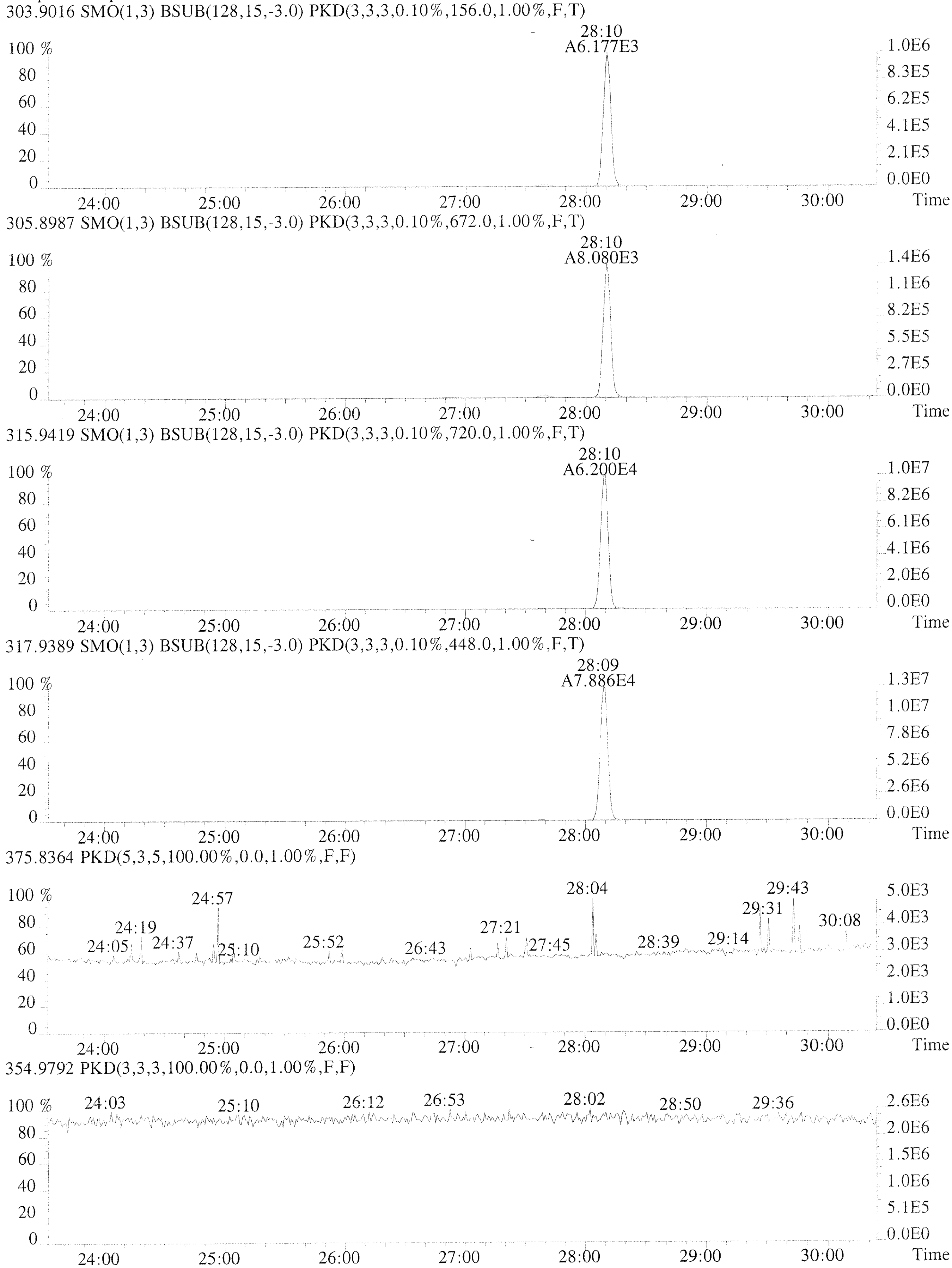
	Typ	Name	RT-1	Resp 1	Resp 2	Ratio	Meet	Mod?	RRT
1	Unk	2,3,7,8-TCDF	28:10	6.177e+03	8.080e+03	0.76	yes	no	1.000
2	Unk	1,2,3,7,8-PeCDF	32:46	4.096e+04	2.577e+04	1.59	yes	no	1.000
3	Unk	2,3,4,7,8-PeCDF	33:34	4.076e+04	2.568e+04	1.59	yes	no	1.001
4	Unk	1,2,3,4,7,8-HxCDF	36:40	3.565e+04	2.854e+04	1.25	yes	no	1.000
5	Unk	1,2,3,6,7,8-HxCDF	36:47	3.721e+04	3.003e+04	1.24	yes	no	1.000
6	Unk	2,3,4,6,7,8-HxCDF	37:22	3.398e+04	2.732e+04	1.24	yes	no	1.000
7	Unk	1,2,3,7,8,9-HxCDF	38:08	3.095e+04	2.466e+04	1.26	yes	no	1.000
8	Unk	1,2,3,4,6,7,8-HpCDF	39:54	3.185e+04	3.074e+04	1.04	yes	no	1.000
9	Unk	1,2,3,4,7,8,9-HpCDF	41:27	2.620e+04	2.518e+04	1.04	yes	no	1.000
10	Unk	OCDF	45:02	3.948e+04	4.415e+04	0.89	yes	no	1.002
11	Unk	2,3,7,8-TCDD	29:04	4.179e+03	5.407e+03	0.77	yes	no	1.001
12	Unk	1,2,3,7,8-PeCDD	33:57	2.502e+04	1.580e+04	1.58	yes	no	1.000
13	Unk	1,2,3,4,7,8-HxCDD	37:31	2.382e+04	1.873e+04	1.27	yes	no	1.000
14	Unk	1,2,3,6,7,8-HxCDD	37:36	2.119e+04	1.659e+04	1.28	yes	no	1.000
15	Unk	1,2,3,7,8,9-HxCDD	37:55	2.415e+04	1.907e+04	1.27	yes	no	1.008
16	Unk	1,2,3,4,6,7,8-HpCDD	41:04	2.043e+04	1.939e+04	1.05	yes	no	1.001
17	Unk	OCDD	44:59	3.076e+04	3.380e+04	0.91	yes	no	1.001
18	IS	13C-2,3,7,8-TCDF	28:10	6.200e+04	7.886e+04	0.79	yes	no	0.977
19	IS	13C-1,2,3,7,8-PeCDF	32:46	8.107e+04	5.098e+04	1.59	yes	no	1.136
20	IS	13C-2,3,4,7,8-PeCDF	33:32	7.670e+04	4.846e+04	1.58	yes	no	1.163
21	IS	13C-1,2,3,4,7,8-HxCDF	36:39	3.628e+04	6.943e+04	0.52	yes	no	0.967
22	IS	13C-1,2,3,6,7,8-HxCDF	36:46	3.783e+04	7.288e+04	0.52	yes	no	0.970
23	IS	13C-2,3,4,6,7,8-HxCDF	37:21	3.656e+04	6.912e+04	0.53	yes	no	0.985
24	IS	13C-1,2,3,7,8,9-HxCDF	38:07	3.269e+04	6.323e+04	0.52	yes	no	1.005
25	IS	13C-1,2,3,4,6,7,8-HpCDF	39:53	2.774e+04	6.270e+04	0.44	yes	no	1.052
26	IS	13C-1,2,3,4,7,8,9-HpCDF	41:27	2.241e+04	5.144e+04	0.44	yes	no	1.093
27	IS	13C-2,3,7,8-TCDD	29:03	4.096e+04	5.202e+04	0.79	yes	no	1.008
28	IS	13C-1,2,3,7,8-PeCDD	33:56	4.949e+04	3.084e+04	1.60	yes	no	1.177
29	IS	13C-1,2,3,4,7,8-HxCDD	37:30	4.058e+04	2.950e+04	1.38	yes	no	0.989
30	IS	13C-1,2,3,6,7,8-HxCDD	37:36	4.259e+04	3.599e+04	1.18	yes	no	0.992
31	IS	13C-1,2,3,4,6,7,8-HpCDD	41:02	3.929e+04	3.695e+04	1.06	yes	no	1.082
32	IS	13C-OCDD	44:57	5.928e+04	6.601e+04	0.90	yes	no	1.185
33	RS/RT	13C-1,2,3,4-TCDD	28:50	4.295e+04	5.439e+04	0.79	yes	no	*
34	RS/RT	13C-1,2,3,7,8,9-HxCDD	37:55	4.426e+04	3.476e+04	1.27	yes	no	*
35	C/Up	37Cl-2,3,7,8-TCDD	29:04	9.494e+03				no	1.008

Signal/Noise Height Ratio Summary   CLIENT ID.
CCAL CS3

Run #7 Filename 8231 Samp: 1 Inj: 1 Acquired: 6-JUL-12 06:10:10
Processed: 14-JUL-12 09:22:541 LAB. ID: CCAL CS3

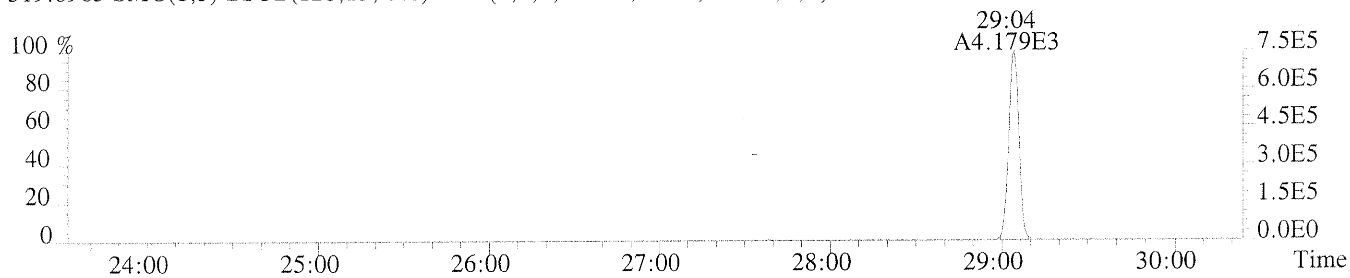
	Name	Signal 1	Noise 1	S/N Rat.1	Signal 2	Noise 2	S/N Rat.2
1	2,3,7,8-TCDF	1.03e+06	1.56e+02	6.6e+03	1.36e+06	6.72e+02	2.0e+03
2	1,2,3,7,8-PeCDF	8.14e+06	1.72e+02	4.7e+04	5.10e+06	4.20e+02	1.2e+04
3	2,3,4,7,8-PeCDF	8.14e+06	1.72e+02	4.7e+04	5.09e+06	4.20e+02	1.2e+04
4	1,2,3,4,7,8-HxCDF	6.61e+06	3.68e+02	1.8e+04	5.31e+06	1.60e+02	3.3e+04
5	1,2,3,6,7,8-HxCDF	6.64e+06	3.68e+02	1.8e+04	5.34e+06	1.60e+02	3.3e+04
6	2,3,4,6,7,8-HxCDF	5.62e+06	3.68e+02	1.5e+04	4.55e+06	1.60e+02	2.8e+04
7	1,2,3,7,8,9-HxCDF	4.81e+06	3.68e+02	1.3e+04	3.81e+06	1.60e+02	2.4e+04
8	1,2,3,4,6,7,8-HpCDF	3.83e+06	8.40e+02	4.6e+03	3.66e+06	1.83e+03	2.0e+03
9	1,2,3,4,7,8,9-HpCDF	2.48e+06	8.40e+02	3.0e+03	2.35e+06	1.83e+03	1.3e+03
10	OCDF	2.25e+06	1.24e+02	1.8e+04	2.59e+06	2.84e+02	9.1e+03
11	2,3,7,8-TCDD	7.46e+05	1.64e+02	4.5e+03	9.39e+05	3.04e+02	3.1e+03
12	1,2,3,7,8-PeCDD	5.06e+06	4.52e+02	1.1e+04	3.17e+06	1.84e+02	1.7e+04
13	1,2,3,4,7,8-HxCDD	3.89e+06	4.24e+02	9.2e+03	2.98e+06	3.64e+02	8.2e+03
14	1,2,3,6,7,8-HxCDD	3.42e+06	4.24e+02	8.1e+03	2.71e+06	3.64e+02	7.4e+03
15	1,2,3,7,8,9-HxCDD	3.74e+06	4.24e+02	8.8e+03	2.97e+06	3.64e+02	8.2e+03
16	1,2,3,4,6,7,8-HpCDD	1.92e+06	3.00e+02	6.4e+03	1.83e+06	1.28e+02	1.4e+04
17	OCDD	1.65e+06	1.56e+02	1.1e+04	1.86e+06	1.08e+02	1.7e+04
18	13C-2,3,7,8-TCDF	1.02e+07	7.20e+02	1.4e+04	1.30e+07	4.48e+02	2.9e+04
19	13C-1,2,3,7,8-PeCDF	1.59e+07	2.84e+02	5.6e+04	1.00e+07	2.04e+02	4.9e+04
20	13C-2,3,4,7,8-PeCDF	1.51e+07	2.84e+02	5.3e+04	9.57e+06	2.04e+02	4.7e+04
21	13C-1,2,3,4,7,8-HxCDF	6.62e+06	4.88e+02	1.4e+04	1.27e+07	6.72e+02	1.9e+04
22	13C-1,2,3,6,7,8-HxCDF	6.74e+06	4.88e+02	1.4e+04	1.30e+07	6.72e+02	1.9e+04
23	13C-2,3,4,6,7,8-HxCDF	6.03e+06	4.88e+02	1.2e+04	1.14e+07	6.72e+02	1.7e+04
24	13C-1,2,3,7,8,9-HxCDF	5.06e+06	4.88e+02	1.0e+04	9.73e+06	6.72e+02	1.4e+04
25	13C-1,2,3,4,6,7,8-HpCDF	3.26e+06	1.73e+03	1.9e+03	7.40e+06	1.80e+02	4.1e+04
26	13C-1,2,3,4,7,8,9-HpCDF	2.14e+06	1.73e+03	1.2e+03	4.88e+06	1.80e+02	2.7e+04
27	13C-2,3,7,8-TCDD	7.30e+06	1.24e+03	5.9e+03	9.19e+06	5.64e+02	1.6e+04
28	13C-1,2,3,7,8-PeCDD	9.67e+06	2.80e+02	3.5e+04	6.11e+06	1.88e+02	3.3e+04
29	13C-1,2,3,4,7,8-HxCDD	6.48e+06	7.52e+02	8.6e+03	5.03e+06	3.12e+02	1.6e+04
30	13C-1,2,3,6,7,8-HxCDD	6.96e+06	7.52e+02	9.3e+03	5.52e+06	3.12e+02	1.8e+04
31	13C-1,2,3,4,6,7,8-HpCDD	3.66e+06	4.88e+02	7.5e+03	3.51e+06	2.24e+02	1.6e+04
32	13C-OCDD	3.21e+06	1.40e+02	2.3e+04	3.59e+06	1.00e+02	3.6e+04
33	13C-1,2,3,4-TCDD	7.51e+06	1.24e+03	6.1e+03	9.56e+06	5.64e+02	1.7e+04
34	13C-1,2,3,7,8,9-HxCDD	6.92e+06	7.52e+02	9.2e+03	5.44e+06	3.12e+02	1.7e+04
35	37Cl-2,3,7,8-TCDD	1.67e+06	3.68e+02	4.5e+03			

File: 3231 #1-572 Acq: 6-JUL-2012 06:10:10 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:CCAL CS3

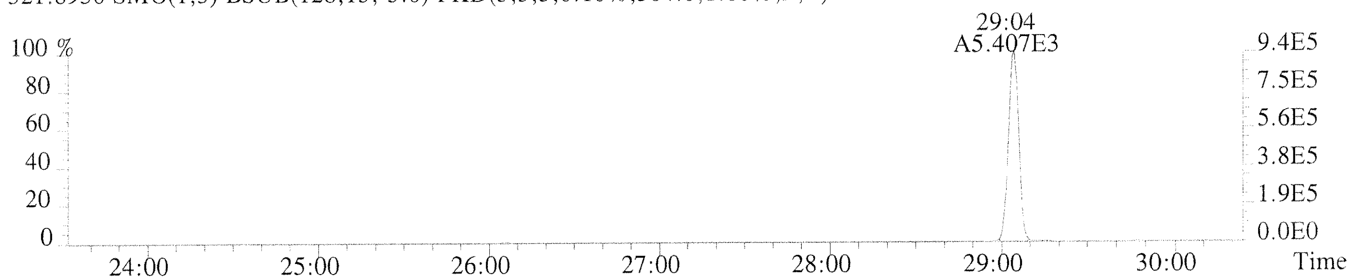


File: 8231 #1-572 Acq: 6-JUL-2012 06:10:10 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:CCAL CS3

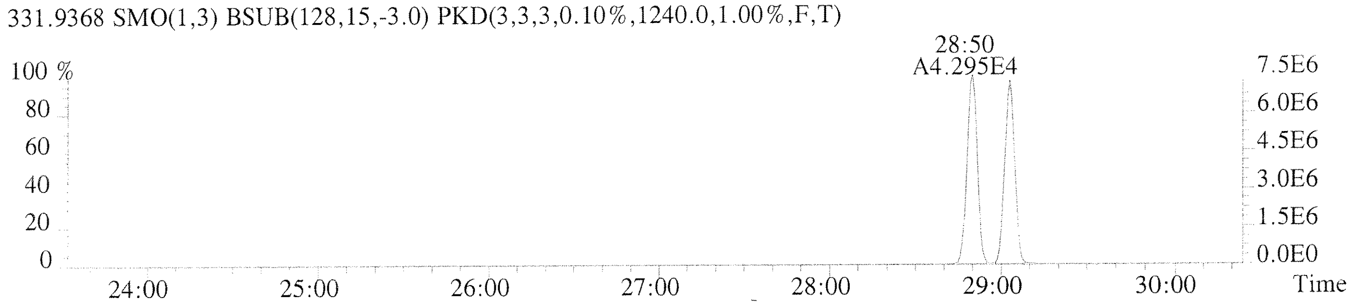
319.8965 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,164.0,1.00%,F,T)



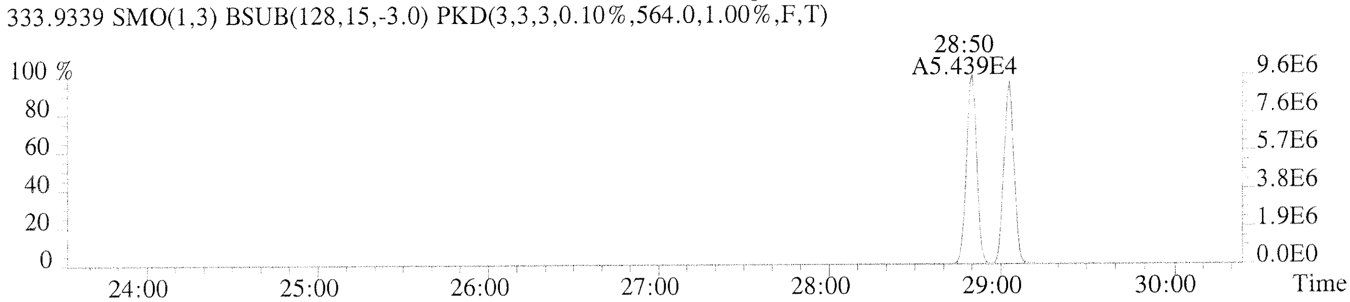
321.8936 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,304.0,1.00%,F,T)



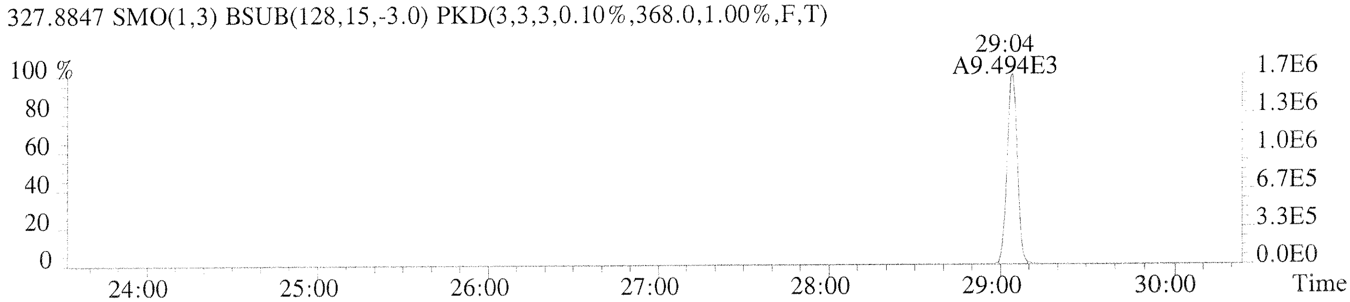
331.9368 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,1240.0,1.00%,F,T)



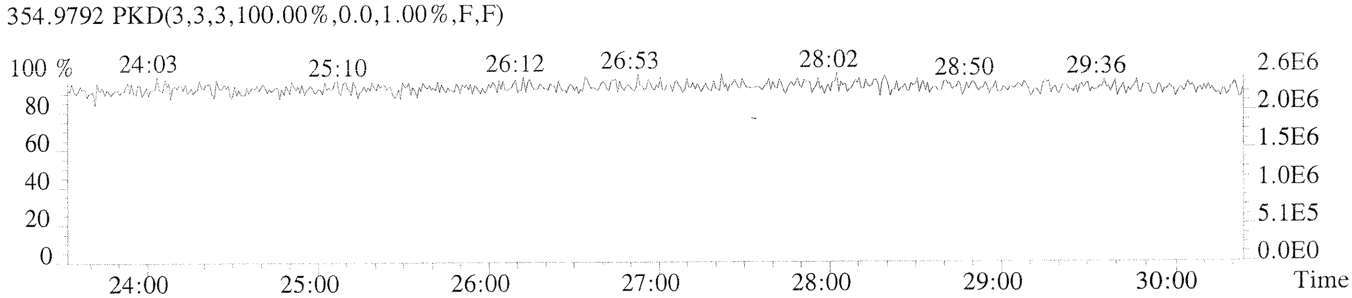
333.9339 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,564.0,1.00%,F,T)



327.8847 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,368.0,1.00%,F,T)

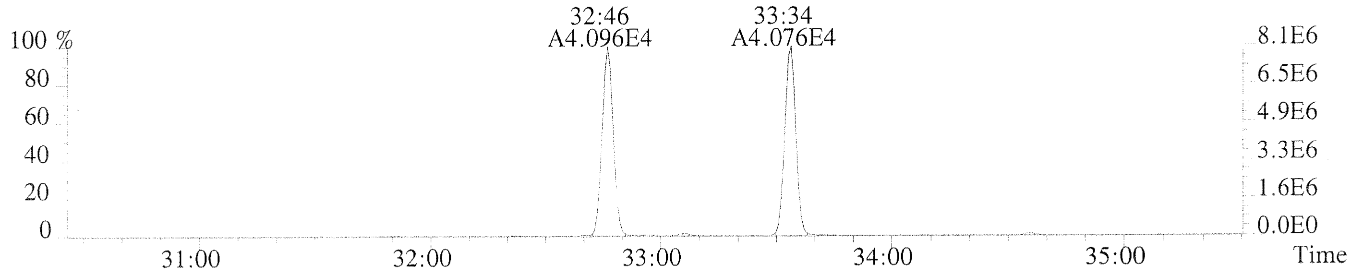


354.9792 PKD(3,3,3,100.00%,0.0,1.00%,F,F)

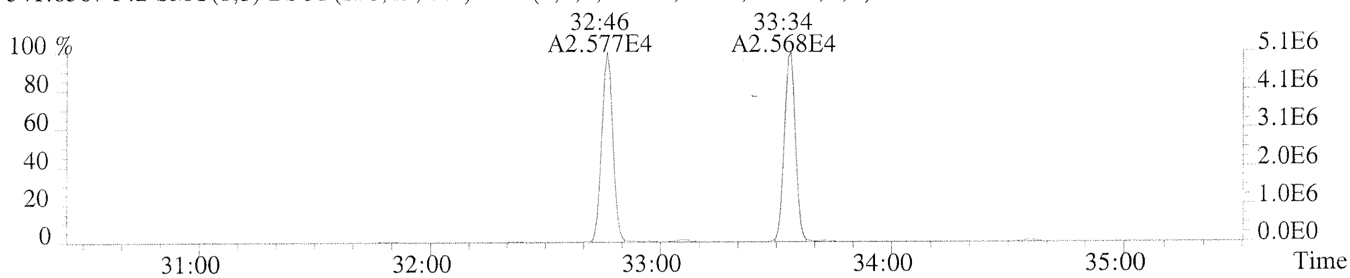


File: 8231 #1-461 Acq: 6-JUL-2012 06:10:10 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:CCAL CS3

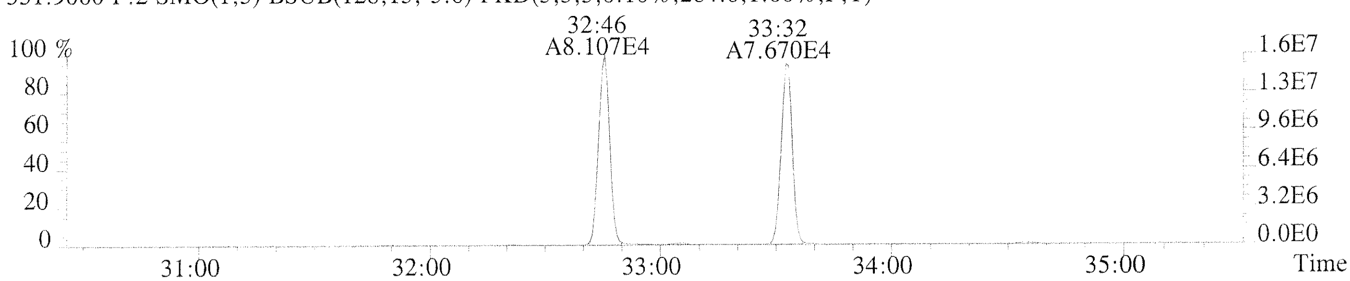
339.8597 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,172.0,1.00%,F,T)



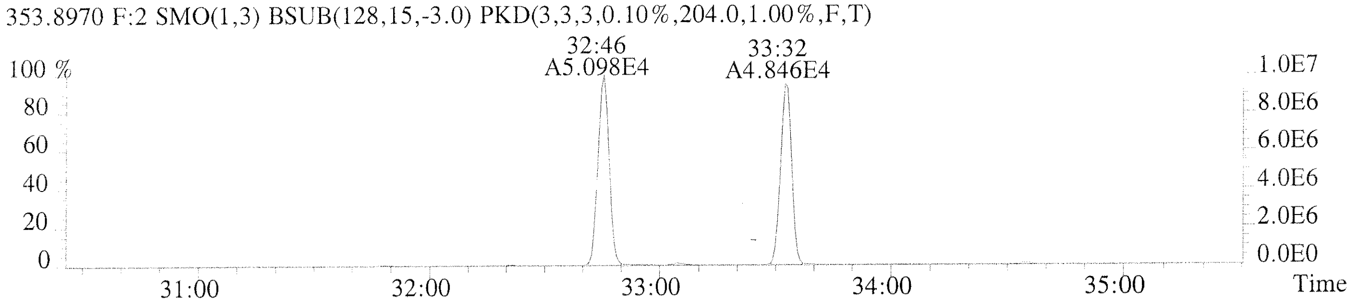
341.8567 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,420.0,1.00%,F,T)



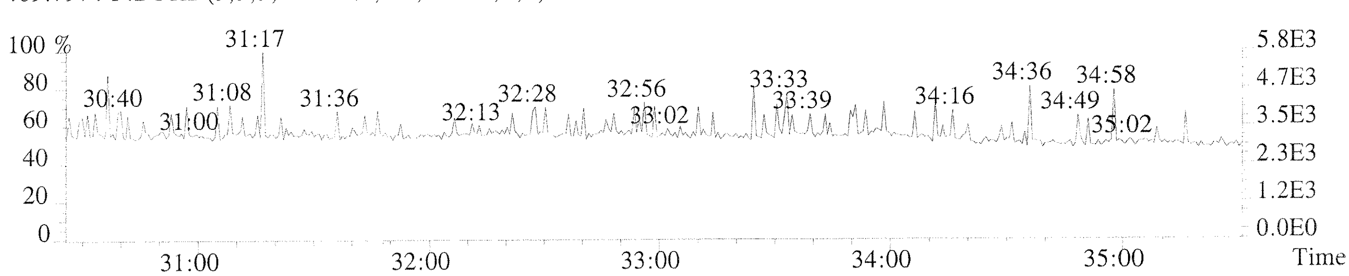
351.9000 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,284.0,1.00%,F,T)



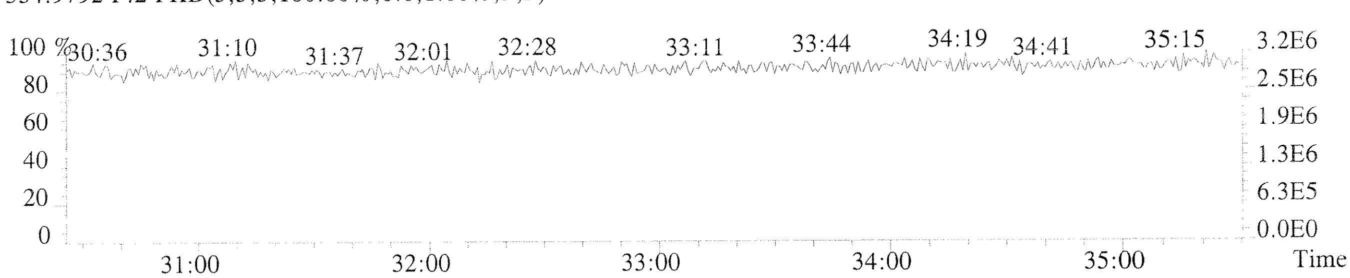
353.8970 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,204.0,1.00%,F,T)



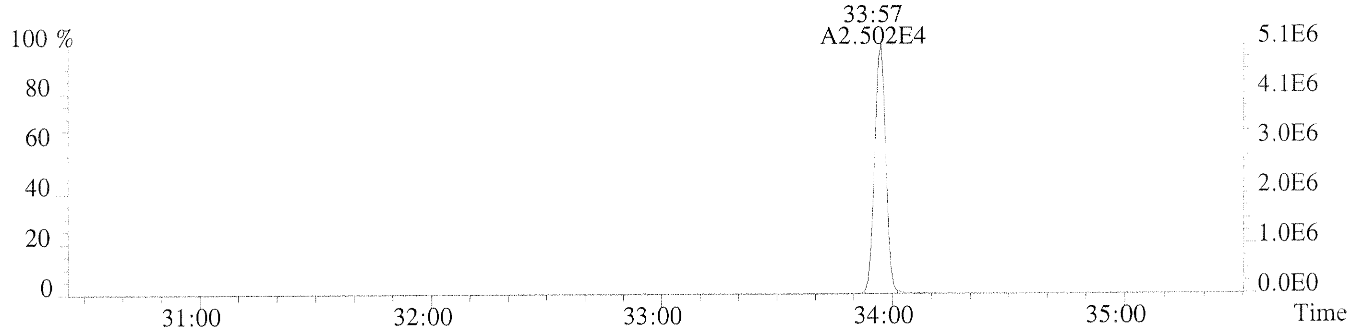
409.7974 F:2 PKD(5,3,5,100.00%,0.0,1.00%,F,F)



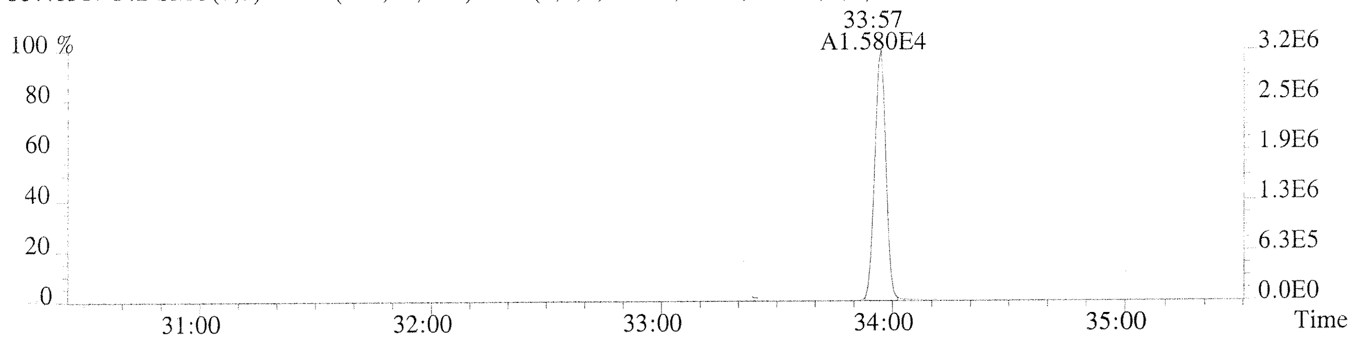
354.9792 F:2 PKD(3,3,3,100.00%,0.0,1.00%,F,F)



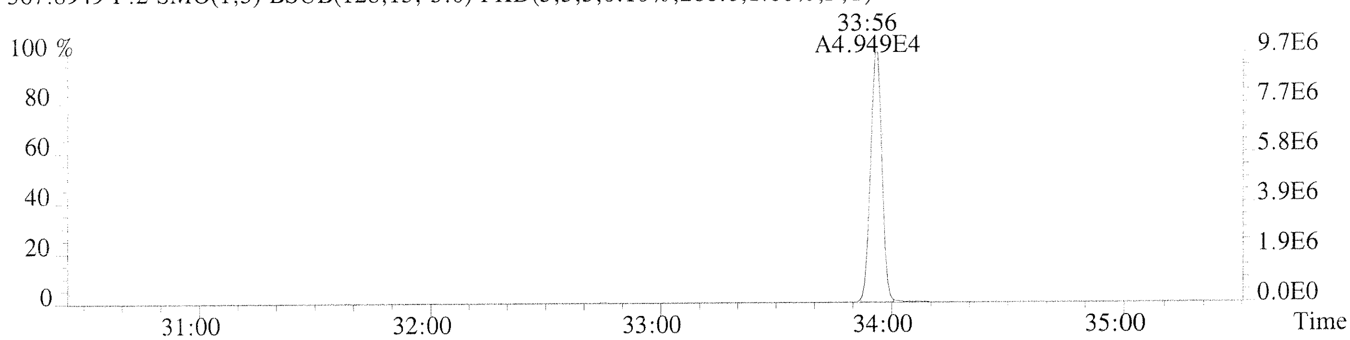
File 8231 #1-461 Acq: 6-JUL-2012 06:10:10 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:CCAL CS3
355.8546 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,452.0,1.00%,F,T)



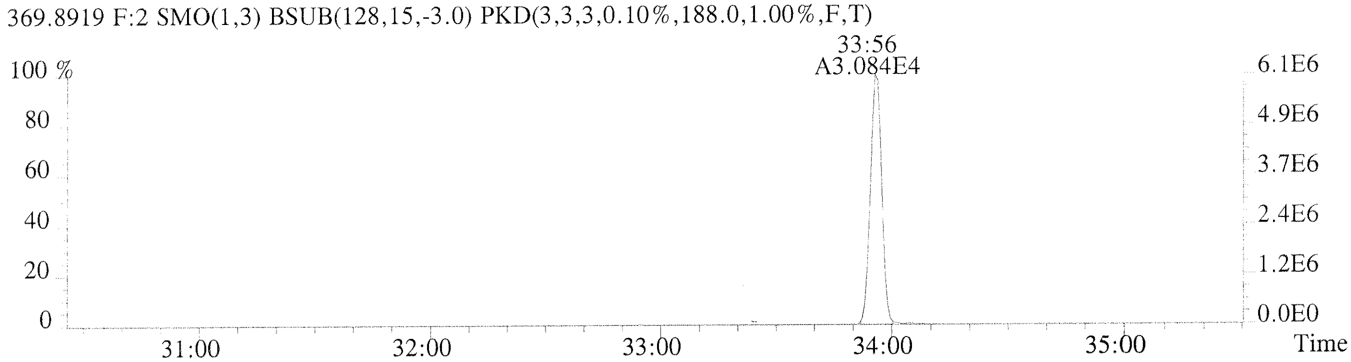
357.8517 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,184.0,1.00%,F,T)



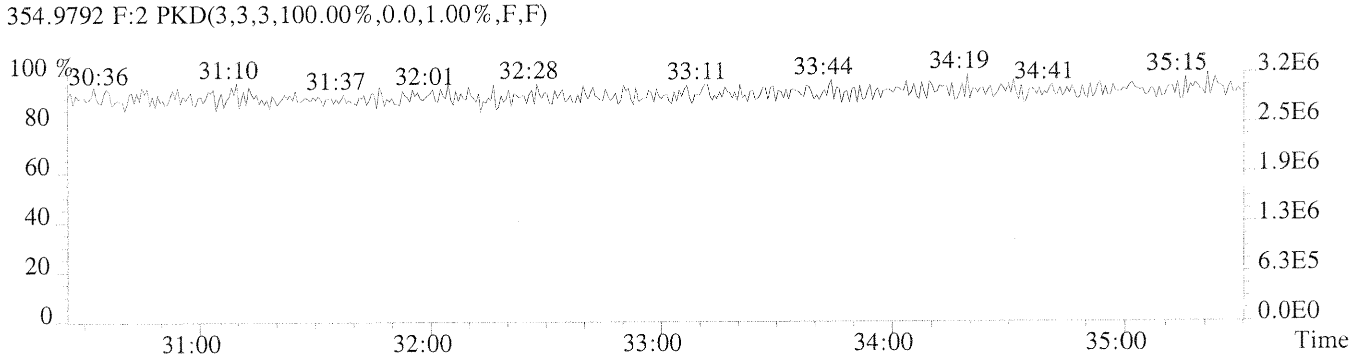
367.8949 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,280.0,1.00%,F,T)



369.8919 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,188.0,1.00%,F,T)

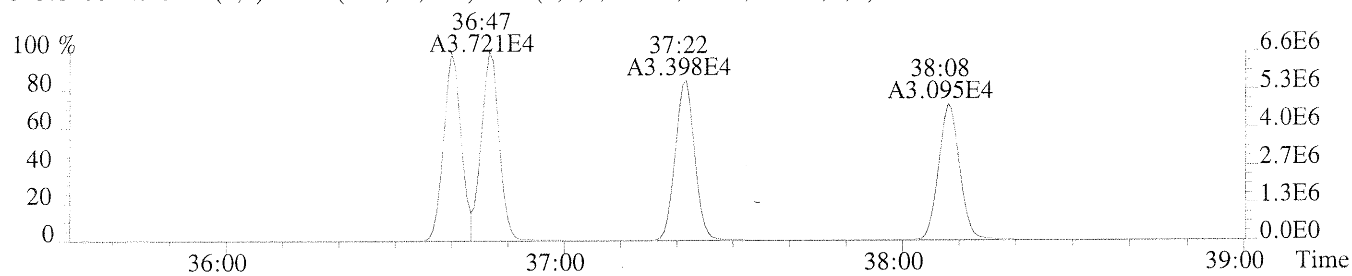


354.9792 F:2 PKD(3,3,3,100.00%,0.0,1.00%,F,F)

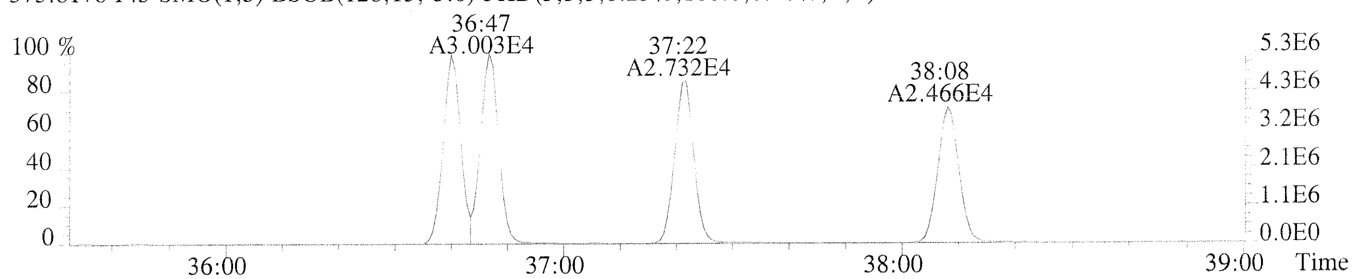


File: 3231 #1-315 Acq: 6-JUL-2012 06:10:10 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:CCAL CS3

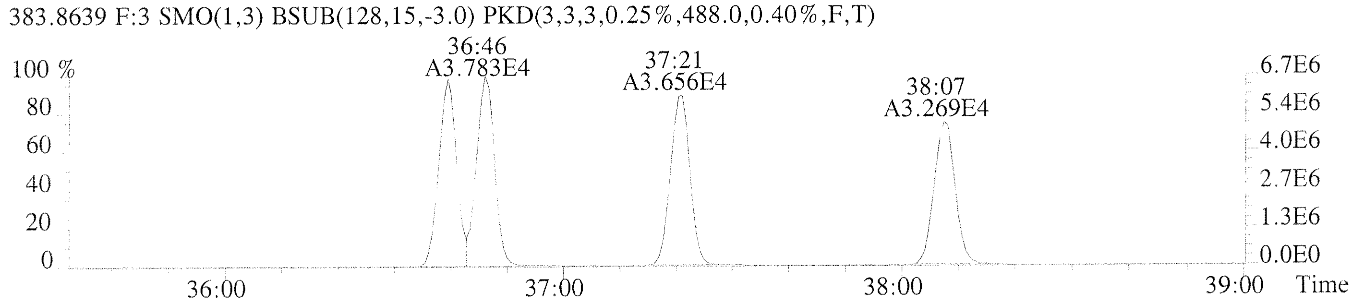
373.8208 F:3 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,368.0,0.40%,F,T)



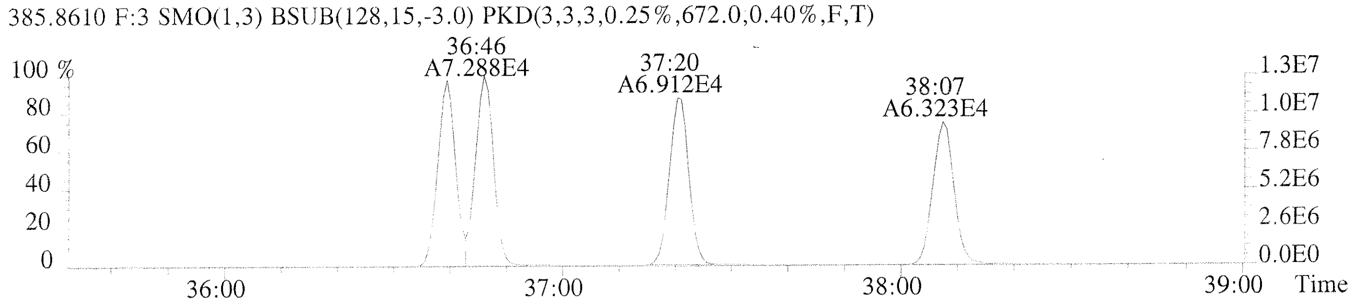
375.8178 F:3 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,160.0,0.40%,F,T)



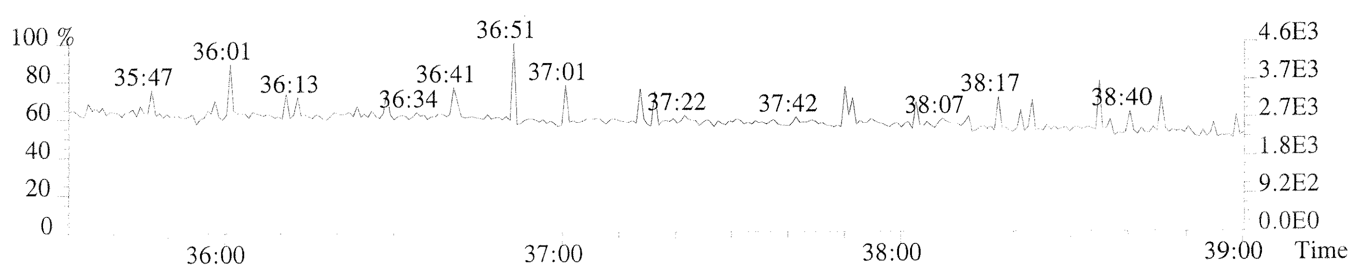
383.8639 F:3 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,488.0,0.40%,F,T)



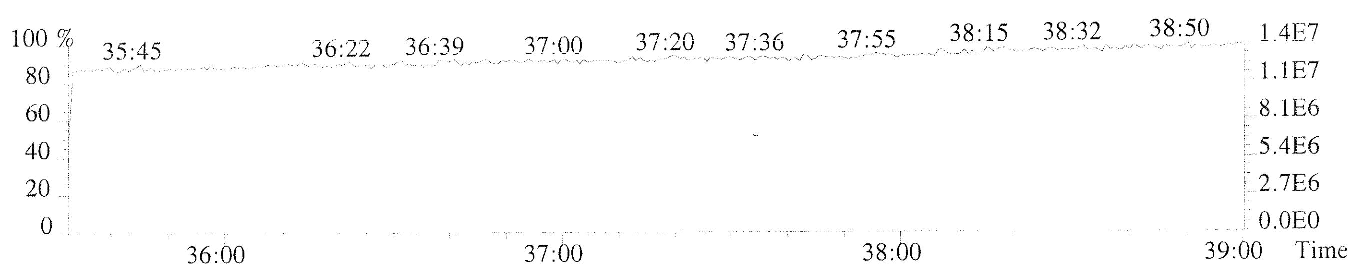
385.8610 F:3 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,672.0,0.40%,F,T)



445.7555 F:3 PKD(5,3,5,100.00%,0.0,1.00%,F,F)

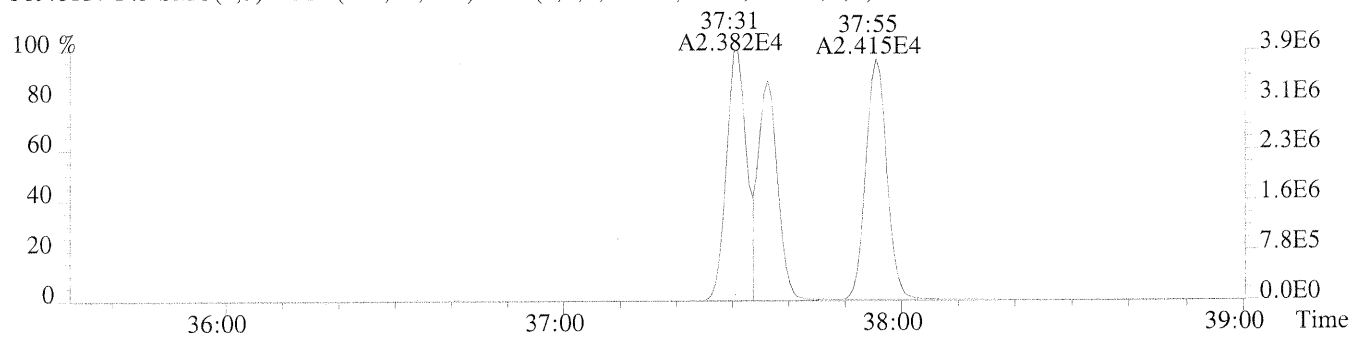


430.9728 F:3 PKD(3,3,3,100.00%,0.0,1.00%,F,F)

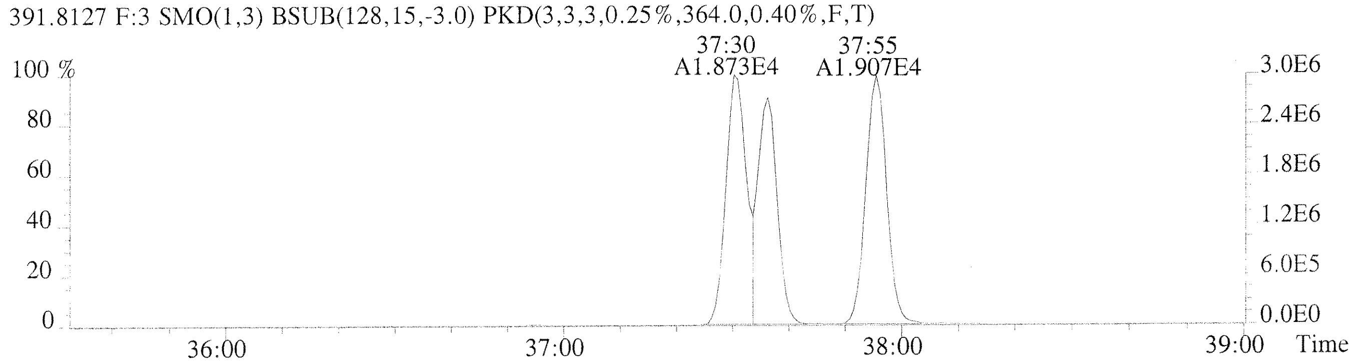


File: 3231 #1-315 Acq: 6-JUL-2012 06:10:10 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:CCAL CS3

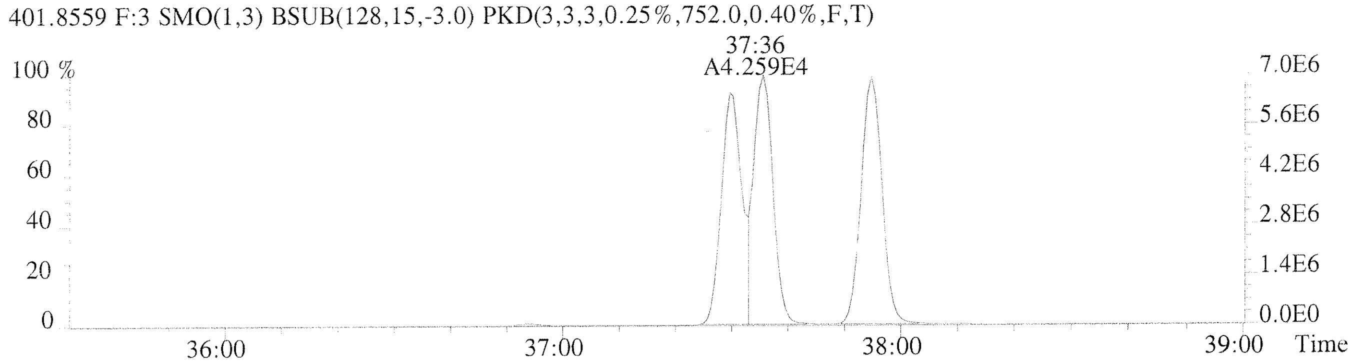
389.8157 F:3 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,424.0,0.40%,F,T)



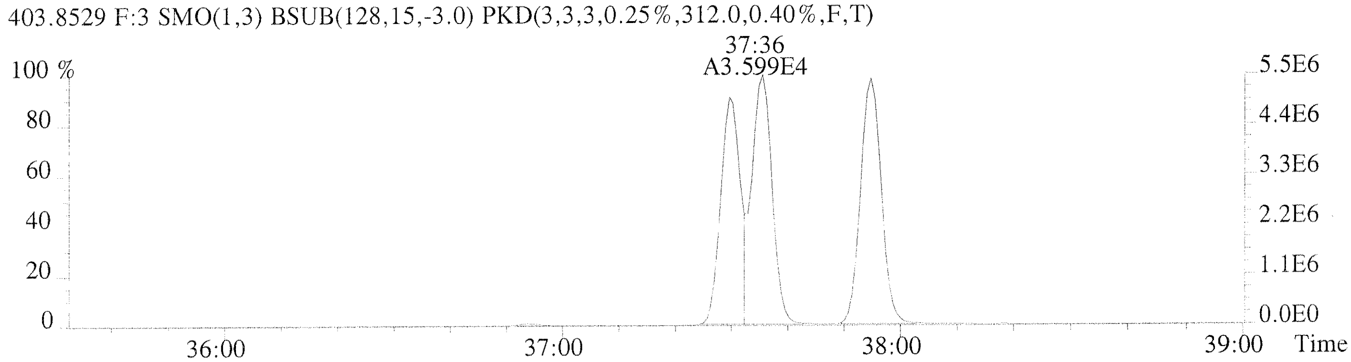
391.8127 F:3 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,364.0,0.40%,F,T)



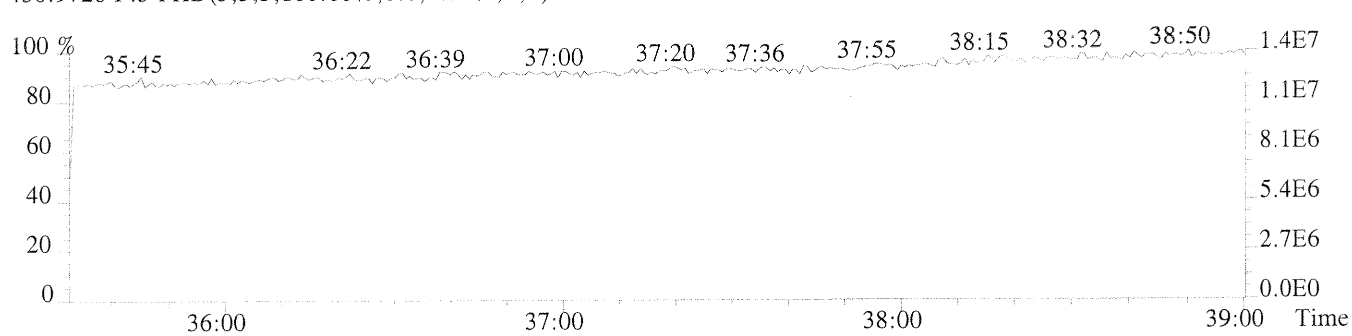
401.8559 F:3 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,752.0,0.40%,F,T)



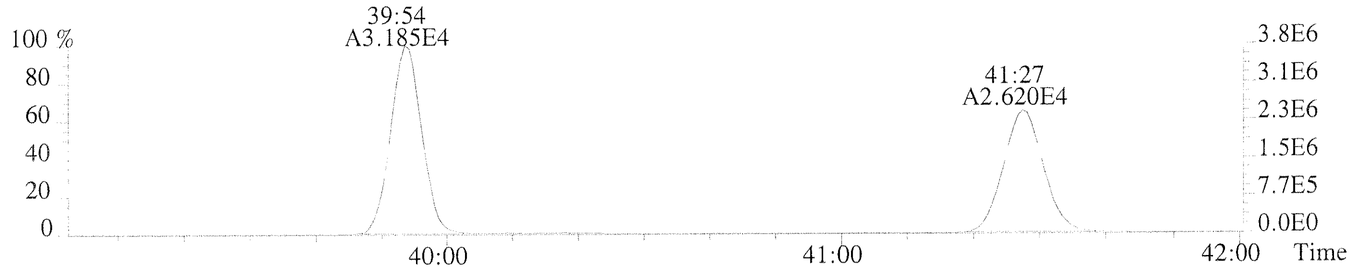
403.8529 F:3 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,312.0,0.40%,F,T)



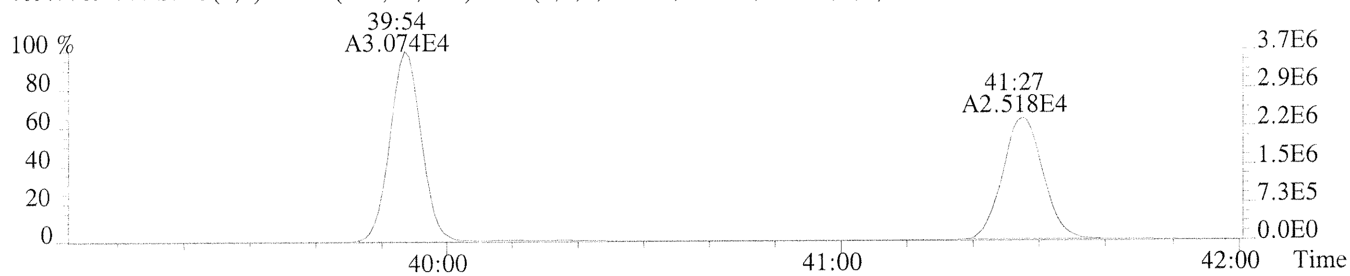
430.9728 F:3 PKD(3,3,3,100.00%,0.0,1.00%,F,F)



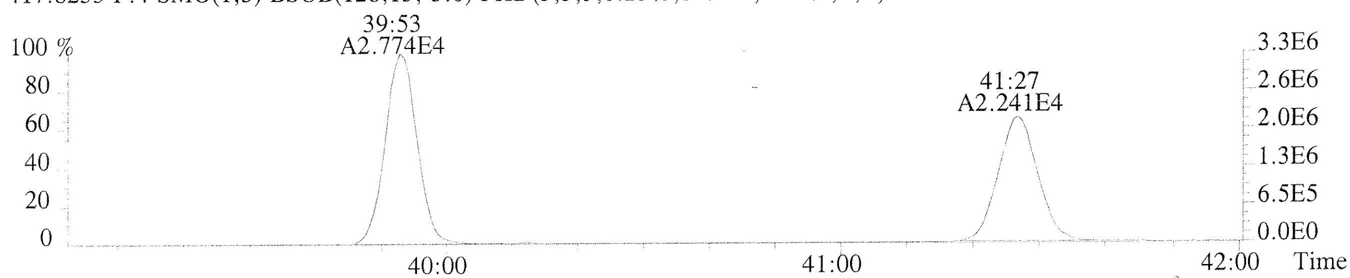
File: 8231 #1-270 Acq: 6-JUL-2012 06:10:10 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:CCAL CS3
407.7818 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,840.0,0.50%,F,T)



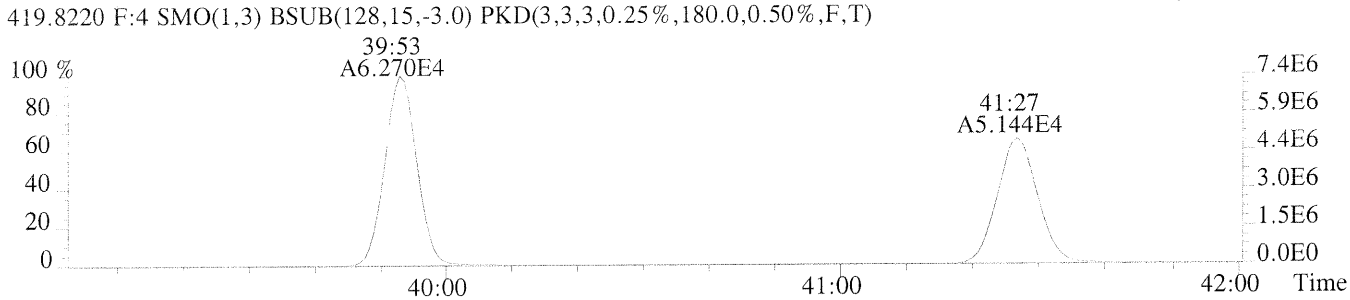
409.7789 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,1828.0,0.50%,F,T)



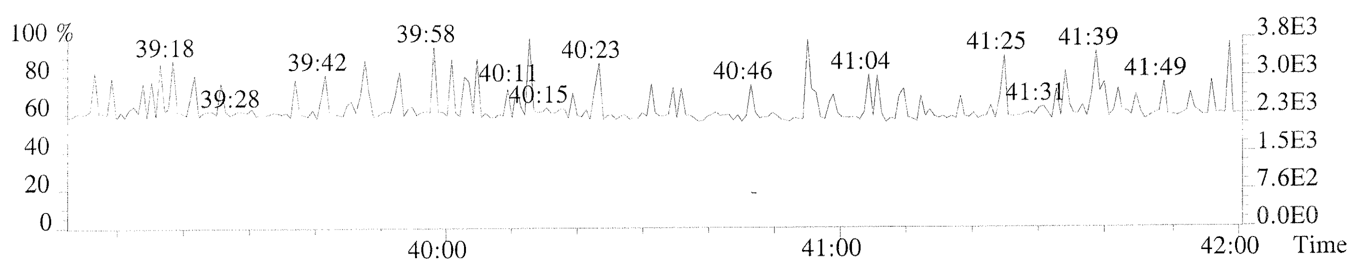
417.8253 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,1732.0,0.50%,F,T)



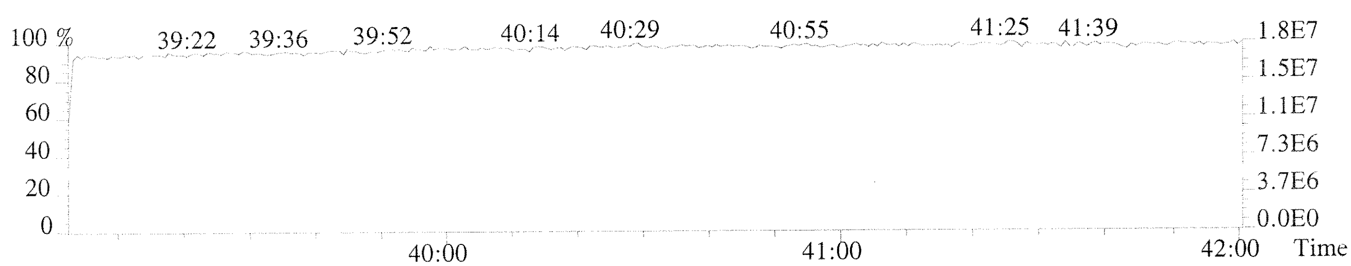
419.8220 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,180.0,0.50%,F,T)



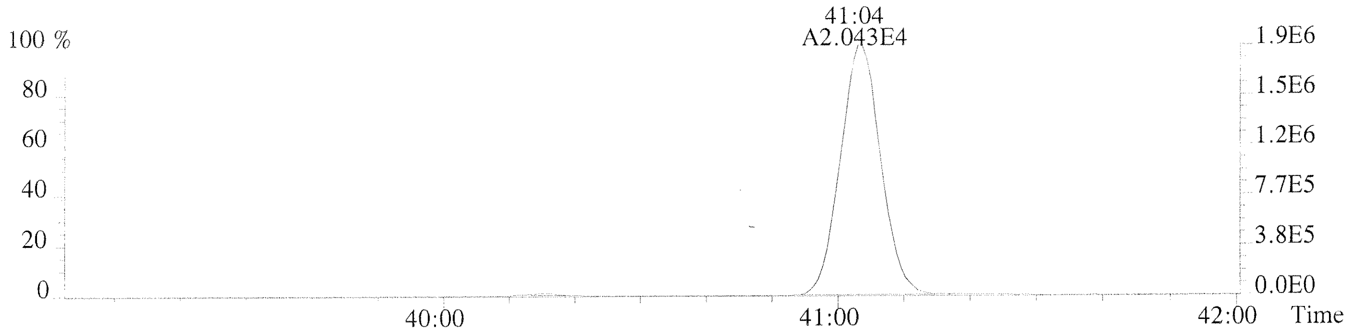
479.7165 F:4 PKD(5,3,5,100.00%,0.0,1.00%,F,F)



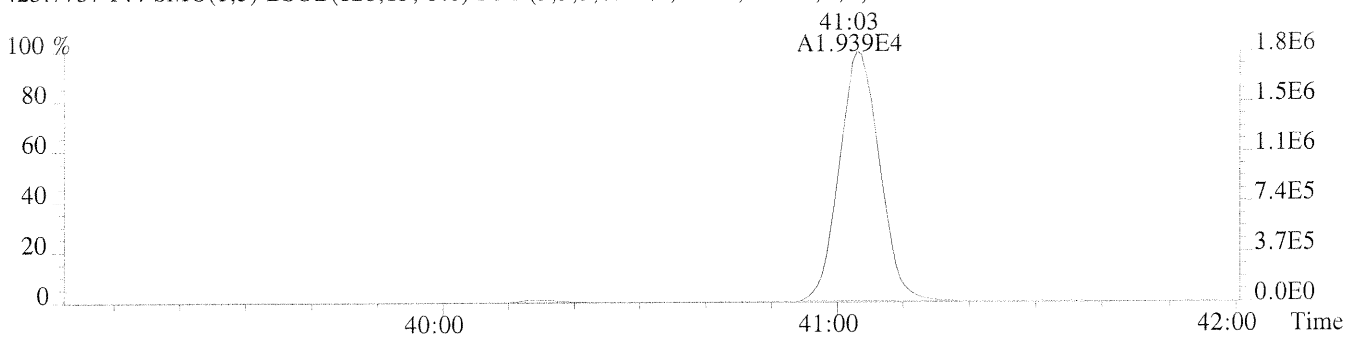
430.9728 F:4 PKD(3,3,3,100.00%,0.0,1.00%,F,F)



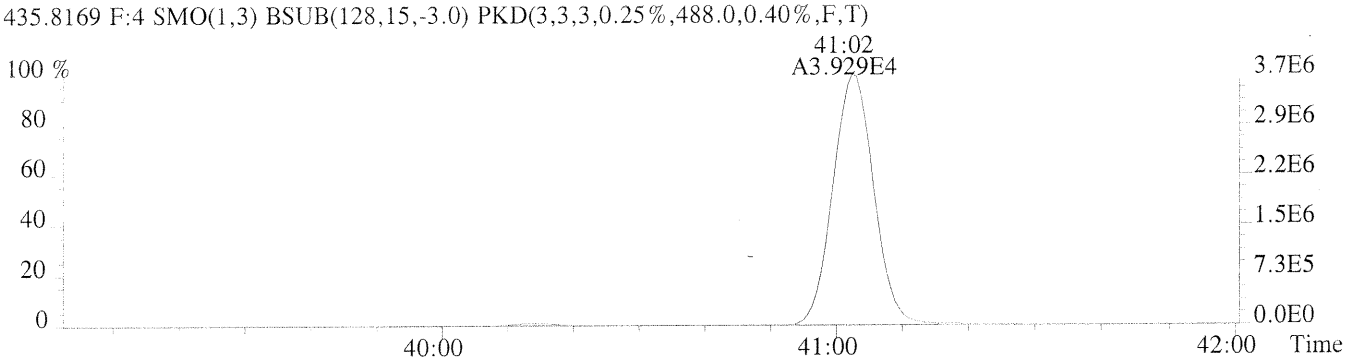
File: 8231 #1-270 Acq: 6-JUL-2012 06:10:10 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:CCAL CS3
423.7766 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,300.0,0.40%,F,T)



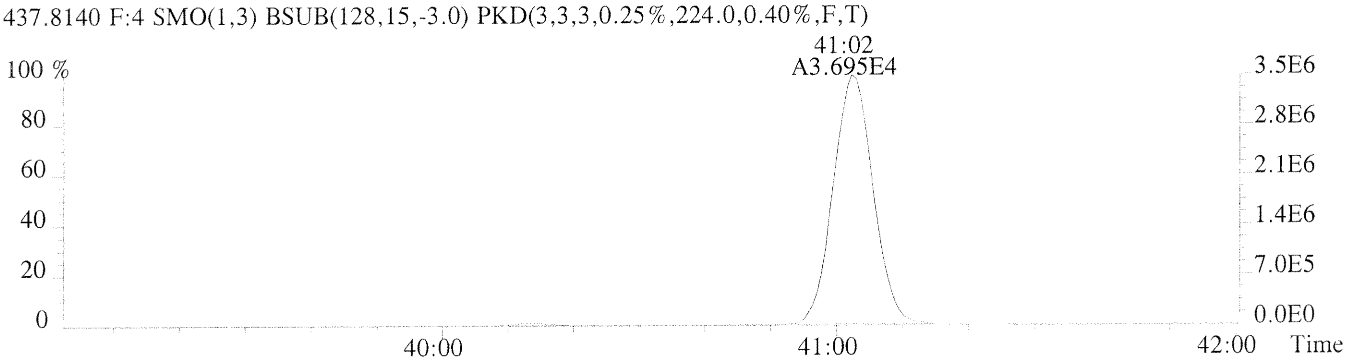
425.7737 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,128.0,0.40%,F,T)



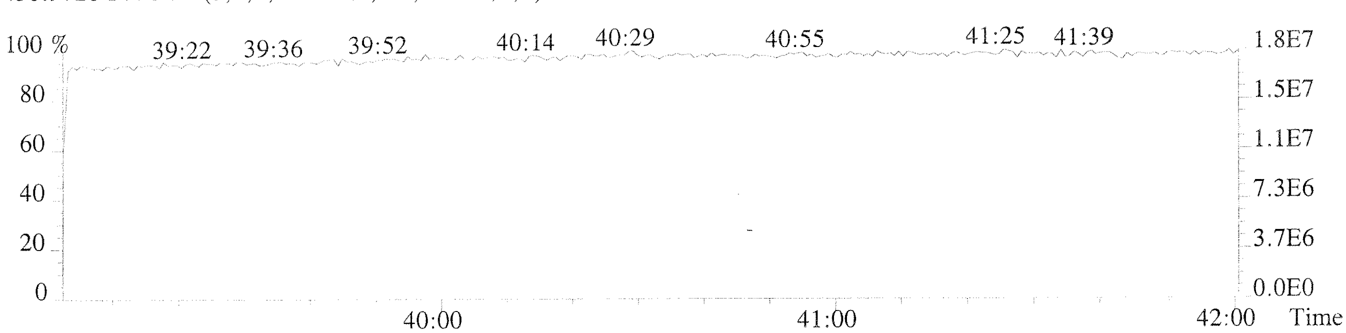
435.8169 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,488.0,0.40%,F,T)



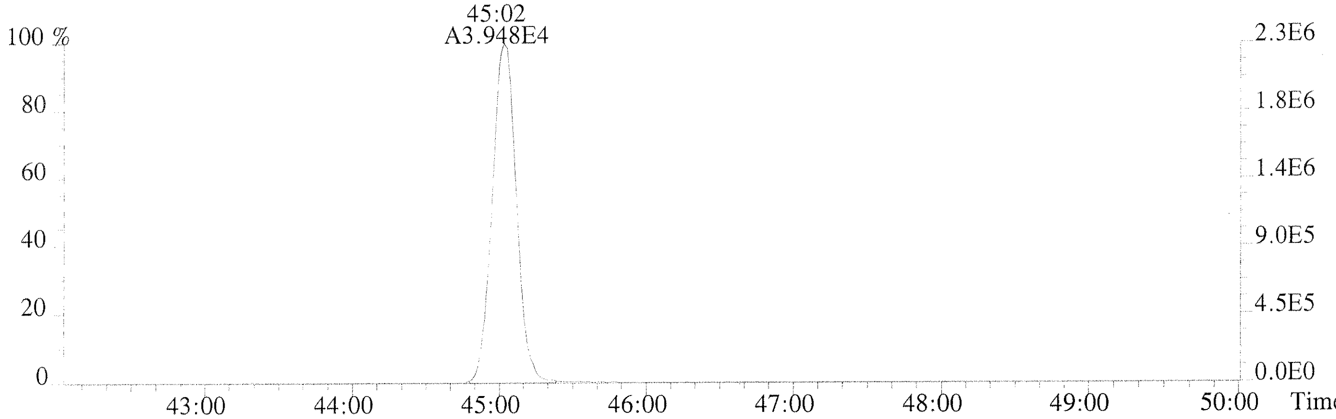
437.8140 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,224.0,0.40%,F,T)



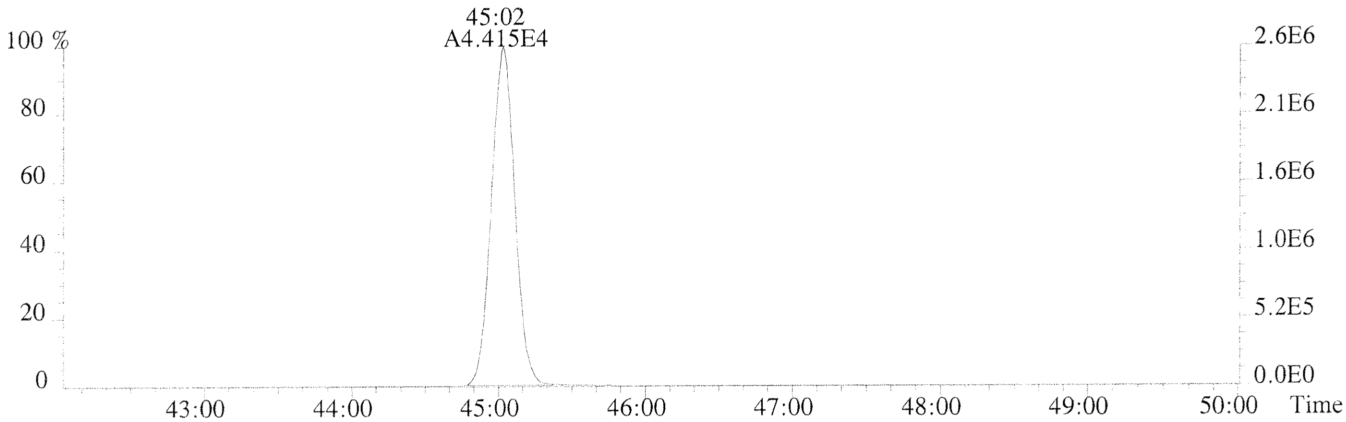
430.9728 F:4 PKD(3,3,3,100.00%,0.0,1.00%,F,F)



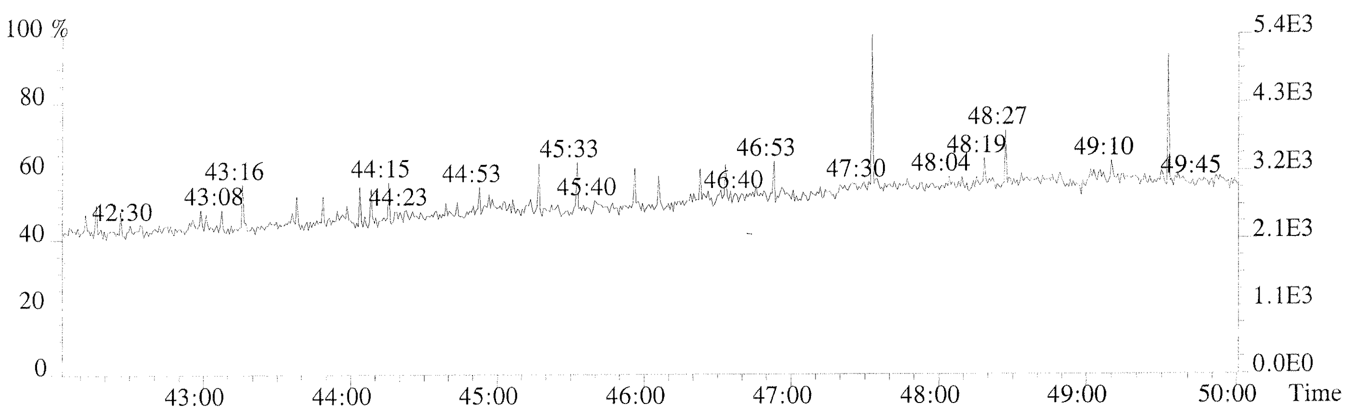
File 8231 #1-732 Acq: 6-JUL-2012 06:10:10 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:CCAL CS3
441.7428 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(5,3,5,0.30%,124.0,0.40%,F,T)



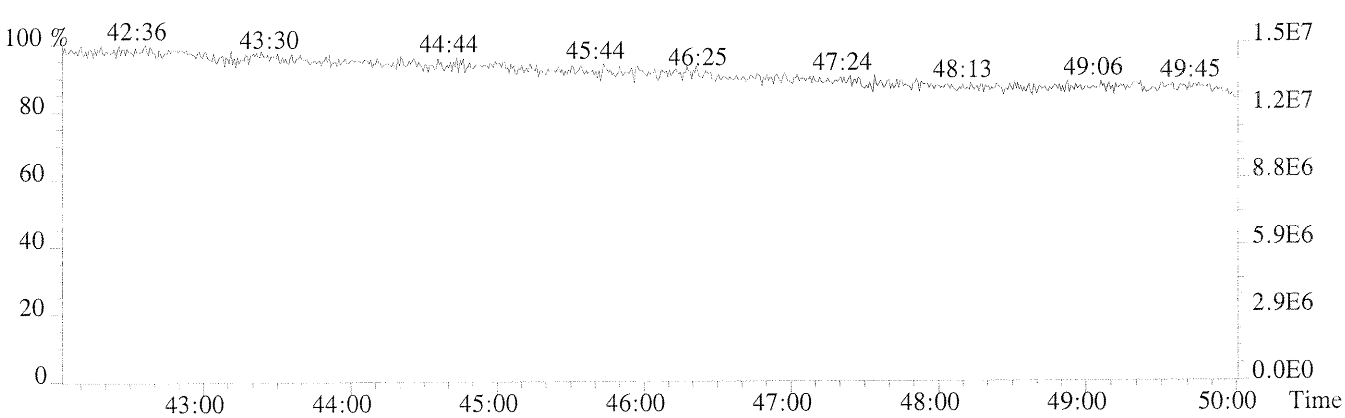
443.7399 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(5,3,5,0.30%,284.0,0.40%,F,T)



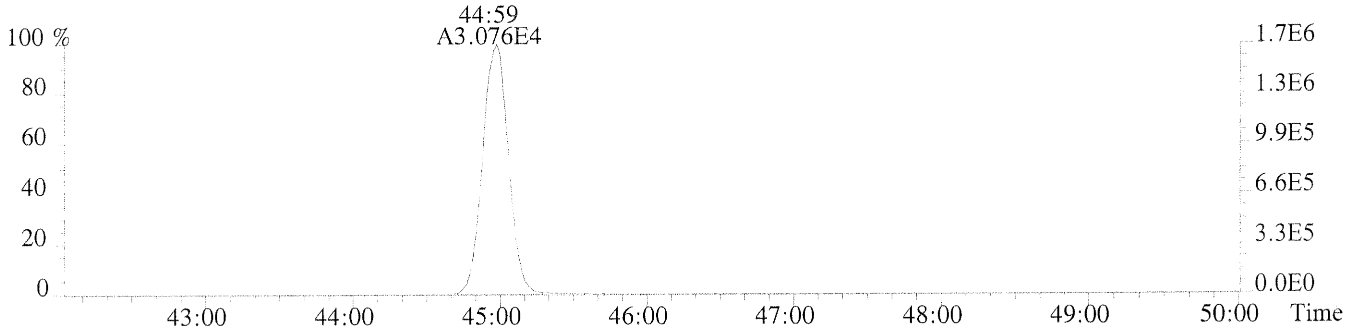
513.6775 F:5 PKD(5,3,5,100.00%,0.0,1.00%,F,F)



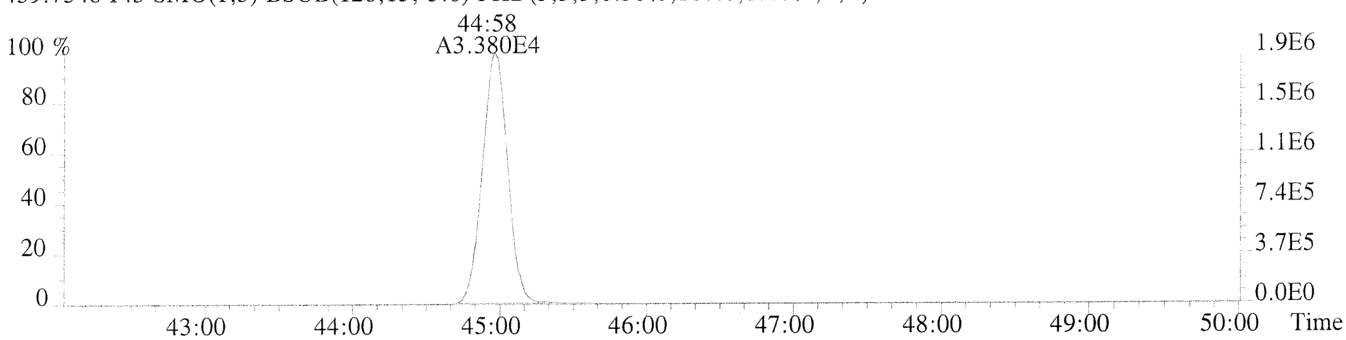
442.9728 F:5 PKD(3,3,3,100.00%,0.0,0.40%,F,F)



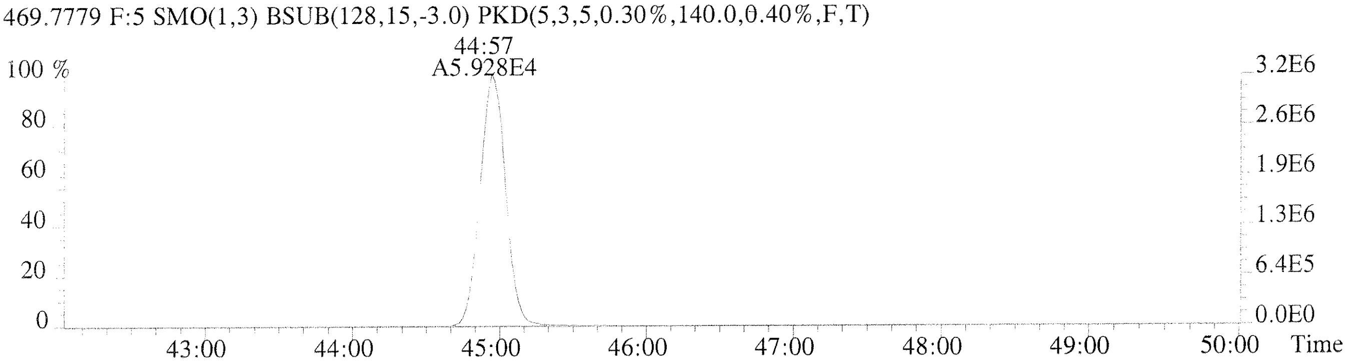
File: 3231 #1-732 Acq: 6-JUL-2012 06:10:10 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:CCAL CS3
457.7377 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(5,3,5,0.30%,156.0,0.40%,F,T)



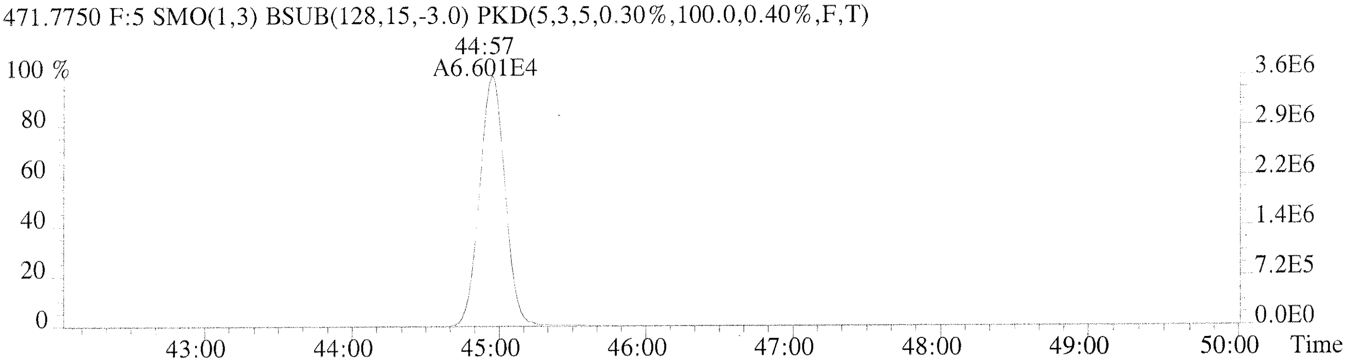
459.7348 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(5,3,5,0.30%,108.0,0.40%,F,T)



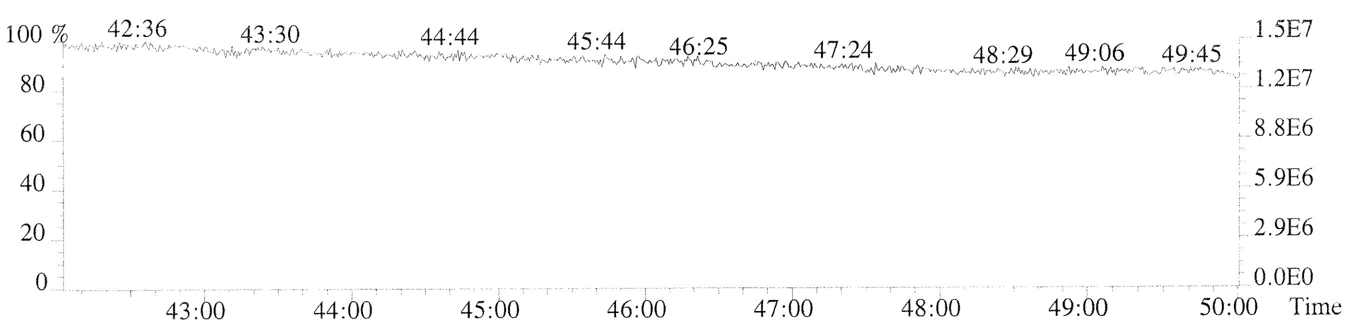
469.7779 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(5,3,5,0.30%,140.0,0.40%,F,T)



471.7750 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(5,3,5,0.30%,100.0,0.40%,F,T)



442.9728 F:5 PKD(3,3,3,100.00%,0.0,0.40%,F,F)



FORM 4A
PCDD/PCDF CALIBRATION VERIFICATION

Lab Name: Episode No.:

Contract No.: SAS No.:

Initial Calibration Date: 05/03/12

Instrument ID: AutoSpec-Premier GC Column ID: DB-5

VER Data Filename: 8240 Analysis Date: 6-JUL-12 Time: 14:38:40

NATIVE ANALYTES	M/Z'S FORMING RATIO (1)	ION ABUND. RATIO	QC LIMITS (2)	CONC. FOUND	CONC. RANGE (3) (ng/mL)
2,3,7,8-TCDD	M/M+2	0.79	0.65-0.89	10.2	7.8 - 12.9
1,2,3,7,8-PeCDD	M+2/M+4	1.60	1.32-1.78	53	39 - 65
1,2,3,4,7,8-HxCDD	M+2/M+4	1.26	1.05-1.43	54	39 - 64
1,2,3,6,7,8-HxCDD	M+2/M+4	1.28	1.05-1.43	47	39 - 64
1,2,3,7,8,9-HxCDD	M+2/M+4	1.25	1.05-1.43	51	41 - 61
1,2,3,4,6,7,8-HpCDD	M+2/M+4	1.05	0.88-1.20	49	43 - 58
OCDD	M+2/M+4	0.91	0.76-1.02	88	79 - 126
2,3,7,8-TCDF	M/M+2	0.74	0.65-0.89	10.7	8.4 - 12.0
1,2,3,7,8-PeCDF	M+2/M+4	1.56	1.32-1.78	51	41 - 60
2,3,4,7,8-PeCDF	M+2/M+4	1.58	1.32-1.78	56	41 - 61
1,2,3,4,7,8-HxCDF	M+2/M+4	1.24	1.05-1.43	49	45 - 56
1,2,3,6,7,8-HxCDF	M+2/M+4	1.27	1.05-1.43	52	44 - 57
1,2,3,7,8,9-HxCDF	M+2/M+4	1.27	1.05-1.43	50	45 - 56
2,3,4,6,7,8-HxCDF	M+2/M+4	1.25	1.05-1.43	50	44 - 57
1,2,3,4,6,7,8-HpCDF	M+2/M+4	1.05	0.88-1.20	49	45 - 55
1,2,3,4,7,8,9-HpCDF	M+2/M+4	1.05	0.88-1.20	52	43 - 58
OCDF	M+2/M+4	0.91	0.76-1.02	103	63 - 159

(1) See Table 8, Method 1613, for m/z specifications.

(2) Ion Abundance Ratio Control Limits as specified in Table 9, Method 1613.

(3) Contract-required concentration range as specified in Table 6, Method 1613, under VER.

6/90

FORM 4B
PCDD/PCDF CALIBRATION VERIFICATION

Lab Name: Episode No.:

Contract No.: SAS No.:

Initial Calibration Date: 05/03/12

Instrument ID: AutoSpec-Premier GC Column ID: DB-5

VER Data Filename: 8240 Analysis Date: 6-JUL-12 Time: 14:38:40

	M/Z'S FORMING RATIO (1)	ION ABUND. RATIO	QC LIMITS (2)	CONC. FOUND	CONC. RANGE (3) (ng/mL)
LABELED COMPOUNDS					
13C-2,3,7,8-TCDD	M/M+2	0.78	0.65-0.89	96	82 - 121
13C-1,2,3,7,8-PeCDD	M+2/M+4	1.61	1.32-1.78	78	62 - 160
13C-1,2,3,4,7,8-HxCDD	M+2/M+4	1.26	1.05-1.43	101	85 - 117
13C-1,2,3,6,7,8-HxCDD	M+2/M+4	1.27	1.05-1.43	102	85 - 118
13C-1,2,3,4,6,7,8-HpCDD	M+2/M+4	1.06	0.88-1.20	107	72 - 138
13C-OCDD	M+2/M+4	0.90	0.76-1.02	234	96 - 415
13C-2,3,7,8-TCDF	M/M+2	0.79	0.65-0.89	109	71 - 140
13C-1,2,3,7,8-PeCDF	M+2/M+4	1.61	1.32-1.78	96	76 - 130
13C-2,3,4,7,8-PeCDF	M+2/M+4	1.60	1.32-1.78	88	77 - 130
13C-1,2,3,4,7,8-HxCDF	M/M+2	0.52	0.43-0.59	121	76 - 131
13C-1,2,3,6,7,8-HxCDF	M/M+2	0.52	0.43-0.59	109	70 - 143
13C-1,2,3,7,8,9-HxCDF	M/M+2	0.53	0.43-0.59	116	74 - 135
13C-2,3,4,6,7,8-HxCDF	M/M+2	0.52	0.43-0.59	115	73 - 137
13C-1,2,3,4,6,7,8-HpCDF	M/M+2	0.45	0.37-0.51	125	78 - 129
13C-1,2,3,4,7,8,9-HpCDF	M/M+2	0.43	0.37-0.51	115	77 - 129
CLEANUP STANDARD					
37Cl-2,3,7,8-TCDD				9.5	7.9 - 12.7

(1) See Table 8, Method 1613, for m/z specifications.

(2) Ion Abundance Ratio Control Limits as specified in Table 9, Method 1613.

(3) Contract-required concentration range, as specified in Table 6, Method 1613, under VER.

(4) No ion abundance ratio; report concentration found.

6/90

Sample Response Summary

CLIENT ID.
CCAL CS3

Run #16 Filename 8240 #1 Samp: 1 Inj: 1 Acquired: 6-JUL-12 14:38:40
Processed: 14-JUL-12 09:23:14 LAB. ID: CCAL CS3

	Typ	Name	RT-1	Resp 1	Resp 2	Ratio	Meet	Mod?	RRT
1	Unk	2,3,7,8-TCDF	28:10	4.697e+03	6.336e+03	0.74	yes	no	1.001
2	Unk	1,2,3,7,8-PeCDF	32:46	2.962e+04	1.899e+04	1.56	yes	no	1.000
3	Unk	2,3,4,7,8-PeCDF	33:34	2.953e+04	1.870e+04	1.58	yes	no	1.000
4	Unk	1,2,3,4,7,8-HxCDF	36:40	2.494e+04	2.003e+04	1.24	yes	no	1.000
5	Unk	1,2,3,6,7,8-HxCDF	36:47	2.612e+04	2.059e+04	1.27	yes	no	1.000
6	Unk	2,3,4,6,7,8-HxCDF	37:21	2.301e+04	1.844e+04	1.25	yes	no	1.000
7	Unk	1,2,3,7,8,9-HxCDF	38:08	2.016e+04	1.594e+04	1.27	yes	no	1.000
8	Unk	1,2,3,4,6,7,8-HpCDF	39:52	2.199e+04	2.088e+04	1.05	yes	no	1.000
9	Unk	1,2,3,4,7,8,9-HpCDF	41:26	1.682e+04	1.604e+04	1.05	yes	no	1.000
10	Unk	OCDF	45:00	2.459e+04	2.712e+04	0.91	yes	no	1.003
11	Unk	2,3,7,8-TCDD	29:04	3.226e+03	4.081e+03	0.79	yes	no	1.001
12	Unk	1,2,3,7,8-PeCDD	33:57	1.776e+04	1.107e+04	1.60	yes	no	1.000
13	Unk	1,2,3,4,7,8-HxCDD	37:30	1.613e+04	1.279e+04	1.26	yes	no	1.000
14	Unk	1,2,3,6,7,8-HxCDD	37:36	1.485e+04	1.158e+04	1.28	yes	no	1.000
15	Unk	1,2,3,7,8,9-HxCDD	37:55	1.586e+04	1.265e+04	1.25	yes	no	1.009
16	Unk	1,2,3,4,6,7,8-HpCDD	41:02	1.321e+04	1.257e+04	1.05	yes	no	1.000
17	Unk	OCDD	44:55	1.931e+04	2.131e+04	0.91	yes	no	1.001
18	IS	13C-2,3,7,8-TCDF	28:09	4.823e+04	6.093e+04	0.79	yes	no	0.976
19	IS	13C-1,2,3,7,8-PeCDF	32:46	5.940e+04	3.692e+04	1.61	yes	no	1.136
20	IS	13C-2,3,4,7,8-PeCDF	33:33	5.520e+04	3.460e+04	1.60	yes	no	1.164
21	IS	13C-1,2,3,4,7,8-HxCDF	36:39	2.513e+04	4.825e+04	0.52	yes	no	0.967
22	IS	13C-1,2,3,6,7,8-HxCDF	36:46	2.634e+04	5.020e+04	0.52	yes	no	0.970
23	IS	13C-2,3,4,6,7,8-HxCDF	37:20	2.432e+04	4.700e+04	0.52	yes	no	0.985
24	IS	13C-1,2,3,7,8,9-HxCDF	38:07	2.140e+04	4.010e+04	0.53	yes	no	1.006
25	IS	13C-1,2,3,4,6,7,8-HpCDF	39:52	1.931e+04	4.290e+04	0.45	yes	no	1.052
26	IS	13C-1,2,3,4,7,8,9-HpCDF	41:25	1.416e+04	3.274e+04	0.43	yes	no	1.093
27	IS	13C-2,3,7,8-TCDD	29:03	3.083e+04	3.952e+04	0.78	yes	no	1.008
28	IS	13C-1,2,3,7,8-PeCDD	33:56	3.510e+04	2.182e+04	1.61	yes	no	1.177
29	IS	13C-1,2,3,4,7,8-HxCDD	37:30	2.779e+04	2.213e+04	1.26	yes	no	0.989
30	IS	13C-1,2,3,6,7,8-HxCDD	37:35	3.022e+04	2.382e+04	1.27	yes	no	0.992
31	IS	13C-1,2,3,4,6,7,8-HpCDD	41:01	2.548e+04	2.401e+04	1.06	yes	no	1.082
32	IS	13C-OCDD	44:53	3.677e+04	4.064e+04	0.90	yes	no	1.184
33	RS/RT	13C-1,2,3,4-TCDD	28:50	3.482e+04	4.372e+04	0.80	yes	no	*
34	RS/RT	13C-1,2,3,7,8,9-HxCDD	37:54	2.935e+04	2.292e+04	1.28	yes	no	*
35	C/Up	37Cl-2,3,7,8-TCDD	29:04	7.122e+03				no	1.008

Signal/Noise Height Ratio Summary

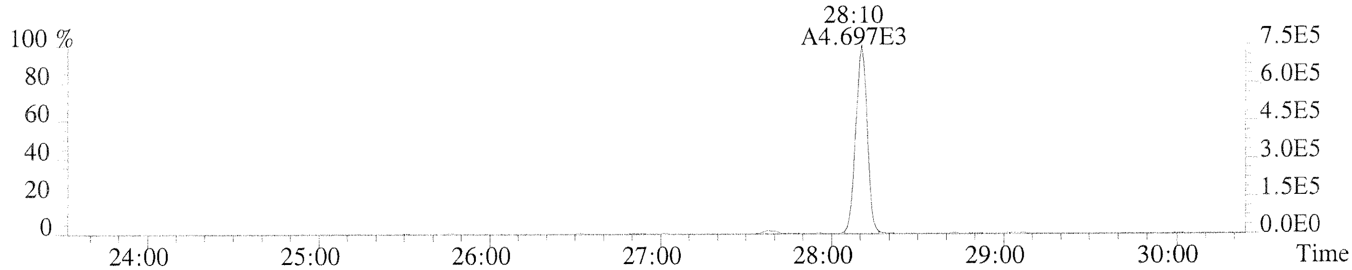
CLIENT ID.
CCAL CS3

Run #16 Filename 8240 Samp: 1 Inj: 1 Acquired: 6-JUL-12 14:38:40
Processed: 14-JUL-12 09:23:141 LAB. ID: CCAL CS3

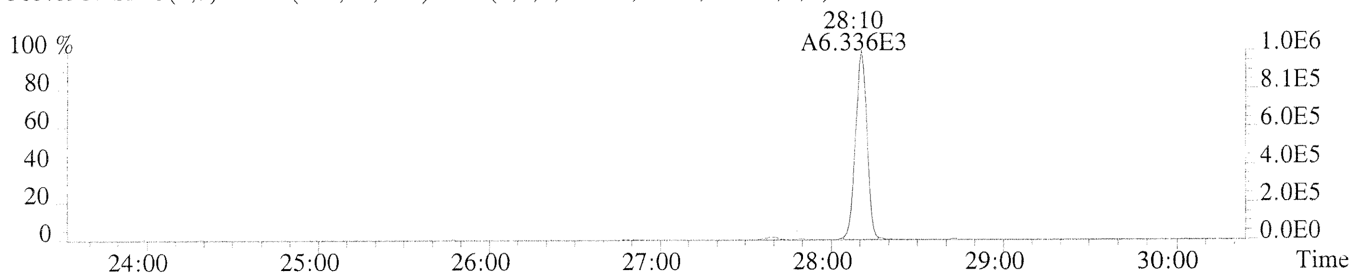
	Name	Signal 1	Noise 1	S/N Rat.1	Signal 2	Noise 2	S/N Rat.2
1	2,3,7,8-TCDF	7.47e+05	4.40e+02	1.7e+03	1.01e+06	6.12e+02	1.6e+03
2	1,2,3,7,8-PeCDF	5.44e+06	5.88e+02	9.2e+03	3.51e+06	8.00e+02	4.4e+03
3	2,3,4,7,8-PeCDF	5.68e+06	5.88e+02	9.7e+03	3.57e+06	8.00e+02	4.5e+03
4	1,2,3,4,7,8-HxCDF	4.54e+06	5.32e+02	8.5e+03	3.60e+06	1.20e+02	3.0e+04
5	1,2,3,6,7,8-HxCDF	4.48e+06	5.32e+02	8.4e+03	3.57e+06	1.20e+02	3.0e+04
6	2,3,4,6,7,8-HxCDF	3.82e+06	5.32e+02	7.2e+03	3.03e+06	1.20e+02	2.5e+04
7	1,2,3,7,8,9-HxCDF	3.05e+06	5.32e+02	5.7e+03	2.41e+06	1.20e+02	2.0e+04
8	1,2,3,4,6,7,8-HpCDF	2.67e+06	1.23e+03	2.2e+03	2.50e+06	3.56e+02	7.0e+03
9	1,2,3,4,7,8,9-HpCDF	1.61e+06	1.23e+03	1.3e+03	1.48e+06	3.56e+02	4.2e+03
10	OCDF	1.44e+06	1.40e+02	1.0e+04	1.51e+06	6.52e+02	2.3e+03
11	2,3,7,8-TCDD	5.54e+05	3.84e+02	1.4e+03	6.70e+05	2.92e+02	2.3e+03
12	1,2,3,7,8-PeCDD	3.40e+06	2.00e+02	1.7e+04	2.14e+06	2.28e+02	9.4e+03
13	1,2,3,4,7,8-HxCDD	2.63e+06	3.68e+02	7.2e+03	2.08e+06	3.04e+02	6.9e+03
14	1,2,3,6,7,8-HxCDD	2.30e+06	3.68e+02	6.2e+03	1.81e+06	3.04e+02	6.0e+03
15	1,2,3,7,8,9-HxCDD	2.42e+06	3.68e+02	6.6e+03	1.95e+06	3.04e+02	6.4e+03
16	1,2,3,4,6,7,8-HpCDD	1.27e+06	2.84e+02	4.5e+03	1.19e+06	2.04e+02	5.8e+03
17	OCDD	1.07e+06	2.56e+02	4.2e+03	1.14e+06	3.92e+02	2.9e+03
18	13C-2,3,7,8-TCDF	7.49e+06	1.52e+03	4.9e+03	9.49e+06	5.56e+02	1.7e+04
19	13C-1,2,3,7,8-PeCDF	1.11e+07	2.56e+02	4.4e+04	6.92e+06	3.04e+02	2.3e+04
20	13C-2,3,4,7,8-PeCDF	1.05e+07	2.56e+02	4.1e+04	6.59e+06	3.04e+02	2.2e+04
21	13C-1,2,3,4,7,8-HxCDF	4.50e+06	5.44e+02	8.3e+03	8.67e+06	5.44e+02	1.6e+04
22	13C-1,2,3,6,7,8-HxCDF	4.58e+06	5.44e+02	8.4e+03	8.80e+06	5.44e+02	1.6e+04
23	13C-2,3,4,6,7,8-HxCDF	4.04e+06	5.44e+02	7.4e+03	7.73e+06	5.44e+02	1.4e+04
24	13C-1,2,3,7,8,9-HxCDF	3.19e+06	5.44e+02	5.9e+03	6.09e+06	5.44e+02	1.1e+04
25	13C-1,2,3,4,6,7,8-HpCDF	2.26e+06	1.96e+03	1.2e+03	5.08e+06	1.62e+03	3.1e+03
26	13C-1,2,3,4,7,8,9-HpCDF	1.34e+06	1.96e+03	6.9e+02	3.07e+06	1.62e+03	1.9e+03
27	13C-2,3,7,8-TCDD	5.21e+06	1.16e+03	4.5e+03	6.70e+06	9.20e+02	7.3e+03
28	13C-1,2,3,7,8-PeCDD	6.77e+06	3.44e+02	2.0e+04	4.23e+06	1.40e+02	3.0e+04
29	13C-1,2,3,4,7,8-HxCDD	4.53e+06	8.88e+02	5.1e+03	3.55e+06	3.28e+02	1.1e+04
30	13C-1,2,3,6,7,8-HxCDD	4.76e+06	8.88e+02	5.4e+03	3.80e+06	3.28e+02	1.2e+04
31	13C-1,2,3,4,6,7,8-HpCDD	2.43e+06	3.00e+02	8.1e+03	2.29e+06	2.64e+02	8.7e+03
32	13C-OCDD	2.07e+06	2.76e+02	7.5e+03	2.26e+06	2.48e+02	9.1e+03
33	13C-1,2,3,4-TCDD	5.72e+06	1.16e+03	4.9e+03	7.20e+06	9.20e+02	7.8e+03
34	13C-1,2,3,7,8,9-HxCDD	4.43e+06	8.88e+02	5.0e+03	3.54e+06	3.28e+02	1.1e+04
35	37Cl-2,3,7,8-TCDD	1.19e+06	4.48e+02	2.6e+03			

File 8240 #1-572 Acq: 6-JUL-2012 14:38:40 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:CCAL CS3

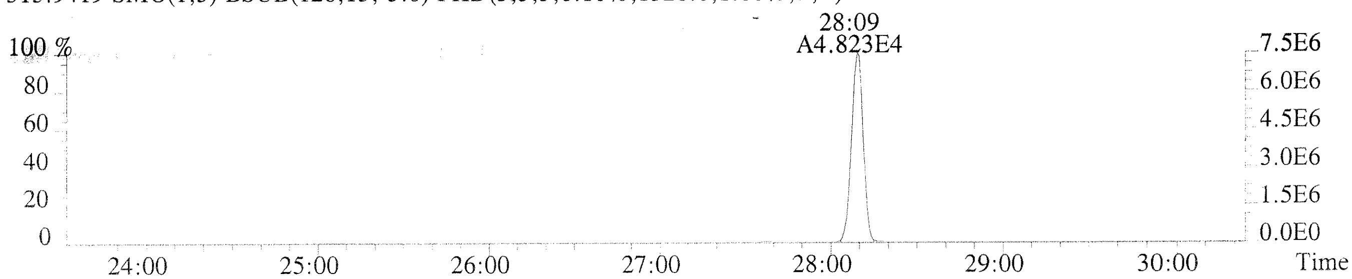
303.9016 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,440.0,1.00%,F,T)



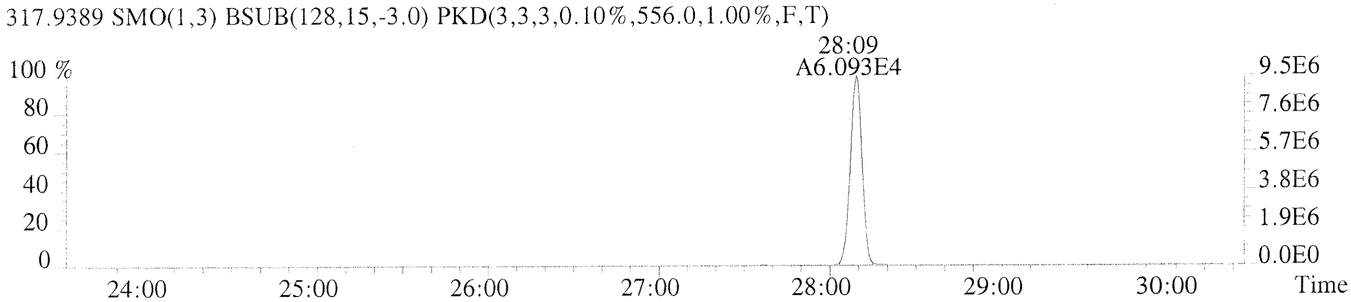
305.8987 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,612.0,1.00%,F,T)



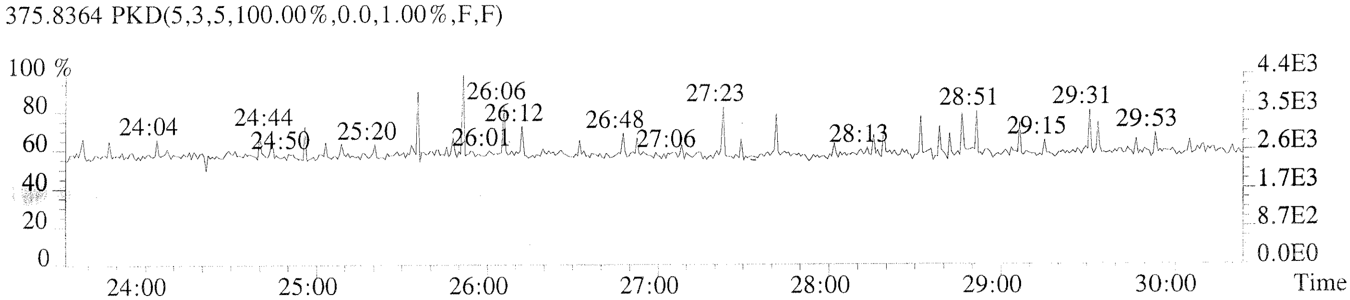
315.9419 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,1520.0,1.00%,F,T)



