New England ACCUTEST LABORATORIES

08/01/13

238158

Technical Report for

Lockheed Martin

USEPA SERAS 1-089

Accutest Job Number: MC21754A

Sampling Date: 06/10/13

Report to:

Lockheed Martin Technology Services
Environmental Services Reac 2890 Woodbridge Ave., Bldg 209 Annex
Edison, NJ 08837
misty.barkley@lmco.com

ATTN: Misty Barkley

Total number of pages in report: **582**

ACCREDITED IN ACCORDANCE WITH nelac

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Conference and/or state specific certification programs as applicable.

Reza Tand
Lab Director

Client Service contact: Matthew Morrell 508-481-6200

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Accutest Laboratories

Sample Summary

Lockheed Martin

USEPA SERAS 1-089

Job No: MC21754A

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
MC21754-1A	06/10/13	10:25	DR	06/13/13	SO	Sludge	1-089-0001
MC21754-2A	06/10/13	10:52	DR	06/13/13	SO	Sludge	1-089-0002
MC21754-3A	06/10/13	11:30	DR	06/13/13	SO	Sludge	1-089-0003
MC21754-4A	06/10/13	12:08	DR	06/13/13	SO	Sludge	1-089-0004
MC21754-5A	06/10/13	13:50	DR	06/13/13	SO	Sludge	1-089-0005
MC21754-6A	06/10/13	14:25	DR	06/13/13	SO	Sludge	1-089-0006
MC21754-7A	06/10/13	14:58	DR	06/13/13	SO	Sludge	1-089-0007

Soil samples reported on a dry weight basis unless otherwise indicated on result page.

SAMPLE DELIVERY GROUP CASE NARRATIVE

Client:	Lockheed Martin	**Job No**	MC21754A
Site:	USEPA SERAS 1-089	**Report Date**	8/1/2013 12:50:00 PM

7 Sample(s), 0 Trip Blank(s) and 0 Field Blank(s) were collected on 06/10/2013 and were received at Accutest on 06/13/2013 properly preserved, at 1 Deg. C and intact. These Samples received an Accutest job number of MC21754A. A listing of the Laboratory Sample ID, Client Sample ID and dates of collection are presented in the Results Summary Section of this report.

Except as noted below, all method specified calibrations and quality control performance criteria were met for this job. For more information, please refer to QC summary pages.

Extractables by GCMS By Method D5739-06/8270C SIM

Matrix: SO **Batch ID:** OP33686

- All samples were extracted and analyzed within the recommended method holding time.
- Sample(s) MC21754-3ADUP were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- RPD(s) for Duplicate for the majority of compounds are outside control limits for sample OP33686-DUP. High RPD due to possible sample heterogeneity.
- Sample(s) MC21754-1A, 2A, 3A, 4A, 5A, 6A, 7A, and OP33686-DUP have Naphthalene-d8, Phenanthrene-d10, Perylene-d12 outside control limits. Outside control limits due to matrix interference and/or dilution. Confirmed by refractionation/reanalysis.
- OP33686-DUP Recovery(s) for the majority of compounds are outside control limits due to matrix interferenc and/or dilution. Confirmed by refractionation/reanalysis.
- OP33686-BS for Anthracene,Fluorene, Dibenzothiophene: Outside control limits. Confirmed by refractionation/reanalysis.
- Sample(s) MC21754-1A, 2A, 3A, 4A, 5A, 6A, 7A, and OP33686-DUP have confirmation runs for surrogate recoveries.

Extractables by GC By Method ASTM D3328-06

Matrix: SO **Batch ID:** OP33685

- All samples were extracted and analyzed within the recommended method holding time.
- Sample(s) MC21754-3ADUP were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- RPD(s) for Duplicate for 2,6,10-trimethyldodecane (1380), 2,6,10-trimethylpentadecane (1650), 2,6,10-trimethyltridecane (1470), C-10, C-11, C-13, C-14, C-15, C-16, C-17, C-18, C-19, C-20, C-22, C-23, C-24, C-25, C-26, C-27, C-30, C-31, C-32, C-33, C-8, C-9, Phytane, TPH (C8-C40) are outside control limits for sample OP33685-DUP. High RPD due to possible sample heterogeneity.
- MC21754-3A for 2,6,10-trimethylpentadecane (1650), C-9: Indeterminate due to possible matrix interference.
- MC21754-2A for C-9, 2,6,10-trimethylpentadecane (1650): Indeterminate due to possible matrix interference.
- MC21754-1A for 2,6,10-trimethylpentadecane (1650): Indeterminate due to possible matrix interference.
- MC21754-7A for C-9: Indeterminate due to possible matrix interference.
- MC21754-5A for C-8: Concentration may be bias high due to possible matrix interference.
- MC21754-5A for 2,6,10-trimethylpentadecane (1650), C-9: Indeterminate due to possible matrix interference.

The Accutest Laboratories of New England certifies that all analysis were performed within method specification. It is further recommended that this report to be used in its entirety.The Accutest Laboratories of NE, Laboratory Director or assignee as verified by the signature on the cover page has authorized the release of this report(MC21754A).