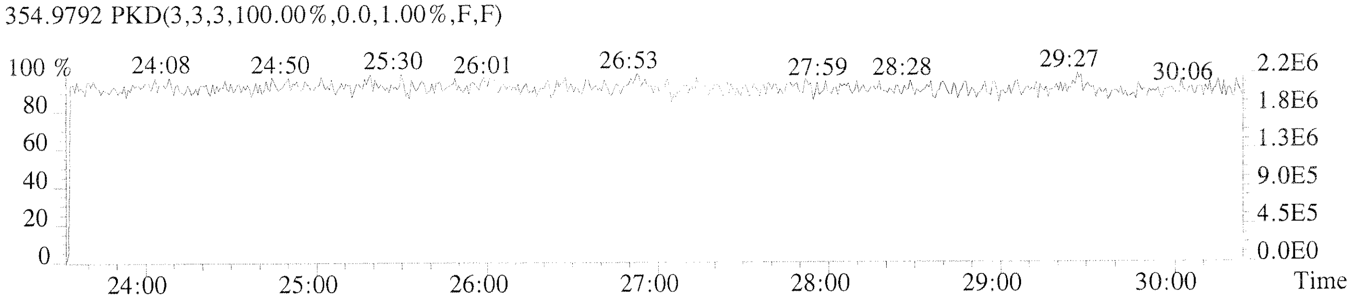
317.9389 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,556.0,1.00%,F,T)



375.8364 PKD(5,3,5,100.00%,0.0,1.00%,F,F)

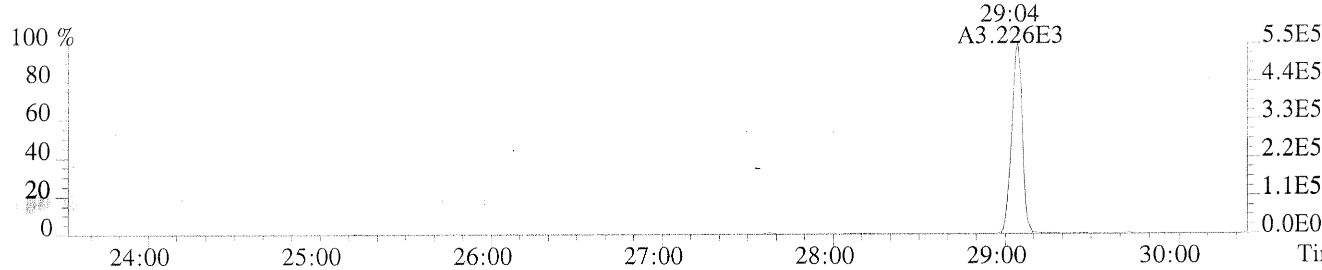


354.9792 PKD(3,3,3,100.00%,0.0,1.00%,F,F)

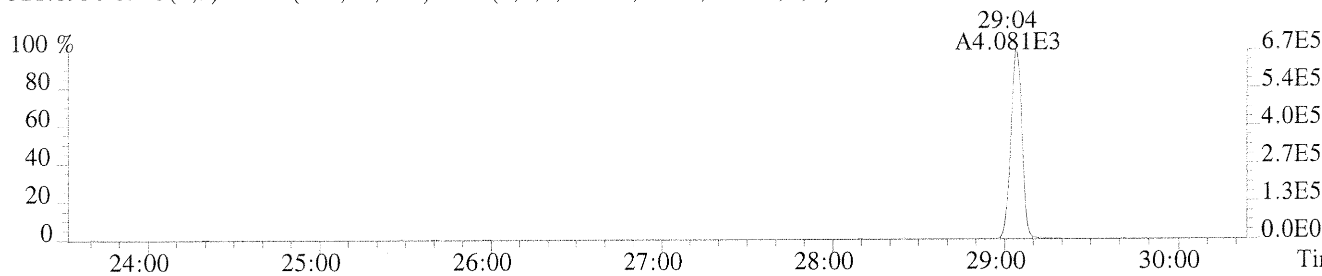


File: 8240 #1-572 Acq: 6-JUL-2012 14:38:40 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:CCAL CS3

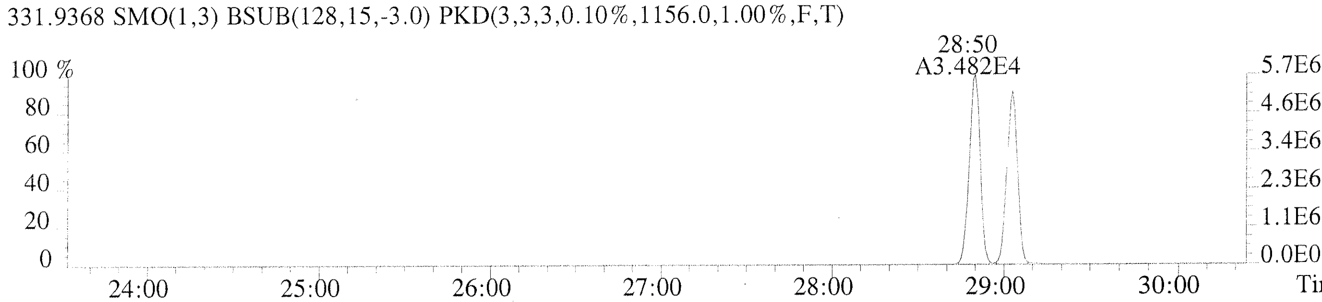
319.8965 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,384.0,1.00%,F,T)



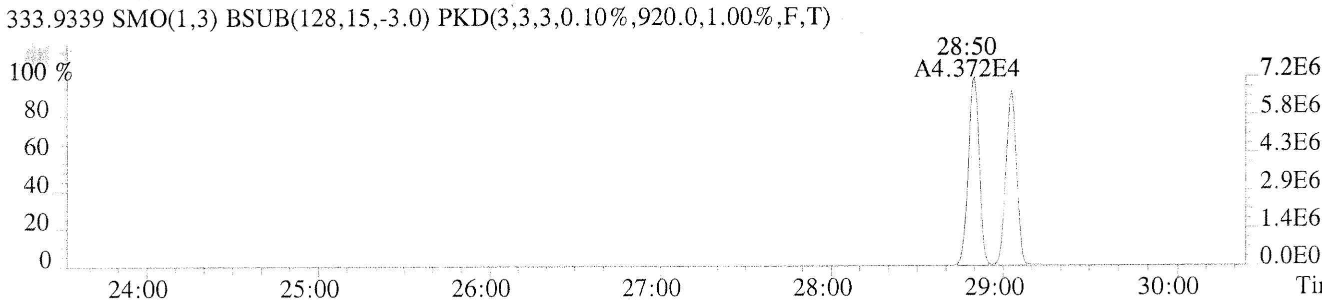
321.8936 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,292.0,1.00%,F,T)



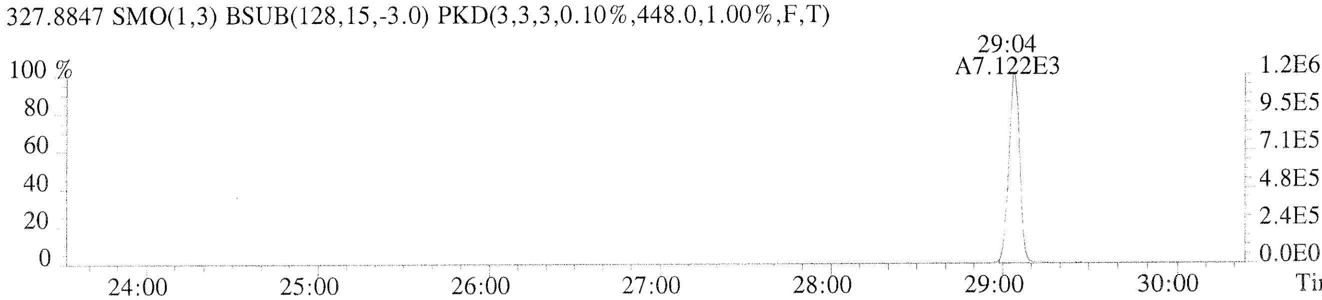
331.9368 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,1156.0,1.00%,F,T)



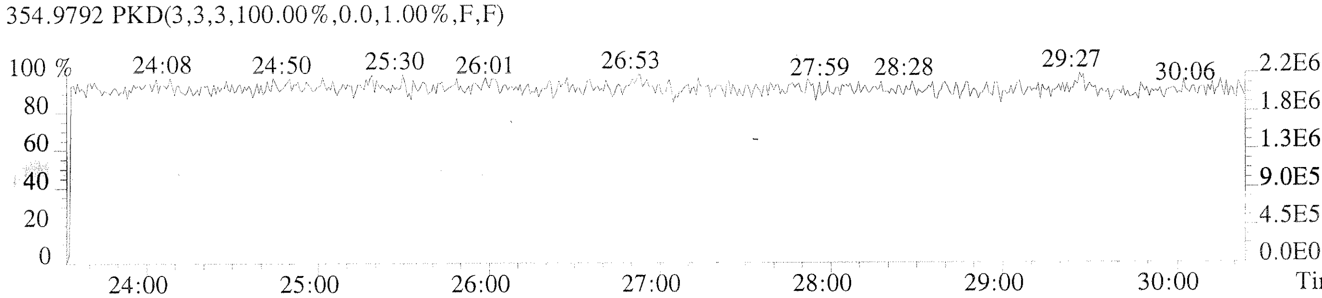
333.9339 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,920.0,1.00%,F,T)



327.8847 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,448.0,1.00%,F,T)

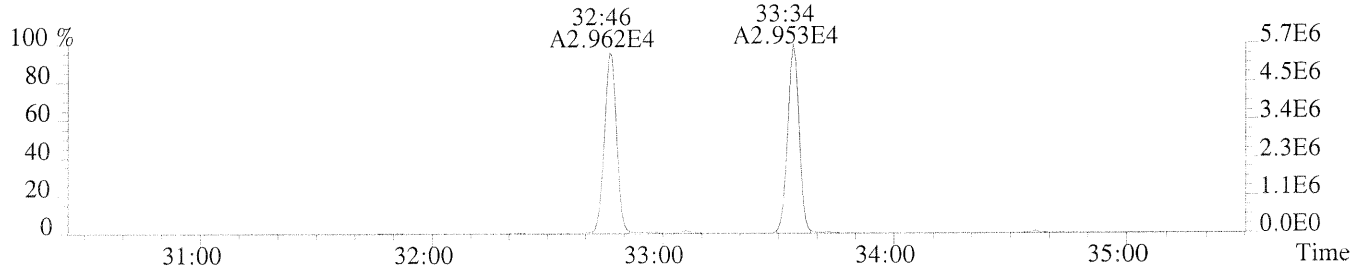


354.9792 PKD(3,3,3,100.00%,0.0,1.00%,F,F)

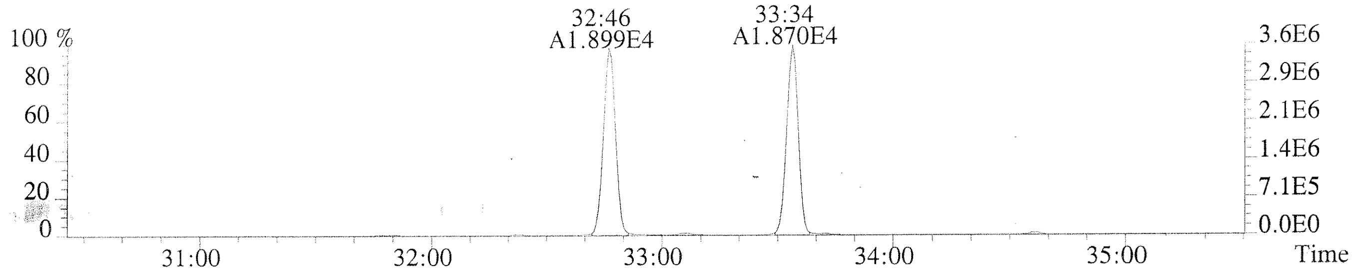


File: 8240 #1-461 Acq: 6-JUL-2012 14:38:40 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:CCAL CS3

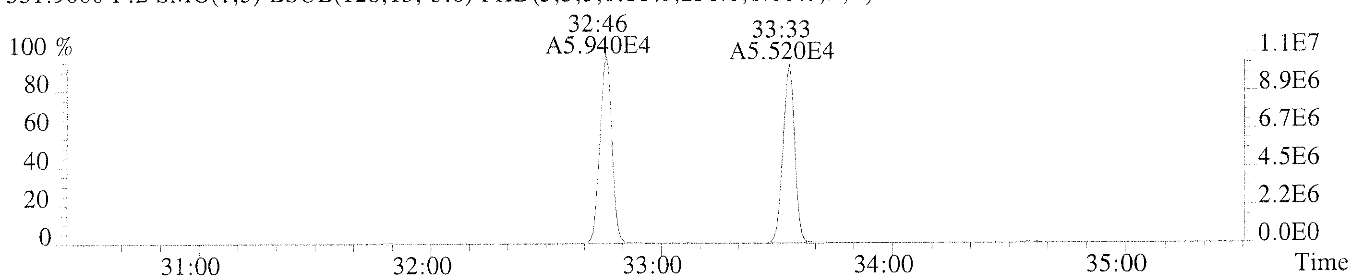
339.8597 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,588.0,1.00%,F,T)



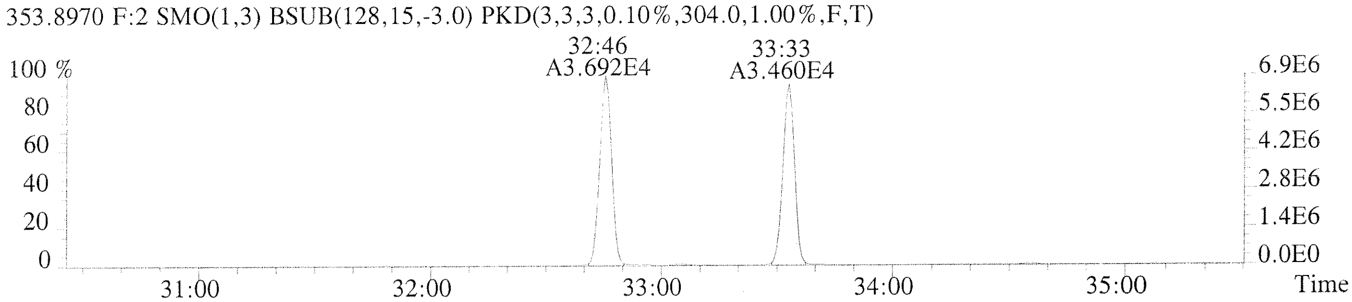
341.8567 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,800.0,1.00%,F,T)



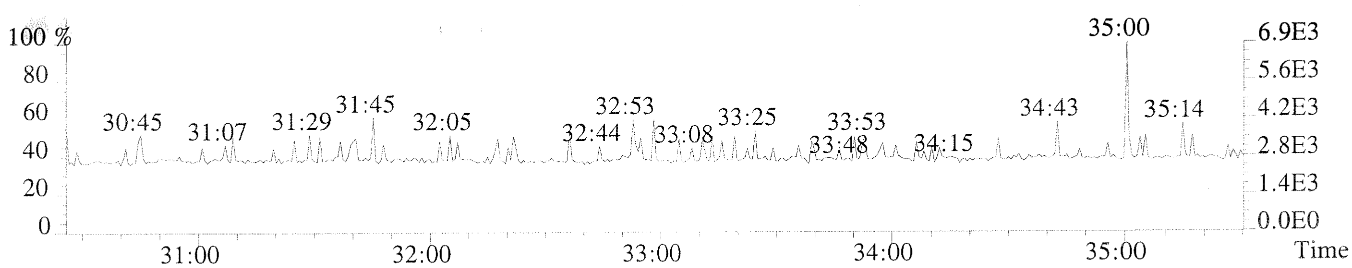
351.9000 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,256.0,1.00%,F,T)



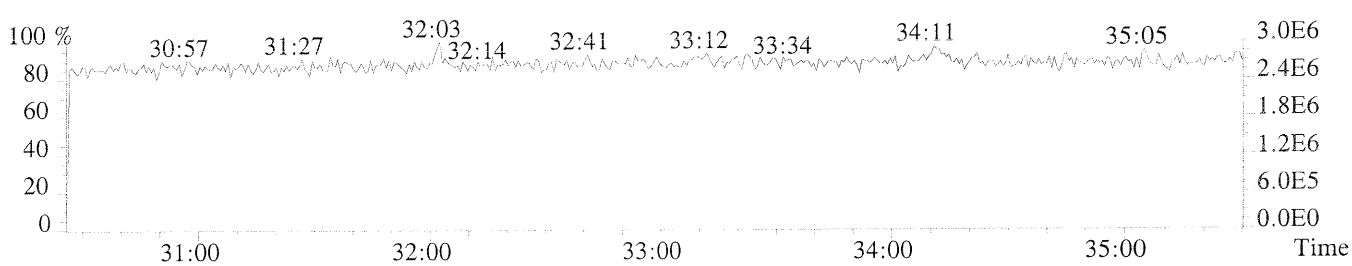
353.8970 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,304.0,1.00%,F,T)



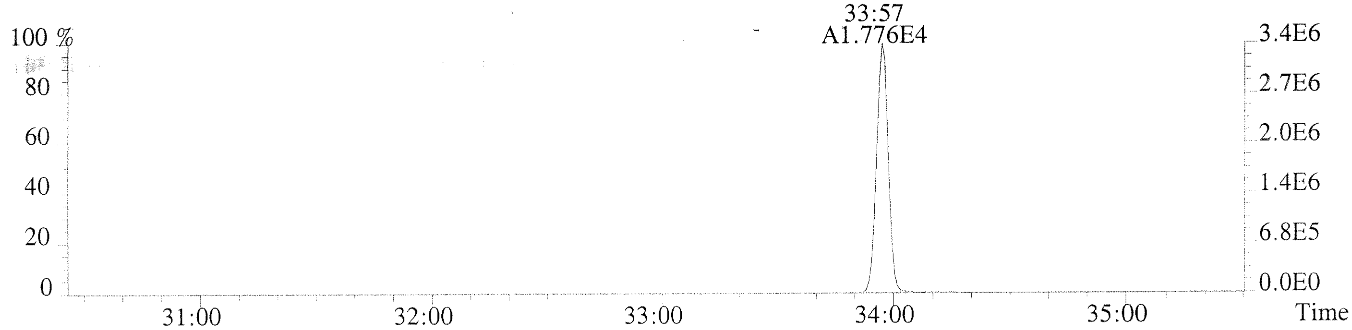
409.7974 F:2 PKD(5,3,5,100.00%,0.0,1.00%,F,F)



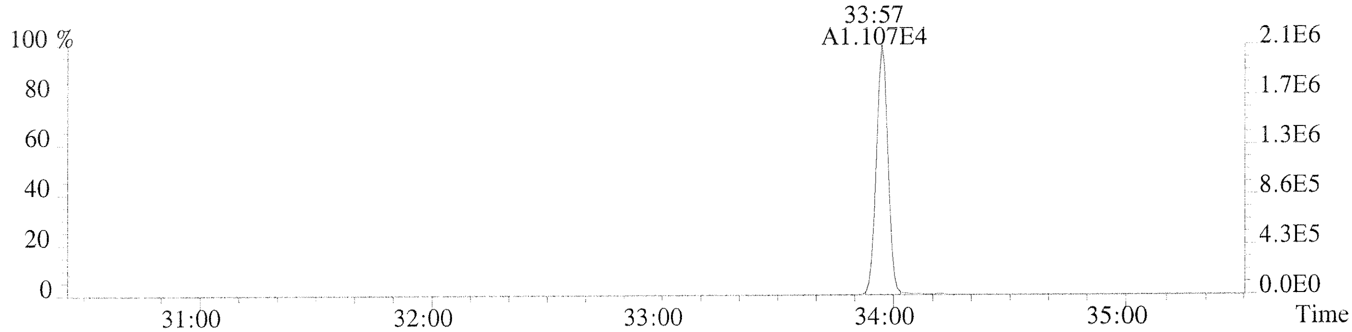
354.9792 F:2 PKD(3,3,3,100.00%,0.0,1.00%,F,F)



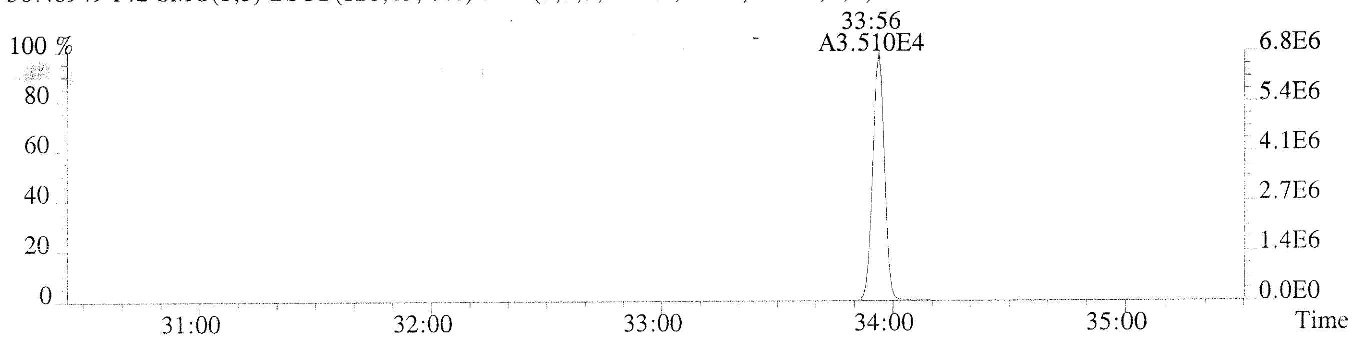
File: 8240 #1-461 Acq: 6-JUL-2012 14:38:40 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:CCAL CS3
355.8546 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,200.0,1.00%,F,T)



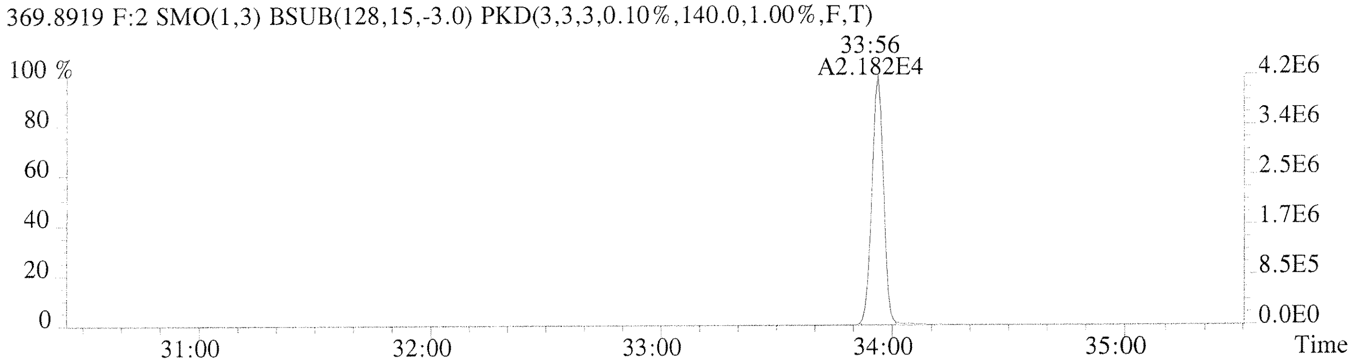
357.8517 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,228.0,1.00%,F,T)



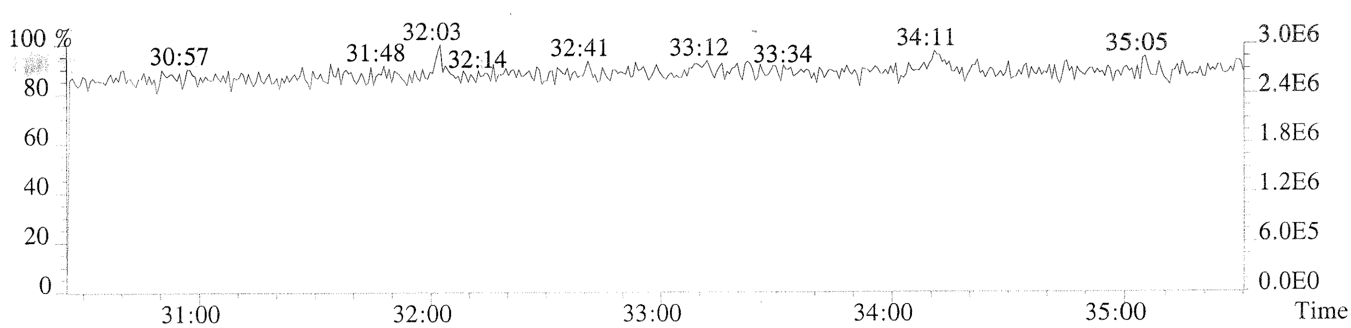
367.8949 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,344.0,1.00%,F,T)



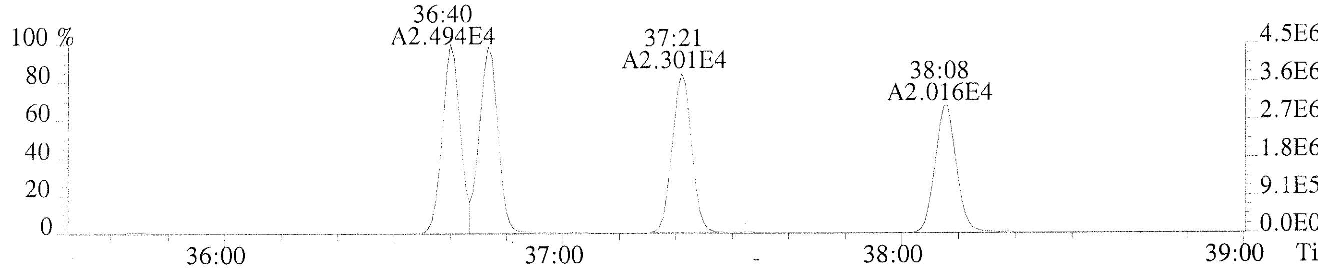
369.8919 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,140.0,1.00%,F,T)



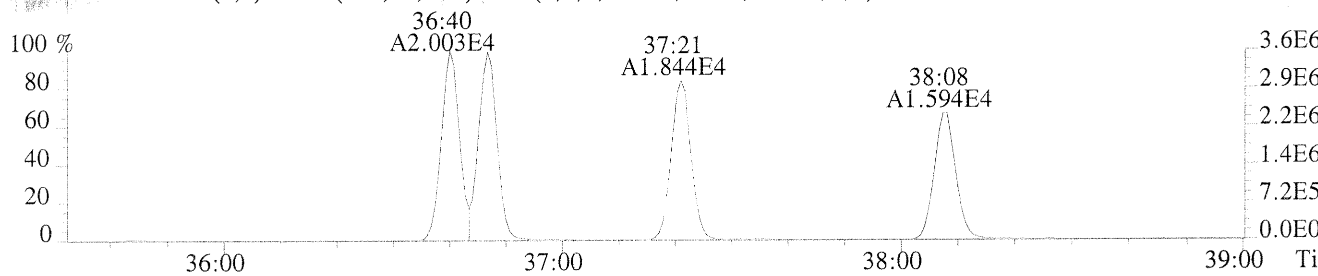
354.9792 F:2 PKD(3,3,3,100.00%,0.0,1.00%,F,F)



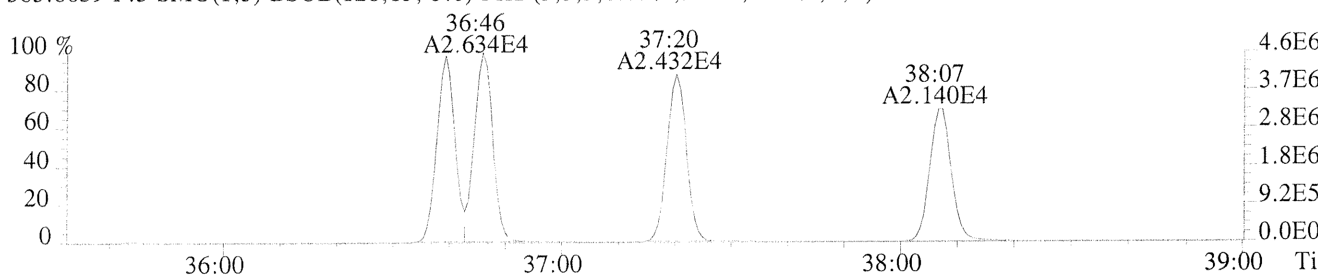
File 8240 #1-315 Acq: 6-JUL-2012 14:38:40 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:CCAL CS3
373.8208 F:3 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,532.0,0.40%,F,T)



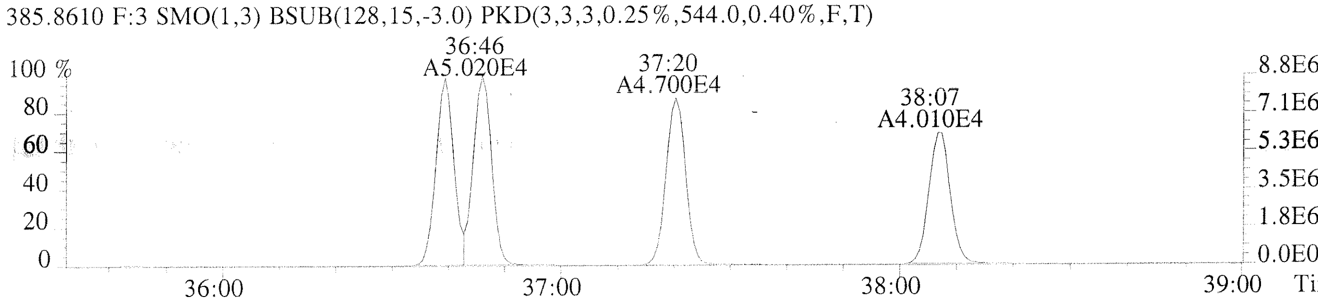
375.8178 F:3 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,120.0,0.40%,F,T)



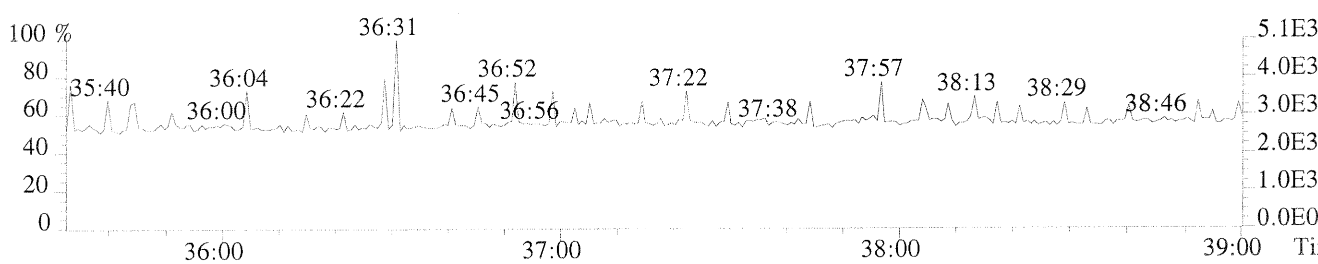
383.8639 F:3 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,544.0,0.40%,F,T)



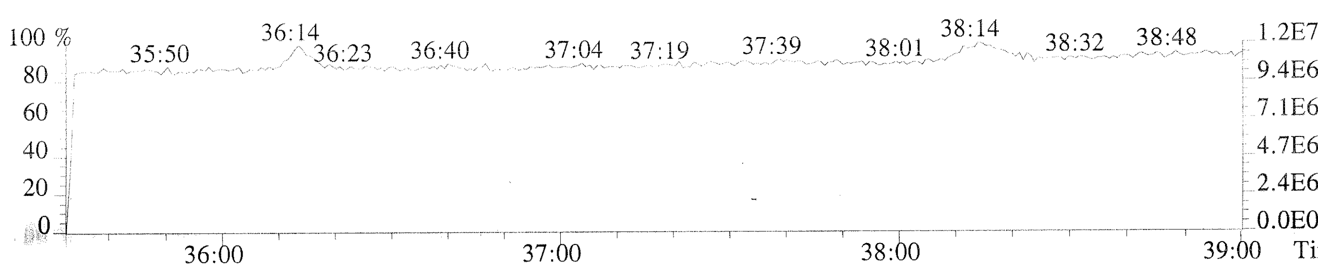
385.8610 F:3 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,544.0,0.40%,F,T)



445.7555 F:3 PKD(5,3,5,100.00%,0.0,1.00%,F,F)

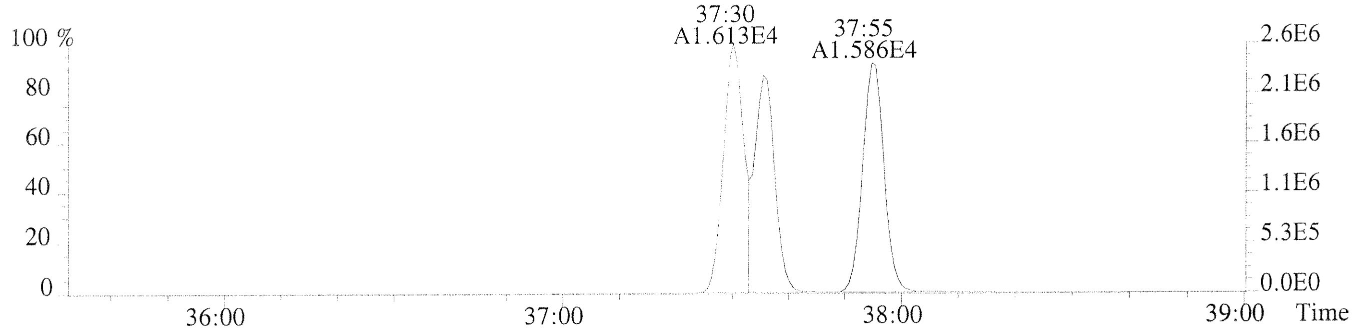


430.9728 F:3 PKD(3,3,3,100.00%,0.0,1.00%,F,F)

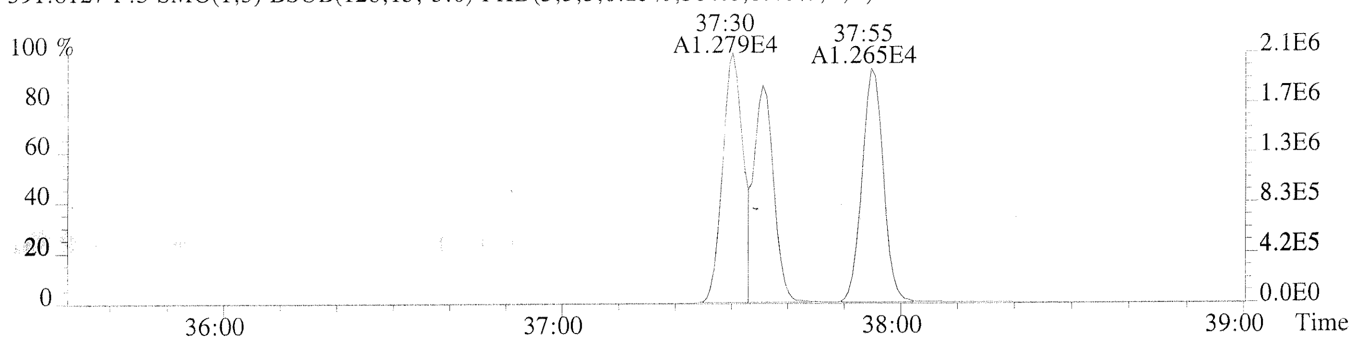


File: 8240 #1-315 Acq: 6-JUL-2012 14:38:40 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:CCAL CS3

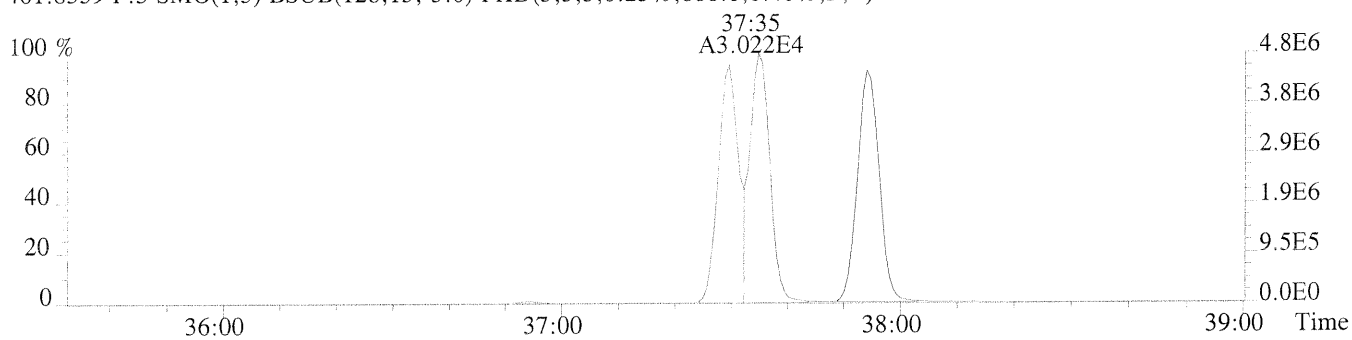
389.8157 F:3 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,368.0,0.40%,F,T)



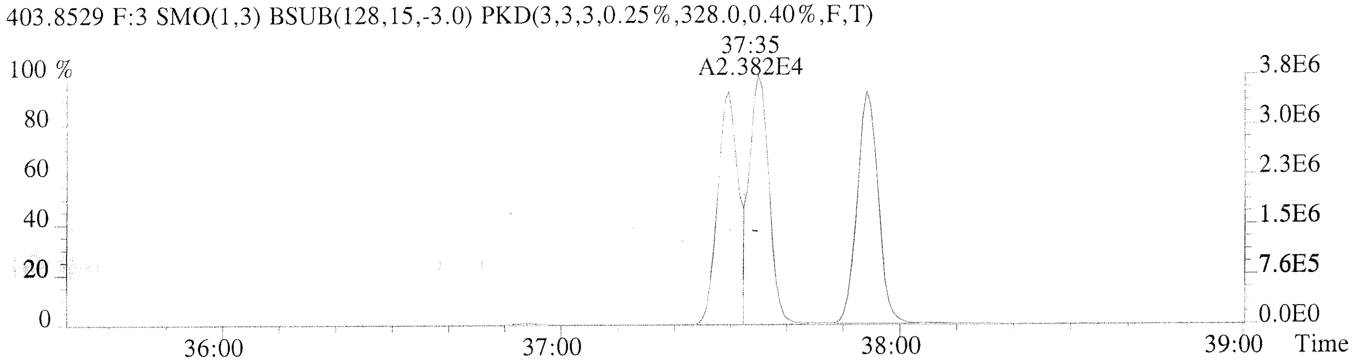
391.8127 F:3 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,304.0,0.40%,F,T)



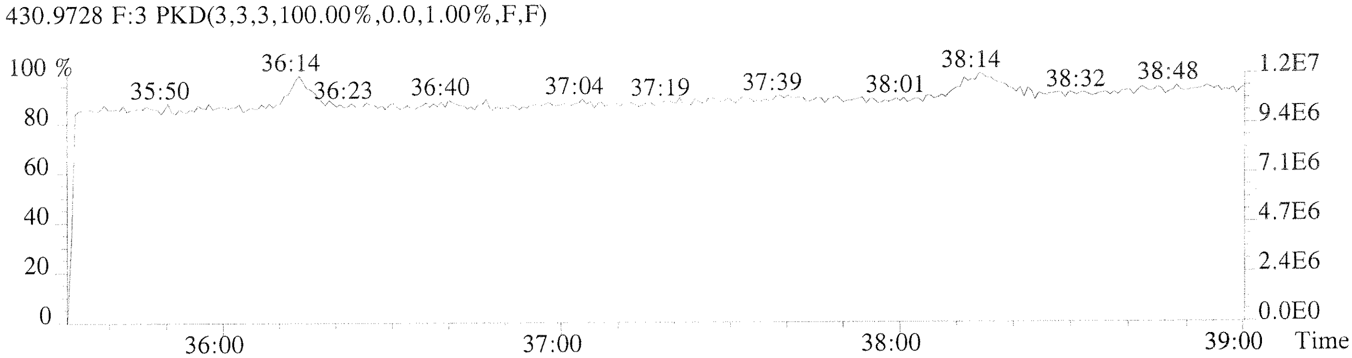
401.8559 F:3 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,888.0,0.40%,F,T)



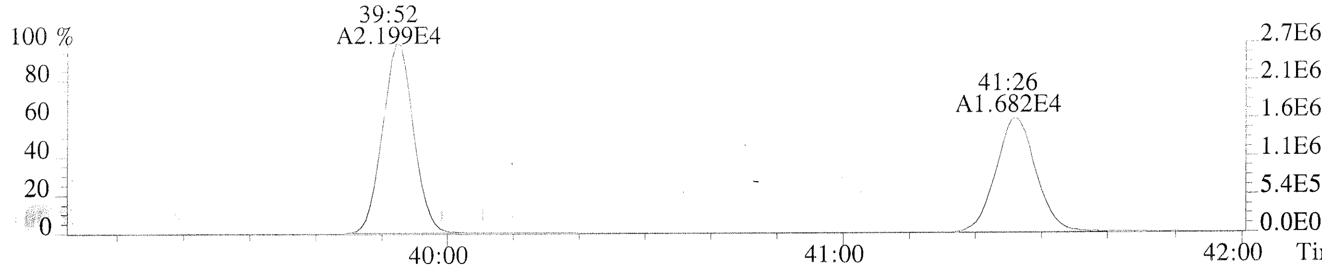
403.8529 F:3 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,328.0,0.40%,F,T)



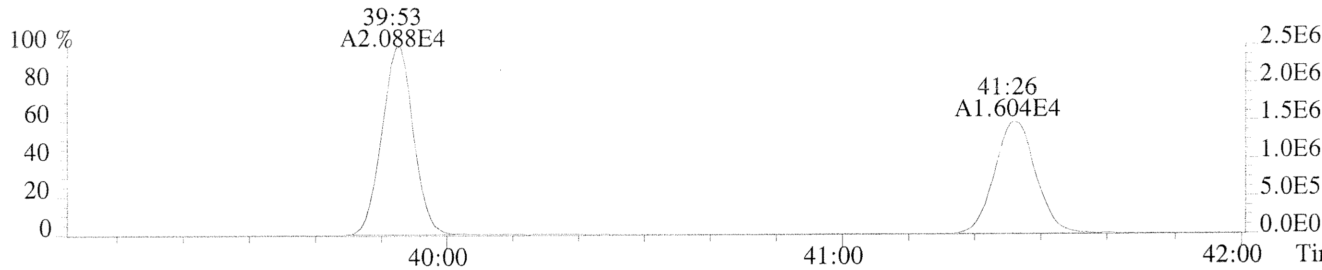
430.9728 F:3 PKD(3,3,3,100.00%,0.0,1.00%,F,F)



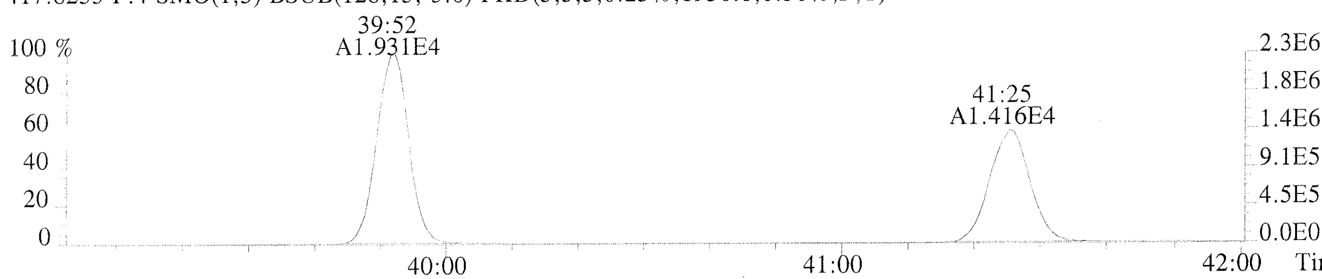
File: 8240 #1-270 Acq: 6-JUL-2012 14:38:40 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:CCAL CS3
407.7818 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,1228.0,0.50%,F,T)



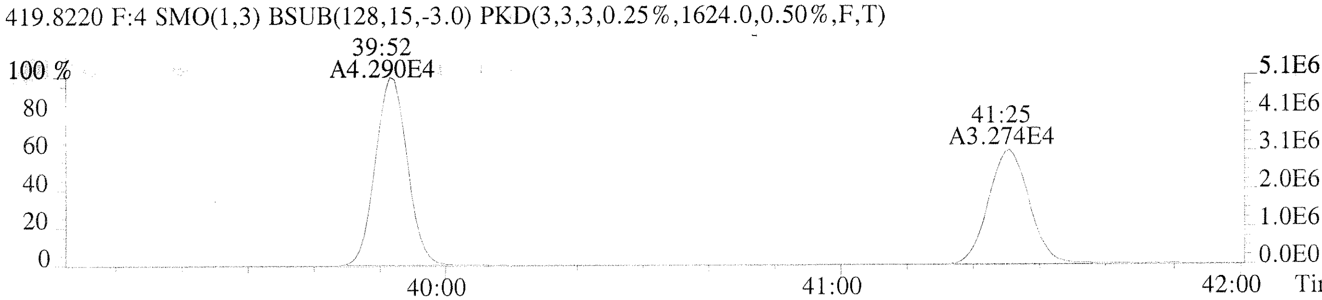
409.7789 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,356.0,0.50%,F,T)



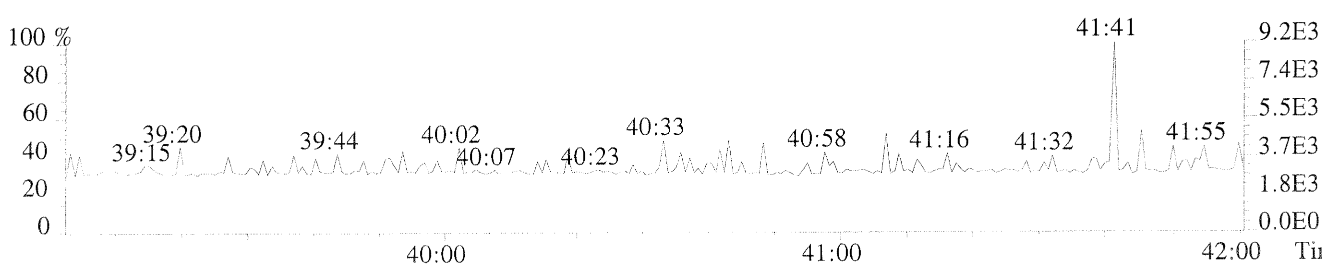
417.8253 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,1956.0,0.50%,F,T)



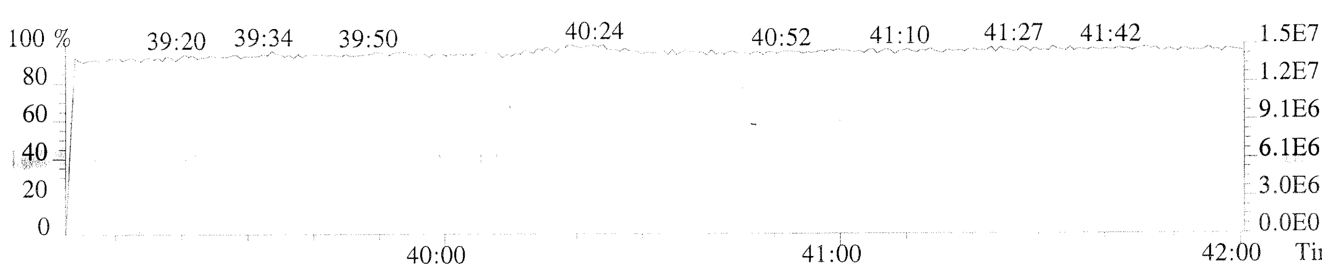
419.8220 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,1624.0,0.50%,F,T)



479.7165 F:4 PKD(5,3,5,100.00%,0.0,1.00%,F,F)

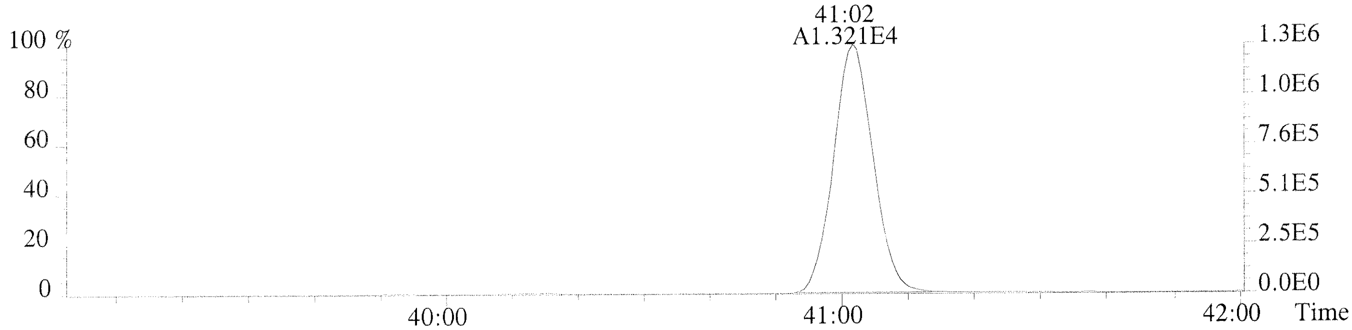


430.9728 F:4 PKD(3,3,3,100.00%,0.0,1.00%,F,F)

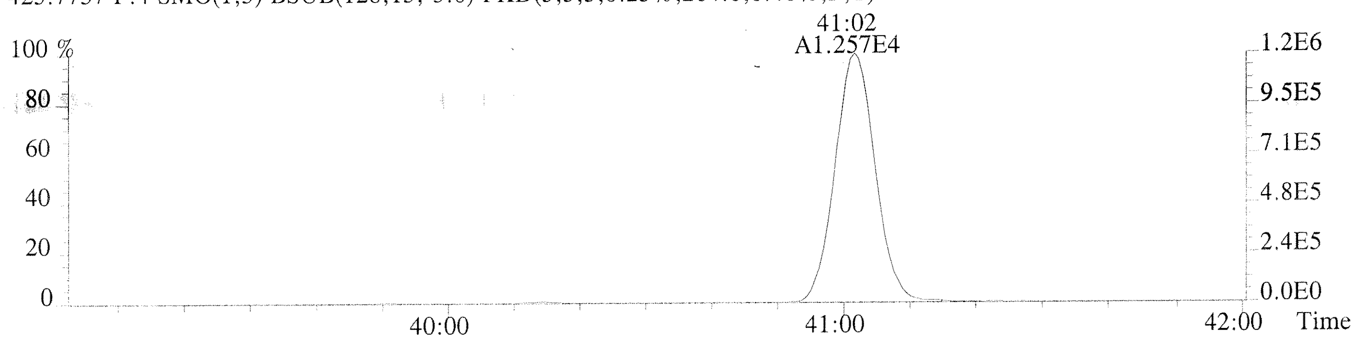


File 8240 #1-270 Acq: 6-JUL-2012 14:38:40 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:CCAL CS3

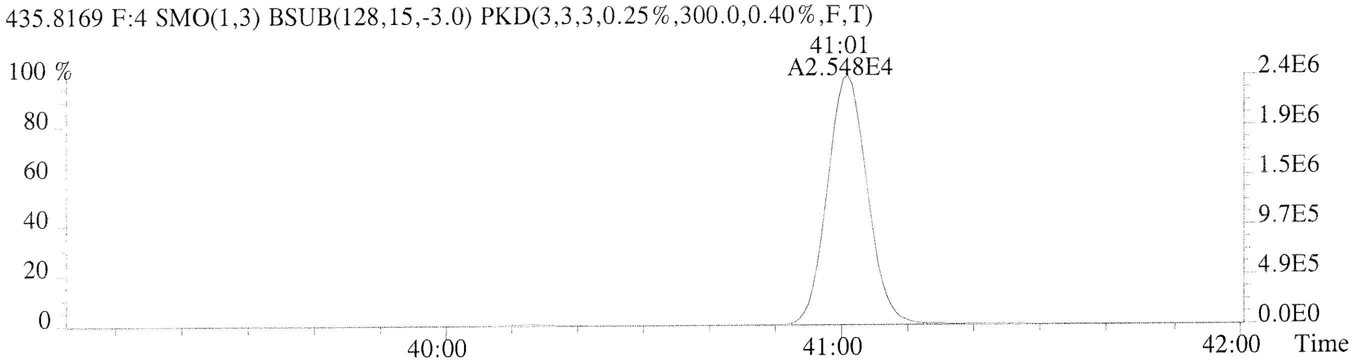
423.7766 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,284.0,0.40%,F,T)



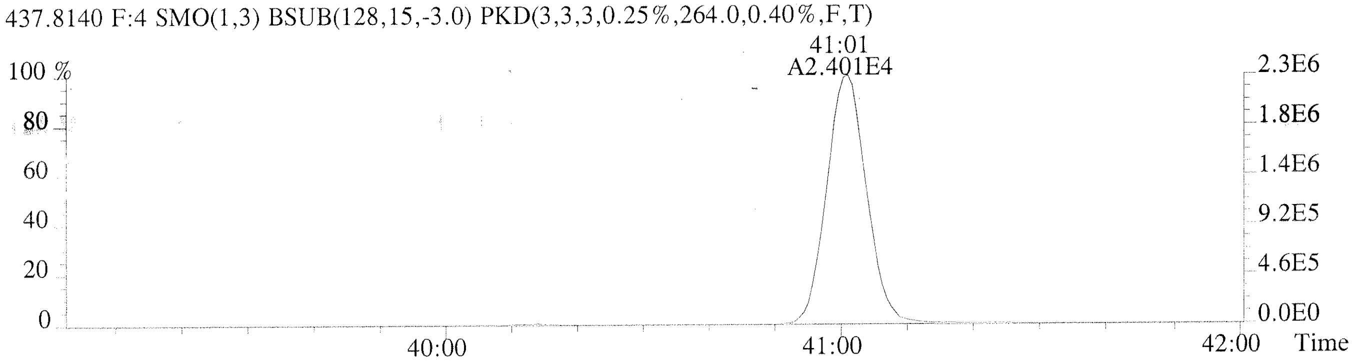
425.7737 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,204.0,0.40%,F,T)



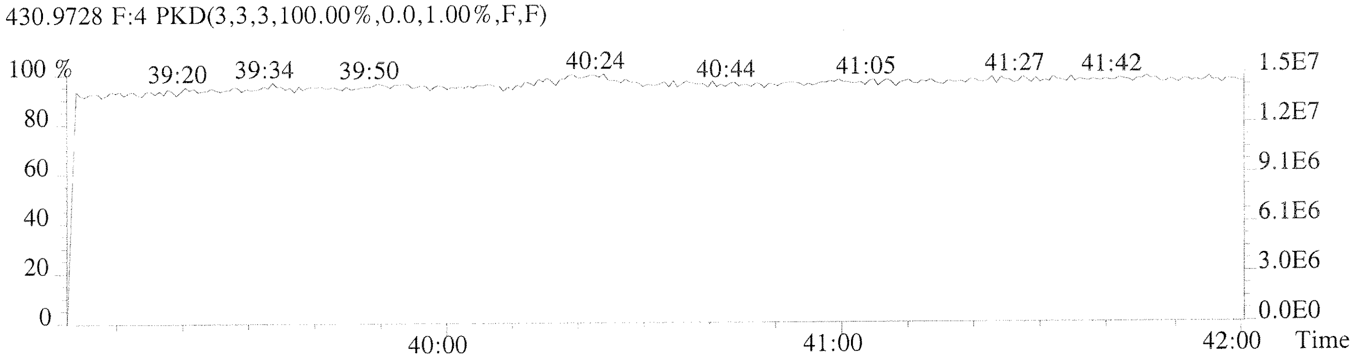
435.8169 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,300.0,0.40%,F,T)



437.8140 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,264.0,0.40%,F,T)

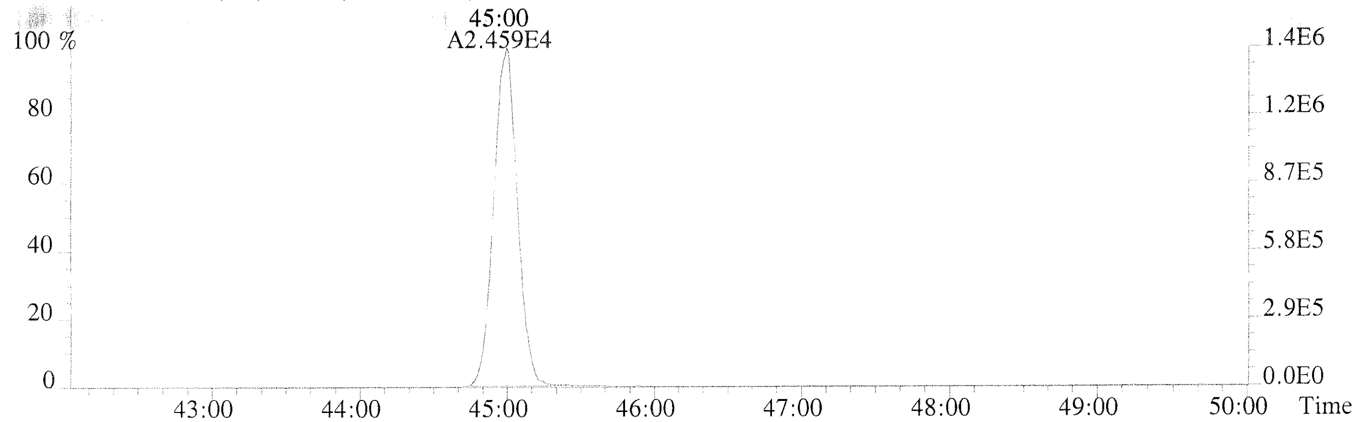


430.9728 F:4 PKD(3,3,3,100.00%,0.0,1.00%,F,F)

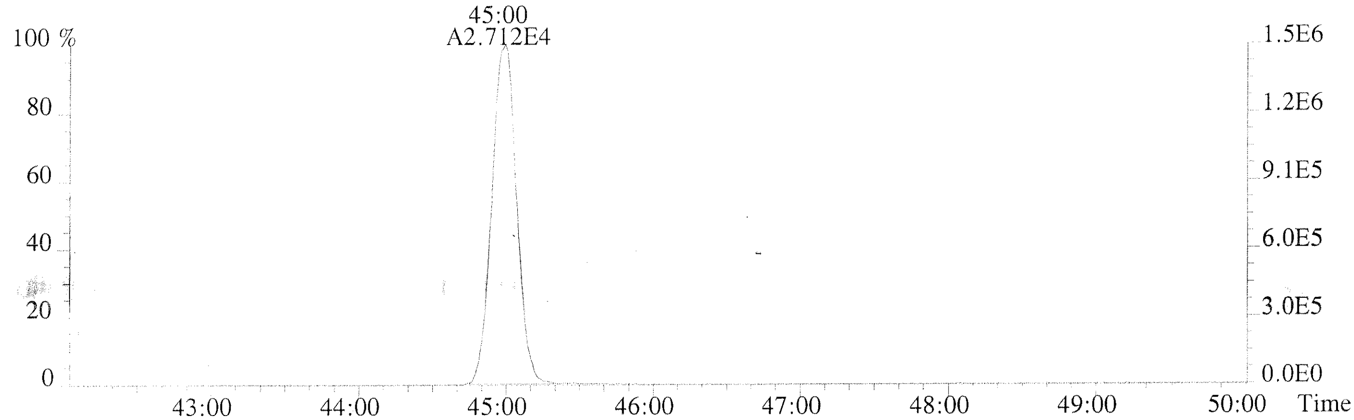


File: 8240 #1-732 Acq: 6-JUL-2012 14:38:40 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:CCAL CS3

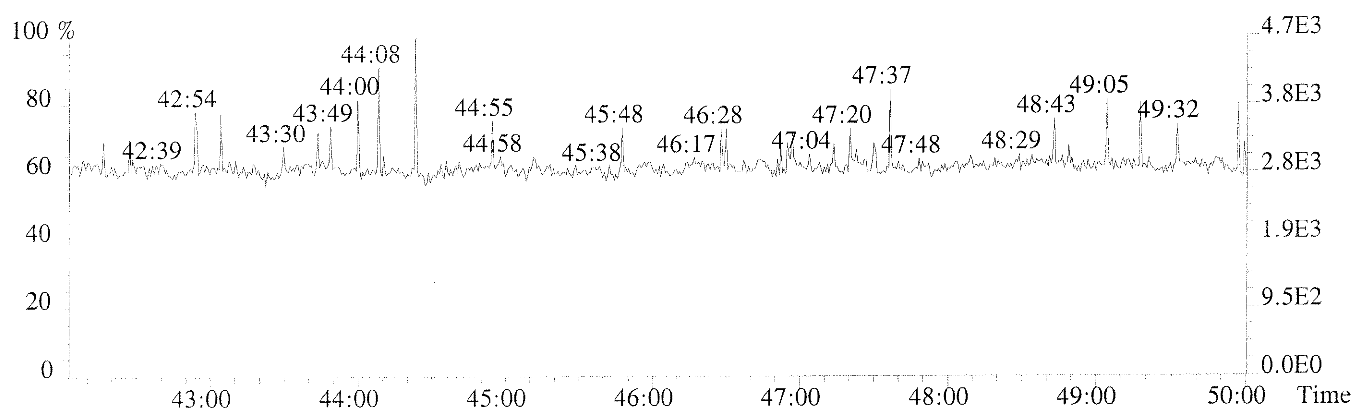
441.7428 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(5,3,5,0.30%,140.0,0.40%,F,T)



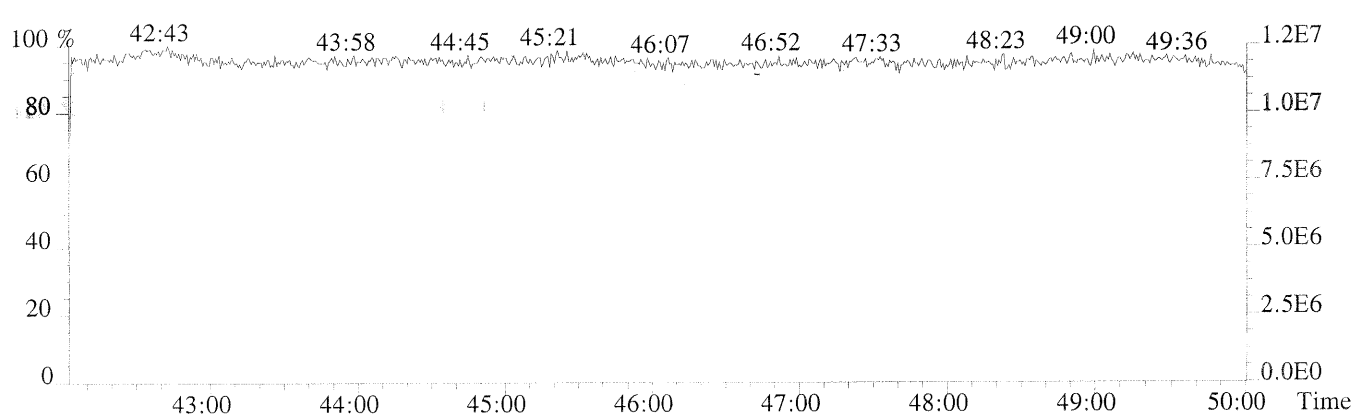
443.7399 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(5,3,5,0.30%,652.0,0.40%,F,T)



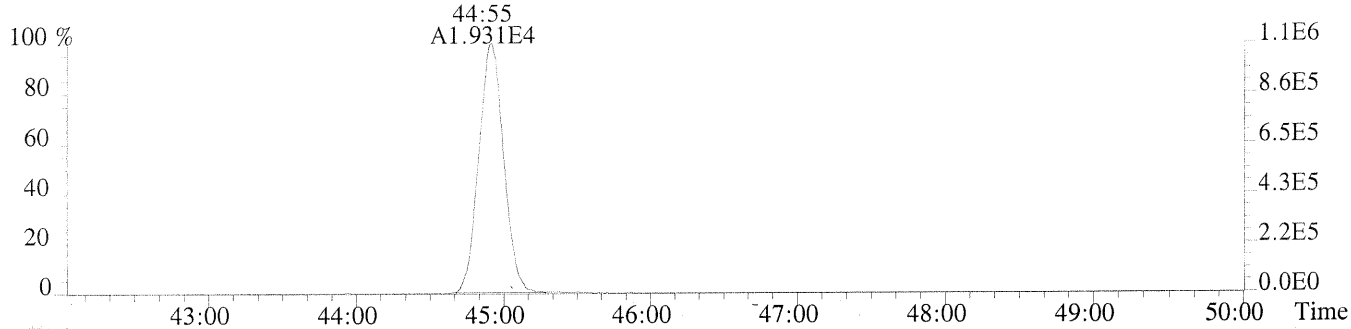
513.6775 F:5 PKD(5,3,5,100.00%,0.0,1.00%,F,F)



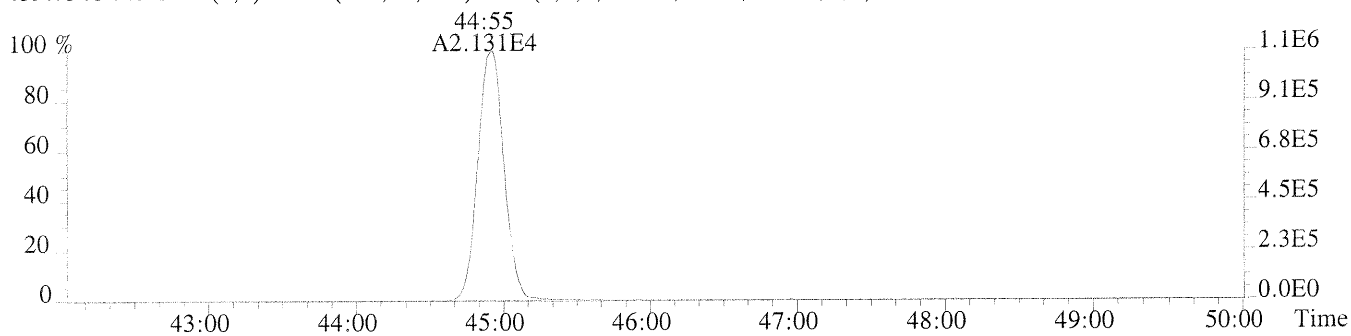
442.9728 F:5 PKD(3,3,3,100.00%,0.0,0.40%,F,F)



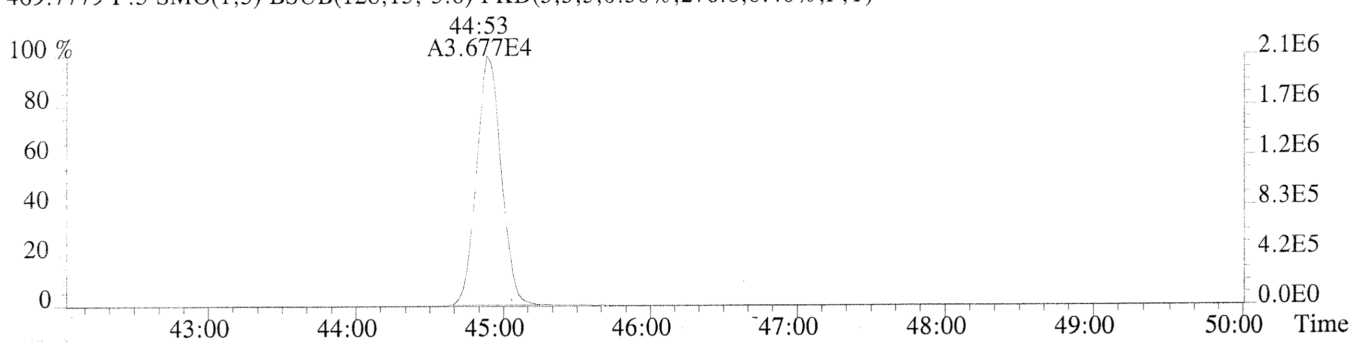
File: 8240 #1-732 Acq: 6-JUL-2012 14:38:40 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:CCAL CS3
457.7377 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(5,3,5,0.30%,256.0,0.40%,F,T)



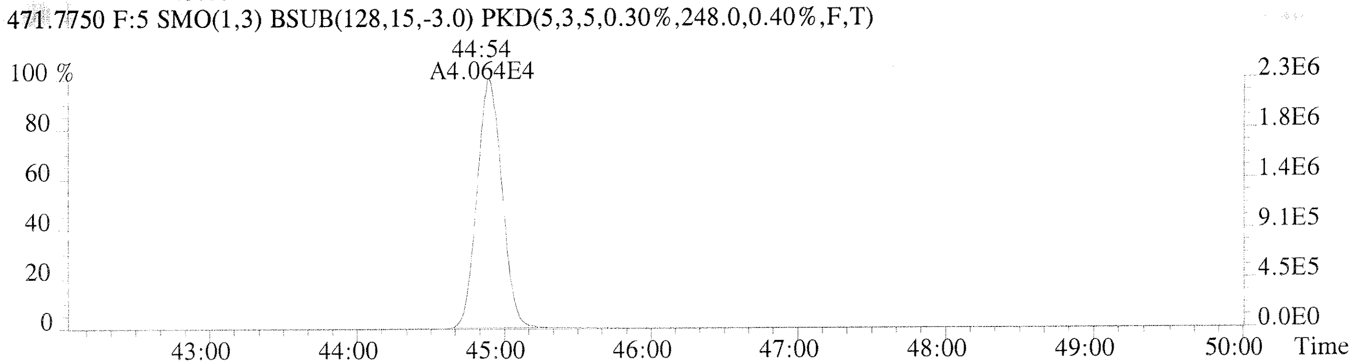
459.7348 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(5,3,5,0.30%,392.0,0.40%,F,T)



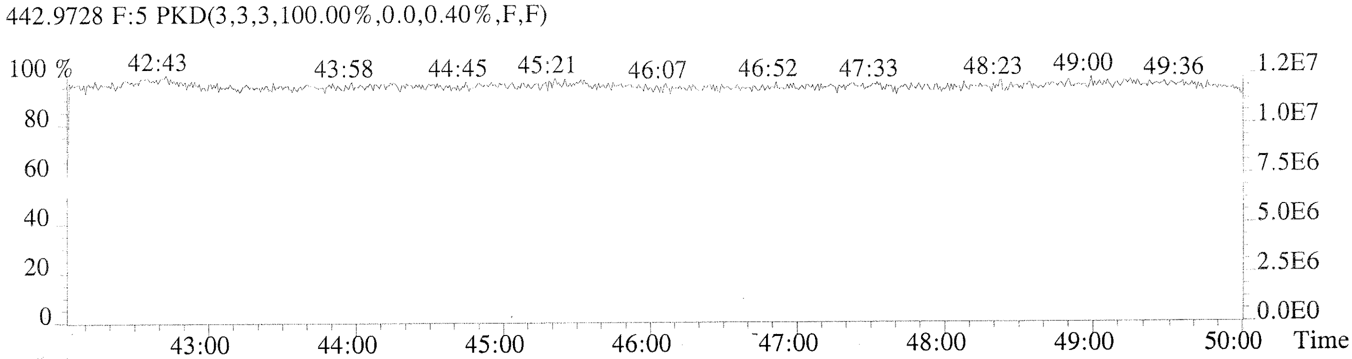
469.7779 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(5,3,5,0.30%,276.0,0.40%,F,T)



471.7750 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(5,3,5,0.30%,248.0,0.40%,F,T)



442.9728 F:5 PKD(3,3,3,100.00%,0.0,0.40%,F,F)



5DFA

WINDOW DEFINING MIX SUMMARY

CLIENT ID:

WDM

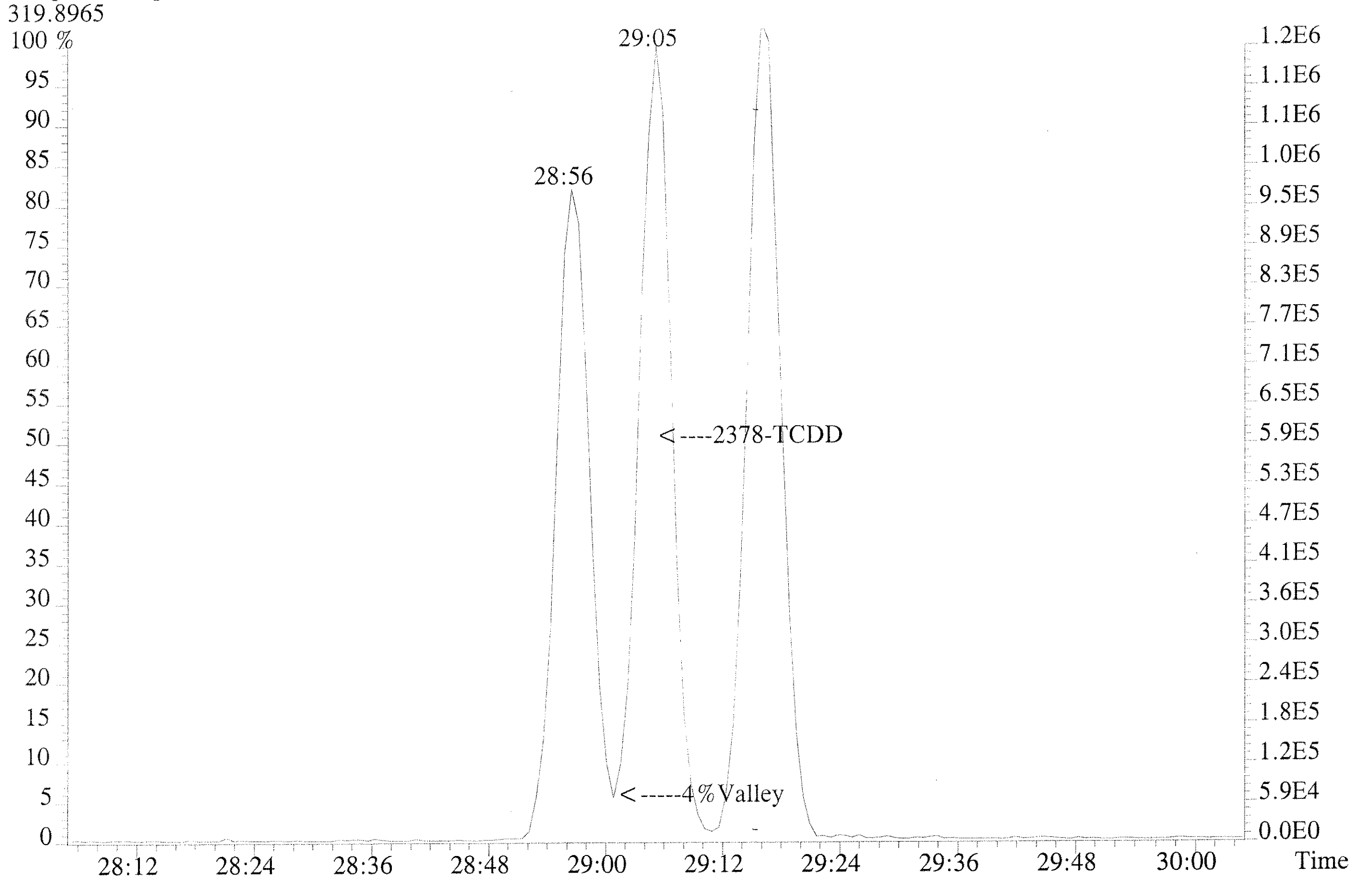
Lab Name:
Lab Code:
GC Column: DB-5

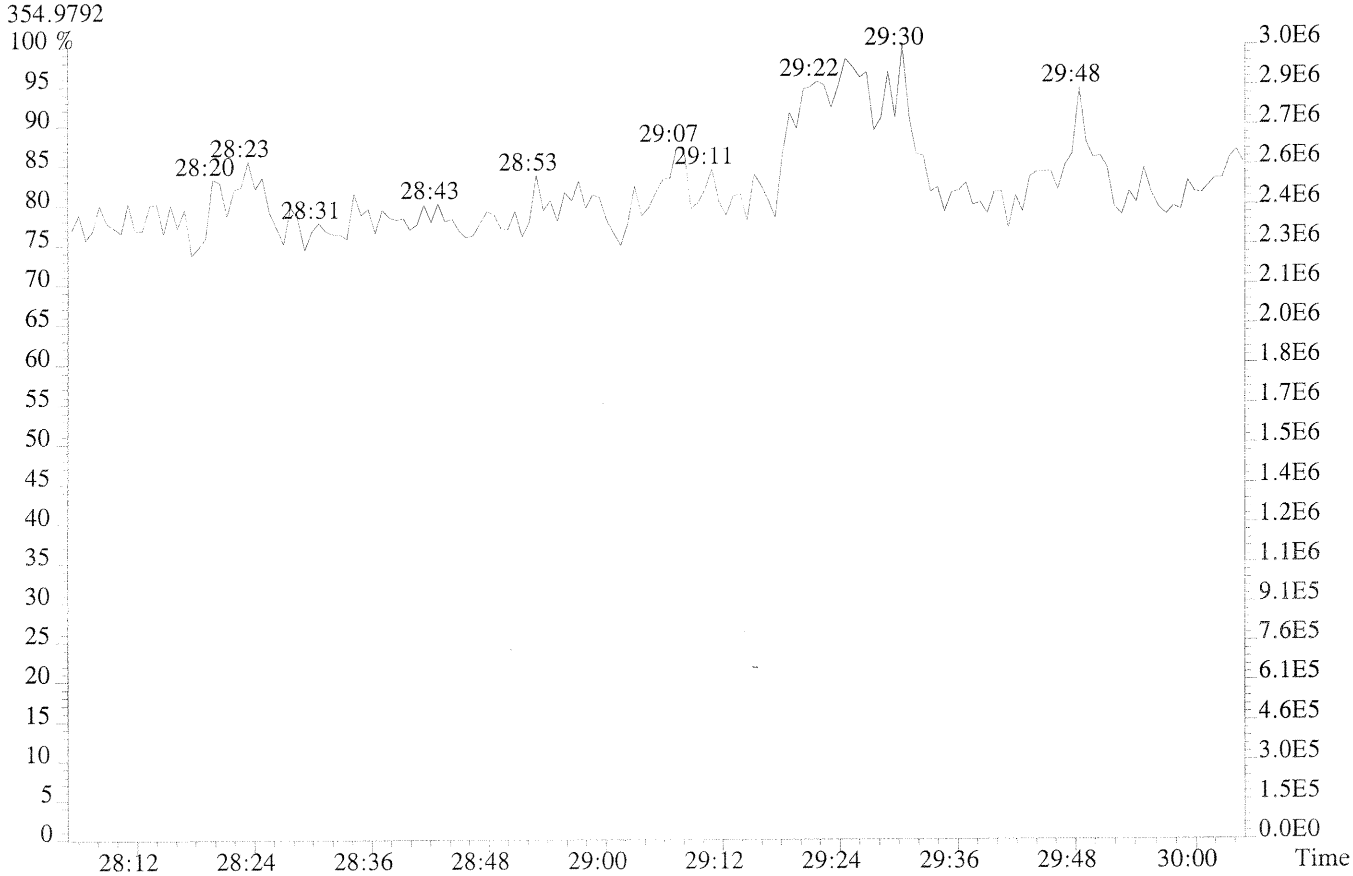
Case No.: ______________ SDG No.:
ID: 0.25 (mm) Lab File ID: 8241
Date Analyzed: 6-JUL-2012
Time Analyzed: 15:36:26

Congener	Retention Time First Eluting	Retention Time Last Eluting
TCDF	24:02	30:14
TCDD	25:50	30:14
PeCDF	30:33	34:37
PeCDD	31:59	34:28
HxCDF	35:36	38:13
HxCDD	36:10	37:53
HpCDF	39:54	41:27
HpCDD	40:15	41:02

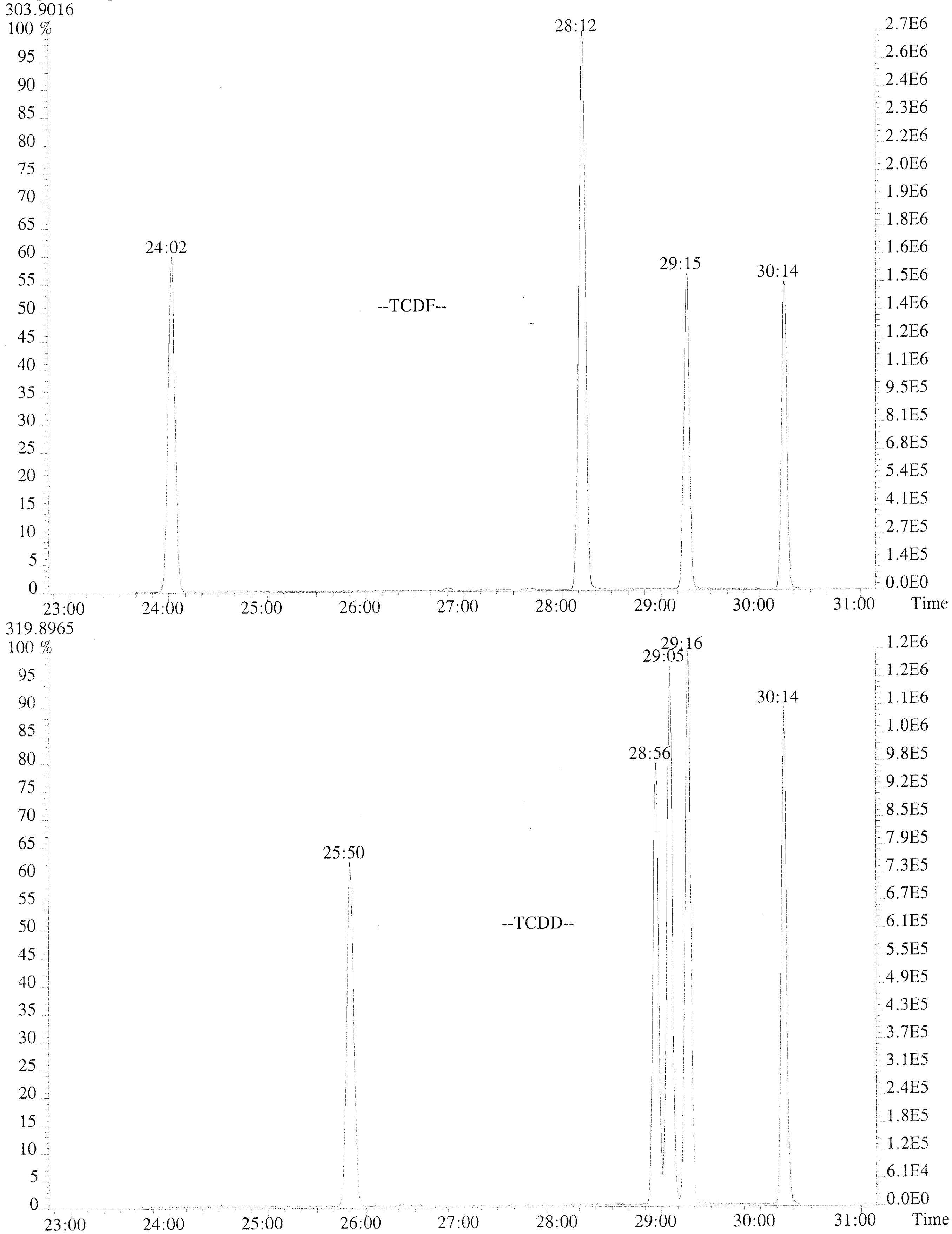
% Valley 2378-TCDD: 4 %

File: 8241 #1-572 Acq: 6-JUL-2012 15:36:26 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:WINDOW DEFINE

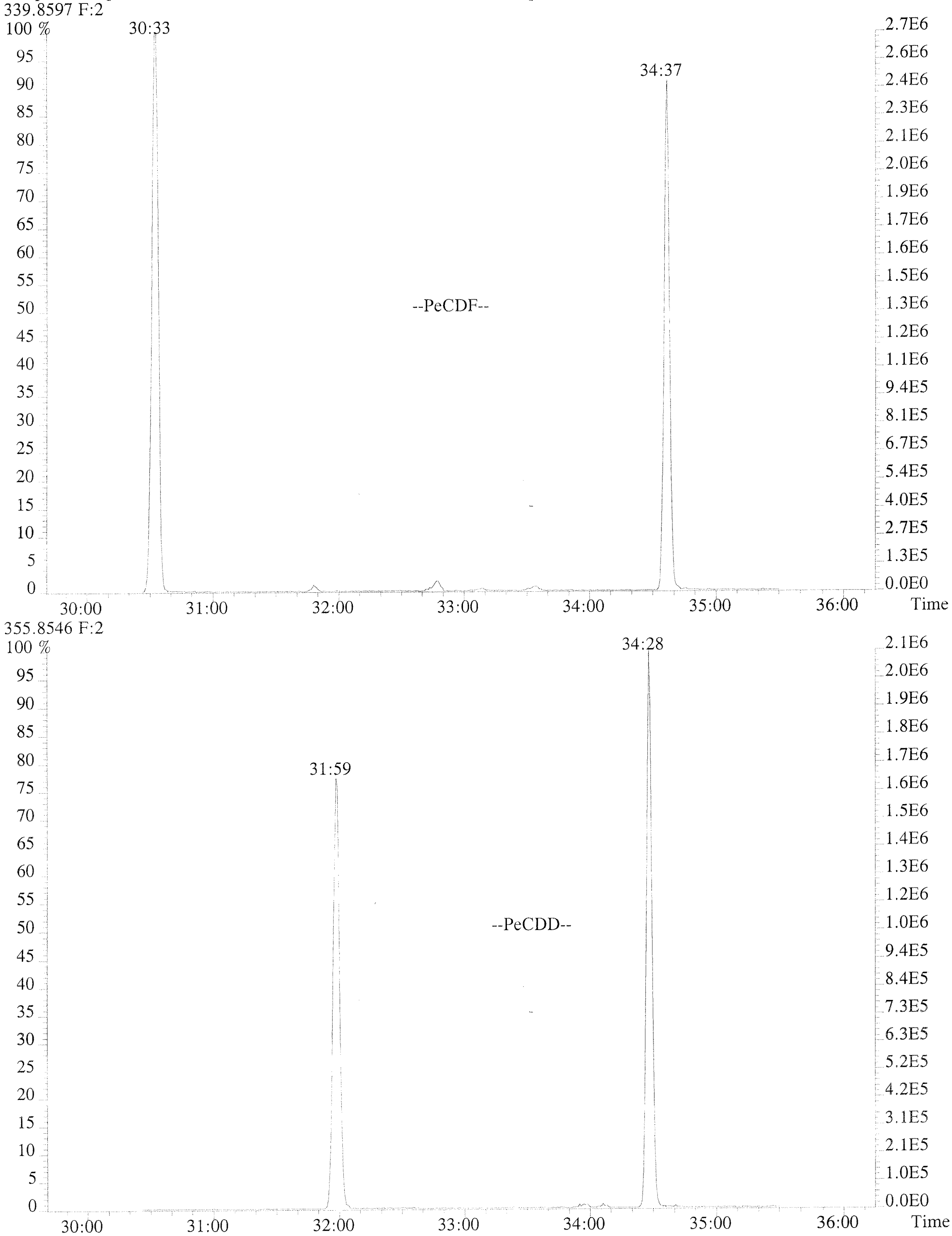




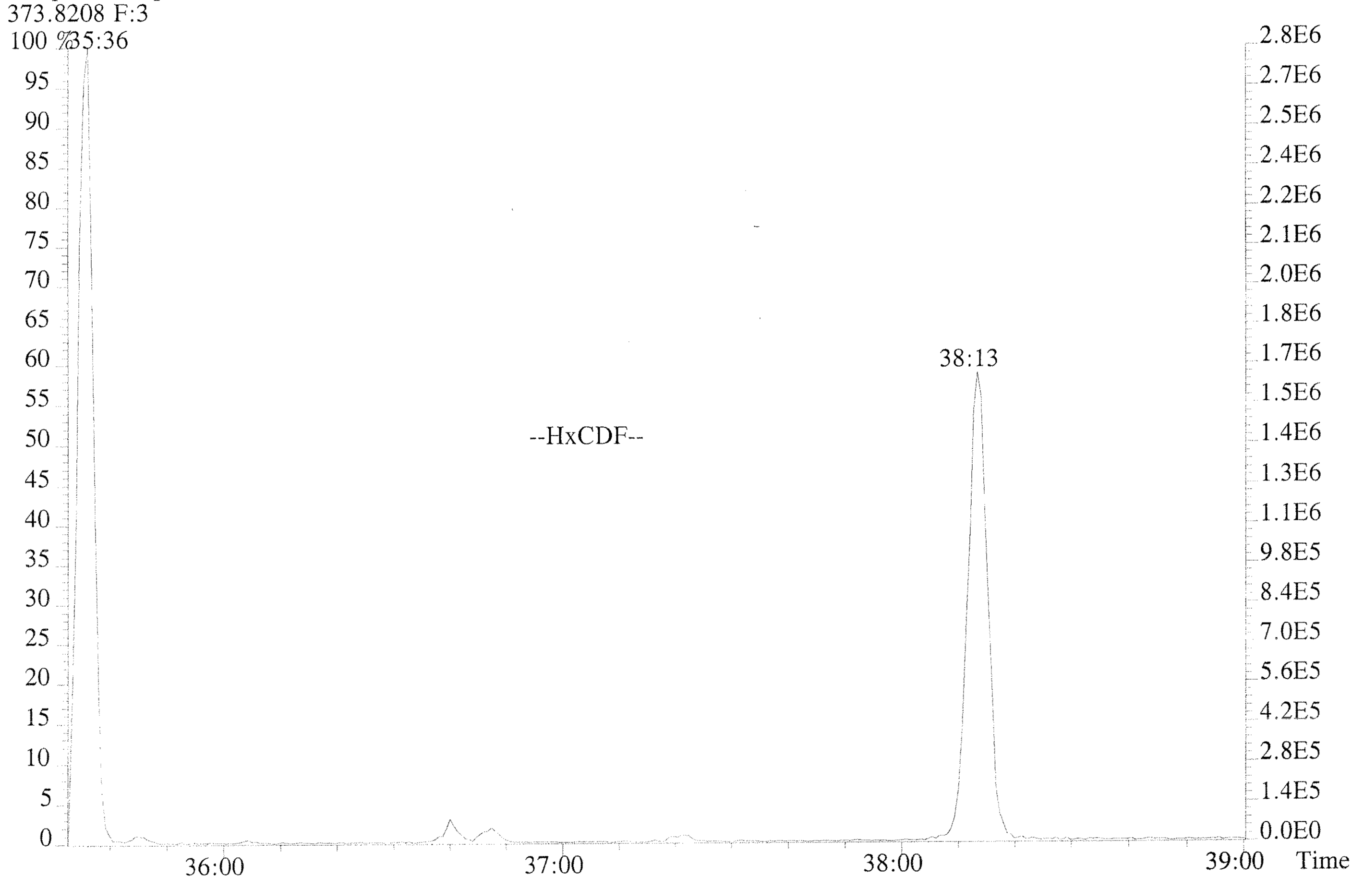
File: 8241 #1-572 Acq: 6-JUL-2012 15:36:26 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:WINDOW DEFINE

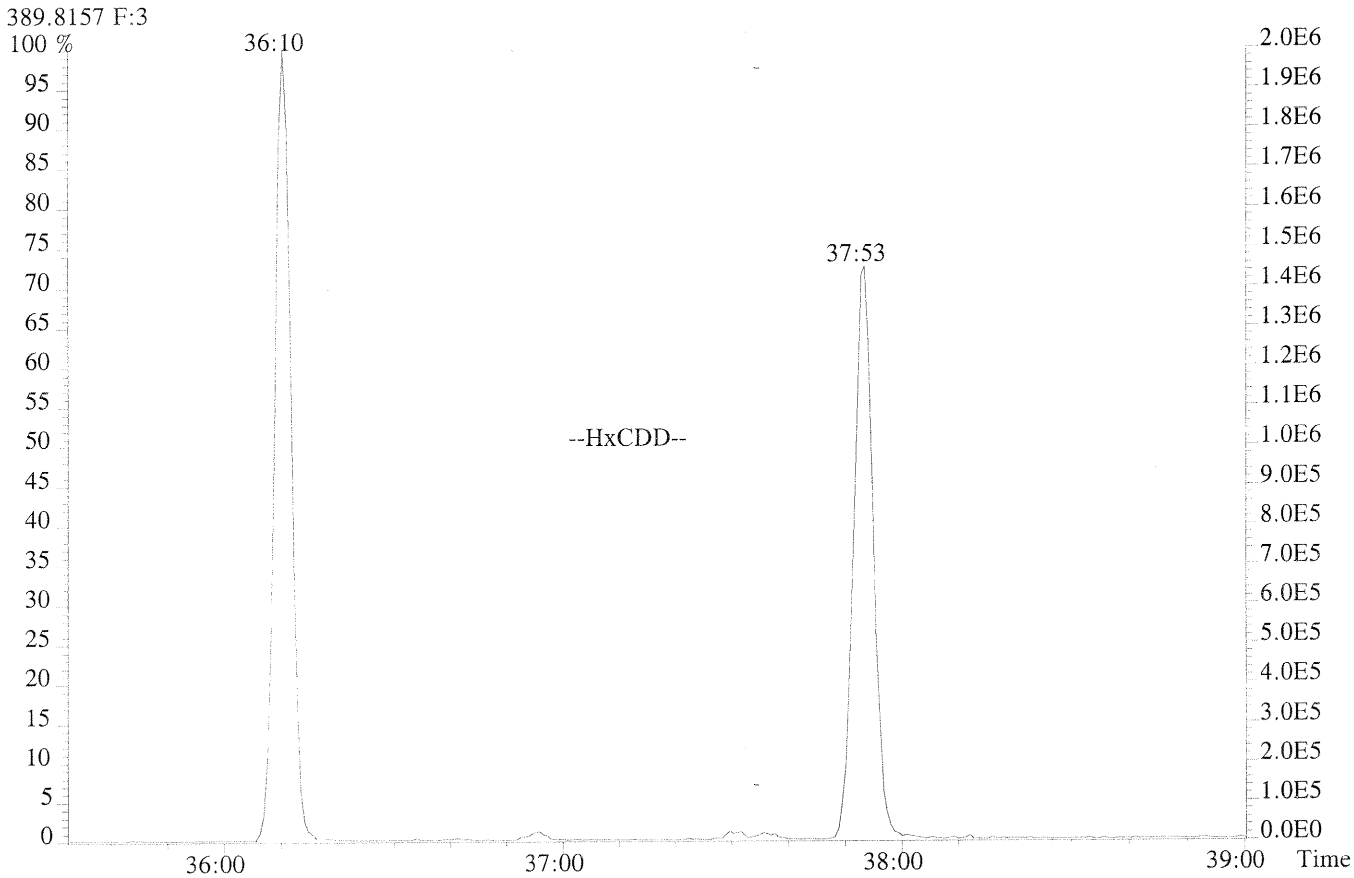


File: 8241 #1-461 Acq: 6-JUL-2012 15:36:26 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:WINDOW DEFINE

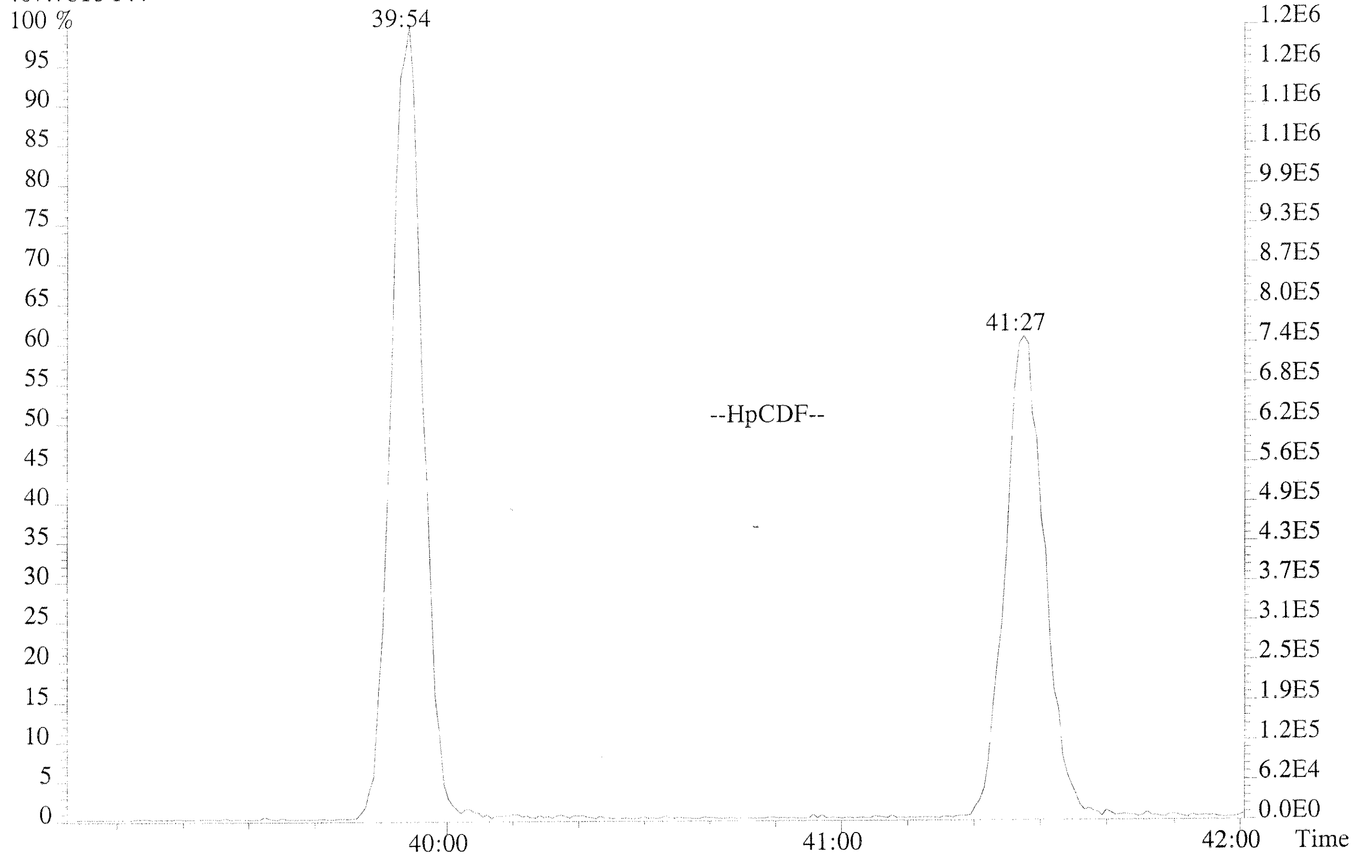


File: 8241 #1-315 Acq: 6-JUL-2012 15:36:26 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:WINDOW DEFINE

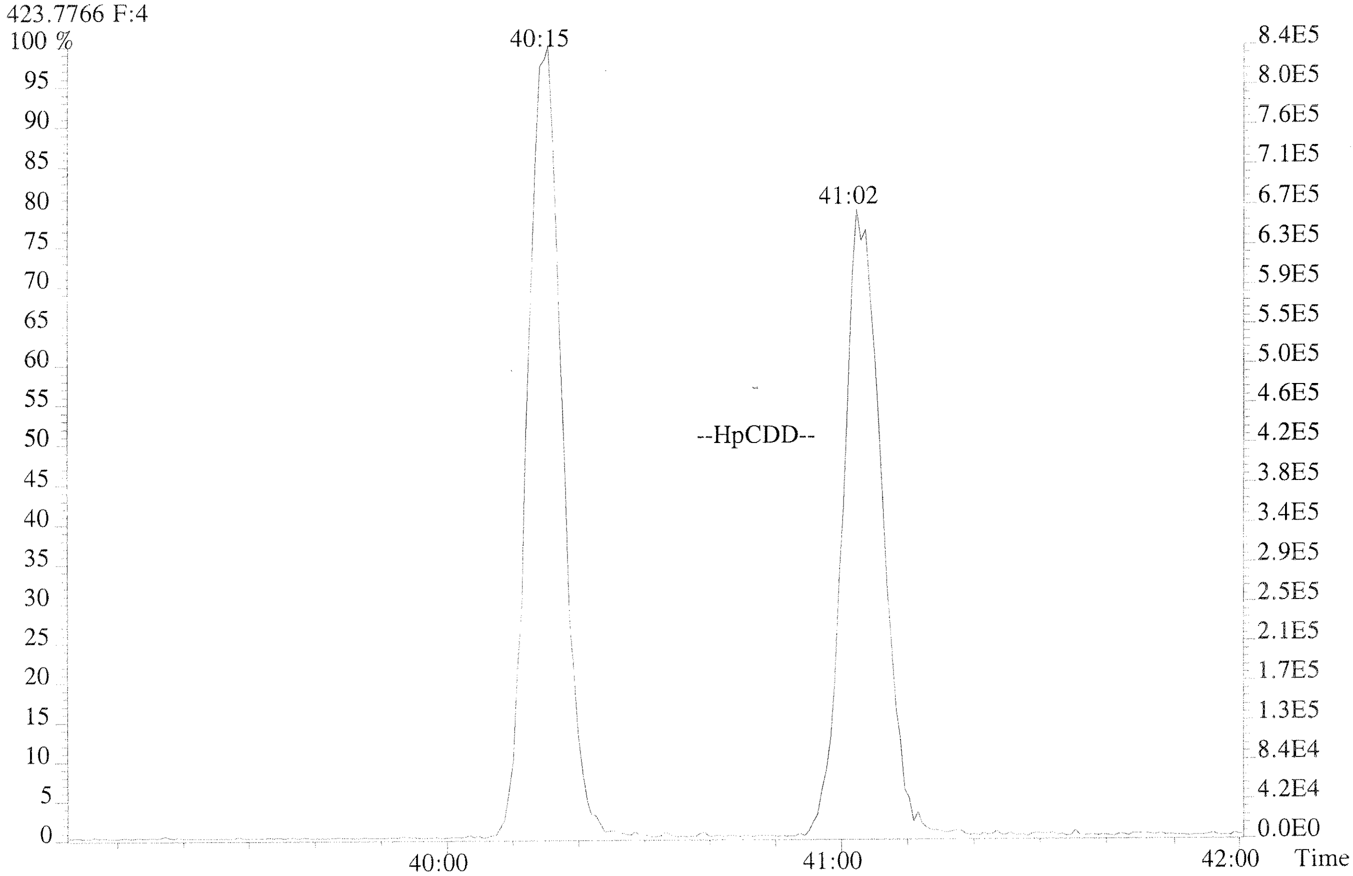




File 8241 #1-270 Acq: 6-JUL-2012 15:36:26 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:WINDOW DEFINE
407.7818 F:4



423.7766 F:4



Analytical Report

Client:	US Environmental Protection Agency	**Service Request:**	00584
Project:	Dioxins/Furans	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank	**Units:**	pg/L
Lab Code:	00313-01	**Basis:**	NA

Chlorinated Dibenzo-p-dioxins (CDDs) and Chlorinated Dibenzofurans (CDFs) by HRGC/HRMS

Analytical Method:	D/F DLM02.2	**Date Analyzed:**	7/6/12 1111
Prep Method:	Method	**Date Extracted:**	6/6/12
Sample Amount:	1000mL	**Instrument Name:**	E-HRMS-04
		GC Column:	DB-5
Data File Name:	8236	**Blank File Name:**	8236
ICAL Date:	05/03/12	**Cal Ver. File Name:**	8231

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
2,3,7,8-TCDD	ND	U	0.659	10.0			1
1,2,3,7,8-PeCDD	ND	U	0.692	50.0			1
1,2,3,4,7,8-HxCDD	ND	U	0.768	50.0			1
1,2,3,6,7,8-HxCDD	ND	U	0.877	50.0			1
1,2,3,7,8,9-HxCDD	ND	U	0.806	50.0			1
1,2,3,4,6,7,8-HpCDD	ND	U	0.805	50.0			1
OCDD	**4.54**	J	2.35	100	0.84	1.001	1
2,3,7,8-TCDF	ND	U	0.892	10.0			1
1,2,3,7,8-PeCDF	ND	U	0.581	50.0			1
2,3,4,7,8-PeCDF	ND	U	0.666	50.0			1
1,2,3,4,7,8-HxCDF	ND	U	0.488	50.0			1
1,2,3,6,7,8-HxCDF	ND	U	0.437	50.0			1
1,2,3,7,8,9-HxCDF	ND	U	0.660	50.0			1
2,3,4,6,7,8-HxCDF	ND	U	0.589	50.0			1
1,2,3,4,6,7,8-HpCDF	ND	U	0.874	50.0			1
1,2,3,4,7,8,9-HpCDF	ND	U	1.98	50.0			1
OCDF	ND	U	2.17	100			1
Total Tetra-Dioxins	ND	U	0.659	10.0			1
Total Penta-Dioxins	ND	U	0.692	50.0			1
Total Hexa-Dioxins	ND	U	0.768	50.0			1
Total Hepta-Dioxins	ND	U	0.805	50.0			1
Total Tetra-Furans	ND	U	0.892	10.0			1
Total Penta-Furans	ND	U	0.666	50.0			1
Total Hexa-Furans	ND	U	0.488	50.0			1
Total Hepta-Furans	ND	U	0.874	50.0			1

Analytical Report

Client:	US Environmental Protection Agency	**Service Request:**	00584
Project:	Dioxins/Furans/	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank	**Units:**	Percent
Lab Code:	00313-01	**Basis:**	NA

Chlorinated Dibenzo-p-dioxins (CDDs) and Chlorinated Dibenzofurans (CDFs) by HRGC/HRMS