Summary of Hits

Job Number: MC21754A
Account: Lockheed Martin
Project: USEPA SERAS 1-089
Collected: 06/10/13

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Lab Sample ID Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
MC21754-1A	**1-089-0001**					
Naphthalene		82900	50		ug/kg	D5739-06/8270C SIM
2-Methylnaphthalene		7380	50		ug/kg	D5739-06/8270C SIM
1-Methylnaphthalene		3080	50		ug/kg	D5739-06/8270C SIM
C1-Naphthalenes		6280	50		ug/kg	D5739-06/8270C SIM
C2-Naphthalenes		5350	50		ug/kg	D5739-06/8270C SIM
C3-Naphthalenes		6080	50		ug/kg	D5739-06/8270C SIM
C4-Naphthalenes		5380	50		ug/kg	D5739-06/8270C SIM
Acenaphthylene		61.5	50		ug/kg	D5739-06/8270C SIM
Acenaphthene		340	50		ug/kg	D5739-06/8270C SIM
Dibenzofuran		269	50		ug/kg	D5739-06/8270C SIM
Fluorene		766	50		ug/kg	D5739-06/8270C SIM
C1-Fluorenes		2000	50		ug/kg	D5739-06/8270C SIM
C2-Fluorenes		4380	50		ug/kg	D5739-06/8270C SIM
C3-Fluorenes		3940	50		ug/kg	D5739-06/8270C SIM
Dibenzothiophene		371	50		ug/kg	D5739-06/8270C SIM
C1-Dibenzothiophenes		1430	50		ug/kg	D5739-06/8270C SIM
C2-Dibenzothiophenes		1920	50		ug/kg	D5739-06/8270C SIM
C3-Dibenzothiophenes		1470	50		ug/kg	D5739-06/8270C SIM
C4-Dibenzothiophenes		1220	50		ug/kg	D5739-06/8270C SIM
Phenanthrene		3850	50		ug/kg	D5739-06/8270C SIM
Anthracene		508	50		ug/kg	D5739-06/8270C SIM
C1-Phenanthrenes/Anthracenes		3640	50		ug/kg	D5739-06/8270C SIM
C2-Phenanthrenes/Anthracenes		3200	50		ug/kg	D5739-06/8270C SIM
C3-Phenanthrenes/Anthracenes		2910	50		ug/kg	D5739-06/8270C SIM
C4-Phenanthrenes/Anthracenes		4460	50		ug/kg	D5739-06/8270C SIM
Fluoranthene		6160	50		ug/kg	D5739-06/8270C SIM
Pyrene		5370	50		ug/kg	D5739-06/8270C SIM
C1-Fluoranthenes/Pyrenes		2130	50		ug/kg	D5739-06/8270C SIM
C2-Fluoranthenes/Pyrenes		894	50		ug/kg	D5739-06/8270C SIM
C3-Fluoranthenes/Pyrenes		441	50		ug/kg	D5739-06/8270C SIM
Benzo(a)anthracene		1940	50		ug/kg	D5739-06/8270C SIM
Chrysene		2610	50		ug/kg	D5739-06/8270C SIM
C1-Benzo(a)anthracenes/Chrysenes		554	50		ug/kg	D5739-06/8270C SIM
C2-Benzo(a)anthracenes/Chrysenes		468	50		ug/kg	D5739-06/8270C SIM
Benzo(b)fluoranthene		2330	50		ug/kg	D5739-06/8270C SIM
Benzo(k)fluoranthene		1960	50		ug/kg	D5739-06/8270C SIM
Benzo(e)pyrene		1900	50		ug/kg	D5739-06/8270C SIM
Benzo(a)pyrene		2150	50		ug/kg	D5739-06/8270C SIM
Perylene		658	50		ug/kg	D5739-06/8270C SIM
Indeno(1,2,3-cd)pyrene		1740	50		ug/kg	D5739-06/8270C SIM
Dibenzo(a,h)anthracene		416	50		ug/kg	D5739-06/8270C SIM
Benzo(g,h,i)perylene		1760	50		ug/kg	D5739-06/8270C SIM
C-8		64.1	5.0		mg/kg	ASTM D3328-06

Summary of Hits

Job Number: MC21754A
Account: Lockheed Martin
Project: USEPA SERAS 1-089
Collected: 06/10/13

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Lab Sample ID Client Sample ID Analyte	Result/ Qual	RL	MDL	Units	Method
C-9	16.7	5.0		mg/kg	ASTM D3328-06
C-10	25.0	5.0		mg/kg	ASTM D3328-06
C-11	35.2	5.0		mg/kg	ASTM D3328-06
C-12	195	5.0		mg/kg	ASTM D3328-06
C-13	21.3	5.0		mg/kg	ASTM D3328-06
2,6,10-trimethyldodecane (1380)	12.7	5.0		mg/kg	ASTM D3328-06
C-14	49.9	5.0		mg/kg	ASTM D3328-06
2,6,10-trimethyltridecane (1470)	22.1	5.0		mg/kg	ASTM D3328-06
C-15	87.9	5.0		mg/kg	ASTM D3328-06
C-16	117	5.0		mg/kg	ASTM D3328-06
C-17	124	5.0		mg/kg	ASTM D3328-06
Pristane	107	5.0		mg/kg	ASTM D3328-06
C-18	113	5.0		mg/kg	ASTM D3328-06
Phytane	83.3	5.0		mg/kg	ASTM D3328-06
C-19	53.8	5.0		mg/kg	ASTM D3328-06
C-20	52.0	5.0		mg/kg	ASTM D3328-06
C-21	42.8	5.0		mg/kg	ASTM D3328-06
C-22	220	5.0		mg/kg	ASTM D3328-06
C-23	331	5.0		mg/kg	ASTM D3328-06
C-24	394	5.0		mg/kg	ASTM D3328-06
C-25	399	5.0		mg/kg	ASTM D3328-06
C-26	388	5.0		mg/kg	ASTM D3328-06
C-27	328	5.0		mg/kg	ASTM D3328-06
C-28	231	5.0		mg/kg	ASTM D3328-06
C-29	195	5.0		mg/kg	ASTM D3328-06
C-30	142	5.0		mg/kg	ASTM D3328-06
C-31	107	5.0		mg/kg	ASTM D3328-06
C-32	67.3	5.0		mg/kg	ASTM D3328-06
C-33	47.7	5.0		mg/kg	ASTM D3328-06
C-34	24.9	5.0		mg/kg	ASTM D3328-06
C-35	18.6	5.0		mg/kg	ASTM D3328-06
C-36	9.32	5.0		mg/kg	ASTM D3328-06
C-37	8.47	5.0		mg/kg	ASTM D3328-06
TPH (C8-C40)	123000	500		mg/kg	ASTM D3328-06
MC21754-2A 1-089-0002					
Naphthalene	216000	310		ug/kg	D5739-06/8270C SIM
2-Methylnaphthalene	36800	63		ug/kg	D5739-06/8270C SIM
1-Methylnaphthalene	13200	63		ug/kg	D5739-06/8270C SIM
C1-Naphthalenes	30200	63		ug/kg	D5739-06/8270C SIM
C2-Naphthalenes	6360	63		ug/kg	D5739-06/8270C SIM
C3-Naphthalenes	6240	63		ug/kg	D5739-06/8270C SIM
C4-Naphthalenes	6000	63		ug/kg	D5739-06/8270C SIM
Acenaphthene	174	63		ug/kg	D5739-06/8270C SIM

Summary of Hits

Job Number: MC21754A
Account: Lockheed Martin
Project: USEPA SERAS 1-089
Collected: 06/10/13

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Lab Sample ID Client Sample ID Analyte	Result/ Qual	RL	MDL	Units	Method
Dibenzofuran	217	63		ug/kg	D5739-06/8270C SIM
Fluorene	776	63		ug/kg	D5739-06/8270C SIM
C1-Fluorenes	2270	63		ug/kg	D5739-06/8270C SIM
C2-Fluorenes	4480	63		ug/kg	D5739-06/8270C SIM
C3-Fluorenes	3530	63		ug/kg	D5739-06/8270C SIM
Dibenzothiophene	233	63		ug/kg	D5739-06/8270C SIM
C1-Dibenzothiophenes	1360	63		ug/kg	D5739-06/8270C SIM
C2-Dibenzothiophenes	2430	63		ug/kg	D5739-06/8270C SIM
C3-Dibenzothiophenes	1220	63		ug/kg	D5739-06/8270C SIM
C4-Dibenzothiophenes	1120	63		ug/kg	D5739-06/8270C SIM
Phenanthrene	1460	63		ug/kg	D5739-06/8270C SIM
Anthracene	84.1	63		ug/kg	D5739-06/8270C SIM
C1-Phenanthrenes/Anthracenes	2860	63		ug/kg	D5739-06/8270C SIM
C2-Phenanthrenes/Anthracenes	2590	63		ug/kg	D5739-06/8270C SIM
C3-Phenanthrenes/Anthracenes	2250	63		ug/kg	D5739-06/8270C SIM
C4-Phenanthrenes/Anthracenes	2230	63		ug/kg	D5739-06/8270C SIM
Fluoranthene	406	63		ug/kg	D5739-06/8270C SIM
Pyrene	437	63		ug/kg	D5739-06/8270C SIM
C1-Fluoranthenes/Pyrenes	2630	63		ug/kg	D5739-06/8270C SIM
C2-Fluoranthenes/Pyrenes	375	63		ug/kg	D5739-06/8270C SIM
C3-Fluoranthenes/Pyrenes	294	63		ug/kg	D5739-06/8270C SIM
Benzo(a)anthracene	110	63		ug/kg	D5739-06/8270C SIM
Chrysene	165	63		ug/kg	D5739-06/8270C SIM
C1-Benzo(a)anthracenes/Chrysenes	90.1	63		ug/kg	D5739-06/8270C SIM
Benzo(b)fluoranthene	111	63		ug/kg	D5739-06/8270C SIM
Benzo(k)fluoranthene	105	63		ug/kg	D5739-06/8270C SIM
Benzo(e)pyrene	104	63		ug/kg	D5739-06/8270C SIM
Benzo(a)pyrene	107	63		ug/kg	D5739-06/8270C SIM
Indeno(1,2,3-cd)pyrene	81.3	63		ug/kg	D5739-06/8270C SIM
Benzo(g,h,i)perylene	82.2	63		ug/kg	D5739-06/8270C SIM
C-8	61.8	6.3		mg/kg	ASTM D3328-06
C-10	55.3	6.3		mg/kg	ASTM D3328-06
C-11	86.9	6.3		mg/kg	ASTM D3328-06
C-12	687	6.3		mg/kg	ASTM D3328-06
C-13	20.2	6.3		mg/kg	ASTM D3328-06
2,6,10-trimethyldodecane (1380)	50.3	6.3		mg/kg	ASTM D3328-06
C-14	68.8	6.3		mg/kg	ASTM D3328-06
2,6,10-trimethyltridecane (1470)	23.5	6.3		mg/kg	ASTM D3328-06
C-15	113	6.3		mg/kg	ASTM D3328-06
C-16	176	6.3		mg/kg	ASTM D3328-06
C-17	183	6.3		mg/kg	ASTM D3328-06
Pristane	158	6.3		mg/kg	ASTM D3328-06
C-18	128	6.3		mg/kg	ASTM D3328-06
Phytane	96.6	6.3		mg/kg	ASTM D3328-06
C-19	56.6	6.3		mg/kg	ASTM D3328-06