Analytical Method:	D/F DLM02.2	**Date Analyzed:**	7/6/12 1111
Prep Method:	Method	**Date Extracted:**	6/6/12
Sample Amount:	1000mL	**Instrument Name:**	E-HRMS-04
		GC Column:	DB-5
Data File Name:	8236	**Blank File Name:**	8236
ICAL Date:	05/03/12	**Cal Ver. File Name:**	8231

Labeled Compounds	Spike Conc.(pg)	Conc. Found (pg)	%Rec	Q	Control Limits	Ion Ratio	RRT
13C-2,3,7,8-TCDD	2000	1218.377	61		25-164	0.77	1.008
13C-1,2,3,7,8-PeCDD	2000	1235.277	62		25-181	1.61	1.177
13C-1,2,3,4,7,8-HxCDD	2000	1384.481	69		32-141	1.26	0.989
13C-1,2,3,6,7,8-HxCDD	2000	1187.730	59		28-130	1.28	0.992
13C-1,2,3,4,6,7,8-HpCDD	2000	1621.141	81		23-140	1.08	1.082
13C-OCDD	4000	2062.228	52		17-157	0.92	1.185
13C-2,3,7,8-TCDF	2000	1128.354	56		24-169	0.79	0.977
13C-1,2,3,7,8-PeCDF	2000	1448.856	72		24-185	1.60	1.136
13C-2,3,4,7,8-PeCDF	2000	1270.133	64		21-178	1.58	1.164
13C-1,2,3,4,7,8-HxCDF	2000	1080.585	54		26-152	0.51	0.967
13C-1,2,3,6,7,8-HxCDF	2000	1146.020	57		26-123	0.53	0.970
13C-1,2,3,7,8,9-HxCDF	2000	1135.188	57		29-147	0.52	1.006
13C-2,3,4,6,7,8-HxCDF	2000	963.874	48		28-136	0.53	0.985
13C-1,2,3,4,6,7,8-HpCDF	2000	1722.503	86		28-143	0.44	1.052
13C-1,2,3,4,7,8,9-HpCDF	2000	1233.194	62		26-138	0.45	1.093
37Cl-2,3,7,8-TCDD	800	537.244	67		35-197	NA	1.008

Analytical Report

Client:	US Environmental Protection Agency	**Service Request:**	00584
Project:	Dioxins/Furans/	**Date Collected:**	NA
Sample Matrix:	Sediment	**Date Received:**	NA
Sample Name:	Method Blank	**Units:**	ng/Kg
Lab Code:	00341-01	**Basis:**	Dry

Chlorinated Dibenzo-p-dioxins (CDDs) and Chlorinated Dibenzofurans (CDFs) by HRGC/HRMS

Analytical Method:	D/F DLM02.2	**Date Analyzed:**	6/19/12 1119
Prep Method:	Method	**Date Extracted:**	6/12/12
Sample Amount:	10.554g	**Instrument Name:**	E-HRMS-03
		GC Column:	DB-5
Data File Name:	8291	**Blank File Name:**	8291
ICAL Date:	04/23/12	**Cal Ver. File Name:**	8290

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
2,3,7,8-TCDD	ND	U	0.0572	0.948			1
1,2,3,7,8-PeCDD	ND	U	0.0505	4.74			1
1,2,3,4,7,8-HxCDD	ND	U	0.0338	4.74			1
1,2,3,6,7,8-HxCDD	ND	U	0.0635	4.74			1
1,2,3,7,8,9-HxCDD	ND	U	0.0426	4.74			1
1,2,3,4,6,7,8-HpCDD	**0.0938**	JK	0.0527	4.74	1.98	1.000	1
OCDD	ND	U	0.128	9.48			1
2,3,7,8-TCDF	ND	U	0.0500	0.948			1
1,2,3,7,8-PeCDF	ND	U	0.0375	4.74			1
2,3,4,7,8-PeCDF	ND	U	0.0416	4.74			1
1,2,3,4,7,8-HxCDF	ND	U	0.0288	4.74			1
1,2,3,6,7,8-HxCDF	ND	U	0.0316	4.74			1
1,2,3,7,8,9-HxCDF	ND	U	0.0350	4.74			1
2,3,4,6,7,8-HxCDF	ND	U	0.0292	4.74			1
1,2,3,4,6,7,8-HpCDF	ND	U	0.0603	4.74			1
1,2,3,4,7,8,9-HpCDF	ND	U	0.0560	4.74			1
OCDF	ND	U	0.177	9.48			1
Total Tetra-Dioxins	ND	U	0.0572	0.948			1
Total Penta-Dioxins	ND	U	0.0505	4.74			1
Total Hexa-Dioxins	ND	U	0.0338	4.74			1
Total Hepta-Dioxins	ND	U	0.0527	4.74			1
Total Tetra-Furans	ND	U	0.0500	0.948			1
Total Penta-Furans	ND	U	0.0416	4.74			1
Total Hexa-Furans	**0.282**	J	0.0288	4.74	1.11		1
Total Hepta-Furans	ND	U	0.0603	4.74			1

Client:	US Environmental Protection Agency	**Service Request:**	00584
Project:	Dioxins/Furans	**Date Collected:**	NA
Sample Matrix:	Sediment	**Date Received:**	NA
Sample Name:	Method Blank	**Units:**	Percent
Lab Code:	00341-01	**Basis:**	Dry

Chlorinated Dibenzo-p-dioxins (CDDs) and Chlorinated Dibenzofurans (CDFs) by HRGC/HRMS

Analytical Method:	D/F DLM02.2	**Date Analyzed:**	6/19/12 1119
Prep Method:	Method	**Date Extracted:**	6/12/12
Sample Amount:	10.554g	**Instrument Name:**	E-HRMS-03
		GC Column:	DB-5
Data File Name:	8291	**Blank File Name:**	8291
ICAL Date:	04/23/12	**Cal Ver. File Name:**	8290

Labeled Compounds	Spike Conc.(pg)	Conc. Found (pg)	%Rec	Q	Control Limits	Ion Ratio	RRT
13C-2,3,7,8-TCDD	2000	1160.928	58		25-164	0.79	1.007
13C-1,2,3,7,8-PeCDD	2000	1341.792	67		25-181	1.57	1.170
13C-1,2,3,4,7,8-HxCDD	2000	1245.362	62		32-141	1.28	0.990
13C-1,2,3,6,7,8-HxCDD	2000	733.105	37		28-130	1.23	0.992
13C-1,2,3,4,6,7,8-HpCDD	2000	1347.945	67		23-140	1.08	1.068
13C-OCDD	4000	2683.421	67		17-157	0.90	1.149
13C-2,3,7,8-TCDF	2000	1087.033	54		24-169	0.78	0.978
13C-1,2,3,7,8-PeCDF	2000	1409.404	70		24-185	1.56	1.132
13C-2,3,4,7,8-PeCDF	2000	1288.030	64		21-178	1.56	1.158
13C-1,2,3,4,7,8-HxCDF	2000	1265.184	63		26-152	0.52	0.972
13C-1,2,3,6,7,8-HxCDF	2000	1093.225	55		26-123	0.52	0.975
13C-1,2,3,7,8,9-HxCDF	2000	1178.640	59		29-147	0.52	1.006
13C-2,3,4,6,7,8-HxCDF	2000	1268.008	63		28-136	0.52	0.987
13C-1,2,3,4,6,7,8-HpCDF	2000	1073.545	54		28-143	0.45	1.045
13C-1,2,3,4,7,8,9-HpCDF	2000	1473.124	74		26-138	0.45	1.079
37Cl-2,3,7,8-TCDD	800	525.884	66		35-197	NA	1.008

Sample Response Summary

CLIENT ID.
METHOD BLANK

Run #12 Filename 8236 #1 Samp: 1 Inj: 1 Acquired: 6-JUL-12 11:11:40
Processed: 14-JUL-12 09:23:05 LAB. ID: 00313-01

	Typ	Name	RT-1	Resp 1	Resp 2	Ratio	Meet	Mod?	RRT
1	Unk	2,3,7,8-TCDF	NotFnd	*	*	*	no	yes	*
2	Unk	1,2,3,7,8-PeCDF	NotFnd	*	*	*	no	yes	*
3	Unk	2,3,4,7,8-PeCDF	NotFnd	*	*	*	no	yes	*
4	Unk	1,2,3,4,7,8-HxCDF	NotFnd	*	*	*	no	yes	*
5	Unk	1,2,3,6,7,8-HxCDF	NotFnd	*	*	*	no	yes	*
6	Unk	2,3,4,6,7,8-HxCDF	NotFnd	*	*	*	no	yes	*
7	Unk	1,2,3,7,8,9-HxCDF	NotFnd	*	*	*	no	yes	*
8	Unk	1,2,3,4,6,7,8-HpCDF	NotFnd	*	*	*	no	yes	*
9	Unk	1,2,3,4,7,8,9-HpCDF	NotFnd	*	*	*	no	no	*
10	Unk	OCDF	NotFnd	*	*	*	no	yes	*
11	Unk	2,3,7,8-TCDD	NotFnd	*	*	*	no	yes	*
12	Unk	1,2,3,7,8-PeCDD	NotFnd	*	*	*	no	no	*
13	Unk	1,2,3,4,7,8-HxCDD	NotFnd	*	*	*	no	no	*
14	Unk	1,2,3,6,7,8-HxCDD	NotFnd	*	*	*	no	yes	*
15	Unk	1,2,3,7,8,9-HxCDD	NotFnd	*	*	*	no	yes	*
16	Unk	1,2,3,4,6,7,8-HpCDD	NotFnd	*	*	*	no	yes	*
17	Unk	OCDD	44:59	2.645e+01	3.155e+01	0.84	yes	yes	1.001
18	IS	13C-2,3,7,8-TCDF	28:10	1.484e+04	1.869e+04	0.79	yes	no	0.977
19	IS	13C-1,2,3,7,8-PeCDF	32:46	2.662e+04	1.664e+04	1.60	yes	no	1.136
20	IS	13C-2,3,4,7,8-PeCDF	33:33	2.346e+04	1.481e+04	1.58	yes	no	1.164
21	IS	13C-1,2,3,4,7,8-HxCDF	36:40	1.387e+04	2.725e+04	0.51	yes	no	0.967
22	IS	13C-1,2,3,6,7,8-HxCDF	36:47	1.747e+04	3.304e+04	0.53	yes	no	0.970
23	IS	13C-2,3,4,6,7,8-HxCDF	37:21	1.294e+04	2.454e+04	0.53	yes	no	0.985
24	IS	13C-1,2,3,7,8,9-HxCDF	38:08	1.301e+04	2.490e+04	0.52	yes	no	1.006
25	IS	13C-1,2,3,4,6,7,8-HpCDF	39:54	1.639e+04	3.763e+04	0.44	yes	no	1.052
26	IS	13C-1,2,3,4,7,8,9-HpCDF	41:27	9.828e+03	2.185e+04	0.45	yes	no	1.093
27	IS	13C-2,3,7,8-TCDD	29:03	1.151e+04	1.496e+04	0.77	yes	no	1.008
28	IS	13C-1,2,3,7,8-PeCDD	33:56	1.644e+04	1.023e+04	1.61	yes	no	1.177
29	IS	13C-1,2,3,4,7,8-HxCDD	37:30	2.403e+04	1.902e+04	1.26	yes	no	0.989
30	IS	13C-1,2,3,6,7,8-HxCDD	37:36	2.222e+04	1.732e+04	1.28	yes	no	0.992
31	IS	13C-1,2,3,4,6,7,8-HpCDD	41:02	2.452e+04	2.280e+04	1.08	yes	no	1.082
32	IS	13C-OCDD	44:55	2.055e+04	2.243e+04	0.92	yes	no	1.185
33	RS/RT	13C-1,2,3,4-TCDD	28:50	2.048e+04	2.614e+04	0.78	yes	no	*
34	RS/RT	13C-1,2,3,7,8,9-HxCDD	37:55	3.657e+04	2.921e+04	1.25	yes	no	*
35	C/Up	37Cl-2,3,7,8-TCDD	29:04	1.197e+04				no	1.008

Signal/Noise Height Ratio Summary

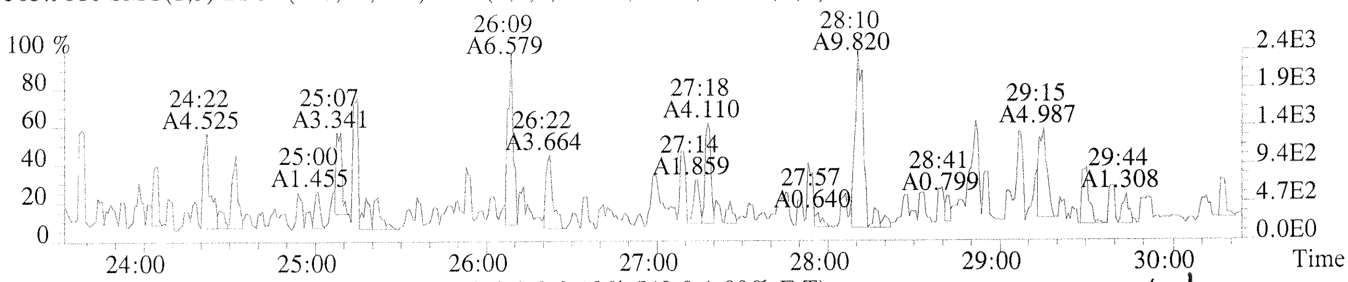
CLIENT ID.
METHOD BLANK

Run #12 Filename 8236 Samp: 1 Inj: 1 Acquired: 6-JUL-12 11:11:40
Processed: 14-JUL-12 09:23:051 LAB. ID: 00313-01

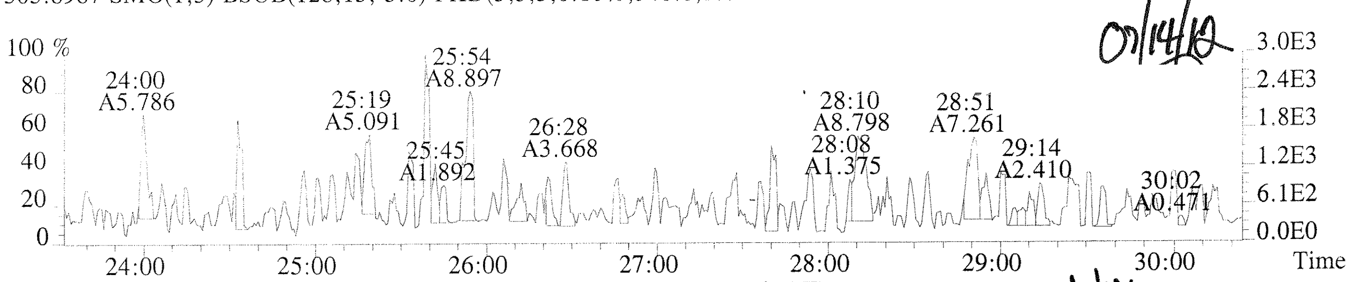
	Name	Signal 1	Noise 1	S/N Rat.1	Signal 2	Noise 2	S/N Rat.2
1	2,3,7,8-TCDF	*	3.96e+02	*	*	5.48e+02	*
2	1,2,3,7,8-PeCDF	*	1.20e+02	*	*	8.44e+02	*
3	2,3,4,7,8-PeCDF	*	1.20e+02	*	*	8.44e+02	*
4	1,2,3,4,7,8-HxCDF	*	5.28e+02	*	*	3.56e+02	*
5	1,2,3,6,7,8-HxCDF	*	5.28e+02	*	*	3.56e+02	*
6	2,3,4,6,7,8-HxCDF	*	5.28e+02	*	*	3.56e+02	*
7	1,2,3,7,8,9-HxCDF	*	5.28e+02	*	*	3.56e+02	*
8	1,2,3,4,6,7,8-HpCDF	*	1.00e+03	*	*	5.28e+02	*
9	1,2,3,4,7,8,9-HpCDF	*	1.00e+03	*	*	5.28e+02	*
10	OCDF	*	2.32e+02	*	*	4.24e+02	*
11	2,3,7,8-TCDD	*	2.40e+02	*	*	3.96e+02	*
12	1,2,3,7,8-PeCDD	*	5.32e+02	*	*	1.80e+02	*
13	1,2,3,4,7,8-HxCDD	*	5.96e+02	*	*	5.40e+02	*
14	1,2,3,6,7,8-HxCDD	*	5.96e+02	*	*	5.40e+02	*
15	1,2,3,7,8,9-HxCDD	*	5.96e+02	*	*	5.40e+02	*
16	1,2,3,4,6,7,8-HpCDD	*	4.08e+02	*	*	3.60e+02	*
17	OCDD	3.96e+03	4.00e+02	9.9e+00	5.16e+03	2.48e+02	2.1e+01
18	13C-2,3,7,8-TCDF	2.47e+06	9.68e+02	2.6e+03	3.09e+06	7.00e+02	4.4e+03
19	13C-1,2,3,7,8-PeCDF	5.16e+06	1.92e+02	2.7e+04	3.22e+06	1.76e+02	1.8e+04
20	13C-2,3,4,7,8-PeCDF	4.66e+06	1.92e+02	2.4e+04	2.90e+06	1.76e+02	1.7e+04
21	13C-1,2,3,4,7,8-HxCDF	2.45e+06	7.04e+02	3.5e+03	4.85e+06	8.44e+02	5.7e+03
22	13C-1,2,3,6,7,8-HxCDF	3.00e+06	7.04e+02	4.3e+03	5.62e+06	8.44e+02	6.7e+03
23	13C-2,3,4,6,7,8-HxCDF	2.25e+06	7.04e+02	3.2e+03	4.18e+06	8.44e+02	5.0e+03
24	13C-1,2,3,7,8,9-HxCDF	1.96e+06	7.04e+02	2.8e+03	3.65e+06	8.44e+02	4.3e+03
25	13C-1,2,3,4,6,7,8-HpCDF	1.89e+06	2.41e+03	7.8e+02	4.30e+06	1.88e+03	2.3e+03
26	13C-1,2,3,4,7,8,9-HpCDF	8.93e+05	2.41e+03	3.7e+02	1.99e+06	1.88e+03	1.1e+03
27	13C-2,3,7,8-TCDD	2.06e+06	1.79e+03	1.2e+03	2.68e+06	6.08e+02	4.4e+03
28	13C-1,2,3,7,8-PeCDD	3.31e+06	2.76e+02	1.2e+04	2.03e+06	1.84e+02	1.1e+04
29	13C-1,2,3,4,7,8-HxCDD	3.83e+06	9.40e+02	4.1e+03	3.02e+06	4.80e+02	6.3e+03
30	13C-1,2,3,6,7,8-HxCDD	3.48e+06	9.40e+02	3.7e+03	2.73e+06	4.80e+02	5.7e+03
31	13C-1,2,3,4,6,7,8-HpCDD	2.35e+06	6.44e+02	3.6e+03	2.16e+06	3.72e+02	5.8e+03
32	13C-OCDD	1.12e+06	2.56e+02	4.4e+03	1.20e+06	2.68e+02	4.5e+03
33	13C-1,2,3,4-TCDD	3.67e+06	1.79e+03	2.1e+03	4.65e+06	6.08e+02	7.6e+03
34	13C-1,2,3,7,8,9-HxCDD	5.45e+06	9.40e+02	5.8e+03	4.41e+06	4.80e+02	9.2e+03
35	37Cl-2,3,7,8-TCDD	2.09e+06	1.68e+02	1.2e+04			

File: 8236 #1-572 Acq: 6-JUL-2012 11:11:40 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp: 00313-01 MB

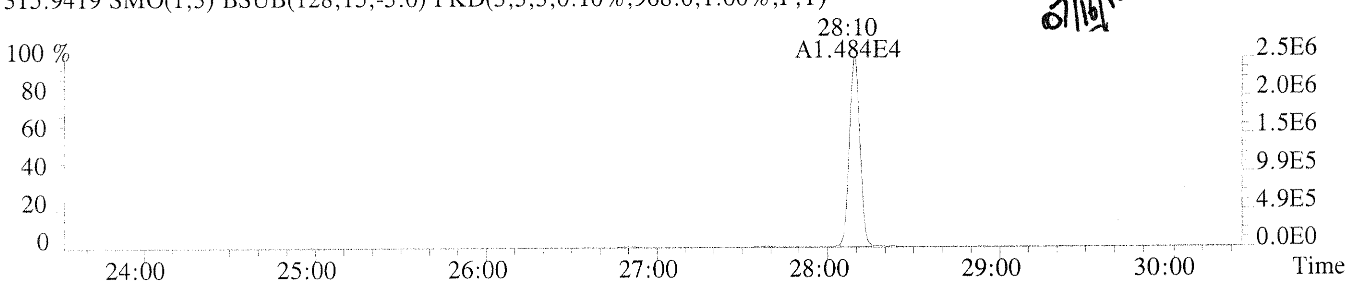
303.9016 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,396.0,1.00%,F,T)



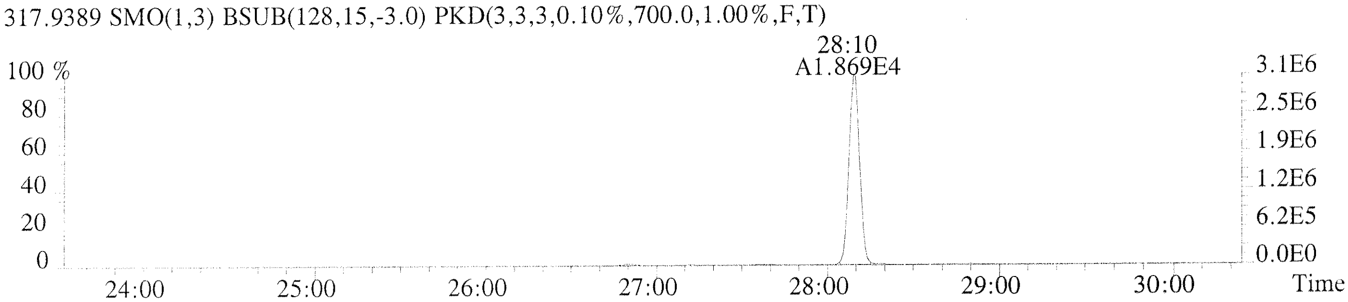
305.8987 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,548.0,1.00%,F,T)



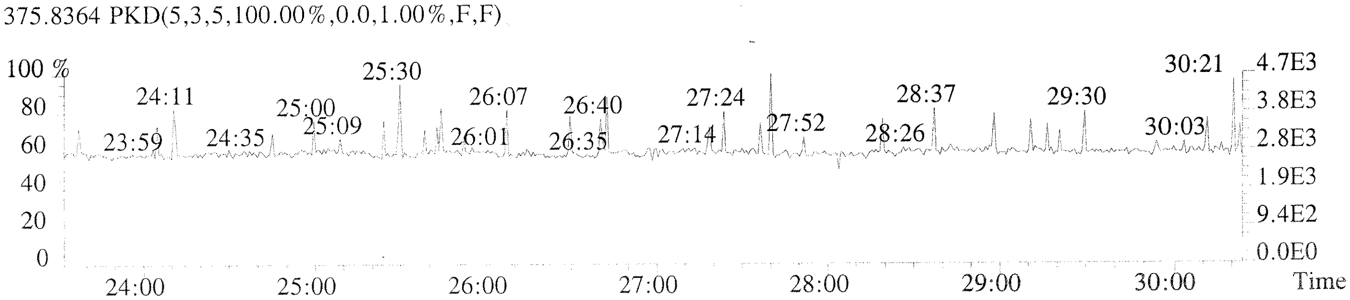
315.9419 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,968.0,1.00%,F,T)



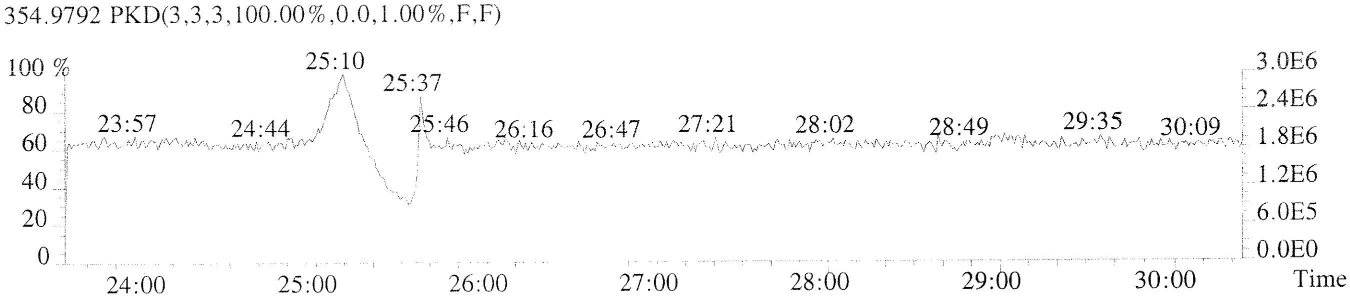
317.9389 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,700.0,1.00%,F,T)



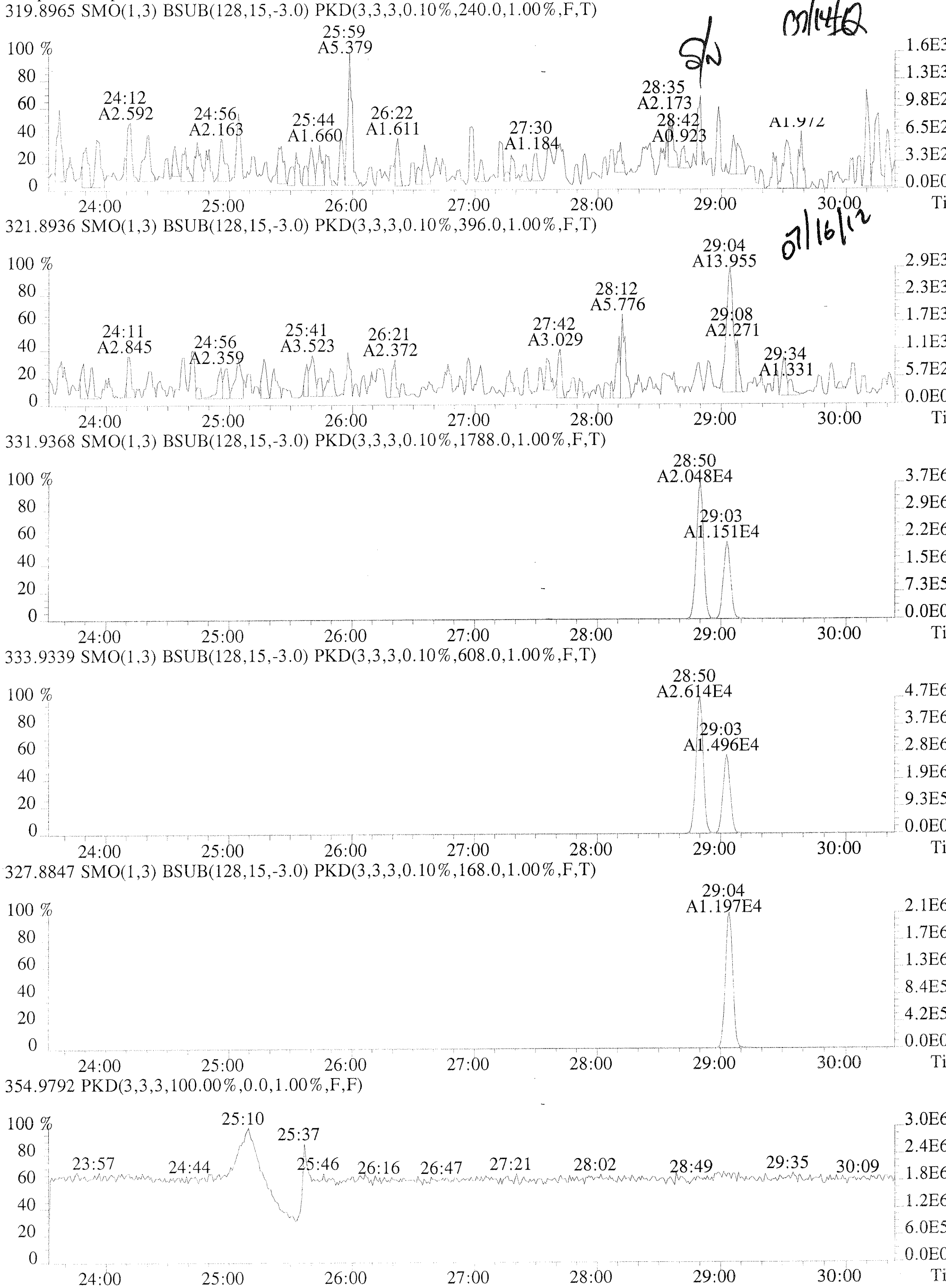
375.8364 PKD(5,3,5,100.00%,0.0,1.00%,F,F)



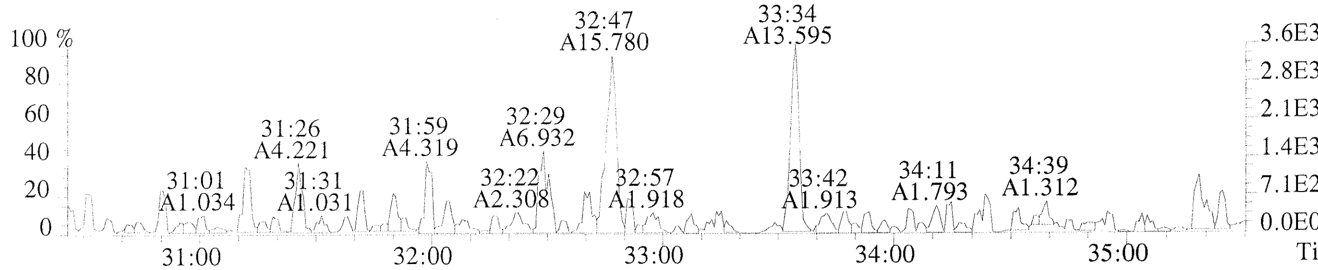
354.9792 PKD(3,3,3,100.00%,0.0,1.00%,F,F)



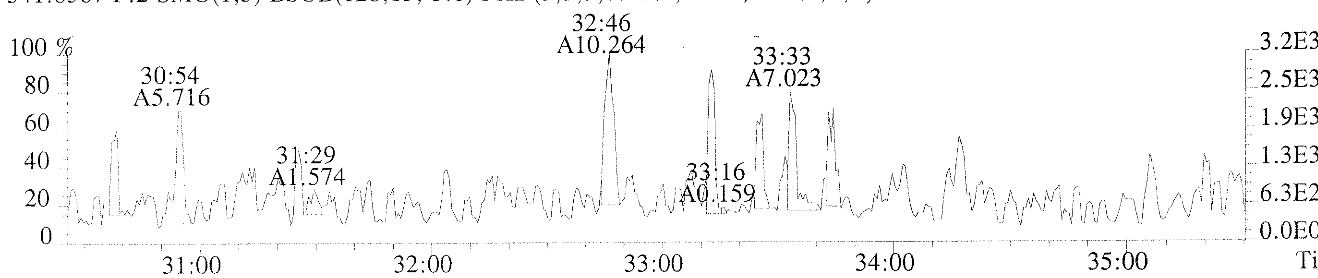
File: 236 #1-572 Acq: 6-JUL-2012 11:11:40 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:)0313-01 MB



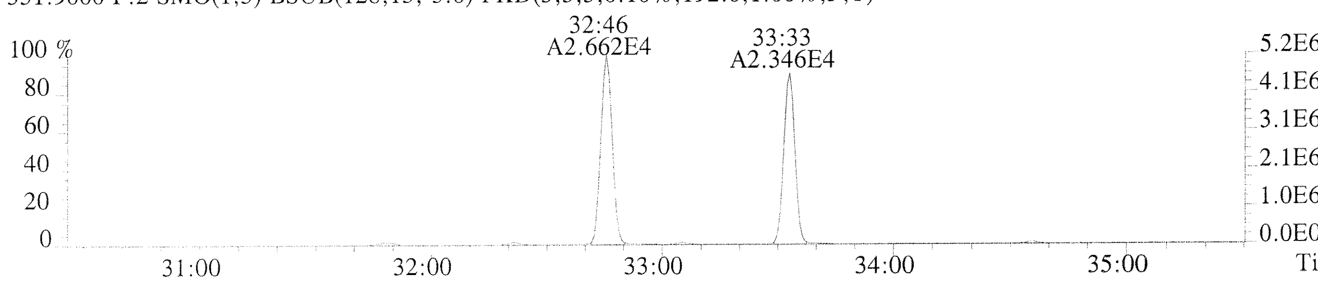
File: 8236 #1-461 Acq: 6-JUL-2012 11:11:40 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp: 00313-01 MB
339.8597 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,120.0,1.00%,F,T)



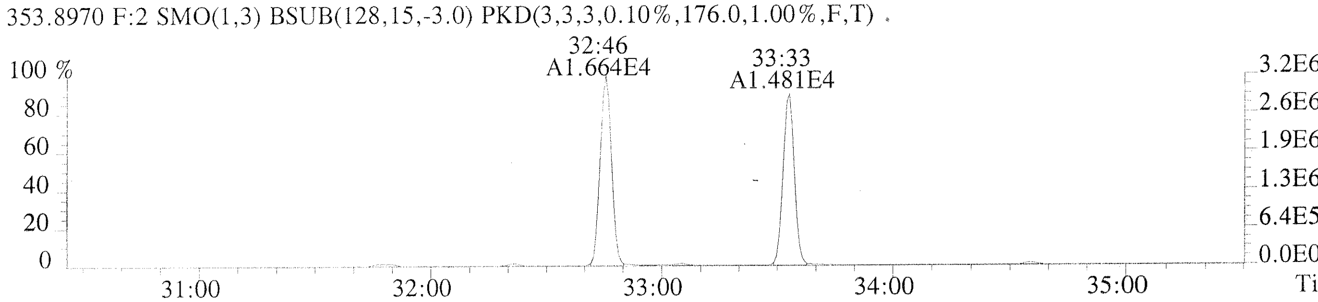
341.8567 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,844.0,1.00%,F,T)



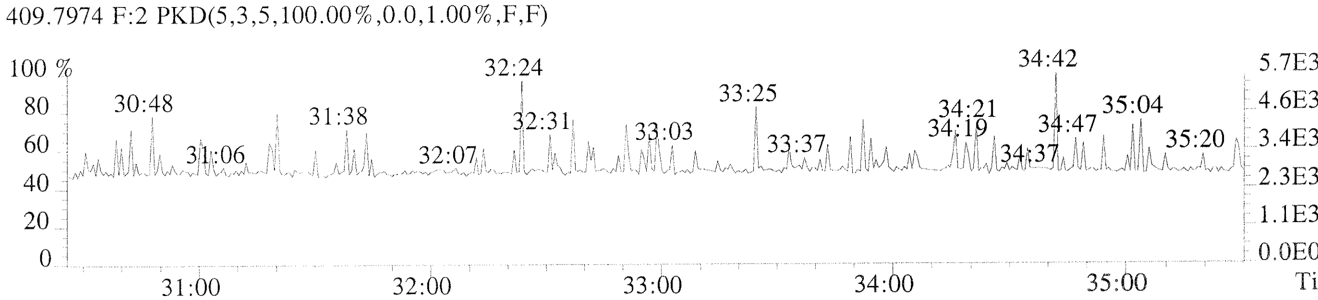
351.9000 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,192.0,1.00%,F,T)



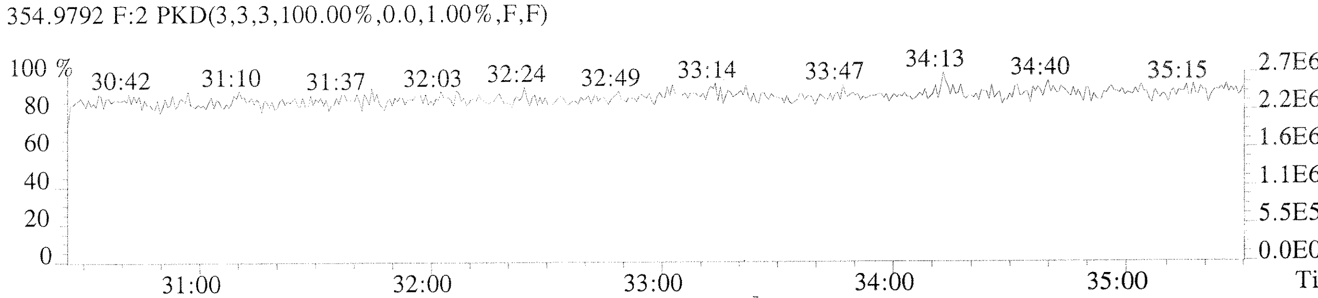
353.8970 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,176.0,1.00%,F,T)



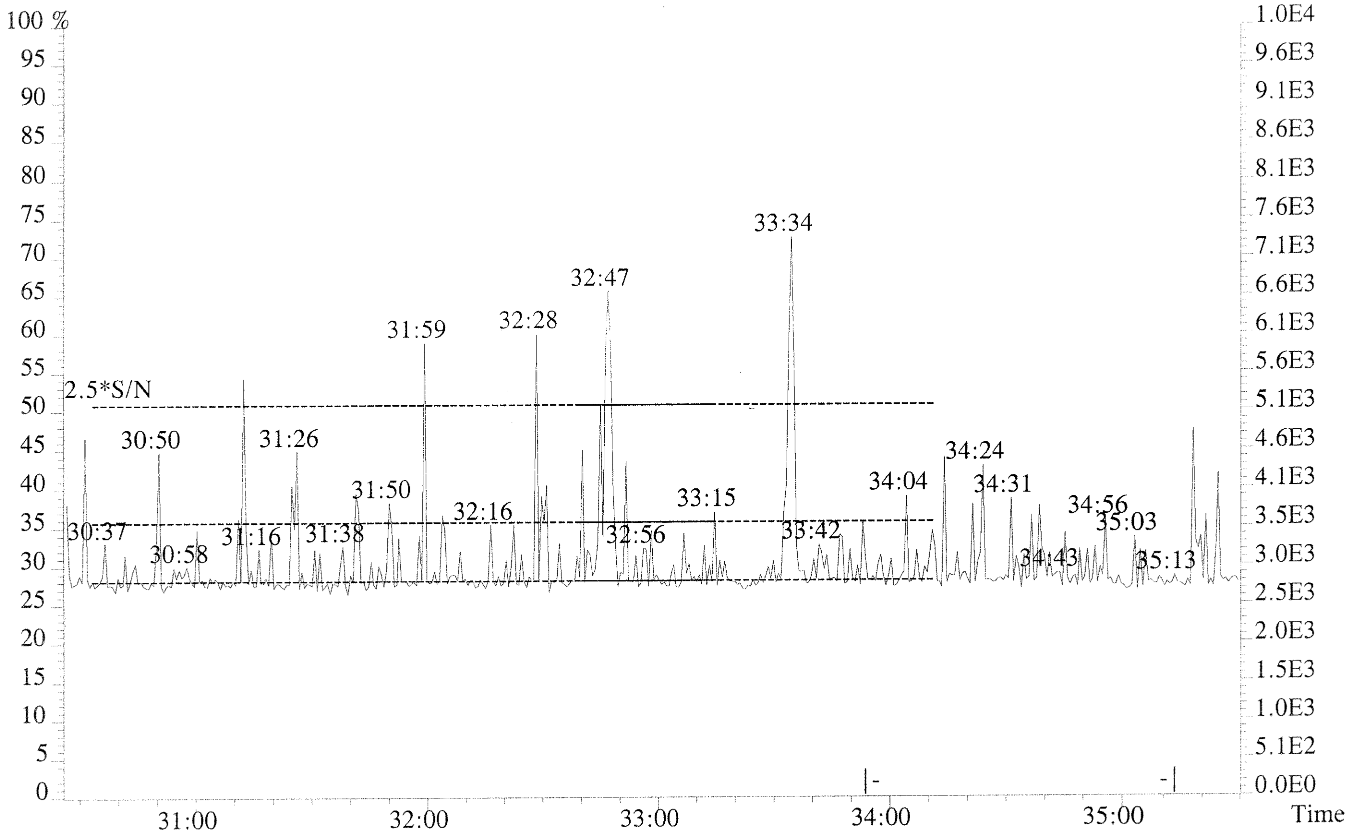
409.7974 F:2 PKD(5,3,5,100.00%,0.0,1.00%,F,F)



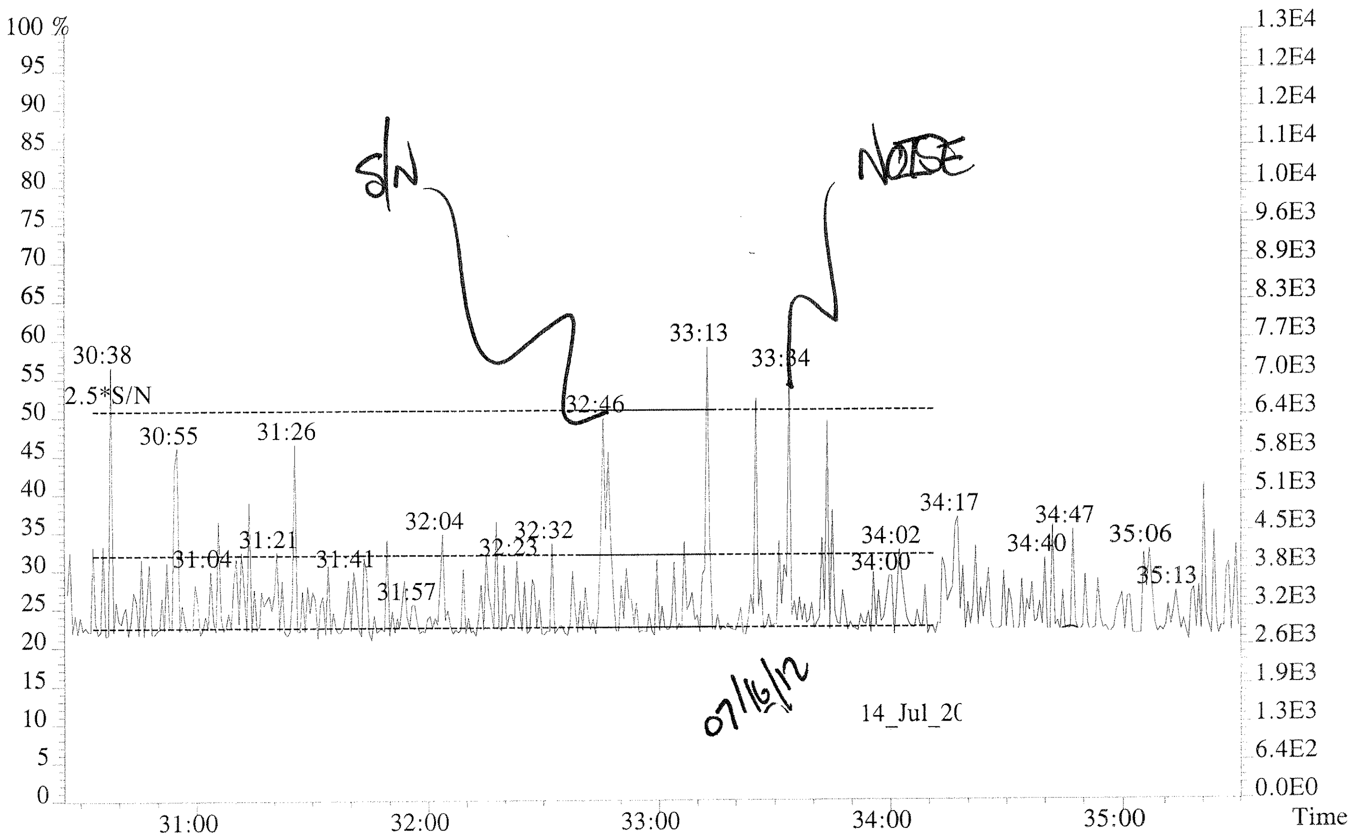
354.9792 F:2 PKD(3,3,3,100.00%,0.0,1.00%,F,F)



File: 236 #1-461 Acq: 6-JUL-2012 11:11:40 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:)0313-01 MB
339.8597 F:2

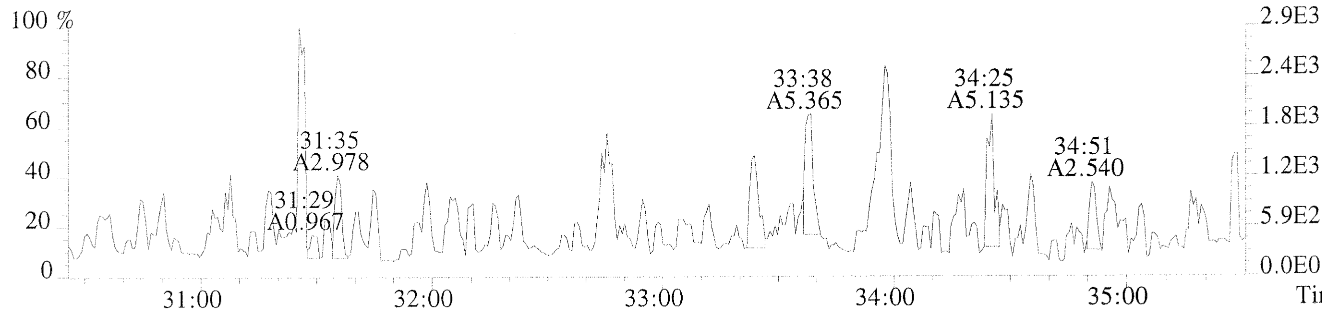


341.8567 F:2

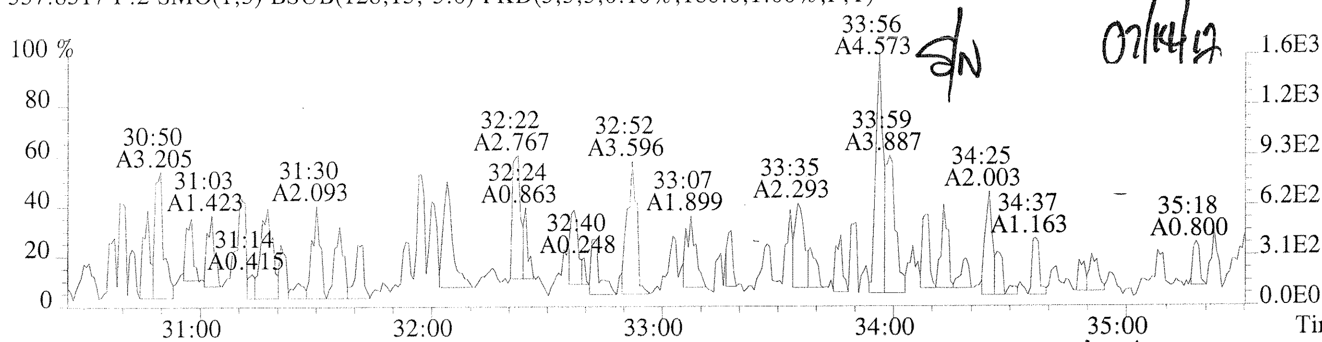


File: 8236 #1-461 Acq: 6-JUL-2012 11:11:40 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:)0313-01 MB

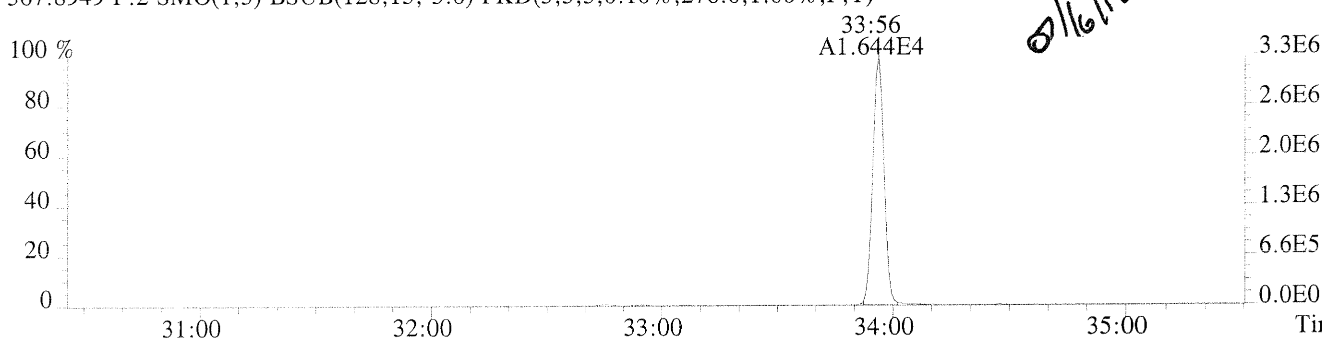
355.8546 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,532.0,1.00%,F,T)



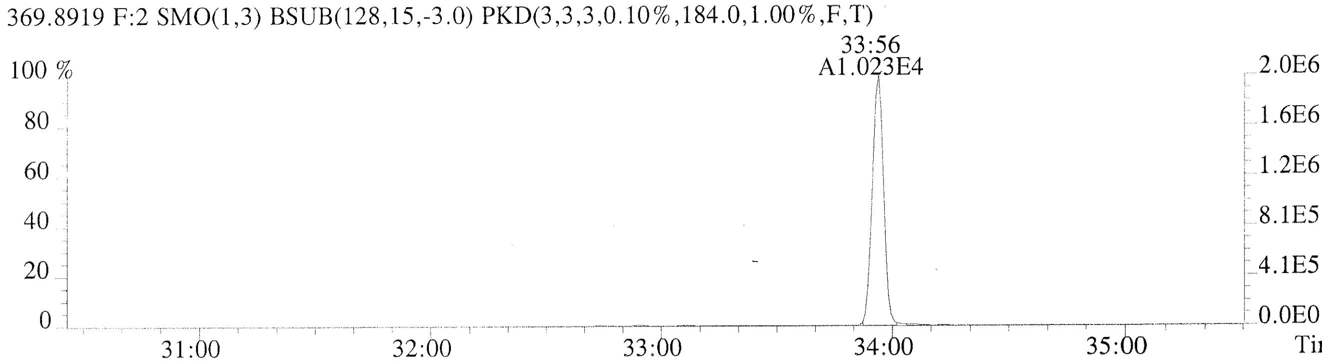
357.8517 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,180.0,1.00%,F,T)



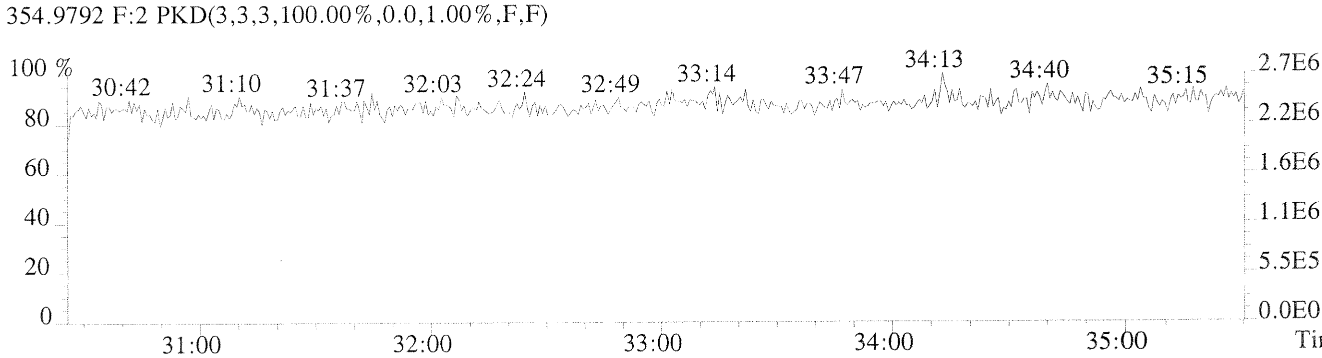
367.8949 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,276.0,1.00%,F,T)



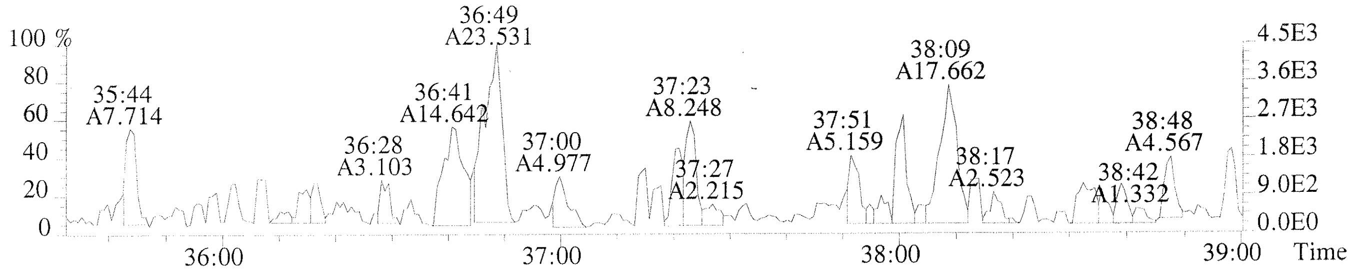
369.8919 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,184.0,1.00%,F,T)



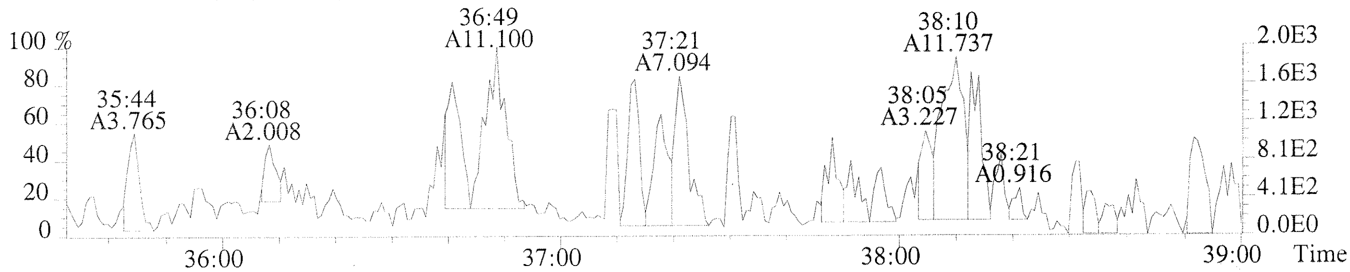
354.9792 F:2 PKD(3,3,3,100.00%,0.0,1.00%,F,F)



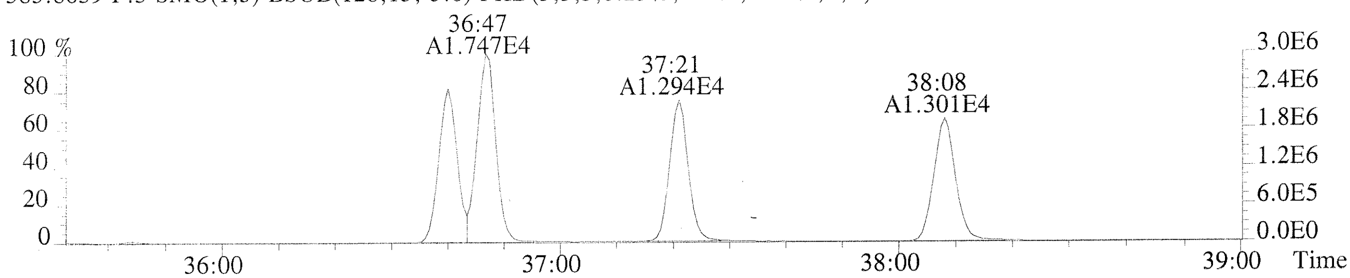
File 8236 #1-315 Acq: 6-JUL-2012 11:11:40 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp: 00313-01 MB
373.8208 F:3 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,528.0,0.40%,F,T)



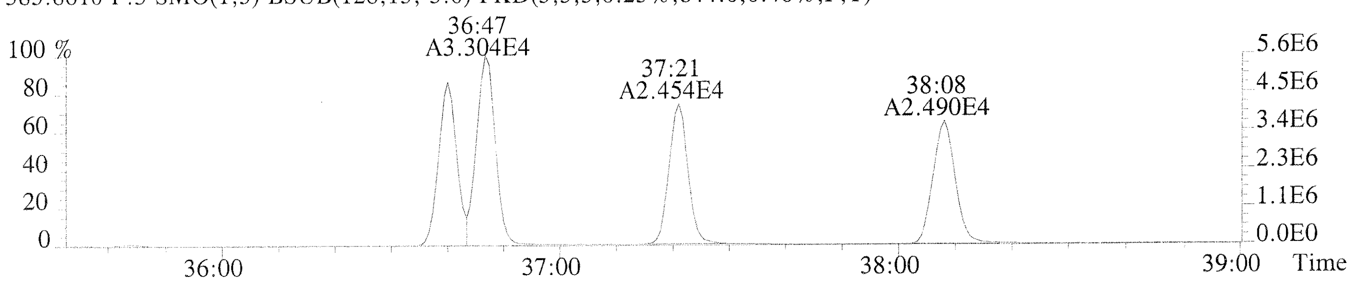
375.8178 F:3 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,356.0,0.40%,F,T)



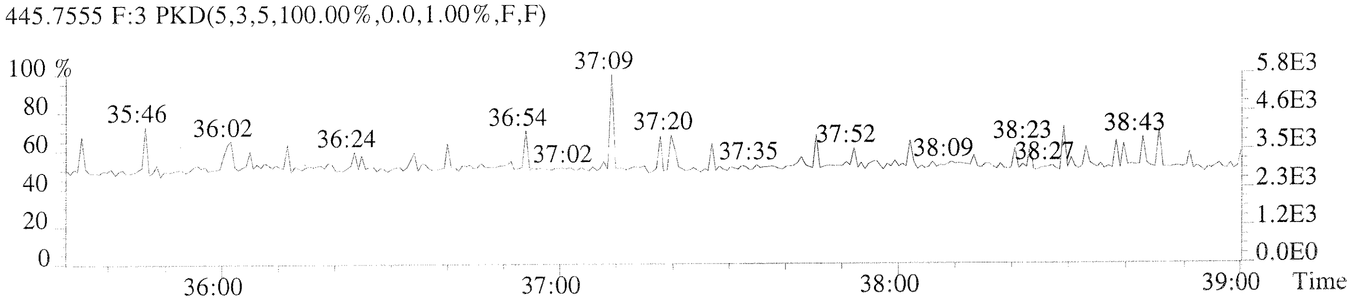
383.8639 F:3 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,704.0,0.40%,F,T)



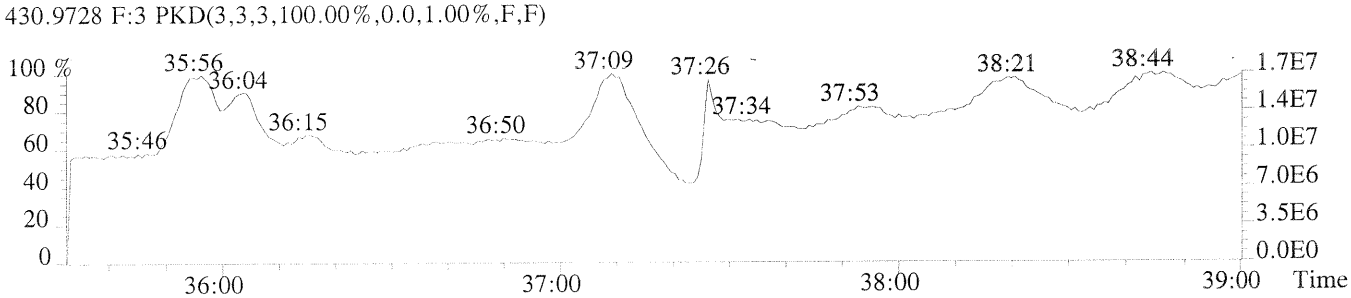
385.8610 F:3 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,844.0,0.40%,F,T)



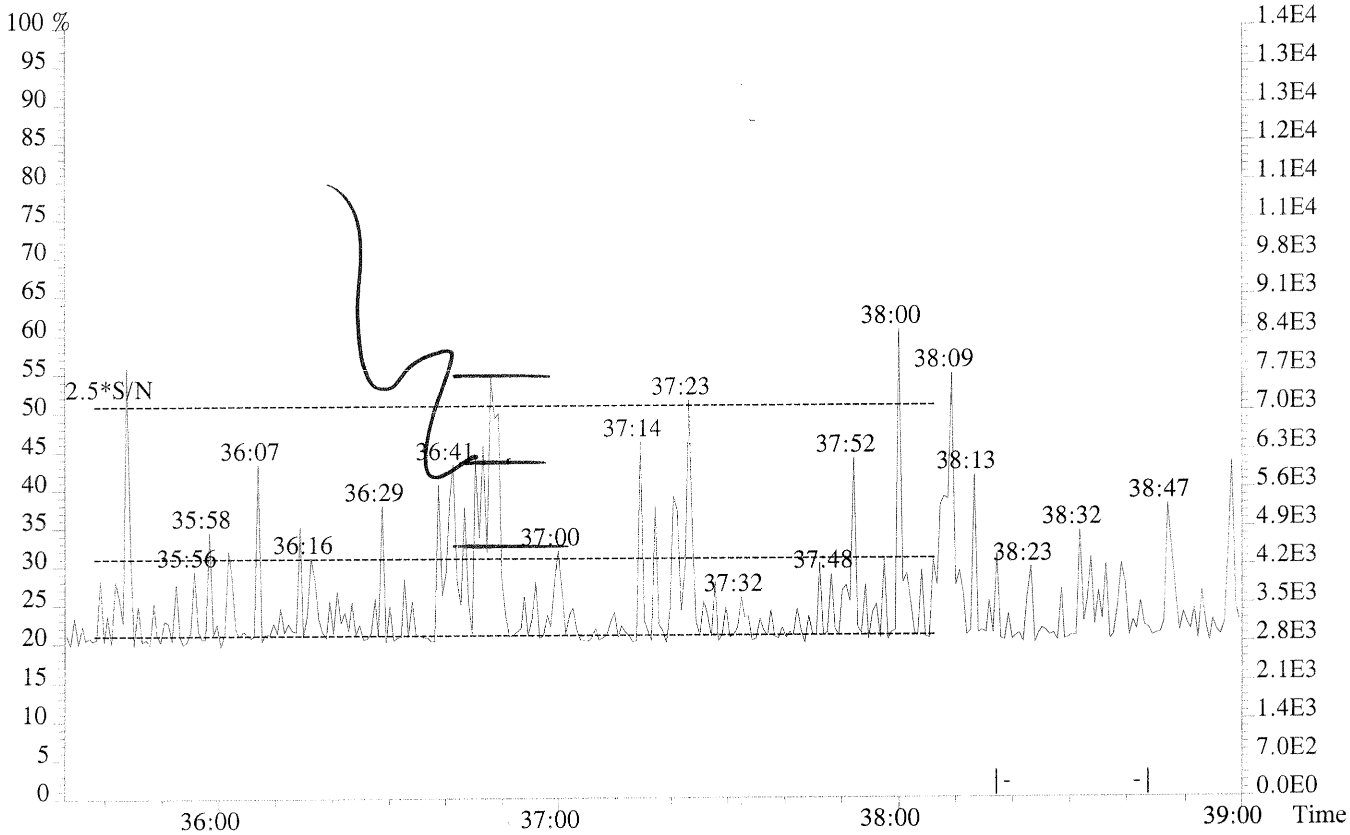
445.7555 F:3 PKD(5,3,5,100.00%,0.0,1.00%,F,F)



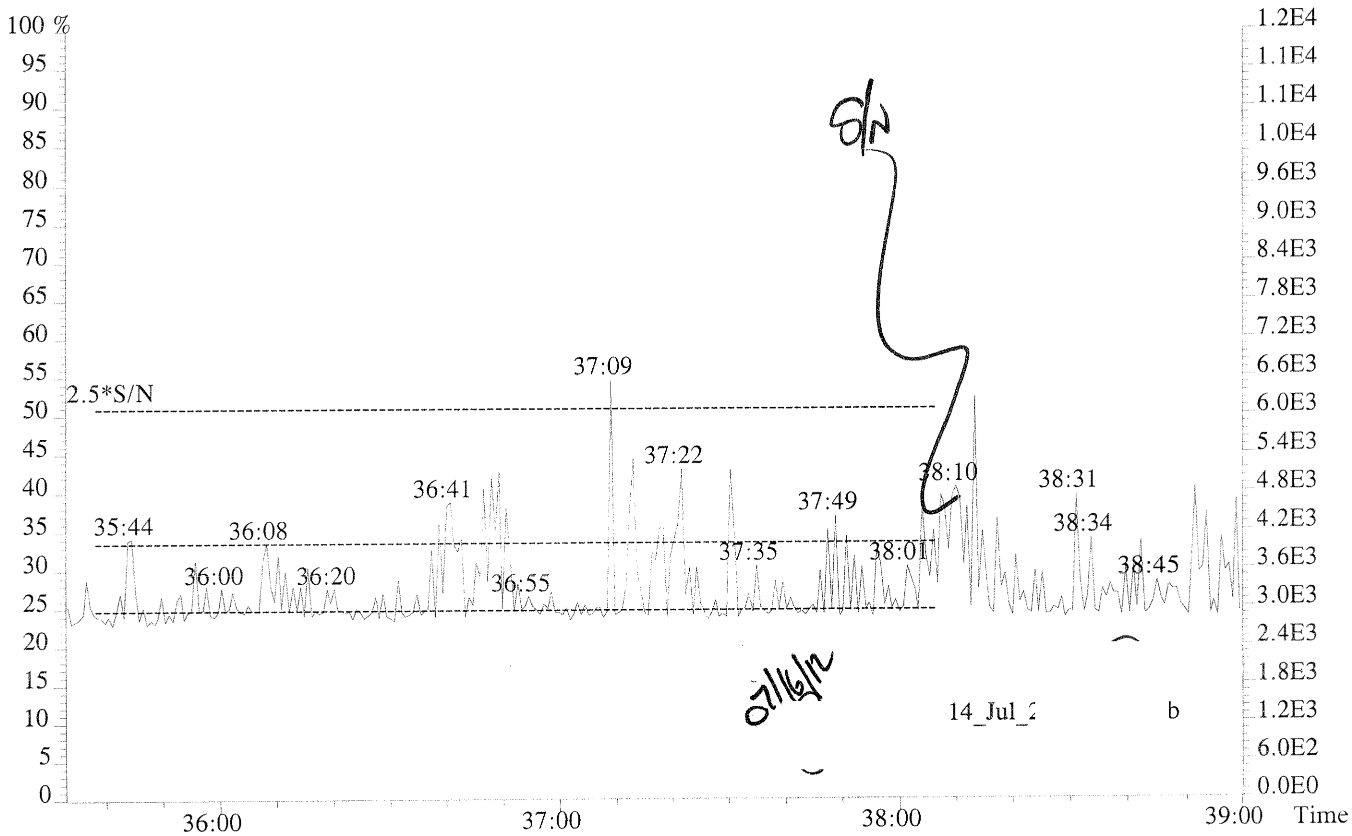
430.9728 F:3 PKD(3,3,3,100.00%,0.0,1.00%,F,F)



File 8236 #1-315 Acq: 6-JUL-2012 11:11:40 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:)0313-01 MB
373.8208 F:3

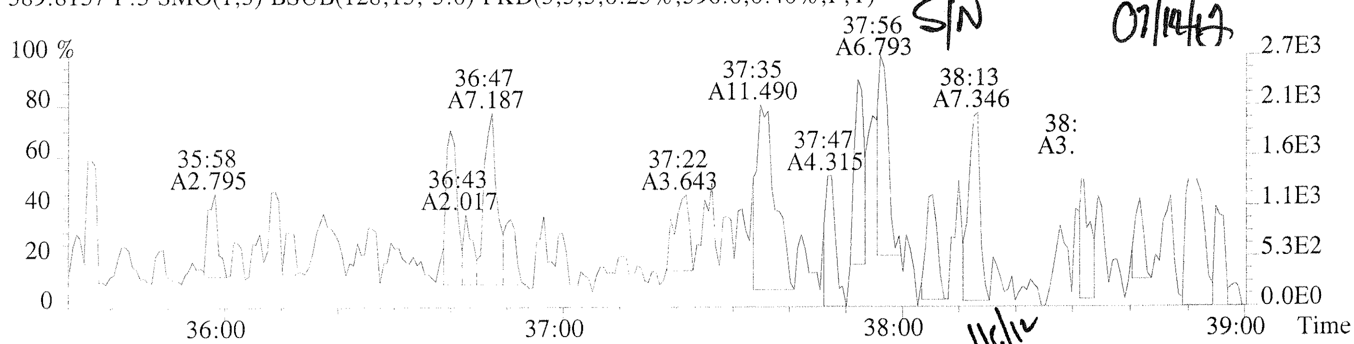


375.8178 F:3

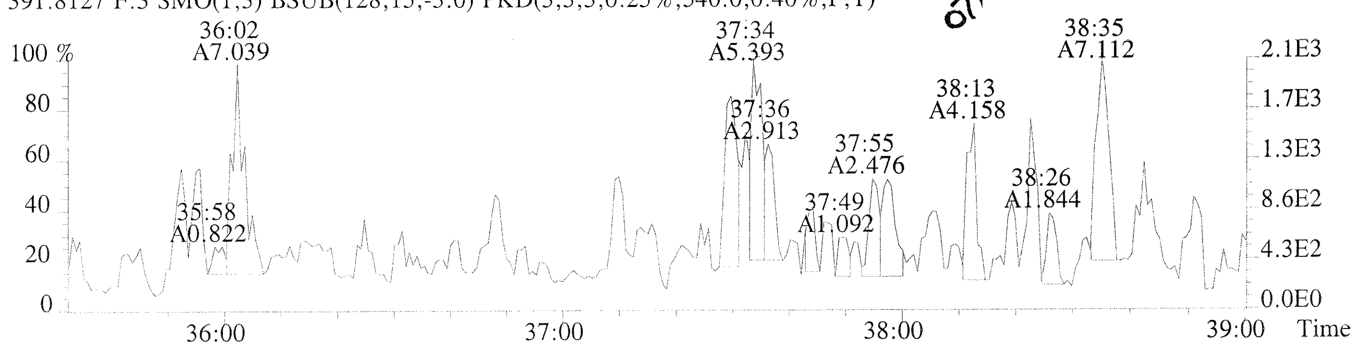


File: 8236 #1-315 Acq: 6-JUL-2012 11:11:40 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp: 00313-01 MB

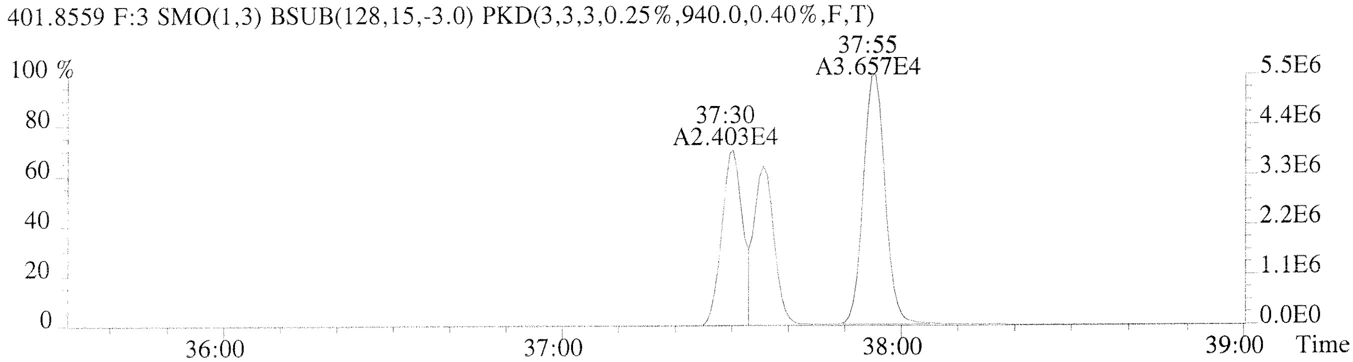
389.8157 F:3 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,596.0,0.40%,F,T)



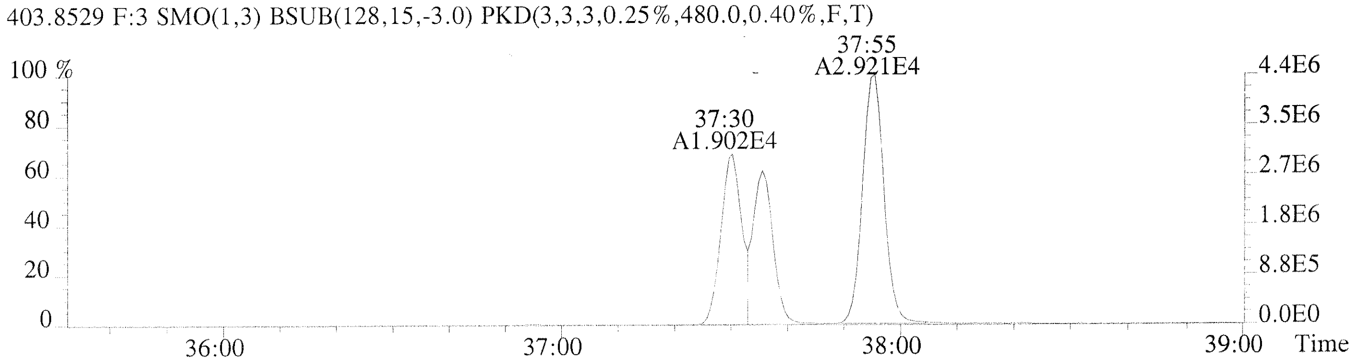
391.8127 F:3 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,540.0,0.40%,F,T)



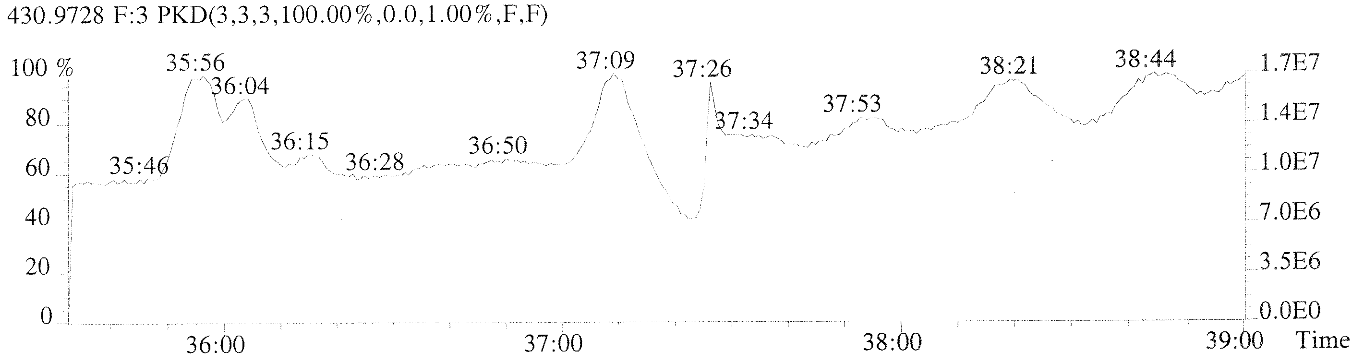
401.8559 F:3 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,940.0,0.40%,F,T)



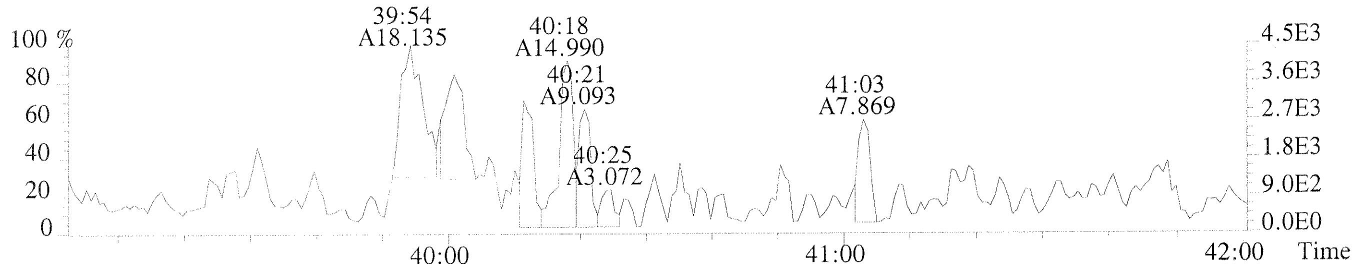
403.8529 F:3 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,480.0,0.40%,F,T)



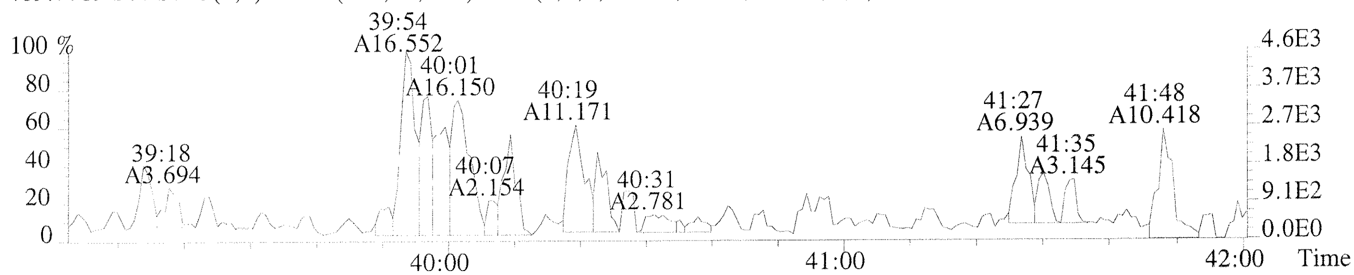
430.9728 F:3 PKD(3,3,3,100.00%,0.0,1.00%,F,F)



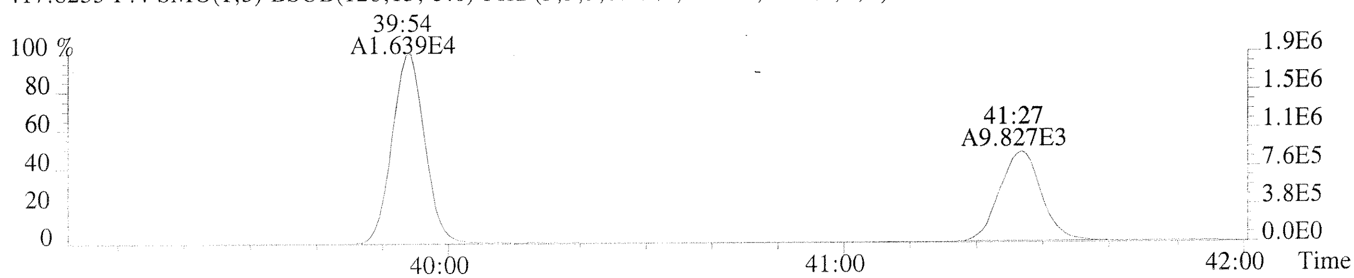
File 8236 #1-270 Acq: 6-JUL-2012 11:11:40 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp 00313-01 MB
407.7818 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,1000.0,0.50%,F,T)



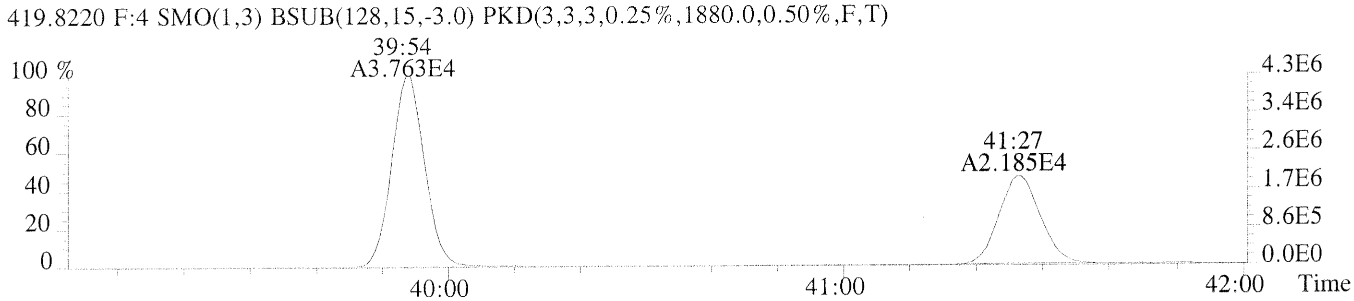
409.7789 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,528.0,0.50%,F,T)



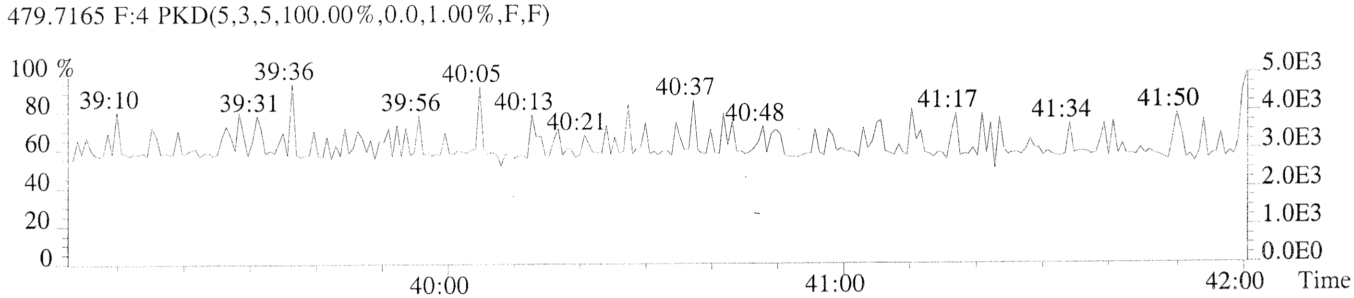
417.8253 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,2412.0,0.50%,F,T)



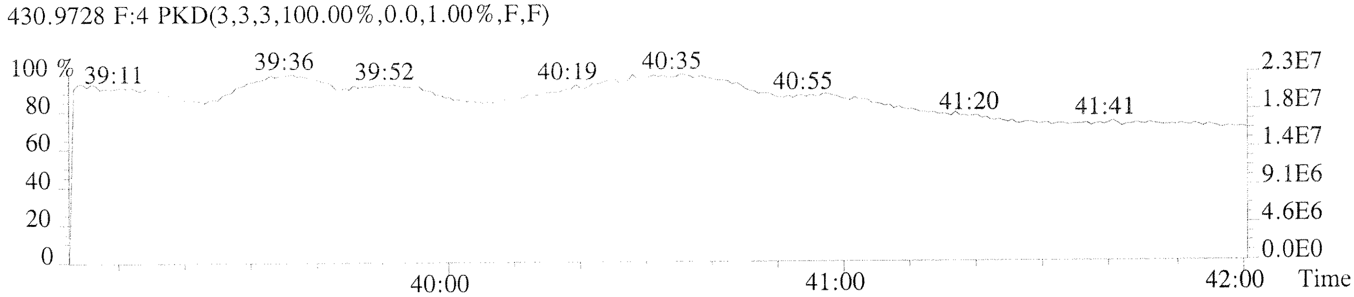
419.8220 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,1880.0,0.50%,F,T)



479.7165 F:4 PKD(5,3,5,100.00%,0.0,1.00%,F,F)

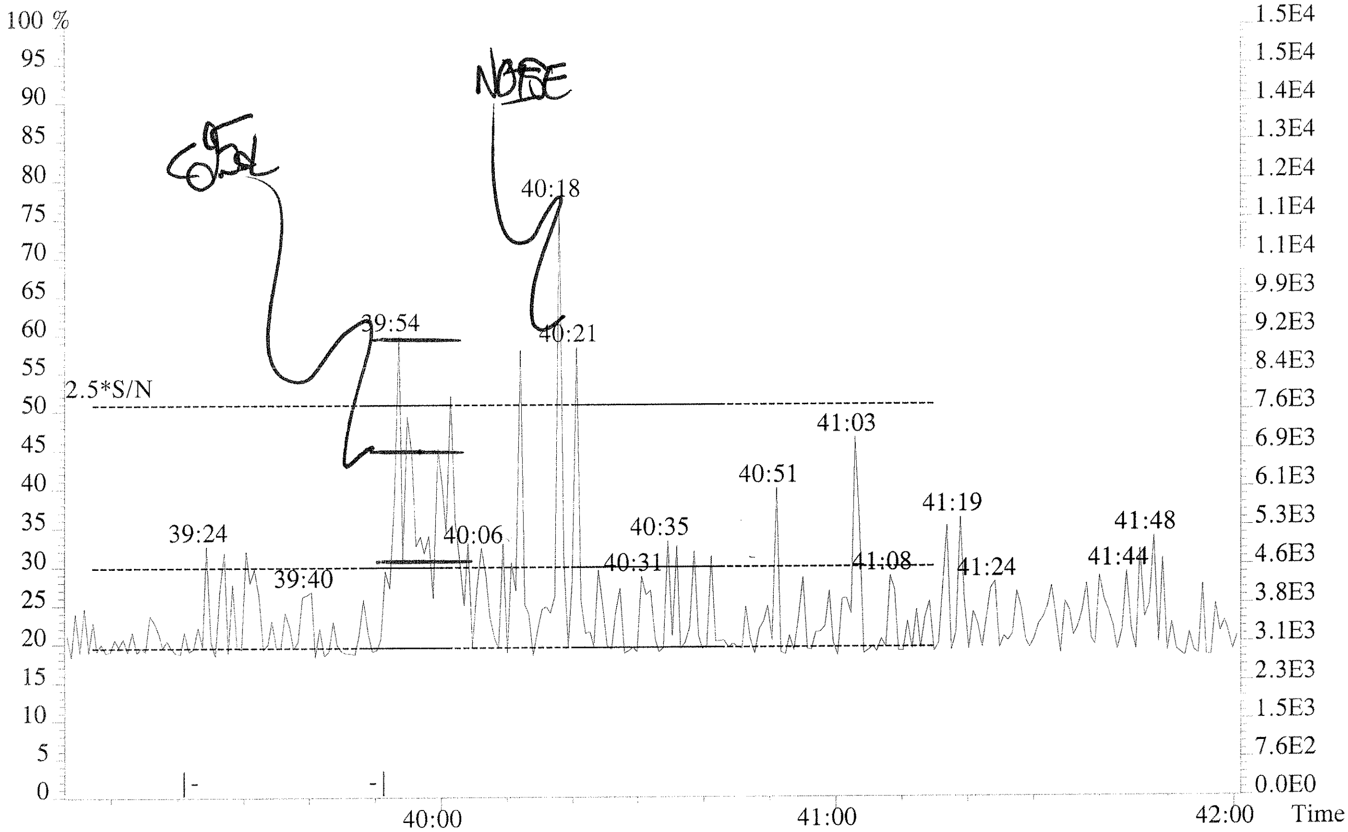


430.9728 F:4 PKD(3,3,3,100.00%,0.0,1.00%,F,F)

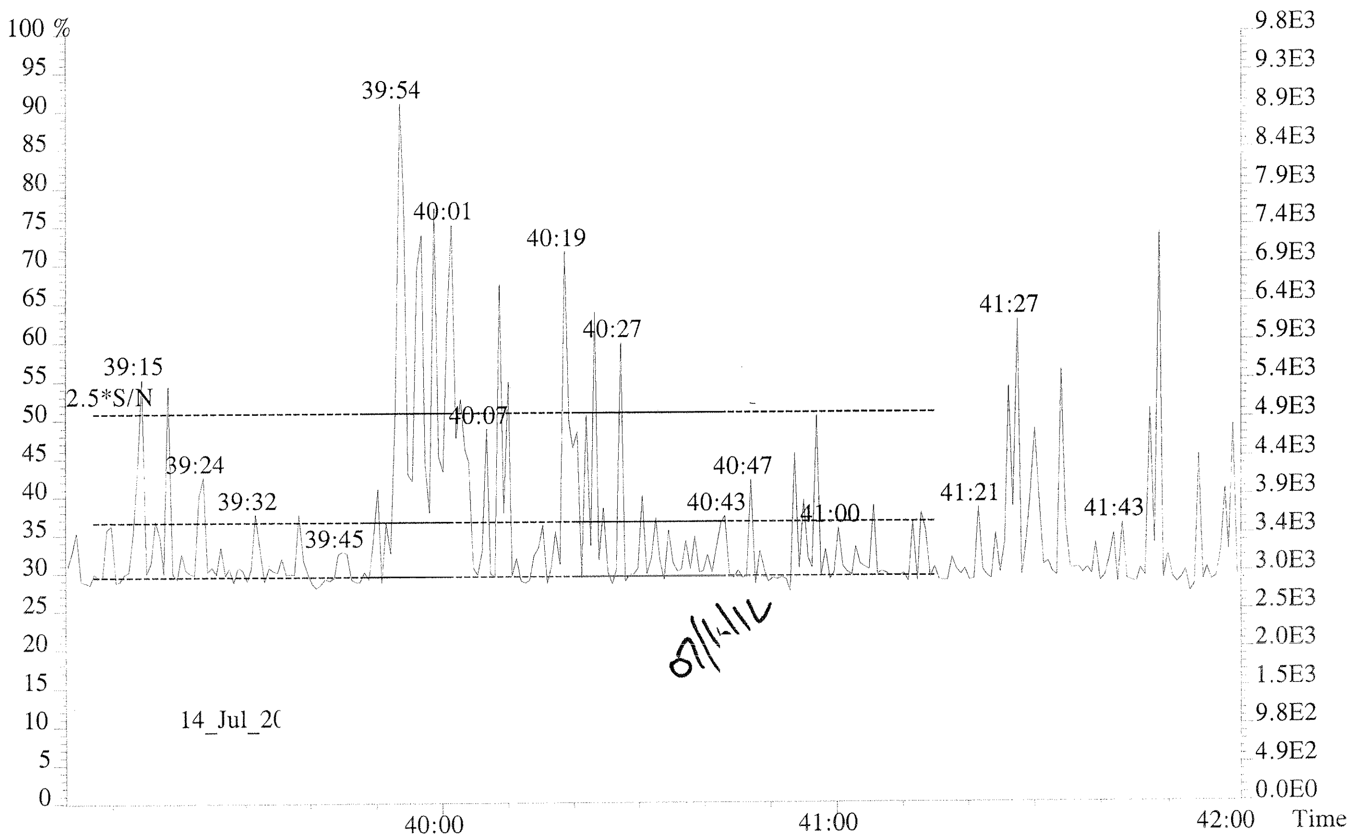


File: 8236 #1 270 Acq: 6-JUL-2012 11:11:40 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp: 200313-01 MB

407.7818 F:4

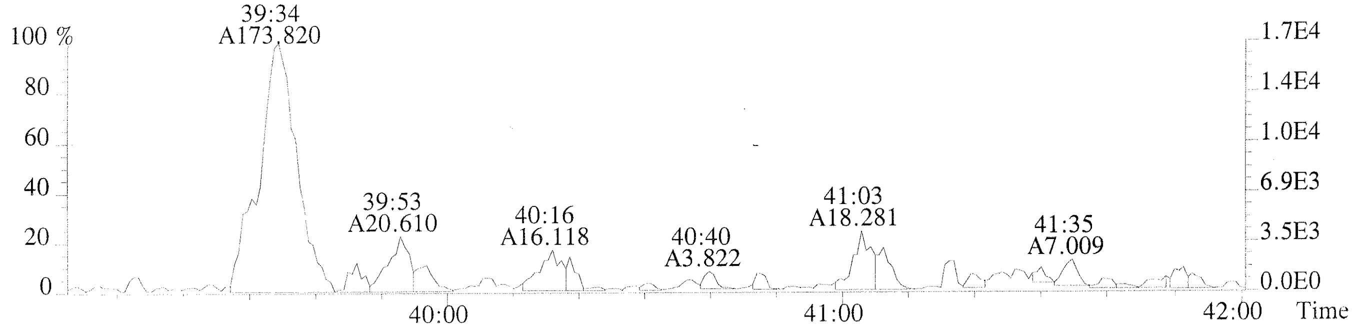


409.7789 F:4

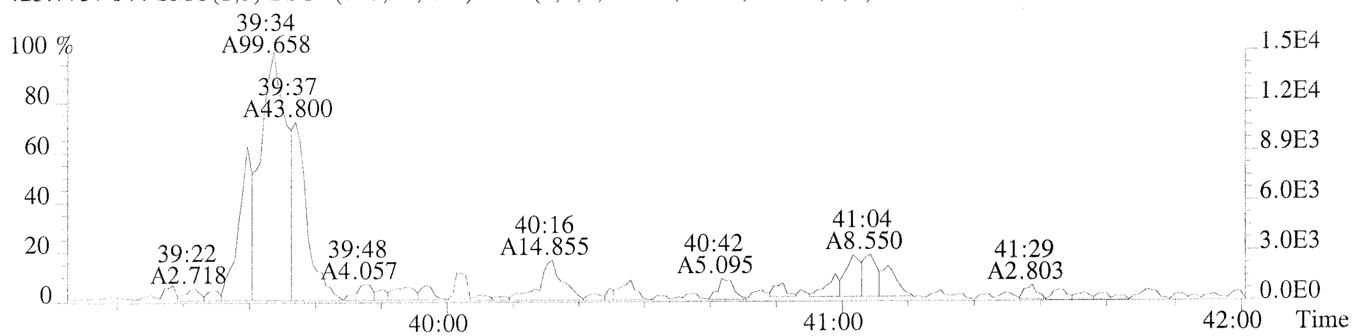


File: 3236 #1-270 Acq: 6-JUL-2012 11:11:40 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:)0313-01 MB

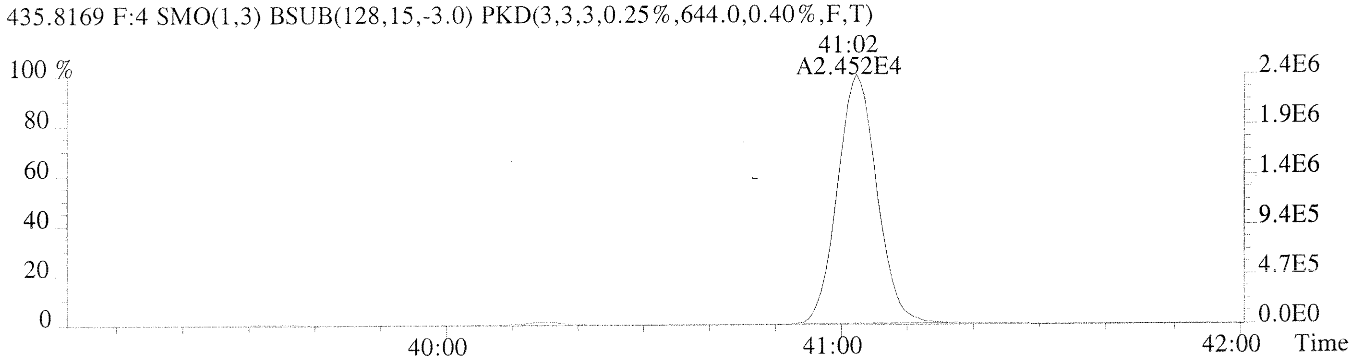
423.7766 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,408.0,0.40%,F,T)



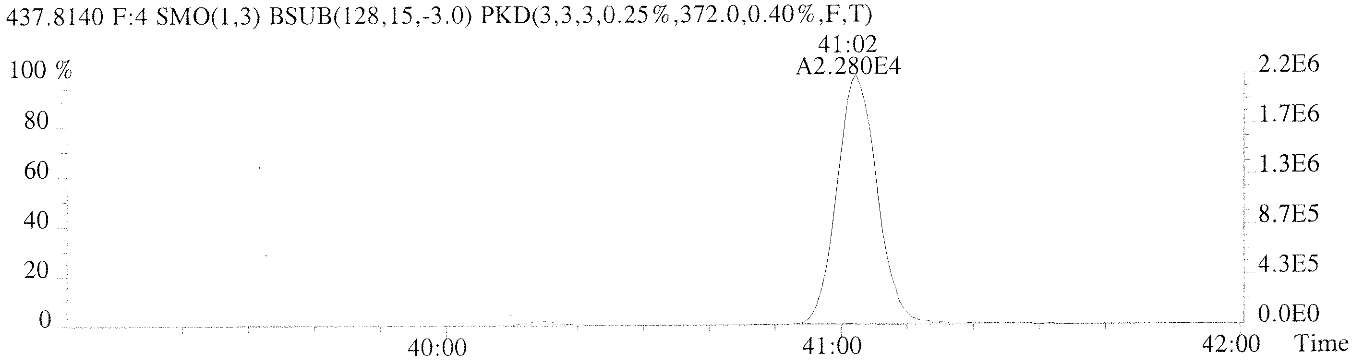
425.7737 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,360.0,0.40%,F,T)



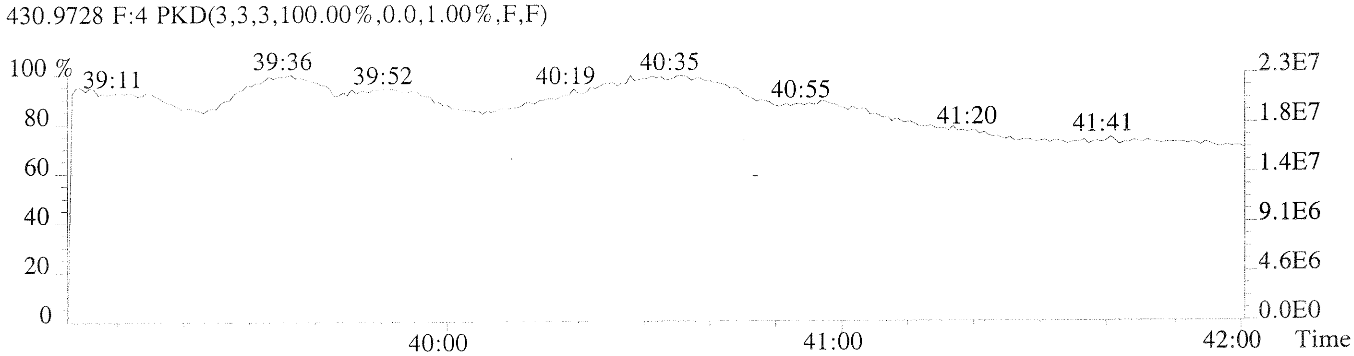
435.8169 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,644.0,0.40%,F,T)



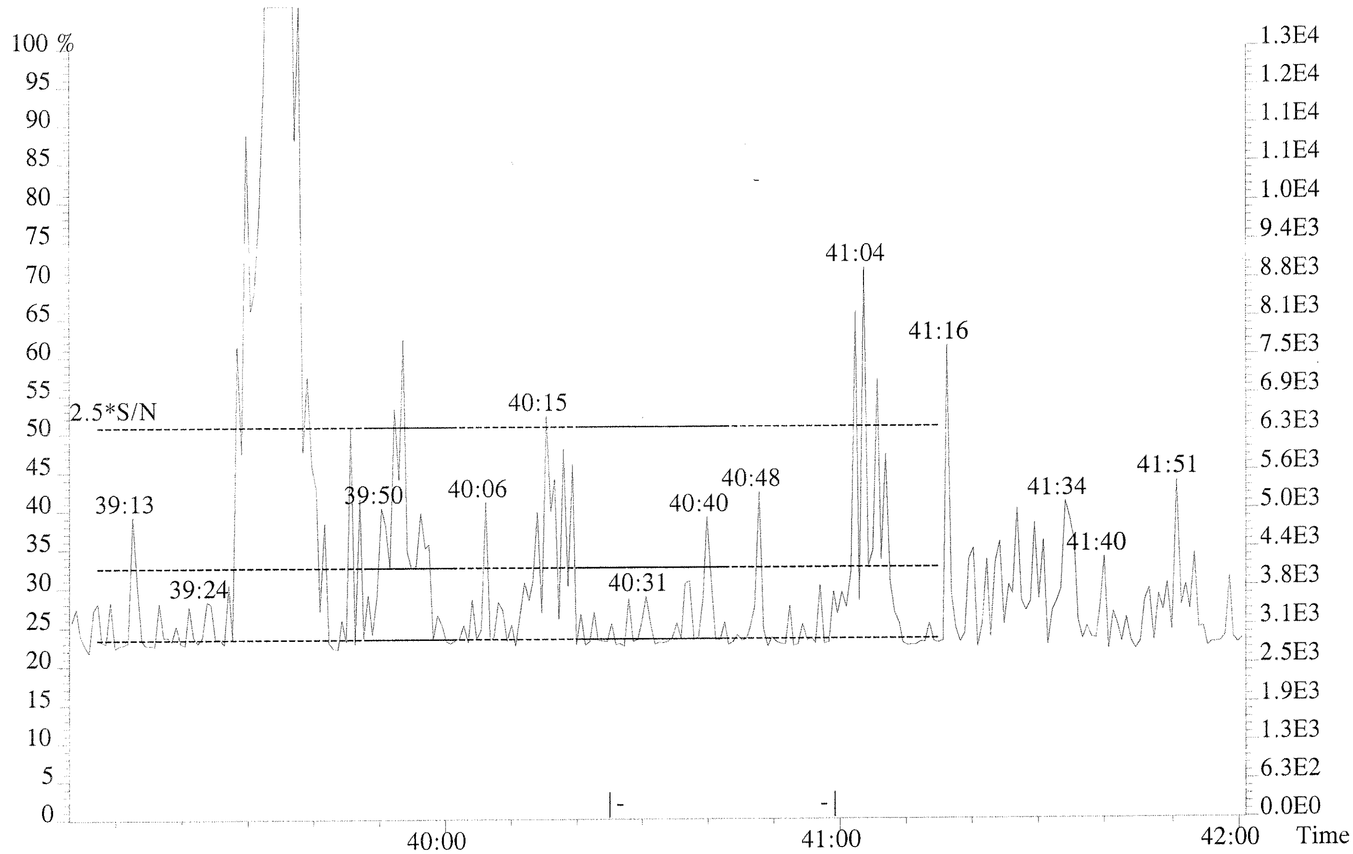
437.8140 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,372.0,0.40%,F,T)



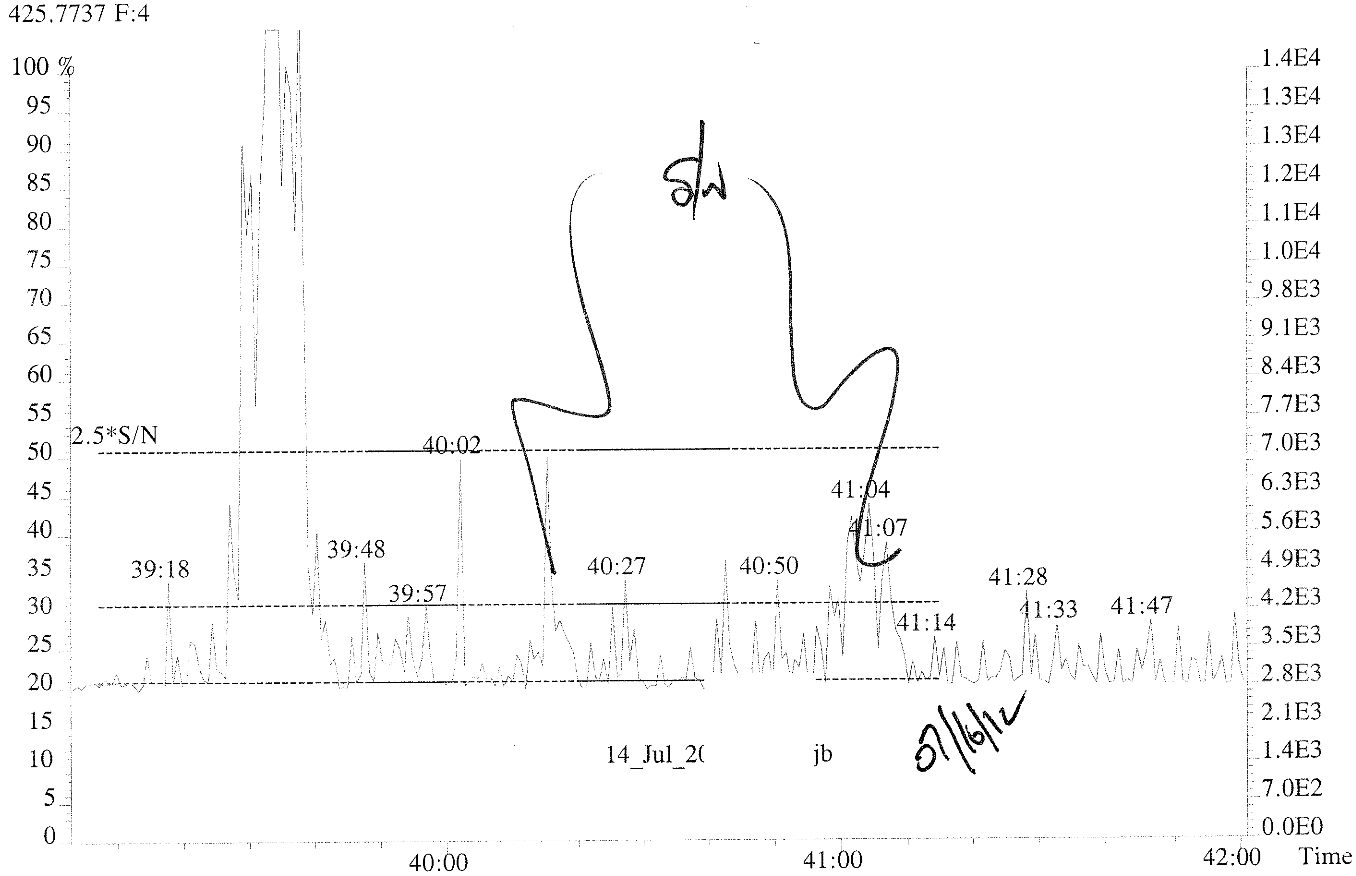
430.9728 F:4 PKD(3,3,3,100.00%,0.0,1.00%,F,F)