Summary of Hits

Job Number: MC21754A
Account: Lockheed Martin
Project: USEPA SERAS 1-089
Collected: 06/10/13

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Lab Sample ID Client Sample ID Analyte	Result/ Qual	RL	MDL	Units	Method
C-20	30.3	6.3		mg/kg	ASTM D3328-06
C-21	17.3	6.3		mg/kg	ASTM D3328-06
C-22	16.9	6.3		mg/kg	ASTM D3328-06
C-23	14.5	6.3		mg/kg	ASTM D3328-06
C-24	62.7	6.3		mg/kg	ASTM D3328-06
C-27	27.6	6.3		mg/kg	ASTM D3328-06
TPH (C8-C40)	106000	630		mg/kg	ASTM D3328-06
MC21754-3A 1-089-0003					
Naphthalene	197000	280		ug/kg	D5739-06/8270C SIM
2-Methylnaphthalene	37900	56		ug/kg	D5739-06/8270C SIM
1-Methylnaphthalene	13600	56		ug/kg	D5739-06/8270C SIM
C1-Naphthalenes	31000	56		ug/kg	D5739-06/8270C SIM
C2-Naphthalenes	7520	56		ug/kg	D5739-06/8270C SIM
C3-Naphthalenes	7460	56		ug/kg	D5739-06/8270C SIM
C4-Naphthalenes	6480	56		ug/kg	D5739-06/8270C SIM
Acenaphthene	308	56		ug/kg	D5739-06/8270C SIM
Dibenzofuran	275	56		ug/kg	D5739-06/8270C SIM
Fluorene	1050	56		ug/kg	D5739-06/8270C SIM
C1-Fluorenes	2410	56		ug/kg	D5739-06/8270C SIM
C2-Fluorenes	5070	56		ug/kg	D5739-06/8270C SIM
C3-Fluorenes	4680	56		ug/kg	D5739-06/8270C SIM
Dibenzothiophene	302	56		ug/kg	D5739-06/8270C SIM
C1-Dibenzothiophenes	1630	56		ug/kg	D5739-06/8270C SIM
C2-Dibenzothiophenes	2220	56		ug/kg	D5739-06/8270C SIM
C3-Dibenzothiophenes	1460	56		ug/kg	D5739-06/8270C SIM
C4-Dibenzothiophenes	1310	56		ug/kg	D5739-06/8270C SIM
Phenanthrene	2170	56		ug/kg	D5739-06/8270C SIM
Anthracene	195	56		ug/kg	D5739-06/8270C SIM
C1-Phenanthrenes/Anthracenes	3580	56		ug/kg	D5739-06/8270C SIM
C2-Phenanthrenes/Anthracenes	3760	56		ug/kg	D5739-06/8270C SIM
C3-Phenanthrenes/Anthracenes	3960	56		ug/kg	D5739-06/8270C SIM
C4-Phenanthrenes/Anthracenes	4220	56		ug/kg	D5739-06/8270C SIM
Fluoranthene	1410	56		ug/kg	D5739-06/8270C SIM
Pyrene	1330	56		ug/kg	D5739-06/8270C SIM
C1-Fluoranthenes/Pyrenes	2680	56		ug/kg	D5739-06/8270C SIM
C2-Fluoranthenes/Pyrenes	582	56		ug/kg	D5739-06/8270C SIM
C3-Fluoranthenes/Pyrenes	473	56		ug/kg	D5739-06/8270C SIM
Benzo(b)fluorene	118	56		ug/kg	D5739-06/8270C SIM
2-Methylpyrene	105	56		ug/kg	D5739-06/8270C SIM
4-Methylpyrene	151	56		ug/kg	D5739-06/8270C SIM
1-Methylpyrene	102	56		ug/kg	D5739-06/8270C SIM
Benzo(a)anthracene	448	56		ug/kg	D5739-06/8270C SIM
Chrysene	606	56		ug/kg	D5739-06/8270C SIM

Summary of Hits

Job Number: MC21754A
Account: Lockheed Martin
Project: USEPA SERAS 1-089
Collected: 06/10/13