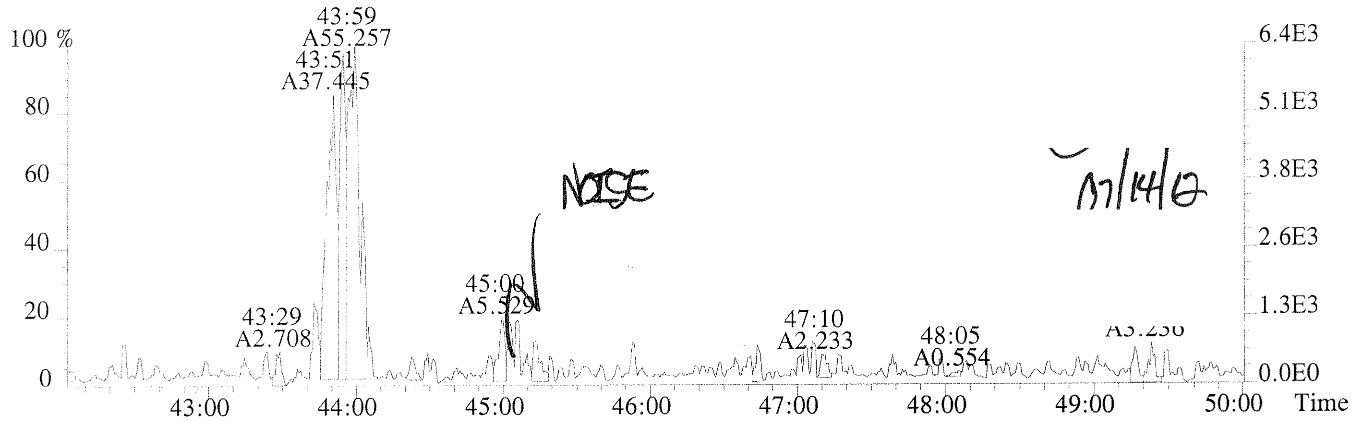
File: 3236 #1-270 Acq: 6-JUL-2012 11:11:40 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:)0313-01 MB
423.7766 F:4



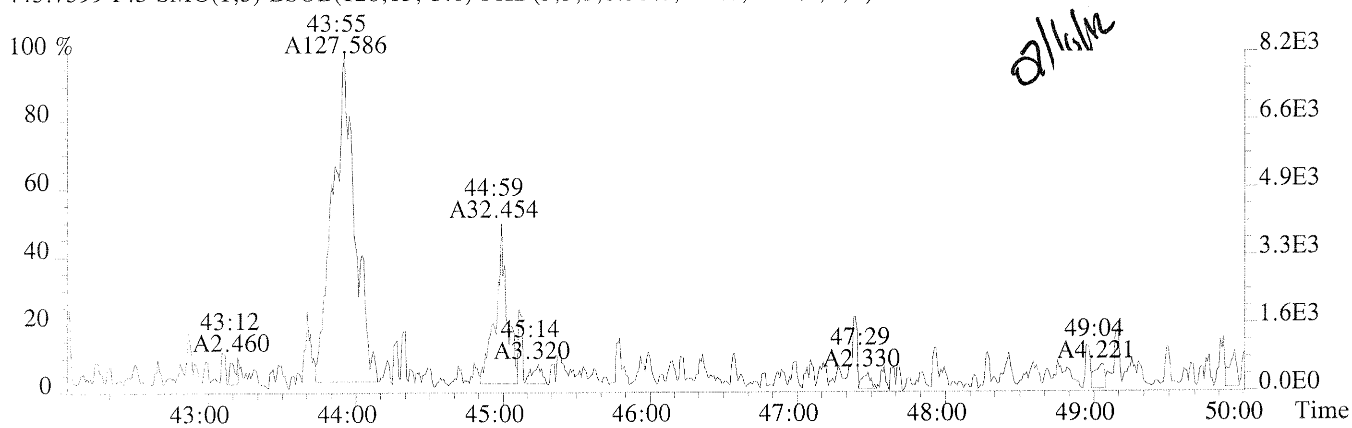
425.7737 F:4



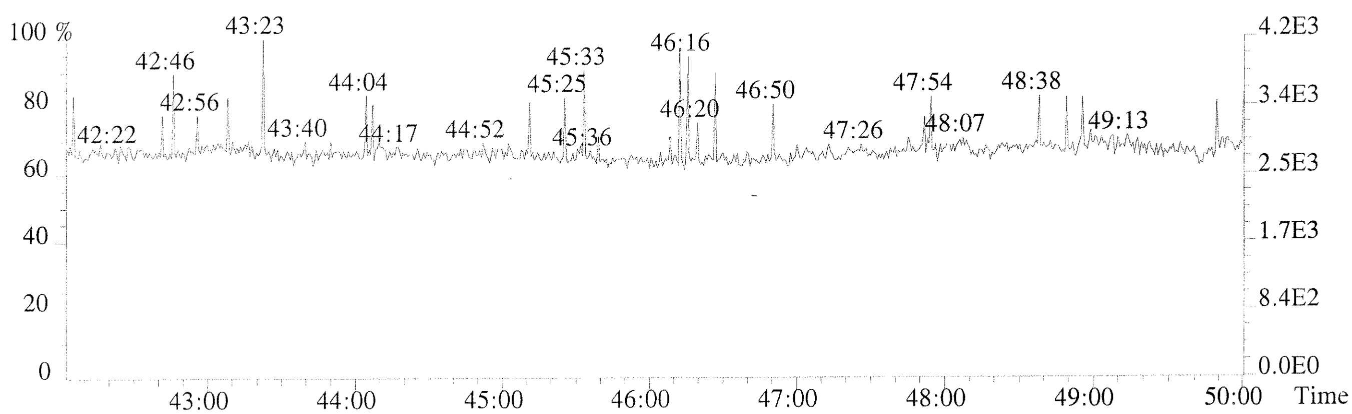
File 8236 #1-732 Acq: 6-JUL-2012 11:11:40 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp: 00313-01 MB
441.7428 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(5,3,5,0.30%,232.0,0.40%,F,T)



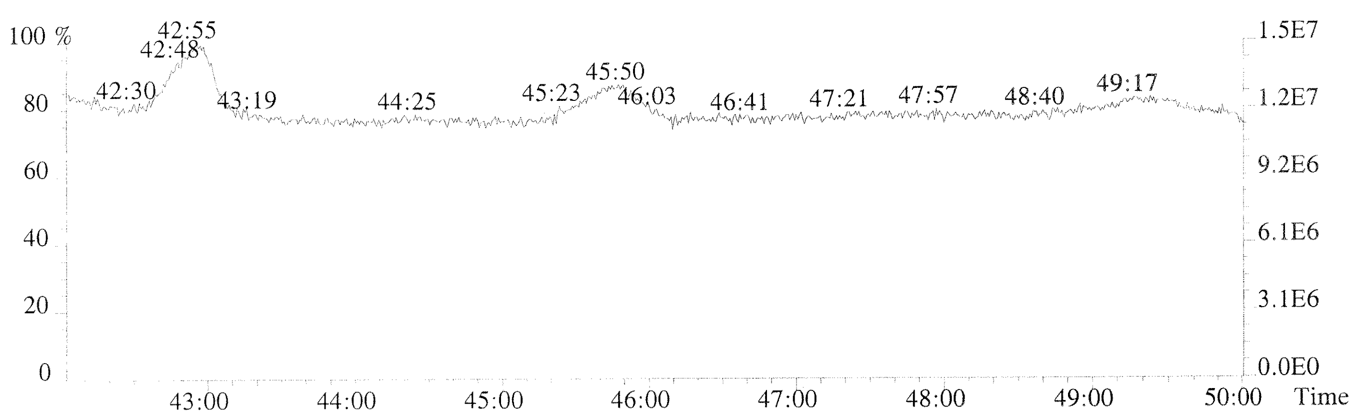
443.7399 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(5,3,5,0.30%,424.0,0.40%,F,T)



513.6775 F:5 PKD(5,3,5,100.00%,0.0,1.00%,F,F)

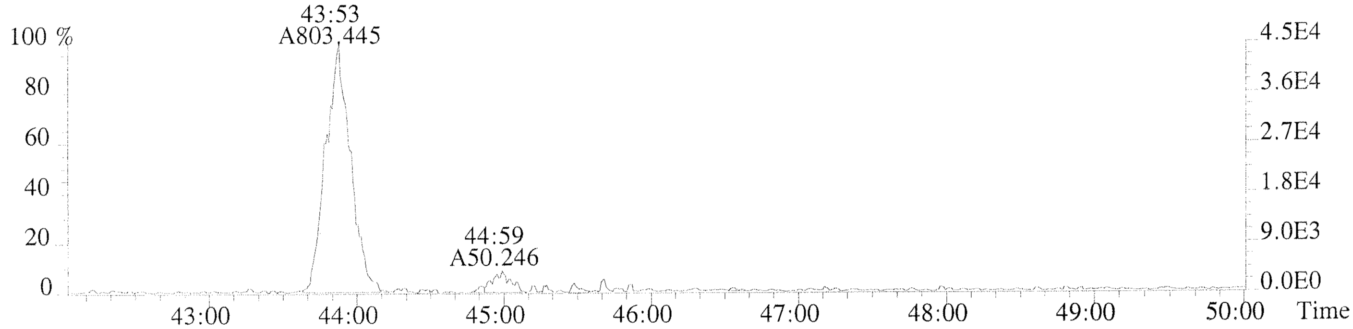


442.9728 F:5 PKD(3,3,3,100.00%,0.0,0.40%,F,F)

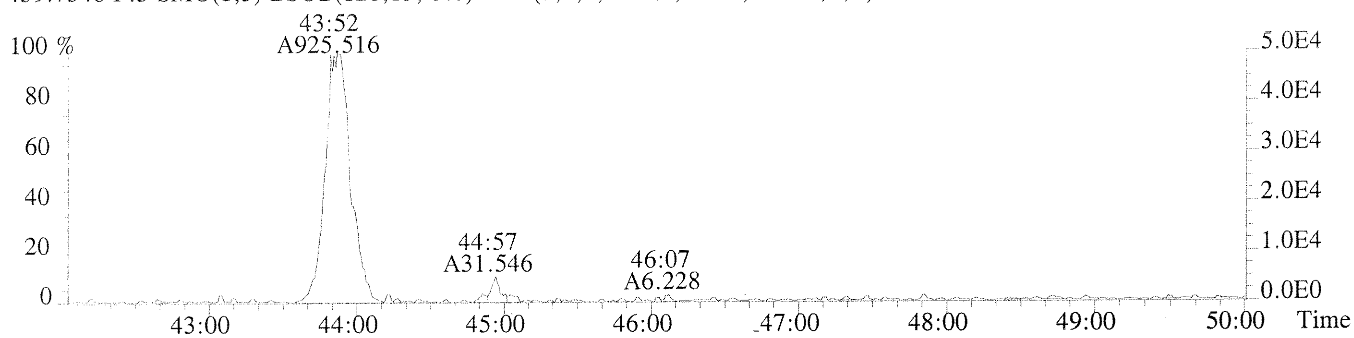


File: 8236 #1-732 Acq: 6-JUL-2012 11:11:40 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp: 00313-01 MB

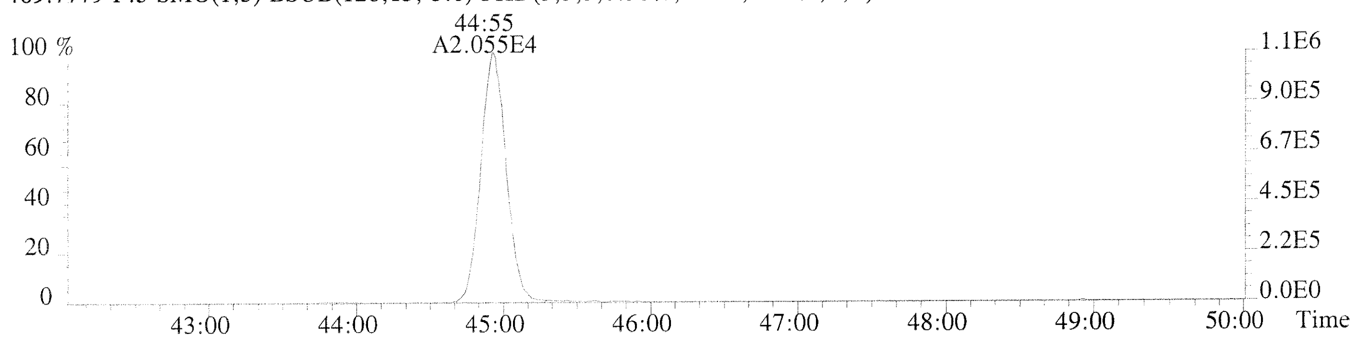
457.7377 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(5,3,5,0.30%,400.0,0.40%,F,T)



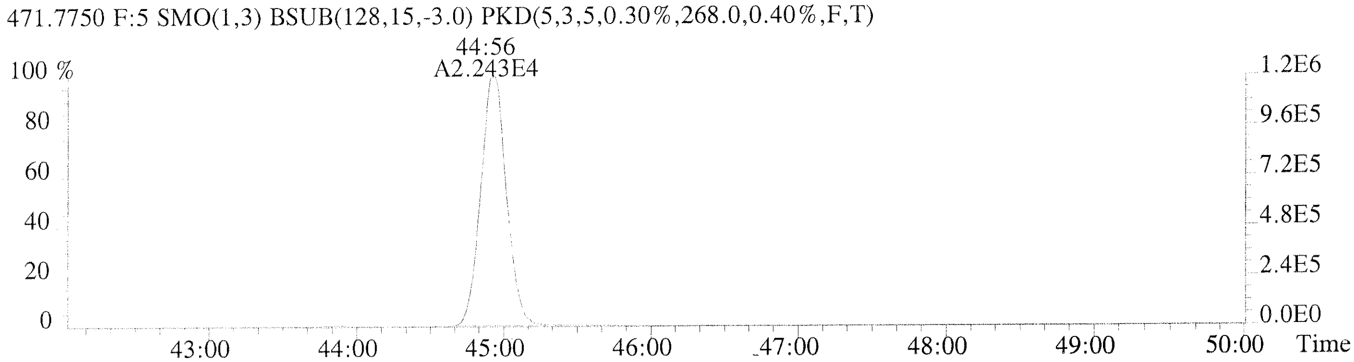
459.7348 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(5,3,5,0.30%,248.0,0.40%,F,T)



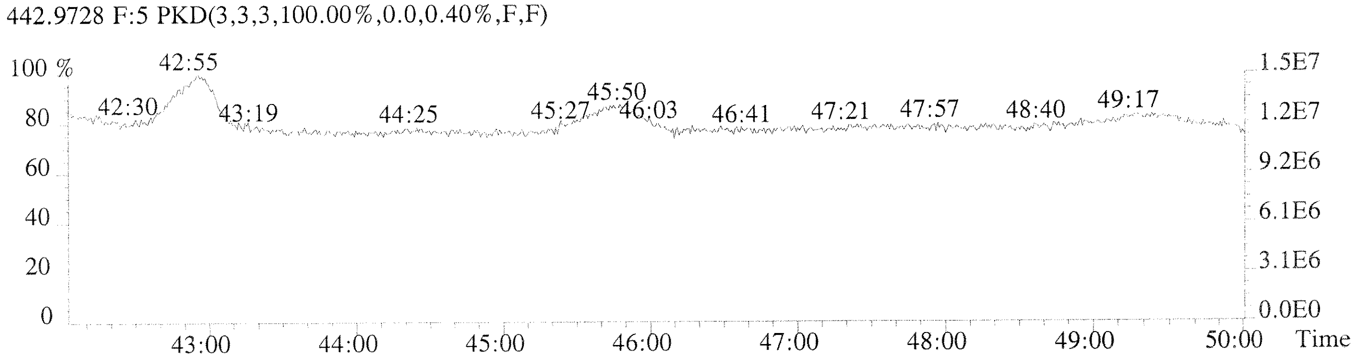
469.7779 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(5,3,5,0.30%,256.0,0.40%,F,T)



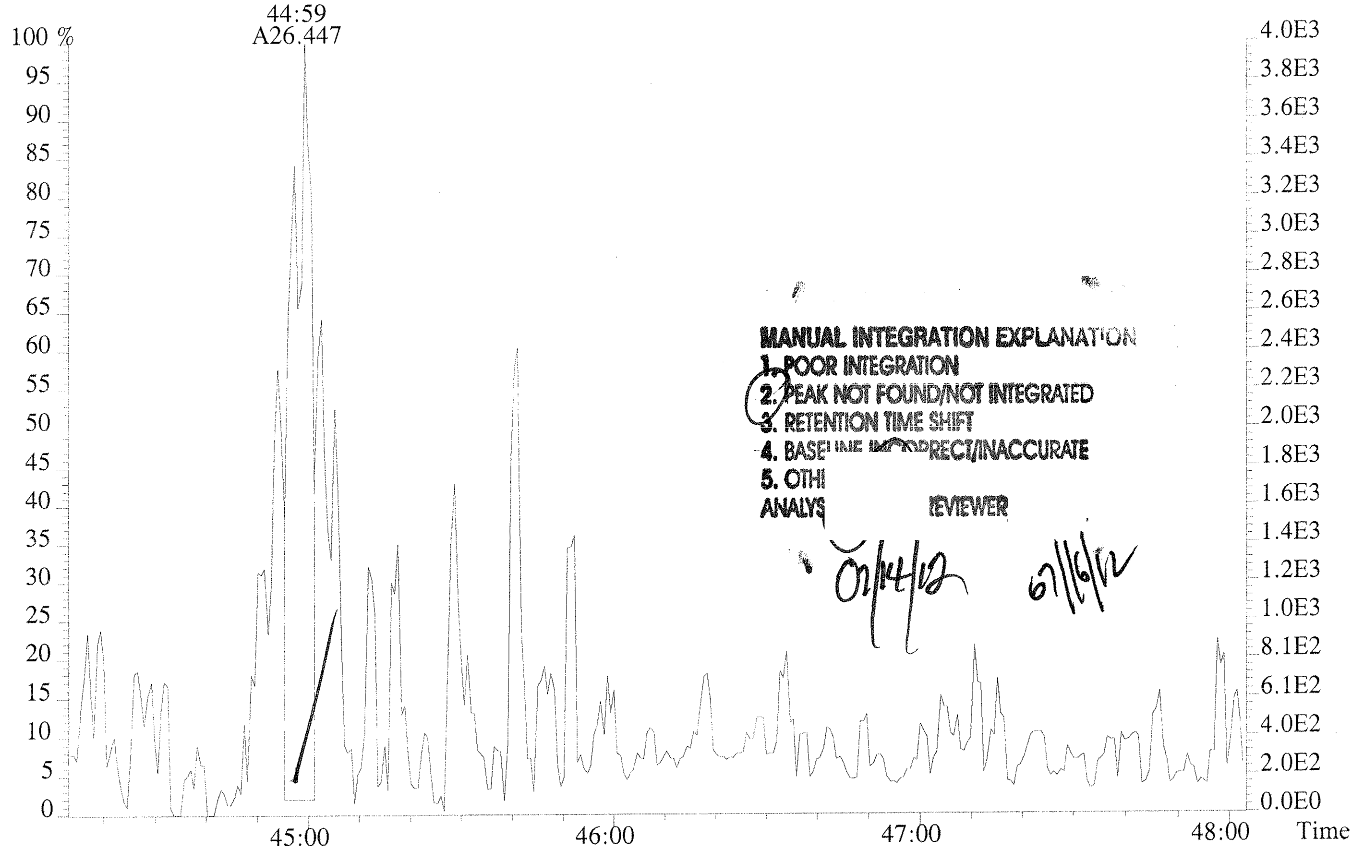
471.7750 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(5,3,5,0.30%,268.0,0.40%,F,T)



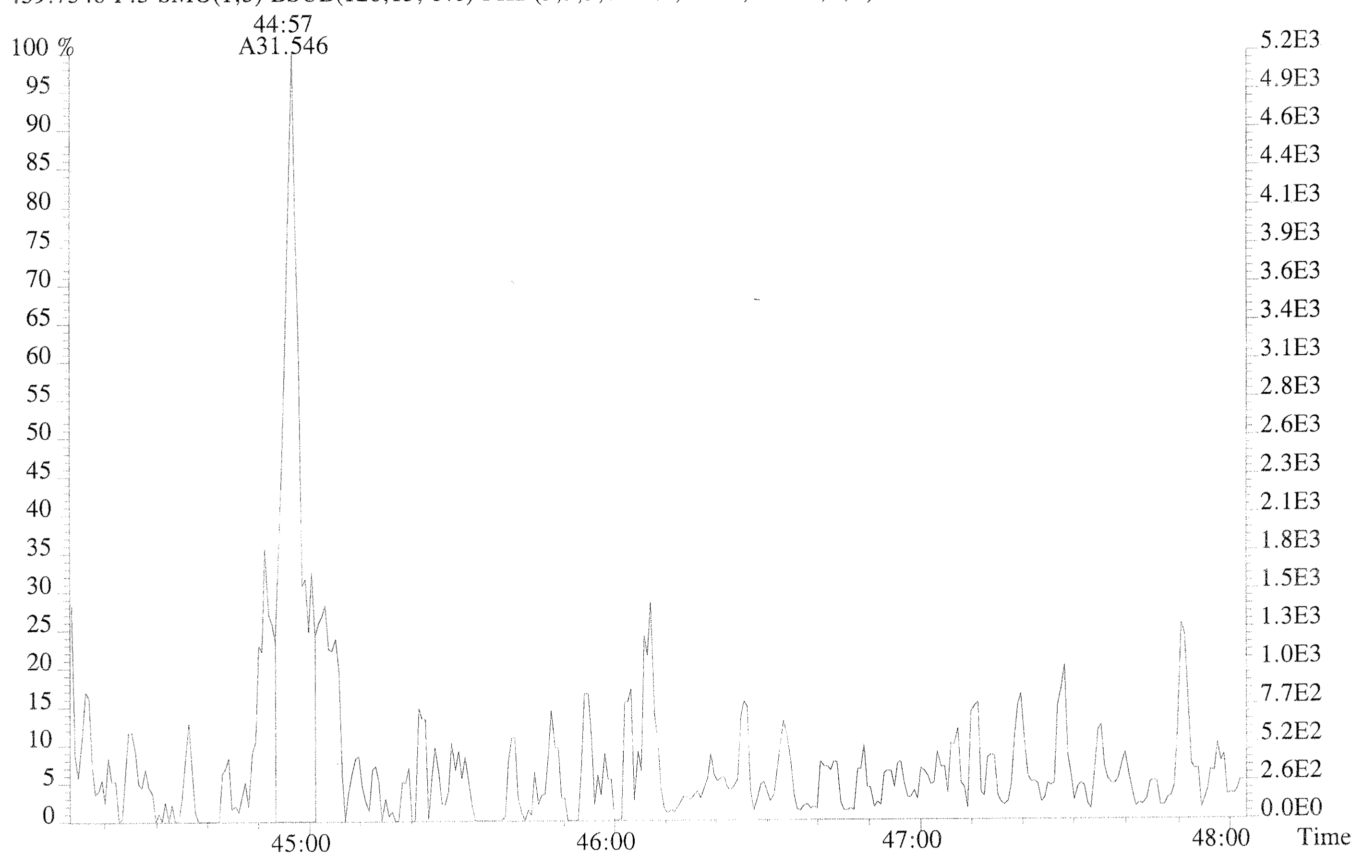
442.9728 F:5 PKD(3,3,3,100.00%,0.0,0.40%,F,F)



File: 3236 #1-732 Acq: 6-JUL-2012 11:11:40 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp: 00313-01 MB
457.7377 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(5,3,5,0.30%,400.0,0.40%,F,T)



459.7348 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(5,3,5,0.30%,248.0,0.40%,F,T)



Sample Response Summary CLIENT ID.
METHOD BLANK

Run #8 Filename 8291 Samp: 1 Inj: 1 Acquired: 19-JUN-12 11:19:02
Processed: 20-JUN-12 11:09:05 Sample ID:)0341-01

	Typ	Name	RT-1	Resp 1	Resp 2	Ratio	Meet	Mod?	RRF
1	Unk	2,3,7,8-TCDF	NotFnd	*	*	*	no	no	0.929
2	Unk	1,2,3,7,8-PeCDF	NotFnd	*	*	*	no	no	1.002
3	Unk	2,3,4,7,8-PeCDF	NotFnd	*	*	*	no	no	0.963
4	Unk	1,2,3,4,7,8-HxCDF	NotFnd	*	*	*	no	yes	1.221
5	Unk	1,2,3,6,7,8-HxCDF	NotFnd	*	*	*	no	yes	1.139
6	Unk	2,3,4,6,7,8-HxCDF	NotFnd	*	*	*	no	yes	1.139
7	Unk	1,2,3,7,8,9-HxCDF	NotFnd	*	*	*	no	yes	1.165
8	Unk	1,2,3,4,6,7,8-HpCDF	NotFnd	*	*	*	no	no	1.394
9	Unk	1,2,3,4,7,8,9-HpCDF	NotFnd	*	*	*	no	no	1.334
10	Unk	OCDF	NotFnd	*	*	*	no	yes	1.227
11	Unk	2,3,7,8-TCDD	NotFnd	*	*	*	no	no	0.980
12	Unk	1,2,3,7,8-PeCDD	NotFnd	*	*	*	no	no	0.915
13	Unk	1,2,3,4,7,8-HxCDD	NotFnd	*	*	*	no	yes	1.001
14	Unk	1,2,3,6,7,8-HxCDD	NotFnd	*	*	*	no	yes	0.978
15	Unk	1,2,3,7,8,9-HxCDD	NotFnd	*	*	*	no	no	1.041
16	Unk	1,2,3,4,6,7,8-HpCDD	40:01	2.802e+01	1.417e+01	1.98	no	no	1.002
17	Unk	OCDD	NotFnd	*	*	*	no	no	1.054
18	IS	13C-2,3,7,8-TCDF	28:20	3.749e+04	4.809e+04	0.78	yes	no	1.282
19	IS	13C-1,2,3,7,8-PeCDF	32:47	5.785e+04	3.716e+04	1.56	yes	no	1.098
20	IS	13C-2,3,4,7,8-PeCDF	33:32	5.133e+04	3.291e+04	1.56	yes	no	1.065
21	IS	13C-1,2,3,4,7,8-HxCDF	36:23	2.427e+04	4.681e+04	0.52	yes	no	1.062
22	IS	13C-1,2,3,6,7,8-HxCDF	36:30	2.359e+04	4.529e+04	0.52	yes	no	1.191
23	IS	13C-2,3,4,6,7,8-HxCDF	36:58	2.531e+04	4.838e+04	0.52	yes	no	1.098
24	IS	13C-1,2,3,7,8,9-HxCDF	37:40	2.090e+04	4.019e+04	0.52	yes	no	0.980
25	IS	13C-1,2,3,4,6,7,8-HpCDF	39:07	1.468e+04	3.289e+04	0.45	yes	no	0.837
26	IS	13C-1,2,3,4,7,8,9-HpCDF	40:24	1.701e+04	3.818e+04	0.45	yes	no	0.708
27	IS	13C-2,3,7,8-TCDD	29:11	3.148e+04	3.991e+04	0.79	yes	no	1.002
28	IS	13C-1,2,3,7,8-PeCDD	33:53	4.124e+04	2.622e+04	1.57	yes	no	0.819
29	IS	13C-1,2,3,4,7,8-HxCDD	37:05	3.431e+04	2.690e+04	1.28	yes	no	0.929
30	IS	13C-1,2,3,6,7,8-HxCDD	37:10	2.004e+04	1.630e+04	1.23	yes	no	0.937
31	IS	13C-1,2,3,4,6,7,8-HpCDD	40:00	3.024e+04	2.803e+04	1.08	yes	no	0.817
32	IS	13C-OCDD	43:02	4.003e+04	4.441e+04	0.90	yes	no	0.595
33	RS/RT	13C-1,2,3,4-TCDD	28:58	5.464e+04	6.816e+04	0.80	yes	no	-
34	RS/RT	13C-1,2,3,7,8,9-HxCDD	37:27	5.899e+04	4.684e+04	1.26	yes	no	-
35	C/Up	37Cl-2,3,7,8-TCDD	29:12	3.356e+04				no	1.039

Signal/Noise Height Ratio Summary CLIENT ID.
METHOD BLANK

Run #8 Filename 8291 Samp: 1 Inj: 1 Acquired: 19-JUN-12 11:19:02
Processed: 20-JUN-12 11:09:051 LAB. ID:)0341-01

	Name	Signal 1	Noise 1	S/N Rat.1	Signal 2	Noise 2	S/N Rat.2
1	2,3,7,8-TCDF	*	5.24e+02	*	*	8.28e+02	*
2	1,2,3,7,8-PeCDF	*	5.84e+02	*	*	8.08e+02	*
3	2,3,4,7,8-PeCDF	*	5.84e+02	*	*	8.08e+02	*
4	1,2,3,4,7,8-HxCDF	*	8.00e+02	*	*	3.04e+02	*
5	1,2,3,6,7,8-HxCDF	*	8.00e+02	*	*	3.04e+02	*
6	2,3,4,6,7,8-HxCDF	*	8.00e+02	*	*	3.04e+02	*
7	1,2,3,7,8,9-HxCDF	*	8.00e+02	*	*	3.04e+02	*
8	1,2,3,4,6,7,8-HpCDF	*	9.32e+02	*	*	6.60e+02	*
9	1,2,3,4,7,8,9-HpCDF	*	9.32e+02	*	*	6.60e+02	*
10	OCDF	*	4.72e+02	*	*	1.54e+03	*
11	2,3,7,8-TCDD	*	7.08e+02	*	*	7.64e+02	*
12	1,2,3,7,8-PeCDD	*	9.52e+02	*	*	3.64e+02	*
13	1,2,3,4,7,8-HxCDD	*	3.48e+02	*	*	5.68e+02	*
14	1,2,3,6,7,8-HxCDD	*	3.48e+02	*	*	5.68e+02	*
15	1,2,3,7,8,9-HxCDD	*	3.48e+02	*	*	5.68e+02	*
16	1,2,3,4,6,7,8-HpCDD	6.67e+03	6.88e+02	9.7e+00	2.39e+03	4.92e+02	4.9e+00
17	OCDD	*	1.00e+03	*	*	2.44e+02	*
18	13C-2,3,7,8-TCDF	6.05e+06	1.05e+03	5.7e+03	7.71e+06	9.40e+02	8.2e+03
19	13C-1,2,3,7,8-PeCDF	1.07e+07	5.24e+02	2.0e+04	6.85e+06	8.84e+02	7.8e+03
20	13C-2,3,4,7,8-PeCDF	1.00e+07	5.24e+02	1.9e+04	6.40e+06	8.84e+02	7.2e+03
21	13C-1,2,3,4,7,8-HxCDF	5.06e+06	1.12e+03	4.5e+03	9.78e+06	2.04e+03	4.8e+03
22	13C-1,2,3,6,7,8-HxCDF	5.00e+06	1.12e+03	4.5e+03	9.47e+06	2.04e+03	4.6e+03
23	13C-2,3,4,6,7,8-HxCDF	5.38e+06	1.12e+03	4.8e+03	1.03e+07	2.04e+03	5.1e+03
24	13C-1,2,3,7,8,9-HxCDF	4.38e+06	1.12e+03	3.9e+03	8.44e+06	2.04e+03	4.1e+03
25	13C-1,2,3,4,6,7,8-HpCDF	2.75e+06	1.60e+03	1.7e+03	6.20e+06	2.60e+03	2.4e+03
26	13C-1,2,3,4,7,8,9-HpCDF	3.14e+06	1.60e+03	2.0e+03	6.90e+06	2.60e+03	2.6e+03
27	13C-2,3,7,8-TCDD	5.51e+06	1.78e+03	3.1e+03	6.88e+06	6.12e+02	1.1e+04
28	13C-1,2,3,7,8-PeCDD	8.19e+06	5.00e+02	1.6e+04	5.25e+06	4.32e+02	1.2e+04
29	13C-1,2,3,4,7,8-HxCDD	7.24e+06	8.12e+02	8.9e+03	5.59e+06	7.48e+02	7.5e+03
30	13C-1,2,3,6,7,8-HxCDD	3.87e+06	8.12e+02	4.8e+03	3.09e+06	7.48e+02	4.1e+03
31	13C-1,2,3,4,6,7,8-HpCDD	5.46e+06	4.24e+02	1.3e+04	5.08e+06	4.80e+02	1.1e+04
32	13C-OCDD	4.13e+06	3.24e+02	1.3e+04	4.60e+06	6.92e+02	6.7e+03
33	13C-1,2,3,4-TCDD	9.45e+06	1.78e+03	5.3e+03	1.17e+07	6.12e+02	1.9e+04
34	13C-1,2,3,7,8,9-HxCDD	1.37e+07	8.12e+02	1.7e+04	1.08e+07	7.48e+02	1.4e+04
35	37Cl-2,3,7,8-TCDD	5.78e+06	6.36e+02	9.1e+03			

Peak List Summary

CLIENT ID.

METHOD BLANK

Entry: 40 Totals Name: Total Hexa-Furans

Run: 8 File: 8291 Sample:1 Injection:1 Function:3

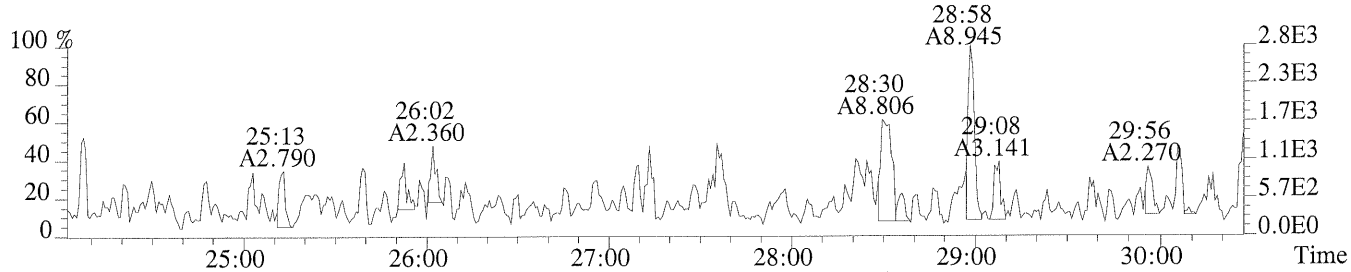
Acquired: 19-JUN-12 11:19:02 Processed: 20-JUN-12 11:09:05

Mass: 373.8208 375.8178 Response:

#	RT	Resp	Resp	Ratio	Meet	Tot Resp	Name	Mod1?	Mod2
1	35:54	6.26e+01	5.65e+01	1.11	yes	1.19e+02		y	y

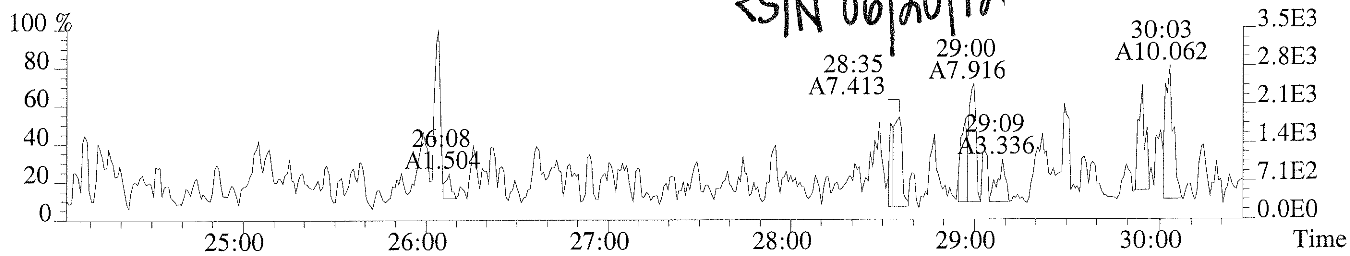
File: 3291 #1-535 Acq:19-JUN-2012 11:19:02 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp: 00341-01 MB

303.9016 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,524.0,1.00%,F,T)



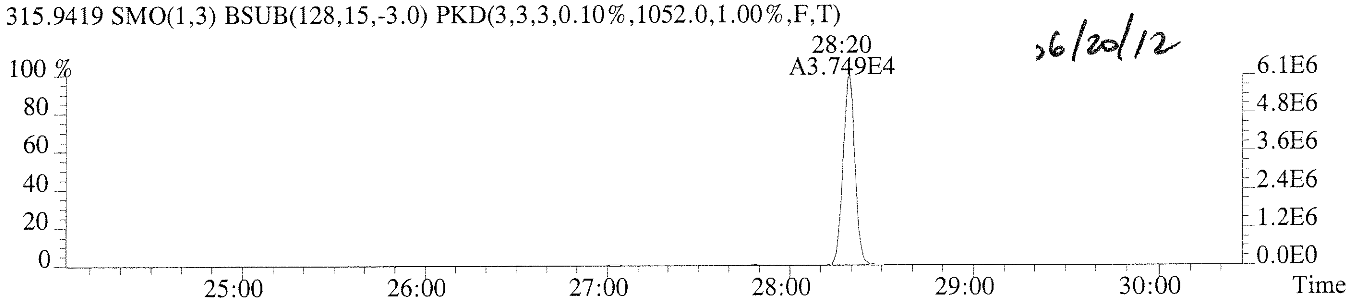
305.8987 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,828.0,1.00%,F,T)

<S/N 06/20/12

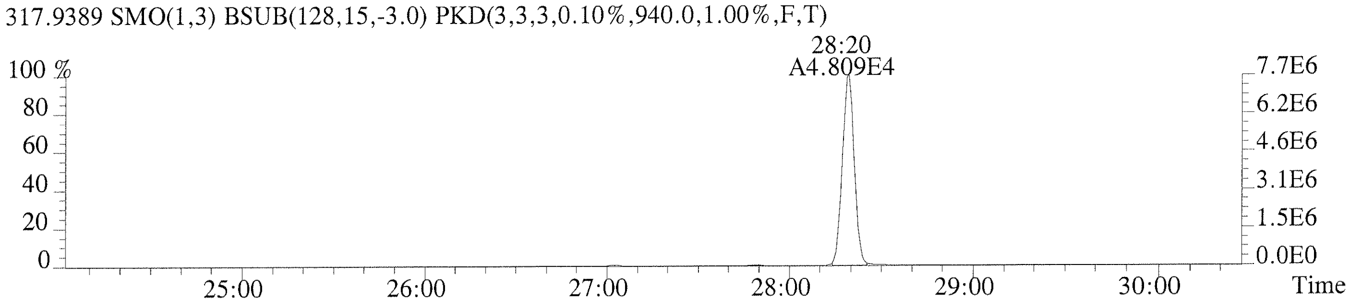


315.9419 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,1052.0,1.00%,F,T)

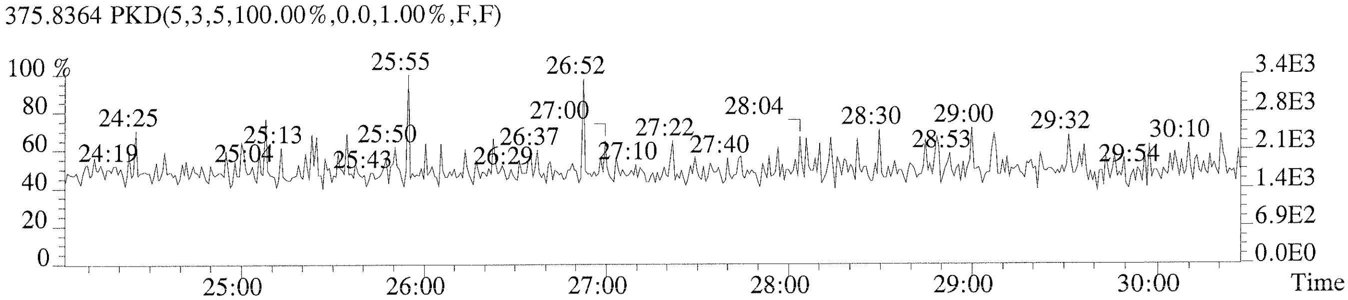
06/20/12



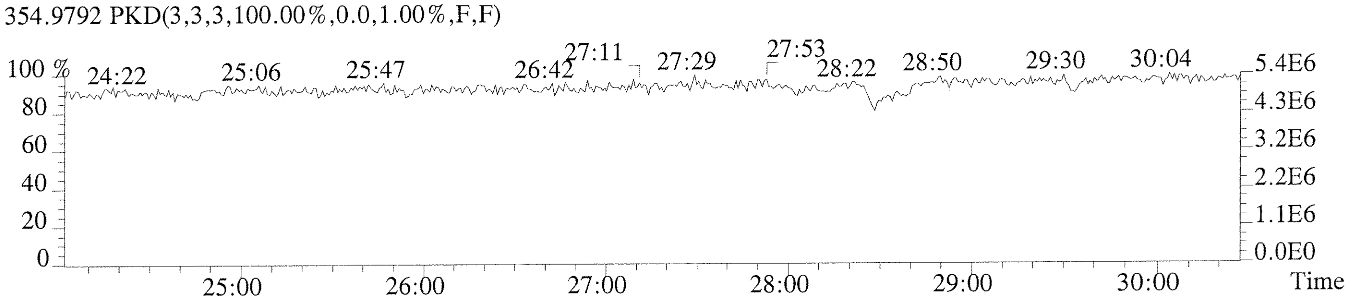
317.9389 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,940.0,1.00%,F,T)



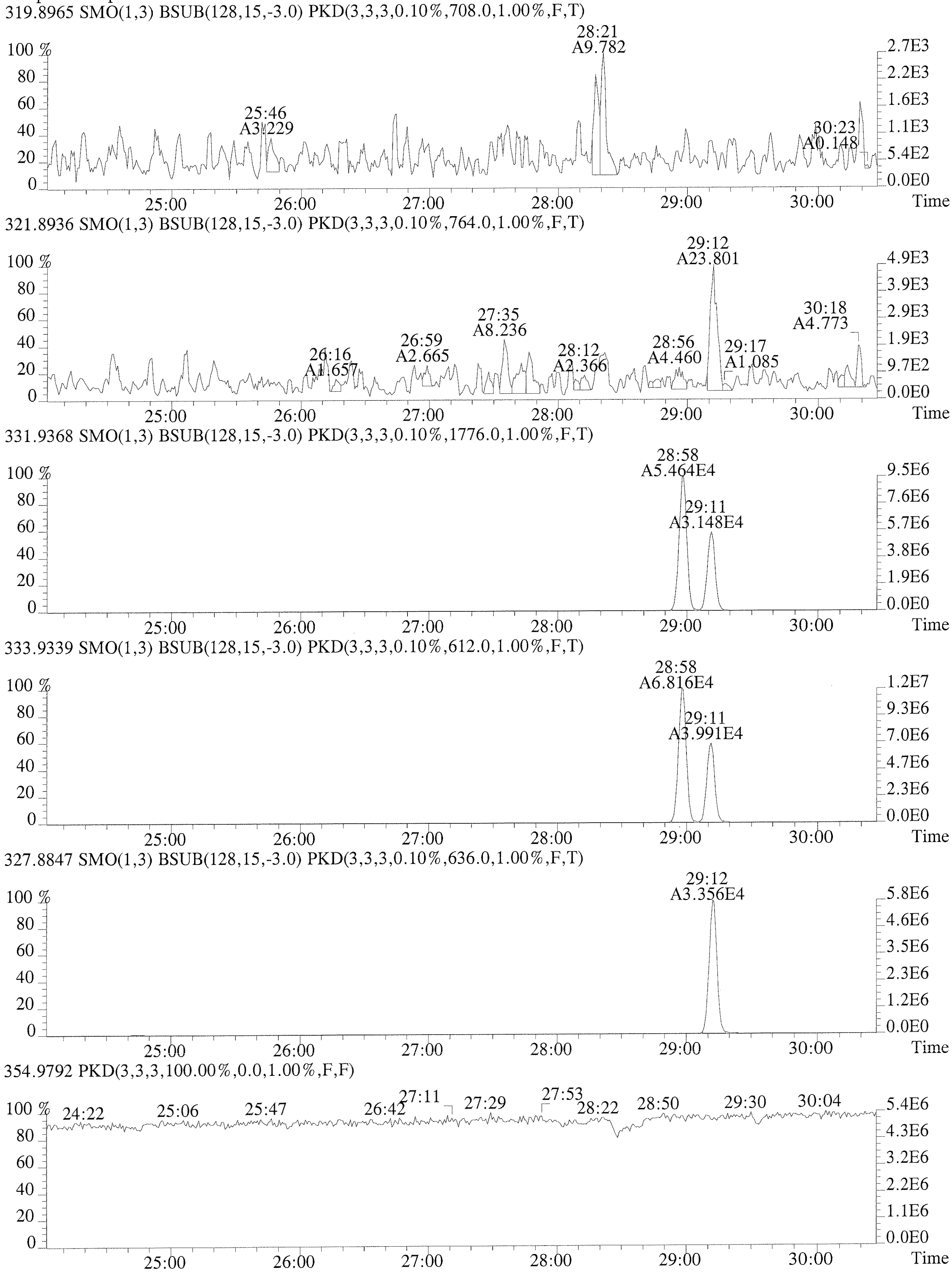
375.8364 PKD(5,3,5,100.00%,0.0,1.00%,F,F)



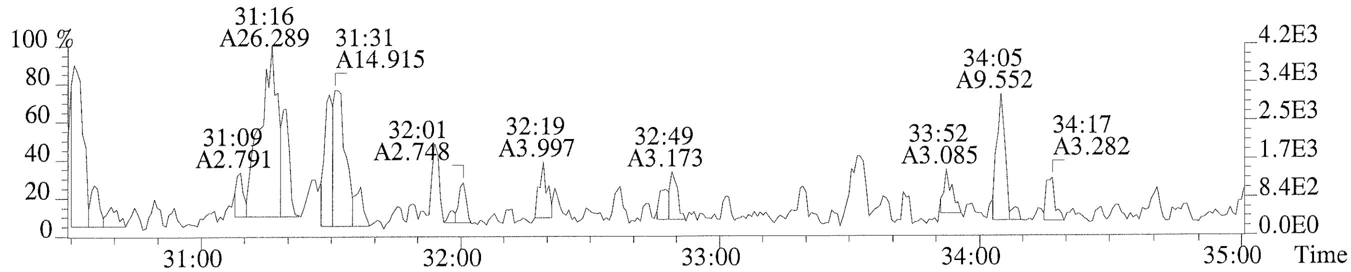
354.9792 PKD(3,3,3,100.00%,0.0,1.00%,F,F)



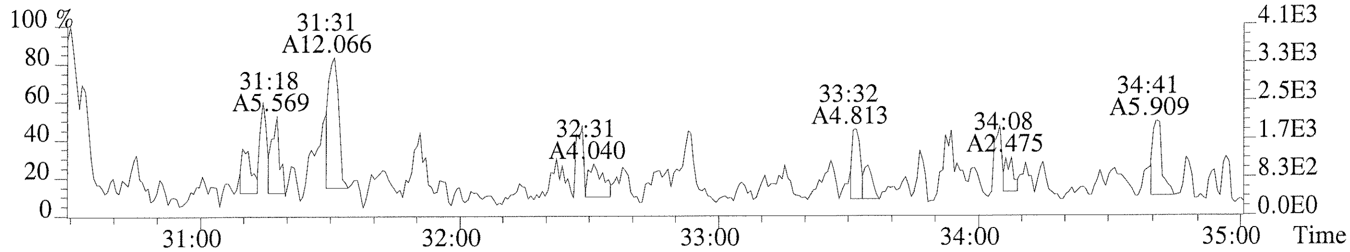
File: 8291 #1-535 Acq:19-JUN-2012 11:19:02 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:)0341-01 MB



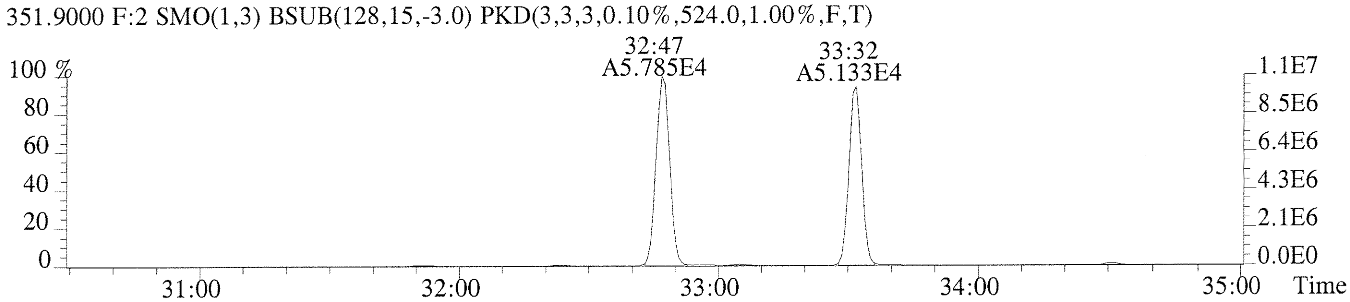
File: 3291 #1-411 Acq:19-JUN-2012 11:19:02 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:)0341-01 MB
339.8597 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,584.0,1.00%,F,T)



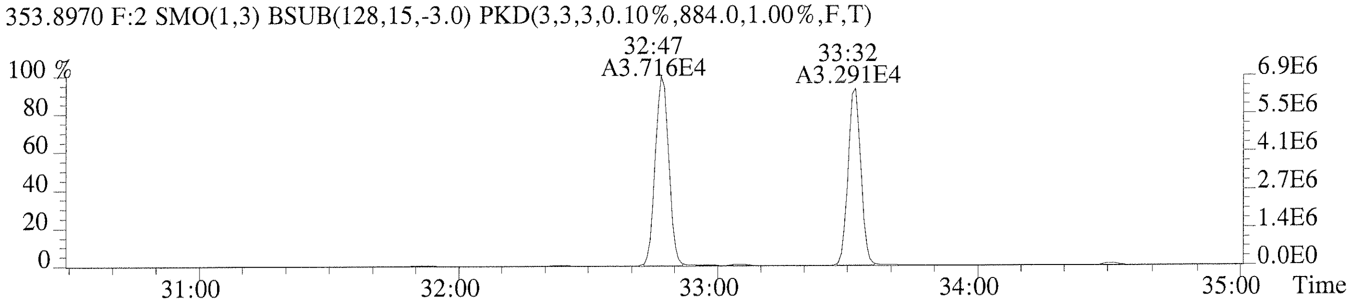
341.8567 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,808.0,1.00%,F,T)



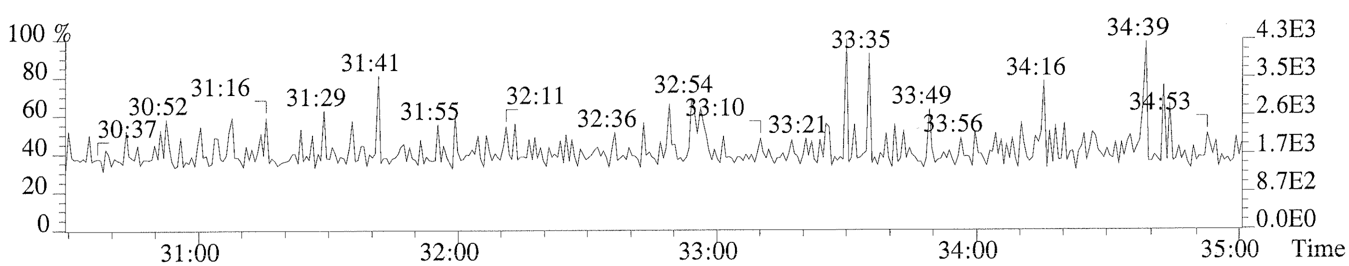
351.9000 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,524.0,1.00%,F,T)



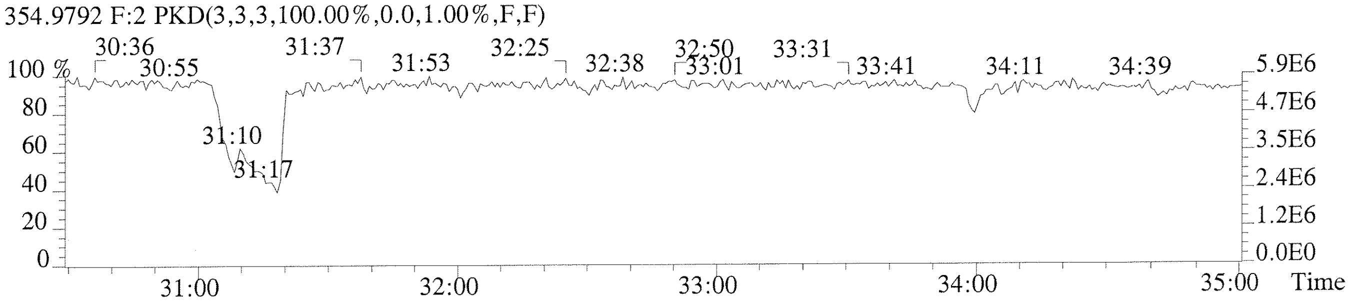
353.8970 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,884.0,1.00%,F,T)



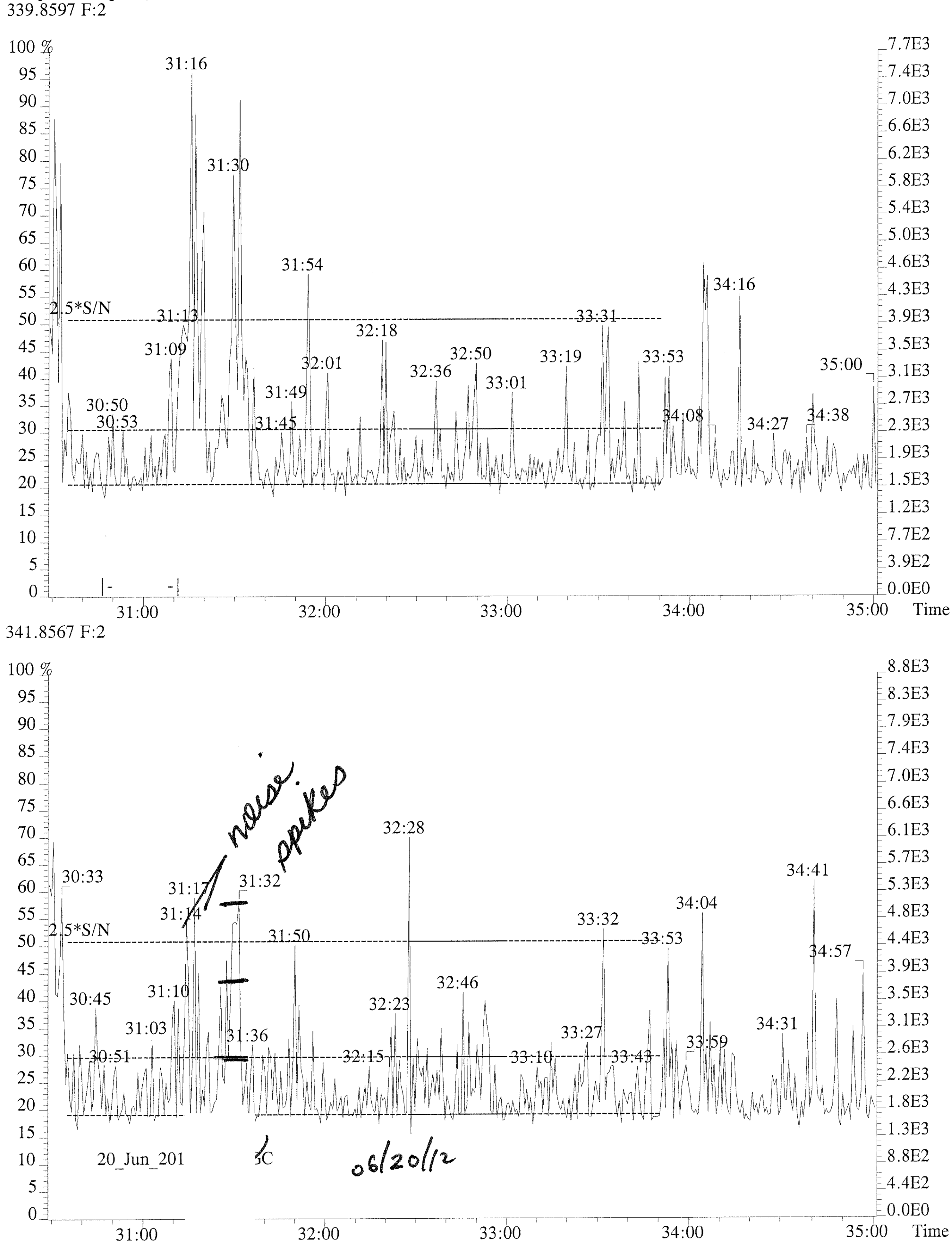
409.7974 F:2 PKD(5,3,5,100.00%,0.0,1.00%,F,F)



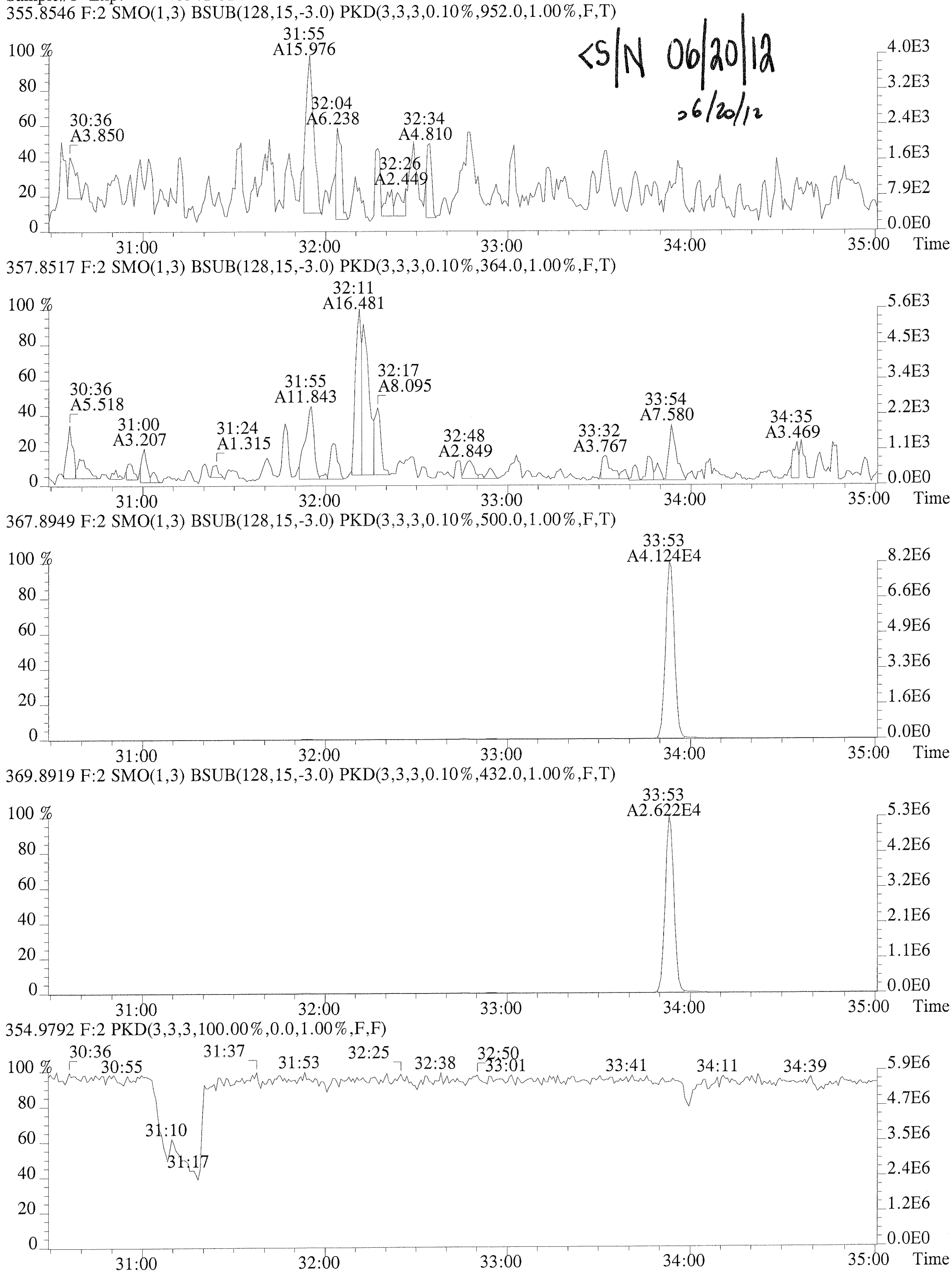
354.9792 F:2 PKD(3,3,3,100.00%,0.0,1.00%,F,F)



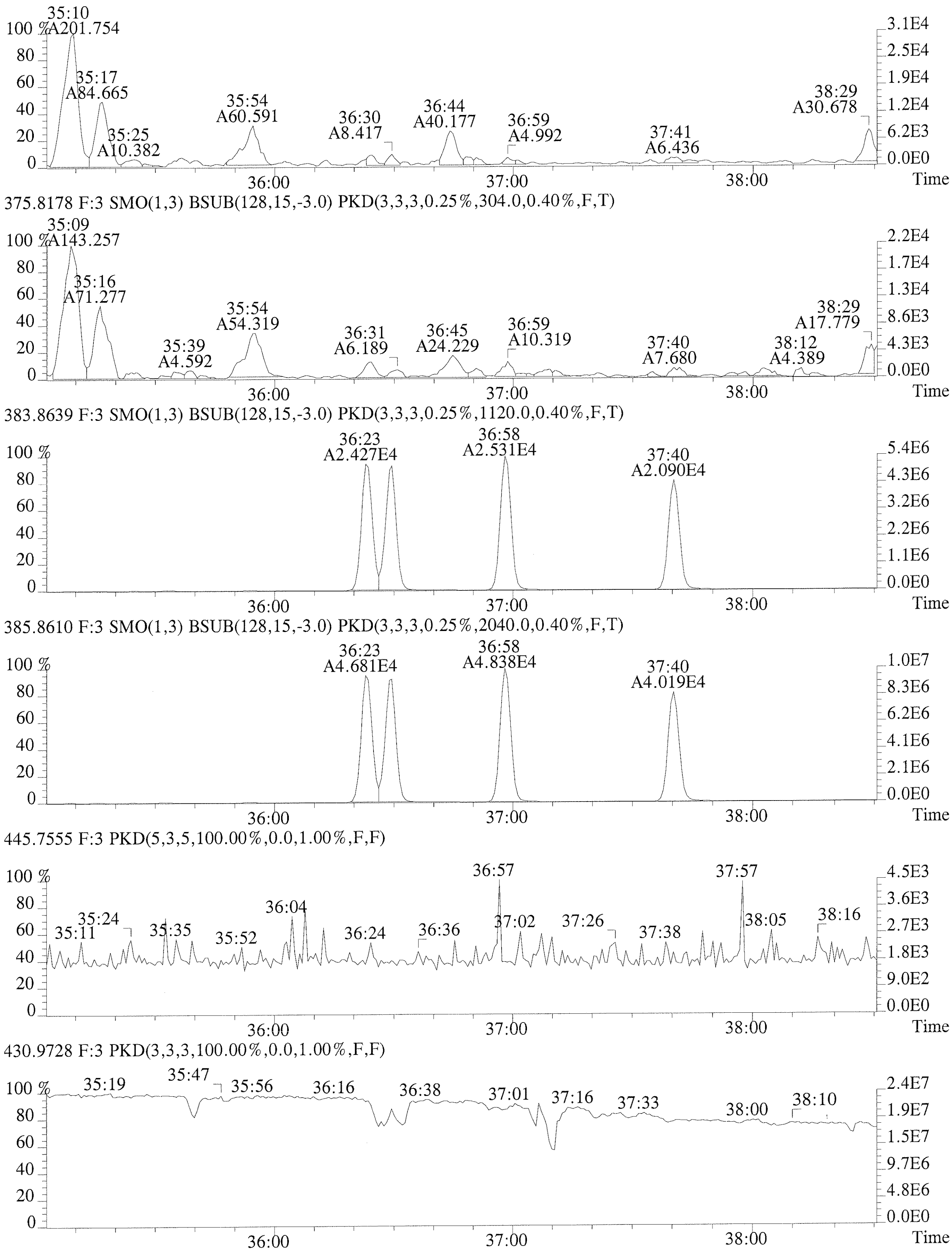
File: 3291 #1-411 Acq:19-JUN-2012 11:19:02 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:)0341-01 MB



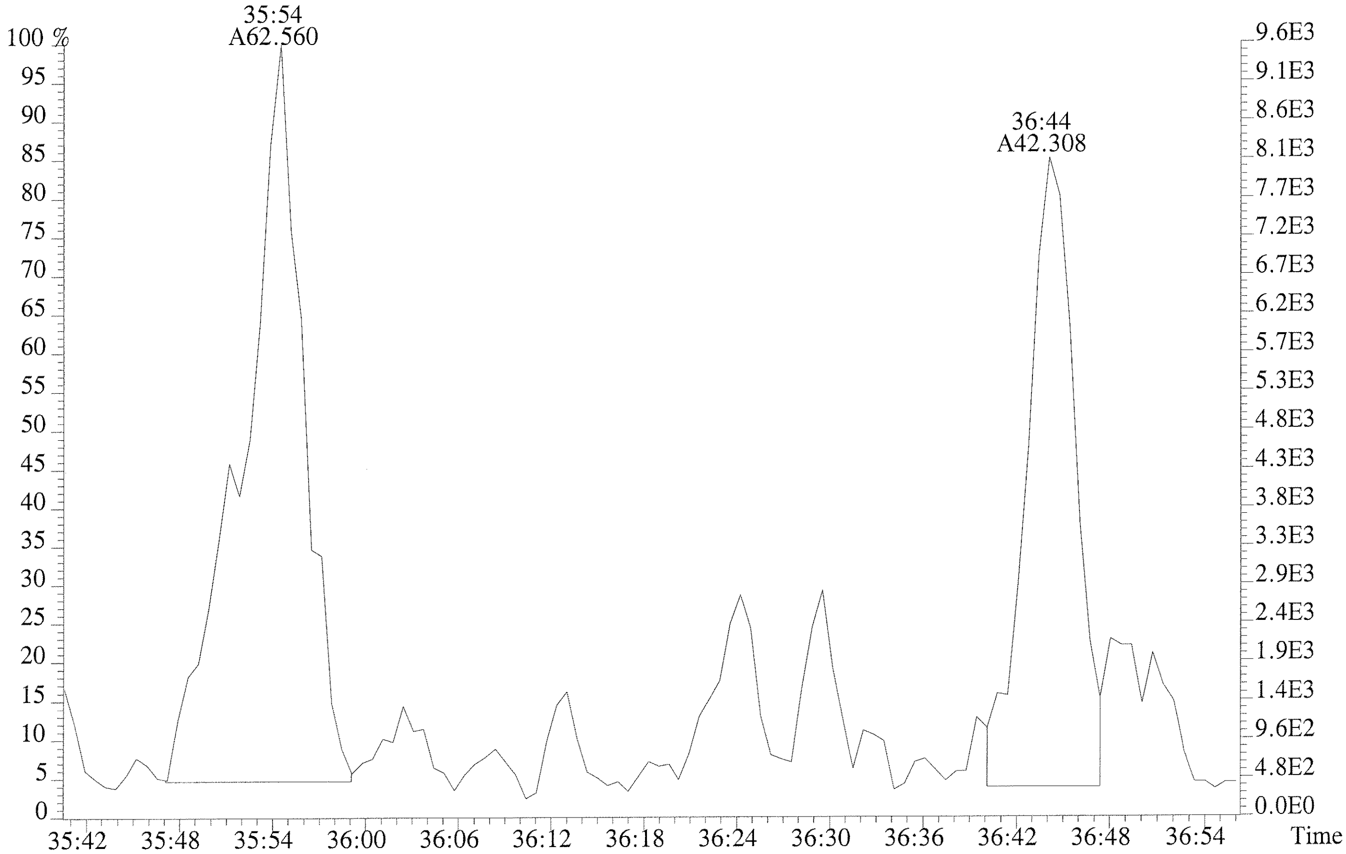
File 3291 #1-411 Acq:19-JUN-2012 11:19:02 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:)0341-01 MB



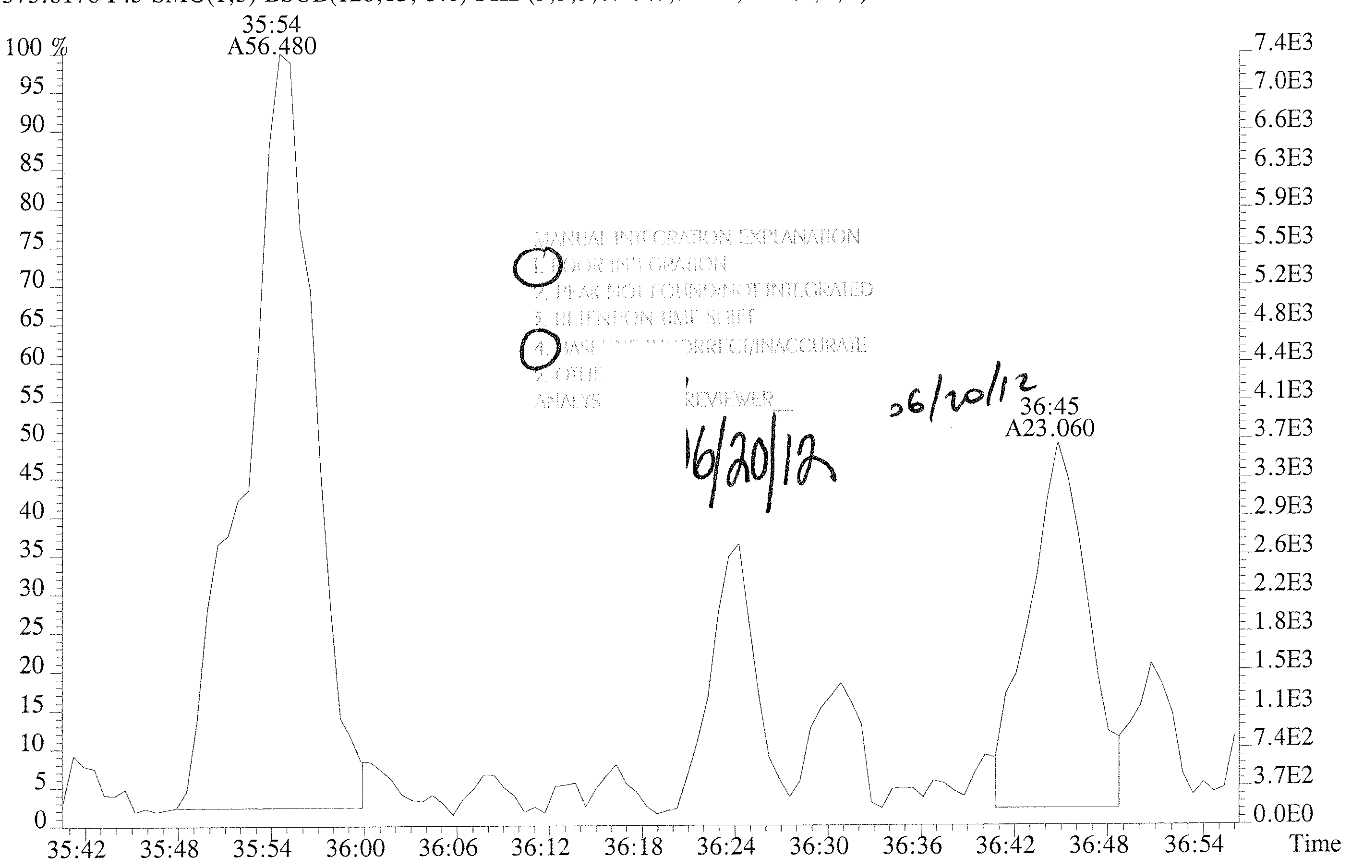
File: 3291 #1-315 Acq:19-JUN-2012 11:19:02 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:)0341-01 MB
373.8208 F:3 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,800.0,0.40%,F,T)



File: 8291 #1-315 Acq:19-JUN-2012 11:19:02 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp: 00341-01 MB
373.8208 F:3 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,800.0,0.40%,F,T)

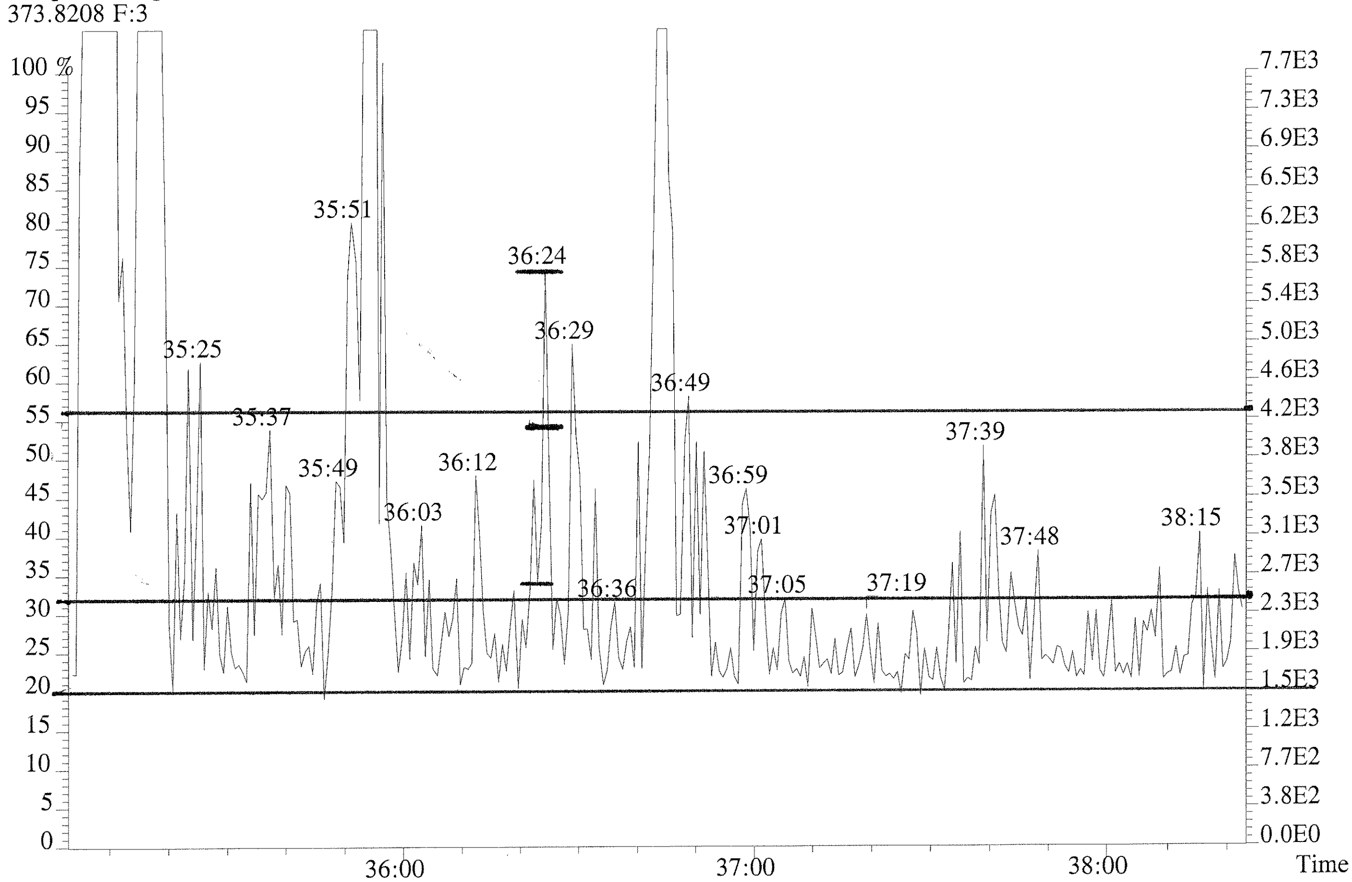


375.8178 F:3 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,304.0,0.40%,F,T)

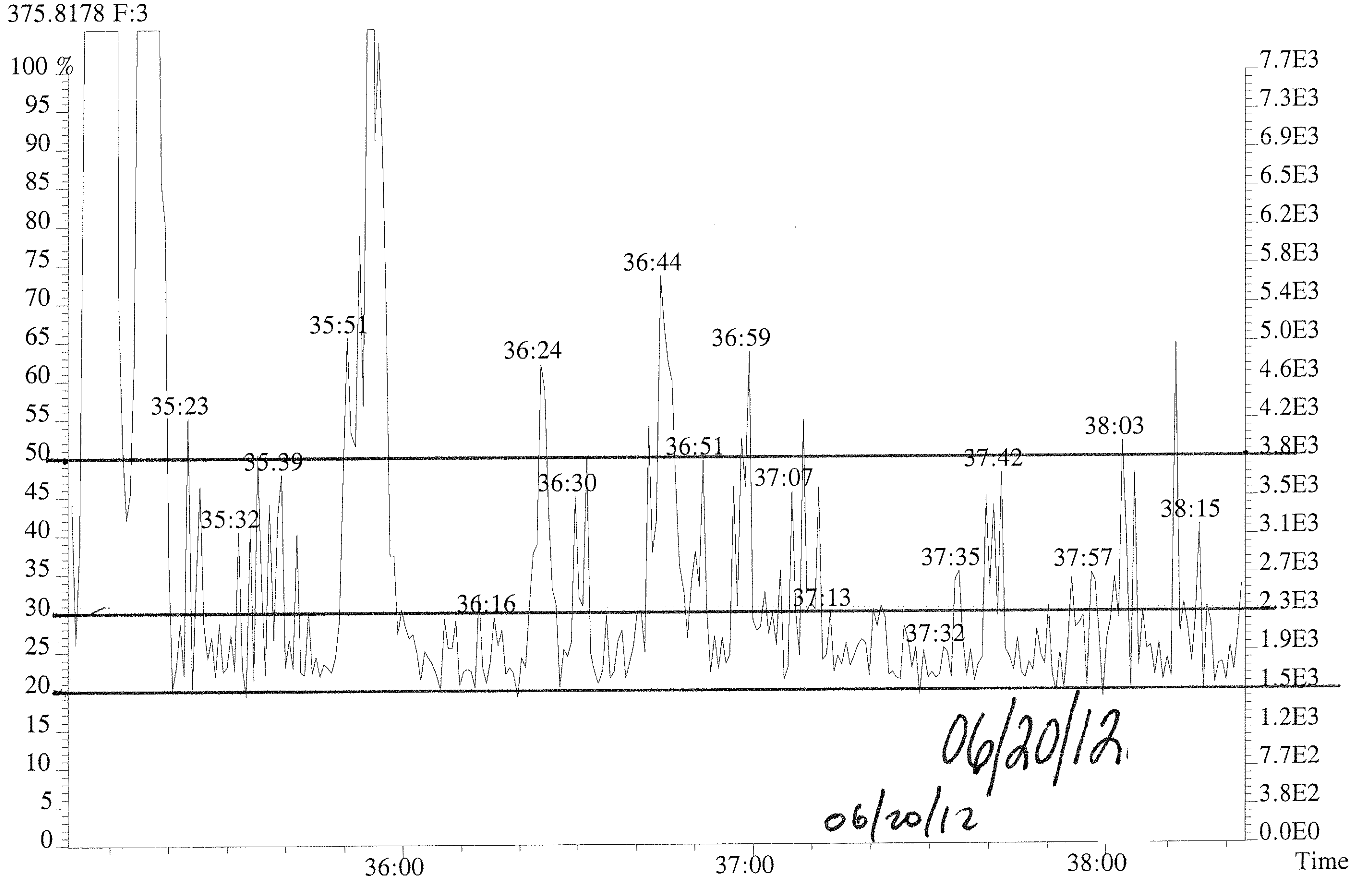


File: 3291 #1-315 Acq:19-JUN-2012 11:19:02 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp)0341-01 MB

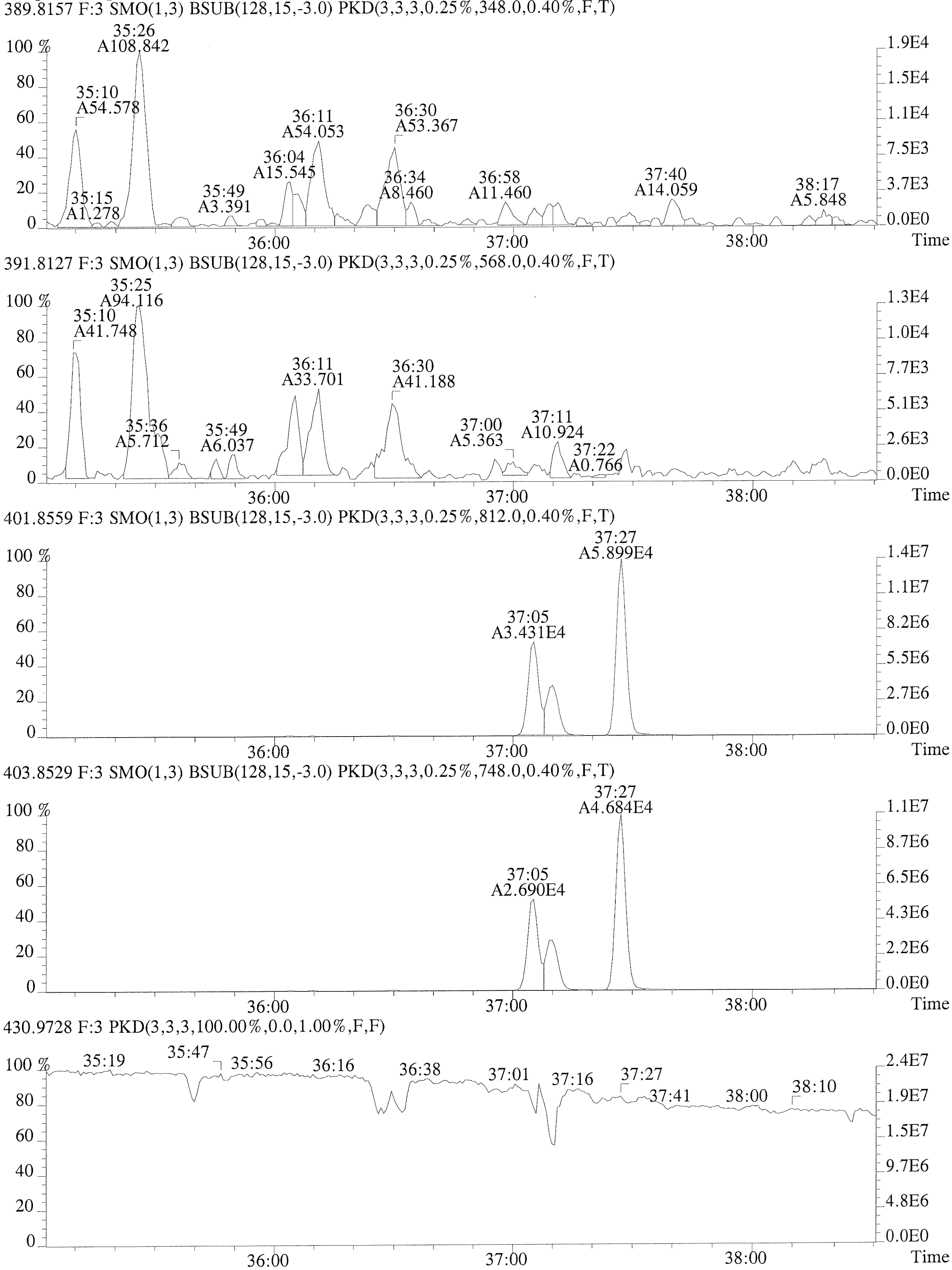
373.8208 F:3



375.8178 F:3

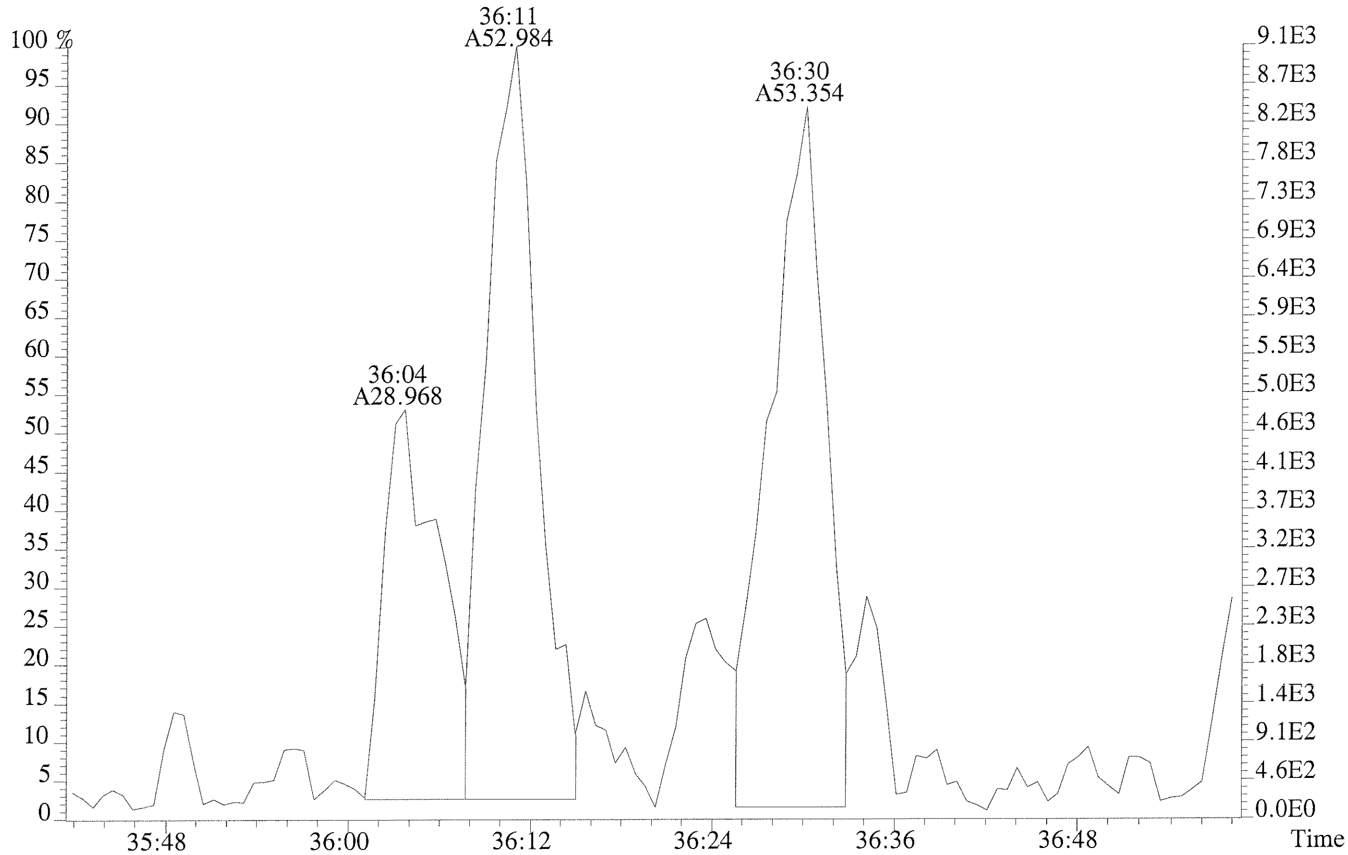


File 3291 #1-315 Acq:19-JUN-2012 11:19:02 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp: 00341-01 MB

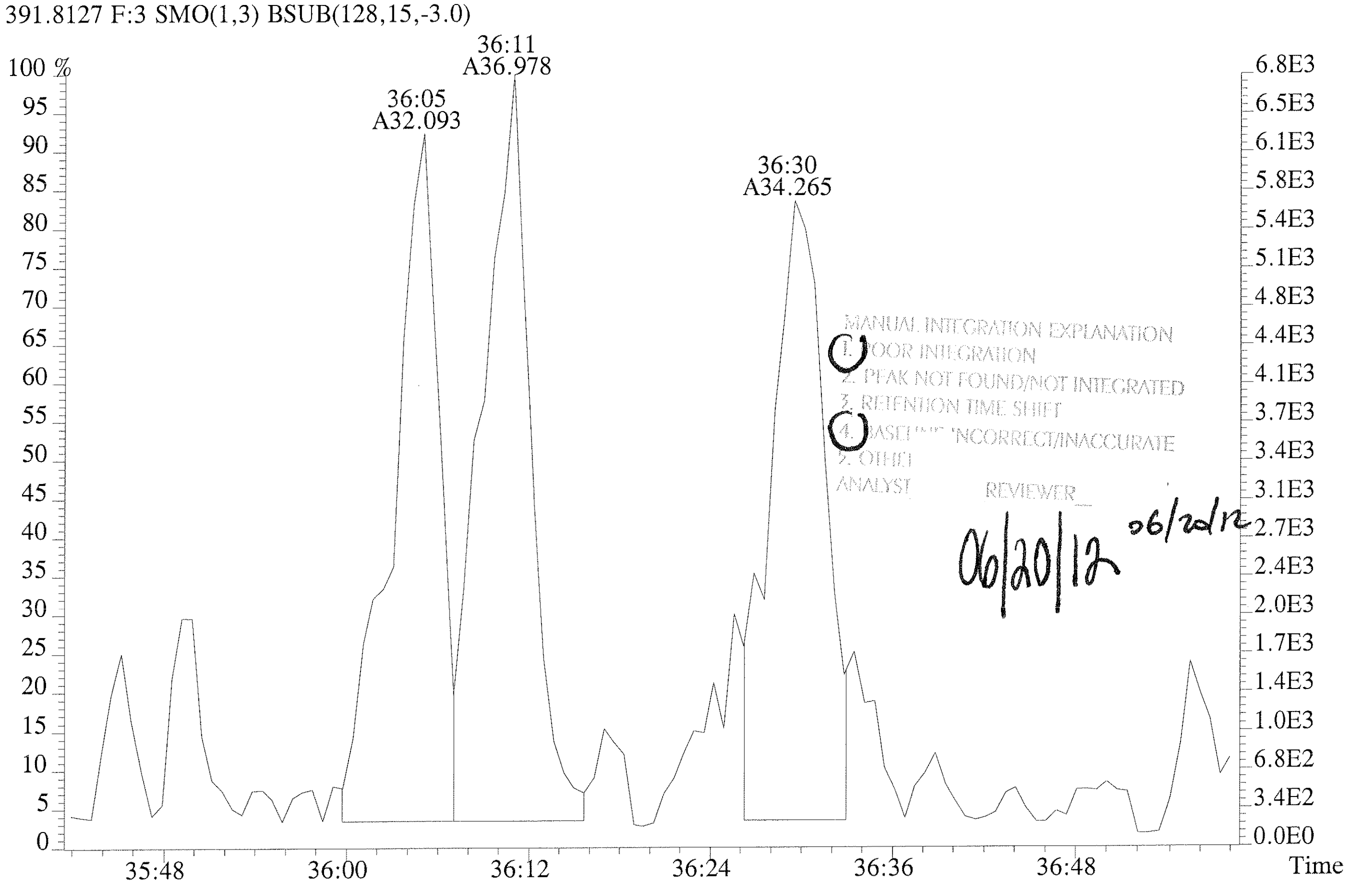


File 8291 #1-315 Acq:19-JUN-2012 11:19:02 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp: 00341-01 MB

389.8157 F:3 SMO(1,3) BSUB(128,15,-3.0)

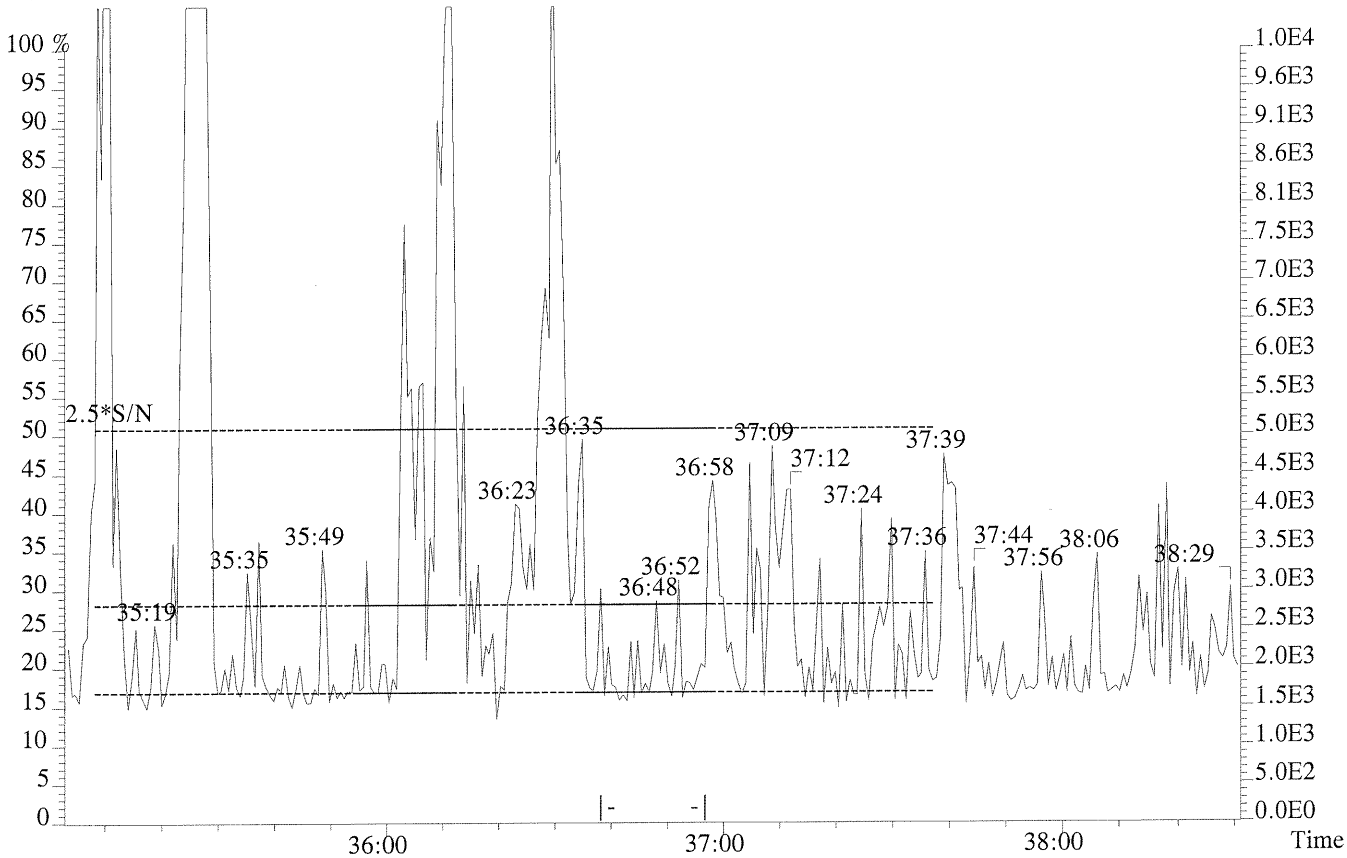


391.8127 F:3 SMO(1,3) BSUB(128,15,-3.0)

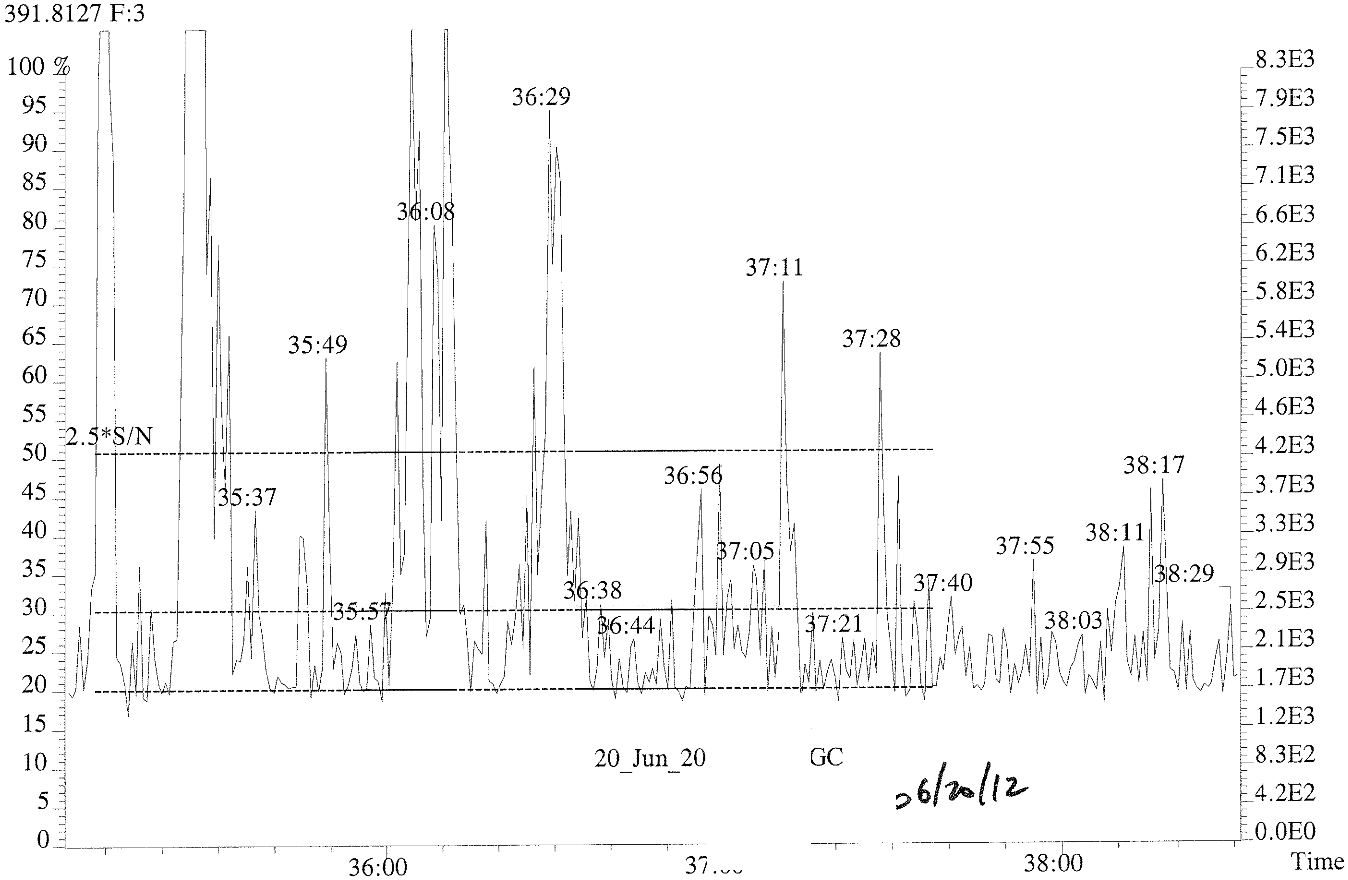


MANUAL INTEGRATION EXPLANATION
1. POOR INTEGRATION
2. PEAK NOT FOUND/NOT INTEGRATED
3. RETENTION TIME SHIFT
4. BASELINE INCORRECT/INACCURATE
5. OTHER
ANALYST REVIEWER
06/20/12 06/20/12

File: 8291 #1-315 Acq:19-JUN-2012 11:19:02 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:)0341-01 MB
389.8157 F:3

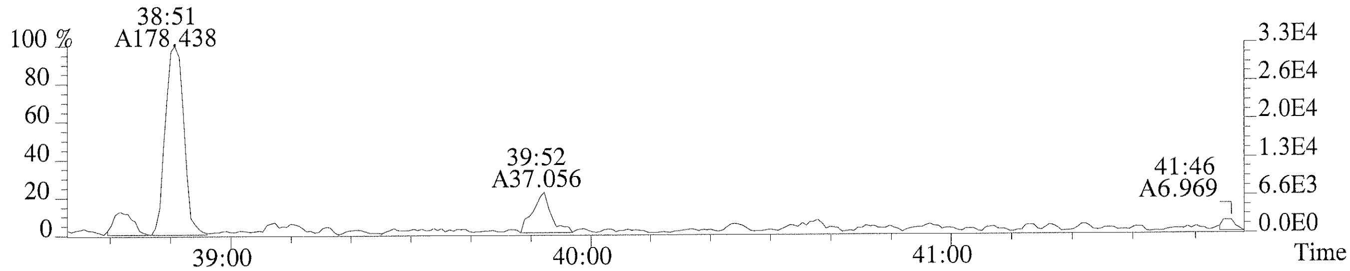


391.8127 F:3

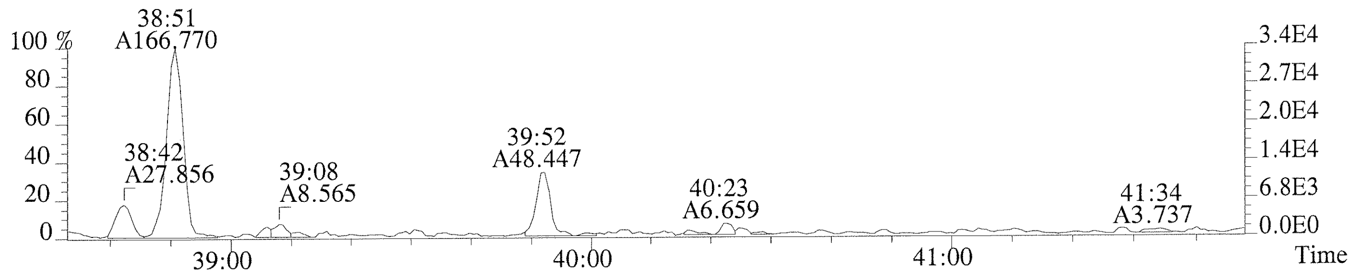


File 8291 #1-296 Acq:19-JUN-2012 11:19:02 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp: 00341-01 MB

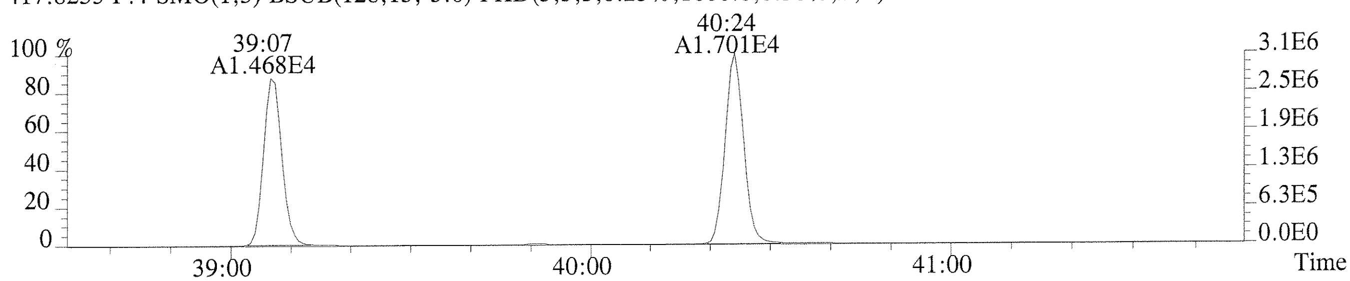
407.7818 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,932.0,0.50%,F,T)



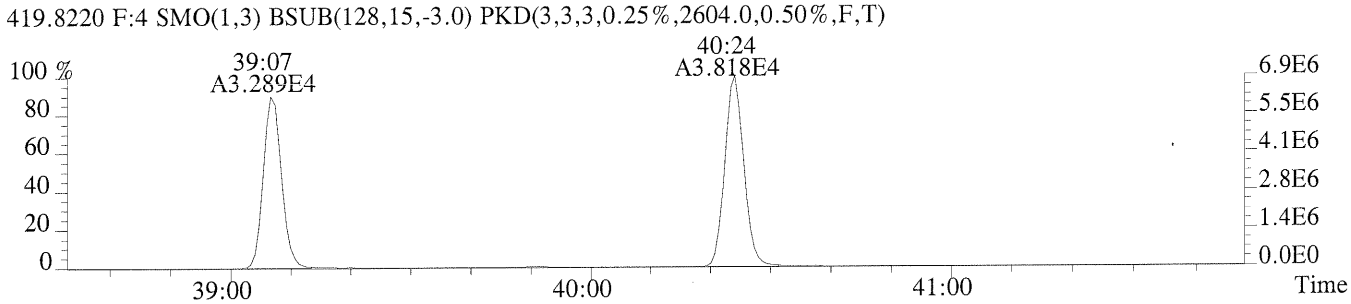
409.7789 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,660.0,0.50%,F,T)



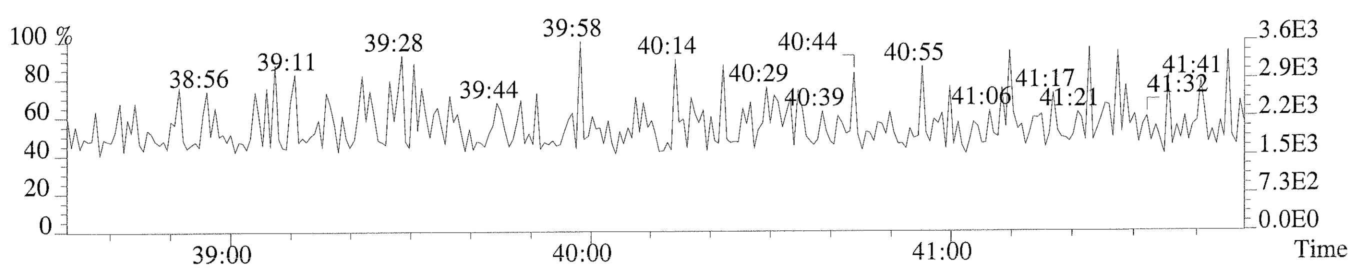
417.8253 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,1600.0,0.50%,F,T)



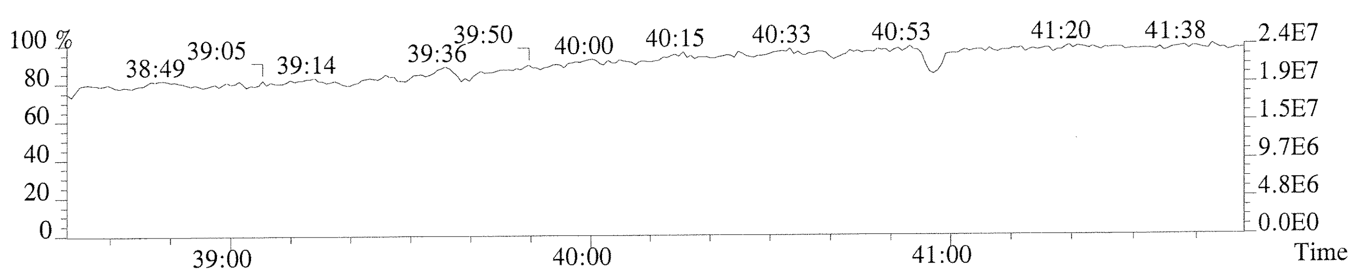
419.8220 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,2604.0,0.50%,F,T)