3

Lab Sample ID Client Sample ID Analyte	Result/ Qual	RL	MDL	Units	Method
C1-Benzo(a)anthracenes/Chrysenes	216	56		ug/kg	D5739-06/8270C SIM
C2-Benzo(a)anthracenes/Chrysenes	551	56		ug/kg	D5739-06/8270C SIM
Benzo(b)fluoranthene	497	56		ug/kg	D5739-06/8270C SIM
Benzo(k)fluoranthene	414	56		ug/kg	D5739-06/8270C SIM
Benzo(e)pyrene	434	56		ug/kg	D5739-06/8270C SIM
Benzo(a)pyrene	484	56		ug/kg	D5739-06/8270C SIM
Perylene	148	56		ug/kg	D5739-06/8270C SIM
Indeno(1,2,3-cd)pyrene	365	56		ug/kg	D5739-06/8270C SIM
Dibenzo(a,h)anthracene	95.6	56		ug/kg	D5739-06/8270C SIM
Benzo(g,h,i)perylene	370	56		ug/kg	D5739-06/8270C SIM
C-8	85.0	5.6		mg/kg	ASTM D3328-06
C-10	50.0	5.6		mg/kg	ASTM D3328-06
C-11	80.5	5.6		mg/kg	ASTM D3328-06
C-12	348	5.6		mg/kg	ASTM D3328-06
C-13	28.4	5.6		mg/kg	ASTM D3328-06
2,6,10-trimethyldodecane (1380)	74.6	5.6		mg/kg	ASTM D3328-06
C-14	61.1	5.6		mg/kg	ASTM D3328-06
2,6,10-trimethyltridecane (1470)	28.6	5.6		mg/kg	ASTM D3328-06
C-15	100	5.6		mg/kg	ASTM D3328-06
C-16	193	5.6		mg/kg	ASTM D3328-06
C-17	185	5.6		mg/kg	ASTM D3328-06
Pristane	203	5.6		mg/kg	ASTM D3328-06
C-18	127	5.6		mg/kg	ASTM D3328-06
Phytane	116	5.6		mg/kg	ASTM D3328-06
C-19	56.4	5.6		mg/kg	ASTM D3328-06
C-20	79.3	5.6		mg/kg	ASTM D3328-06
C-21	15.3	5.6		mg/kg	ASTM D3328-06
C-22	42.0	5.6		mg/kg	ASTM D3328-06
C-23	54.5	5.6		mg/kg	ASTM D3328-06
C-24	84.9	5.6		mg/kg	ASTM D3328-06
C-25	46.4	5.6		mg/kg	ASTM D3328-06
C-26	66.5	5.6		mg/kg	ASTM D3328-06
C-27	50.9	5.6		mg/kg	ASTM D3328-06
C-28	33.0	5.6		mg/kg	ASTM D3328-06
C-29	32.4	5.6		mg/kg	ASTM D3328-06
C-30	17.3	5.6		mg/kg	ASTM D3328-06
C-31	21.7	5.6		mg/kg	ASTM D3328-06
C-32	9.55	5.6		mg/kg	ASTM D3328-06
C-33	11.0	5.6		mg/kg	ASTM D3328-06
TPH (C8-C40)	94000	560		mg/kg	ASTM D3328-06
MC21754-4A 1-089-0004					
Naphthalene	96600	64		ug/kg	D5739-06/8270C SIM
2-Methylnaphthalene	16800	64		ug/kg	D5739-06/8270C SIM

Summary of Hits

Job Number: MC21754A
Account: Lockheed Martin
Project: USEPA SERAS 1-089
Collected: 06/10/13

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Lab Sample ID Client Sample ID Analyte	Result/ Qual	RL	MDL	Units	Method
1-Methylnaphthalene	7050	64		ug/kg	D5739-06/8270C SIM
C1-Naphthalenes	14300	64		ug/kg	D5739-06/8270C SIM
C2-Naphthalenes	9110	64		ug/kg	D5739-06/8270C SIM
C3-Naphthalenes	7540	64		ug/kg	D5739-06/8270C SIM
C4-Naphthalenes	5000	64		ug/kg	D5739-06/8270C SIM
Acenaphthene	241	64		ug/kg	D5739-06/8270C SIM
Dibenzofuran	180	64		ug/kg	D5739-06/8270C SIM
Fluorene	1540	64		ug/kg	D5739-06/8270C SIM
C1-Fluorenes	1760	64		ug/kg	D5739-06/8270C SIM
C2-Fluorenes	2830	64		ug/kg	D5739-06/8270C SIM
C3-Fluorenes	3330	64		ug/kg	D5739-06/8270C SIM
Dibenzothiophene	218	64		ug/kg	D5739-06/8270C SIM
C1-Dibenzothiophenes	1330	64		ug/kg	D5739-06/8270C SIM
C2-Dibenzothiophenes	1450	64		ug/kg	D5739-06/8270C SIM
C3-Dibenzothiophenes	905	64		ug/kg	D5739-06/8270C SIM
C4-Dibenzothiophenes	1040	64		ug/kg	D5739-06/8270C SIM
Phenanthrene	1070	64		ug/kg	D5739-06/8270C SIM
C1-Phenanthrenes/Anthracenes	2390	64		ug/kg	D5739-06/8270C SIM
C2-Phenanthrenes/Anthracenes	2470	64		ug/kg	D5739-06/8270C SIM
C3-Phenanthrenes/Anthracenes	1520	64		ug/kg	D5739-06/8270C SIM
C4-Phenanthrenes/Anthracenes	1740	64		ug/kg	D5739-06/8270C SIM
Fluoranthene	83.9	64		ug/kg	D5739-06/8270C SIM
Pyrene	221	64		ug/kg	D5739-06/8270C SIM
C1-Fluoranthenes/Pyrenes	575	64		ug/kg	D5739-06/8270C SIM
C2-Fluoranthenes/Pyrenes	432	64		ug/kg	D5739-06/8270C SIM
C3-Fluoranthenes/Pyrenes	318	64		ug/kg	D5739-06/8270C SIM
C2-Benzo(a)anthracenes/Chrysenes	179	64		ug/kg	D5739-06/8270C SIM
C-8	55.0	6.4		mg/kg	ASTM D3328-06
C-9	15.1	6.4		mg/kg	ASTM D3328-06
C-10	33.4	6.4		mg/kg	ASTM D3328-06
C-11	70.6	6.4		mg/kg	ASTM D3328-06
C-12	851	6.4		mg/kg	ASTM D3328-06
C-13	57.2	6.4		mg/kg	ASTM D3328-06
2,6,10-trimethyldodecane (1380)	137	6.4		mg/kg	ASTM D3328-06
C-14	48.8	6.4		mg/kg	ASTM D3328-06
2,6,10-trimethyltridecane (1470)	22.8	6.4		mg/kg	ASTM D3328-06
C-15	51.3	6.4		mg/kg	ASTM D3328-06
C-16	134	6.4		mg/kg	ASTM D3328-06
2,6,10-trimethylpentadecane (1650)	860	6.4		mg/kg	ASTM D3328-06
C-17	71.5	6.4		mg/kg	ASTM D3328-06
Pristane	245	6.4		mg/kg	ASTM D3328-06
C-18	58.3	6.4		mg/kg	ASTM D3328-06
Phytane	41.4	6.4		mg/kg	ASTM D3328-06
C-19	31.9	6.4		mg/kg	ASTM D3328-06
C-20	19.0	6.4		mg/kg	ASTM D3328-06