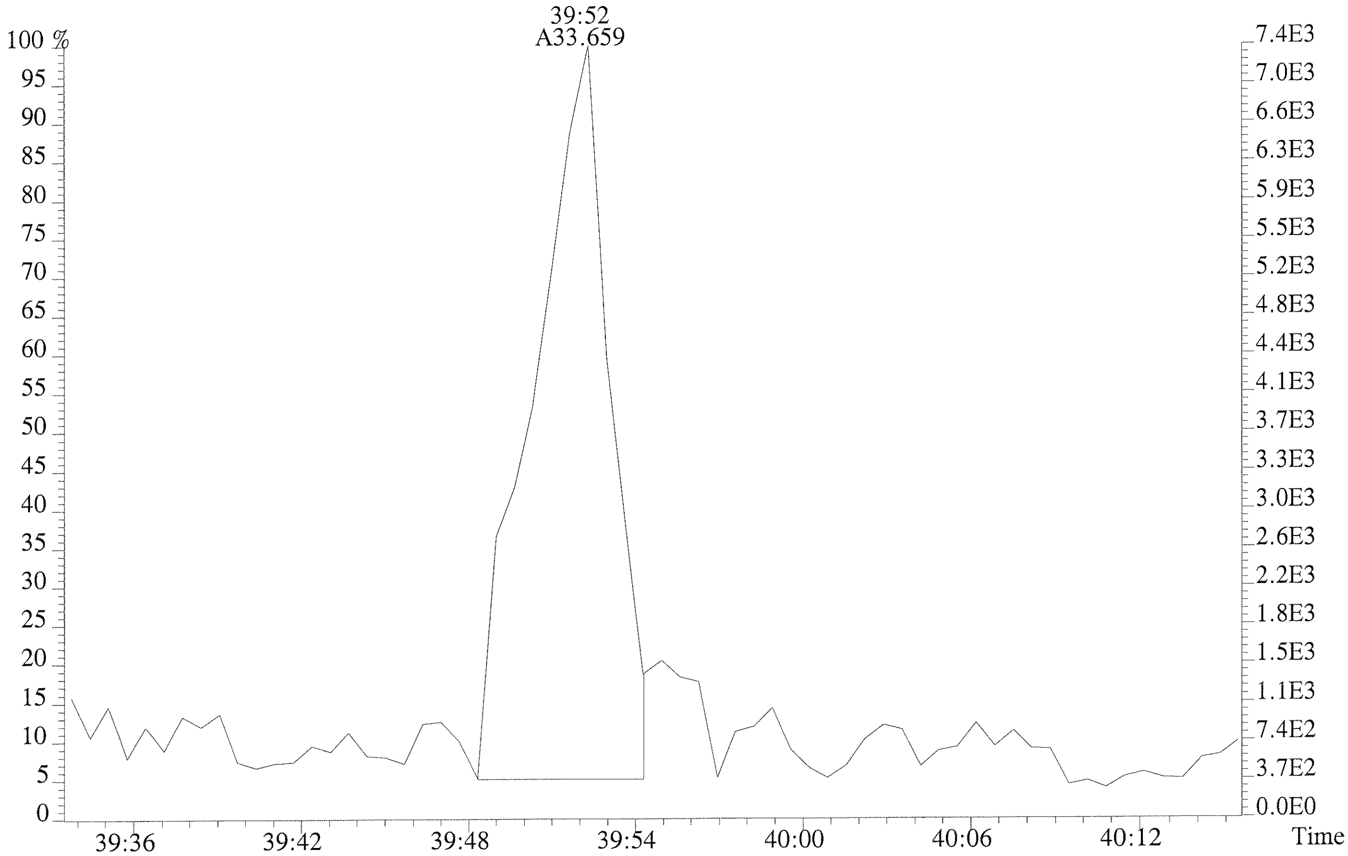
479.7165 F:4 PKD(5,3,5,100.00%,0.0,1.00%,F,F)



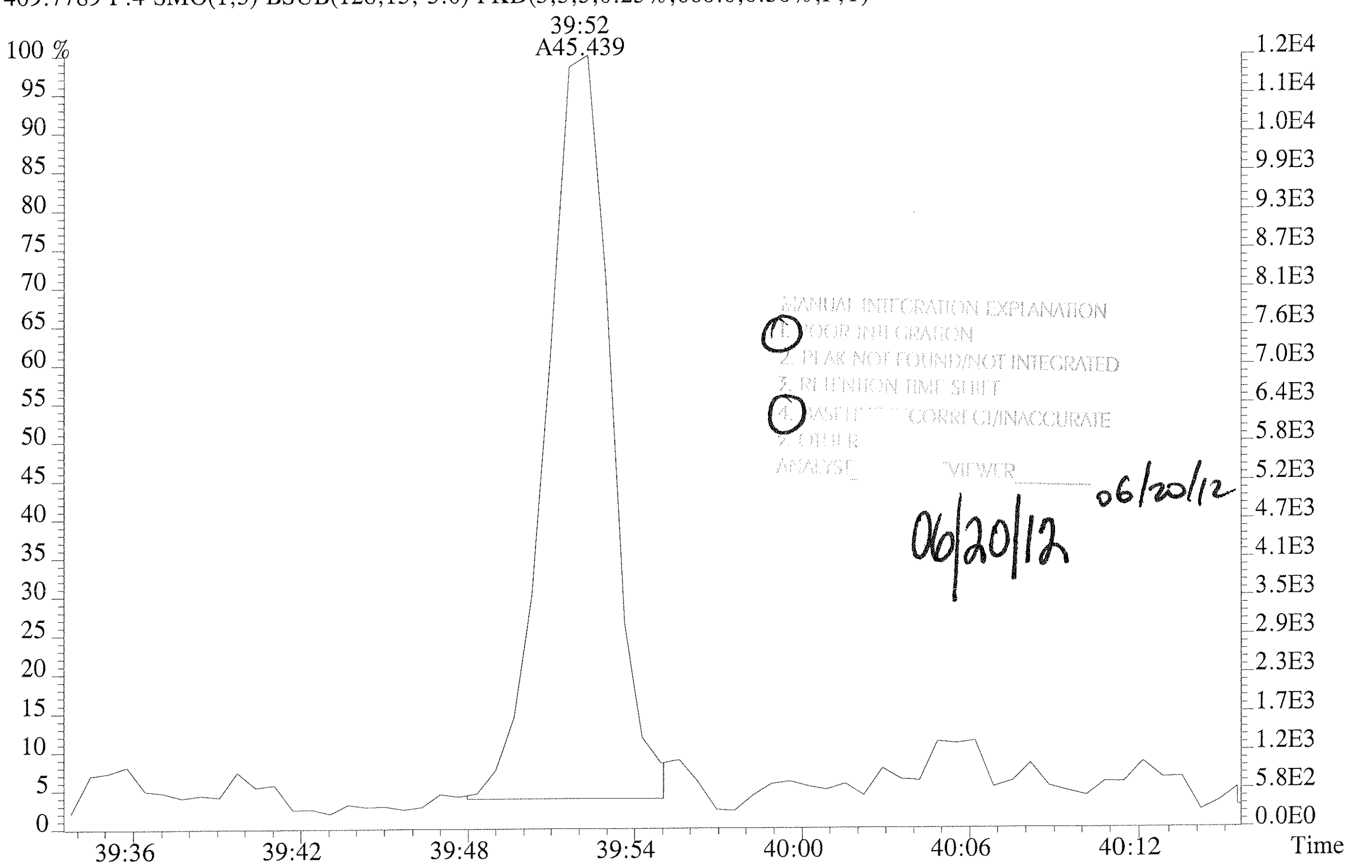
430.9728 F:4 PKD(3,3,3,100.00%,0.0,1.00%,F,F)



File 3291 #1-296 Acq:19-JUN-2012 11:19:02 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:)0341-01 MB
407.7818 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,932.0,0.50%,F,T)

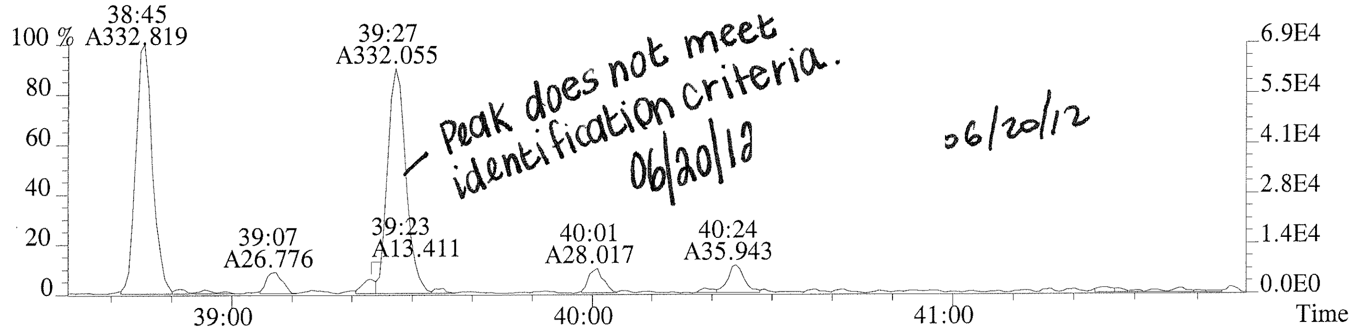


409.7789 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,660.0,0.50%,F,T)

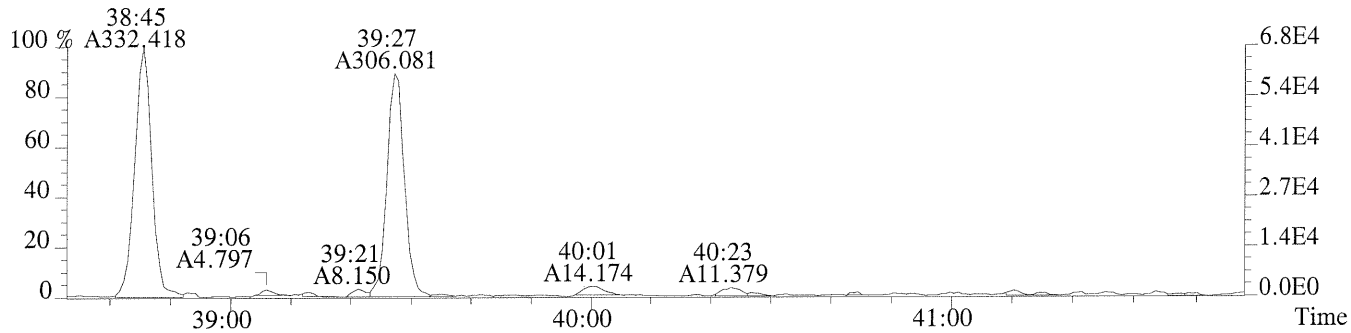


MANUAL INTEGRATION EXPLANATION
1. POOR INTEGRATION
2. PEAK NOT FOUND/NOT INTEGRATED
3. RETENTION TIME SHIFT
4. BASELINE INCORRECT/INACCURATE
5. OTHER
ANALYST_ REVIEWER_ 06/20/12
06/20/12

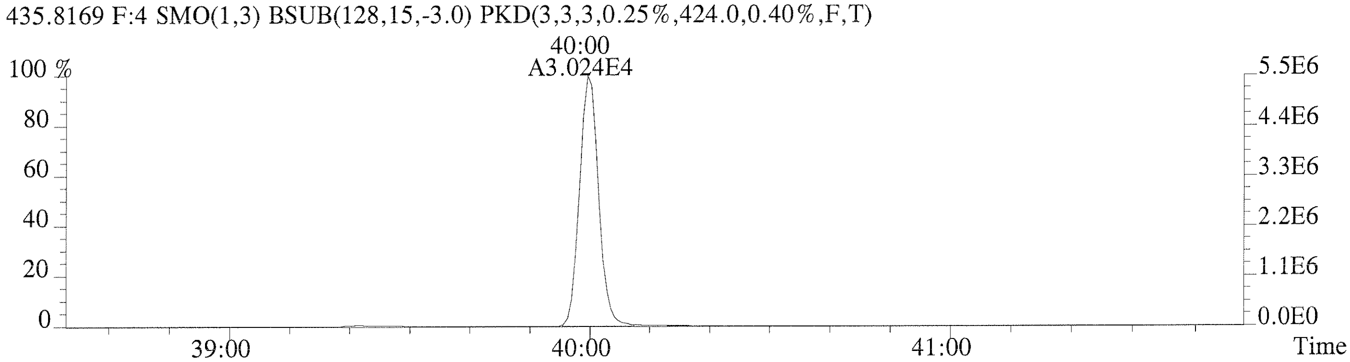
File: 3291 #1-296 Acq:19-JUN-2012 11:19:02 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp: 00341-01 MB
423.7766 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,688.0,0.40%,F,T)



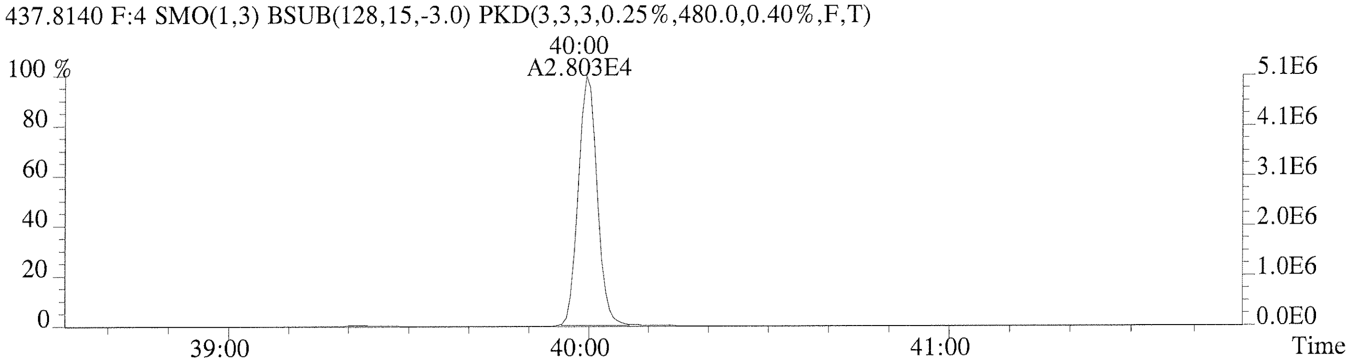
425.7737 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,492.0,0.40%,F,T)



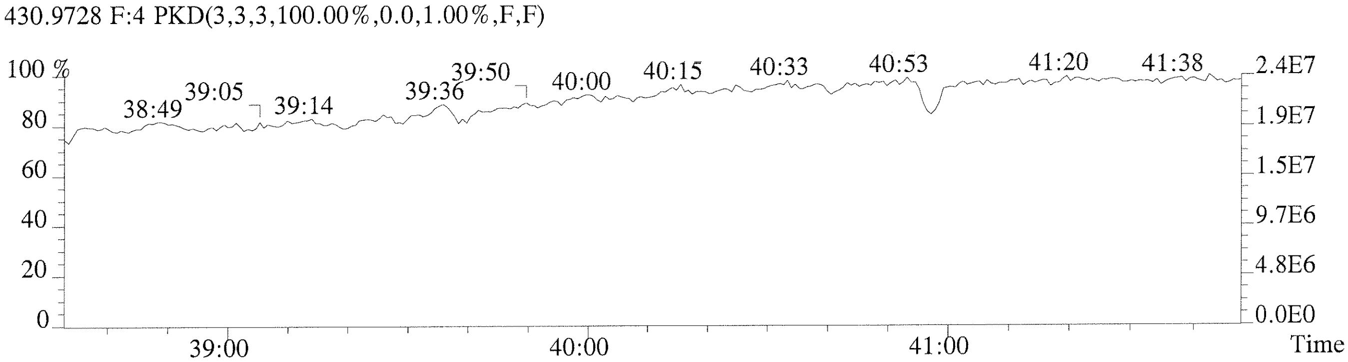
435.8169 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,424.0,0.40%,F,T)



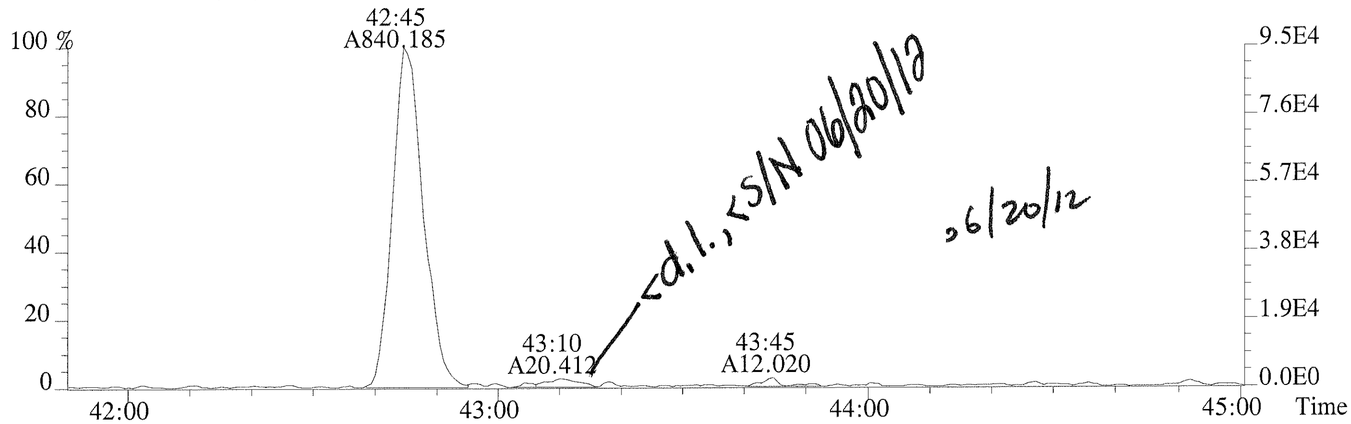
437.8140 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,480.0,0.40%,F,T)



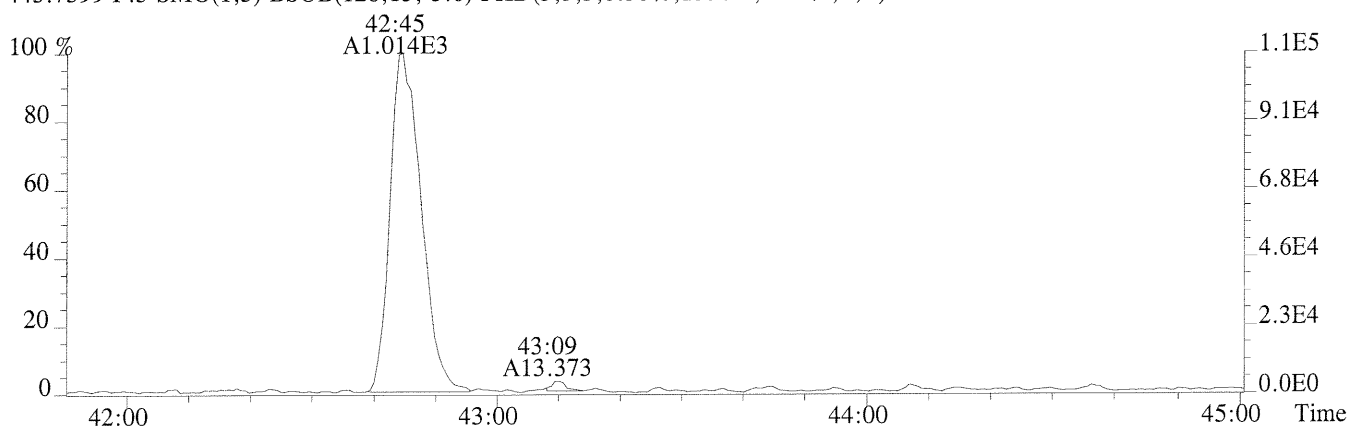
430.9728 F:4 PKD(3,3,3,100.00%,0.0,1.00%,F,F)



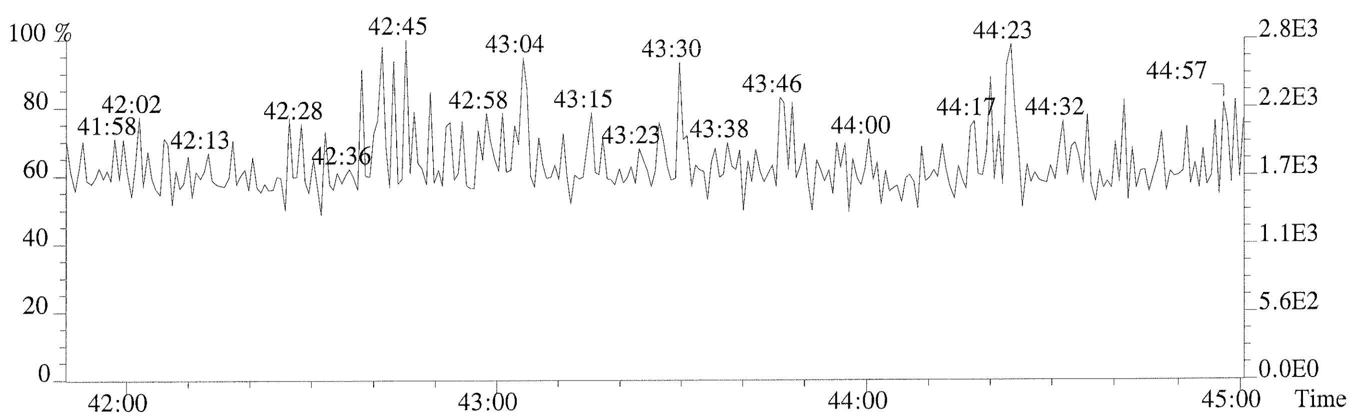
File: 8291 #1-292 Acq:19-JUN-2012 11:19:02 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp)0341-01 MB
441.7428 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(5,3,5,0.30%,472.0,0.40%,F,T)



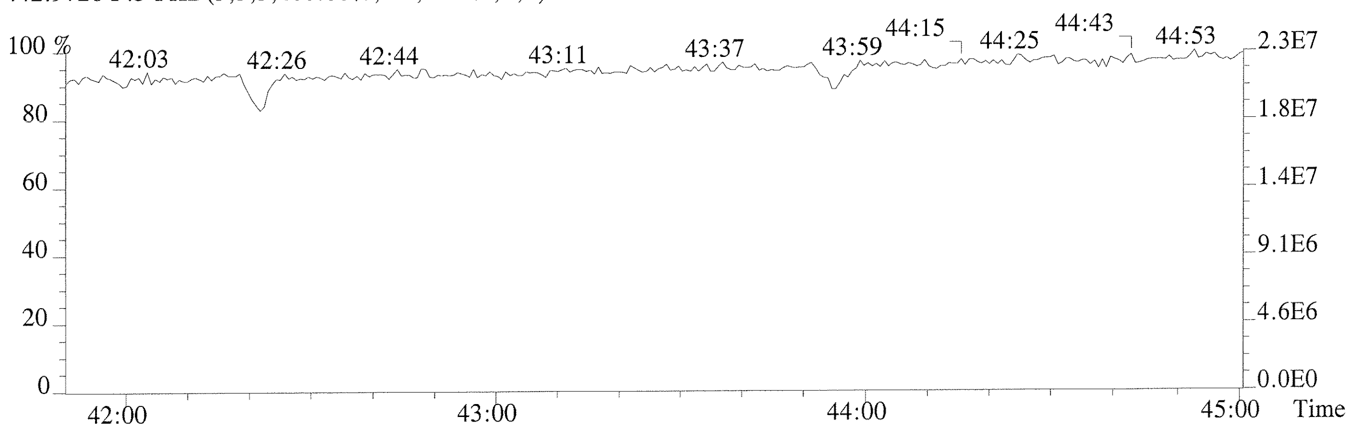
443.7399 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(5,3,5,0.30%,1536.0,0.40%,F,T)



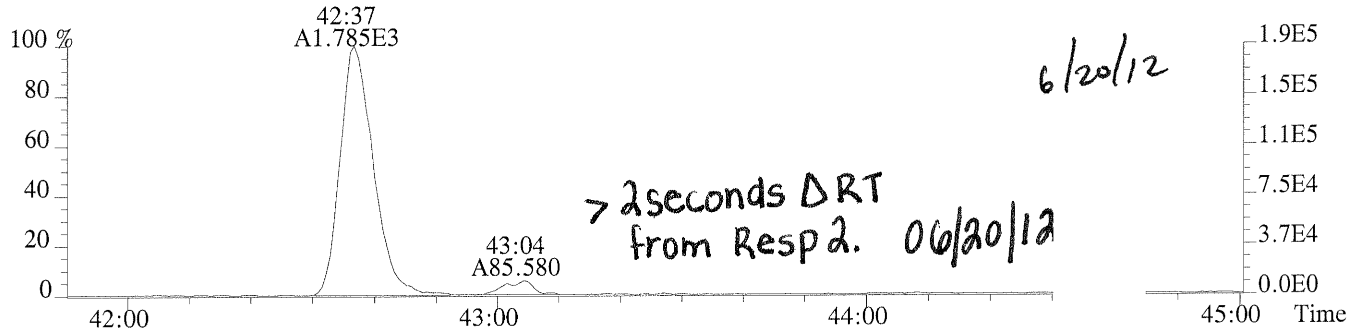
513.6775 F:5 PKD(5,3,5,100.00%,0.0,1.00%,F,F)



442.9728 F:5 PKD(3,3,3,100.00%,0.0,0.40%,F,F)



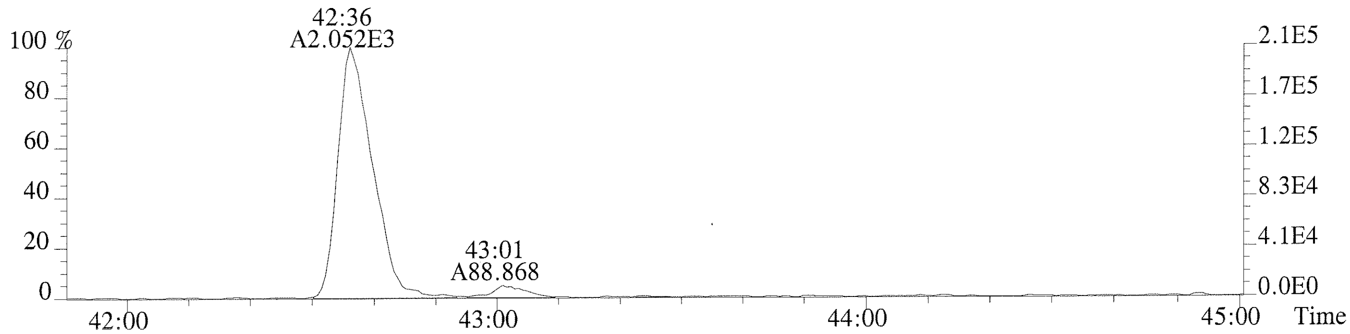
File 8291 #1-292 Acq:19-JUN-2012 11:19:02 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:)0341-01 MB
457.7377 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(5,3,5,0.30%,1000.0,0.40%,F,T)



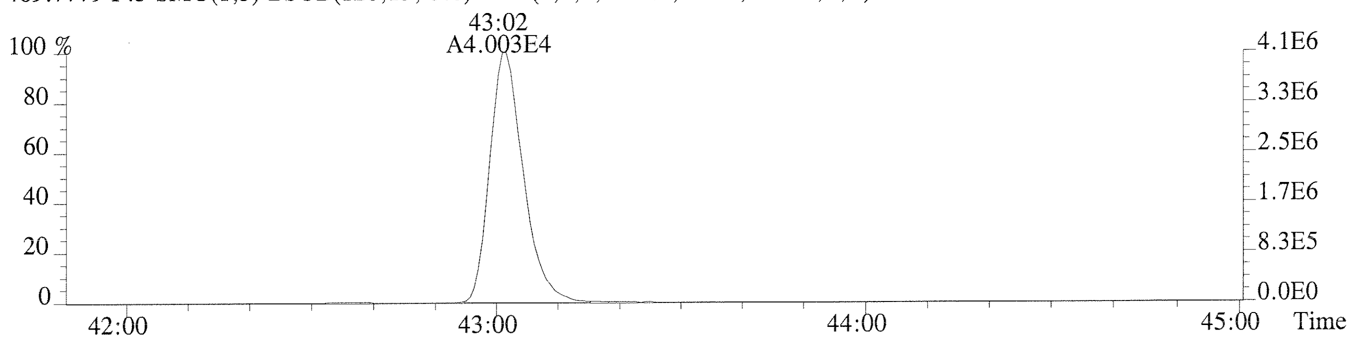
6/20/12

> 2seconds ΔRT from Resp 2. 06/20/12

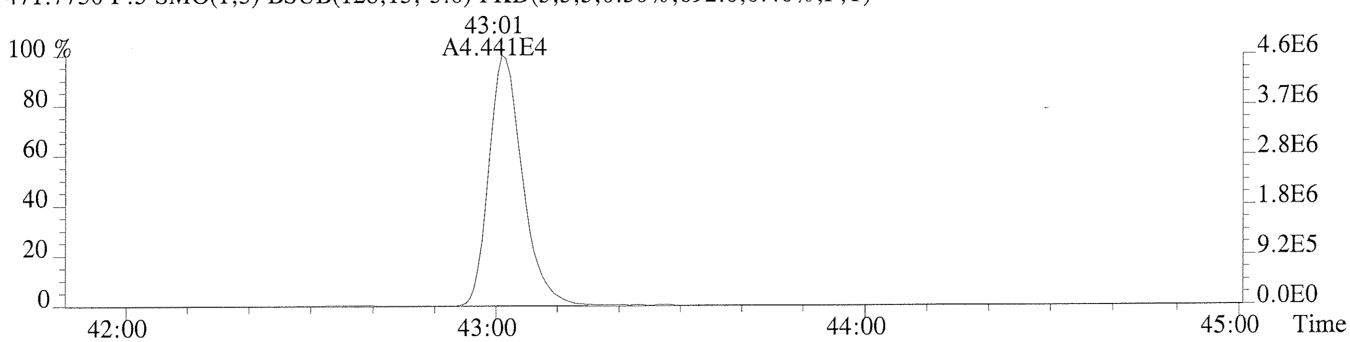
459.7348 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(5,3,5,0.30%,244.0,0.40%,F,T)



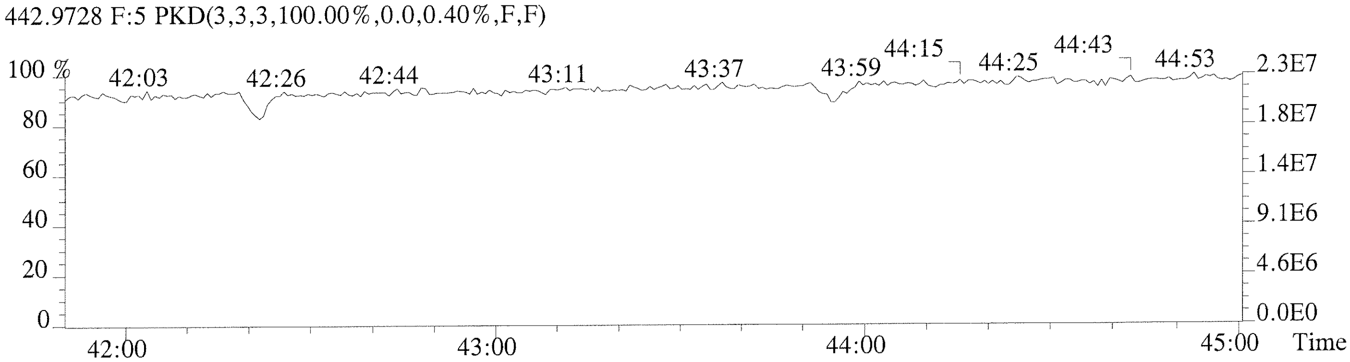
469.7779 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(5,3,5,0.30%,324.0,0.40%,F,T)



471.7750 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(5,3,5,0.30%,692.0,0.40%,F,T)



442.9728 F:5 PKD(3,3,3,100.00%,0.0,0.40%,F,F)



Analytical Report

Client:	US Environmental Protection Agency	**Service Request:**	00584
Project:	Dioxins/Furans	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Lab Control Sample	**Units:**	pg/L
Lab Code:	00313-02	**Basis:**	NA

Chlorinated Dibenzo-p-dioxins (CDDs) and Chlorinated Dibenzofurans (CDFs) by HRGC/HRMS

Analytical Method:	D/F DLM02.2	**Date Analyzed:**	7/6/12 0718
Prep Method:	Method	**Date Extracted:**	6/6/12
Sample Amount:	1000mL	**Instrument Name:**	E-HRMS-04
		GC Column:	DB-5
Data File Name:	8232	**Blank File Name:**	8236
ICAL Date:	05/03/12	**Cal Ver. File Name:**	8231

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
2,3,7,8-TCDD	**222**		0.683	10.0	0.81	1.000	1
1,2,3,7,8-PeCDD	**1120**		0.403	50.0	1.65	1.000	1
1,2,3,4,7,8-HxCDD	**1040**		0.469	50.0	1.26	1.001	1
1,2,3,6,7,8-HxCDD	**1100**		0.515	50.0	1.28	1.000	1
1,2,3,7,8,9-HxCDD	**1070**		0.483	50.0	1.26	1.009	1
1,2,3,4,6,7,8-HpCDD	**1060**		0.739	50.0	1.05	1.000	1
OCDD	**1990**		1.04	100	0.90	1.000	1
2,3,7,8-TCDF	**236**		0.448	10.0	0.79	1.001	1
1,2,3,7,8-PeCDF	**1130**		0.318	50.0	1.56	1.001	1
2,3,4,7,8-PeCDF	**1190**		0.367	50.0	1.57	1.000	1
1,2,3,4,7,8-HxCDF	**1170**		0.229	50.0	1.32	1.000	1
1,2,3,6,7,8-HxCDF	**1070**		0.206	50.0	1.22	1.000	1
1,2,3,7,8,9-HxCDF	**1070**		0.333	50.0	1.31	1.000	1
2,3,4,6,7,8-HxCDF	**1040**		0.250	50.0	1.24	1.000	1
1,2,3,4,6,7,8-HpCDF	**1110**		1.46	50.0	1.03	1.000	1
1,2,3,4,7,8,9-HpCDF	**1000**		2.20	50.0	1.01	1.000	1
OCDF	**2010**		1.54	100	0.92	1.001	1
Total Tetra-Dioxins	**224**		0.683	10.0	0.68		1
Total Penta-Dioxins	**1120**		0.403	50.0	1.65		1
Total Hexa-Dioxins	**3200**		0.469	50.0	1.26		1
Total Hepta-Dioxins	**1060**		0.739	50.0	0.94		1
Total Tetra-Furans	**242**		0.448	10.0	0.67		1
Total Penta-Furans	**2360**		0.367	50.0	1.58		1
Total Hexa-Furans	**4370**		0.229	50.0	1.20		1
Total Hepta-Furans	**2130**		1.46	50.0	1.03		1

Client:	US Environmental Protection Agency	**Service Request:**	00584
Project:	Dioxins/Furans	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Lab Control Sample	**Units:**	Percent
Lab Code:	00313-02	**Basis:**	NA

Chlorinated Dibenzo-p-dioxins (CDDs) and Chlorinated Dibenzofurans (CDFs) by HRGC/HRMS

Analytical Method:	D/F DLM02.2	**Date Analyzed:**	7/6/12 0718
Prep Method:	Method	**Date Extracted:**	6/6/12
Sample Amount:	1000mL	**Instrument Name:**	E-HRMS-04
		GC Column:	DB-5
Data File Name:	8232	**Blank File Name:**	8236
ICAL Date:	05/03/12	**Cal Ver. File Name:**	8231

Labeled Compounds	Spike Conc.(pg)	Conc. Found (pg)	%Rec	Q	Control Limits	Ion Ratio	RRT
13C-2,3,7,8-TCDD	2000	1106.827	55		25-164	0.78	1.008
13C-1,2,3,7,8-PeCDD	2000	1130.890	57		21-227	1.56	1.177
13C-1,2,3,4,7,8-HxCDD	2000	1209.245	60		21-193	1.27	0.989
13C-1,2,3,6,7,8-HxCDD	2000	1047.634	52		25-163	1.26	0.992
13C-1,2,3,4,6,7,8-HpCDD	2000	1390.995	70		26-166	1.08	1.083
13C-OCDD	4000	2855.464	71		13-199	0.90	1.188
13C-2,3,7,8-TCDF	2000	1101.391	55		22-152	0.80	0.977
13C-1,2,3,7,8-PeCDF	2000	1383.232	69		21-192	1.58	1.136
13C-2,3,4,7,8-PeCDF	2000	1204.249	60		13-328	1.61	1.164
13C-1,2,3,4,7,8-HxCDF	2000	1147.631	57		19-202	0.52	0.967
13C-1,2,3,6,7,8-HxCDF	2000	1235.973	62		21-159	0.53	0.970
13C-1,2,3,7,8,9-HxCDF	2000	1105.986	55		17-205	0.51	1.006
13C-2,3,4,6,7,8-HxCDF	2000	1204.695	60		22-176	0.53	0.985
13C-1,2,3,4,6,7,8-HpCDF	2000	1230.980	62		21-158	0.44	1.052
13C-1,2,3,4,7,8,9-HpCDF	2000	1341.197	67		20-186	0.44	1.094
37Cl-2,3,7,8-TCDD	800	497.583	62		31-191	NA	1.008

Sample Response Summary

CLIENT ID.
LCS

Run #8 Filename 8232 #1 Samp: 1 Inj: 1 Acquired: 6-JUL-12 07:18:59
Processed: 14-JUL-12 09:22:57 LAB. ID:)0313-02

	Typ	Name	RT-1	Resp 1	Resp 2	Ratio	Meet	Mod?	RRT
1	Unk	2,3,7,8-TCDF	28:11	2.836e+03	3.610e+03	0.79	yes	no	1.001
2	Unk	1,2,3,7,8-PeCDF	32:47	2.469e+04	1.579e+04	1.56	yes	no	1.001
3	Unk	2,3,4,7,8-PeCDF	33:34	2.214e+04	1.407e+04	1.57	yes	no	1.000
4	Unk	1,2,3,4,7,8-HxCDF	36:41	2.395e+04	1.820e+04	1.32	yes	no	1.000
5	Unk	1,2,3,6,7,8-HxCDF	36:48	2.486e+04	2.043e+04	1.22	yes	no	1.000
6	Unk	2,3,4,6,7,8-HxCDF	37:22	2.089e+04	1.680e+04	1.24	yes	no	1.000
7	Unk	1,2,3,7,8,9-HxCDF	38:09	1.770e+04	1.355e+04	1.31	yes	no	1.000
8	Unk	1,2,3,4,6,7,8-HpCDF	39:54	2.032e+04	1.977e+04	1.03	yes	no	1.000
9	Unk	1,2,3,4,7,8,9-HpCDF	41:29	1.542e+04	1.526e+04	1.01	yes	no	1.000
10	Unk	OCDF	45:06	2.472e+04	2.701e+04	0.92	yes	no	1.001
11	Unk	2,3,7,8-TCDD	29:04	2.132e+03	2.640e+03	0.81	yes	no	1.000
12	Unk	1,2,3,7,8-PeCDD	33:58	1.438e+04	8.712e+03	1.65	yes	no	1.000
13	Unk	1,2,3,4,7,8-HxCDD	37:32	1.557e+04	1.231e+04	1.26	yes	no	1.001
14	Unk	1,2,3,6,7,8-HxCDD	37:37	1.482e+04	1.161e+04	1.28	yes	no	1.000
15	Unk	1,2,3,7,8,9-HxCDD	37:56	1.541e+04	1.221e+04	1.26	yes	no	1.009
16	Unk	1,2,3,4,6,7,8-HpCDD	41:04	1.535e+04	1.464e+04	1.05	yes	no	1.000
17	Unk	OCDD	45:03	2.210e+04	2.460e+04	0.90	yes	no	1.000
18	IS	13C-2,3,7,8-TCDF	28:10	2.551e+04	3.204e+04	0.80	yes	no	0.977
19	IS	13C-1,2,3,7,8-PeCDF	32:46	4.445e+04	2.817e+04	1.58	yes	no	1.136
20	IS	13C-2,3,4,7,8-PeCDF	33:34	3.935e+04	2.445e+04	1.61	yes	no	1.164
21	IS	13C-1,2,3,4,7,8-HxCDF	36:40	1.989e+04	3.815e+04	0.52	yes	no	0.967
22	IS	13C-1,2,3,6,7,8-HxCDF	36:47	2.508e+04	4.733e+04	0.53	yes	no	0.970
23	IS	13C-2,3,4,6,7,8-HxCDF	37:22	2.148e+04	4.078e+04	0.53	yes	no	0.985
24	IS	13C-1,2,3,7,8,9-HxCDF	38:08	1.659e+04	3.250e+04	0.51	yes	no	1.006
25	IS	13C-1,2,3,4,6,7,8-HpCDF	39:54	1.576e+04	3.554e+04	0.44	yes	no	1.052
26	IS	13C-1,2,3,4,7,8,9-HpCDF	41:28	1.404e+04	3.175e+04	0.44	yes	no	1.094
27	IS	13C-2,3,7,8-TCDD	29:04	1.856e+04	2.373e+04	0.78	yes	no	1.008
28	IS	13C-1,2,3,7,8-PeCDD	33:57	2.615e+04	1.677e+04	1.56	yes	no	1.177
29	IS	13C-1,2,3,4,7,8-HxCDD	37:30	2.798e+04	2.199e+04	1.27	yes	no	0.989
30	IS	13C-1,2,3,6,7,8-HxCDD	37:36	2.585e+04	2.051e+04	1.26	yes	no	0.992
31	IS	13C-1,2,3,4,6,7,8-HpCDD	41:03	2.797e+04	2.600e+04	1.08	yes	no	1.083
32	IS	13C-OCDD	45:02	3.751e+04	4.159e+04	0.90	yes	no	1.188
33	RS/RT	13C-1,2,3,4-TCDD	28:50	3.633e+04	4.563e+04	0.80	yes	no	*
34	RS/RT	13C-1,2,3,7,8,9-HxCDD	37:55	4.864e+04	3.879e+04	1.25	yes	no	*
35	C/Up	37Cl-2,3,7,8-TCDD	29:04	1.949e+04				no	1.008

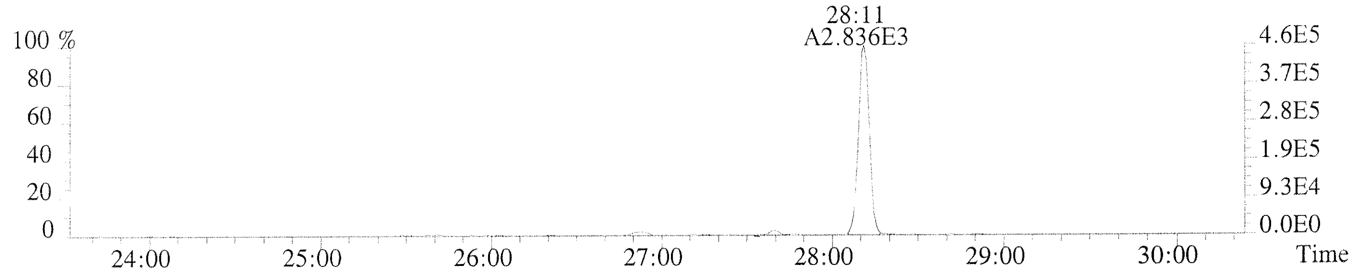
Signal/Noise Height Ratio Summary   CLIENT ID.
LCS

Run #8   Filename   8232   Samp: 1   Inj: 1   Acquired: 6-JUL-12   07:18:59
Processed: 14-JUL-12 09:22:571   LAB. ID: 00313-02

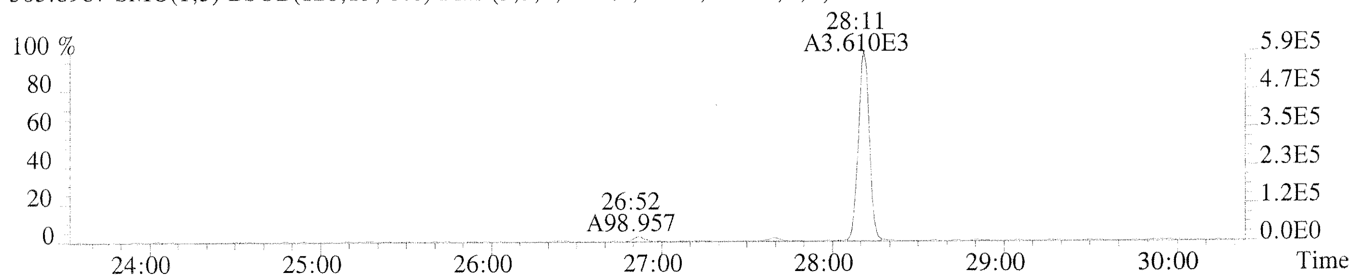
	Name	Signal 1	Noise 1	S/N Rat.1	Signal 2	Noise 2	S/N Rat.2
1	2,3,7,8-TCDF	4.63e+05	1.12e+02	4.1e+03	5.87e+05	7.00e+02	8.4e+02
2	1,2,3,7,8-PeCDF	4.81e+06	3.36e+02	1.4e+04	3.06e+06	5.60e+02	5.5e+03
3	2,3,4,7,8-PeCDF	4.42e+06	3.36e+02	1.3e+04	2.79e+06	5.60e+02	5.0e+03
4	1,2,3,4,7,8-HxCDF	4.19e+06	3.12e+02	1.3e+04	3.28e+06	2.84e+02	1.2e+04
5	1,2,3,6,7,8-HxCDF	4.38e+06	3.12e+02	1.4e+04	3.48e+06	2.84e+02	1.2e+04
6	2,3,4,6,7,8-HxCDF	3.46e+06	3.12e+02	1.1e+04	2.79e+06	2.84e+02	9.8e+03
7	1,2,3,7,8,9-HxCDF	2.68e+06	3.12e+02	8.6e+03	2.06e+06	2.84e+02	7.3e+03
8	1,2,3,4,6,7,8-HpCDF	2.36e+06	1.04e+03	2.3e+03	2.27e+06	1.37e+03	1.7e+03
9	1,2,3,4,7,8,9-HpCDF	1.45e+06	1.04e+03	1.4e+03	1.41e+06	1.37e+03	1.0e+03
10	OCDF	1.30e+06	1.76e+02	7.4e+03	1.46e+06	6.12e+02	2.4e+03
11	2,3,7,8-TCDD	3.73e+05	4.00e+02	9.3e+02	4.65e+05	6.32e+02	7.4e+02
12	1,2,3,7,8-PeCDD	2.87e+06	4.88e+02	5.9e+03	1.71e+06	1.76e+02	9.7e+03
13	1,2,3,4,7,8-HxCDD	2.50e+06	4.08e+02	6.1e+03	1.97e+06	3.96e+02	5.0e+03
14	1,2,3,6,7,8-HxCDD	2.37e+06	4.08e+02	5.8e+03	1.84e+06	3.96e+02	4.7e+03
15	1,2,3,7,8,9-HxCDD	2.40e+06	4.08e+02	5.9e+03	1.86e+06	3.96e+02	4.7e+03
16	1,2,3,4,6,7,8-HpCDD	1.41e+06	4.72e+02	3.0e+03	1.35e+06	3.12e+02	4.3e+03
17	OCDD	1.09e+06	2.40e+02	4.5e+03	1.20e+06	2.44e+02	4.9e+03
18	13C-2,3,7,8-TCDF	4.21e+06	8.64e+02	4.9e+03	5.33e+06	1.08e+03	5.0e+03
19	13C-1,2,3,7,8-PeCDF	8.65e+06	2.16e+02	4.0e+04	5.55e+06	2.08e+02	2.7e+04
20	13C-2,3,4,7,8-PeCDF	7.85e+06	2.16e+02	3.6e+04	4.91e+06	2.08e+02	2.4e+04
21	13C-1,2,3,4,7,8-HxCDF	3.56e+06	4.32e+02	8.2e+03	6.91e+06	2.56e+02	2.7e+04
22	13C-1,2,3,6,7,8-HxCDF	4.30e+06	4.32e+02	1.0e+04	8.03e+06	2.56e+02	3.1e+04
23	13C-2,3,4,6,7,8-HxCDF	3.51e+06	4.32e+02	8.1e+03	6.73e+06	2.56e+02	2.6e+04
24	13C-1,2,3,7,8,9-HxCDF	2.54e+06	4.32e+02	5.9e+03	4.98e+06	2.56e+02	1.9e+04
25	13C-1,2,3,4,6,7,8-HpCDF	1.80e+06	1.23e+03	1.5e+03	4.11e+06	2.62e+03	1.6e+03
26	13C-1,2,3,4,7,8,9-HpCDF	1.24e+06	1.23e+03	1.0e+03	2.88e+06	2.62e+03	1.1e+03
27	13C-2,3,7,8-TCDD	3.27e+06	1.97e+03	1.7e+03	4.14e+06	5.80e+02	7.1e+03
28	13C-1,2,3,7,8-PeCDD	5.18e+06	2.80e+02	1.9e+04	3.35e+06	1.72e+02	1.9e+04
29	13C-1,2,3,4,7,8-HxCDD	4.39e+06	9.20e+02	4.8e+03	3.54e+06	3.56e+02	1.0e+04
30	13C-1,2,3,6,7,8-HxCDD	4.14e+06	9.20e+02	4.5e+03	3.34e+06	3.56e+02	9.4e+03
31	13C-1,2,3,4,6,7,8-HpCDD	2.62e+06	7.64e+02	3.4e+03	2.41e+06	1.56e+02	1.5e+04
32	13C-OCDD	1.84e+06	4.76e+02	3.9e+03	2.10e+06	3.72e+02	5.6e+03
33	13C-1,2,3,4-TCDD	6.38e+06	1.97e+03	3.2e+03	8.07e+06	5.80e+02	1.4e+04
34	13C-1,2,3,7,8,9-HxCDD	7.47e+06	9.20e+02	8.1e+03	5.96e+06	3.56e+02	1.7e+04
35	37Cl-2,3,7,8-TCDD	3.51e+06	3.40e+02	1.0e+04			

File 8232 #1-572 Acq: 6-JUL-2012 07:18:59 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp: 00313-02 LCS

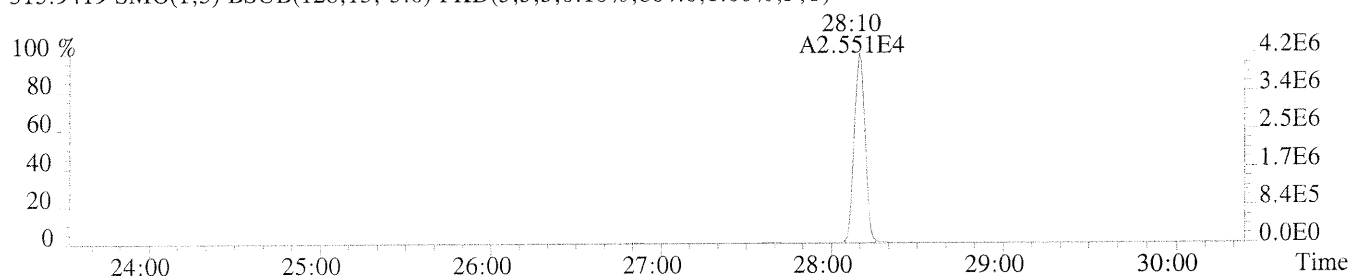
303.9016 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,112.0,1.00%,F,T)



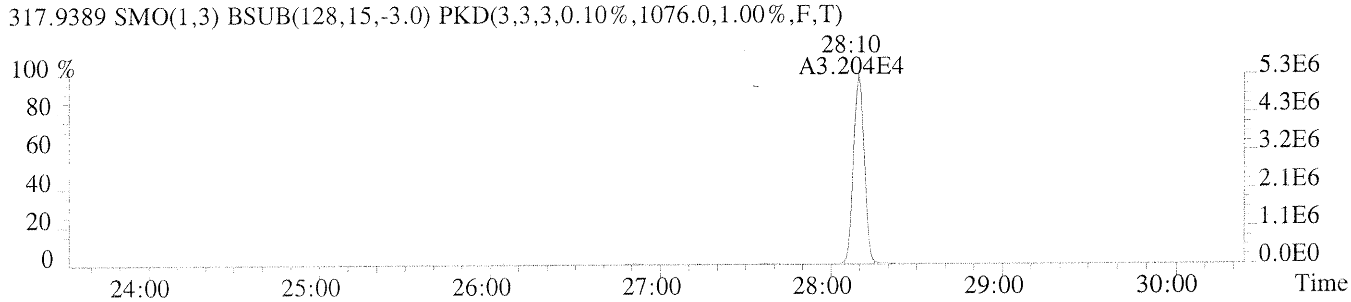
305.8987 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,700.0,1.00%,F,T)



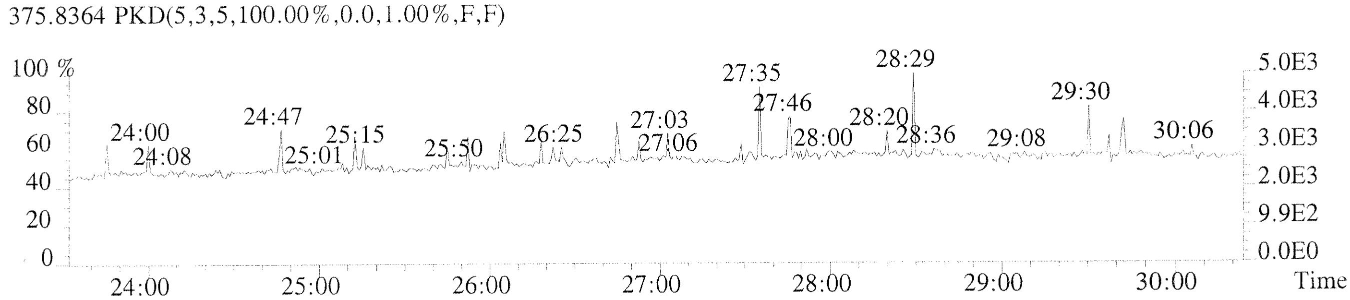
315.9419 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,864.0,1.00%,F,T)



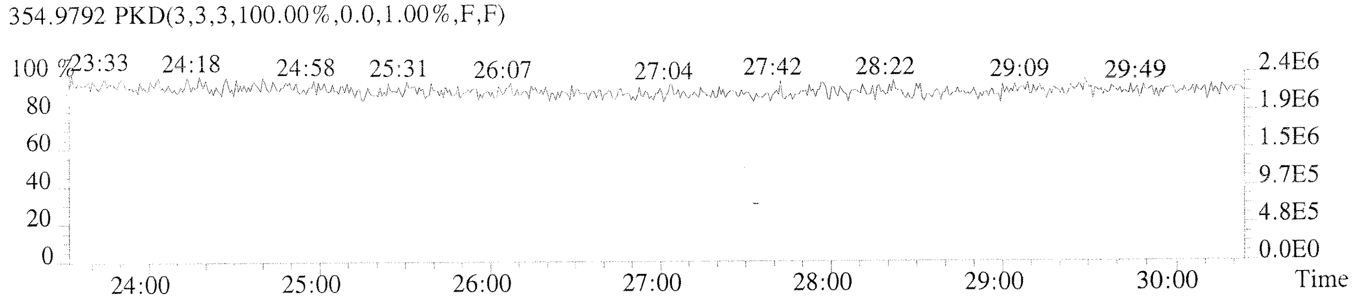
317.9389 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,1076.0,1.00%,F,T)



375.8364 PKD(5,3,5,100.00%,0.0,1.00%,F,F)

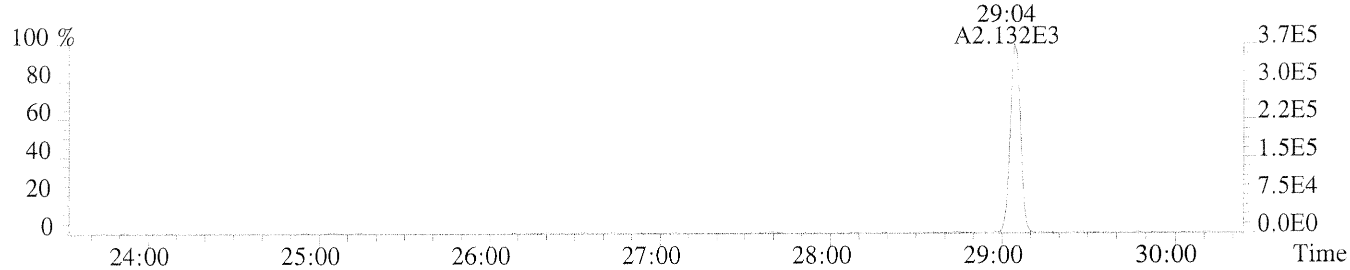


354.9792 PKD(3,3,3,100.00%,0.0,1.00%,F,F)

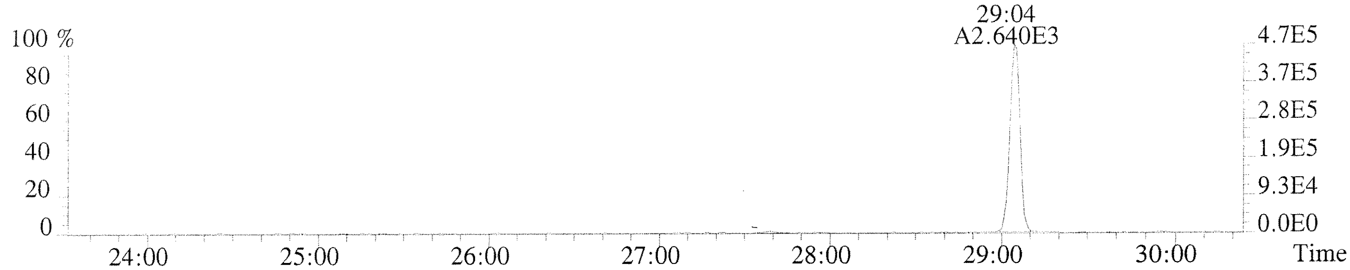


File 8232 #1-572 Acq: 6-JUL-2012 07:18:59 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:)0313-02 LCS

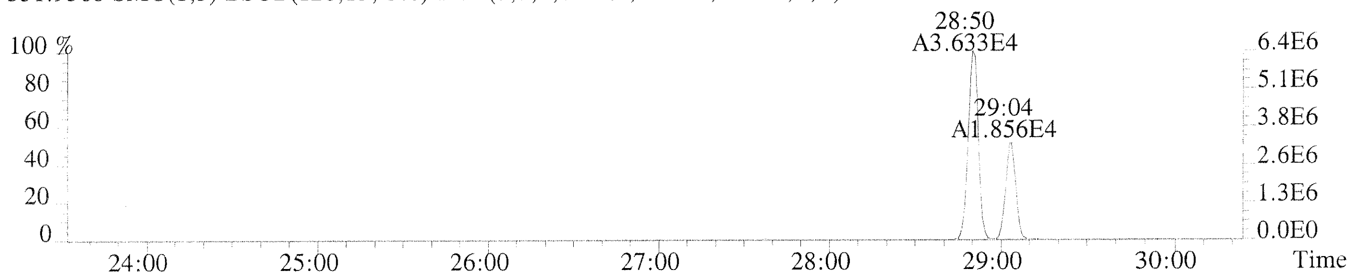
319.8965 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,400.0,1.00%,F,T)



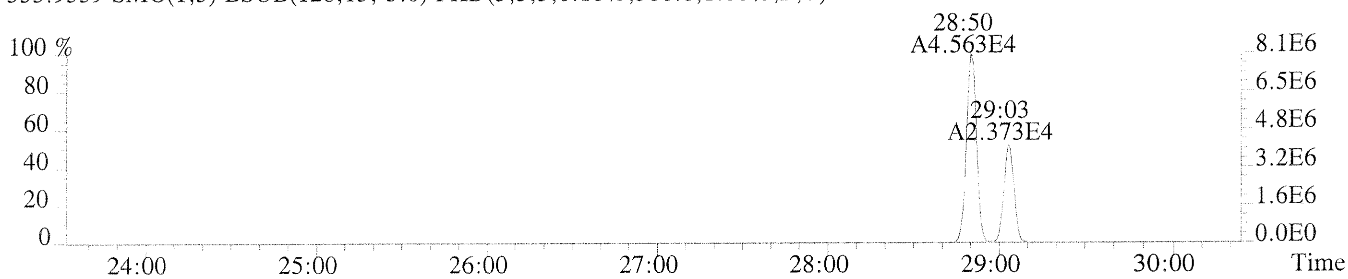
321.8936 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,632.0,1.00%,F,T)



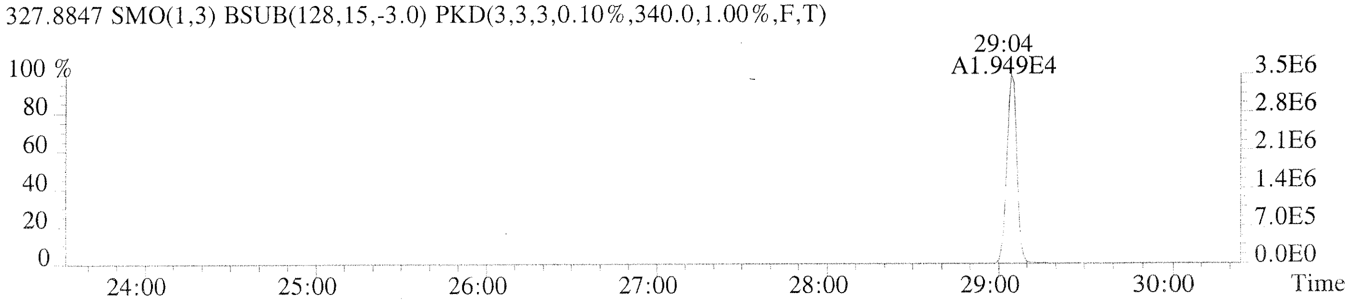
331.9368 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,1968.0,1.00%,F,T)



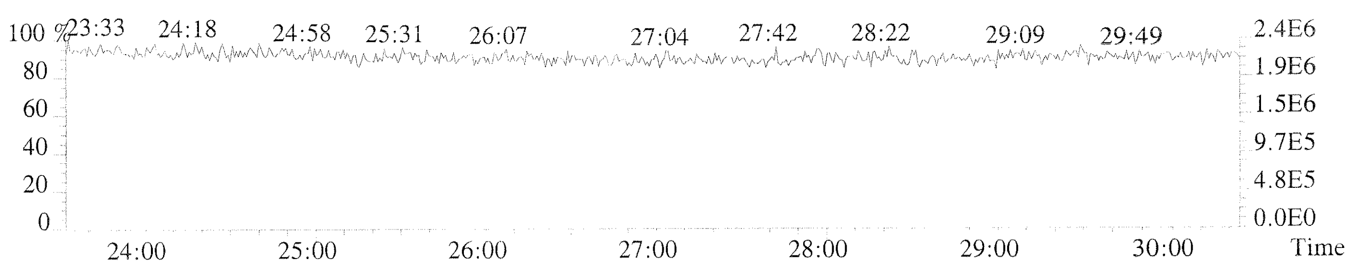
333.9339 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,580.0,1.00%,F,T)



327.8847 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,340.0,1.00%,F,T)

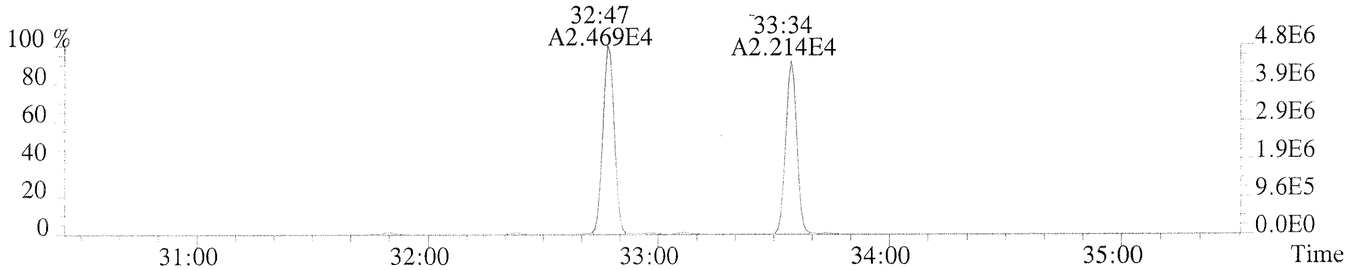


354.9792 PKD(3,3,3,100.00%,0.0,1.00%,F,F)

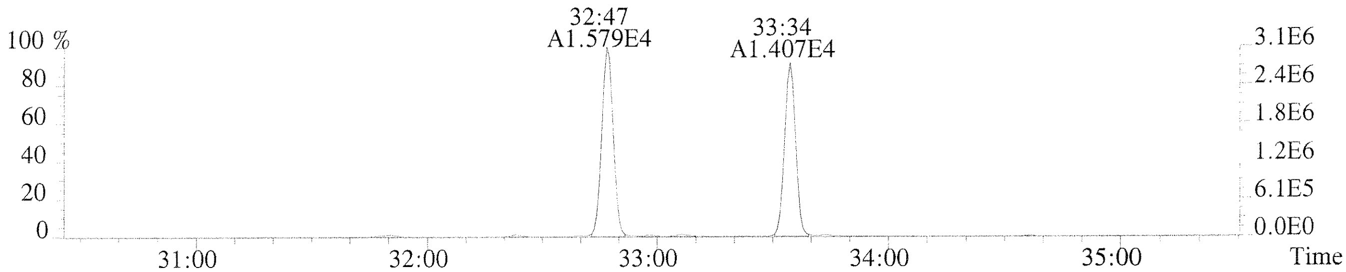


File 3232 #1-461 Acq: 6-JUL-2012 07:18:59 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp 00313-02 LCS

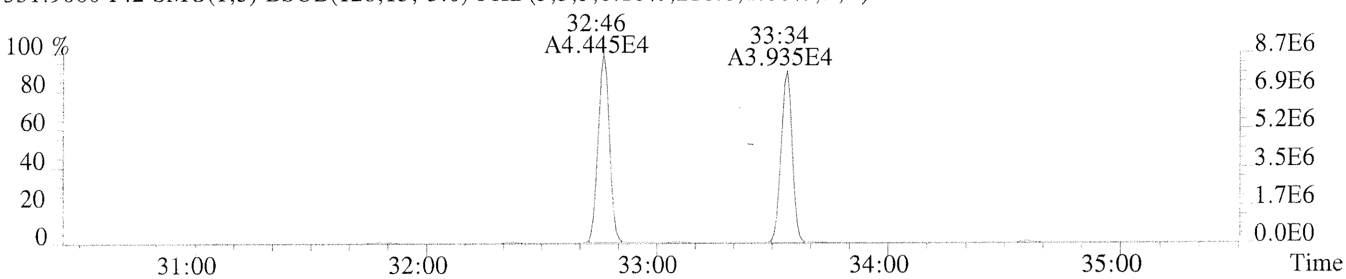
339.8597 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,336.0,1.00%,F,T)



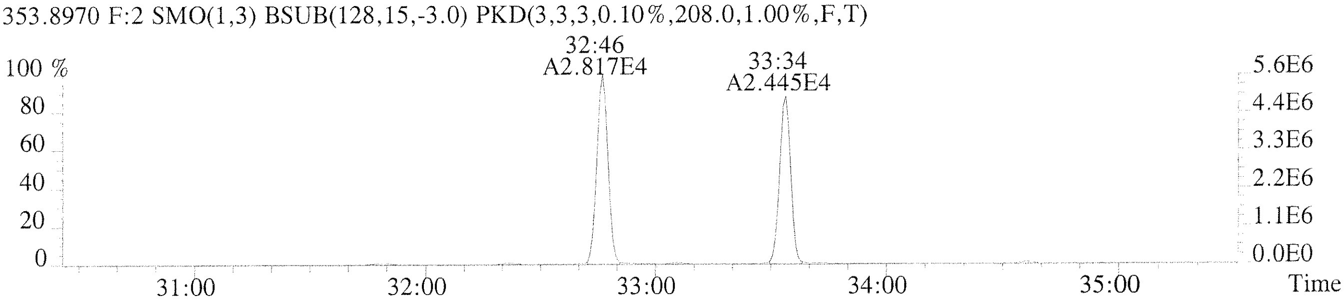
341.8567 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,560.0,1.00%,F,T)



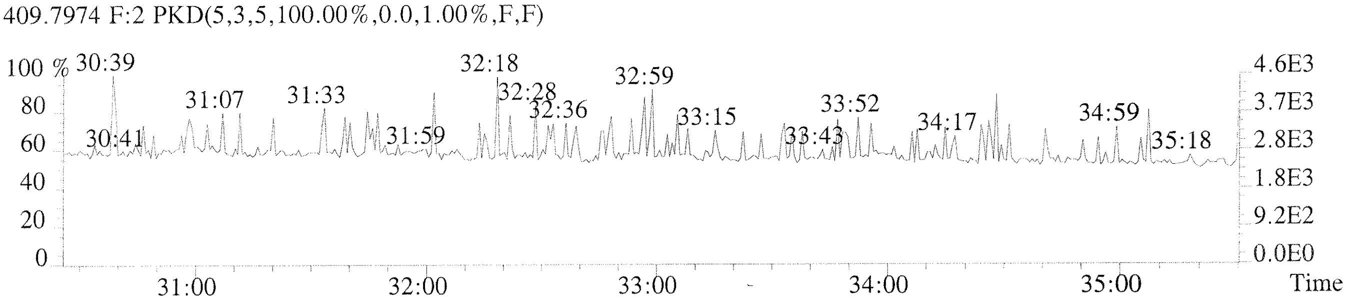
351.9000 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,216.0,1.00%,F,T)



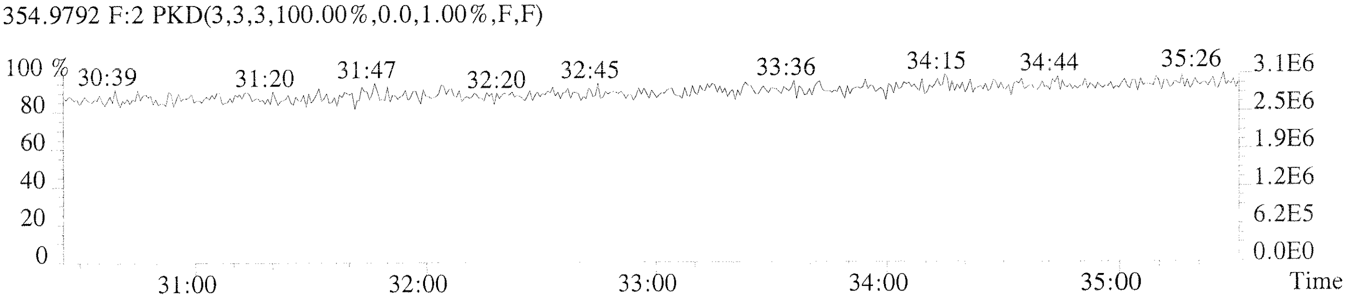
353.8970 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,208.0,1.00%,F,T)



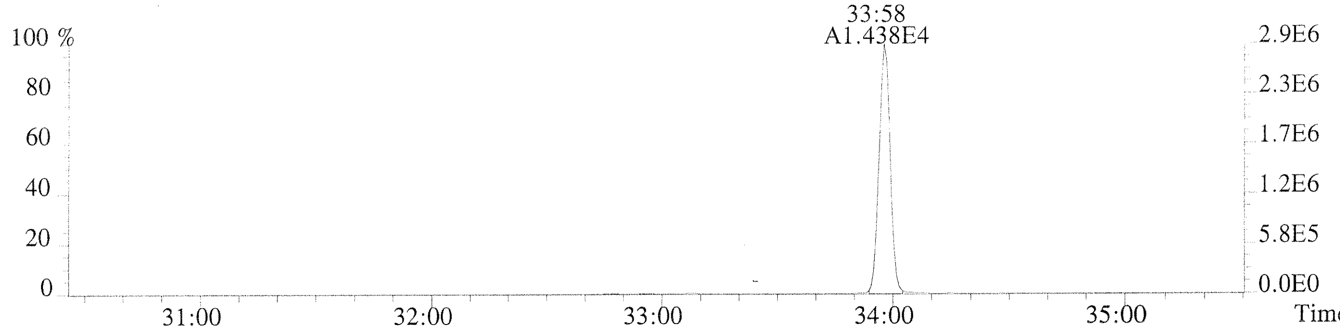
409.7974 F:2 PKD(5,3,5,100.00%,0.0,1.00%,F,F)



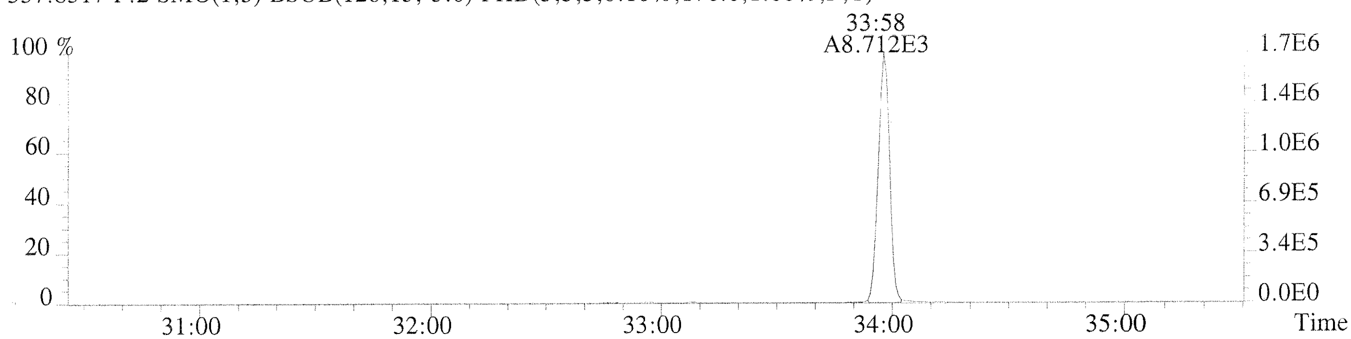
354.9792 F:2 PKD(3,3,3,100.00%,0.0,1.00%,F,F)



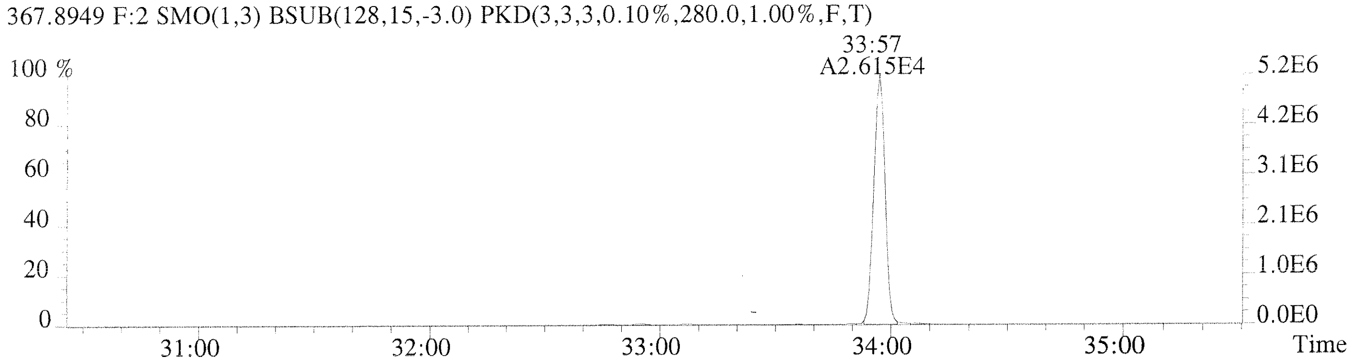
File: 8232 #1-461 Acq: 6-JUL-2012 07:18:59 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp: 00313-02 LCS
355.8546 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,488.0,1.00%,F,T)



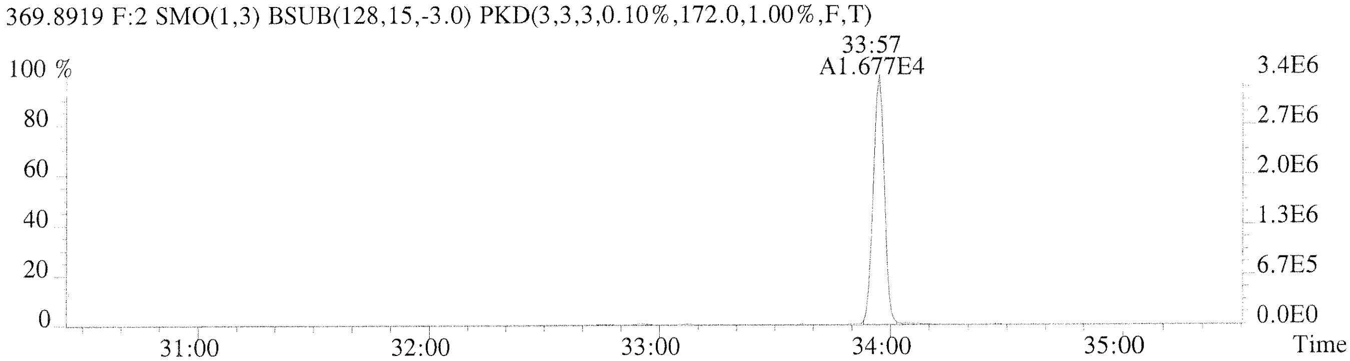
357.8517 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,176.0,1.00%,F,T)



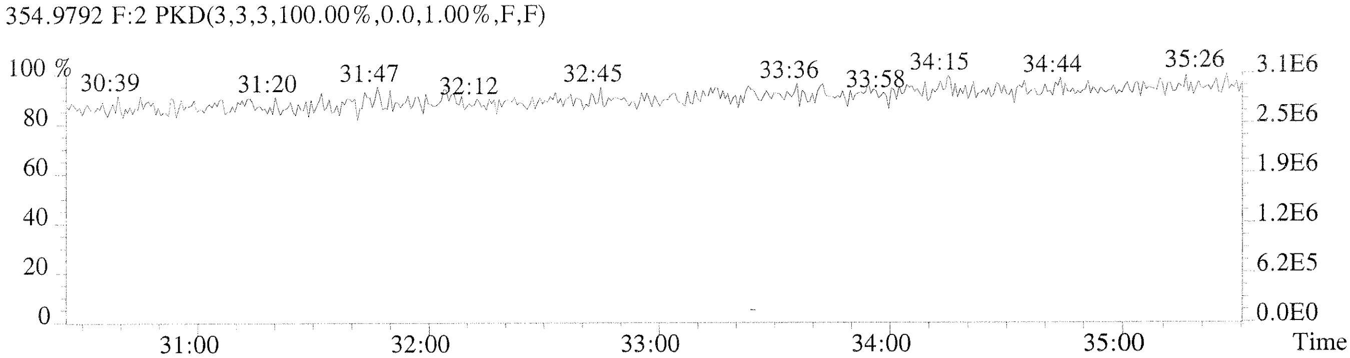
367.8949 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,280.0,1.00%,F,T)



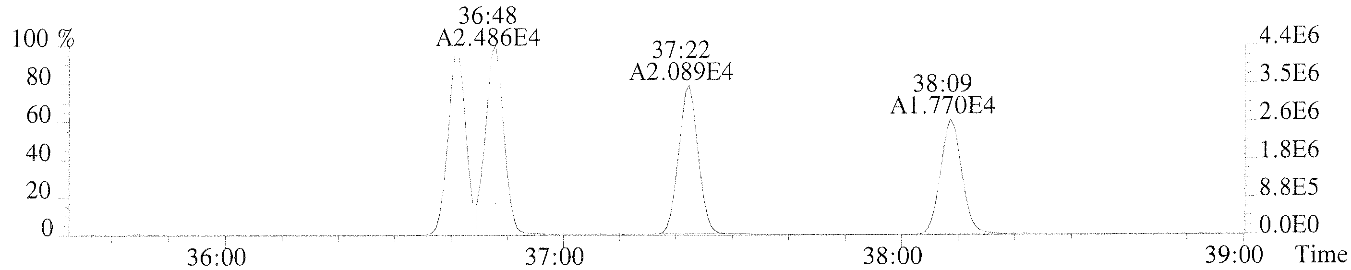
369.8919 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,172.0,1.00%,F,T)



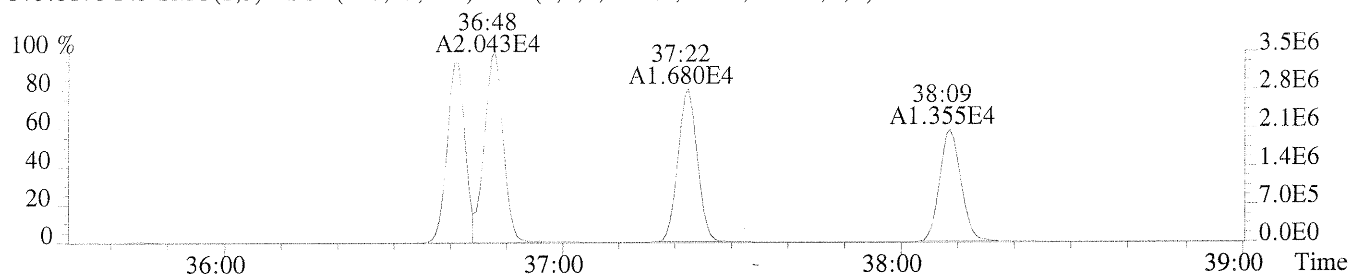
354.9792 F:2 PKD(3,3,3,100.00%,0.0,1.00%,F,F)



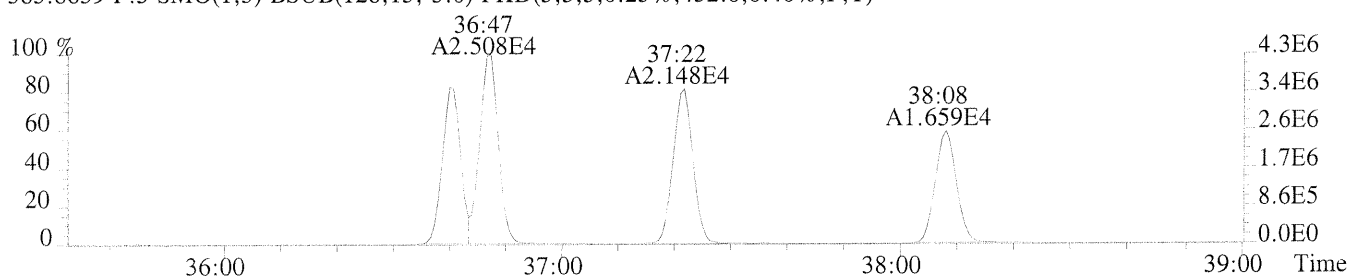
File 8232 #1-315 Acq: 6-JUL-2012 07:18:59 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:)0313-02 LCS
373.8208 F:3 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,312.0,0.40%,F,T)



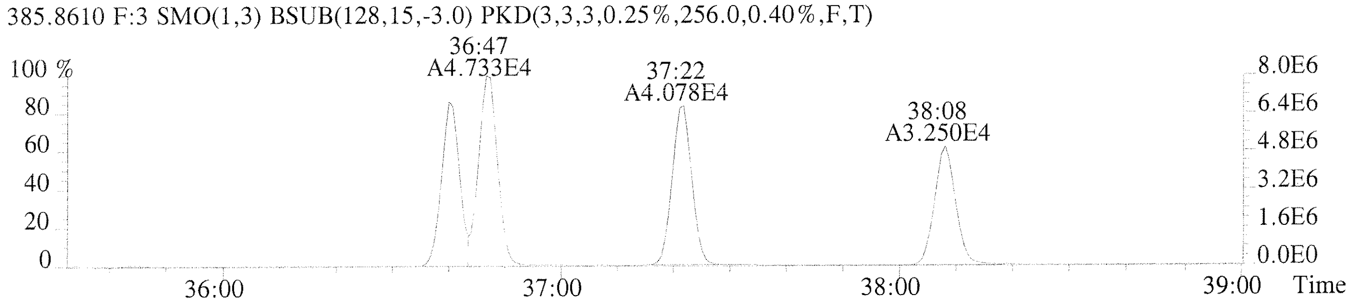
375.8178 F:3 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,284.0,0.40%,F,T)



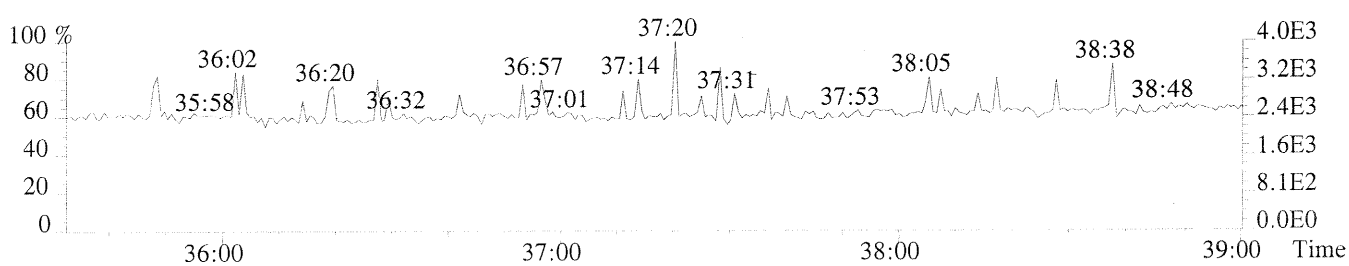
383.8639 F:3 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,432.0,0.40%,F,T)



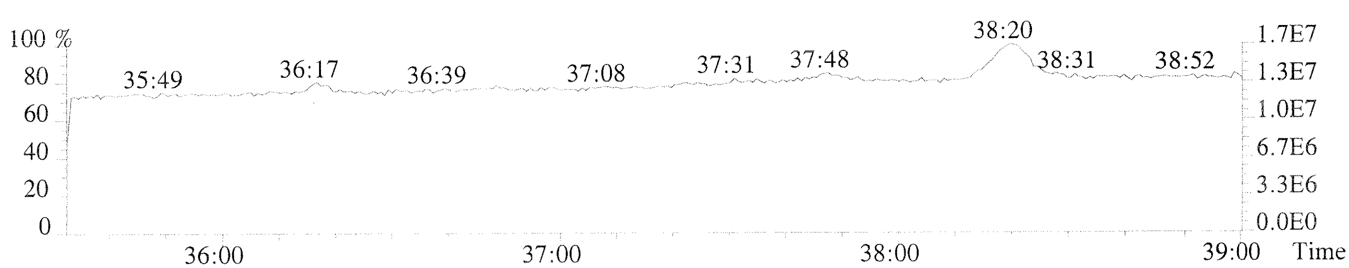
385.8610 F:3 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,256.0,0.40%,F,T)



445.7555 F:3 PKD(5,3,5,100.00%,0.0,1.00%,F,F)

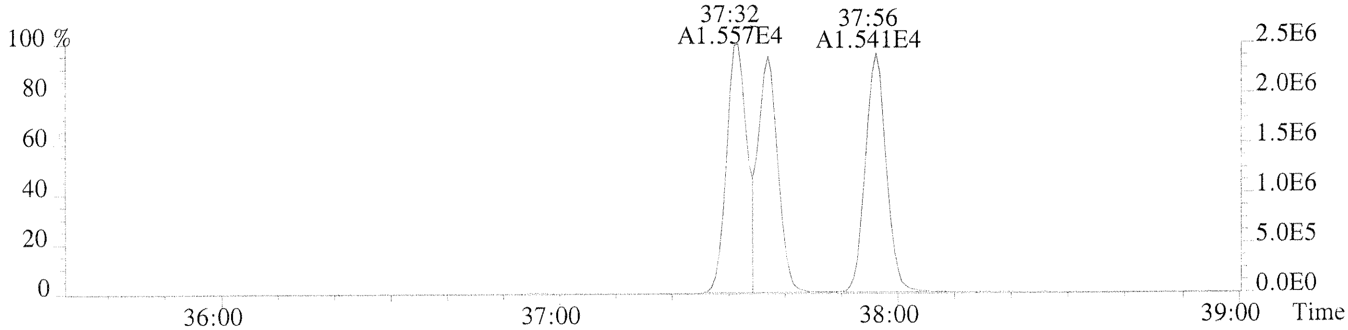


430.9728 F:3 PKD(3,3,3,100.00%,0.0,1.00%,F,F)

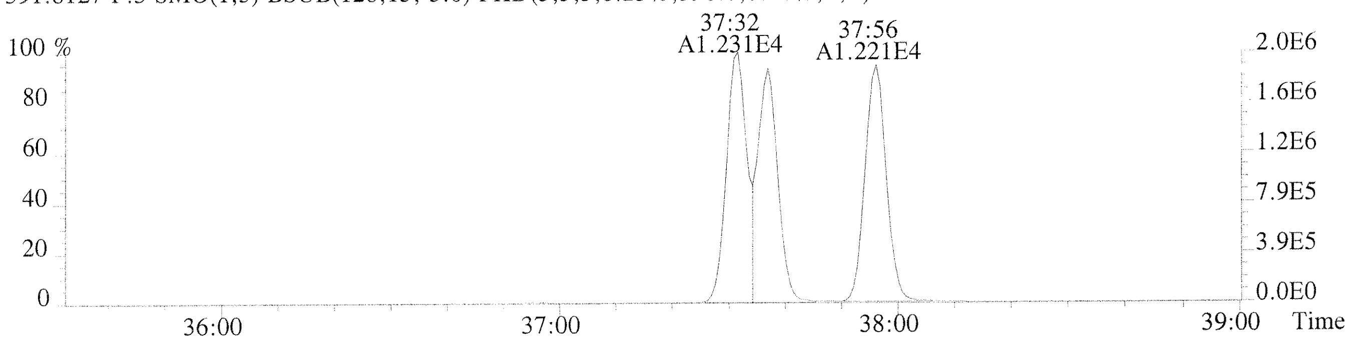


File: 8232 #1-315 Acq: 6-JUL-2012 07:18:59 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:)0313-02 LCS

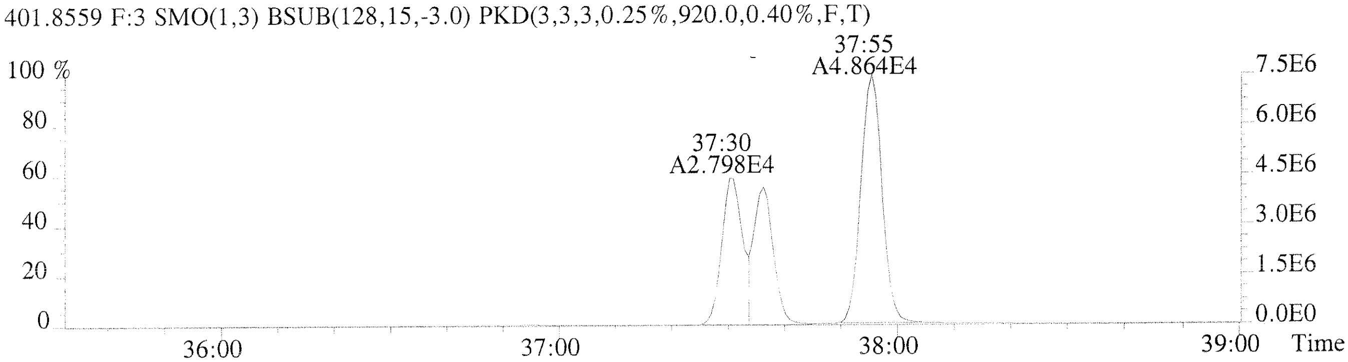
389.8157 F:3 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,408.0,0.40%,F,T)



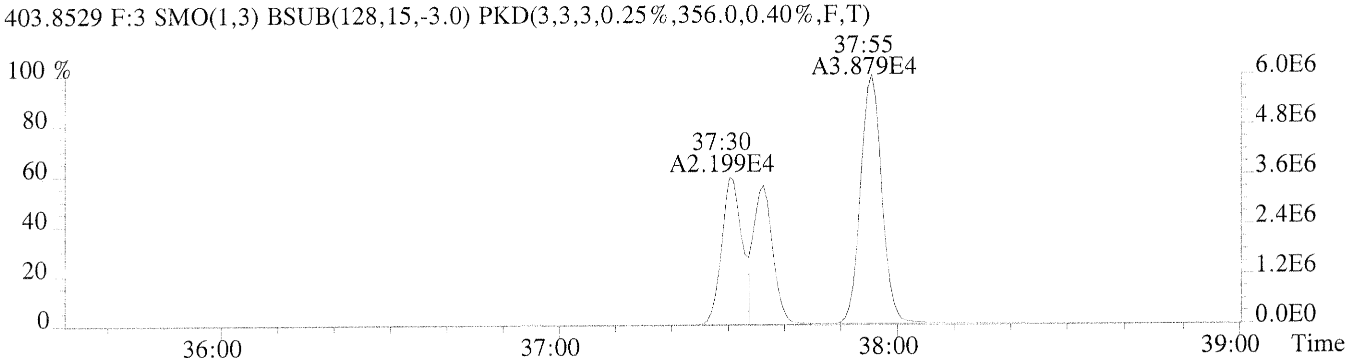
391.8127 F:3 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,396.0,0.40%,F,T)



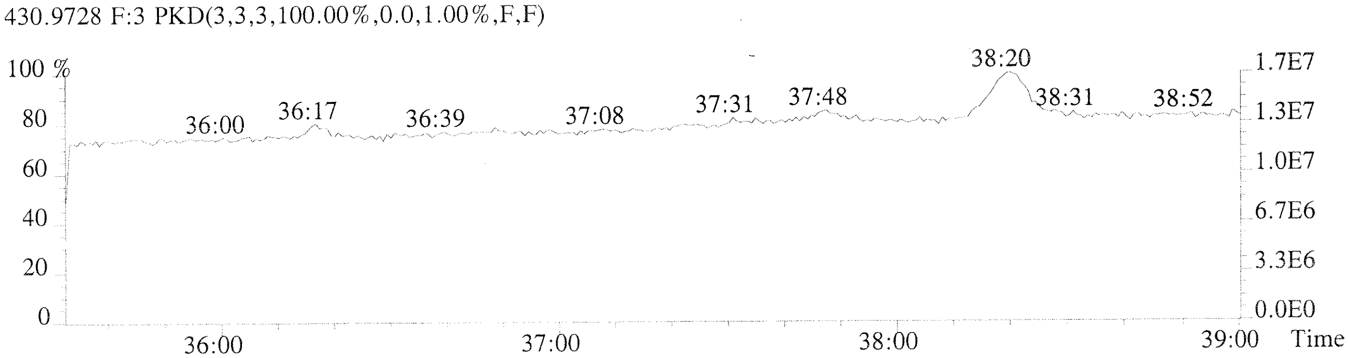
401.8559 F:3 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,920.0,0.40%,F,T)



403.8529 F:3 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,356.0,0.40%,F,T)

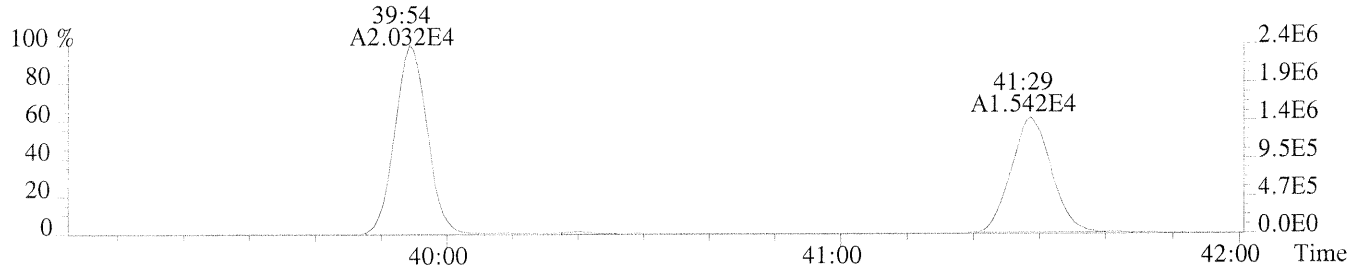


430.9728 F:3 PKD(3,3,3,100.00%,0.0,1.00%,F,F)

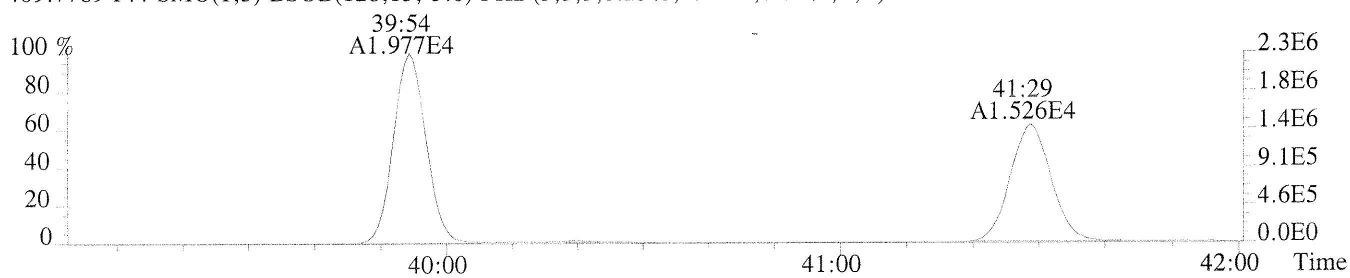


File: 8232 #1-270 Acq: 6-JUL-2012 07:18:59 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:)0313-02 LCS

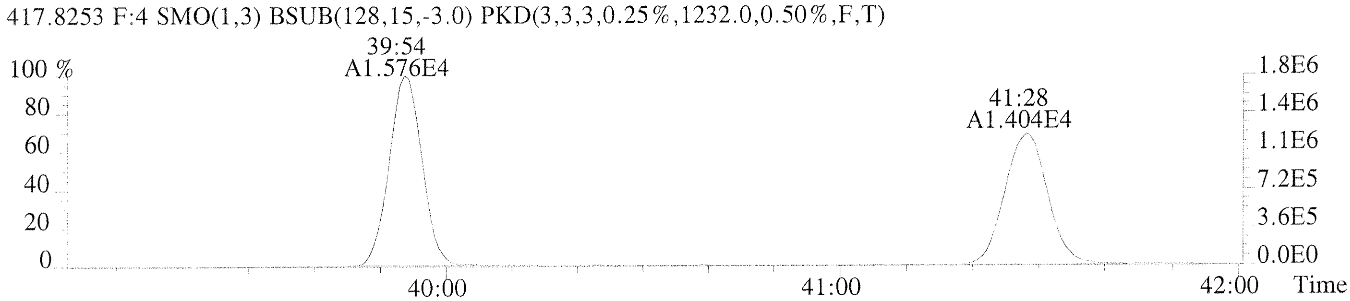
407.7818 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,1044.0,0.50%,F,T)



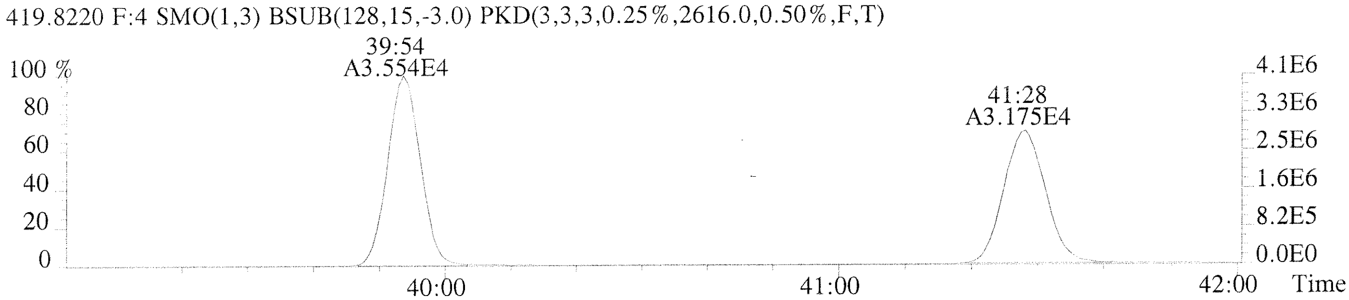
409.7789 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,1372.0,0.50%,F,T)



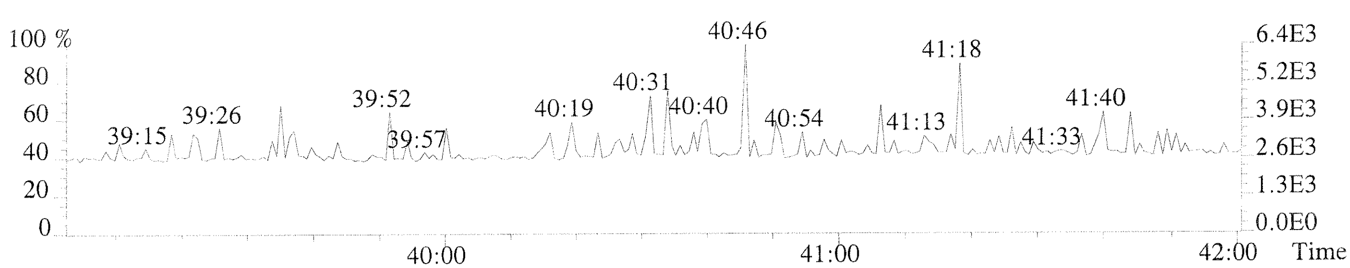
417.8253 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,1232.0,0.50%,F,T)



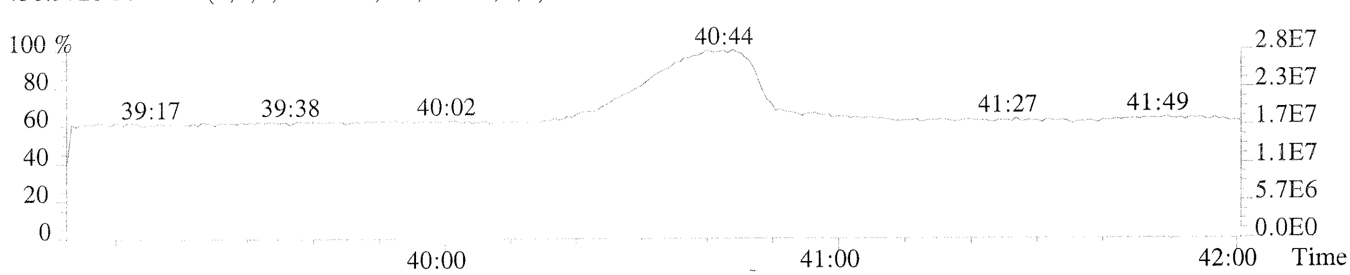
419.8220 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,2616.0,0.50%,F,T)



479.7165 F:4 PKD(5,3,5,100.00%,0.0,1.00%,F,F)

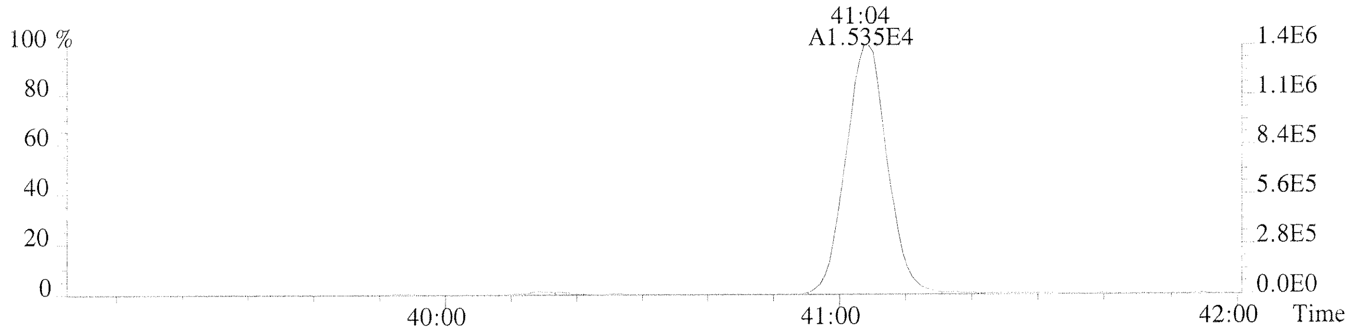


430.9728 F:4 PKD(3,3,3,100.00%,0.0,1.00%,F,F)

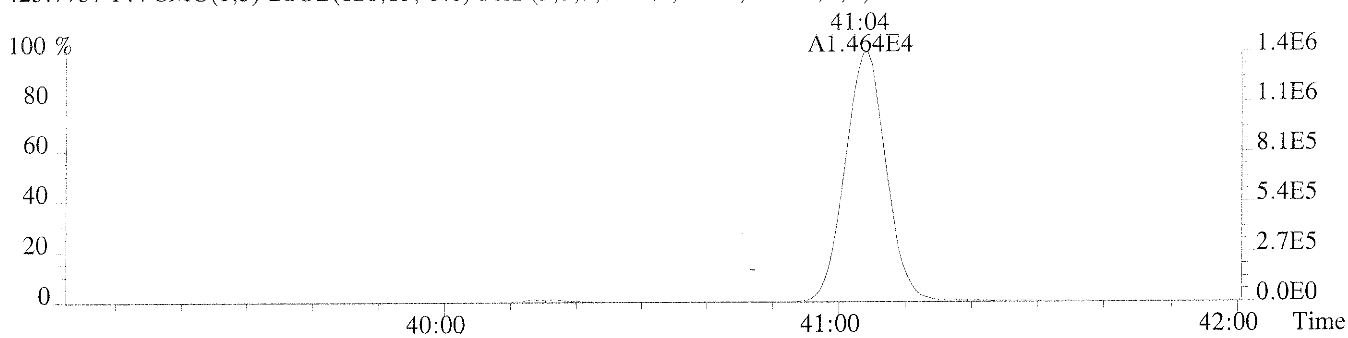


File: 8232 #1-270 Acq: 6-JUL-2012 07:18:59 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp: 00313-02 LCS

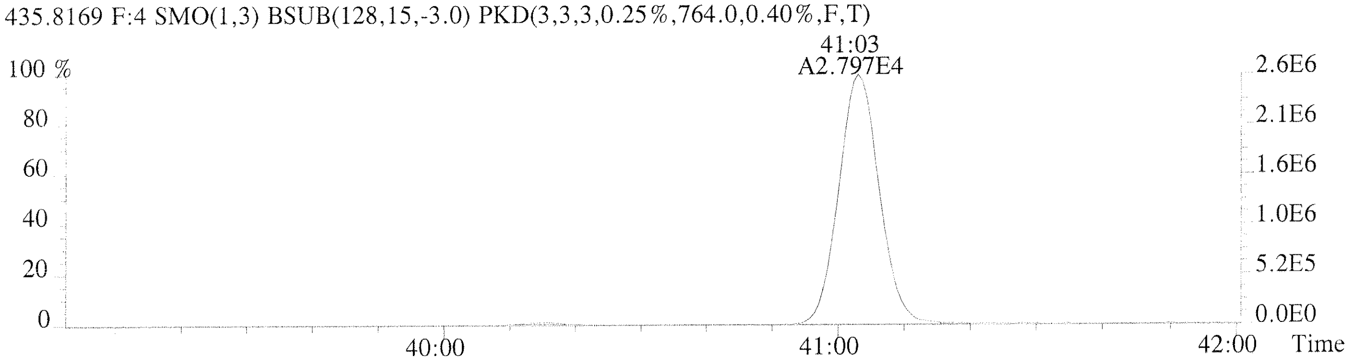
423.7766 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,472.0,0.40%,F,T)



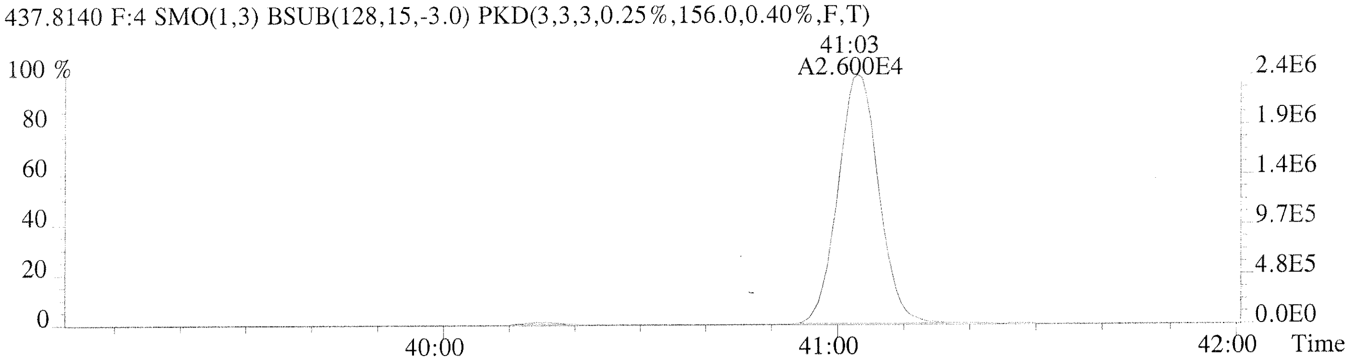
425.7737 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,312.0,0.40%,F,T)



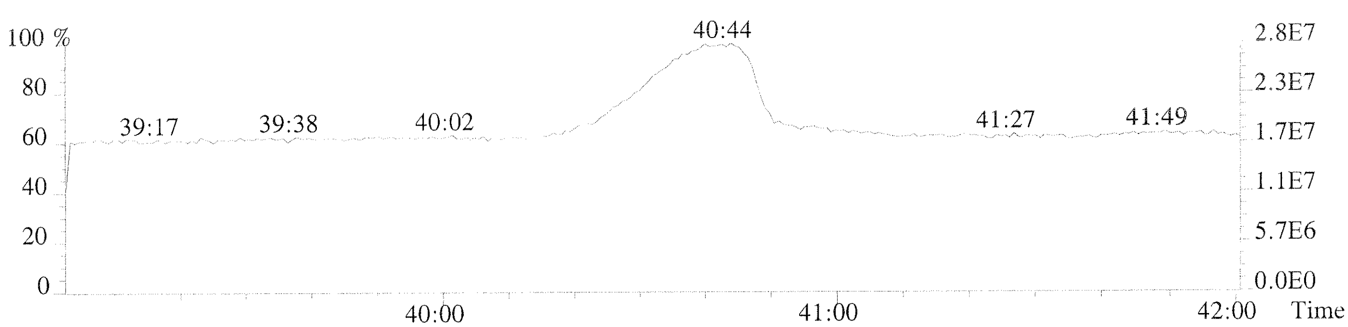
435.8169 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,764.0,0.40%,F,T)



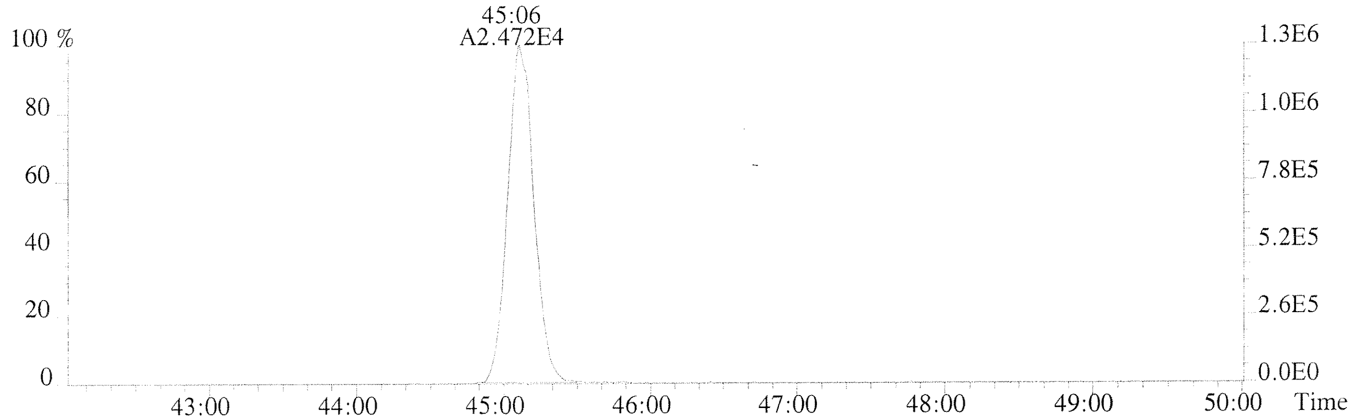
437.8140 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,156.0,0.40%,F,T)



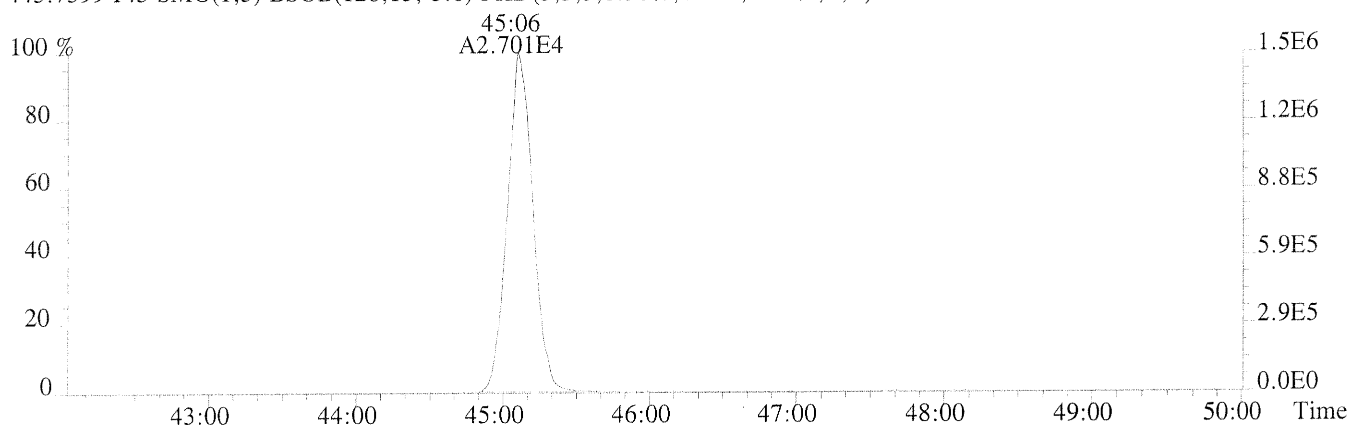
430.9728 F:4 PKD(3,3,3,100.00%,0.0,1.00%,F,F)



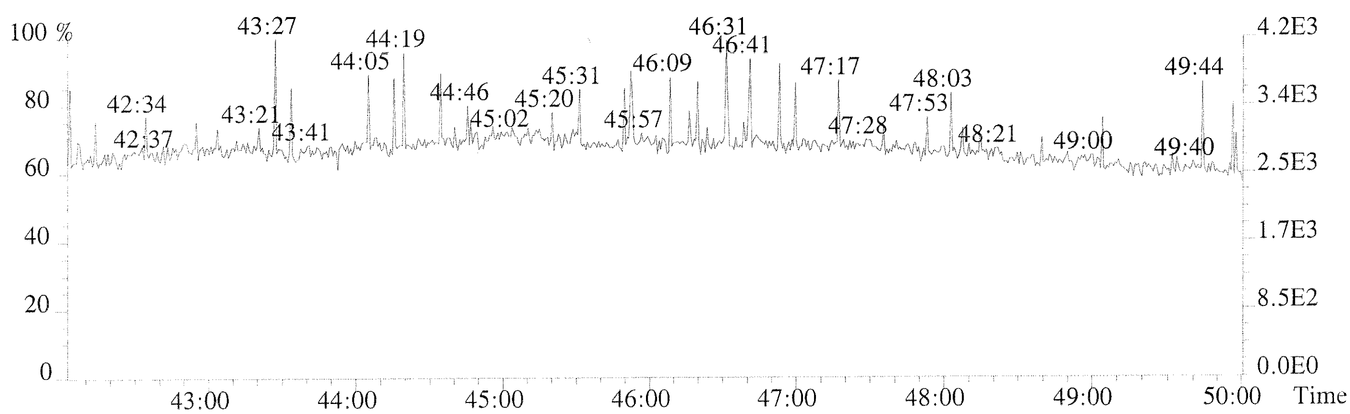
File: 8232 #1-732 Acq: 6-JUL-2012 07:18:59 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:)0313-02 LCS
441.7428 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(5,3,5,0.30%,176.0,0.40%,F,T)



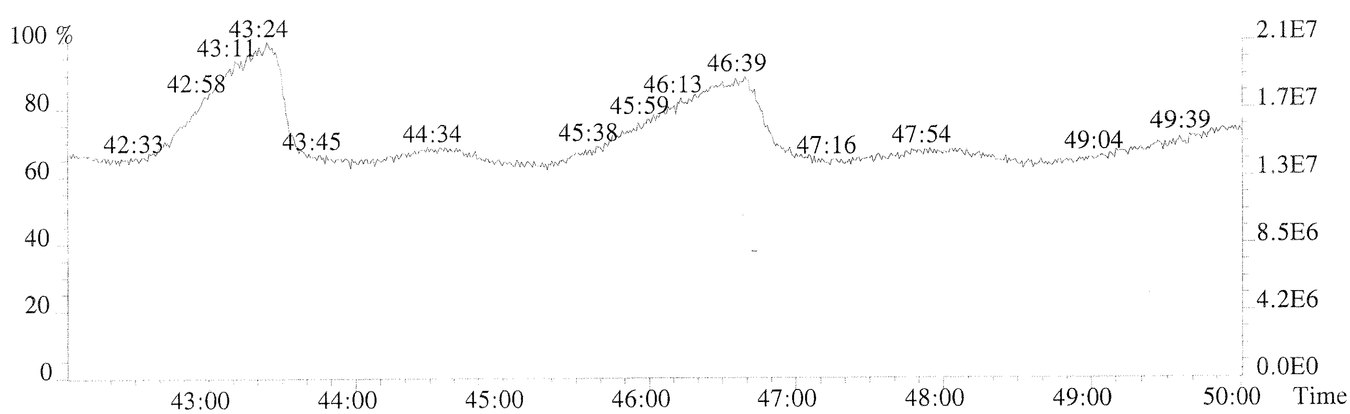
443.7399 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(5,3,5,0.30%,612.0,0.40%,F,T)



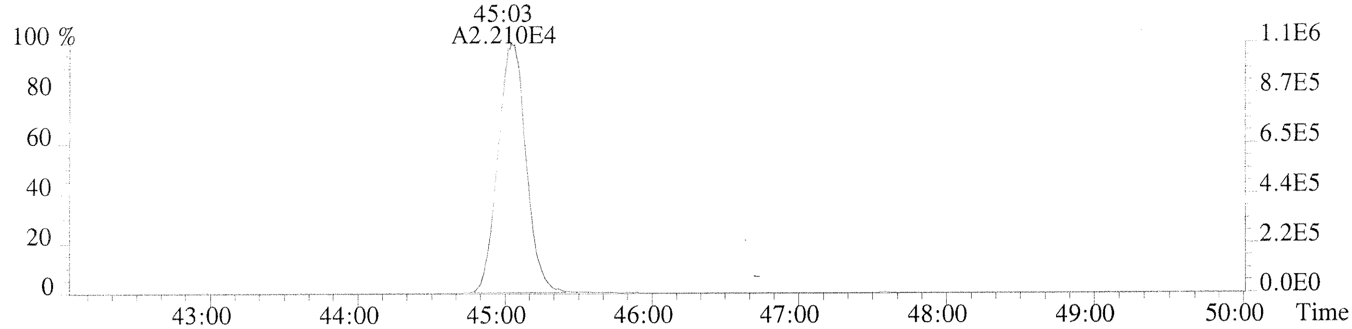
513.6775 F:5 PKD(5,3,5,100.00%,0.0,1.00%,F,F)



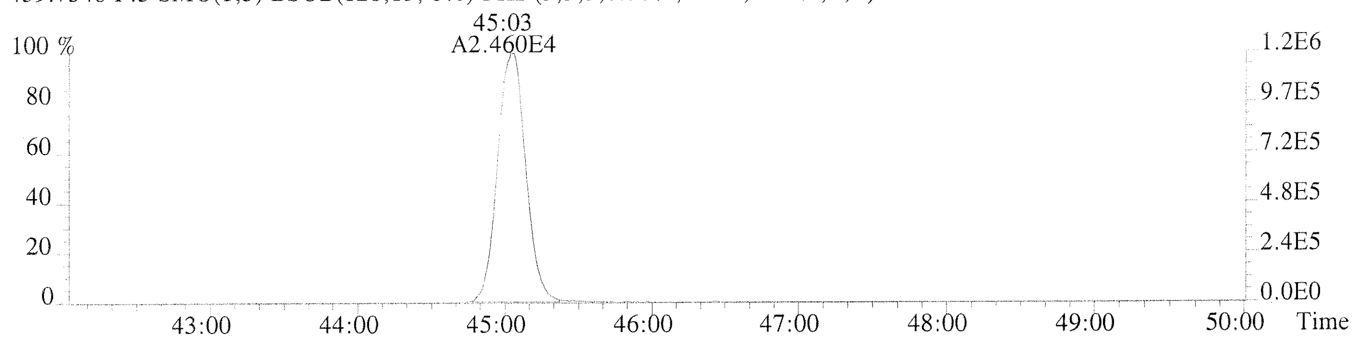
442.9728 F:5 PKD(3,3,3,100.00%,0.0,0.40%,F,F)



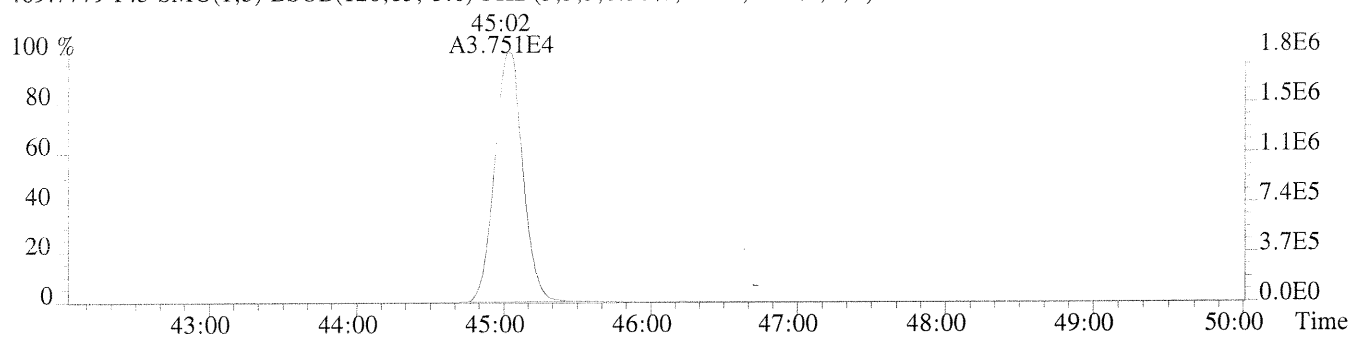
File: 8232 #1-732 Acq: 6-JUL-2012 07:18:59 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp: 00313-02 LCS
457.7377 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(5,3,5,0.30%,240.0,0.40%,F,T)



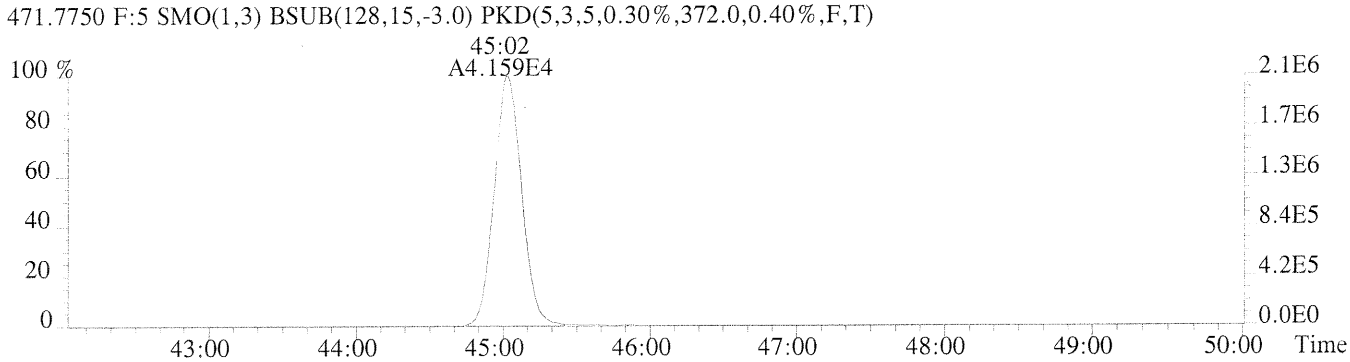
459.7348 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(5,3,5,0.30%,244.0,0.40%,F,T)



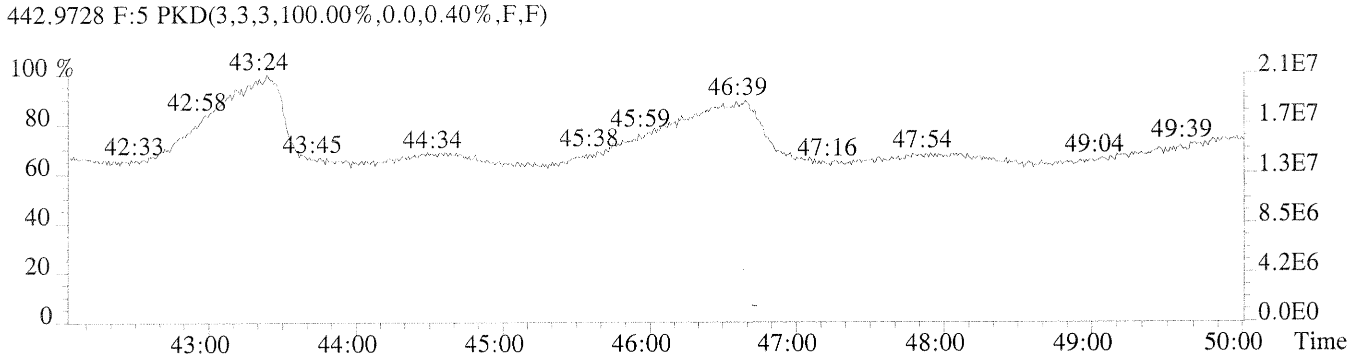
469.7779 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(5,3,5,0.30%,476.0,0.40%,F,T)



471.7750 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(5,3,5,0.30%,372.0,0.40%,F,T)



442.9728 F:5 PKD(3,3,3,100.00%,0.0,0.40%,F,F)



Client:	US Environmental Protection Agency	**Service Request:**	00584
Project:	Dioxins/Furans	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Duplicate Lab Control Sample	**Units:**	pg/L
Lab Code:	00313-03	**Basis:**	NA

Chlorinated Dibenzo-p-dioxins (CDDs) and Chlorinated Dibenzofurans (CDFs) by HRGC/HRMS

Analytical Method:	D/F DLM02.2	**Date Analyzed:**	7/6/12 0809
Prep Method:	Method	**Date Extracted:**	6/6/12
Sample Amount:	1000mL	**Instrument Name:**	E-HRMS-04
		GC Column:	DB-5
Data File Name:	8233	**Blank File Name:**	8236
ICAL Date:	05/03/12	**Cal Ver. File Name:**	8231

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
2,3,7,8-TCDD	**225**		0.228	10.0	0.81	1.001	1
1,2,3,7,8-PeCDD	**1090**		0.318	50.0	1.57	1.000	1
1,2,3,4,7,8-HxCDD	**1000**		0.306	50.0	1.26	1.000	1
1,2,3,6,7,8-HxCDD	**1080**		0.352	50.0	1.28	1.000	1
1,2,3,7,8,9-HxCDD	**1080**		0.323	50.0	1.24	1.009	1
1,2,3,4,6,7,8-HpCDD	**1020**		0.472	50.0	1.06	1.000	1
OCDD	**1960**		0.770	100	0.92	1.001	1
2,3,7,8-TCDF	**236**		0.459	10.0	0.78	1.001	1
1,2,3,7,8-PeCDF	**1090**		0.266	50.0	1.56	1.000	1
2,3,4,7,8-PeCDF	**1150**		0.316	50.0	1.56	1.000	1
1,2,3,4,7,8-HxCDF	**1100**		0.529	50.0	1.25	1.000	1
1,2,3,6,7,8-HxCDF	**1050**		0.465	50.0	1.26	1.000	1
1,2,3,7,8,9-HxCDF	**1050**		0.797	50.0	1.22	1.000	1
2,3,4,6,7,8-HxCDF	**1010**		0.578	50.0	1.26	1.000	1
1,2,3,4,6,7,8-HpCDF	**1200**		1.17	50.0	1.03	1.000	1
1,2,3,4,7,8,9-HpCDF	**990**		1.83	50.0	1.04	1.000	1
OCDF	**1860**		1.13	100	0.91	1.001	1
Total Tetra-Dioxins	**226**		0.228	10.0	0.81		1
Total Penta-Dioxins	**1110**		0.318	50.0	1.60		1
Total Hexa-Dioxins	**3170**		0.306	50.0	1.26		1
Total Hepta-Dioxins	**1030**		0.472	50.0	1.02		1
Total Tetra-Furans	**256**		0.459	10.0	0.84		1
Total Penta-Furans	**2310**		0.316	50.0	1.51		1
Total Hexa-Furans	**4220**		0.529	50.0	1.14		1
Total Hepta-Furans	**2200**		1.17	50.0	1.03		1

Analytical Report

Client:	US Environmental Protection Agency	**Service Request:**	00584
Project:	Dioxins/Furans	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Duplicate Lab Control Sample	**Units:**	Percent
Lab Code:	00313-03	**Basis:**	NA

Chlorinated Dibenzo-p-dioxins (CDDs) and Chlorinated Dibenzofurans (CDFs) by HRGC/HRMS

Analytical Method:	D/F DLM02.2	**Date Analyzed:**	7/6/12 0809
Prep Method:	Method	**Date Extracted:**	6/6/12
Sample Amount:	1000mL	**Instrument Name:**	E-HRMS-04
		GC Column:	DB-5
Data File Name:	8233	**Blank File Name:**	8236
ICAL Date:	05/03/12	**Cal Ver. File Name:**	8231

Labeled Compounds	Spike Conc.(pg)	Conc. Found (pg)	%Rec	Q	Control Limits	Ion Ratio	RRT
13C-2,3,7,8-TCDD	2000	1199.543	60		25-164	0.78	1.008
13C-1,2,3,7,8-PeCDD	2000	1251.662	63		21-227	1.60	1.178
13C-1,2,3,4,7,8-HxCDD	2000	1277.270	64		21-193	1.26	0.989
13C-1,2,3,6,7,8-HxCDD	2000	1183.981	59		25-163	1.26	0.992
13C-1,2,3,4,6,7,8-HpCDD	2000	1416.160	71		26-166	1.07	1.083
13C-OCDD	4000	2772.208	69		13-199	0.89	1.186
13C-2,3,7,8-TCDF	2000	1262.324	63		22-152	0.79	0.977
13C-1,2,3,7,8-PeCDF	2000	1582.411	79		21-192	1.58	1.137
13C-2,3,4,7,8-PeCDF	2000	1335.989	67		13-328	1.60	1.164
13C-1,2,3,4,7,8-HxCDF	2000	1330.242	67		19-202	0.52	0.967
13C-1,2,3,6,7,8-HxCDF	2000	1362.986	68		21-159	0.52	0.970
13C-1,2,3,7,8,9-HxCDF	2000	1211.558	61		17-205	0.53	1.006
13C-2,3,4,6,7,8-HxCDF	2000	1330.399	67		22-176	0.52	0.985
13C-1,2,3,4,6,7,8-HpCDF	2000	1297.521	65		21-158	0.44	1.052
13C-1,2,3,4,7,8,9-HpCDF	2000	1340.888	67		20-186	0.44	1.094
37Cl-2,3,7,8-TCDD	800	547.605	68		31-191	NA	1.009

Sample Response Summary

CLIENT ID.
DLCS

Run #9 Filename 8233 #1 Samp: 1 Inj: 1 Acquired: 6-JUL-12 08:09:46
Processed: 14-JUL-12 09:22:59 LAB. ID: 00313-03

	Typ	Name	RT-1	Resp 1	Resp 2	Ratio	Meet	Mod?	RRT
1	Unk	2,3,7,8-TCDF	28:10	3.375e+03	4.353e+03	0.78	yes	no	1.001
2	Unk	1,2,3,7,8-PeCDF	32:46	2.852e+04	1.824e+04	1.56	yes	no	1.000
3	Unk	2,3,4,7,8-PeCDF	33:34	2.480e+04	1.595e+04	1.56	yes	no	1.000
4	Unk	1,2,3,4,7,8-HxCDF	36:41	2.606e+04	2.084e+04	1.25	yes	no	1.000
5	Unk	1,2,3,6,7,8-HxCDF	36:47	2.794e+04	2.213e+04	1.26	yes	no	1.000
6	Unk	2,3,4,6,7,8-HxCDF	37:22	2.284e+04	1.816e+04	1.26	yes	no	1.000
7	Unk	1,2,3,7,8,9-HxCDF	38:09	1.882e+04	1.541e+04	1.22	yes	no	1.000
8	Unk	1,2,3,4,6,7,8-HpCDF	39:54	2.355e+04	2.284e+04	1.03	yes	no	1.000
9	Unk	1,2,3,4,7,8,9-HpCDF	41:28	1.578e+04	1.514e+04	1.04	yes	no	1.000
10	Unk	OCDF	45:03	2.265e+04	2.485e+04	0.91	yes	no	1.001
11	Unk	2,3,7,8-TCDD	29:04	2.453e+03	3.032e+03	0.81	yes	no	1.001
12	Unk	1,2,3,7,8-PeCDD	33:57	1.594e+04	1.014e+04	1.57	yes	no	1.000
13	Unk	1,2,3,4,7,8-HxCDD	37:31	1.624e+04	1.285e+04	1.26	yes	no	1.000
14	Unk	1,2,3,6,7,8-HxCDD	37:37	1.688e+04	1.322e+04	1.28	yes	no	1.000
15	Unk	1,2,3,7,8,9-HxCDD	37:56	1.736e+04	1.396e+04	1.24	yes	no	1.009
16	Unk	1,2,3,4,6,7,8-HpCDD	41:04	1.546e+04	1.460e+04	1.06	yes	no	1.000
17	Unk	OCDD	45:01	2.195e+04	2.376e+04	0.92	yes	no	1.001
18	IS	13C-2,3,7,8-TCDF	28:09	3.052e+04	3.859e+04	0.79	yes	no	0.977
19	IS	13C-1,2,3,7,8-PeCDF	32:46	5.333e+04	3.370e+04	1.58	yes	no	1.137
20	IS	13C-2,3,4,7,8-PeCDF	33:33	4.563e+04	2.853e+04	1.60	yes	no	1.164
21	IS	13C-1,2,3,4,7,8-HxCDF	36:40	2.344e+04	4.531e+04	0.52	yes	no	0.967
22	IS	13C-1,2,3,6,7,8-HxCDF	36:47	2.787e+04	5.372e+04	0.52	yes	no	0.970
23	IS	13C-2,3,4,6,7,8-HxCDF	37:21	2.409e+04	4.617e+04	0.52	yes	no	0.985
24	IS	13C-1,2,3,7,8,9-HxCDF	38:08	1.914e+04	3.581e+04	0.53	yes	no	1.006
25	IS	13C-1,2,3,4,6,7,8-HpCDF	39:54	1.699e+04	3.827e+04	0.44	yes	no	1.052
26	IS	13C-1,2,3,4,7,8,9-HpCDF	41:28	1.433e+04	3.245e+04	0.44	yes	no	1.094
27	IS	13C-2,3,7,8-TCDD	29:03	2.108e+04	2.694e+04	0.78	yes	no	1.008
28	IS	13C-1,2,3,7,8-PeCDD	33:56	3.061e+04	1.916e+04	1.60	yes	no	1.178
29	IS	13C-1,2,3,4,7,8-HxCDD	37:30	3.006e+04	2.387e+04	1.26	yes	no	0.989
30	IS	13C-1,2,3,6,7,8-HxCDD	37:36	2.984e+04	2.369e+04	1.26	yes	no	0.992
31	IS	13C-1,2,3,4,6,7,8-HpCDD	41:03	2.904e+04	2.710e+04	1.07	yes	no	1.083
32	IS	13C-OCDD	44:59	3.694e+04	4.153e+04	0.89	yes	no	1.186
33	RS/RT	13C-1,2,3,4-TCDD	28:49	3.779e+04	4.808e+04	0.79	yes	no	*
34	RS/RT	13C-1,2,3,7,8,9-HxCDD	37:55	4.995e+04	3.938e+04	1.27	yes	no	*
35	C/Up	37Cl-2,3,7,8-TCDD	29:04	2.247e+04				no	1.009

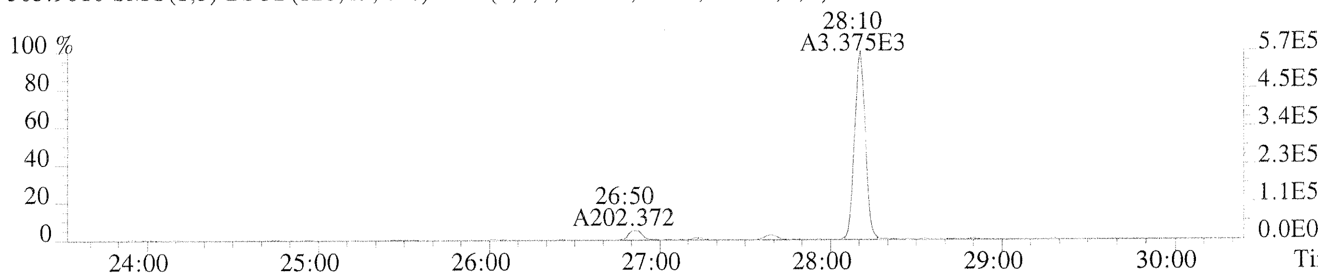
Signal/Noise Height Ratio Summary   CLIENT ID.
DLCS

Run #9   Filename   8233   Samp: 1   Inj: 1   Acquired: 6-JUL-12   08:09:46
Processed: 14-JUL-12 09:22:591   LAB. ID: 00313-03

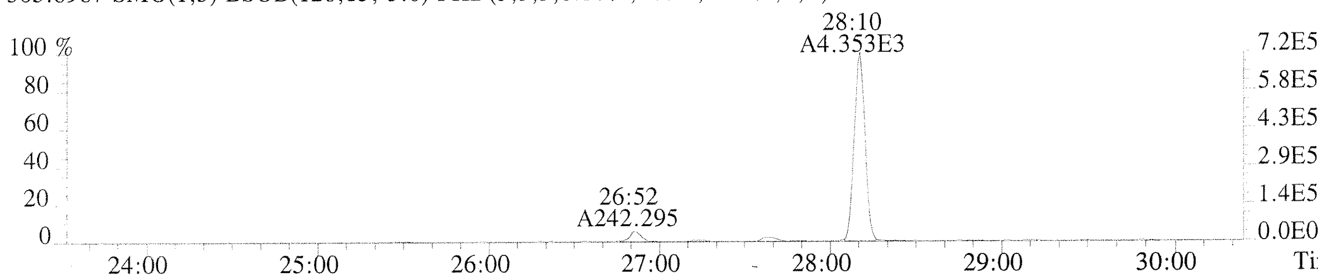
	Name	Signal 1	Noise 1	S/N Rat.1	Signal 2	Noise 2	S/N Rat.2
1	2,3,7,8-TCDF	5.67e+05	2.16e+02	2.6e+03	7.23e+05	8.00e+02	9.0e+02
2	1,2,3,7,8-PeCDF	5.40e+06	1.72e+02	3.1e+04	3.45e+06	7.20e+02	4.8e+03
3	2,3,4,7,8-PeCDF	4.93e+06	1.72e+02	2.9e+04	3.15e+06	7.20e+02	4.4e+03
4	1,2,3,4,7,8-HxCDF	4.64e+06	1.17e+03	4.0e+03	3.71e+06	4.12e+02	9.0e+03
5	1,2,3,6,7,8-HxCDF	4.94e+06	1.17e+03	4.2e+03	3.91e+06	4.12e+02	9.5e+03
6	2,3,4,6,7,8-HxCDF	3.82e+06	1.17e+03	3.3e+03	3.05e+06	4.12e+02	7.4e+03
7	1,2,3,7,8,9-HxCDF	2.89e+06	1.17e+03	2.5e+03	2.35e+06	4.12e+02	5.7e+03
8	1,2,3,4,6,7,8-HpCDF	2.74e+06	7.52e+02	3.6e+03	2.67e+06	1.38e+03	1.9e+03
9	1,2,3,4,7,8,9-HpCDF	1.47e+06	7.52e+02	1.9e+03	1.42e+06	1.38e+03	1.0e+03
10	OCDF	1.22e+06	2.00e+02	6.1e+03	1.35e+06	4.16e+02	3.2e+03
11	2,3,7,8-TCDD	4.23e+05	1.32e+02	3.2e+03	5.44e+05	2.60e+02	2.1e+03
12	1,2,3,7,8-PeCDD	3.08e+06	4.48e+02	6.9e+03	1.96e+06	1.60e+02	1.2e+04
13	1,2,3,4,7,8-HxCDD	2.77e+06	2.68e+02	1.0e+04	2.14e+06	3.32e+02	6.5e+03
14	1,2,3,6,7,8-HxCDD	2.52e+06	2.68e+02	9.4e+03	1.98e+06	3.32e+02	6.0e+03
15	1,2,3,7,8,9-HxCDD	2.63e+06	2.68e+02	9.8e+03	2.10e+06	3.32e+02	6.3e+03
16	1,2,3,4,6,7,8-HpCDD	1.46e+06	1.16e+02	1.3e+04	1.37e+06	4.04e+02	3.4e+03
17	OCDD	1.17e+06	2.68e+02	4.4e+03	1.26e+06	1.16e+02	1.1e+04
18	13C-2,3,7,8-TCDF	5.11e+06	9.16e+02	5.6e+03	6.52e+06	6.96e+02	9.4e+03
19	13C-1,2,3,7,8-PeCDF	1.04e+07	2.40e+02	4.3e+04	6.55e+06	4.12e+02	1.6e+04
20	13C-2,3,4,7,8-PeCDF	9.10e+06	2.40e+02	3.8e+04	5.65e+06	4.12e+02	1.4e+04
21	13C-1,2,3,4,7,8-HxCDF	4.10e+06	3.24e+02	1.3e+04	7.94e+06	6.04e+02	1.3e+04
22	13C-1,2,3,6,7,8-HxCDF	4.97e+06	3.24e+02	1.5e+04	9.60e+06	6.04e+02	1.6e+04
23	13C-2,3,4,6,7,8-HxCDF	4.03e+06	3.24e+02	1.2e+04	7.72e+06	6.04e+02	1.3e+04
24	13C-1,2,3,7,8,9-HxCDF	2.91e+06	3.24e+02	9.0e+03	5.43e+06	6.04e+02	9.0e+03
25	13C-1,2,3,4,6,7,8-HpCDF	2.00e+06	1.66e+03	1.2e+03	4.46e+06	2.34e+03	1.9e+03
26	13C-1,2,3,4,7,8,9-HpCDF	1.34e+06	1.66e+03	8.1e+02	2.98e+06	2.34e+03	1.3e+03
27	13C-2,3,7,8-TCDD	3.75e+06	1.73e+03	2.2e+03	4.68e+06	6.16e+02	7.6e+03
28	13C-1,2,3,7,8-PeCDD	6.06e+06	1.72e+02	3.5e+04	3.83e+06	1.84e+02	2.1e+04
29	13C-1,2,3,4,7,8-HxCDD	5.08e+06	8.60e+02	5.9e+03	4.00e+06	5.00e+02	8.0e+03
30	13C-1,2,3,6,7,8-HxCDD	4.50e+06	8.60e+02	5.2e+03	3.66e+06	5.00e+02	7.3e+03
31	13C-1,2,3,4,6,7,8-HpCDD	2.68e+06	2.28e+02	1.2e+04	2.54e+06	1.72e+02	1.5e+04
32	13C-OCDD	1.95e+06	4.80e+02	4.1e+03	2.23e+06	1.68e+02	1.3e+04
33	13C-1,2,3,4-TCDD	6.63e+06	1.73e+03	3.8e+03	8.48e+06	6.16e+02	1.4e+04
34	13C-1,2,3,7,8,9-HxCDD	7.55e+06	8.60e+02	8.8e+03	5.94e+06	5.00e+02	1.2e+04
35	37Cl-2,3,7,8-TCDD	3.92e+06	1.64e+02	2.4e+04			

File: 8233 #1-572 Acq: 6-JUL-2012 08:09:46 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp)0313-03 DLCS

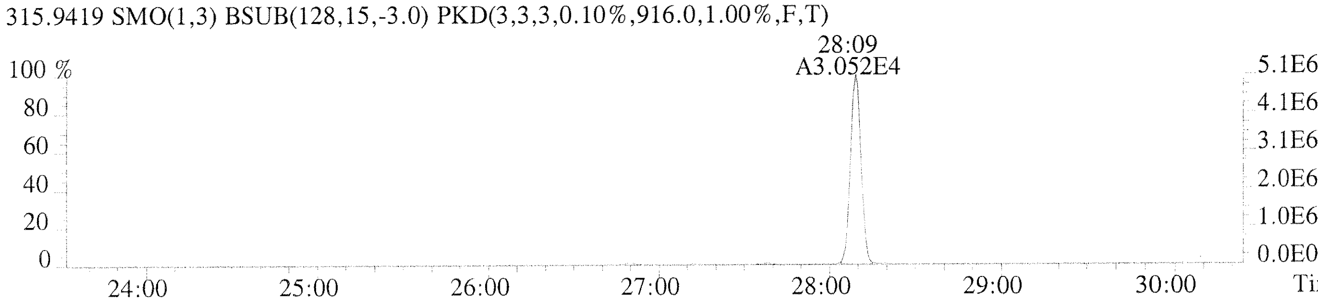
303.9016 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,216.0,1.00%,F,T)



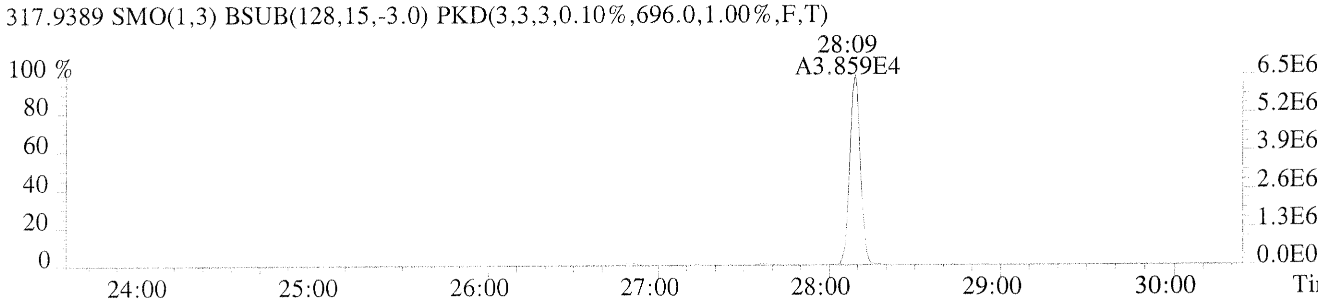
305.8987 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,800.0,1.00%,F,T)



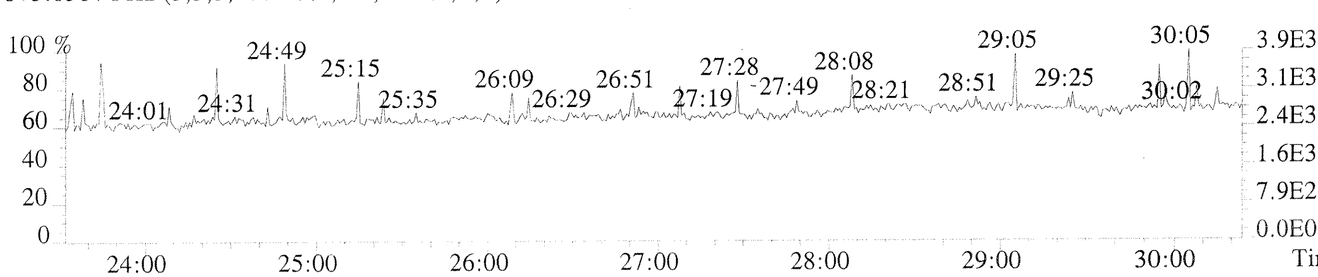
315.9419 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,916.0,1.00%,F,T)



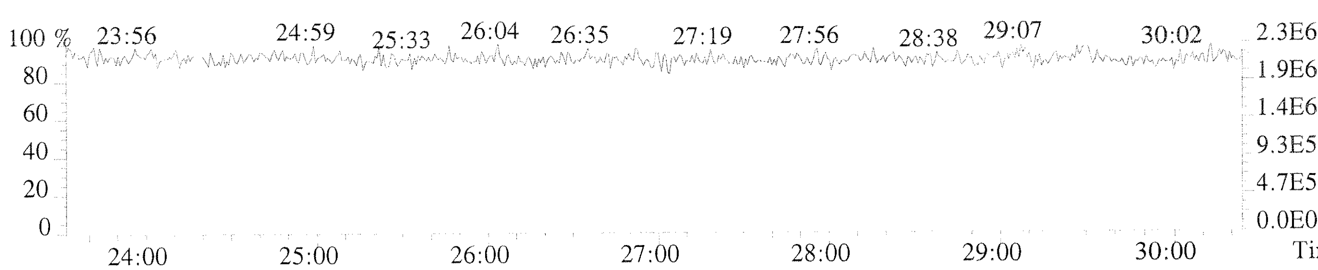
317.9389 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,696.0,1.00%,F,T)



375.8364 PKD(5,3,5,100.00%,0.0,1.00%,F,F)

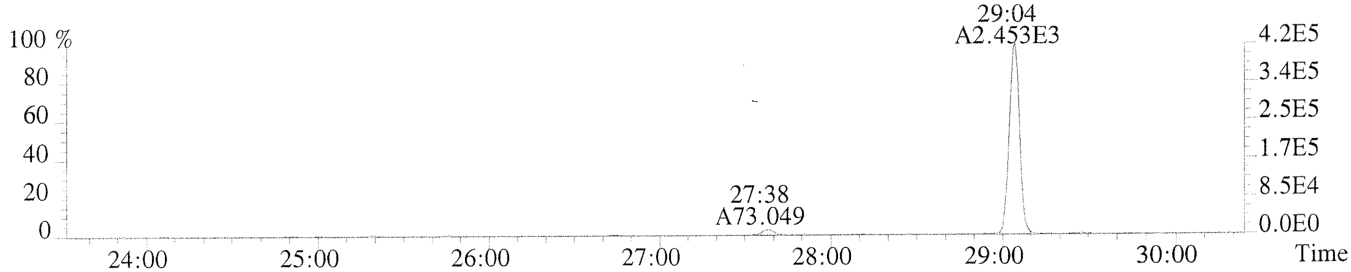


354.9792 PKD(3,3,3,100.00%,0.0,1.00%,F,F)

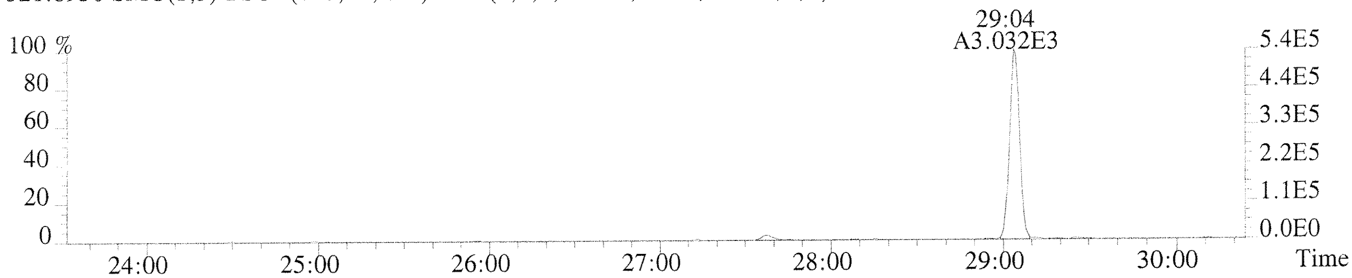


File: 8233 #1-572 Acq: 6-JUL-2012 08:09:46 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp: 00313-03 DLCS

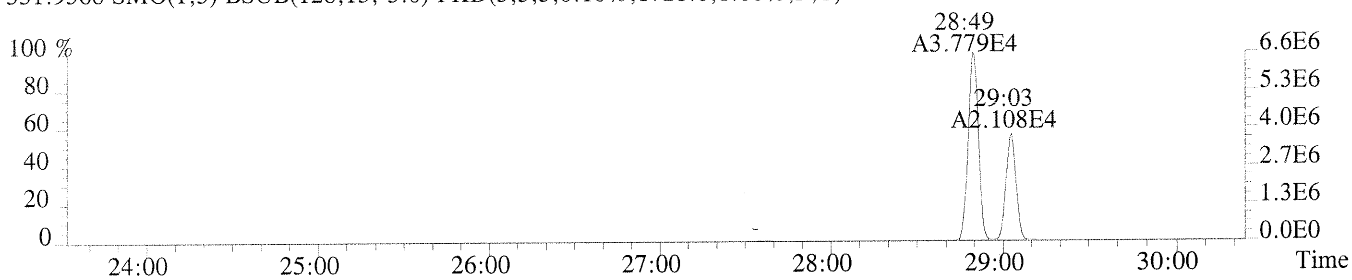
319.8965 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,132.0,1.00%,F,T)



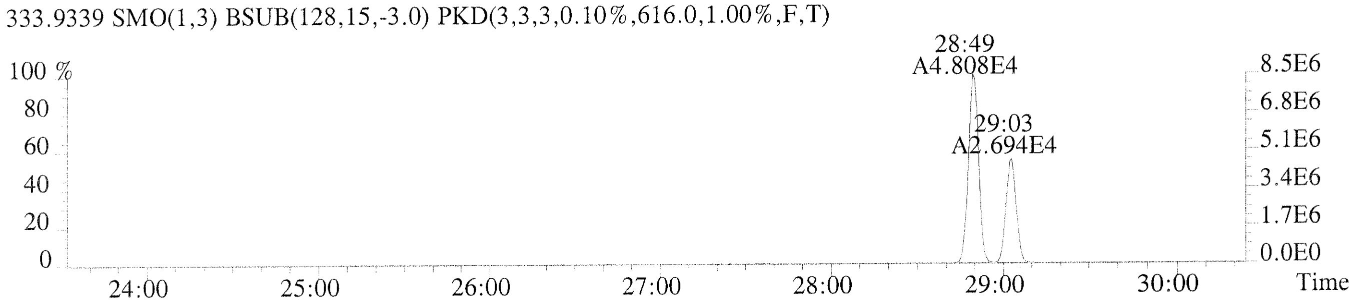
321.8936 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,260.0,1.00%,F,T)



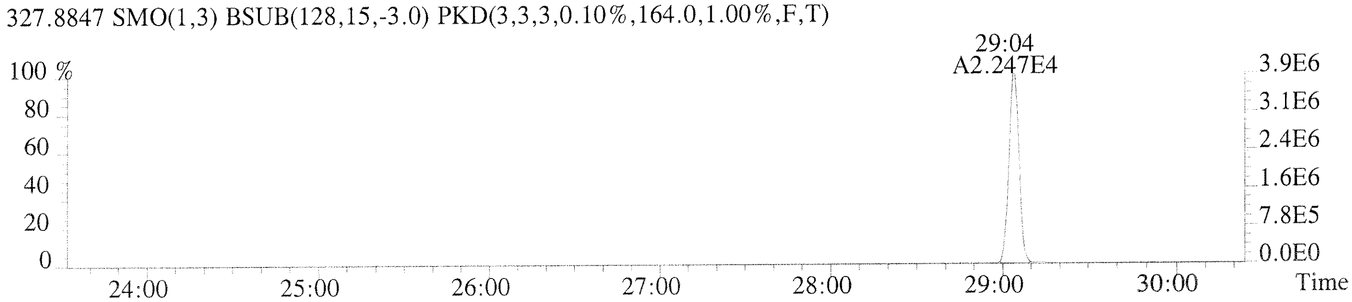
331.9368 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,1728.0,1.00%,F,T)



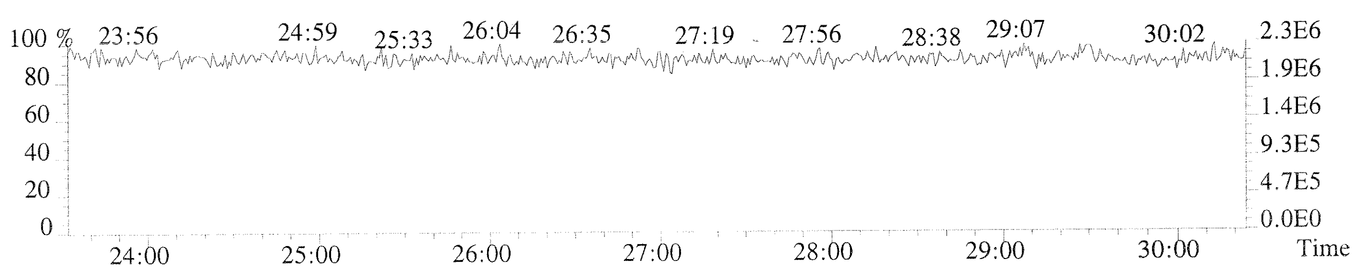
333.9339 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,616.0,1.00%,F,T)



327.8847 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,164.0,1.00%,F,T)

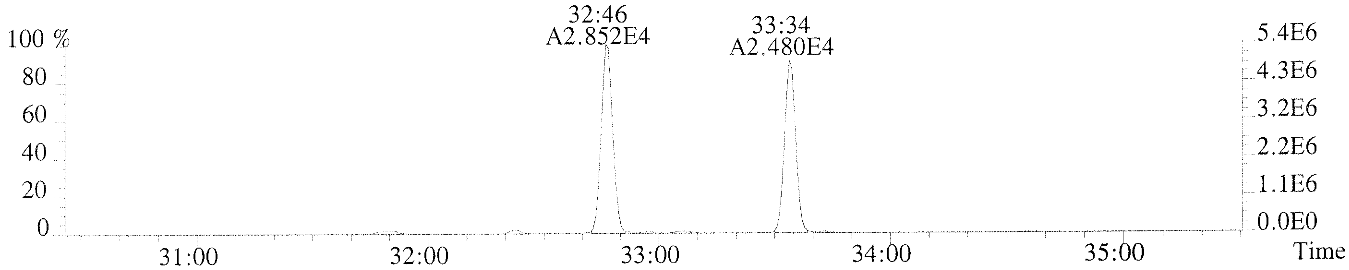


354.9792 PKD(3,3,3,100.00%,0.0,1.00%,F,F)

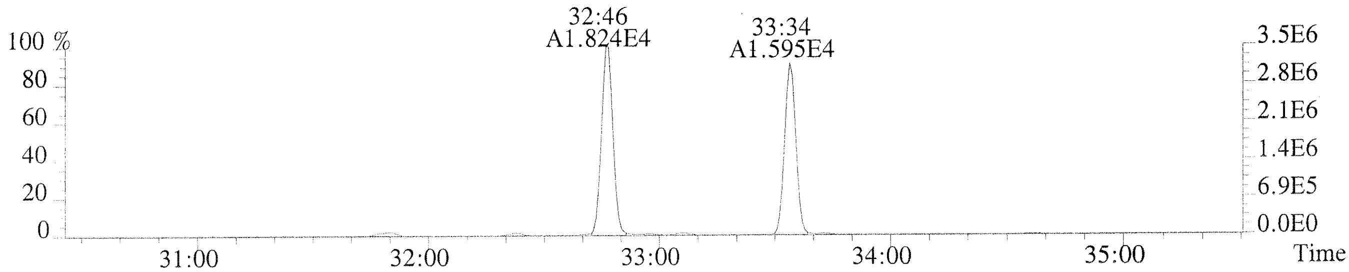


File 3233 #1-461 Acq: 6-JUL-2012 08:09:46 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:)0313-03 DLCS

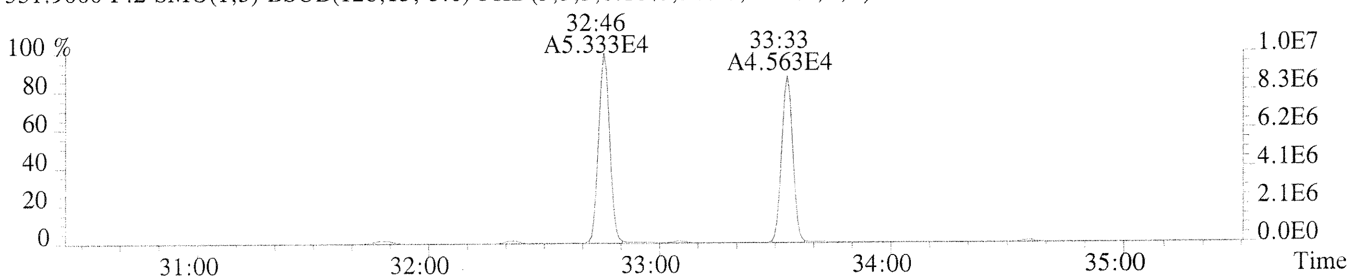
339.8597 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,172.0,1.00%,F,T)



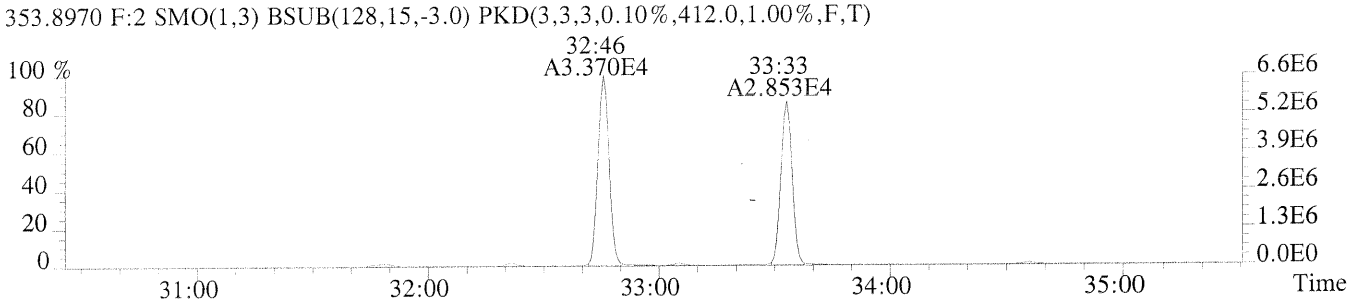
341.8567 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,720.0,1.00%,F,T)



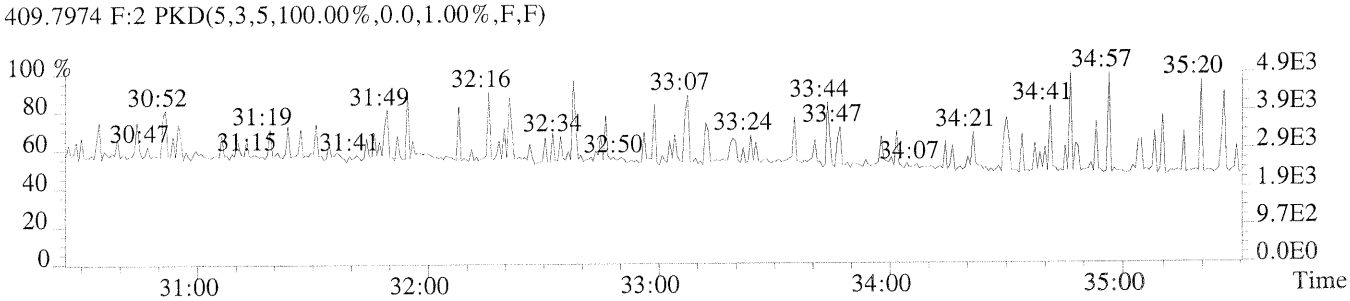
351.9000 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,240.0,1.00%,F,T)



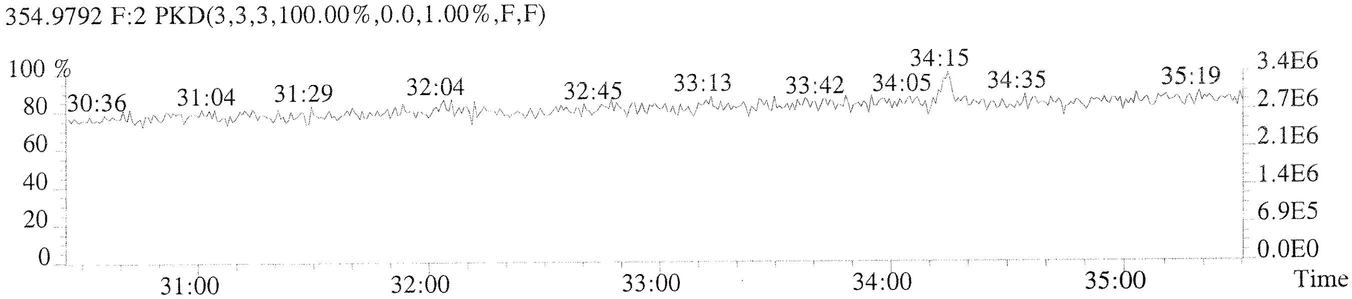
353.8970 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,412.0,1.00%,F,T)



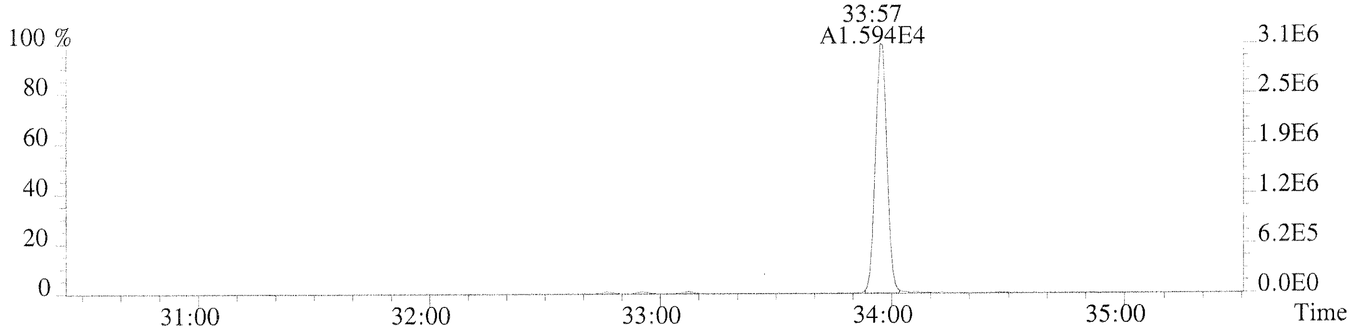
409.7974 F:2 PKD(5,3,5,100.00%,0.0,1.00%,F,F)



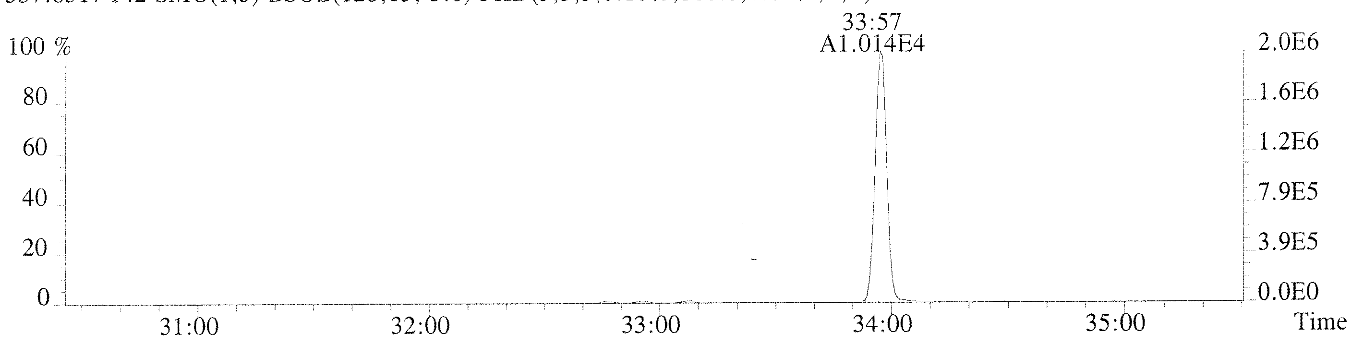
354.9792 F:2 PKD(3,3,3,100.00%,0.0,1.00%,F,F)



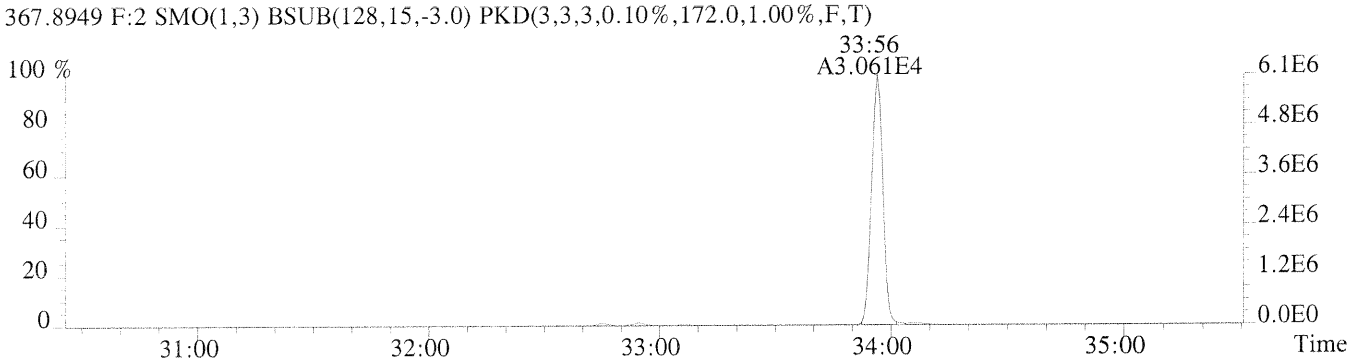
File 8233 #1-461 Acq: 6-JUL-2012 08:09:46 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp)0313-03 DLCS
355.8546 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,448.0,1.00%,F,T)



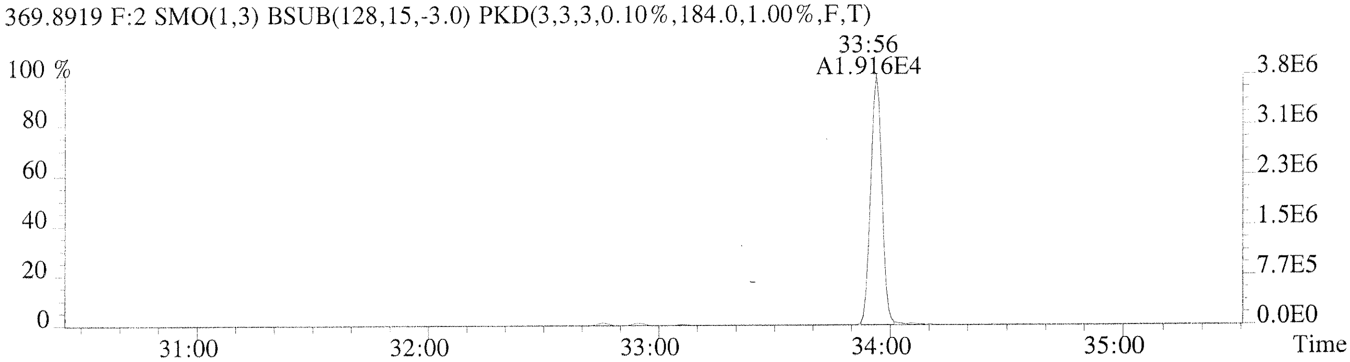
357.8517 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,160.0,1.00%,F,T)



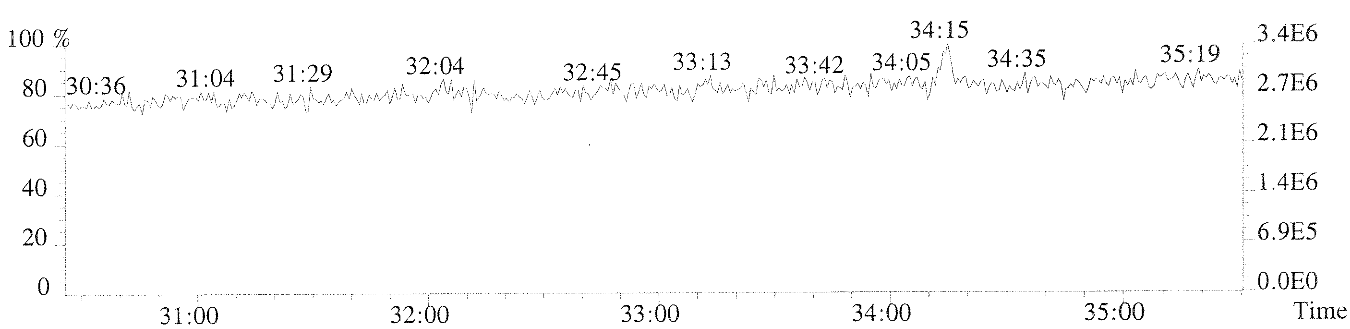
367.8949 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,172.0,1.00%,F,T)



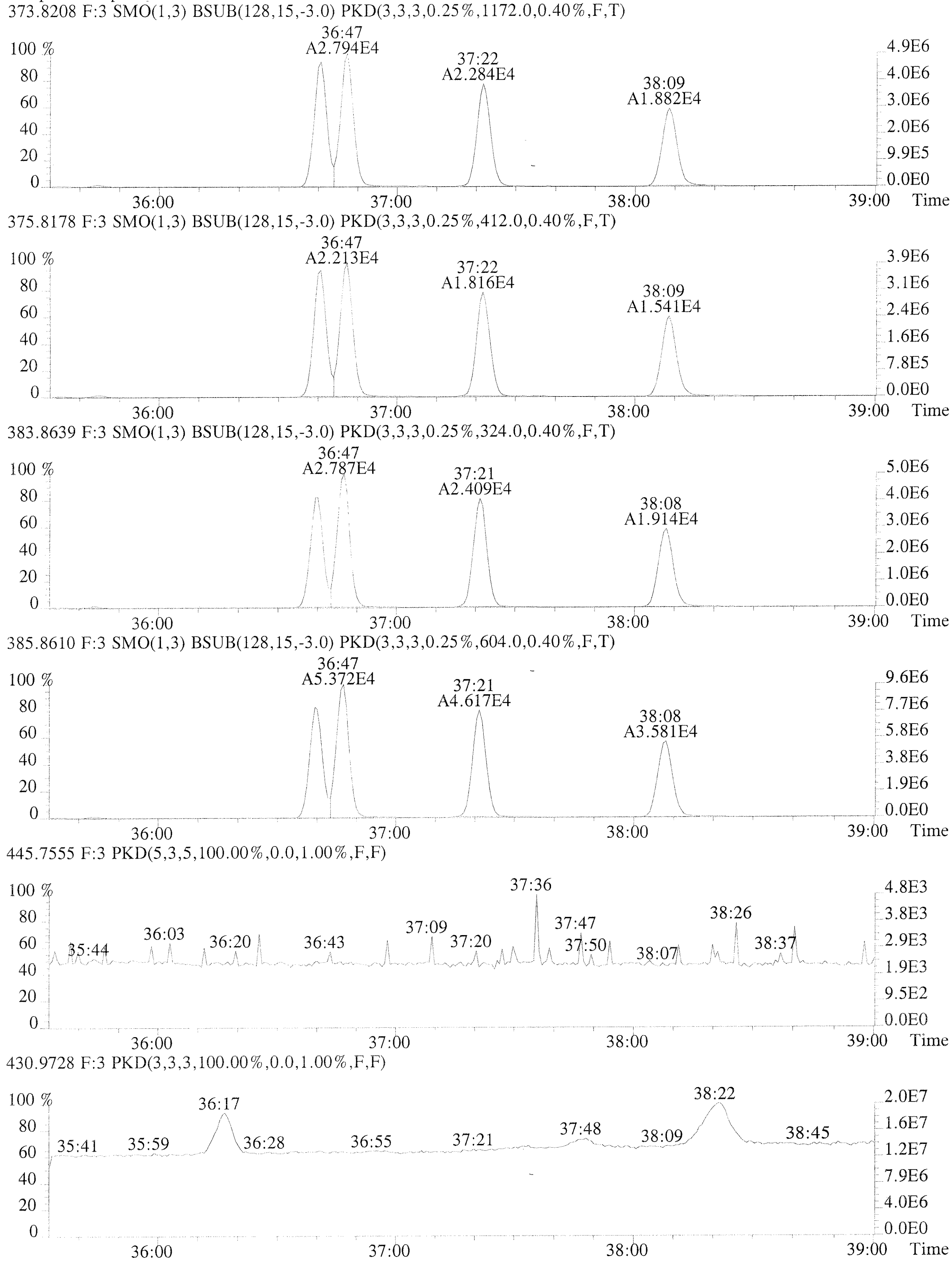
369.8919 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,184.0,1.00%,F,T)



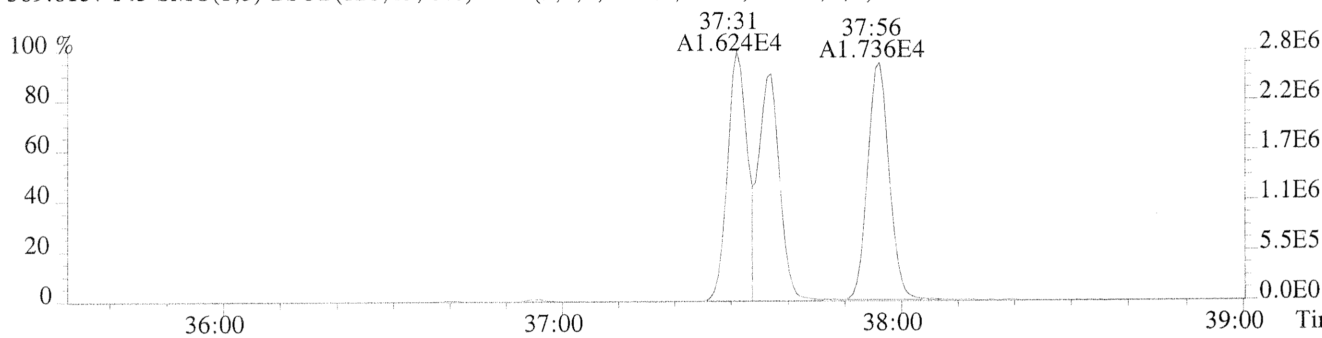
354.9792 F:2 PKD(3,3,3,100.00%,0.0,1.00%,F,F)



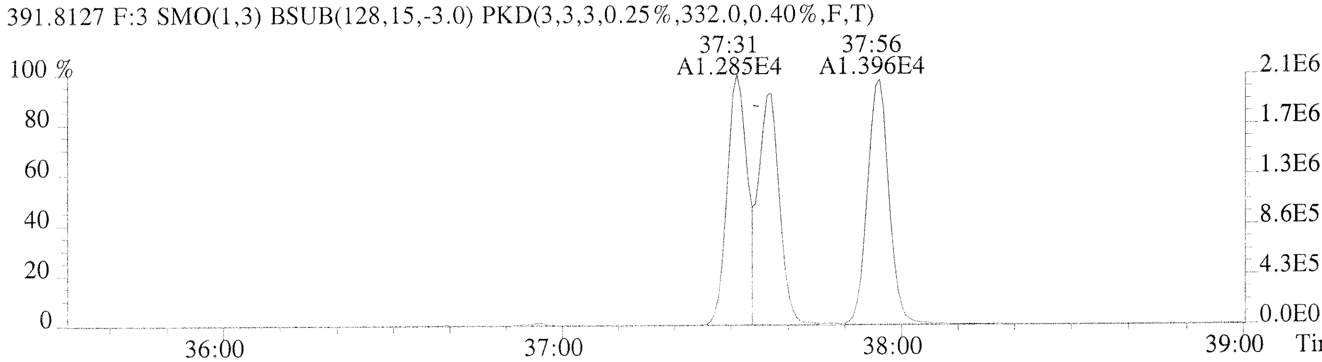
File 8233 #1-315 Acq: 6-JUL-2012 08:09:46 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:)0313-03 DLCS



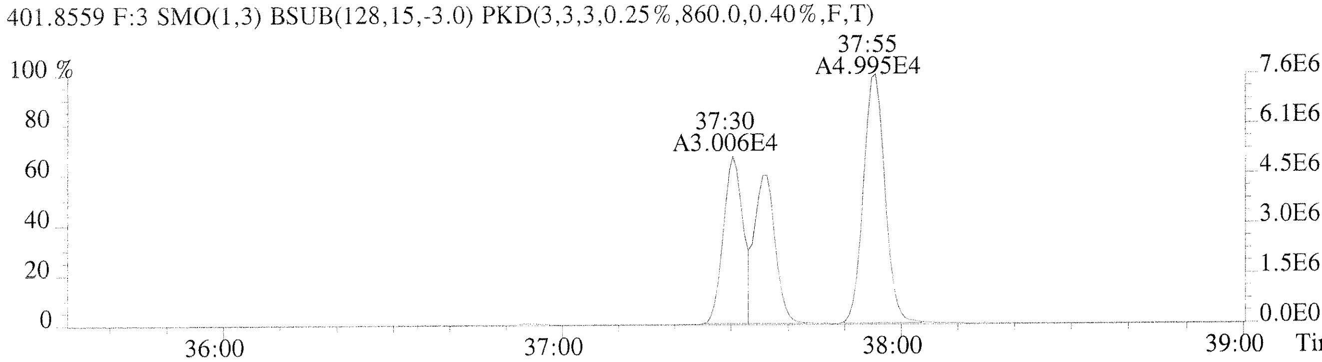
File 3233 #1-315 Acq: 6-JUL-2012 08:09:46 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp)0313-03 DLCS
389.8157 F:3 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,268.0,0.40%,F,T)



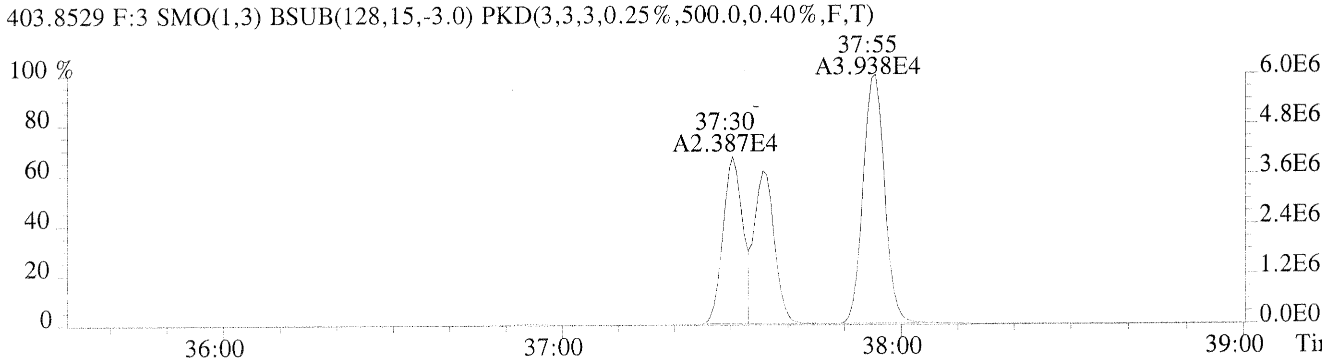
391.8127 F:3 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,332.0,0.40%,F,T)



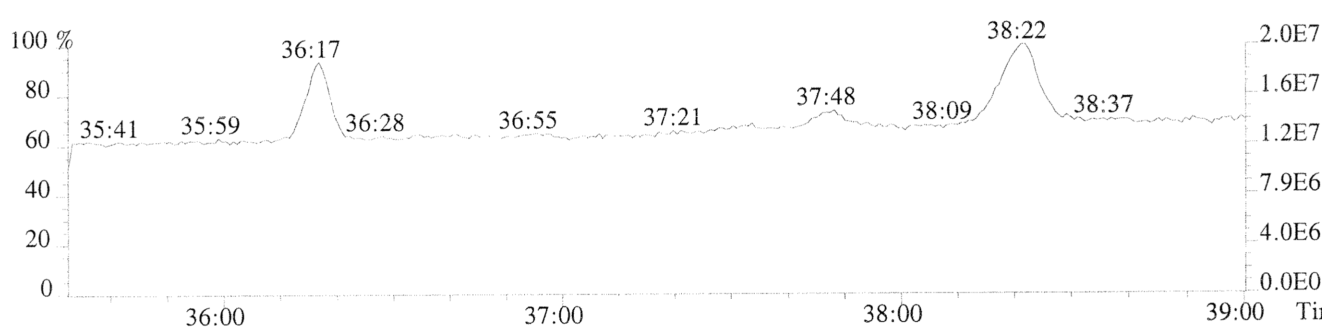
401.8559 F:3 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,860.0,0.40%,F,T)



403.8529 F:3 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,500.0,0.40%,F,T)

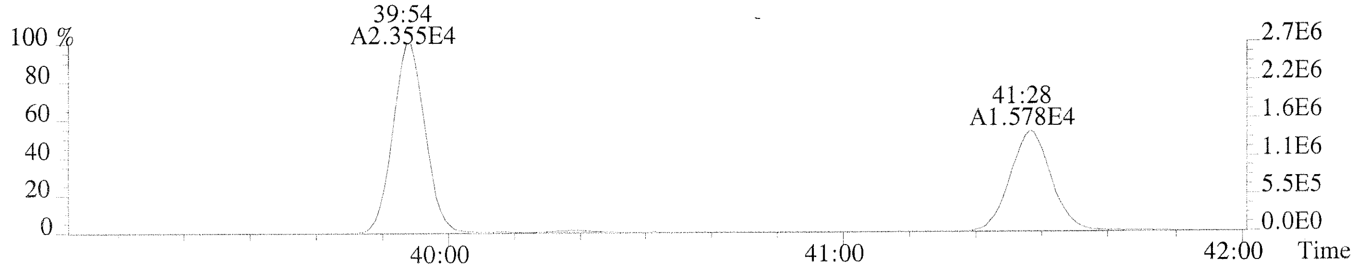


430.9728 F:3 PKD(3,3,3,100.00%,0.0,1.00%,F,F)

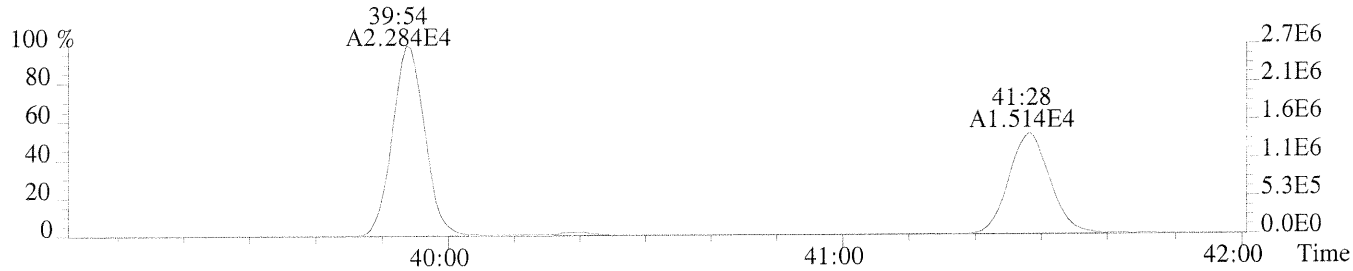


File 8233 #1-270 Acq: 6-JUL-2012 08:09:46 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp 00313-03 DLCS

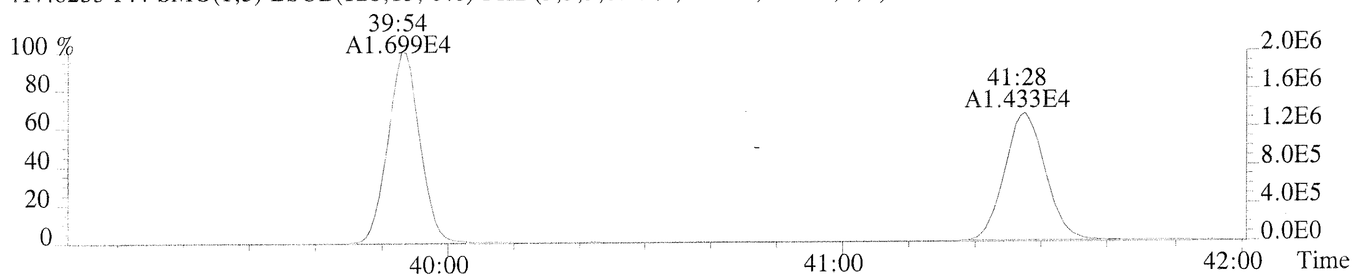
407.7818 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,752.0,0.50%,F,T)



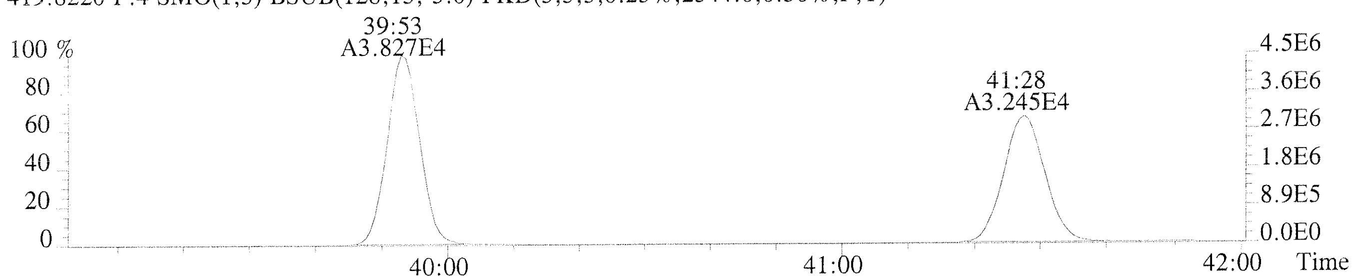
409.7789 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,1376.0,0.50%,F,T)



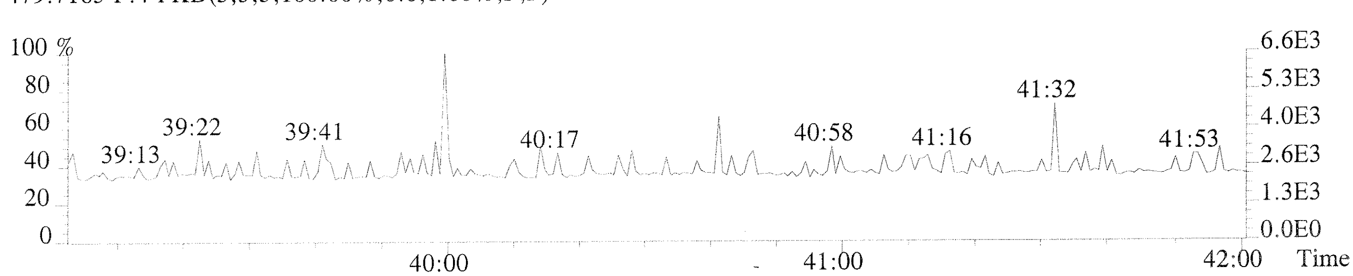
417.8253 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,1664.0,0.50%,F,T)



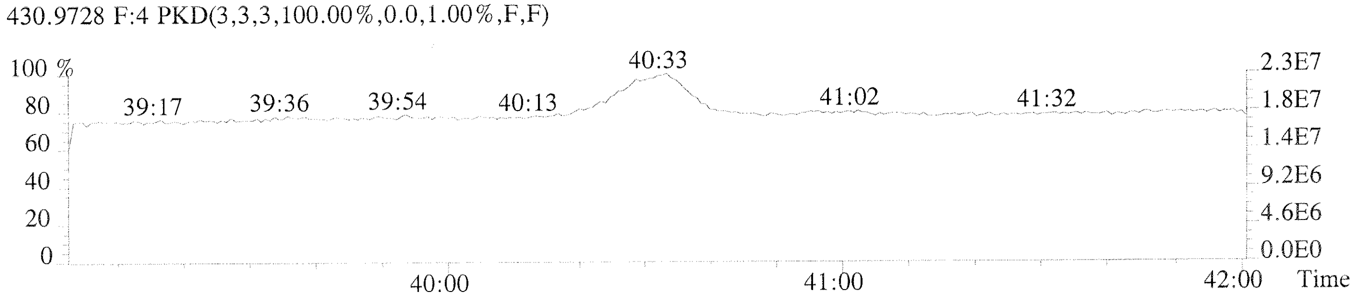
419.8220 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,2344.0,0.50%,F,T)



479.7165 F:4 PKD(5,3,5,100.00%,0.0,1.00%,F,F)

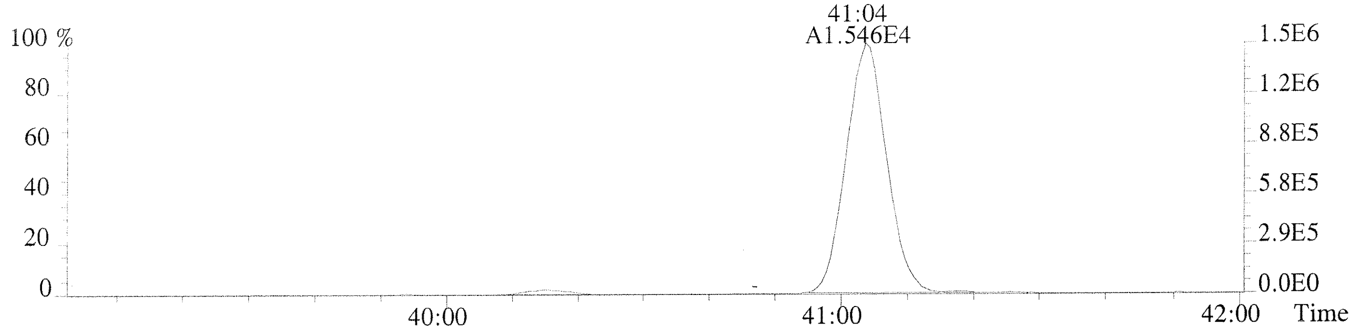


430.9728 F:4 PKD(3,3,3,100.00%,0.0,1.00%,F,F)

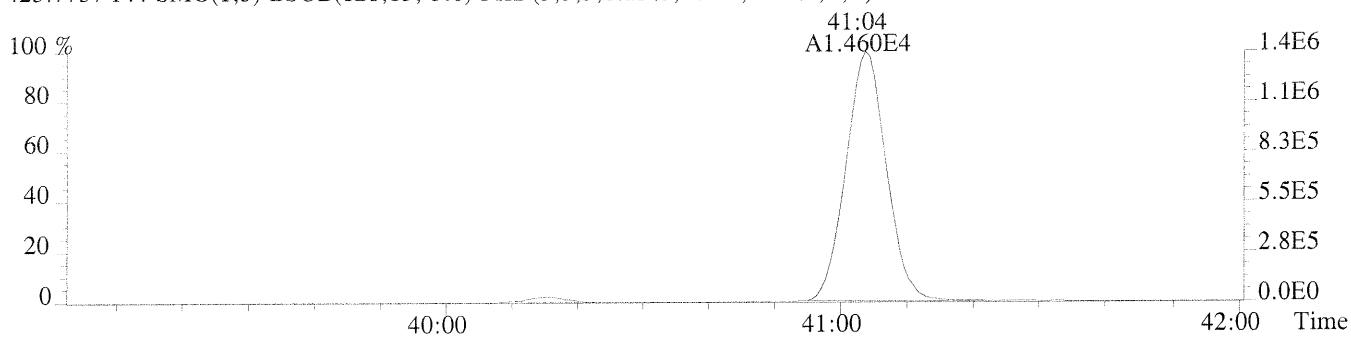


File: 8233 #1-270 Acq: 6-JUL-2012 08:09:46 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp 00313-03 DLCS

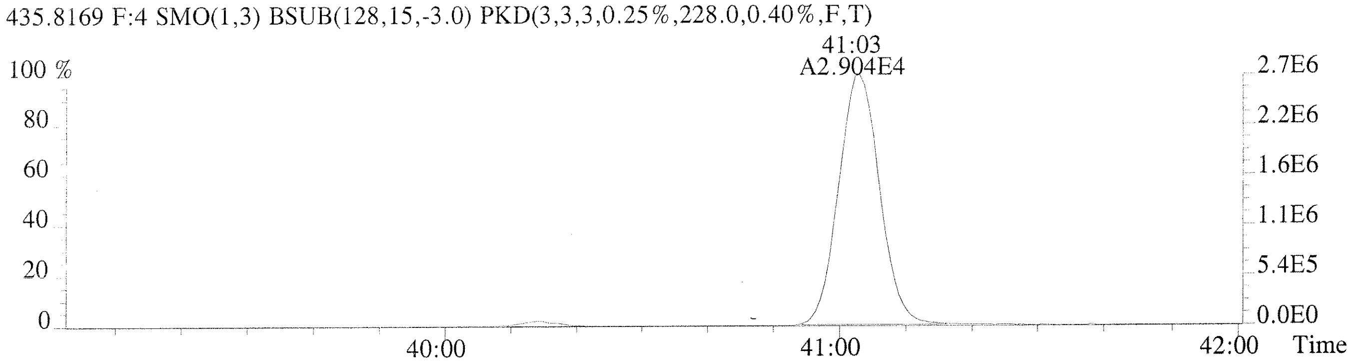
423.7766 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,116.0,0.40%,F,T)



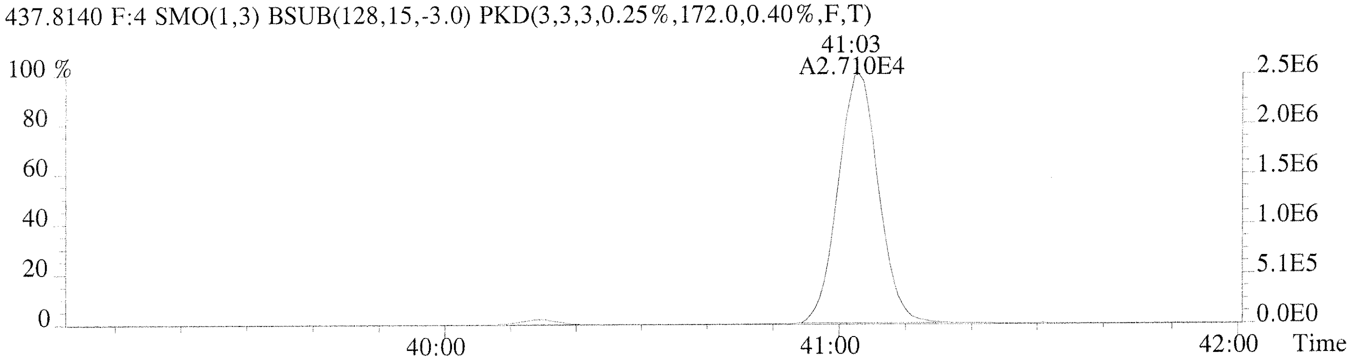
425.7737 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,404.0,0.40%,F,T)



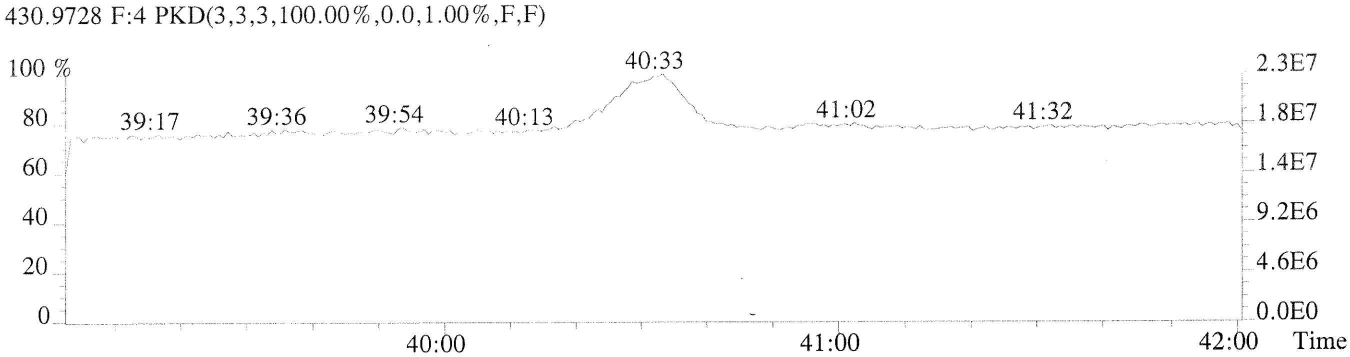
435.8169 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,228.0,0.40%,F,T)



437.8140 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,172.0,0.40%,F,T)

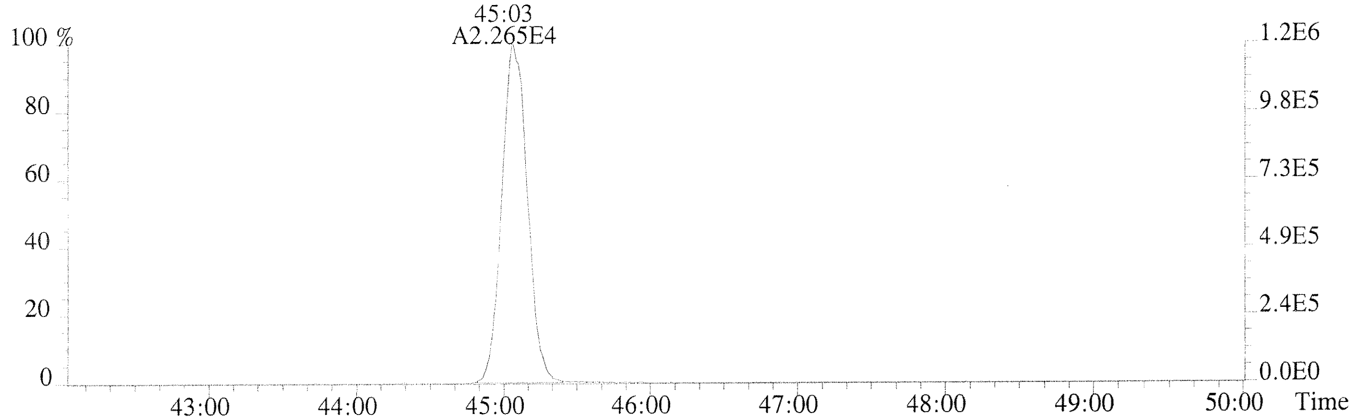


430.9728 F:4 PKD(3,3,3,100.00%,0.0,1.00%,F,F)

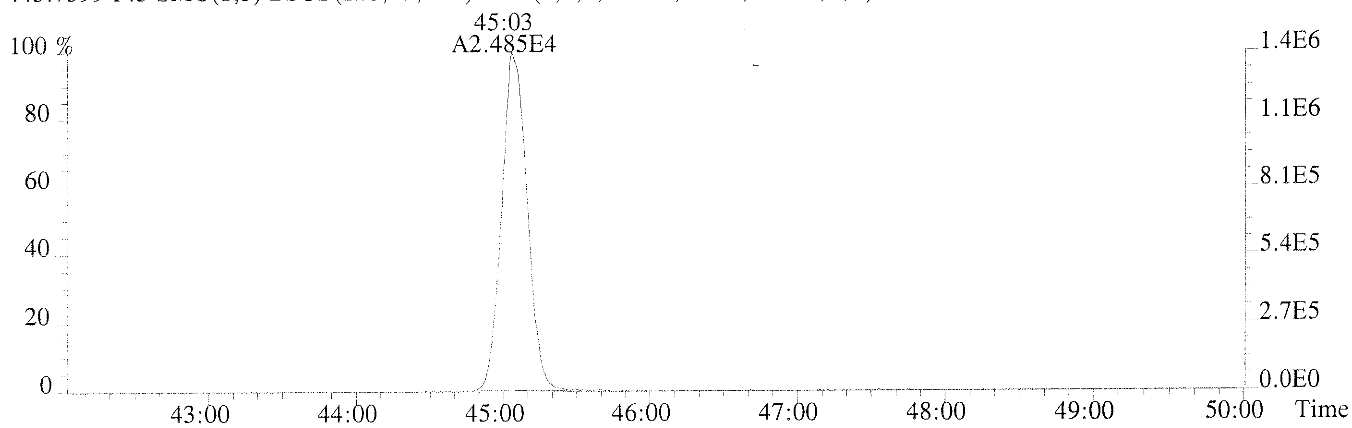


File: 3233 #1-732 Acq: 6-JUL-2012 08:09:46 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp: 00313-03 DLCS

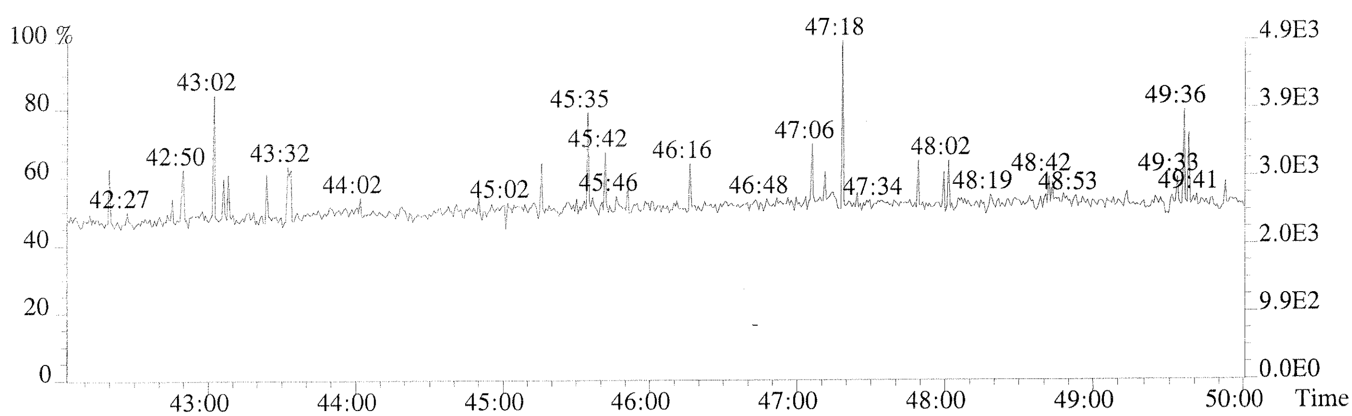
441.7428 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(5,3,5,0.30%,200.0,0.40%,F,T)



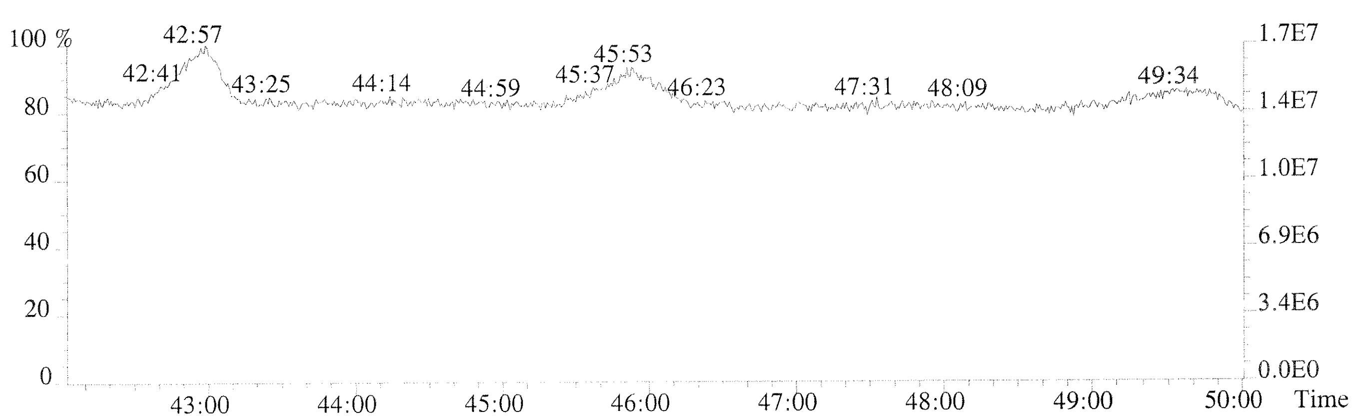
443.7399 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(5,3,5,0.30%,416.0,0.40%,F,T)



513.6775 F:5 PKD(5,3,5,100.00%,0.0,1.00%,F,F)

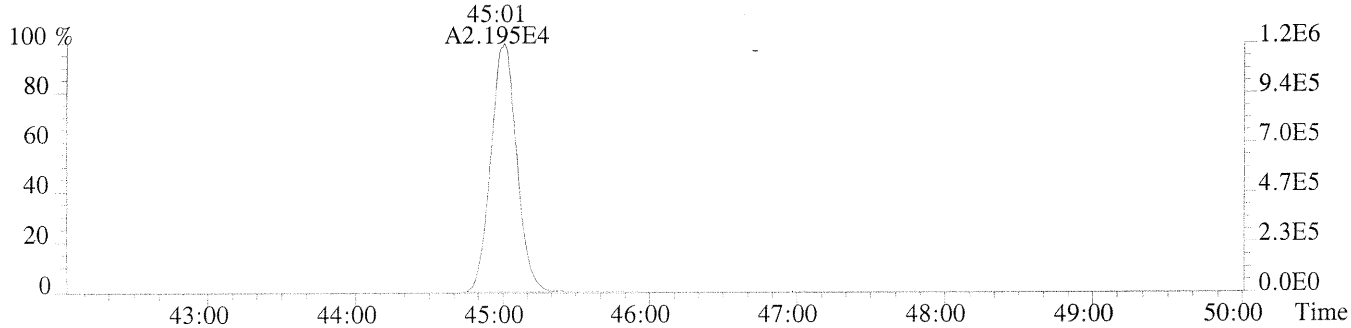


442.9728 F:5 PKD(3,3,3,100.00%,0.0,0.40%,F,F)

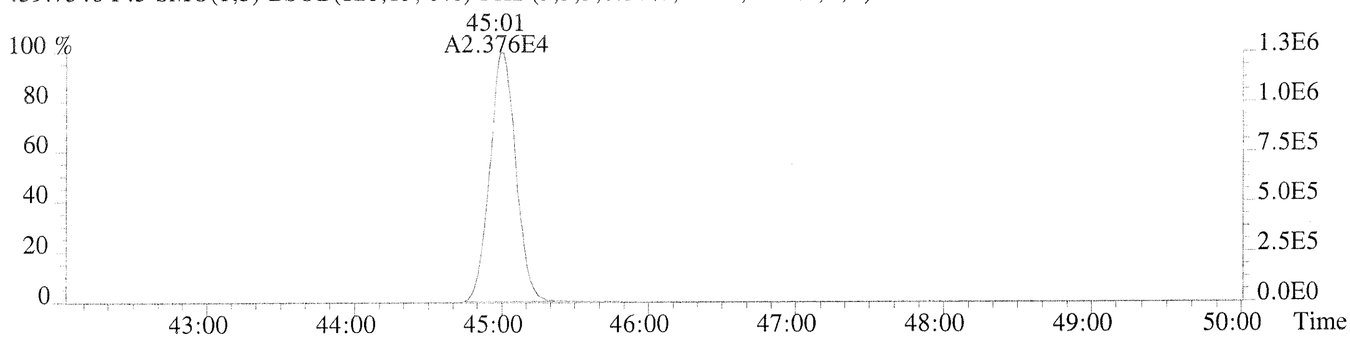


File: 8233 #1-732 Acq: 6-JUL-2012 08:09:46 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:)0313-03 DLCS

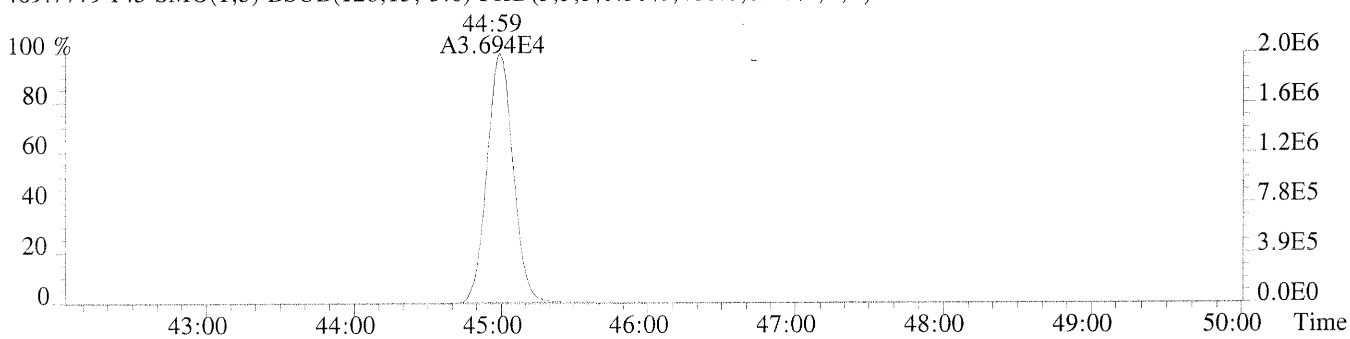
457.7377 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(5,3,5,0.30%,268.0,0.40%,F,T)