Summary of Hits

Job Number: MC21754A
Account: Lockheed Martin
Project: USEPA SERAS 1-089
Collected: 06/10/13

Lab Sample ID Client Sample ID Analyte	Result/ Qual	RL	MDL	Units	Method
C-21	14.0	6.4		mg/kg	ASTM D3328-06
C-22	20.5	6.4		mg/kg	ASTM D3328-06
C-23	27.6	6.4		mg/kg	ASTM D3328-06
C-24	59.5	6.4		mg/kg	ASTM D3328-06
C-26	34.8	6.4		mg/kg	ASTM D3328-06
C-27	7.82	6.4		mg/kg	ASTM D3328-06
TPH (C8-C40)	69800	640		mg/kg	ASTM D3328-06
MC21754-5A 1-089-0005					
Naphthalene	19200	71		ug/kg	D5739-06/8270C SIM
2-Methylnaphthalene	35200	71		ug/kg	D5739-06/8270C SIM
1-Methylnaphthalene	14900	71		ug/kg	D5739-06/8270C SIM
C1-Naphthalenes	30300	71		ug/kg	D5739-06/8270C SIM
C2-Naphthalenes	40500	71		ug/kg	D5739-06/8270C SIM
C3-Naphthalenes	32200	71		ug/kg	D5739-06/8270C SIM
C4-Naphthalenes	19100	71		ug/kg	D5739-06/8270C SIM
Acenaphthylene	96.7	71		ug/kg	D5739-06/8270C SIM
Acenaphthene	711	71		ug/kg	D5739-06/8270C SIM
Dibenzofuran	1030	71		ug/kg	D5739-06/8270C SIM
Fluorene	3740	71		ug/kg	D5739-06/8270C SIM
C1-Fluorenes	7480	71		ug/kg	D5739-06/8270C SIM
C2-Fluorenes	11500	71		ug/kg	D5739-06/8270C SIM
C3-Fluorenes	7930	71		ug/kg	D5739-06/8270C SIM
Dibenzothiophene	834	71		ug/kg	D5739-06/8270C SIM
C1-Dibenzothiophenes	4430	71		ug/kg	D5739-06/8270C SIM
C2-Dibenzothiophenes	6440	71		ug/kg	D5739-06/8270C SIM
C3-Dibenzothiophenes	3620	71		ug/kg	D5739-06/8270C SIM
C4-Dibenzothiophenes	8050	71		ug/kg	D5739-06/8270C SIM
Phenanthrene	5380	71		ug/kg	D5739-06/8270C SIM
C1-Phenanthrenes/Anthracenes	11500	71		ug/kg	D5739-06/8270C SIM
C2-Phenanthrenes/Anthracenes	7810	71		ug/kg	D5739-06/8270C SIM
C3-Phenanthrenes/Anthracenes	2500	71		ug/kg	D5739-06/8270C SIM
C4-Phenanthrenes/Anthracenes	1040	71		ug/kg	D5739-06/8270C SIM
Fluoranthene	414	71		ug/kg	D5739-06/8270C SIM
Pyrene	582	71		ug/kg	D5739-06/8270C SIM
C1-Fluoranthenes/Pyrenes	1750	71		ug/kg	D5739-06/8270C SIM
C2-Fluoranthenes/Pyrenes	357	71		ug/kg	D5739-06/8270C SIM
Benzo(a)anthracene	104	71		ug/kg	D5739-06/8270C SIM
Chrysene	175	71		ug/kg	D5739-06/8270C SIM
C1-Benzo(a)anthracenes/Chrysenes	174	71		ug/kg	D5739-06/8270C SIM
Benzo(b)fluoranthene	113	71		ug/kg	D5739-06/8270C SIM
Benzo(k)fluoranthene	89.7	71		ug/kg	D5739-06/8270C SIM
Benzo(e)pyrene	97.3	71		ug/kg	D5739-06/8270C SIM
Benzo(a)pyrene	188	71		ug/kg	D5739-06/8270C SIM

Summary of Hits

Job Number: MC21754A
Account: Lockheed Martin
Project: USEPA SERAS 1-089
Collected: 06/10/13

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Lab Sample ID Client Sample ID Analyte	Result/ Qual	RL	MDL	Units	Method
Indeno(1,2,3-cd)pyrene	147	71		ug/kg	D5739-06/8270C SIM
Benzo(g,h,i)perylene	86.3	71		ug/kg	D5739-06/8270C SIM
C-8 [a]	25.7	7.1		mg/kg	ASTM D3328-06
C-10	407	7.1		mg/kg	ASTM D3328-06
C-11	384	7.1		mg/kg	ASTM D3328-06
C-12	111	7.1		mg/kg	ASTM D3328-06
C-13	116	7.1		mg/kg	ASTM D3328-06
2,6,10-trimethyldodecane (1380)	225	7.1		mg/kg	ASTM D3328-06
C-14	159	7.1		mg/kg	ASTM D3328-06
2,6,10-trimethyltridecane (1470)	55.2	7.1		mg/kg	ASTM D3328-06
C-15	179	7.1		mg/kg	ASTM D3328-06
C-16	254	7.1		mg/kg	ASTM D3328-06
C-17	202	7.1		mg/kg	ASTM D3328-06
Pristane	86.2	7.1		mg/kg	ASTM D3328-06
C-18	190	7.1		mg/kg	ASTM D3328-06
Phytane	227	7.1		mg/kg	ASTM D3328-06
C-19	102	7.1		mg/kg	ASTM D3328-06
C-20	43.6	7.1		mg/kg	ASTM D3328-06
C-21	31.3	7.1		mg/kg	ASTM D3328-06
C-22	35.5	7.1		mg/kg	ASTM D3328-06
C-23	313	7.1		mg/kg	ASTM D3328-06
C-24	46.6	7.1		mg/kg	ASTM D3328-06
C-26	16.1	7.1		mg/kg	ASTM D3328-06
C-28	9.95	7.1		mg/kg	ASTM D3328-06
C-29	46.9	7.1		mg/kg	ASTM D3328-06
C-30	11.3	7.1		mg/kg	ASTM D3328-06
TPH (C8-C40)	76900	710		mg/kg	ASTM D3328-06
MC21754-6A 1-089-0006					
Naphthalene	7020	68		ug/kg	D5739-06/8270C SIM
2-Methylnaphthalene	9330	68		ug/kg	D5739-06/8270C SIM
1-Methylnaphthalene	3740	68		ug/kg	D5739-06/8270C SIM
C1-Naphthalenes	7910	68		ug/kg	D5739-06/8270C SIM
C2-Naphthalenes	12600	68		ug/kg	D5739-06/8270C SIM
C3-Naphthalenes	12100	68		ug/kg	D5739-06/8270C SIM
C4-Naphthalenes	8160	68		ug/kg	D5739-06/8270C SIM
Acenaphthylene	69.5	68		ug/kg	D5739-06/8270C SIM
Acenaphthene	961	68		ug/kg	D5739-06/8270C SIM
Dibenzofuran	830	68		ug/kg	D5739-06/8270C SIM
Fluorene	1710	68		ug/kg	D5739-06/8270C SIM
C1-Fluorenes	3100	68		ug/kg	D5739-06/8270C SIM
C2-Fluorenes	5240	68		ug/kg	D5739-06/8270C SIM
C3-Fluorenes	4040	68		ug/kg	D5739-06/8270C SIM
Dibenzothiophene	783	68		ug/kg	D5739-06/8270C SIM

Summary of Hits

Job Number: MC21754A
Account: Lockheed Martin
Project: USEPA SERAS 1-089
Collected: 06/10/13

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Lab Sample ID Client Sample ID Analyte	Result/ Qual	RL	MDL	Units	Method
C1-Dibenzothiophenes	2380	68		ug/kg	D5739-06/8270C SIM
C2-Dibenzothiophenes	2730	68		ug/kg	D5739-06/8270C SIM
C3-Dibenzothiophenes	1310	68		ug/kg	D5739-06/8270C SIM
C4-Dibenzothiophenes	3160	68		ug/kg	D5739-06/8270C SIM
Phenanthrene	8170	68		ug/kg	D5739-06/8270C SIM
Anthracene	805	68		ug/kg	D5739-06/8270C SIM
C1-Phenanthrenes/Anthracenes	4970	68		ug/kg	D5739-06/8270C SIM
C2-Phenanthrenes/Anthracenes	3080	68		ug/kg	D5739-06/8270C SIM
C3-Phenanthrenes/Anthracenes	885	68		ug/kg	D5739-06/8270C SIM
C4-Phenanthrenes/Anthracenes	564	68		ug/kg	D5739-06/8270C SIM
Fluoranthene	8520	68		ug/kg	D5739-06/8270C SIM
Pyrene	6810	68		ug/kg	D5739-06/8270C SIM
C1-Fluoranthenes/Pyrenes	2210	68		ug/kg	D5739-06/8270C SIM
C2-Fluoranthenes/Pyrenes	793	68		ug/kg	D5739-06/8270C SIM
C3-Fluoranthenes/Pyrenes	836	68		ug/kg	D5739-06/8270C SIM
Benzo(a)anthracene	2470	68		ug/kg	D5739-06/8270C SIM
Chrysene	3000	68		ug/kg	D5739-06/8270C SIM
C1-Benzo(a)anthracenes/Chrysenes	608	68		ug/kg	D5739-06/8270C SIM
C2-Benzo(a)anthracenes/Chrysenes	888	68		ug/kg	D5739-06/8270C SIM
Benzo(b)fluoranthene	2460	68		ug/kg	D5739-06/8270C SIM
Benzo(k)fluoranthene	2380	68		ug/kg	D5739-06/8270C SIM
Benzo(e)pyrene	2030	68		ug/kg	D5739-06/8270C SIM
Benzo(a)pyrene	3030	68		ug/kg	D5739-06/8270C SIM
Perylene	805	68		ug/kg	D5739-06/8270C SIM
Indeno(1,2,3-cd)pyrene	2010	68		ug/kg	D5739-06/8270C SIM
Dibenzo(a,h)anthracene	471	68		ug/kg	D5739-06/8270C SIM
Benzo(g,h,i)perylene	1830	68		ug/kg	D5739-06/8270C SIM
C-8	15.6	6.8		mg/kg	ASTM D3328-06
C-9	54.7	6.8		mg/kg	ASTM D3328-06
C-10	159	6.8		mg/kg	ASTM D3328-06
C-11	244	6.8		mg/kg	ASTM D3328-06
C-12	49.6	6.8		mg/kg	ASTM D3328-06
C-13	73.3	6.8		mg/kg	ASTM D3328-06
2,6,10-trimethyldodecane (1380)	85.6	6.8		mg/kg	ASTM D3328-06
C-14	122	6.8		mg/kg	ASTM D3328-06
2,6,10-trimethyltridecane (1470)	79.7	6.8		mg/kg	ASTM D3328-06
C-15	138	6.8		mg/kg	ASTM D3328-06
C-16	283	6.8		mg/kg	ASTM D3328-06
2,6,10-trimethylpentadecane (1650)	867	6.8		mg/kg	ASTM D3328-06
C-17	121	6.8		mg/kg	ASTM D3328-06
Pristane	57.3	6.8		mg/kg	ASTM D3328-06
C-18	118	6.8		mg/kg	ASTM D3328-06
Phytane	245	6.8		mg/kg	ASTM D3328-06
C-19	55.3	6.8		mg/kg	ASTM D3328-06
C-20	23.1	6.8		mg/kg	ASTM D3328-06