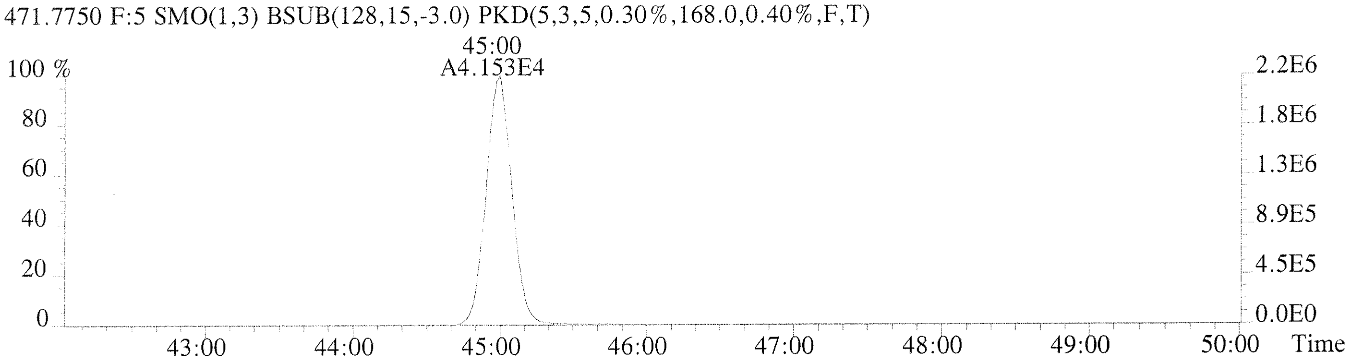
459.7348 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(5,3,5,0.30%,116.0,0.40%,F,T)



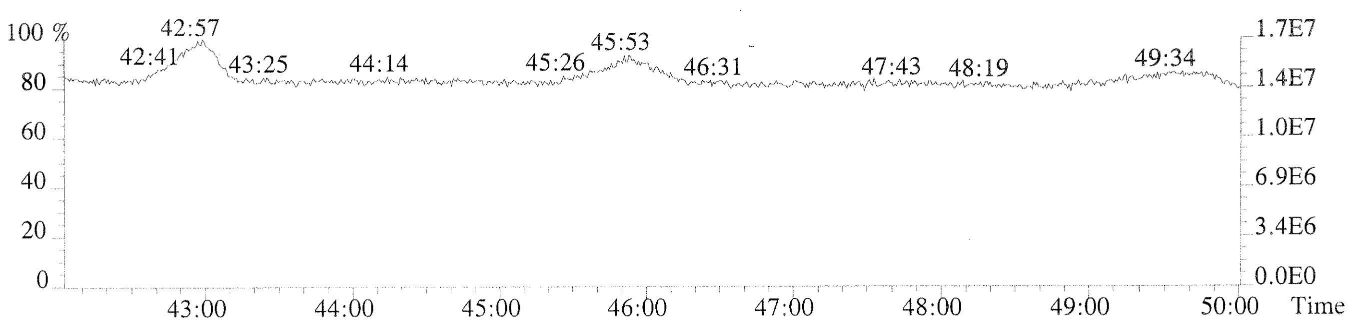
469.7779 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(5,3,5,0.30%,480.0,0.40%,F,T)



471.7750 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(5,3,5,0.30%,168.0,0.40%,F,T)



442.9728 F:5 PKD(3,3,3,100.00%,0.0,0.40%,F,F)



Client:	US Environmental Protection Agency	**Service Request:**	00584
Project:	Dioxins/Furans	**Date Collected:**	NA
Sample Matrix:	Sediment	**Date Received:**	NA
Sample Name:	Lab Control Sample	**Units:**	ng/Kg
Lab Code:	00341-02	**Basis:**	Dry

Chlorinated Dibenzo-p-dioxins (CDDs) and Chlorinated Dibenzofurans (CDFs) by HRGC/HRMS

Analytical Method:	D/F DLM02.2	**Date Analyzed:**	6/19/12 1205
Prep Method:	Method	**Date Extracted:**	6/12/12
Sample Amount:	10.692g	**Instrument Name:**	E-HRMS-03
		GC Column:	DB-5
Data File Name:	8292	**Blank File Name:**	8291
ICAL Date:	04/23/12	**Cal Ver. File Name:**	8290

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
2,3,7,8-TCDD	**20.8**		0.0383	0.935	0.80	1.001	1
1,2,3,7,8-PeCDD	**104**		0.0297	4.68	1.57	1.000	1
1,2,3,4,7,8-HxCDD	**95.5**		0.0252	4.68	1.25	1.000	1
1,2,3,6,7,8-HxCDD	**101**		0.0266	4.68	1.25	1.000	1
1,2,3,7,8,9-HxCDD	**99.5**		0.0246	4.68	1.23	1.008	1
1,2,3,4,6,7,8-HpCDD	**95.1**		0.0367	4.68	1.04	1.000	1
OCDD	**198**		0.0647	9.35	0.88	1.000	1
2,3,7,8-TCDF	**19.7**		0.0302	0.935	0.76	1.001	1
1,2,3,7,8-PeCDF	**98.3**		0.0139	4.68	1.55	1.001	1
2,3,4,7,8-PeCDF	**103**		0.0150	4.68	1.51	1.000	1
1,2,3,4,7,8-HxCDF	**106**		0.0275	4.68	1.22	1.000	1
1,2,3,6,7,8-HxCDF	**100**		0.0254	4.68	1.20	1.000	1
1,2,3,7,8,9-HxCDF	**99.6**		0.0295	4.68	1.20	1.000	1
2,3,4,6,7,8-HxCDF	**96.2**		0.0268	4.68	1.23	1.000	1
1,2,3,4,6,7,8-HpCDF	**101**		0.0502	4.68	1.01	1.000	1
1,2,3,4,7,8,9-HpCDF	**95.2**		0.0534	4.68	1.01	1.000	1
OCDF	**213**		0.100	9.35	0.90	1.003	1
Total Tetra-Dioxins	**20.8**		0.0383	0.935	0.80		1
Total Penta-Dioxins	**104**		0.0297	4.68	1.57		1
Total Hexa-Dioxins	**296**		0.0252	4.68	1.25		1
Total Hepta-Dioxins	**95.1**		0.0367	4.68	1.04		1
Total Tetra-Furans	**19.7**		0.0302	0.935	0.76		1
Total Penta-Furans	**203**		0.0150	4.68	1.59		1
Total Hexa-Furans	**402**		0.0275	4.68	1.22		1
Total Hepta-Furans	**196**		0.0502	4.68	1.01		1

Client:	US Environmental Protection Agency	**Service Request:**	00584
Project:	Dioxins/Furans	**Date Collected:**	NA
Sample Matrix:	Sediment	**Date Received:**	NA
Sample Name:	Lab Control Sample	**Units:**	Percent
Lab Code:	00341-02	**Basis:**	Dry

Chlorinated Dibenzo-p-dioxins (CDDs) and Chlorinated Dibenzofurans (CDFs) by HRGC/HRMS

Analytical Method:	D/F DLM02.2	**Date Analyzed:**	6/19/12 1205
Prep Method:	Method	**Date Extracted:**	6/12/12
Sample Amount:	10.692g	**Instrument Name:**	E-HRMS-03
		GC Column:	DB-5
Data File Name:	8292	**Blank File Name:**	8291
ICAL Date:	04/23/12	**Cal Ver. File Name:**	8290

Labeled Compounds	Spike Conc.(pg)	Conc. Found (pg)	%Rec	Q	Control Limits	Ion Ratio	RRT
13C-2,3,7,8-TCDD	2000	1273.377	64		20-175	0.79	1.008
13C-1,2,3,7,8-PeCDD	2000	1513.609	76		21-227	1.57	1.171
13C-1,2,3,4,7,8-HxCDD	2000	1333.313	67		21-193	1.28	0.990
13C-1,2,3,6,7,8-HxCDD	2000	1284.878	64		25-163	1.26	0.992
13C-1,2,3,4,6,7,8-HpCDD	2000	1349.877	67		26-166	1.07	1.068
13C-OCDD	4000	2593.526	65		13-199	0.90	1.149
13C-2,3,7,8-TCDF	2000	1160.830	58		22-152	0.78	0.978
13C-1,2,3,7,8-PeCDF	2000	1508.773	75		21-192	1.56	1.132
13C-2,3,4,7,8-PeCDF	2000	1373.986	69		13-328	1.57	1.158
13C-1,2,3,4,7,8-HxCDF	2000	1230.872	62		19-202	0.53	0.972
13C-1,2,3,6,7,8-HxCDF	2000	1317.408	66		21-159	0.53	0.974
13C-1,2,3,7,8,9-HxCDF	2000	1354.164	68		17-205	0.52	1.006
13C-2,3,4,6,7,8-HxCDF	2000	1321.113	66		22-176	0.52	0.987
13C-1,2,3,4,6,7,8-HpCDF	2000	1232.841	62		21-158	0.45	1.045
13C-1,2,3,4,7,8,9-HpCDF	2000	1488.761	74		20-186	0.44	1.079
37Cl-2,3,7,8-TCDD	800	579.344	72		31-191	NA	1.009

Sample Response Summary CLIENT ID.
LCS

Run #9 Filename 8292 Samp: 1 Inj: 1 Acquired: 19-JUN-12 12:05:47
Processed: 20-JUN-12 11:09:10 Sample ID: 00341-02

	Typ	Name	RT-1	Resp 1	Resp 2	Ratio	Meet	Mod?	RRF
1	Unk	2,3,7,8-TCDF	28:19	3.855e+03	5.040e+03	0.76	yes	no	0.929
2	Unk	1,2,3,7,8-PeCDF	32:47	3.233e+04	2.082e+04	1.55	yes	no	1.002
3	Unk	2,3,4,7,8-PeCDF	33:31	2.854e+04	1.885e+04	1.51	yes	no	0.963
4	Unk	1,2,3,4,7,8-HxCDF	36:23	2.886e+04	2.360e+04	1.22	yes	no	1.221
5	Unk	1,2,3,6,7,8-HxCDF	36:29	3.041e+04	2.529e+04	1.20	yes	no	1.139
6	Unk	2,3,4,6,7,8-HxCDF	36:57	2.722e+04	2.220e+04	1.23	yes	no	1.139
7	Unk	1,2,3,7,8,9-HxCDF	37:40	2.605e+04	2.177e+04	1.20	yes	no	1.165
8	Unk	1,2,3,4,6,7,8-HpCDF	39:07	2.274e+04	2.241e+04	1.01	yes	no	1.394
9	Unk	1,2,3,4,7,8,9-HpCDF	40:24	2.092e+04	2.070e+04	1.01	yes	no	1.334
10	Unk	OCDF	43:10	2.968e+04	3.288e+04	0.90	yes	no	1.227
11	Unk	2,3,7,8-TCDD	29:11	3.763e+03	4.703e+03	0.80	yes	no	0.980
12	Unk	1,2,3,7,8-PeCDD	33:53	2.347e+04	1.499e+04	1.57	yes	no	0.915
13	Unk	1,2,3,4,7,8-HxCDD	37:05	2.042e+04	1.640e+04	1.25	yes	no	1.001
14	Unk	1,2,3,6,7,8-HxCDD	37:09	2.055e+04	1.649e+04	1.25	yes	no	0.978
15	Unk	1,2,3,7,8,9-HxCDD	37:26	2.170e+04	1.761e+04	1.23	yes	no	1.041
16	Unk	1,2,3,4,6,7,8-HpCDD	40:00	1.668e+04	1.601e+04	1.04	yes	no	1.002
17	Unk	OCDD	43:02	2.339e+04	2.652e+04	0.88	yes	no	1.054
18	IS	13C-2,3,7,8-TCDF	28:17	3.984e+04	5.088e+04	0.78	yes	no	1.282
19	IS	13C-1,2,3,7,8-PeCDF	32:46	6.150e+04	3.946e+04	1.56	yes	no	1.098
20	IS	13C-2,3,4,7,8-PeCDF	33:31	5.447e+04	3.473e+04	1.57	yes	no	1.065
21	IS	13C-1,2,3,4,7,8-HxCDF	36:22	2.620e+04	4.980e+04	0.53	yes	no	1.062
22	IS	13C-1,2,3,6,7,8-HxCDF	36:28	3.147e+04	5.977e+04	0.53	yes	no	1.191
23	IS	13C-2,3,4,6,7,8-HxCDF	36:57	2.904e+04	5.534e+04	0.52	yes	no	1.098
24	IS	13C-1,2,3,7,8,9-HxCDF	37:39	2.646e+04	5.069e+04	0.52	yes	no	0.980
25	IS	13C-1,2,3,4,6,7,8-HpCDF	39:06	1.861e+04	4.144e+04	0.45	yes	no	0.837
26	IS	13C-1,2,3,4,7,8,9-HpCDF	40:23	1.883e+04	4.247e+04	0.44	yes	no	0.708
27	IS	13C-2,3,7,8-TCDD	29:10	3.423e+04	4.349e+04	0.79	yes	no	1.002
28	IS	13C-1,2,3,7,8-PeCDD	33:52	4.620e+04	2.934e+04	1.57	yes	no	0.819
29	IS	13C-1,2,3,4,7,8-HxCDD	37:04	4.041e+04	3.163e+04	1.28	yes	no	0.929
30	IS	13C-1,2,3,6,7,8-HxCDD	37:09	3.899e+04	3.101e+04	1.26	yes	no	0.937
31	IS	13C-1,2,3,4,6,7,8-HpCDD	39:59	3.311e+04	3.103e+04	1.07	yes	no	0.817
32	IS	13C-OCDD	43:01	4.248e+04	4.722e+04	0.90	yes	no	0.595
33	RS/RT	13C-1,2,3,4-TCDD	28:56	5.378e+04	6.811e+04	0.79	yes	no	-
34	RS/RT	13C-1,2,3,7,8,9-HxCDD	37:26	6.470e+04	5.162e+04	1.25	yes	no	-
35	C/Up	37Cl-2,3,7,8-TCDD	29:11	3.670e+04				no	1.039

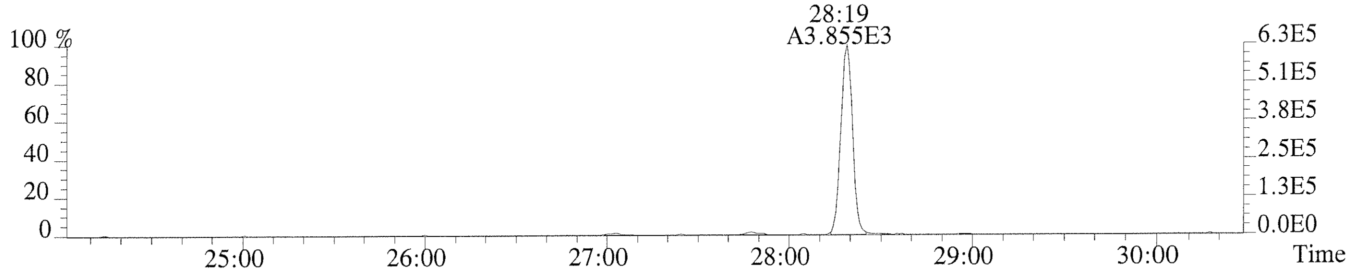
Signal/Noise Height Ratio Summary CLIENT ID.
LCS

Run #9 Filename 8292 Samp: 1 Inj: 1 Acquired: 19-JUN-12 12:05:47
Processed: 20-JUN-12 11:09:101 LAB. ID: 00341-02

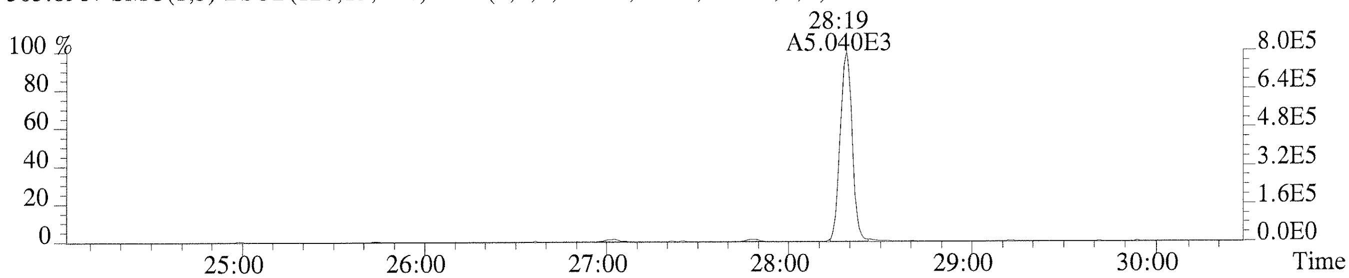
	Name	Signal 1	Noise 1	S/N Rat.1	Signal 2	Noise 2	S/N Rat.2
1	2,3,7,8-TCDF	6.33e+05	4.68e+02	1.4e+03	8.05e+05	3.92e+02	2.1e+03
2	1,2,3,7,8-PeCDF	6.06e+06	1.56e+02	3.9e+04	3.87e+06	3.92e+02	9.9e+03
3	2,3,4,7,8-PeCDF	5.69e+06	1.56e+02	3.6e+04	3.76e+06	3.92e+02	9.6e+03
4	1,2,3,4,7,8-HxCDF	6.13e+06	5.56e+02	1.1e+04	4.99e+06	5.92e+02	8.4e+03
5	1,2,3,6,7,8-HxCDF	6.19e+06	5.56e+02	1.1e+04	5.11e+06	5.92e+02	8.6e+03
6	2,3,4,6,7,8-HxCDF	5.61e+06	5.56e+02	1.0e+04	4.63e+06	5.92e+02	7.8e+03
7	1,2,3,7,8,9-HxCDF	5.33e+06	5.56e+02	9.6e+03	4.40e+06	5.92e+02	7.4e+03
8	1,2,3,4,6,7,8-HpCDF	4.14e+06	7.32e+02	5.7e+03	4.08e+06	9.24e+02	4.4e+03
9	1,2,3,4,7,8,9-HpCDF	3.73e+06	7.32e+02	5.1e+03	3.64e+06	9.24e+02	3.9e+03
10	OCDF	3.33e+06	5.80e+02	5.7e+03	3.67e+06	5.80e+02	6.3e+03
11	2,3,7,8-TCDD	6.27e+05	6.28e+02	1.0e+03	7.78e+05	4.32e+02	1.8e+03
12	1,2,3,7,8-PeCDD	4.67e+06	5.20e+02	9.0e+03	3.01e+06	3.48e+02	8.6e+03
13	1,2,3,4,7,8-HxCDD	4.49e+06	4.12e+02	1.1e+04	3.56e+06	4.40e+02	8.1e+03
14	1,2,3,6,7,8-HxCDD	4.49e+06	4.12e+02	1.1e+04	3.62e+06	4.40e+02	8.2e+03
15	1,2,3,7,8,9-HxCDD	4.49e+06	4.12e+02	1.1e+04	3.63e+06	4.40e+02	8.2e+03
16	1,2,3,4,6,7,8-HpCDD	2.98e+06	4.32e+02	6.9e+03	2.86e+06	4.72e+02	6.1e+03
17	OCDD	2.28e+06	2.24e+02	1.0e+04	2.60e+06	4.20e+02	6.2e+03
18	13C-2,3,7,8-TCDF	6.27e+06	6.92e+02	9.1e+03	8.06e+06	1.16e+03	6.9e+03
19	13C-1,2,3,7,8-PeCDF	1.12e+07	2.24e+02	5.0e+04	7.14e+06	3.24e+02	2.2e+04
20	13C-2,3,4,7,8-PeCDF	1.08e+07	2.24e+02	4.8e+04	6.87e+06	3.24e+02	2.1e+04
21	13C-1,2,3,4,7,8-HxCDF	5.50e+06	5.44e+02	1.0e+04	1.04e+07	8.40e+02	1.2e+04
22	13C-1,2,3,6,7,8-HxCDF	6.41e+06	5.44e+02	1.2e+04	1.21e+07	8.40e+02	1.4e+04
23	13C-2,3,4,6,7,8-HxCDF	5.99e+06	5.44e+02	1.1e+04	1.16e+07	8.40e+02	1.4e+04
24	13C-1,2,3,7,8,9-HxCDF	5.34e+06	5.44e+02	9.8e+03	1.02e+07	8.40e+02	1.2e+04
25	13C-1,2,3,4,6,7,8-HpCDF	3.40e+06	1.44e+03	2.4e+03	7.66e+06	1.95e+03	3.9e+03
26	13C-1,2,3,4,7,8,9-HpCDF	3.36e+06	1.44e+03	2.3e+03	7.46e+06	1.95e+03	3.8e+03
27	13C-2,3,7,8-TCDD	5.80e+06	1.46e+03	4.0e+03	7.36e+06	6.16e+02	1.2e+04
28	13C-1,2,3,7,8-PeCDD	9.11e+06	6.48e+02	1.4e+04	5.78e+06	3.24e+02	1.8e+04
29	13C-1,2,3,4,7,8-HxCDD	8.86e+06	6.40e+02	1.4e+04	6.91e+06	4.40e+02	1.6e+04
30	13C-1,2,3,6,7,8-HxCDD	8.46e+06	6.40e+02	1.3e+04	6.80e+06	4.40e+02	1.5e+04
31	13C-1,2,3,4,6,7,8-HpCDD	5.91e+06	5.88e+02	1.0e+04	5.56e+06	5.76e+02	9.6e+03
32	13C-OCDD	4.19e+06	4.56e+02	9.2e+03	4.62e+06	4.88e+02	9.5e+03
33	13C-1,2,3,4-TCDD	9.12e+06	1.46e+03	6.2e+03	1.17e+07	6.16e+02	1.9e+04
34	13C-1,2,3,7,8,9-HxCDD	1.32e+07	6.40e+02	2.1e+04	1.06e+07	4.40e+02	2.4e+04
35	37Cl-2,3,7,8-TCDD	6.19e+06	6.48e+02	9.6e+03			

File: 3292 #1-536 Acq:19-JUN-2012 12:05:47 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:)0341-02 LCS

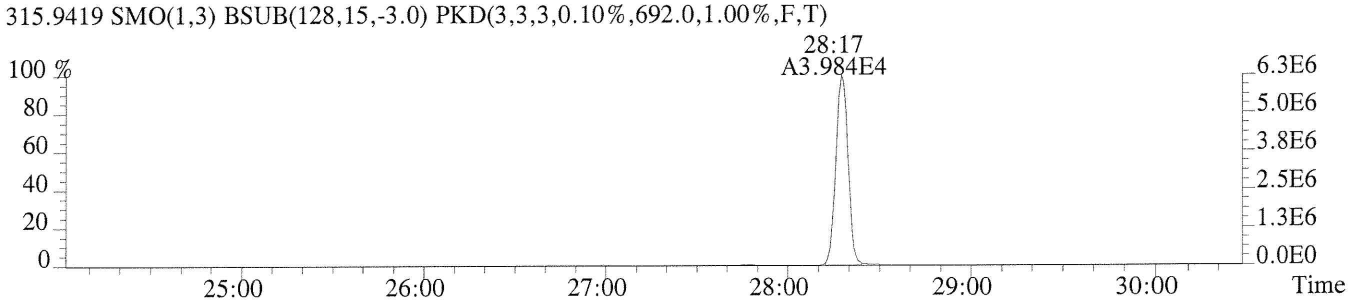
303.9016 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,468.0,1.00%,F,T)



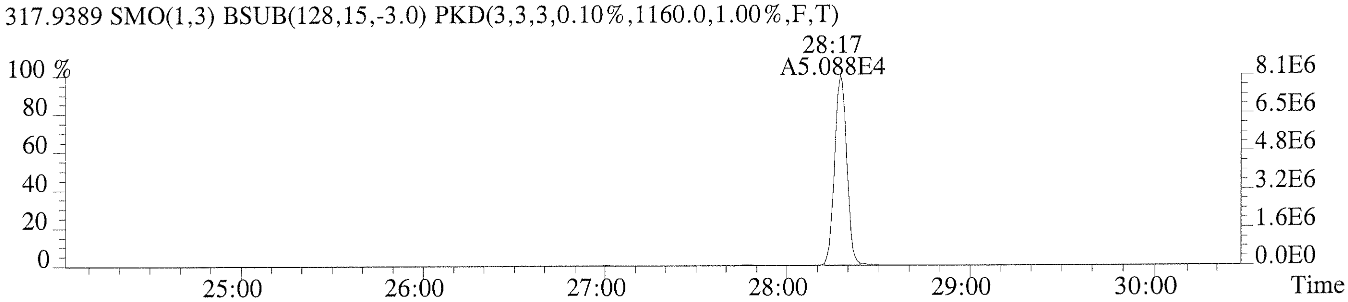
305.8987 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,392.0,1.00%,F,T)



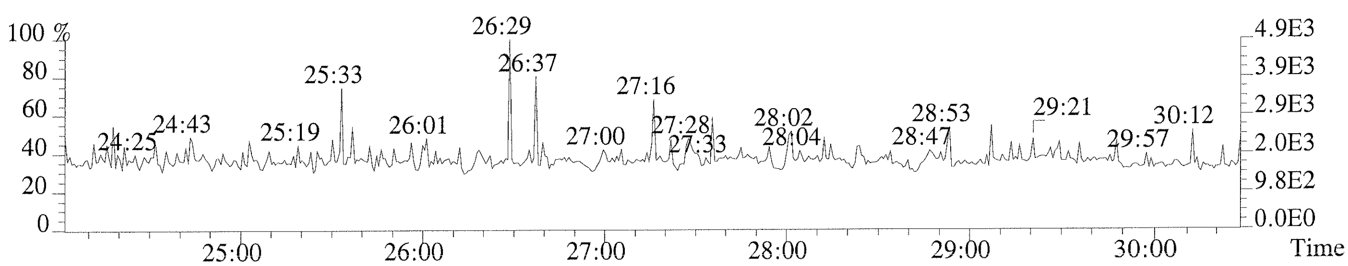
315.9419 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,692.0,1.00%,F,T)



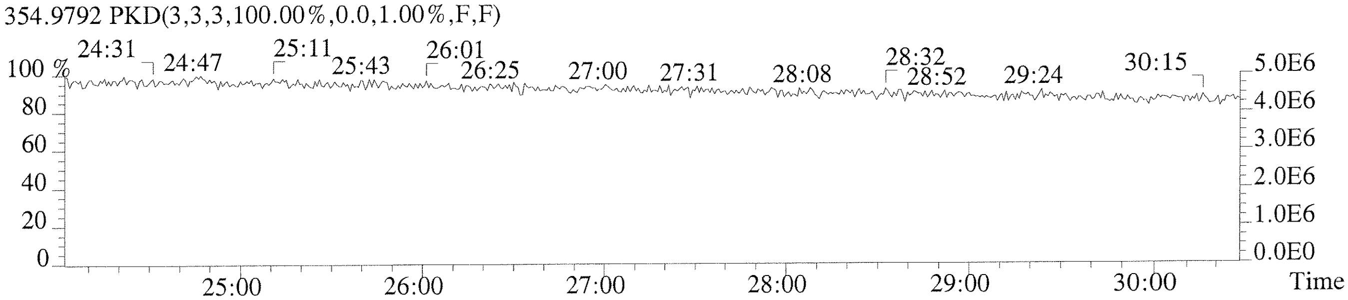
317.9389 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,1160.0,1.00%,F,T)



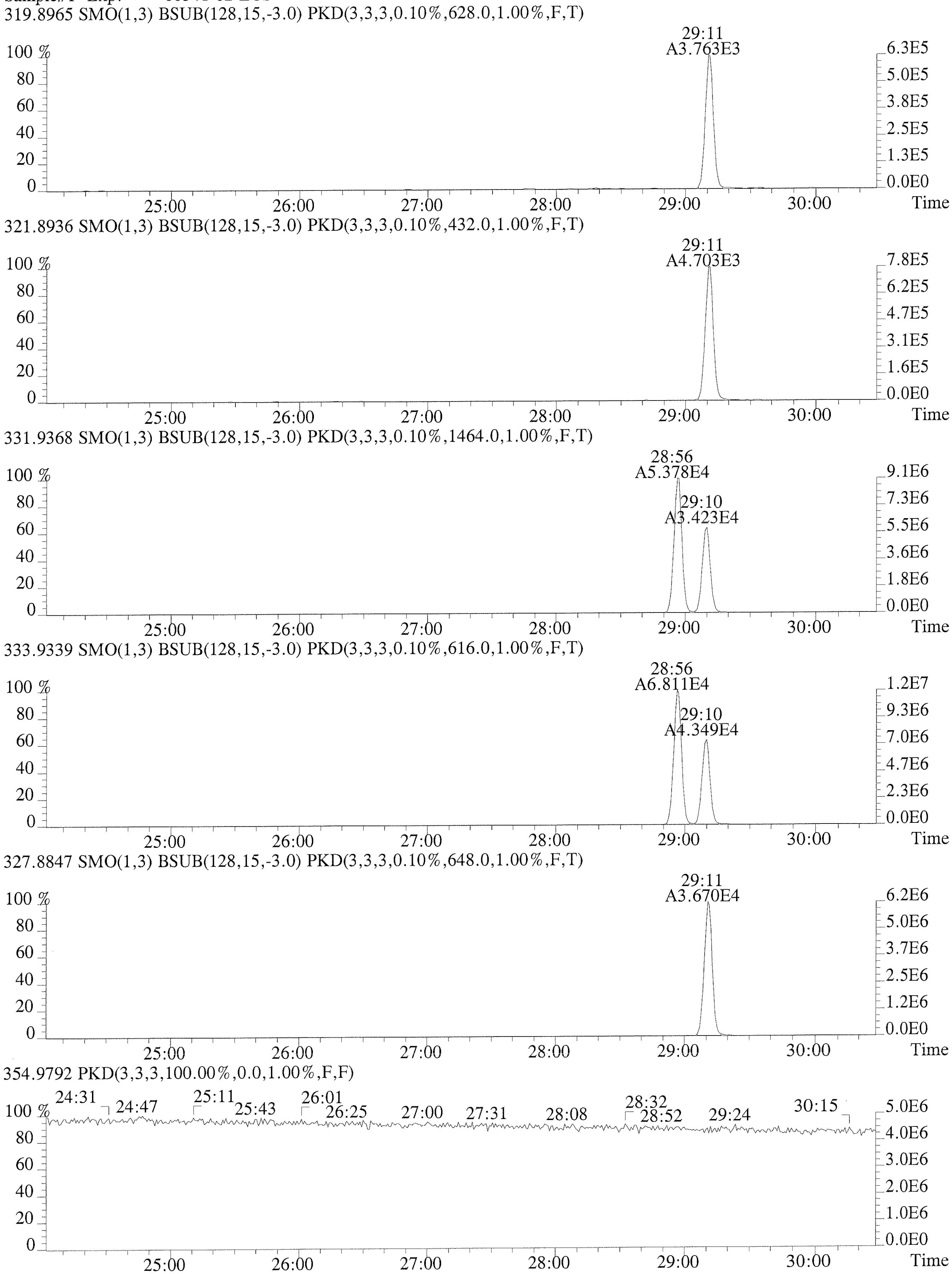
375.8364 PKD(5,3,5,100.00%,0.0,1.00%,F,F)



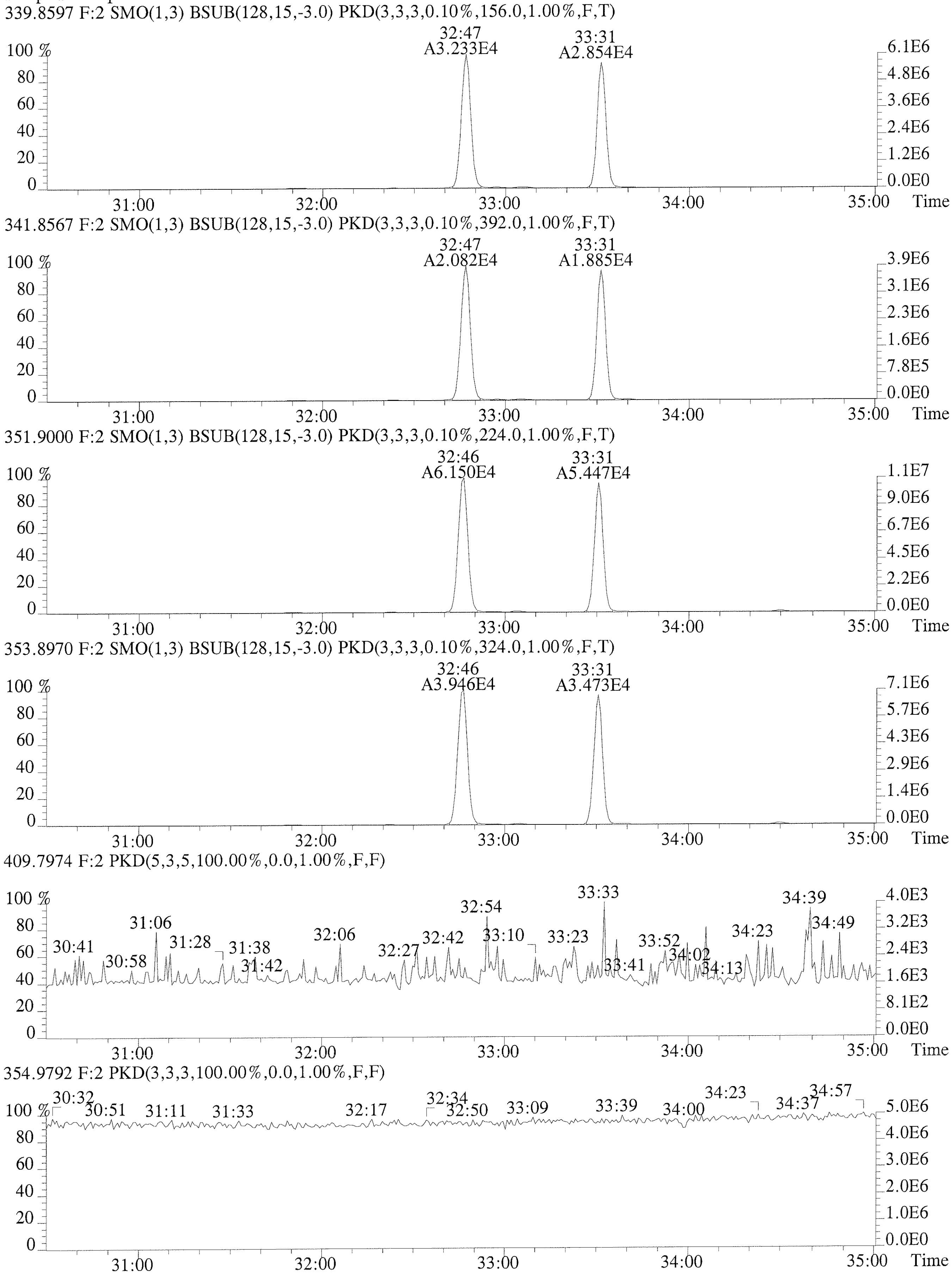
354.9792 PKD(3,3,3,100.00%,0.0,1.00%,F,F)



File: 3292 #1-536 Acq:19-JUN-2012 12:05:47 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp: 00341-02 LCS

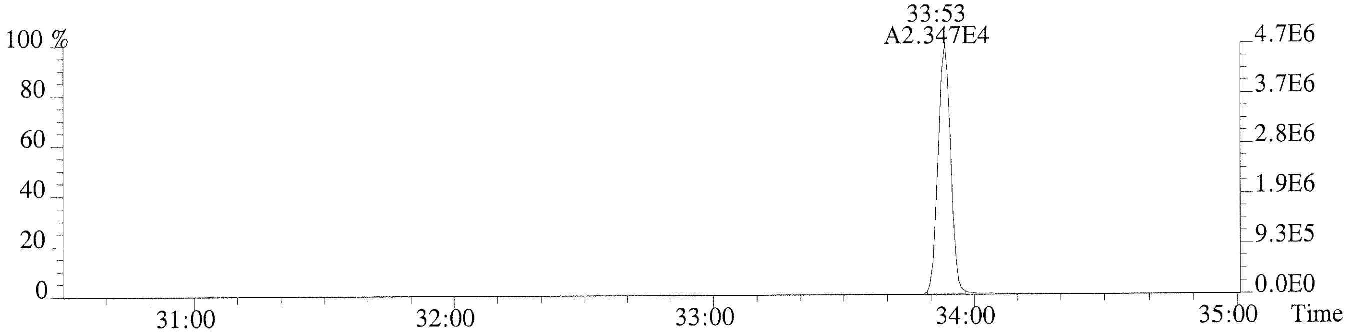


File: 3292 #1-410 Acq:19-JUN-2012 12:05:47 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp 00341-02 LCS

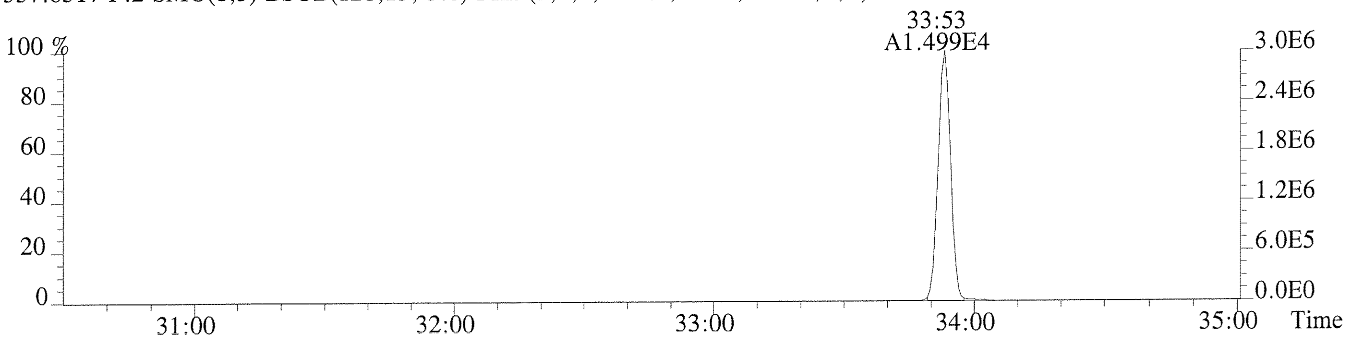


File: 8292 #1-410 Acq:19-JUN-2012 12:05:47 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:)0341-02 LCS

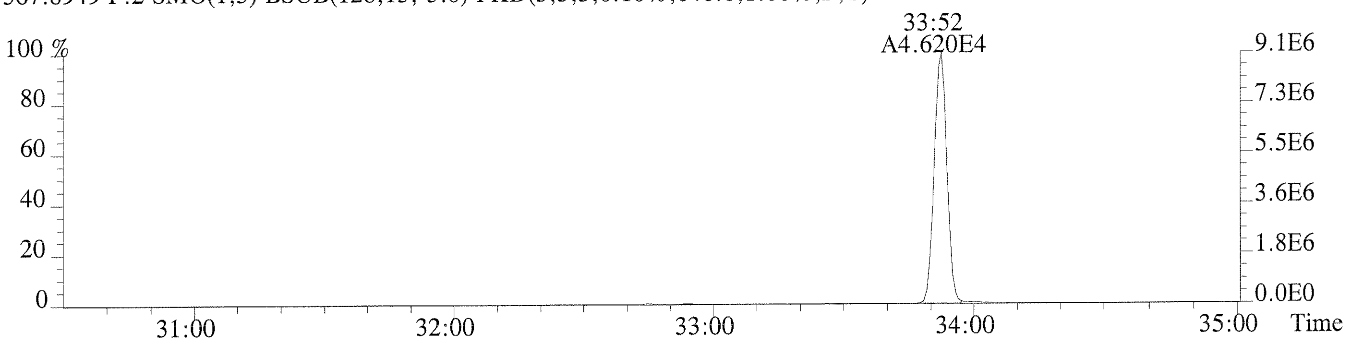
355.8546 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,520.0,1.00%,F,T)



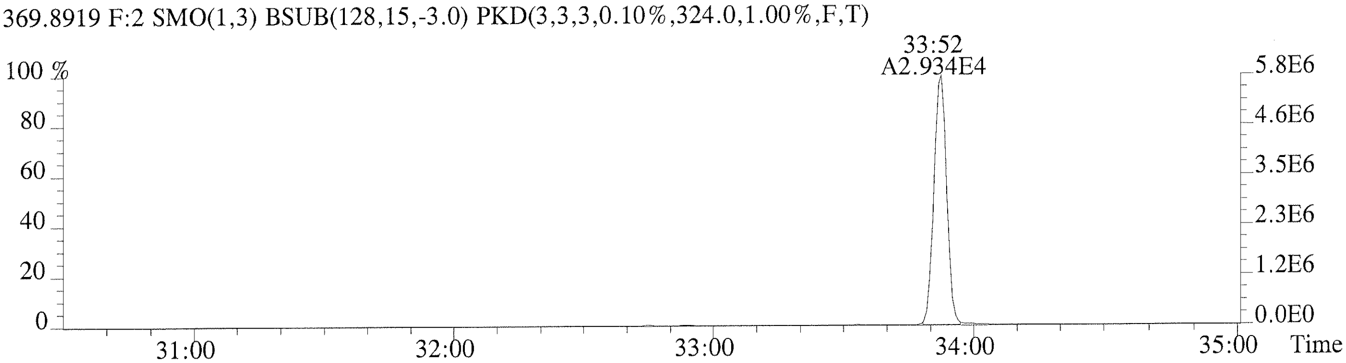
357.8517 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,348.0,1.00%,F,T)



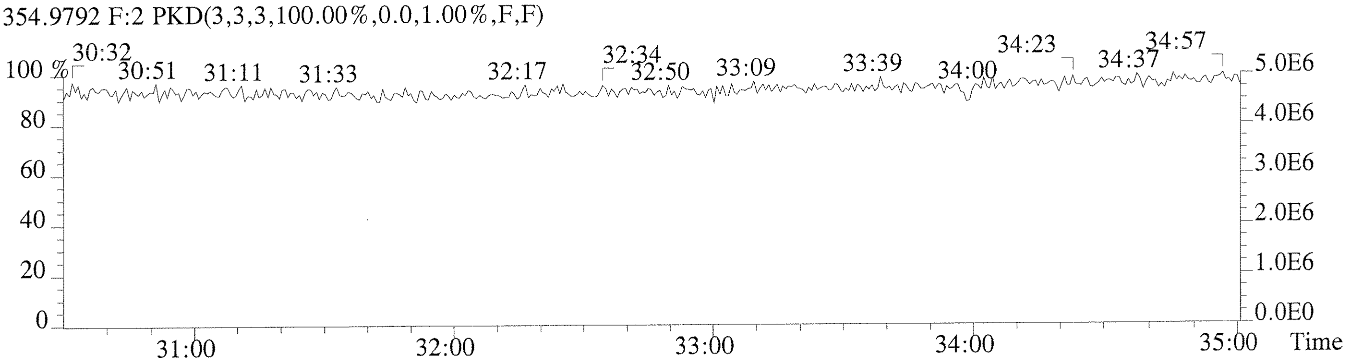
367.8949 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,648.0,1.00%,F,T)



369.8919 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,324.0,1.00%,F,T)

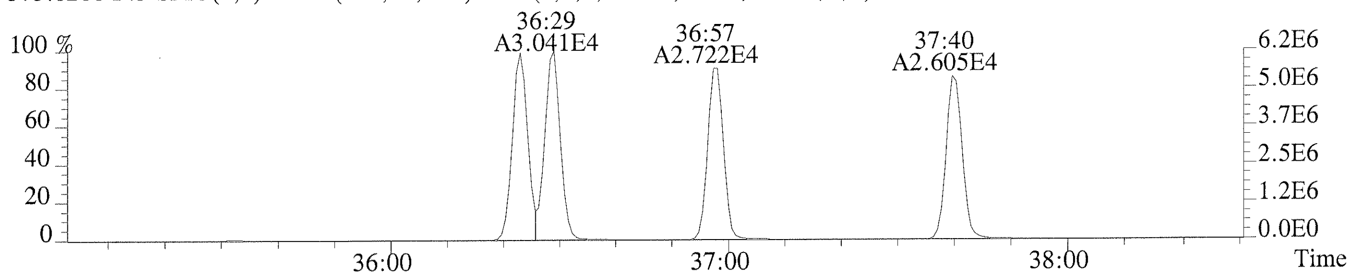


354.9792 F:2 PKD(3,3,3,100.00%,0.0,1.00%,F,F)

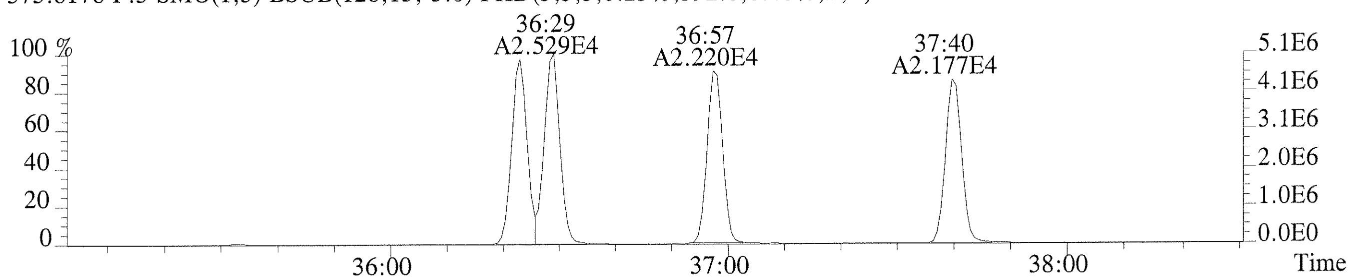


File: 8292 #1-315 Acq:19-JUN-2012 12:05:47 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:)0341-02 LCS

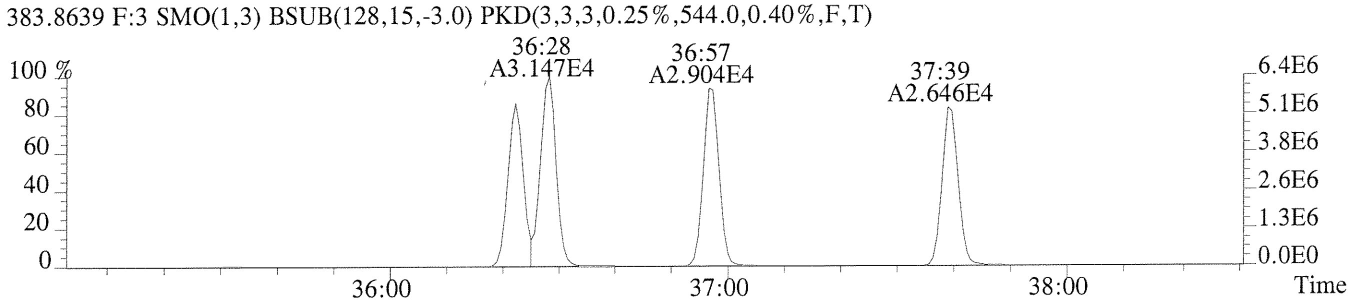
373.8208 F:3 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,556.0,0.40%,F,T)



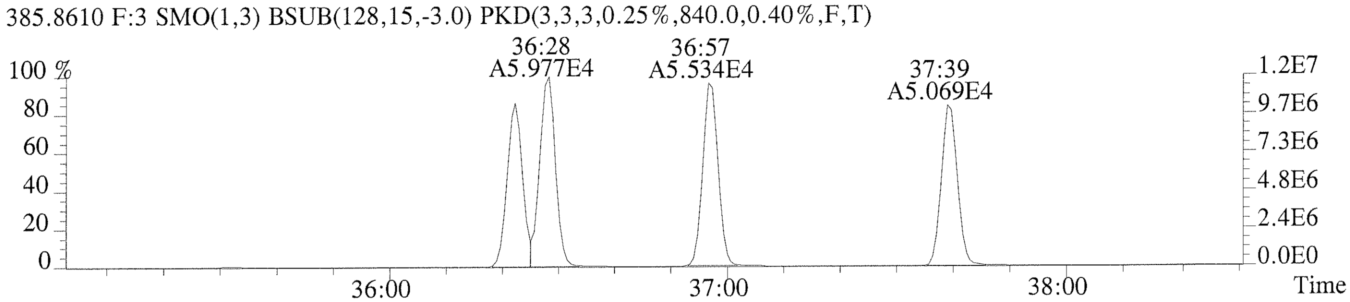
375.8178 F:3 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,592.0,0.40%,F,T)



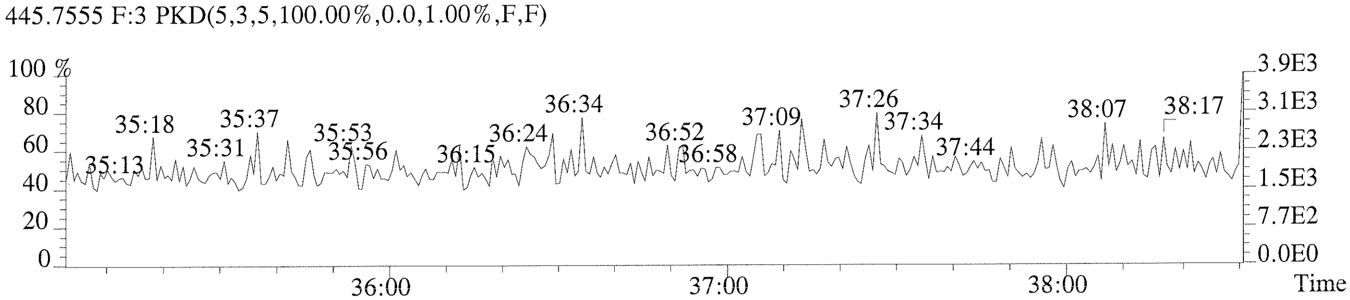
383.8639 F:3 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,544.0,0.40%,F,T)



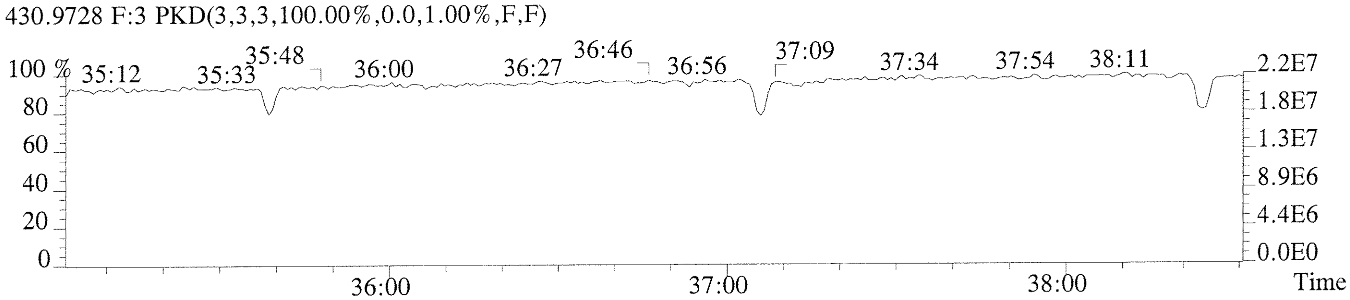
385.8610 F:3 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,840.0,0.40%,F,T)



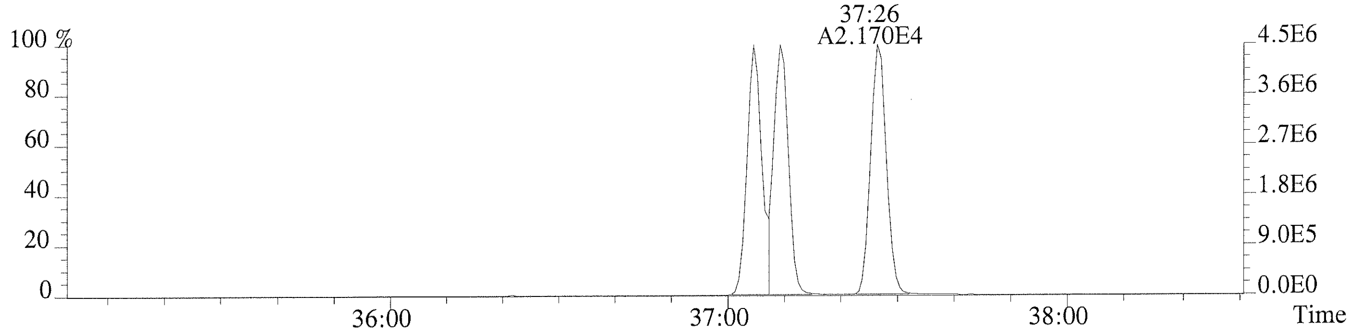
445.7555 F:3 PKD(5,3,5,100.00%,0.0,1.00%,F,F)



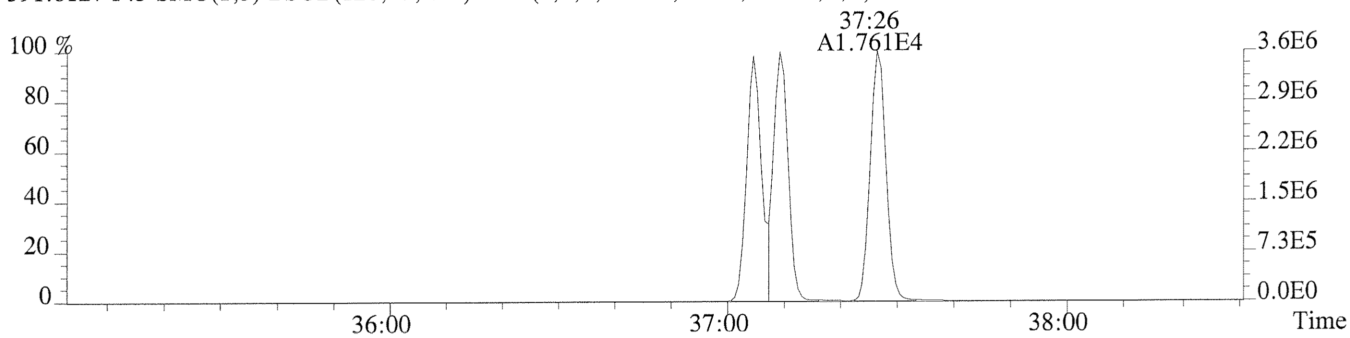
430.9728 F:3 PKD(3,3,3,100.00%,0.0,1.00%,F,F)



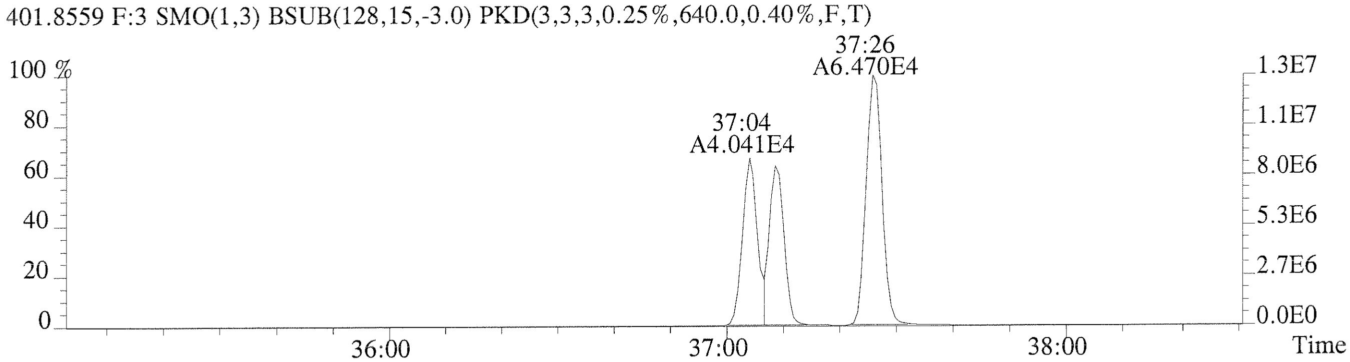
File 8292 #1-315 Acq:19-JUN-2012 12:05:47 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:)0341-02 LCS
389.8157 F:3 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,412.0,0.40%,F,T)



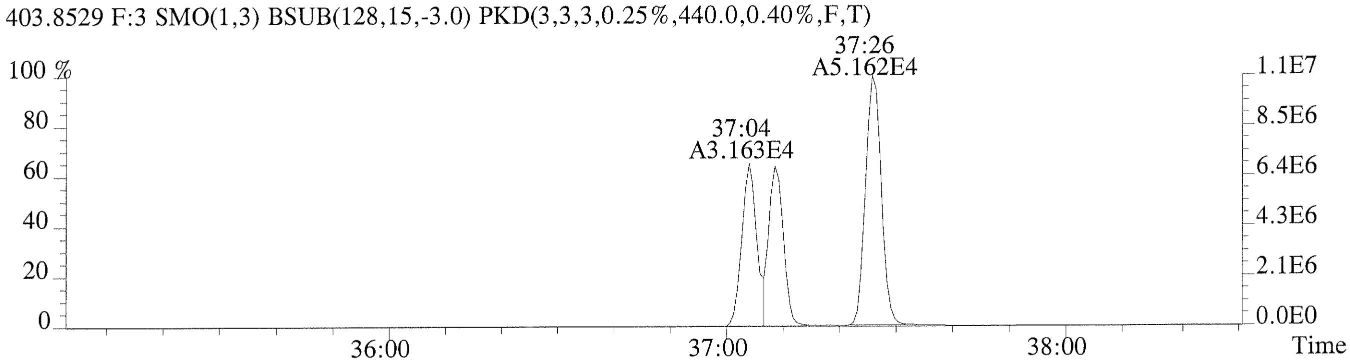
391.8127 F:3 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,440.0,0.40%,F,T)



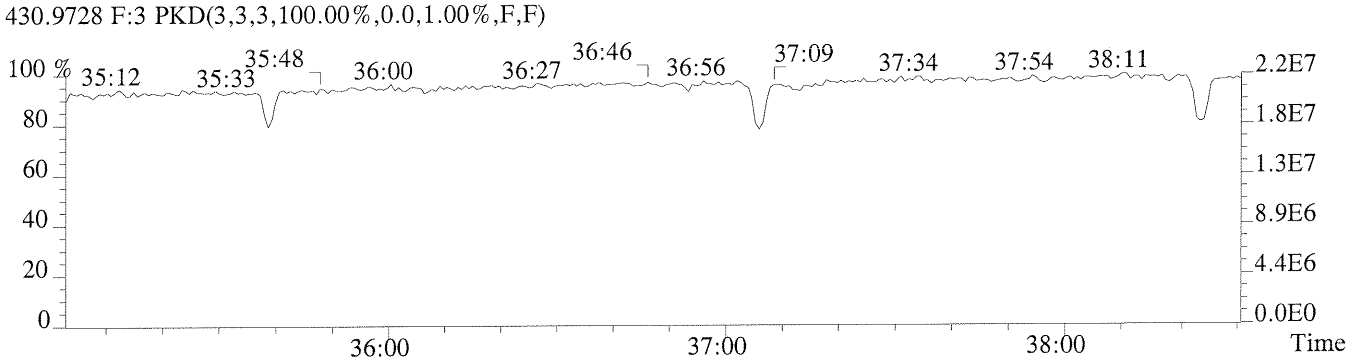
401.8559 F:3 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,640.0,0.40%,F,T)



403.8529 F:3 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,440.0,0.40%,F,T)

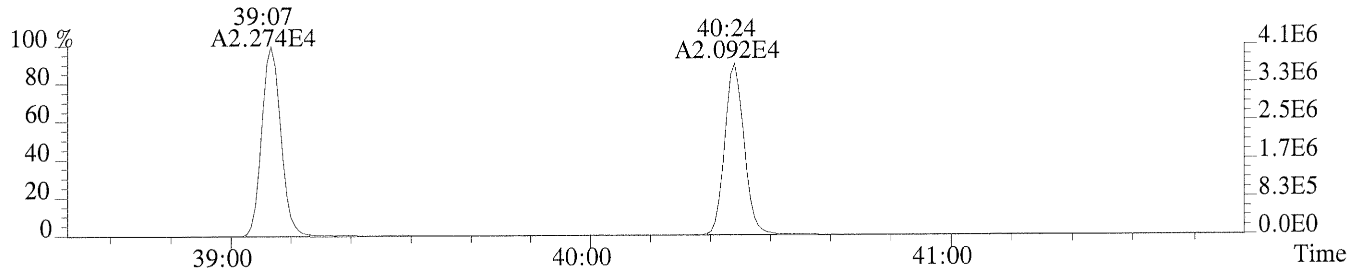


430.9728 F:3 PKD(3,3,3,100.00%,0.0,1.00%,F,F)

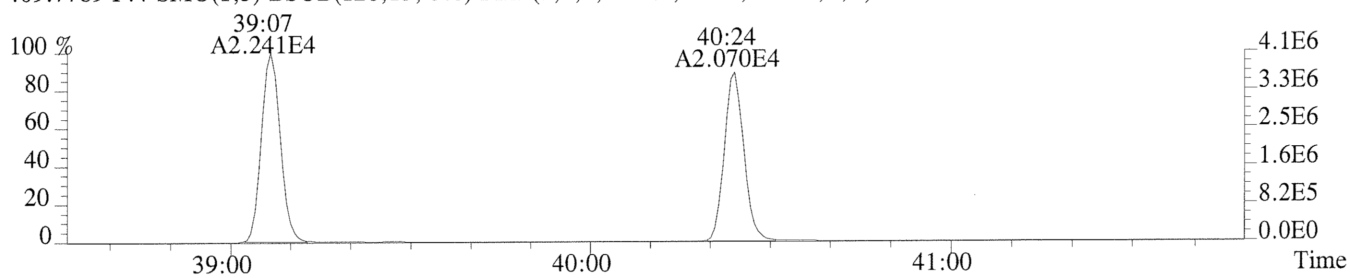


File 3292 #1-296 Acq:19-JUN-2012 12:05:47 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp: 00341-02 LCS

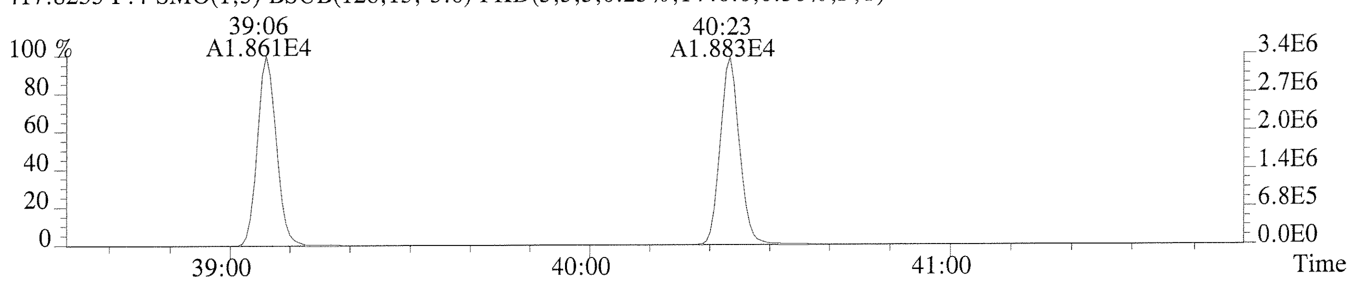
407.7818 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,732.0,0.50%,F,T)



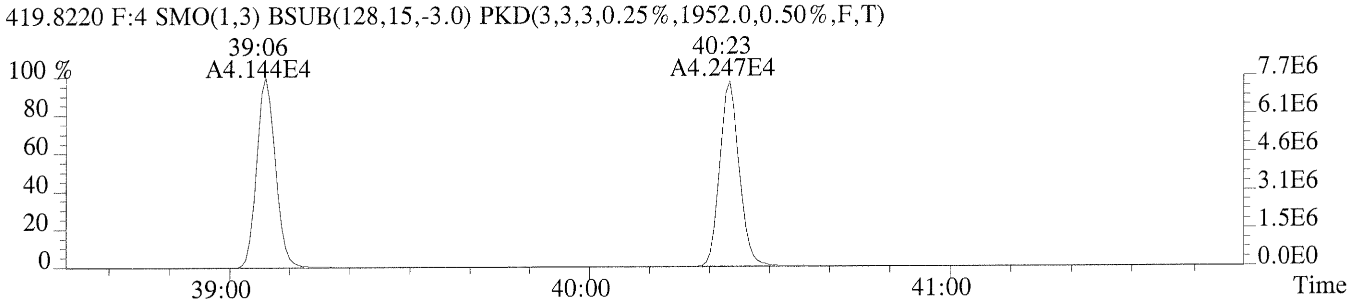
409.7789 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,924.0,0.50%,F,T)



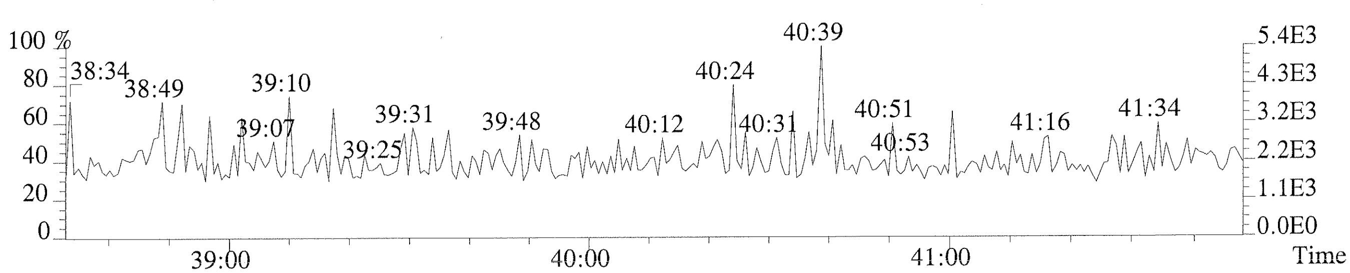
417.8253 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,1440.0,0.50%,F,T)



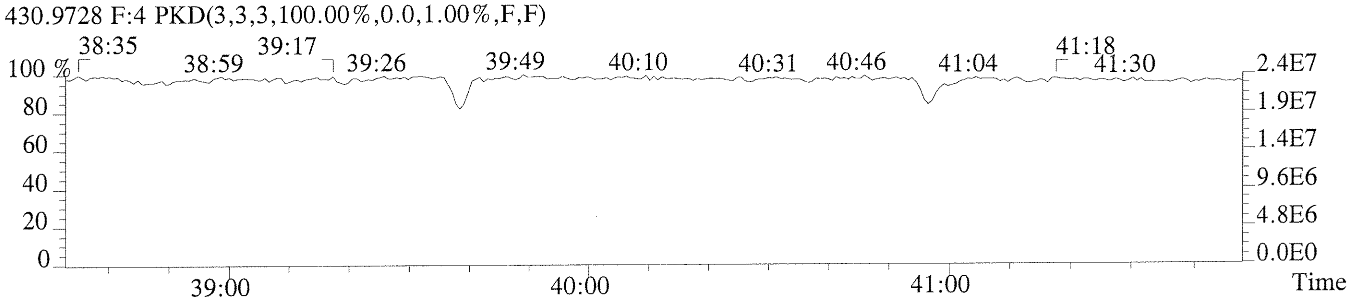
419.8220 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,1952.0,0.50%,F,T)



479.7165 F:4 PKD(5,3,5,100.00%,0.0,1.00%,F,F)

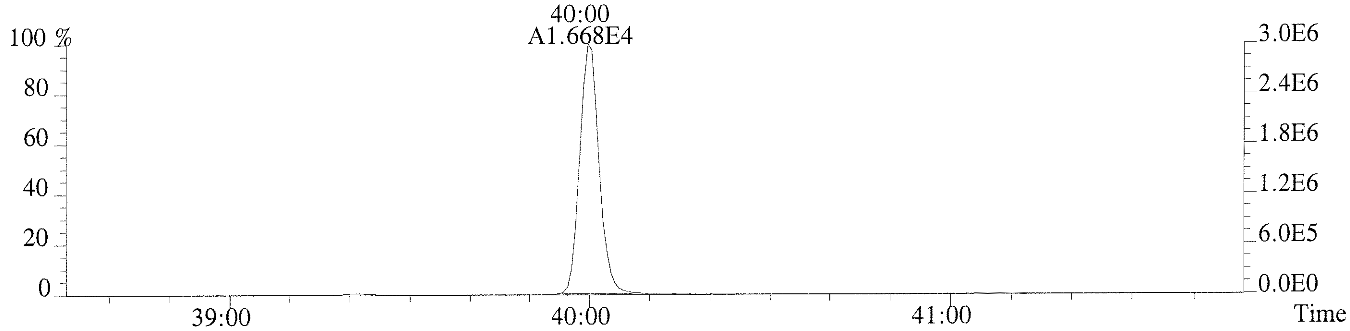


430.9728 F:4 PKD(3,3,3,100.00%,0.0,1.00%,F,F)

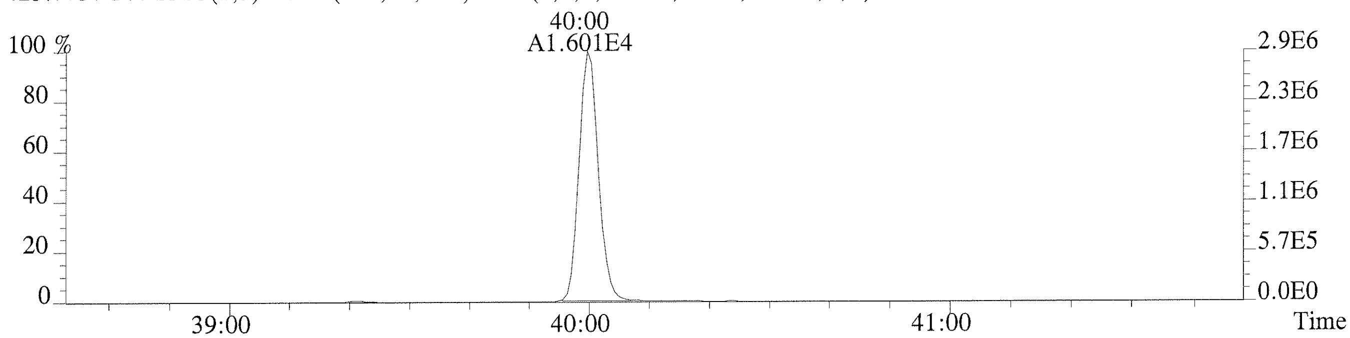


File: 3292 #1-296 Acq:19-JUN-2012 12:05:47 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:)0341-02 LCS

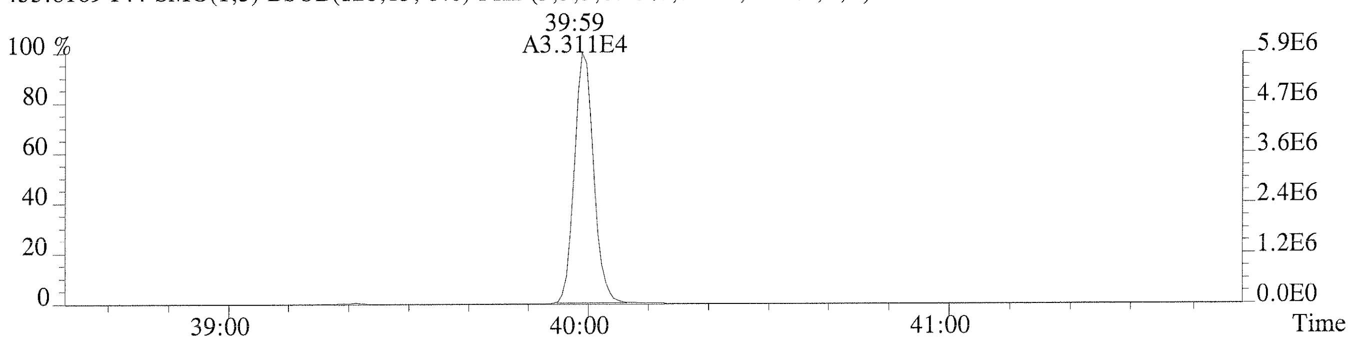
423.7766 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,432.0,0.40%,F,T)



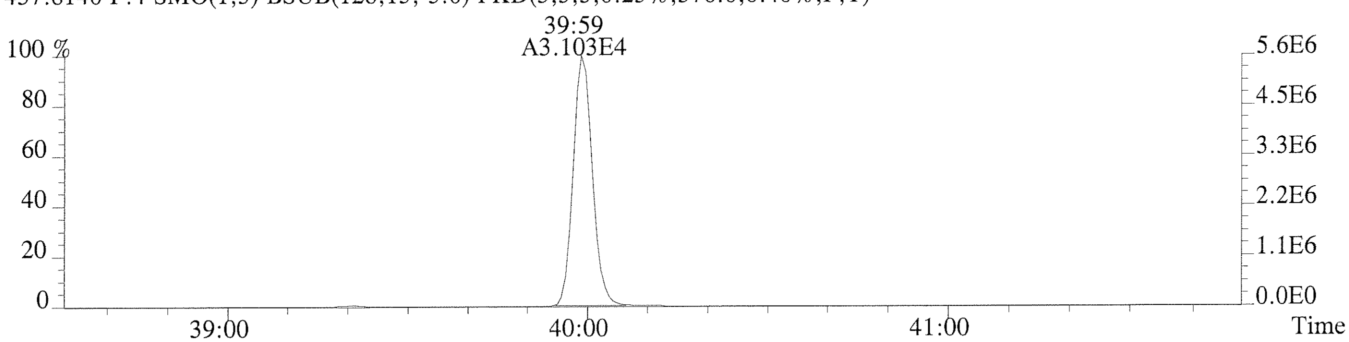
425.7737 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,472.0,0.40%,F,T)



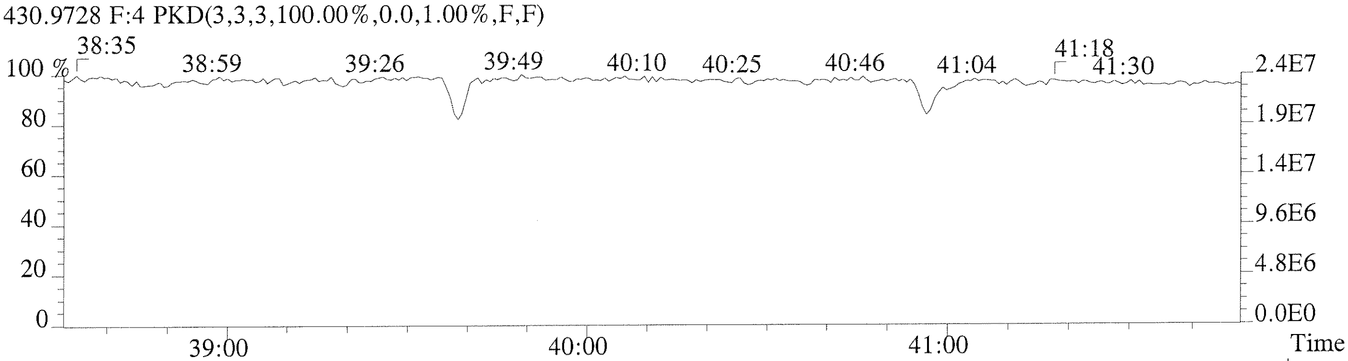
435.8169 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,588.0,0.40%,F,T)



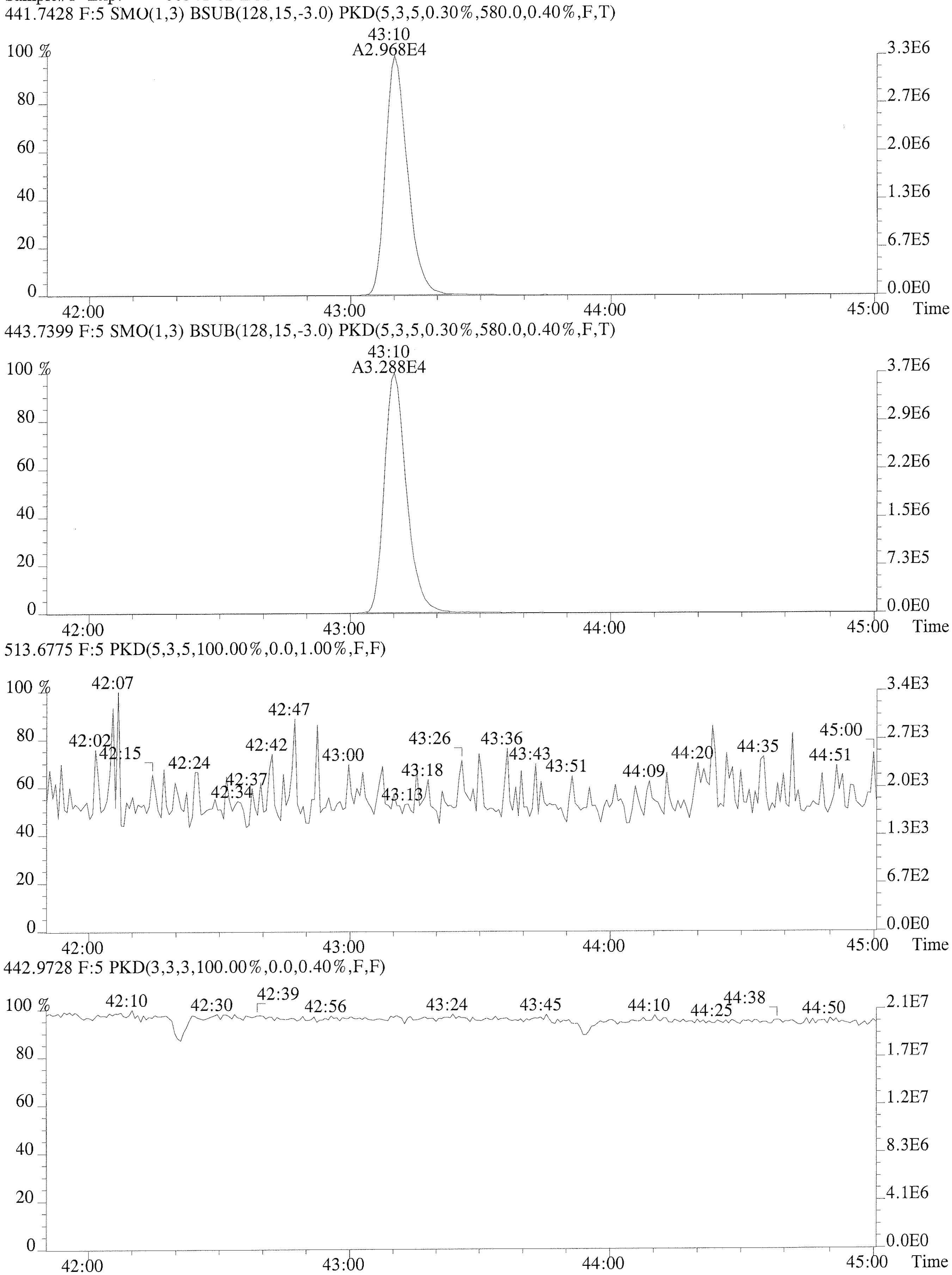
437.8140 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,576.0,0.40%,F,T)



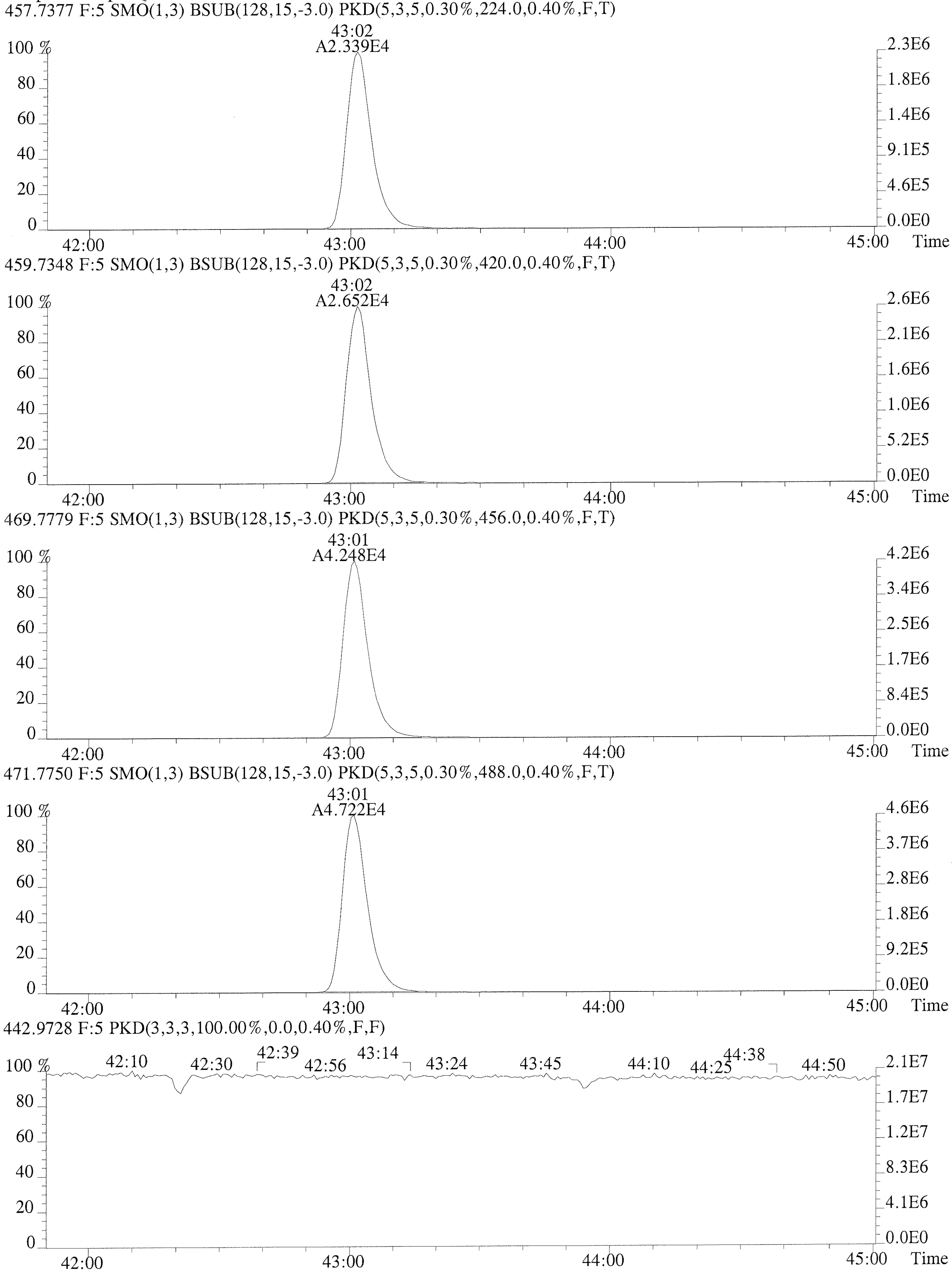
430.9728 F:4 PKD(3,3,3,100.00%,0.0,1.00%,F,F)



File 3292 #1-292 Acq:19-JUN-2012 12:05:47 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp: 00341-02 LCS



File: 8292 #1-292 Acq:19-JUN-2012 12:05:47 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp: 00341-02 LCS



Client:	US Environmental Protection Agency	**Service Request:**	00584
Project:	Dioxins/Furans	**Date Collected:**	NA
Sample Matrix:	Sediment	**Date Received:**	NA
Sample Name:	Duplicate Lab Control Sample	**Units:**	ng/Kg
Lab Code:	00341-03	**Basis:**	Dry

Chlorinated Dibenzo-p-dioxins (CDDs) and Chlorinated Dibenzofurans (CDFs) by HRGC/HRMS

Analytical Method:	D/F DLM02.2	**Date Analyzed:**	6/19/12 1253
Prep Method:	Method	**Date Extracted:**	6/12/12
Sample Amount:	11.376g	**Instrument Name:**	E-HRMS-03
		GC Column:	DB-5
Data File Name:	8293	**Blank File Name:**	8291
ICAL Date:	04/23/12	**Cal Ver. File Name:**	8290

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
2,3,7,8-TCDD	**19.0**		0.0483	0.879	0.77	1.001	1
1,2,3,7,8-PeCDD	**97.0**		0.0311	4.40	1.55	1.001	1
1,2,3,4,7,8-HxCDD	**88.6**		0.0223	4.40	1.26	1.000	1
1,2,3,6,7,8-HxCDD	**93.7**		0.0232	4.40	1.26	1.000	1
1,2,3,7,8,9-HxCDD	**90.1**		0.0216	4.40	1.23	1.008	1
1,2,3,4,6,7,8-HpCDD	**90.5**		0.0240	4.40	1.06	1.000	1
OCDD	**183**		0.0966	8.79	0.90	1.000	1
2,3,7,8-TCDF	**18.4**		0.0391	0.879	0.77	1.001	1
1,2,3,7,8-PeCDF	**93.1**		0.0210	4.40	1.56	1.001	1
2,3,4,7,8-PeCDF	**96.6**		0.0232	4.40	1.58	1.000	1
1,2,3,4,7,8-HxCDF	**99.0**		0.0128	4.40	1.22	1.000	1
1,2,3,6,7,8-HxCDF	**95.7**		0.0119	4.40	1.23	1.000	1
1,2,3,7,8,9-HxCDF	**93.0**		0.0135	4.40	1.25	1.000	1
2,3,4,6,7,8-HxCDF	**90.9**		0.0120	4.40	1.22	1.000	1
1,2,3,4,6,7,8-HpCDF	**95.3**		0.0751	4.40	1.01	1.000	1
1,2,3,4,7,8,9-HpCDF	**88.6**		0.0790	4.40	1.04	1.000	1
OCDF	**196**		0.139	8.79	0.90	1.003	1
Total Tetra-Dioxins	**19.0**		0.0483	0.879	0.77		1
Total Penta-Dioxins	**97.0**		0.0311	4.40	1.55		1
Total Hexa-Dioxins	**272**		0.0223	4.40	1.26		1
Total Hepta-Dioxins	**90.9**		0.0240	4.40	1.03		1
Total Tetra-Furans	**18.6**		0.0391	0.879	0.83		1
Total Penta-Furans	**191**		0.0232	4.40	1.56		1
Total Hexa-Furans	**379**		0.0128	4.40	1.22		1
Total Hepta-Furans	**184**		0.0751	4.40	1.01		1

Client:	US Environmental Protection Agency	**Service Request:**	00584
Project:	Dioxins/Furans	**Date Collected:**	NA
Sample Matrix:	Sediment	**Date Received:**	NA
Sample Name:	Duplicate Lab Control Sample	**Units:**	Percent
Lab Code:	00341-03	**Basis:**	Dry

Chlorinated Dibenzo-p-dioxins (CDDs) and Chlorinated Dibenzofurans (CDFs) by HRGC/HRMS

Analytical Method:	D/F DLM02.2	**Date Analyzed:**	6/19/12 1253
Prep Method:	Method	**Date Extracted:**	6/12/12
Sample Amount:	11.376g	**Instrument Name:**	E-HRMS-03
		GC Column:	DB-5
Data File Name:	8293	**Blank File Name:**	8291
ICAL Date:	04/23/12	**Cal Ver. File Name:**	8290

Labeled Compounds	Spike Conc.(pg)	Conc. Found (pg)	%Rec	Q	Control Limits	Ion Ratio	RRT
13C-2,3,7,8-TCDD	2000	1364.567	68		20-175	0.80	1.007
13C-1,2,3,7,8-PeCDD	2000	1577.312	79		21-227	1.56	1.170
13C-1,2,3,4,7,8-HxCDD	2000	1390.149	70		21-193	1.26	0.991
13C-1,2,3,6,7,8-HxCDD	2000	1457.887	73		25-163	1.28	0.992
13C-1,2,3,4,6,7,8-HpCDD	2000	1406.517	70		26-166	1.05	1.069
13C-OCDD	4000	2522.162	63		13-199	0.89	1.150
13C-2,3,7,8-TCDF	2000	1211.128	61		22-152	0.78	0.978
13C-1,2,3,7,8-PeCDF	2000	1540.634	77		21-192	1.56	1.132
13C-2,3,4,7,8-PeCDF	2000	1431.636	72		13-328	1.57	1.158
13C-1,2,3,4,7,8-HxCDF	2000	1355.161	68		19-202	0.52	0.972
13C-1,2,3,6,7,8-HxCDF	2000	1399.779	70		21-159	0.52	0.974
13C-1,2,3,7,8,9-HxCDF	2000	1431.935	72		17-205	0.52	1.006
13C-2,3,4,6,7,8-HxCDF	2000	1443.719	72		22-176	0.53	0.987
13C-1,2,3,4,6,7,8-HpCDF	2000	1305.430	65		21-158	0.45	1.045
13C-1,2,3,4,7,8,9-HpCDF	2000	1578.865	79		20-186	0.45	1.079
37Cl-2,3,7,8-TCDD	800	607.947	76		31-191	NA	1.008

Sample Response Summary

CLIENT ID.
DLCS

Run #10 Filename 8293 Samp: 1 Inj: 1 Acquired: 19-JUN-12 12:53:28
Processed: 20-JUN-12 11:09:16 Sample ID:)0341-03

	Typ	Name	RT-1	Resp 1	Resp 2	Ratio	Meet	Mod?	RRF
1	Unk	2,3,7,8-TCDF	28:19	3.848e+03	4.991e+03	0.77	yes	no	0.929
2	Unk	1,2,3,7,8-PeCDF	32:47	3.208e+04	2.062e+04	1.56	yes	no	1.002
3	Unk	2,3,4,7,8-PeCDF	33:32	2.900e+04	1.835e+04	1.58	yes	no	0.963
4	Unk	1,2,3,4,7,8-HxCDF	36:23	2.850e+04	2.328e+04	1.22	yes	no	1.221
5	Unk	1,2,3,6,7,8-HxCDF	36:29	2.987e+04	2.422e+04	1.23	yes	no	1.139
6	Unk	2,3,4,6,7,8-HxCDF	36:58	2.682e+04	2.206e+04	1.22	yes	no	1.139
7	Unk	1,2,3,7,8,9-HxCDF	37:40	2.515e+04	2.008e+04	1.25	yes	no	1.165
8	Unk	1,2,3,4,6,7,8-HpCDF	39:07	2.168e+04	2.157e+04	1.01	yes	no	1.394
9	Unk	1,2,3,4,7,8,9-HpCDF	40:24	2.004e+04	1.931e+04	1.04	yes	no	1.334
10	Unk	OCDF	43:11	2.541e+04	2.836e+04	0.90	yes	no	1.227
11	Unk	2,3,7,8-TCDD	29:11	3.684e+03	4.795e+03	0.77	yes	no	0.980
12	Unk	1,2,3,7,8-PeCDD	33:54	2.327e+04	1.497e+04	1.55	yes	no	0.915
13	Unk	1,2,3,4,7,8-HxCDD	37:05	1.898e+04	1.509e+04	1.26	yes	no	1.001
14	Unk	1,2,3,6,7,8-HxCDD	37:10	2.077e+04	1.651e+04	1.26	yes	no	0.978
15	Unk	1,2,3,7,8,9-HxCDD	37:27	2.047e+04	1.661e+04	1.23	yes	no	1.041
16	Unk	1,2,3,4,6,7,8-HpCDD	40:00	1.597e+04	1.506e+04	1.06	yes	no	1.002
17	Unk	OCDD	43:02	2.033e+04	2.268e+04	0.90	yes	no	1.054
18	IS	13C-2,3,7,8-TCDF	28:18	3.996e+04	5.119e+04	0.78	yes	no	1.282
19	IS	13C-1,2,3,7,8-PeCDF	32:46	6.052e+04	3.875e+04	1.56	yes	no	1.098
20	IS	13C-2,3,4,7,8-PeCDF	33:31	5.469e+04	3.481e+04	1.57	yes	no	1.065
21	IS	13C-1,2,3,4,7,8-HxCDF	36:22	2.573e+04	4.955e+04	0.52	yes	no	1.062
22	IS	13C-1,2,3,6,7,8-HxCDF	36:28	2.998e+04	5.724e+04	0.52	yes	no	1.191
23	IS	13C-2,3,4,6,7,8-HxCDF	36:57	2.868e+04	5.429e+04	0.53	yes	no	1.098
24	IS	13C-1,2,3,7,8,9-HxCDF	37:40	2.509e+04	4.831e+04	0.52	yes	no	0.980
25	IS	13C-1,2,3,4,6,7,8-HpCDF	39:07	1.773e+04	3.947e+04	0.45	yes	no	0.837
26	IS	13C-1,2,3,4,7,8,9-HpCDF	40:23	1.815e+04	4.035e+04	0.45	yes	no	0.708
27	IS	13C-2,3,7,8-TCDD	29:10	3.562e+04	4.459e+04	0.80	yes	no	1.002
28	IS	13C-1,2,3,7,8-PeCDD	33:52	4.617e+04	2.963e+04	1.56	yes	no	0.819
29	IS	13C-1,2,3,4,7,8-HxCDD	37:05	3.772e+04	2.986e+04	1.26	yes	no	0.929
30	IS	13C-1,2,3,6,7,8-HxCDD	37:09	4.010e+04	3.137e+04	1.28	yes	no	0.937
31	IS	13C-1,2,3,4,6,7,8-HpCDD	40:00	3.079e+04	2.933e+04	1.05	yes	no	0.817
32	IS	13C-OCDD	43:02	3.685e+04	4.163e+04	0.89	yes	no	0.595
33	RS/RT	13C-1,2,3,4-TCDD	28:57	5.239e+04	6.499e+04	0.81	yes	no	-
34	RS/RT	13C-1,2,3,7,8,9-HxCDD	37:26	5.829e+04	4.637e+04	1.26	yes	no	-
35	C/Up	37Cl-2,3,7,8-TCDD	29:11	3.709e+04				no	1.039

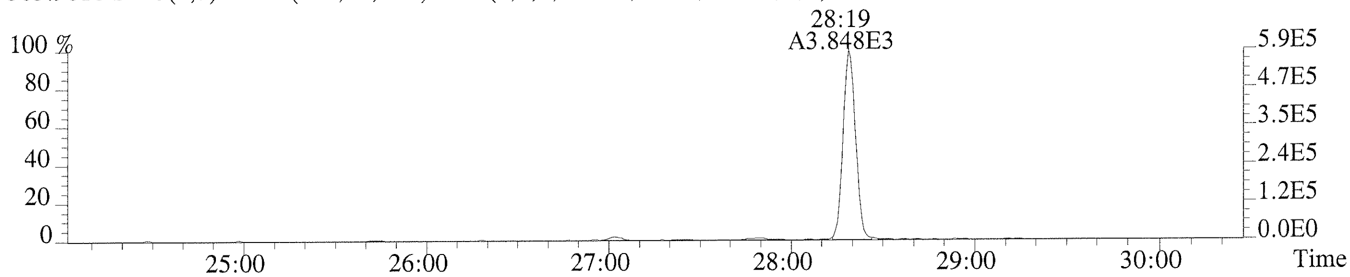
Signal/Noise Height Ratio Summary CLIENT ID.
DLCS

Run #10 Filename 8293 Samp: 1 Inj: 1 Acquired: 19-JUN-12 12:53:28
Processed: 20-JUN-12 11:09:161 LAB. ID: 00341-03

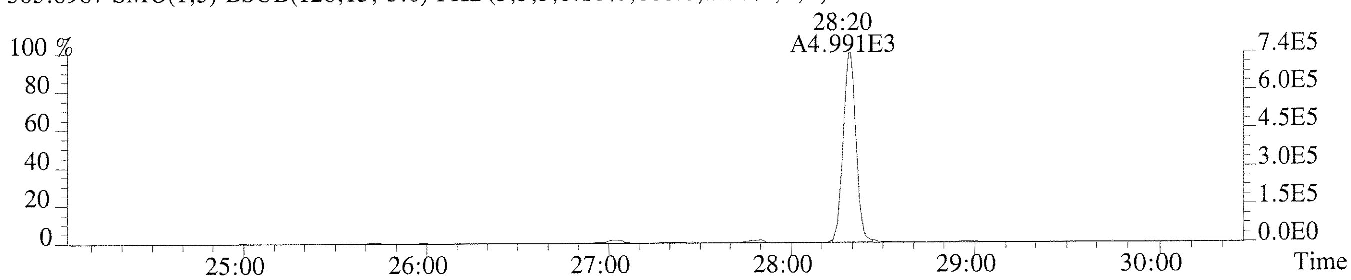
	Name	Signal 1	Noise 1	S/N Rat.1	Signal 2	Noise 2	S/N Rat.2
1	2,3,7,8-TCDF	5.88e+05	5.04e+02	1.2e+03	7.44e+05	6.60e+02	1.1e+03
2	1,2,3,7,8-PeCDF	5.68e+06	3.40e+02	1.7e+04	3.61e+06	5.24e+02	6.9e+03
3	2,3,4,7,8-PeCDF	5.66e+06	3.40e+02	1.7e+04	3.54e+06	5.24e+02	6.8e+03
4	1,2,3,4,7,8-HxCDF	5.71e+06	4.08e+02	1.4e+04	4.71e+06	1.40e+02	3.4e+04
5	1,2,3,6,7,8-HxCDF	6.03e+06	4.08e+02	1.5e+04	4.86e+06	1.40e+02	3.5e+04
6	2,3,4,6,7,8-HxCDF	5.76e+06	4.08e+02	1.4e+04	4.72e+06	1.40e+02	3.4e+04
7	1,2,3,7,8,9-HxCDF	5.25e+06	4.08e+02	1.3e+04	4.19e+06	1.40e+02	3.0e+04
8	1,2,3,4,6,7,8-HpCDF	3.86e+06	1.38e+03	2.8e+03	3.78e+06	1.02e+03	3.7e+03
9	1,2,3,4,7,8,9-HpCDF	3.40e+06	1.38e+03	2.5e+03	3.31e+06	1.02e+03	3.2e+03
10	OCDF	2.67e+06	5.08e+02	5.2e+03	3.02e+06	8.40e+02	3.6e+03
11	2,3,7,8-TCDD	6.06e+05	6.68e+02	9.1e+02	7.99e+05	7.64e+02	1.0e+03
12	1,2,3,7,8-PeCDD	4.58e+06	7.32e+02	6.3e+03	2.93e+06	2.40e+02	1.2e+04
13	1,2,3,4,7,8-HxCDD	4.16e+06	3.16e+02	1.3e+04	3.29e+06	4.48e+02	7.3e+03
14	1,2,3,6,7,8-HxCDD	4.29e+06	3.16e+02	1.4e+04	3.40e+06	4.48e+02	7.6e+03
15	1,2,3,7,8,9-HxCDD	4.29e+06	3.16e+02	1.4e+04	3.49e+06	4.48e+02	7.8e+03
16	1,2,3,4,6,7,8-HpCDD	2.75e+06	3.72e+02	7.4e+03	2.57e+06	2.00e+02	1.3e+04
17	OCDD	1.87e+06	3.96e+02	4.7e+03	2.02e+06	4.12e+02	4.9e+03
18	13C-2,3,7,8-TCDF	6.21e+06	8.60e+02	7.2e+03	7.85e+06	7.36e+02	1.1e+04
19	13C-1,2,3,7,8-PeCDF	1.09e+07	3.12e+02	3.5e+04	7.05e+06	5.04e+02	1.4e+04
20	13C-2,3,4,7,8-PeCDF	1.04e+07	3.12e+02	3.3e+04	6.61e+06	5.04e+02	1.3e+04
21	13C-1,2,3,4,7,8-HxCDF	5.23e+06	3.12e+02	1.7e+04	1.02e+07	4.60e+02	2.2e+04
22	13C-1,2,3,6,7,8-HxCDF	6.09e+06	3.12e+02	2.0e+04	1.16e+07	4.60e+02	2.5e+04
23	13C-2,3,4,6,7,8-HxCDF	6.10e+06	3.12e+02	2.0e+04	1.15e+07	4.60e+02	2.5e+04
24	13C-1,2,3,7,8,9-HxCDF	5.27e+06	3.12e+02	1.7e+04	1.00e+07	4.60e+02	2.2e+04
25	13C-1,2,3,4,6,7,8-HpCDF	3.12e+06	1.62e+03	1.9e+03	6.91e+06	1.66e+03	4.2e+03
26	13C-1,2,3,4,7,8,9-HpCDF	3.10e+06	1.62e+03	1.9e+03	6.86e+06	1.66e+03	4.1e+03
27	13C-2,3,7,8-TCDD	5.87e+06	2.24e+03	2.6e+03	7.38e+06	7.08e+02	1.0e+04
28	13C-1,2,3,7,8-PeCDD	9.06e+06	4.88e+02	1.9e+04	5.90e+06	4.04e+02	1.5e+04
29	13C-1,2,3,4,7,8-HxCDD	8.44e+06	7.32e+02	1.2e+04	6.59e+06	5.88e+02	1.1e+04
30	13C-1,2,3,6,7,8-HxCDD	8.28e+06	7.32e+02	1.1e+04	6.49e+06	5.88e+02	1.1e+04
31	13C-1,2,3,4,6,7,8-HpCDD	5.38e+06	6.20e+02	8.7e+03	5.04e+06	3.60e+02	1.4e+04
32	13C-OCDD	3.22e+06	6.64e+02	4.9e+03	3.74e+06	4.52e+02	8.3e+03
33	13C-1,2,3,4-TCDD	8.79e+06	2.24e+03	3.9e+03	1.10e+07	7.08e+02	1.6e+04
34	13C-1,2,3,7,8,9-HxCDD	1.21e+07	7.32e+02	1.6e+04	9.63e+06	5.88e+02	1.6e+04
35	37Cl-2,3,7,8-TCDD	6.18e+06	5.48e+02	1.1e+04			

File: 8293 #1-535 Acq:19-JUN-2012 12:53:28 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:)0341-03 DLCS

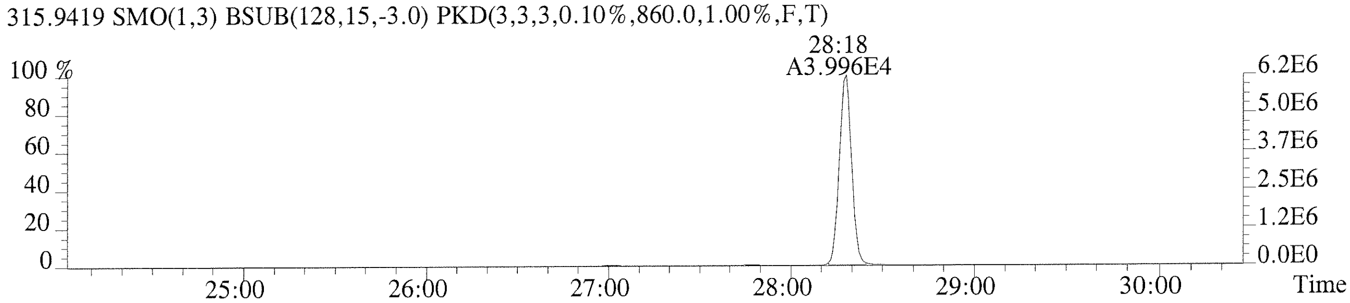
303.9016 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,504.0,1.00%,F,T)



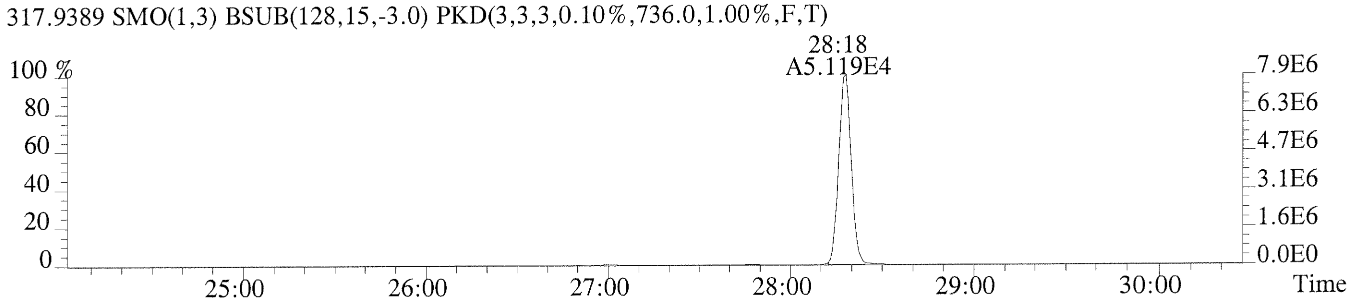
305.8987 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,660.0,1.00%,F,T)



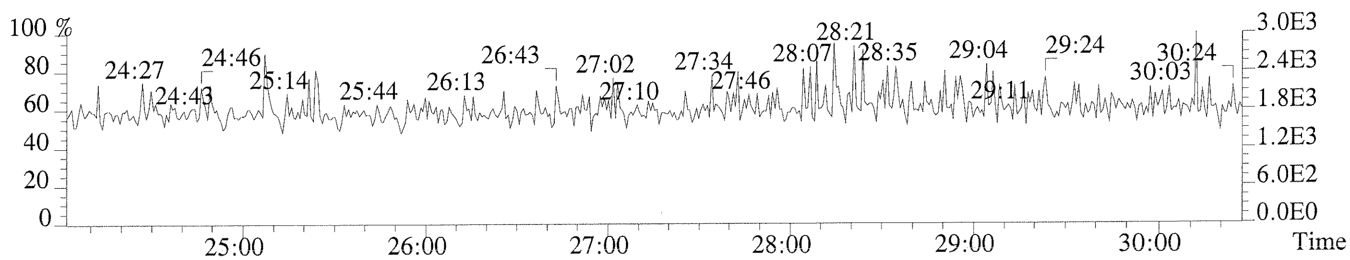
315.9419 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,860.0,1.00%,F,T)



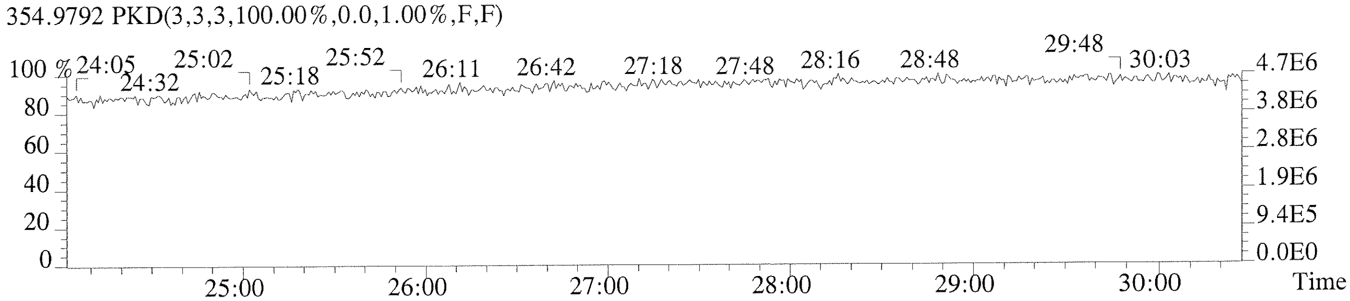
317.9389 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,736.0,1.00%,F,T)



375.8364 PKD(5,3,5,100.00%,0.0,1.00%,F,F)

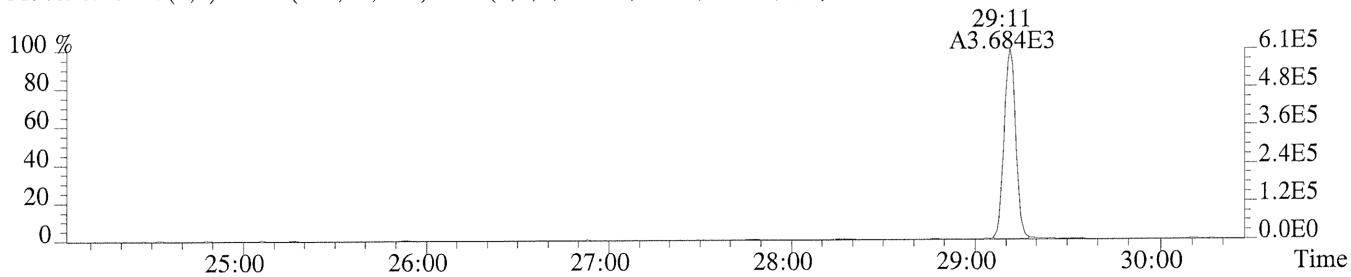


354.9792 PKD(3,3,3,100.00%,0.0,1.00%,F,F)

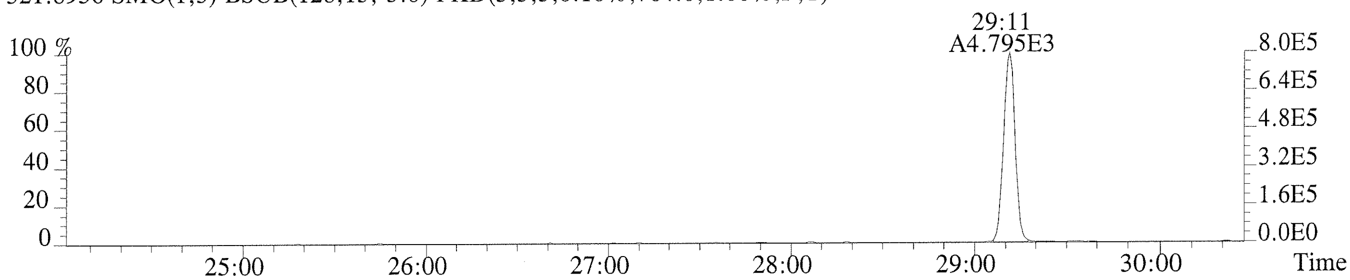


File: 8293 #1-535 Acq:19-JUN-2012 12:53:28 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:)0341-03 DLCS

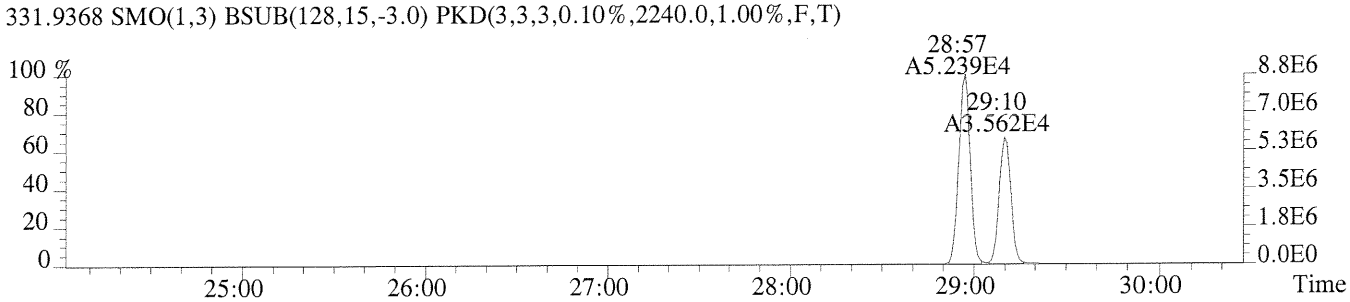
319.8965 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,668.0,1.00%,F,T)



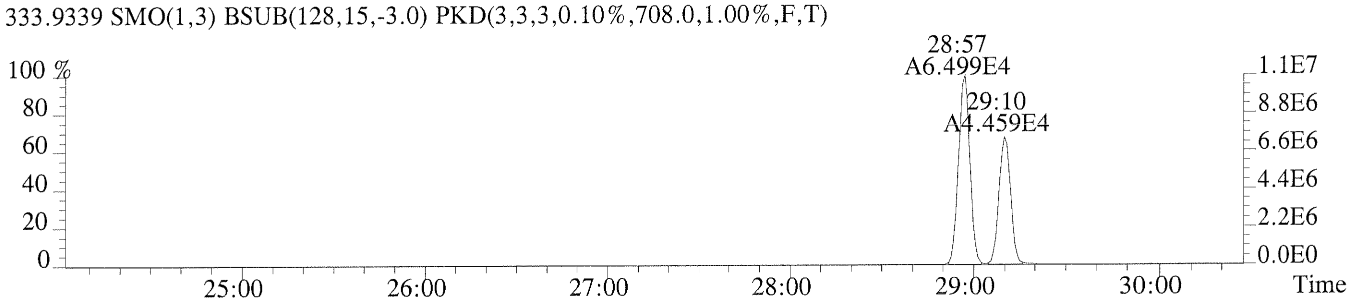
321.8936 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,764.0,1.00%,F,T)



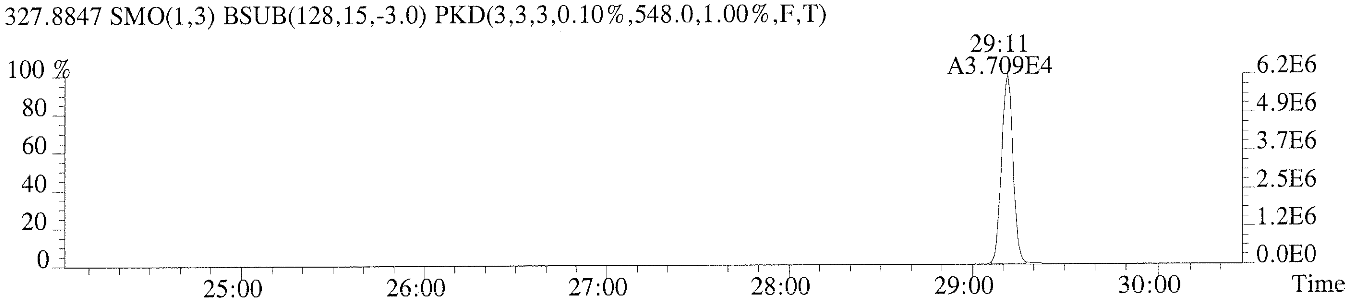
331.9368 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,2240.0,1.00%,F,T)



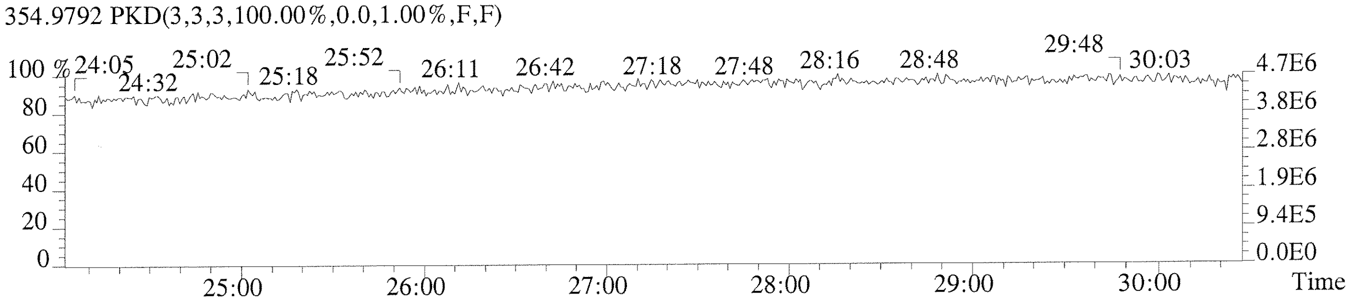
333.9339 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,708.0,1.00%,F,T)



327.8847 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,548.0,1.00%,F,T)

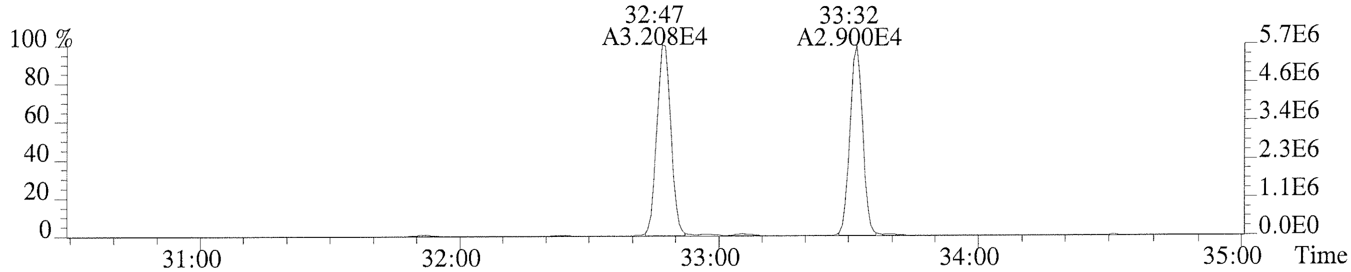


354.9792 PKD(3,3,3,100.00%,0.0,1.00%,F,F)

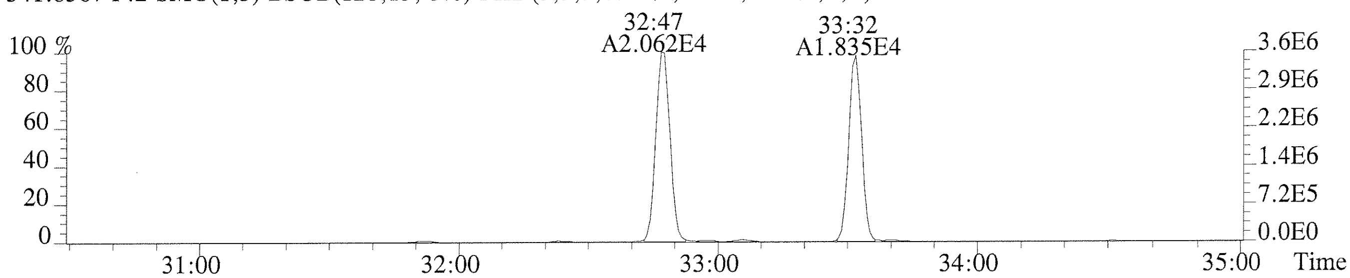


File: 8293 #1-411 Acq:19-JUN-2012 12:53:28 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp: 00341-03 DLCS

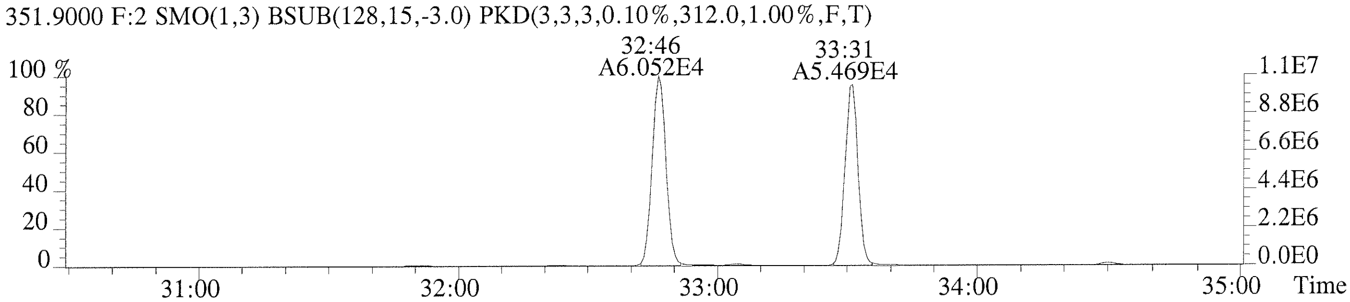
339.8597 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,340.0,1.00%,F,T)



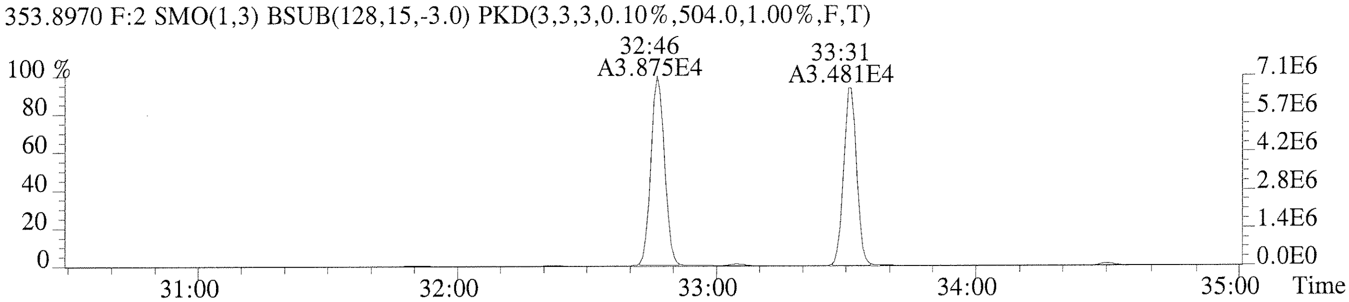
341.8567 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,524.0,1.00%,F,T)



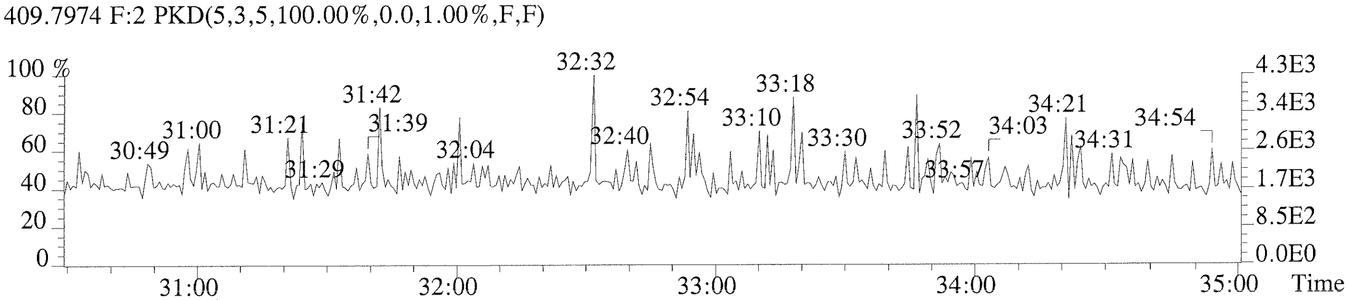
351.9000 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,312.0,1.00%,F,T)



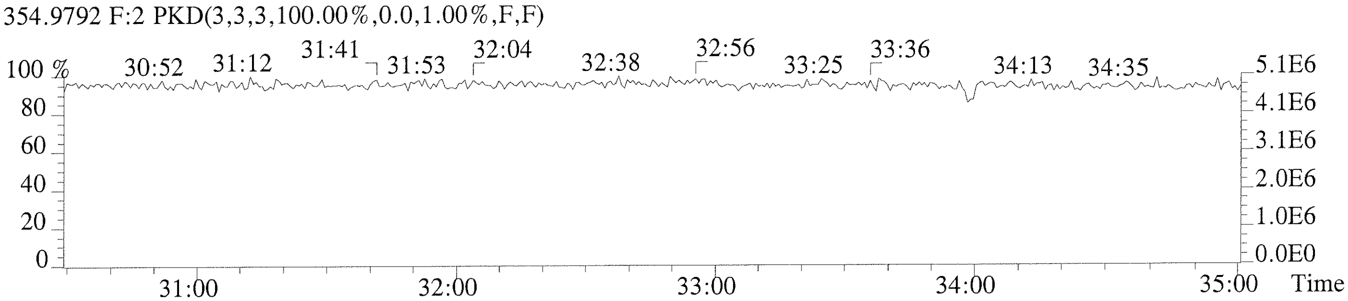
353.8970 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,504.0,1.00%,F,T)



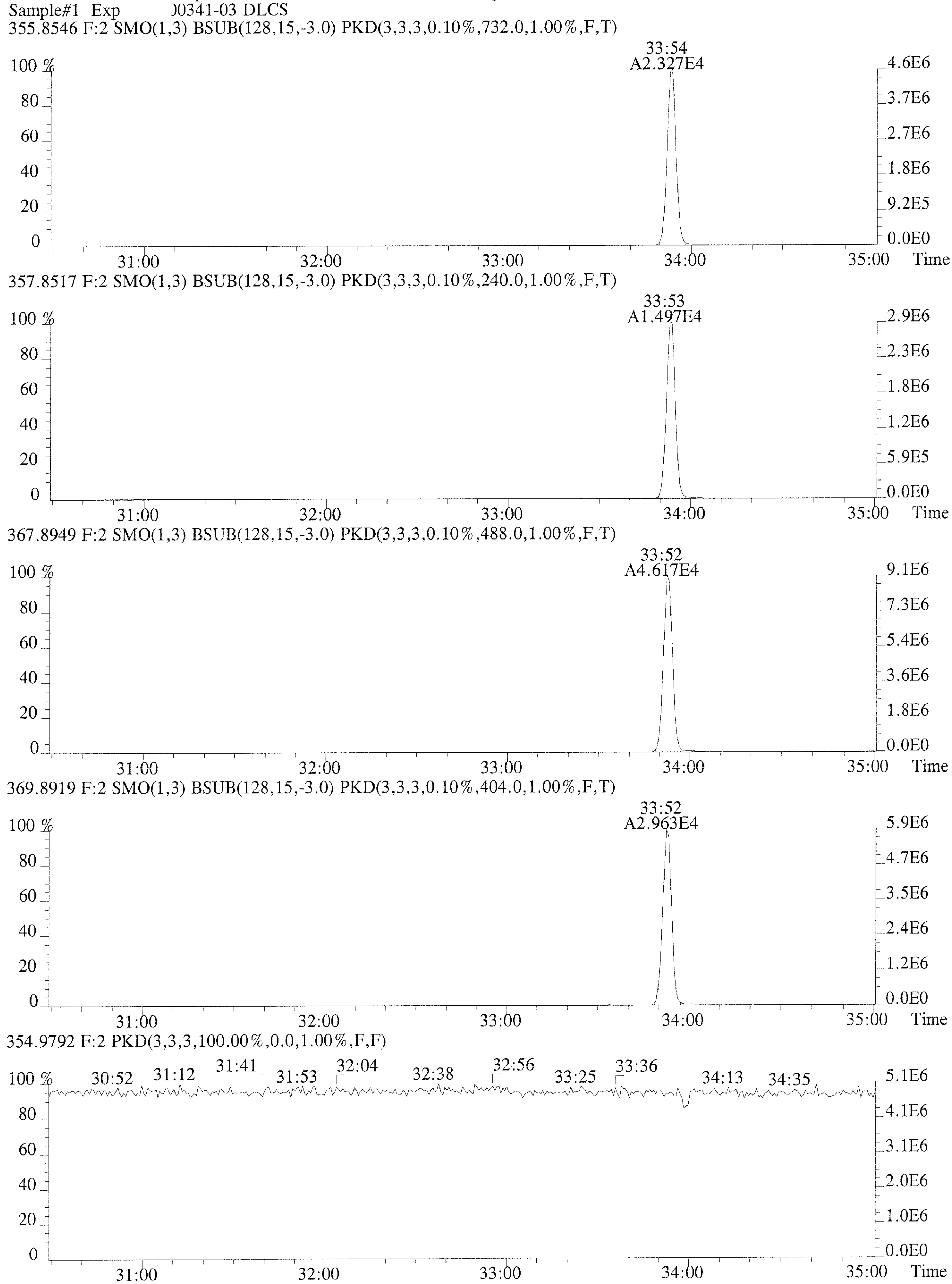
409.7974 F:2 PKD(5,3,5,100.00%,0.0,1.00%,F,F)



354.9792 F:2 PKD(3,3,3,100.00%,0.0,1.00%,F,F)

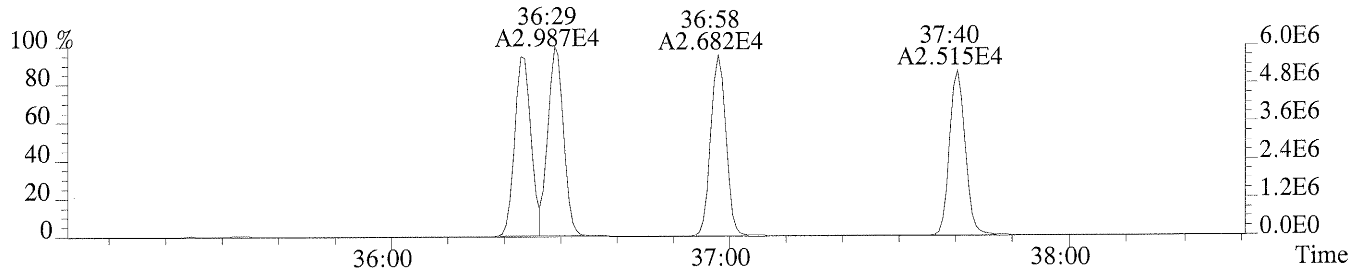


File 8293 #1-411 Acq:19-JUN-2012 12:53:28 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp)0341-03 DLCS

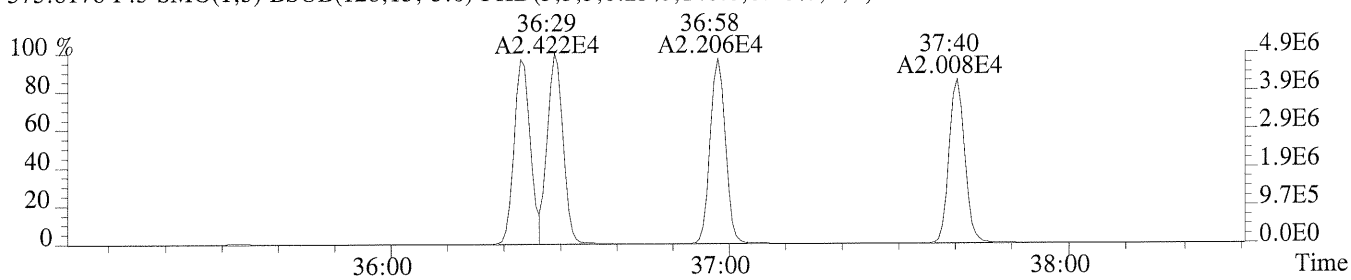


File: 8293 #1-315 Acq:19-JUN-2012 12:53:28 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:)0341-03 DLCS

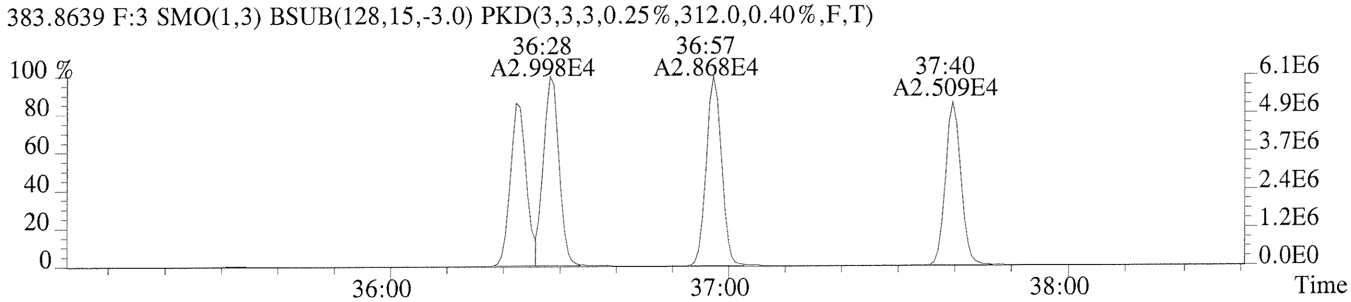
373.8208 F:3 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,408.0,0.40%,F,T)



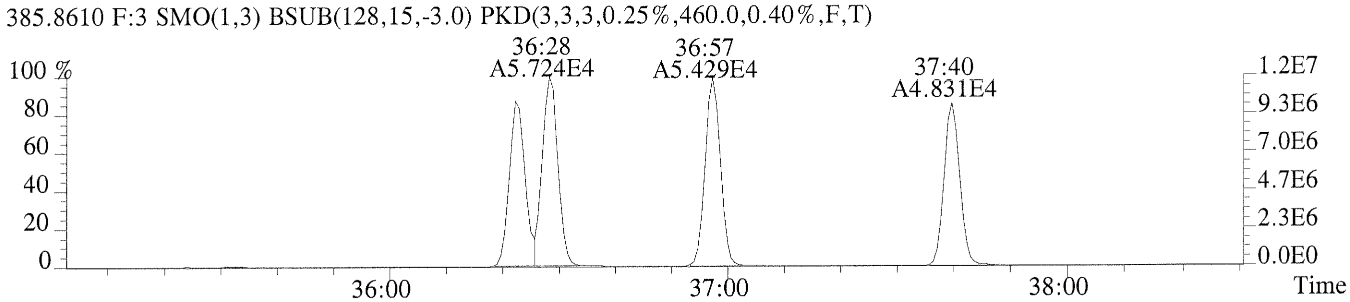
375.8178 F:3 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,140.0,0.40%,F,T)



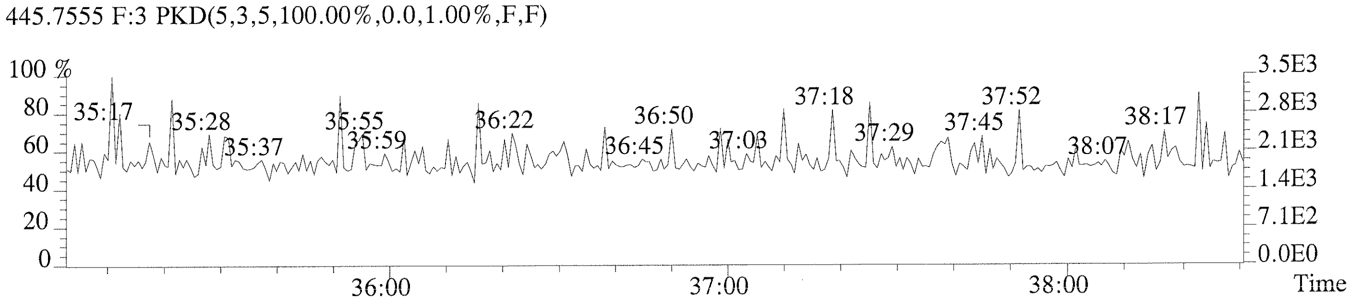
383.8639 F:3 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,312.0,0.40%,F,T)



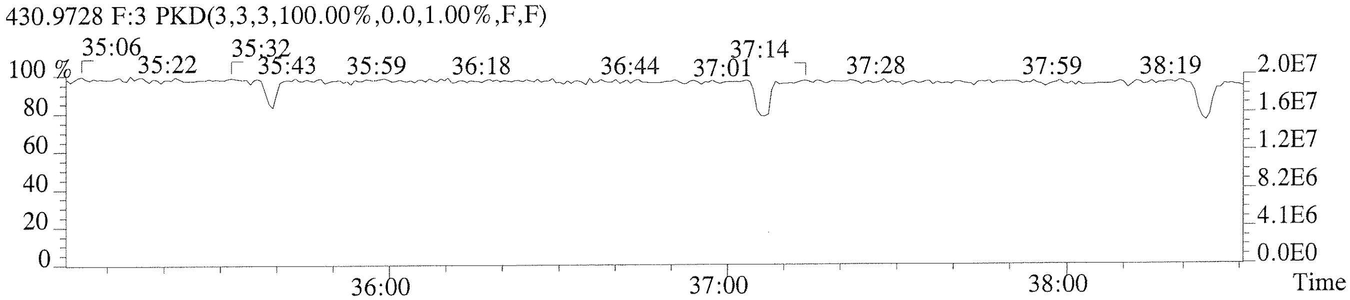
385.8610 F:3 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,460.0,0.40%,F,T)



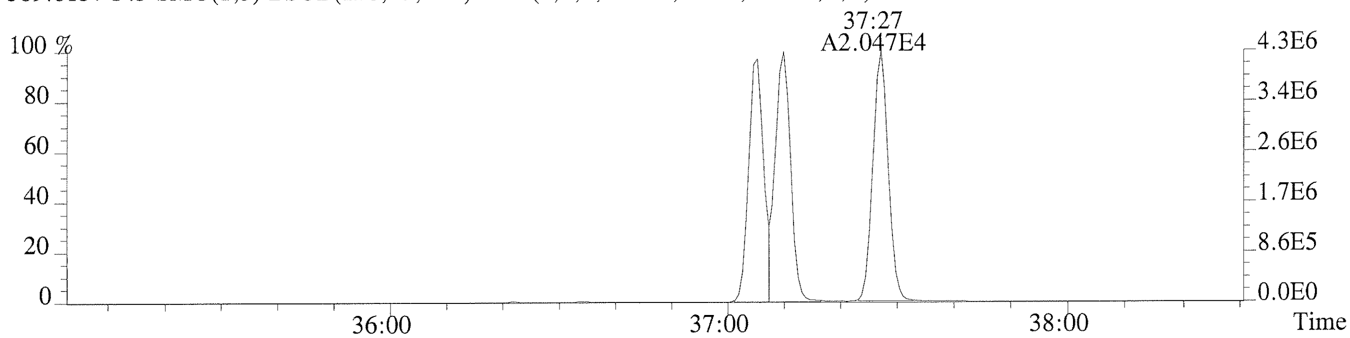
445.7555 F:3 PKD(5,3,5,100.00%,0.0,1.00%,F,F)



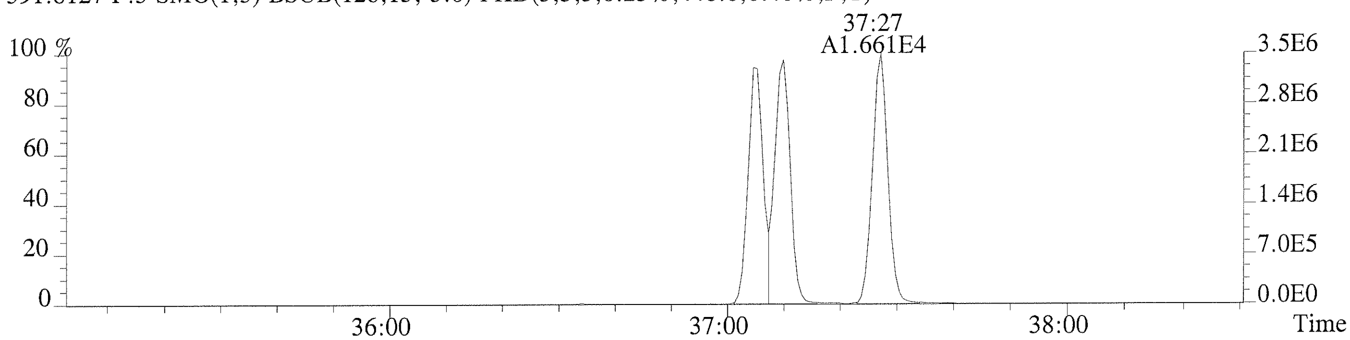
430.9728 F:3 PKD(3,3,3,100.00%,0.0,1.00%,F,F)



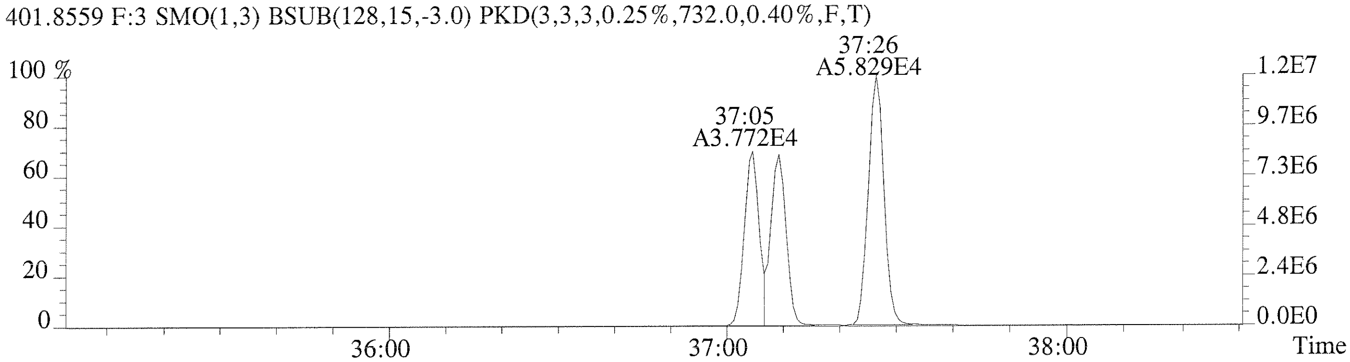
File: 8293 #1-315 Acq:19-JUN-2012 12:53:28 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp: 00341-03 DLCS
389.8157 F:3 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,316.0,0.40%,F,T)



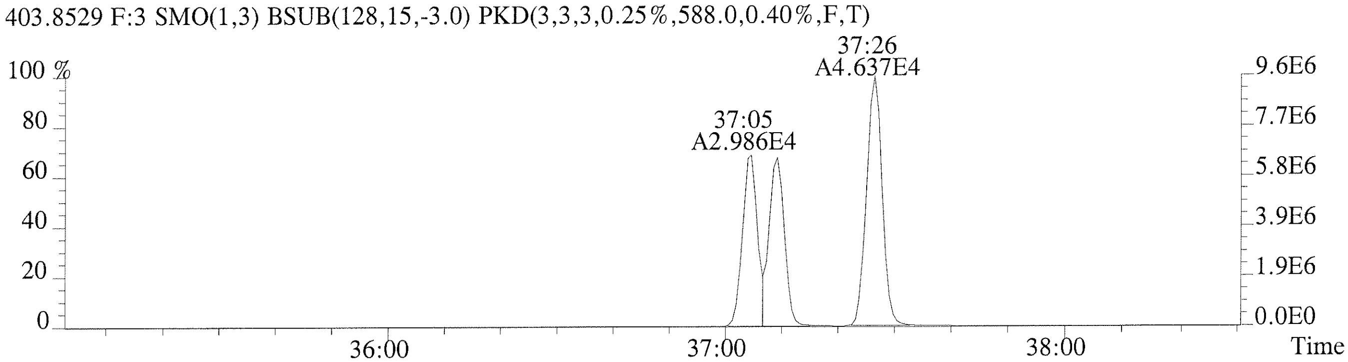
391.8127 F:3 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,448.0,0.40%,F,T)



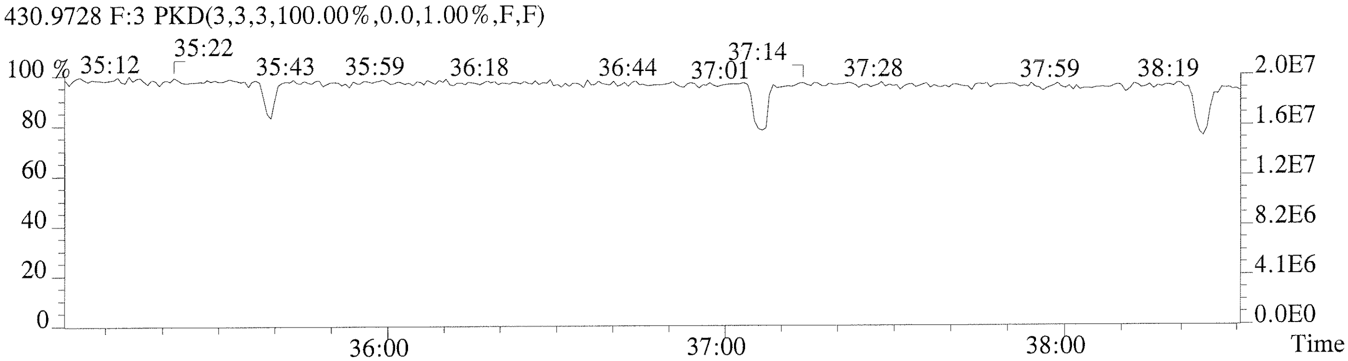
401.8559 F:3 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,732.0,0.40%,F,T)



403.8529 F:3 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,588.0,0.40%,F,T)

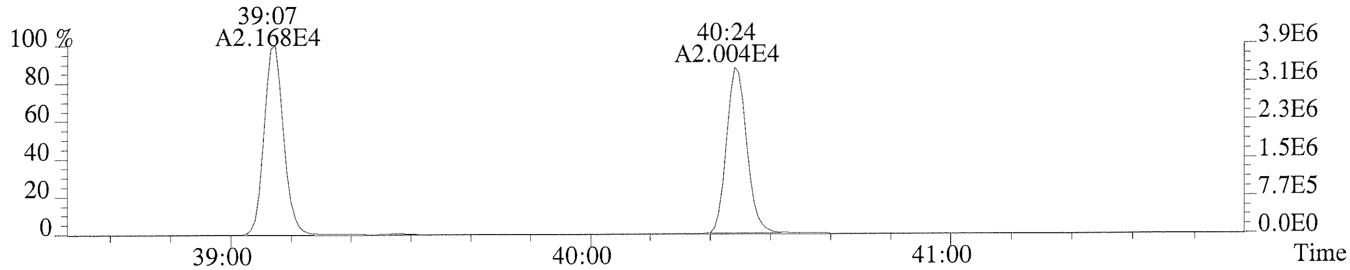


430.9728 F:3 PKD(3,3,3,100.00%,0.0,1.00%,F,F)

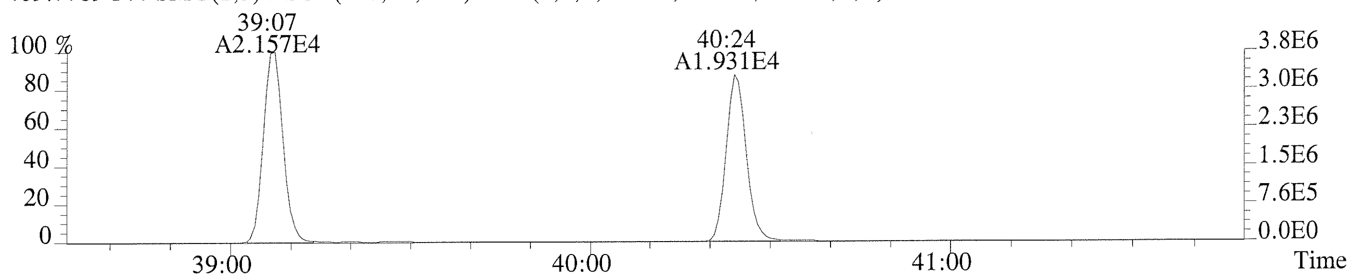


File 8293 #1-296 Acq:19-JUN-2012 12:53:28 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp: 00341-03 DLCS

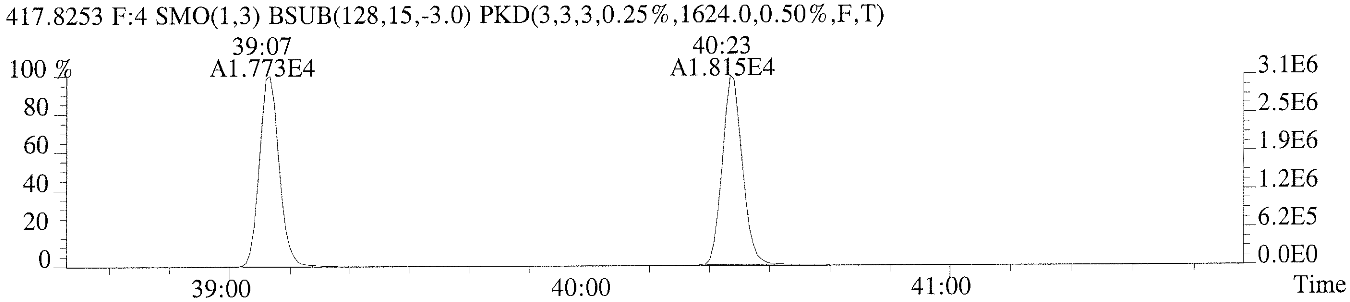
407.7818 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,1380.0,0.50%,F,T)



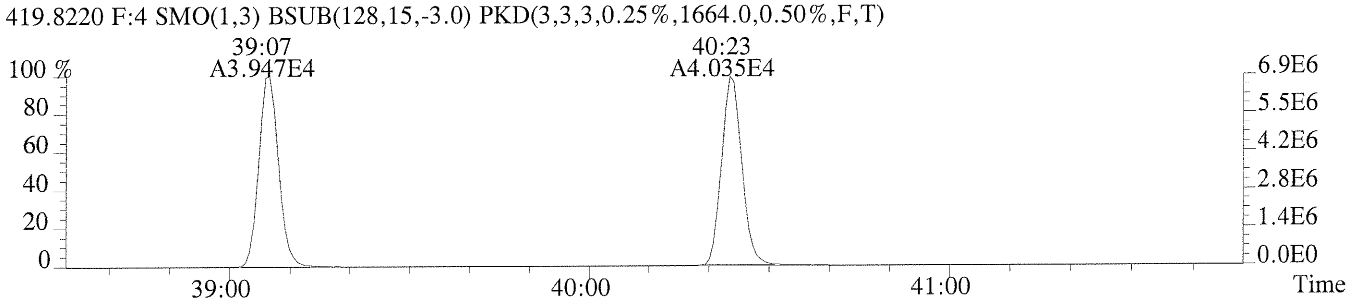
409.7789 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,1020.0,0.50%,F,T)



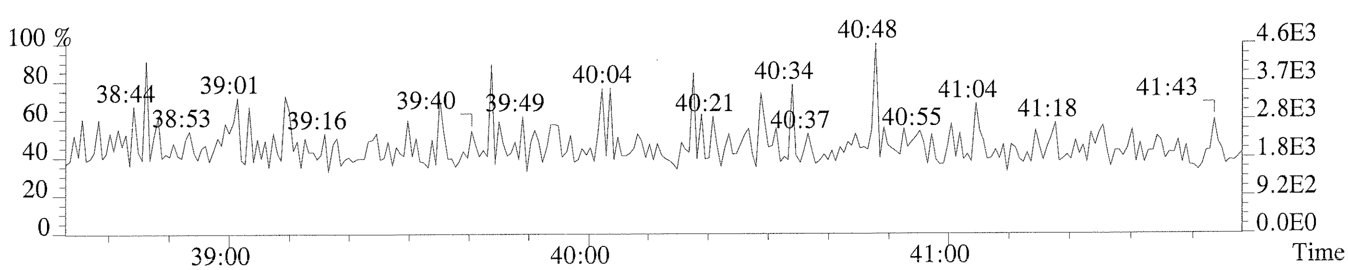
417.8253 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,1624.0,0.50%,F,T)



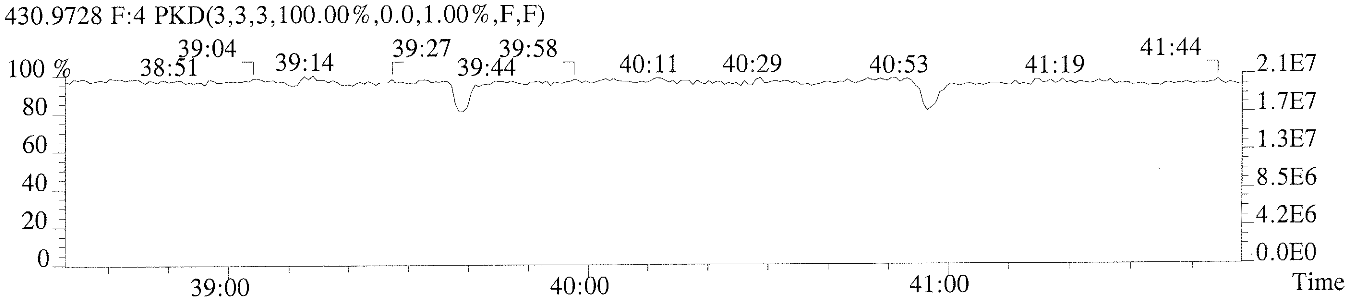
419.8220 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,1664.0,0.50%,F,T)



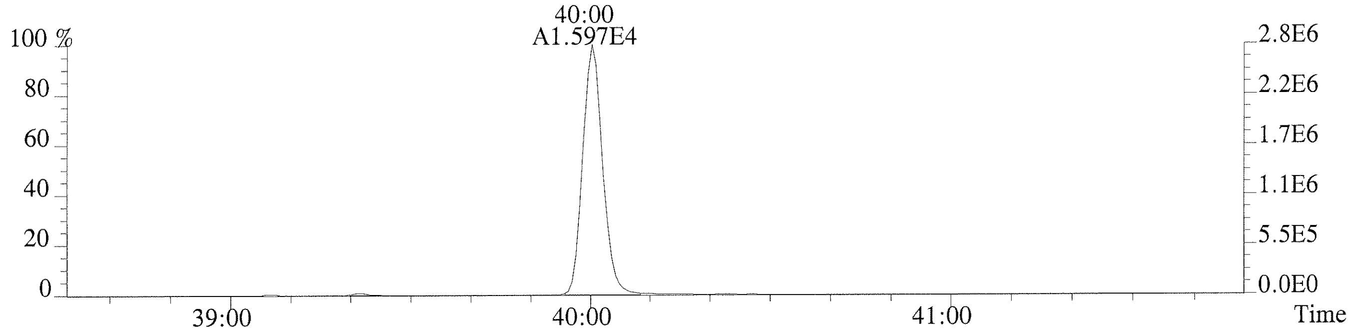
479.7165 F:4 PKD(5,3,5,100.00%,0.0,1.00%,F,F)



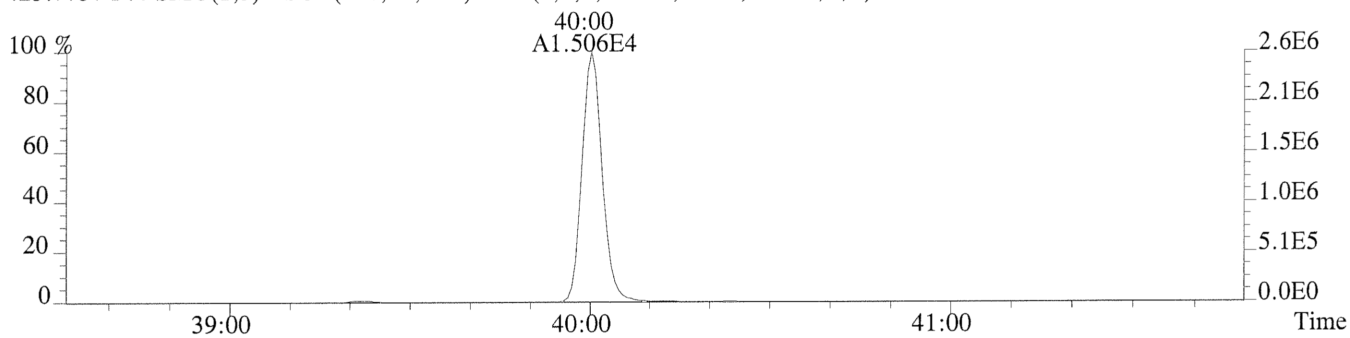
430.9728 F:4 PKD(3,3,3,100.00%,0.0,1.00%,F,F)



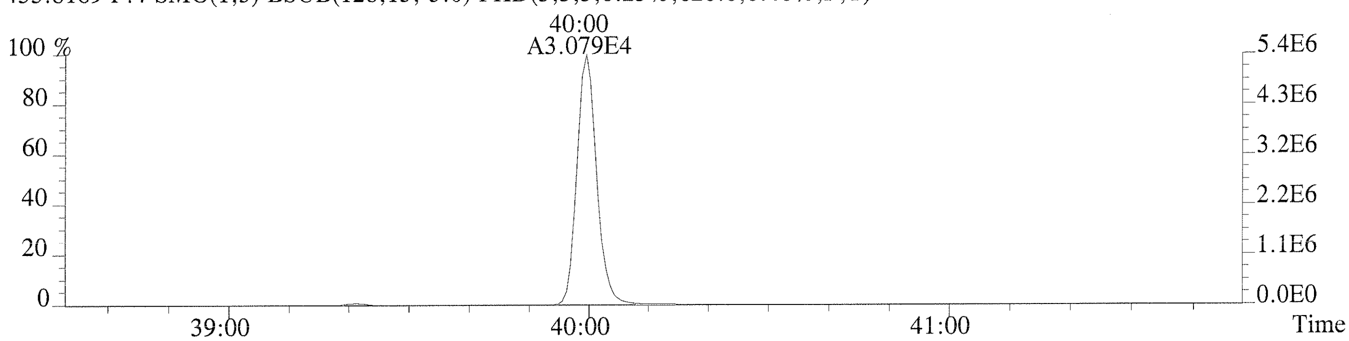
File: 3293 #1-296 Acq:19-JUN-2012 12:53:28 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp: 00341-03 DLCS
423.7766 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,372.0,0.40%,F,T)



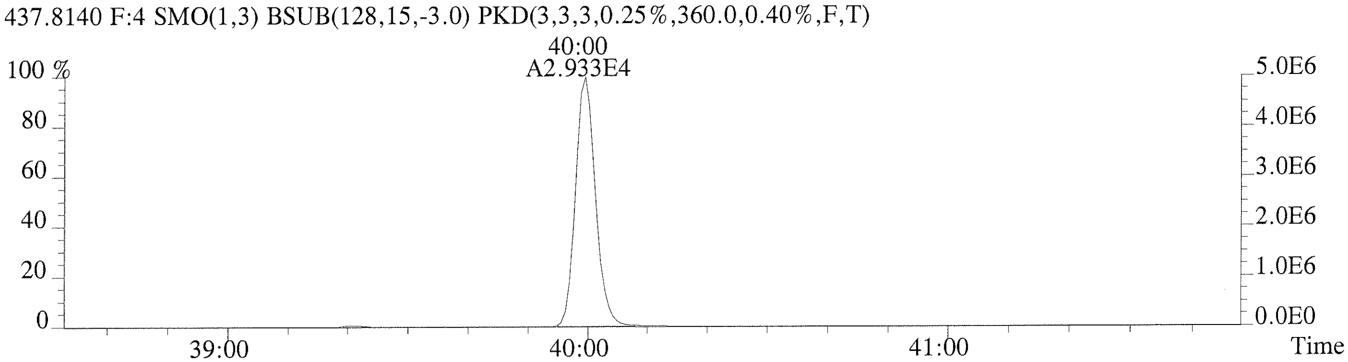
425.7737 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,200.0,0.40%,F,T)



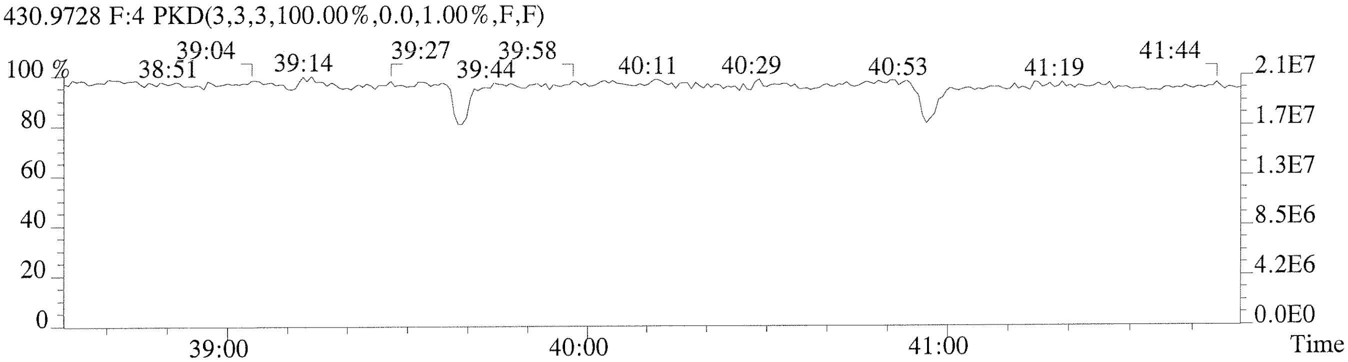
435.8169 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,620.0,0.40%,F,T)



437.8140 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,360.0,0.40%,F,T)

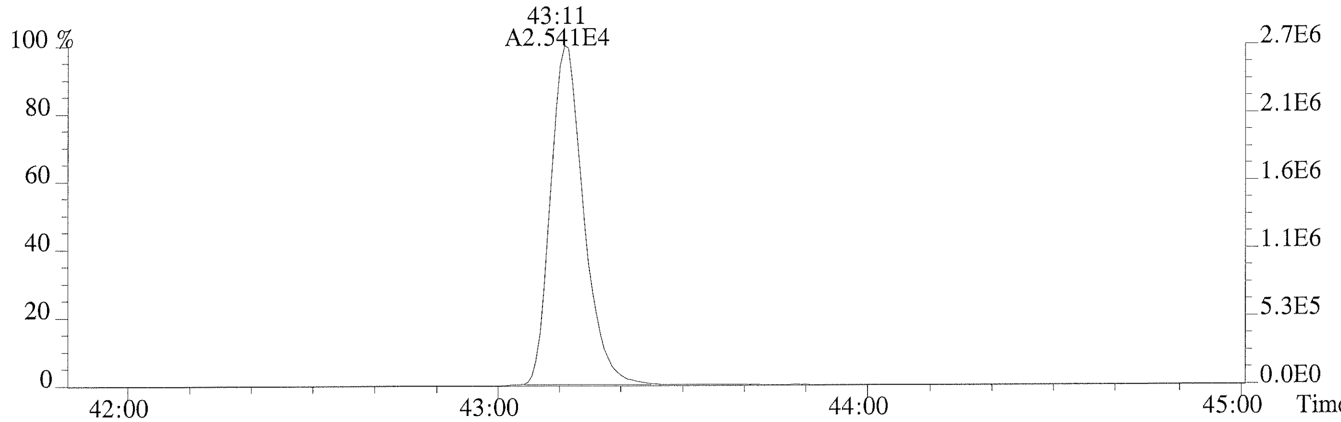


430.9728 F:4 PKD(3,3,3,100.00%,0.0,1.00%,F,F)

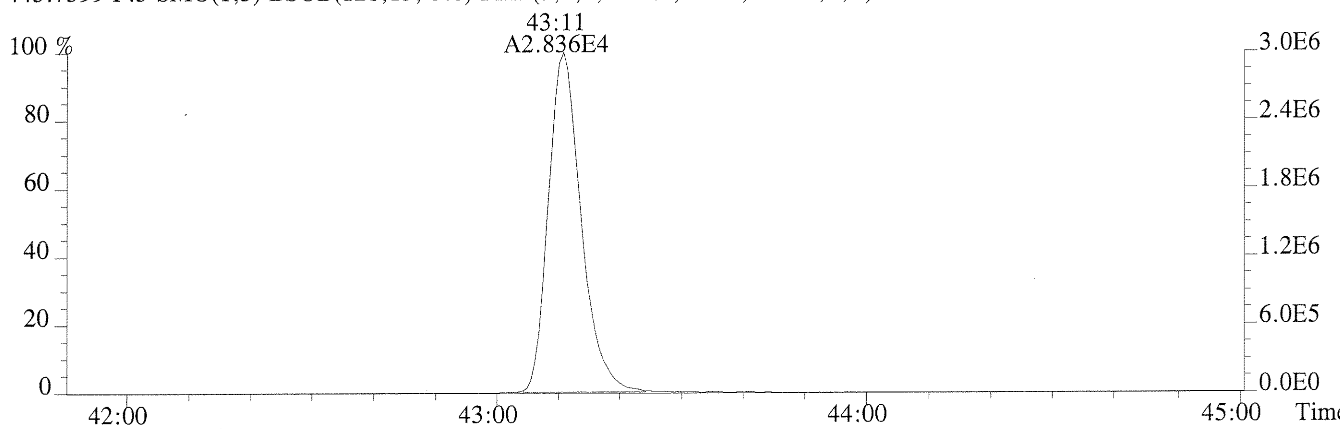


File: 3293 #1-292 Acq:19-JUN-2012 12:53:28 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:)0341-03 DLCS

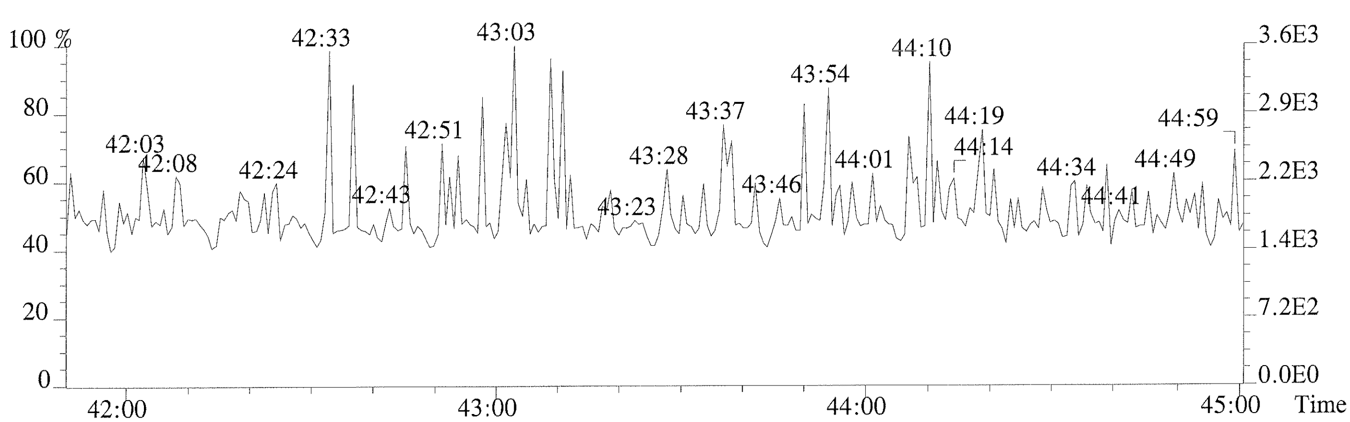
441.7428 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(5,3,5,0.30%,508.0,0.40%,F,T)



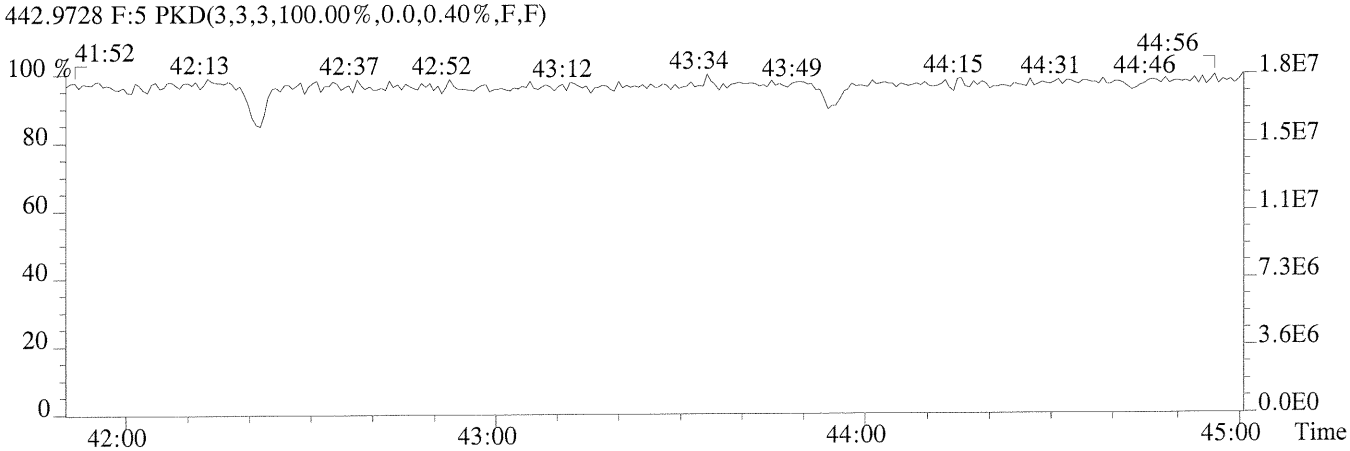
443.7399 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(5,3,5,0.30%,840.0,0.40%,F,T)



513.6775 F:5 PKD(5,3,5,100.00%,0.0,1.00%,F,F)

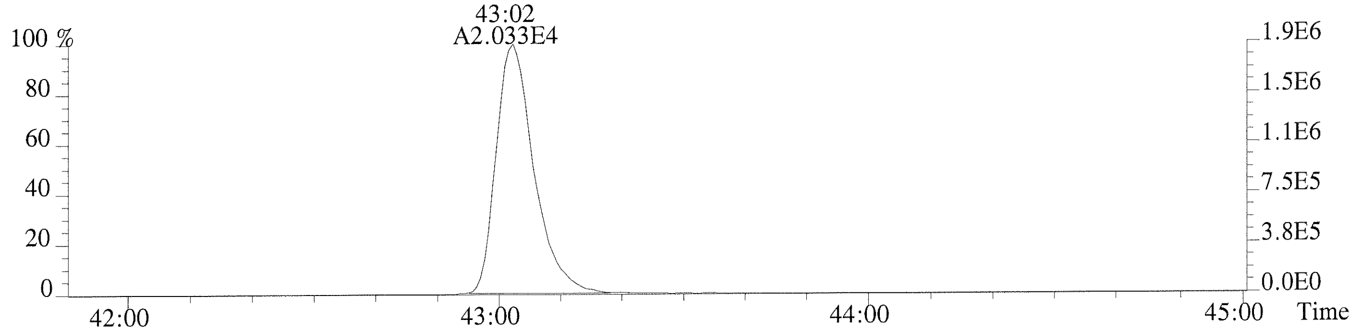


442.9728 F:5 PKD(3,3,3,100.00%,0.0,0.40%,F,F)

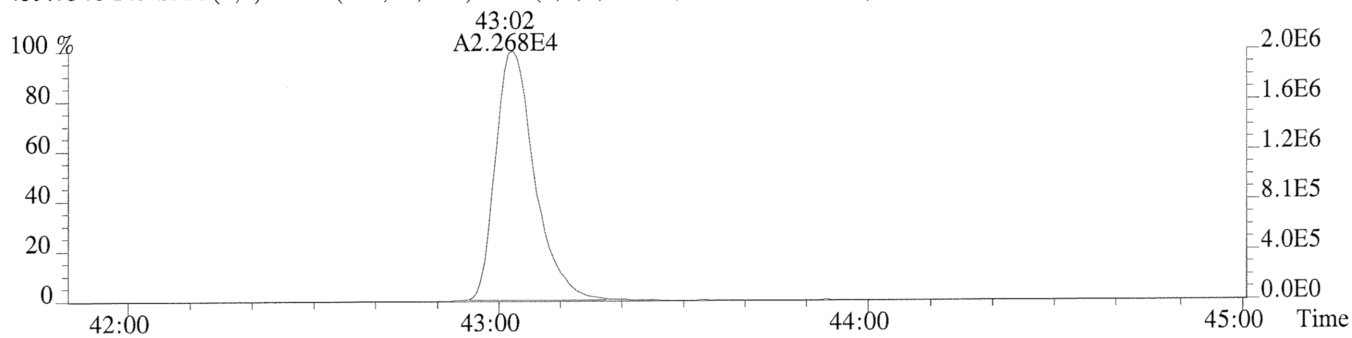


File 8293 #1-292 Acq:19-JUN-2012 12:53:28 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:)0341-03 DLCS

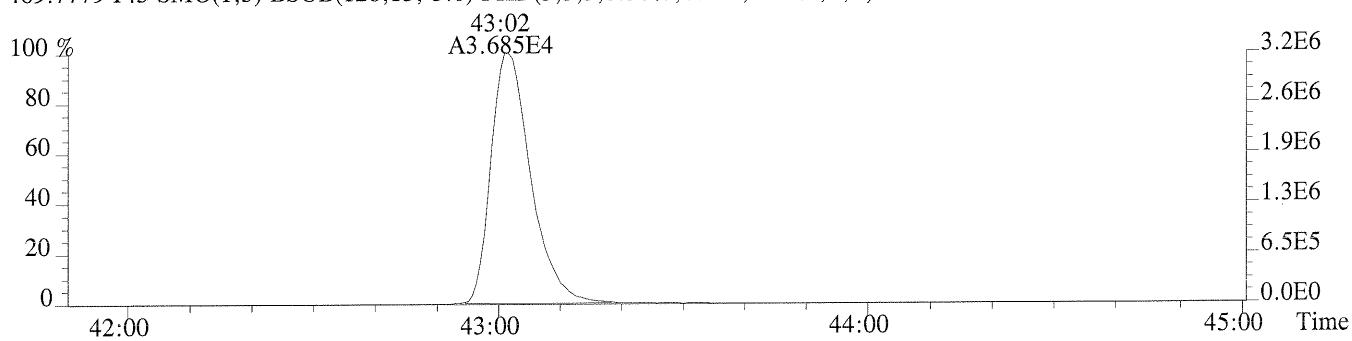
457.7377 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(5,3,5,0.30%,396.0,0.40%,F,T)



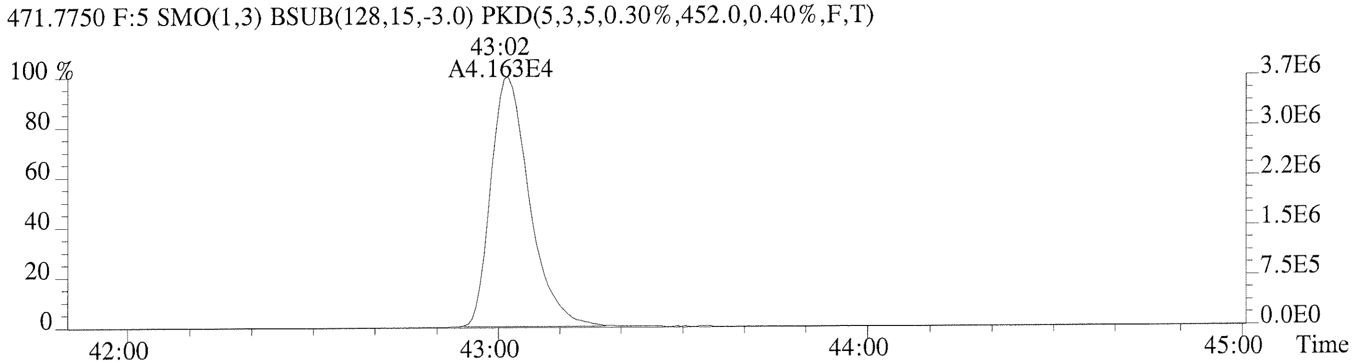
459.7348 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(5,3,5,0.30%,412.0,0.40%,F,T)



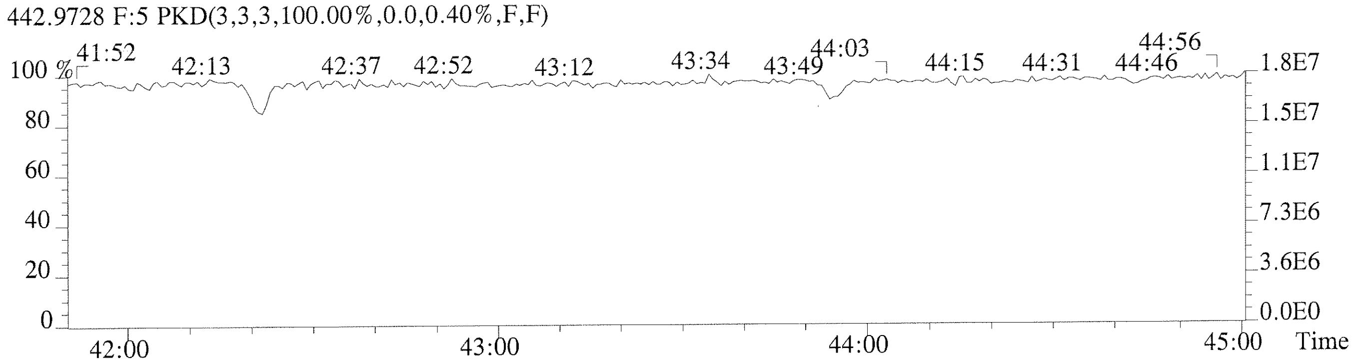
469.7779 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(5,3,5,0.30%,664.0,0.40%,F,T)



471.7750 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(5,3,5,0.30%,452.0,0.40%,F,T)



442.9728 F:5 PKD(3,3,3,100.00%,0.0,0.40%,F,F)



Preparation Information Benchsheet

Prep Run#: 159461
Team:

Prep WorkFlow: OrgExtAq(365)
Prep Method: Method

Status: Prepped
Prep Date/Time: 6/6/12 04:13 PM

#	Lab Code	Client ID	B#	Method /Test	pH	Matrix	Amt. Ext.	Sample Description
1	00584-002	238	.01	D/F DLM02.2/Dioxins	7	Water	1040mL	clear colorless liquid with green filtrate
2	00584-003	240	.01	D/F DLM02.2/Dioxins	7	Water	1040mL	clear colorless liquid with brown filtrate
3	00313-01	MB		D/F DLM02.2/Dioxins	5	Liquid	1000mL	
4	00313-02	LCS		-D/F DLM02.2/Dioxins	5	Liquid	1000mL	
5	00313-03	DLCS		-D/F DLM02.2/Dioxins	5	Liquid	1000mL	

Spiking Solutions

Name:	1613B Matrix Working Standard	Inventory ID	45106	Logbook Ref:	D13-25-3 (45106)	Expires On:	05/19/2013

00313-02 100.00µL   00313-03 100.00µL

Name:	8290/1613B Cleanup Working Standard	Inventory ID	45536	Logbook Ref:	D13-30-3 (45536)	Expires On:	05/31/2013

00584-002 100.00µL   00584-003 100.00µL   00313-01 100.00µL   00313-02 100.00µL   00313-03 100.00µL

Name:	1613B Labeled Working Standard	Inventory ID	45698	Logbook Ref:	D13-31-5 (45698)	Expires On:	06/05/2013

00584-002 1,000.00µL   00584-003 1,000.00µL   00313-01 1,000.00µL   00313-02 1,000.00µL   00313-03 1,000.00µL

Preparation Materials

Sensafe Free Chlorine WTR CHK	C2-68-6 (42516)	Acetone 99.5% Minimum	C2-58-7 (32783)	Carbon, High Purity	C2-75-4 (3107003) (44972)
Ethyl Acetate 99.9% Minimum EtOAc	C2-73-5 (51294) (44839)	Glass Wool	C2-74-4 (K93168686) (44833)	Sulfuric Acid Reagent Grade H2SO4	C2-74-2 (51299) (44837)
Dichloromethane (Methylene Chloride) 99.9% MeCl2	C2-74-5 (51308) (45348)	Sodium Thiosulfate Anhydrous Reagent Grade NaS2O3	C2-69-2 (MKBH7658V) (40798)	Sodium Chloride Reagent Grade NaCl	C2-65-5 (38670)
Sodium Hydroxide Reagent Grade NaOH	C2-63-6 (37033)	Sodium Sulfate Anhydrous Reagent Grade Na2SO4	C2-74-1 (06010505) (44838)	Tridecane (n-Tridecane)	C2-73-1 (MKBG6777V) (44841)
Hexane (n-Hexane) 98.5% Minimum	C2-75-1 (51300) (44828)	ColorpHast pH-Indicator Strips	C2-71-4 (43218)	Silica Gel Reagent Grade	C2-75-5 (TH02HZEMS) (45349)
Toluene 99.9% Minimum	C2-74-6 (51195) (44831)				

Preparation Steps

Step:	Extraction	Step:	Acid Clean	Step:	Silica Gel Clean	Step:	Final Volume
Started:	6/6/12 16:13	Started:	6/7/12 10:35	Started:	6/7/12 12:30	Started:	6/8/12 05:30
Finished:	6/7/12 07:00	Finished:	6/7/12 10:50	Finished:	6/7/12 14:40	Finished:	6/8/12 08:25
By:		By:		By:		By:	
Comments		Comments		Comments		Comments	

Preparation Information Benchsheet

Prep Run#: 159461
Team:

Prep WorkFlow: OrgExtAq(365)
Prep Method: Method

Status: Prepped
Prep Date/Time: 6/6/12 04:13 PM

Comments:

Reviewed By: Date: 6/19/12

Chain of Custody

Relinquished By: Date:

Received By: Date:

Extracts Examined

Yes No

Preparation Information Benchsheet

Prep Run#: 160278 **Prep WorkFlow:** OrgExtS(365) **Status:** Prepped
Team: **Prep Method:** Method **Prep Date/Time:** 6/12/12 03:34 PM

#	Lab Code	Client ID	B#	Method /Test	pH	Matrix	Amt. Ext.	Sample Description
1	00584-001RE	193	.03	D/F DLM02.2/Dioxins		Sediment	30.272g	wet, black semi-solid
2	00617-001RE	1T4	.02	D/F DLM02.2/Dioxins		Sediment	13.563g	gray, dry solid
3	00617-002RE	1T5	.02	D/F DLM02.2/Dioxins		Sediment	20.101g	wet, black semi-solid
4	00617-003RE	1T7	.02	D/F DLM02.2/Dioxins		Sediment	26.980g	wet, black semi-solid
5	00673-001	1W1	.01	D/F DLM02.2/Dioxins		Sediment	35.028g	dark brown sediment
6	00673-002	1W2	.02	D/F DLM02.2/Dioxins		Misc. Solid	35.922g	dark brown sand
7	00341-01	MB		D/F DLM02.2/Dioxins		Solid	10.554g	
8	00341-02	LCS		D/F DLM02.2/Dioxins		Solid	10.692g	
9	00341-03	DLCS		D/F DLM02.2/Dioxins		Solid	11.376g	

Spiking Solutions

Name: 8290/1613B Cleanup Working Standard Inventory ID 44461 Logbook Ref: D13-13-4 (44461) Expires On: 05/02/2013

00584-001 100.00µL 00617-001 100.00µL 00617-002 100.00µL 00617-003 100.00µL 00673-001 100.00µL 00673-002 100.00µL
00341-01 100.00µL 00341-02 100.00µL 00341-03 100.00µL

Name: 1613B Labeled Working Standard Inventory ID 45535 Logbook Ref: D13-30-2 (45535) Expires On: 05/31/2013

00584-001 1,000.00µL 00617-001 1,000.00µL 00617-002 1,000.00µL 00617-003 1,000.00µL 00673-001 1,000.00µL 00673-002 1,000.00µL
00341-01 1,000.00µL 00341-02 1,000.00µL 00341-03 1,000.00µL

Name: 1613B Matrix Working Standard Inventory ID 45770 Logbook Ref: D13-32-1 (45770) Expires On: 06/06/2013

00341-02 100.00µL 00341-03 100.00µL

Preparation Materials

Acetone 99.5% Minimum	C2-58-7 (32783)	Carbon, High Purity	C2-75-4 (3107003) (44972)	Ethyl Acetate 99.9% Minimum EtOAc	C2-73-5 (51294) (44839)
Glass Wool	C2-72-5 (K93168686) (43552)	Sulfuric Acid Reagent Grade H2SO4	C2-74-2 (51299) (44837)	Dichloromethane (Methylene Chloride) 99.9% MeCl2	C2-74-5 (51308) (45348)
Sodium Chloride Reagent Grade NaCl	C2-65-5 (38670)	Sodium Hydroxide Reagent Grade NaOH	C2-63-6 (37033)	Sodium Sulfate Anhydrous Reagent Grade Na2SO4	C2-74-1 (06010505) (44838)
Tridecane (n-Tridecane)	C2-69-3 (MKBG6777V) (40799)	Hexane (n-Hexane) 98.5% Minimum	C2-75-1 (51300) (44828)	Nonane (n-Nonane) 99%	C2-48-7 (STBB5477) (39812)
Silica Gel Reagent Grade	C2-75-5 (TH02HZEMS) (45349)	Toluene 99.9% Minimum	C2-74-6 (51195) (44831)		

Preparation Information Benchsheet

Prep Run#: 160278 | **Prep WorkFlow:** OrgExtS(365) | **Status:** Prepped
Team: | **Prep Method:** Method | **Prep Date/Time:** 6/12/12 03:34 PM

Preparation Steps

Step:	Extraction	Step:	Acid Clean	Step:	Silica Gel Clean	Step:	Final Volume
Started:	6/12/12 15:34	Started:	6/13/12 10:35	Started:	6/13/12 13:25	Started:	6/14/12 09:10
Finished:	6/13/12 07:45	Finished:	6/13/12 10:50	Finished:	6/13/12 15:00	Finished:	6/14/12 11:20
By:		By:		By:		By:	
Comments		Comments		Comments		Comments	

Comments: ______________________________

Reviewed By: ____________________ Date: 6/19/12

Chain of Custody

Relinquished By: ____________________ Date: ____________

Received By: ____________________ Date: ____________

Extracts Examined

Yes No

Chain of Custody Report

Client: US Environmental Protection Agency **Service Request:** 00584
Project: Dioxins/Furans

Bottle ID	Tests	Date	Time	Sample Location / User	Disposed On
00584-001.03					
	SOP, D/F DLM02.2				
		5/17/12	1553	/	
		5/17/12	1632	E-WIC01 /	
		5/31/12	2153	SampleCustodian /	
		5/31/12	2156	In Lab /	
		6/5/12	1704	E-WIC02-Box 34 /	
		6/14/12	1529	E-WICO2-Box 33 /	
00584-002.01					
	D/F DLM02.2				
		5/17/12	1553	/	
		5/17/12	1632	E-WIC01 /	
		5/31/12	2153	SampleCustodian /	
		5/31/12	2155	In Lab /	
		6/8/12	1524	E-Disposed /	
					6/8/12
00584-002.02					
		5/17/12	1630	/	
		5/17/12	1632	E-WIC01-D7 /	
00584-003.01					
	D/F DLM02.2				
		5/17/12	1553	/	
		5/17/12	1632	E-WIC01 /	
		5/31/12	2153	SampleCustodian /	
		5/31/12	2155	In Lab /	
		6/8/12	1524	E-Disposed /	
					6/8/12

CUSTODY SEAL

Signature

CUSTODY SEAL

Y SEA

Person Collecting Sample

Date Collected

Time Collected

Sample No.

SEAL

Sample No.

Time Collected

Person Collecting Sample

Date Collected

5.9.12

From: Origin ID: PCTA

FedEx Express

E

J12101112190225

SHIP TO: BILL SENDER

Ship Date: 09MAY12
ActWgt: 20.0 LB
CAD:

Delivery Address Bar Code

Ref #
Invoice #
PO #
Dept #

THU - 10 MAY A2
PRIORITY OVERNIGHT

TRK#
0201

NC NQIA

512G3/61A4/A278

After printing this label:
1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.
2. Fold the printed page along the horizontal line.
3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

Warning: Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number.

Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on fedex.com.FedEx will not be responsible for any claim in excess of $100 per package, whether the result of loss, damage, delay, non-delivery,misdelivery,or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim.Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental,consequential, or special is limited to the greater of $100 or the authorized declared value. Recovery cannot exceed actual documented loss.Maximum for items of extraordinary value is $500, e.g. jewelry, precious metals, negotiable instruments and other items listed in our ServiceGuide. Written claims must be filed within strict time limits, see current FedEx Service Guide.

CUSTODY SEAL

Person Collecting Sample

Sample No.

Date Collected

Person Collecting Sample

USTODY SEAL

Date Collected

Ti

From:

Origin ID: PCTA

FedEx Express

E

J121011121902225

Ship Date: 10MAY12
ActWgt: 10.0 LB
CAD:

Dims: 12 X 12 X 12 IN

Delivery Address Bar Code

SHIP TO:

BILL SENDER

Ref # 3320 030 daz fdosd
Invoice #
PO #
Dept #

FRI - 11 MAY A2
PRIORITY OVERNIGHT

TRK#
0201

NC NQIA

512G3/61A4/A278

After printing this label:

USEPA **Organics COC (LAB COPY)**

CHAIN OF CUSTODY RECORD

DateShipped: 5/8/2012
CarrierName: FedEx
AirbillNo: 13614

Case #:
Cooler #:

Organic Sample #	Matrix/Sampler	Coll. Method	Analysis/Turnaround	Tag/Preservative/Bottles	Station Location	Collected	Inorganic Sample #	For Lab Use Only
236		Grab	D/F(42), Cong(42)	1136 (ice), 1137 (ice) (2)	C0512- -A	05/08/2012 14:16	236	

Special Instructions: please disregard tag numbers PCB Congener Dioxin Furans
Salinity 22.77ppt

Analysis Key: D/F=Dioxin/Furans, Cong=209 CBC-PCB Congeners

Shipment for Case Complete? N
Samples Transferred From Chain of Custody #

y	Date	Received by	Date	Time	Items/Reason	Relinquished By	Date	Received by	Date	Time
	5/8/12									
									5-9-12	1004/1109

no seals 1°C
wet ice Bubble wrap
TR# 3614

Page 1 of 1

USEPA Organics COC (LAB COPY)

CHAIN OF CUSTODY RECORD

DateShipped: 5/10/2012
CarrierName: FedEx
AirbillNo: 34795

Case #:
Cooler #:

Organic Sample #	Matrix/Sampler	Coll. Method	Analysis/Turnaround	Tag/Preservative/Bottles	Station Location	Collected	Inorganic Sample #	For Lab Use Only
240		Grab	D/F(42), Cong(42)	1155 (ice), 1156 (ice) (2)	C0512- A-RS	05/10/2012 14:04	240	

Special Instructions: please disregard tag numbers
Salinity (ppt)
NC046- 22.01

Shipment for Case Complete? N
Samples Transferred From Chain of Custody #

Analysis Key: D/F=Dioxin/Furans Mod Cong=209 CBC-PCB Congeners Mod

Items/Reason	Relinquished by	Date	Received by	Date	Time	Items/Reason	Relinquished By	Date	Received by	Date	Time
		5/10/12								5/11/12	958

1013
0°
2 seals
wat ice · bubblewrap · baggies
Fedex, 34

USEPA Organics COC (LAB COPY)

CHAIN OF CUSTODY RECORD

DateShipped: 5/9/2012

CarrierName: FedEx

AirbillNo: 1948

Case #:

Cooler #:

Organic Sample #	Matrix/Sampler	Coll. Method	Analysis/Turnaround	Tag/Preservative/Bottles	Station Location	Collected	Inorganic Sample #	For Lab Use Only
193	sediment/	Grab	Cong(42), D/F(42)	1192 (ice), 1193 (ice) (2)	C0512- 000014	05/09/2012 11:13	193	opened @ 1023 wet ice bubblewrap two seals 1°C

Special Instructions: please disregard tag numbers

Fedex

Shipment for Case Complete? N

Samples Transferred From Chain of Custody #

Analysis Key: Cong= 209 CBC- PCB Congeners Mod , D/F=Dioxin/Furans Mod

d by	Date	Received by	Date	Time	Items/Reason	Relinquished By	Date	Received by	Date	Time
	5/9/12								5/10/12	1004

USEPA Organics COC (LAB COPY)

CHAIN OF CUSTODY RECORD

DateShipped: 5/9/2012
CarrierName: FedEx
AirbillNo: 1948

Case #:
Cooler #:

Organic Sample #	Matrix/Sampler	Coll. Method	Analysis/Turnaround	Tag/Preservative/Bottles	Station Location	Collected	Inorganic Sample #	For Lab Use Only
238		Grab	D/F(42), Cong(42)	1145 (ice), 1146 (ice) (4)	C0512- -A	05/09/2012 08:59	238	
								opened @ 1023 wet ice bubblewrap two seals [illegible] 1°C

Sample(s) to be used for Lab QC: 238 - Special Instructions: please disregard tag numbers
salinity 21.95 ppt

Fedex
Shipment for Case Complete? N
Samples Transferred From Chain of Custody #

Analysis Key: D/F=Dioxin/Furans Mod , Cong=209 CBC-PCB Congeners

	Date	Received by	Date	Time	Items/Reason	Relinquished By	Date	Received by	Date	Time
	/9/12									
									5/10/12	1004

Cooler Receipt Form

Project Chemist

Client/Project: USEPA Organics; 2-050912-13259-0050

Service Request: 00584

Date/Time Received: 05/11/12 09:58:00

Date/Time Logged in: 05/11/12 13:13:00

Technician

Technician

1. Method of delivery: ◯ US Mail ◉ Fed Ex ◯ UPS ◯ DHL ◯ Courier ◯ Client
2. Samples received in: ◉ Cooler ◯ Box ◯ Envelope ◯ Other
3. Were custody seals on coolers? ◉ Yes ◯ No ◯ N/A

   If yes, how many and where?

   Were they intact? ◉ Yes ◯ No ◯ N/A

   Were they signed and dated? ◉ Yes ◯ No ◯ N/A
4. Method of delivery: ◯ Inserts ☑ Baggies ☑ Bubble Wrap ◯ Gel Packs ☑ Wet Ice ◯ Sleeves ◯ Other
5. Foreign or Regulated Soil? ◯ Yes ◉ No

   Location of Sampling:

Cooler Tracking Number	COC ID	Date Opened	Time Opened	Opened By	Temp. °C	Temp Blank?	Filed
4795		May 11, 2012	1013		0/0	☐	☐
						☐	☐
						☐	☐
						☐	☐
						☐	☐

6. Were custody papers properly filled out (ink, signed, dated, etc)? ◉ Yes ◯ No ◯ N/A
7. Did all bottles arrive in good condition (not broken, no signs of leakage)? ◉ Yes ◯ No ◯ N/A
8. Were all sample labels complete (i.e., sample ID, analysis, preservation, etc)? ◉ Yes ◯ No ◯ N/A
9. Were appropriate bottles/containers and volumes received for the requested tests? ◉ Yes ◯ No ◯ N/A
10. Did sample labels and tags agree with custody documents? ◉ Yes ◯ No ◯ N/A

Sample ID on Bottle	Sample ID on COC	Identified by:

Sample ID	Bottle Count	Bottle Type	Out of Temp	Broken	Date	Technician
			☐	☐		
			☐	☐		
			☐	☐		
			☐	☐		

Notes, Discrepancies, & Resolutions:

Print For

Reset Form

Cooler Receipt Form

Project Chemist:

Client/Project	USEPA Organics; 2-050812-153626-0041	Service Request	00584
Date/Time Received:	5/9/12 10:04:00	Date/Time Logged in:	5/9/12 16:55:00
Technician		Technician	

1. Method of delivery: ◯ US Mail ◉ Fed Ex ◯ UPS ◯ DHL ◯ Courier ◯ Client
2. Samples received in: ◉ Cooler ◯ Box ◯ Envelope ◯ Other
3. Were custody seals on coolers? ◉ Yes ◯ No ◯ N/A — If yes, how many and where? 2 front COC seals
   Were they intact? ◉ Yes ◯ No ◯ N/A
   Were they signed and dated? ◉ Yes ◯ No ◯ N/A
4. Method of delivery: ◯ Inserts ◯ Baggies ☑ Bubble Wrap ◯ Gel Packs ☑ Wet Ice ◯ Sleeves ◯ Other
5. Foreign or Regulated Soil? ◯ Yes ◉ No — Location of Sampling:

Cooler Tracking Number	COC ID	Date Opened	Time Opened	Opened By	Temp. °C	Temp Blank?	Filed
13614		May 9, 2012	1109		1/1	☐	☐
						☐	☐
						☐	☐
						☐	☐
						☐	☐

6. Were custody papers properly filled out (ink, signed, dated, etc)? ◉ Yes ◯ No ◯ N/A
7. Did all bottles arrive in good condition (not broken, no signs of leakage)? ◉ Yes ◯ No ◯ N/A
8. Were all sample labels complete (i.e., sample ID, analysis, preservation, etc)? ◉ Yes ◯ No ◯ N/A
9. Were appropriate bottles/containers and volumes received for the requested tests? ◉ Yes ◯ No ◯ N/A
10. Did sample labels and tags agree with custody documents? ◉ Yes ◯ No ◯ N/A

Sample ID on Bottle	Sample ID on COC	Identified by:

Sample ID	Bottle Count	Bottle Type	Out of Temp	Broken	Date	Technician
			☐	☐		
			☐	☐		
			☐	☐		
			☐	☐		

Notes, Discrepancies, & Resolutions:

Print For

Reset Form

Cooler Receipt Form

Project Chemist

Client/Project: USEPA Organics; 2-050912-13259-0067

Service Request: 00584

Date/Time Received: 05/10/12 10:04:00

Date/Time Logged in: 05/10/12 11:03:00

Technician

Technician

1. Method of delivery: ◯ US Mail ◉ Fed Ex ◯ UPS ◯ DHL ◯ Courier ◯ Client
2. Samples received in: ◉ Cooler ◯ Box ◯ Envelope ◯ Other
3. Were custody seals on coolers? ◉ Yes ◯ No ◯ N/A

   If yes, how many and where? 2 Seals Front

   Were they intact? ◉ Yes ◯ No ◯ N/A

   Were they signed and dated? ◉ Yes ◯ No ◯ N/A
4. Method of delivery: ◯ Inserts ◯ Baggies ☑ Bubble Wrap ◯ Gel Packs ☑ Wet Ice ◯ Sleeves ◯ Other
5. Foreign or Regulated Soil? ◯ Yes ◉ No

   Location of Sampling:

Cooler Tracking Number	COC ID	Date Opened	Time Opened	Opened By	Temp. °C	Temp Blank?	Filed
97000		May 17, 2012	1023		1/1	☐	☐
						☐	☐
						☐	☐
						☐	☐
						☐	☐

6. Were custody papers properly filled out (ink, signed, dated, etc)? ◉ Yes ◯ No ◯ N/A
7. Did all bottles arrive in good condition (not broken, no signs of leakage)? ◉ Yes ◯ No ◯ N/A
8. Were all sample labels complete (i.e., sample ID, analysis, preservation, etc)? ◉ Yes ◯ No ◯ N/A
9. Were appropriate bottles/containers and volumes received for the requested tests? ◉ Yes ◯ No ◯ N/A
10. Did sample labels and tags agree with custody documents? ◉ Yes ◯ No ◯ N/A

Sample ID on Bottle	Sample ID on COC	Identified by:

Sample ID	Bottle Count	Bottle Type	Out of Temp	Broken	Date	Technician
			☐	☐		
			☐	☐		
			☐	☐		
			☐	☐		

Notes, Discrepancies, & Resolutions:

Print For

Reset Form

CDD/CDF
SAMPLE LOG-IN SHEET(DC-1)

Lab Name				Page 1 of 1
Received By (Print Name				Log-In Date
Recevied by (Signature)				5/9/2012
Contract No.				5/11/2012
Case No.		SDG No.	)0584-001	TO No.)0584-003

Remarks:		EPA Sample No.	Corresponding Sample Tag No.	Corresponding Assigned Lab No.	Remarks: Condition of sample, shipment, etc.
1. Custody Seal(s)	**Present**/Absent **Intact**/Broken/	236		NA	Cancelled per client, not
2. Custody Seal Nos.	NA	193		)0584-001.01	
3. Chain of Custody Records	**Present**/Absent	238		)0584-002.01	
4. Traffic Reports or Packing Lists		240		)0584-003.01	
5. Airbill	Airbill **Present**/Absent				
6. Airbill No.					
7. Sample Tags Sample Tag Nos.	**Present**/Absent Listed/**Not Listed on Chain of Custody Record**				
8. Sample Condition	**Intact**/Broken/ Leaking				
9. Cooler Temperature	0-1oC (SN:101915976)				
10. Does information on custody records and sample tags agree?	**Yes**/No				
11. Date Received at Laboratory	5/9/12-5/11/12				
12. Time Received	1004, 1004, 0958				

Sample Transfer

Fraction	Fraction
Area #	Area #
By	By
On	On

Reviewed By		Logbook No.
Date		Logbook Page No.

Sample Delivery Group (SDG) Cover Sheet

SDG Number		Case Number		BPA Number	
Lab Code		SDG Turnaround	35 days	SMO Solicitation	

First Sample Received in SDG	193	Last Sample Received in SDG	240
First Sample Receipt Date	~~5/9/12~~ 5/10/12 5/18/12	Last Sample Receipt Date	~~5/10/12~~ 5/11/12 5/18/12

USEPA Sample Numbers in SDG (Listed in Numerical Order)

Sample ID		Sample Type	Requested Analysis	Purchase Order	RFQ Reference Number(s)
1	193	Sediment	Dioxin		
2	238	WAter	Dioxin		
3	240	WAter	Dioxin		
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					

Note: *Attach TR/COC Records to this form in alphanumeric order (the order listed above on this form).*

Signature ______________________ Date 5/18/12

May 2010

From:
Sent: Wednesday, June 20, 2012 9:22 AM
To:
Subject: RE: case and lab issues

Hi ,

I do not need to be included on these issues. Just let me know if there is going to be a delay in the data delivery once all the details are ironed out.

Thanks,

From:
Sent: Wednesday, June 20, 2012 10:13 AM
To:
Cc:
Subject: case and lab issues

Hi ,

For case , sample 193, we re-extracted the sample using the 10 gram dry weight but the recoveries are low. We have the data still for 193 using 5 gram wet weight and the recoveries are better. May we use the data for the 5 gram wet weight?

For case , samples 1T5 and 1T7, were re-extracted using a smaller sample size of 2-3 gram wet weight and the recoveries are still bad. We have two options: to report the re-extracted data as is, or re-extract using an even smaller sample size of 1 gram. Re-extraction will cause a delay in reporting.

Thanks,

P **Please consider the environment before printing this email.**

From:
Sent: Thursday, June 21, 2012 11:05 AM
To:
Subject: RE: case

And will SDG 193 be shipped out on Monday (meaning a Tuesday delivery), or delivered by Monday?

Thanks,

From:
Sent: Thursday, June 21, 2012 11:57 AM
To:
Subject: RE: case

Hi ,

For the congeners July 2.

Thanks,

P **Please consider the environment before printing this email.**

From:
Sent: Thursday, June 21, 2012 10:39 AM
To:
Subject: RE: case

,

So SDG 193 (Dioxin) could be shipped out by Monday (6/25), or delivered by Monday? And when do you expect to deliver SDG 238 (Congeners)?

Thanks,

From:
Sent: Thursday, June 21, 2012 11:28 AM
To:
Subject: case

Hi ,

Unfortunately case will not be ready by Monday. We have to re-extract a sample again for the PCB portion. For the dioxin portion we might still be able to reach the Monday due date, we are re-running the control samples.

If you have any questions, please let me know.

Thanks,

P **Please consider the environment before printing this email.**

From:
Sent: Thursday, May 10, 2012 11:25 AM
To:
Cc:
Subject: Region | Case | Lab | Issue Non-sampler issues | FINAL
Attachments: _5_8_12.pdf

Follow Up Flag: Follow up
Flag Status: Flagged

Good afternoon,
Summary Start
Issue: The Region informed that sample 236 (Station Location C0512- -A) needs to be discarded due to a shipment issue.
Resolution; Per Region , the laboratory will not analyze sample 236 (Station Location 12- -A); the sample is canceled. A sample from the location will be recollected on 5/10 and shipped to the laboratory; however, the sample will have a new number and the new Station Location will be 12- -A-RS. The laboratory will note the issue in the SDG Narrative and proceed with the analysis of the samples.
Summary End

Please let me know if you have any questions or problems. To waive any defect(s) associated with this issue, please contact your PO.

Thank you,

From:
Sent: Thursday, May 10, 2012 12:05 PM
To:
Cc:
Subject: Fw: [x] : Sample 12- -A and[x]

,

Please see below, and notify the labs as requested below.

Thanks.

----- Forwarded by on 05/10/2012 12:03 PM -----

From:

To:

Cc:

Date: 05/10/2012 11:24 AM

Subject: FW: [x] : Sample 512- -A and [x]

Good morning ,

Can you please request to not analyze samples [x] and 236 for Case ? The sample was collected on Tuesday May 8, 2012. The PRP has to discard their sample and recollect due to a shipment issue. We plan to recollect the split sample today and resend to the lab for delivery tomorrow morning.

Please let me know if you have any questions. I have attached the COCs for your reference.

Thanks,

From:
Sent: Thursday, May 10, 2012 10:13 AM
To:
Cc:
Subject: [x] : Sample 12- -A [x]

Please note we will be resampling this location today . informed me late last night that their 046 sample for the A location arrived at their labs with no ice and they were instructed by their

QA person to resample the A and C locations.

Old Sample Info
[x], 236
[x]
Sample name 512- N -A and [x]

We are recollecting this sample today. This sample will have a new number and will be called 512- -A-RS and [x]

FYI this sample also has PCB Congeners and Dioxin/Furans analyses associated with it

Thank You

From:
Sent: Friday, June 15, 2012 3:07 PM
To:
Subject: Region | Lab | Issue Data delivery | FINAL

-Updated Record of Communication-

,

Thank you for the updated information. will note that SDGs 193 and 238 for Case are due today (6/15); however, the laboratory is unable to run their re-extract samples due to a instrument problem. The laboratory's P2 instrument for Dioxin analysis is down. The technicians were at the laboratory on 6/13 to order the part, but the wrong part was ordered. The technicians were at the laboratory again on 6/14 assessing the issue and the new part will be delivered on Monday (6/18). The laboratory expects to deliver the data for SDGs 193 and 238 on Monday, 6/25.

Please let me know if there are any additional updates.
Thanks,

From:
Sent: Friday, June 15, 2012 3:37 PM
To:
Subject: RE: Request for Quote for Solicitation 1816 (1947.2)

Hi ,

Monday June 25 is when we will report the data.

Thanks,

From:
Sent: Friday, June 15, 2012 3:07 PM
To:
Subject: FW: case

Hi ,

I just wanted to follow up with you about this. Can you please provide an estimated delivery date for SDGs 193 and 238 if they are going to be late?

Thanks,

From:
Sent: Thursday, June 14, 2012 2:17 PM
To:
Subject: RE: case

Dioxin

From:
Sent: Thursday, June 14, 2012 1:20 PM
To:
Subject: RE: case

Thanks ! And is "P2" your Dioxin or Congener instrument?

Thanks,

From:
Sent: Thursday, June 14, 2012 2:12 PM
To:
Cc:
Subject: RE: case

Hi ,

The SDGs that are affected are 193 and 238. Our instrument P2 is down. I will speak with my group to confirm what day we will be able to report the data and get back to you.

Thanks,

P **Please consider the environment before printing this email.**

From:
Sent: Thursday, June 14, 2012 1:11 PM
To:
Cc:
Subject: RE: case

Hi ,

Yes, you would always want to inform me of issues like this since I am your data delivery contact. Can you please advise which instrument is down, which SDGs will be affected, and when you expect to deliver the data for those SDGs? will inform the appropriate Region/people of this issue once I have all the information.

Thanks,

From:
Sent: Thursday, June 14, 2012 2:01 PM
To:
Subject: case

Importance: High

Hi ,

The report for case is due tomorrow, however we are unable to run our re-extract samples due to a instrument problem. The technicians were here yesterday to order the part but the wrong part was ordered. They are here again today assessing the issue and the new part will be delivered Monday. This will delay the report a few days. Is there anyone else I need to notify about the lab issue?

Thanks,

From:
Sent: Tuesday, June 12, 2012 1:59 PM
To:
Subject: Region | Lab | Issue Data delivery | FINAL

,

Thank you for the information. will note the addition of the following SDGs to the attached spreadsheet. If you have not already done so, please submit the coversheets for the SDGs below as soon as possible.

Region	Lab	Case	Contract	SDG	Lab Rec Date

				1W1	6/5/2012
				1W2	6/5/2012
				046	6/5/2012
				065	6/5/2012

Please let me know if there are any updates throughout the week.
Thanks,

From:
Sent: Tuesday, June 12, 2012 1:15 PM
To:
Subject: RE: Region | Lab | Issue Data delivery

Please see attached.

Thanks,

From:
Sent: Tuesday, June 12, 2012 11:22 AM
To:
Subject: RE: Region | Lab | Issue Data delivery

Hi ,

Which "form" are you talking about? You sent me an updated spreadsheet? If so, yes, can you please re-send it?

Thanks,

From:
Sent: Tuesday, June 12, 2012 12:15 PM
To:
Subject: RE: Region | Lab | Issue Data delivery

Hi ,

I actually emailed you the form this morning. Would you like me to re-send it again?

Thanks,

P **Please consider the environment before printing this email.**

From:
Sent: Tuesday, June 12, 2012 11:17 AM
To:
Cc:
Subject: FW: Region | Lab | Issue Data delivery

Hi ,

I just wanted to follow up with you about this. Can you please advise if there are any additional in-house SDGs that should be added to the attached spreadsheet? Also, please advise if any SDGs are expected to be delivered late. If so, which SDGs, why, and when you expect to deliver them?

Thanks,

From:
Sent: Monday, June 11, 2012 9:48 AM
To:
Subject: Region | Lab | Issue Data delivery

Good morning,

Attached is data that has identified as in-house at your laboratory. Please review the information in the table and **notify immediately of any inaccurate information in the table or problems at the laboratory.** The table includes the "Lab Rec Date" (the date that the SDG was closed) and the "Data Due Date" which indicates the date that data is due. Please verify that the Data Due Date is accurate for each

SDG and **enter any SDGs (complete or open) into the table that are in-house but do not appear in the attached table.** Please note that per the SOW, SDG coversheets shall be submitted to within three working days following the receipt of the last sample in the SDG.

Cases that shipped to your laboratory the week of 6/4: and

Please submit coversheets for any in-house SDGs not appearing in the attached spreadsheet immediately.

I will be following-up this email with a call later today to discuss the status of in-house samples and any problems you may be facing if I have not heard back from you by email.

Please let me know if you have any questions.
Thanks,

From:
Sent: Thursday, June 21, 2012 11:26 AM
To:
Subject: Region | Lab | Issue Data delivery | FINAL

-Updated Record of Communication-

,

Thank you for the updated information. will note that SDGs 193 (Dioxin) and 238 (Congeners) will not be delivered on Monday (6/25) as previously indicated. The laboratory has to re-extract a sample again for the PCB portion and is re-running the control samples for the dioxin portion. The laboratory expects to deliver SDG 193 by Tuesday (6/26) and SDG 238 by 7/2.

Please let me know if there are any additional updates throughout the week.
Thanks,

From:
Sent: Thursday, June 21, 2012 12:11 PM
To:
Subject: RE: case

HI ,

Honestly we are not sure at the moment, but as of right now tentatively Tuesday.

Thanks,

P **Please consider the environment before printing this email.**

From:
Sent: Thursday, June 21, 2012 11:05 AM
To:
Subject: RE: case

,

And will SDG 193 be shipped out on Monday (meaning a Tuesday delivery), or delivered by Monday?

Thanks,

From:
Sent: Thursday, June 21, 2012 11:57 AM
To:
Subject: RE: case

Hi ,

For the congeners July 2.

Thanks,

P **Please consider the environment before printing this email.**

From:
Sent: Thursday, June 21, 2012 10:39 AM
To:
Subject: RE: case

,

So SDG 193 (Dioxin) could be shipped out by Monday (6/25), or delivered by Monday? And when do you expect to deliver SDG 238 (Congeners)?

Thanks,

From:
Sent: Thursday, June 21, 2012 11:28 AM
To:
Subject: case

Hi ,

Unfortunately case will not be ready by Monday. We have to re-extract a sample again for the PCB portion. For the dioxin portion we might still be able to reach the Monday due date, we are re-running the control samples.

If you have any questions, please let me know.

Thanks,

P **Please consider the environment before printing this email.**

From:
Sent: Monday, June 18, 2012 11:27 AM
To:
Subject: Region | Lab | Issue Data delivery | FINAL

,

Thank you for the information. will note that the laboratory is waiting for the new part for the P2 instrument for Dioxin analysis from FedEx, the laboratory still plans to deliver the data for SDGs 193 and 238 by 6/25, and the addition of the following SDGs to the attached spreadsheet. If you have not already done so, please submit the coversheets for the SDGs below as soon as possible.

Region	Lab	Case	Contract	SDG	Lab Rec Date
				1W8	6/14/2012
				1W9	6/15/2012

Please let me know if there are any updates throughout the week.
Thanks,

From:
Sent: Monday, June 18, 2012 11:03 AM
To:
Subject: RE: Region | Lab | Issue Data delivery

HI ,

We are waiting for the part, it normally comes by Fed Ex and Fed Ex has not shown up yet. We still plan to deliver the data by 6/25.

Thanks,

From:
Sent: Monday, June 18, 2012 10:02 AM
To:
Subject: RE: Region | Lab | Issue Data delivery

Hi ,

No, you do not need to re-submit the handwritten SDG coversheets that were previously submitted.

Are there any updates on the laboratory's P2 instrument for Dioxin analysis? Can you please confirm that the laboratory still expects to deliver the data for SDGs 193 and 238 on Monday, 6/25?

Thanks,

From:
Sent: Monday, June 18, 2012 10:53 AM
To:
Subject: RE: Region | Lab | Issue Data delivery

Hi Jackie,

Please see attached.

I do have another question, so I read that the SDG coversheets have to be typed? Would I need to redo the coversheets that I have sent in? The previous ones were all hand written. The one that I am sending in today has been typed up.

Thanks,

From:
Sent: Monday, June 18, 2012 9:21 AM
To:
Subject: Region | Lab | Issue Data delivery

Good morning,

Attached is data that has identified as in-house at your laboratory. Please review the information in the table and **notify immediately of any inaccurate information in the table or problems at the laboratory.** The table includes the "Lab Rec Date" (the date that the SDG was closed) and the "Data Due Date" which indicates the date that data is due. Please verify that the Data Due Date is accurate for each SDG and **enter any SDGs (complete or open) into the table that are in-house but do not appear in the attached table.** Please note that per the SOW, SDG coversheets shall be submitted to within three working days following the receipt of the last sample in the SDG.

Cases that shipped to your laboratory the week of 6/11:

Please submit coversheets for any in-house SDGs not appearing in the attached spreadsheet immediately.

I will be following-up this email with a call later today to discuss the status of in-house samples and any problems you may be facing if I have not heard back from you by email.

Please let me know if you have any questions.