Summary of Hits

Job Number: MC21754A
Account: Lockheed Martin
Project: USEPA SERAS 1-089
Collected: 06/10/13

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Lab Sample ID Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
C-21		11.5	6.8		mg/kg	ASTM D3328-06
C-24		22.2	6.8		mg/kg	ASTM D3328-06
TPH (C8-C40)		41200	680		mg/kg	ASTM D3328-06
MC21754-7A	**1-089-0007**					
Naphthalene		17800	73		ug/kg	D5739-06/8270C SIM
2-Methylnaphthalene		31500	73		ug/kg	D5739-06/8270C SIM
1-Methylnaphthalene		13700	73		ug/kg	D5739-06/8270C SIM
C1-Naphthalenes		27200	73		ug/kg	D5739-06/8270C SIM
C2-Naphthalenes		36500	73		ug/kg	D5739-06/8270C SIM
C3-Naphthalenes		28700	73		ug/kg	D5739-06/8270C SIM
C4-Naphthalenes		16100	73		ug/kg	D5739-06/8270C SIM
Acenaphthylene		108	73		ug/kg	D5739-06/8270C SIM
Acenaphthene		699	73		ug/kg	D5739-06/8270C SIM
Dibenzofuran		950	73		ug/kg	D5739-06/8270C SIM
Fluorene		4190	73		ug/kg	D5739-06/8270C SIM
C1-Fluorenes		6170	73		ug/kg	D5739-06/8270C SIM
C2-Fluorenes		9620	73		ug/kg	D5739-06/8270C SIM
C3-Fluorenes		6790	73		ug/kg	D5739-06/8270C SIM
Dibenzothiophene		735	73		ug/kg	D5739-06/8270C SIM
C1-Dibenzothiophenes		3620	73		ug/kg	D5739-06/8270C SIM
C2-Dibenzothiophenes		5910	73		ug/kg	D5739-06/8270C SIM
C3-Dibenzothiophenes		4140	73		ug/kg	D5739-06/8270C SIM
C4-Dibenzothiophenes		7550	73		ug/kg	D5739-06/8270C SIM
Phenanthrene		4750	73		ug/kg	D5739-06/8270C SIM
C1-Phenanthrenes/Anthracenes		9880	73		ug/kg	D5739-06/8270C SIM
C2-Phenanthrenes/Anthracenes		7800	73		ug/kg	D5739-06/8270C SIM
C3-Phenanthrenes/Anthracenes		2360	73		ug/kg	D5739-06/8270C SIM
C4-Phenanthrenes/Anthracenes		886	73		ug/kg	D5739-06/8270C SIM
Fluoranthene		853	73		ug/kg	D5739-06/8270C SIM
Pyrene		982	73		ug/kg	D5739-06/8270C SIM
C1-Fluoranthenes/Pyrenes		1770	73		ug/kg	D5739-06/8270C SIM
C2-Fluoranthenes/Pyrenes		368	73		ug/kg	D5739-06/8270C SIM
Benzo(a)anthracene		265	73		ug/kg	D5739-06/8270C SIM
Chrysene		354	73		ug/kg	D5739-06/8270C SIM
C1-Benzo(a)anthracenes/Chrysenes		203	73		ug/kg	D5739-06/8270C SIM
Benzo(b)fluoranthene		262	73		ug/kg	D5739-06/8270C SIM
Benzo(k)fluoranthene		250	73		ug/kg	D5739-06/8270C SIM
Benzo(e)pyrene		241	73		ug/kg	D5739-06/8270C SIM
Benzo(a)pyrene		373	73		ug/kg	D5739-06/8270C SIM
Perylene		127	73		ug/kg	D5739-06/8270C SIM
Indeno(1,2,3-cd)pyrene		260	73		ug/kg	D5739-06/8270C SIM
Benzo(g,h,i)perylene		223	73		ug/kg	D5739-06/8270C SIM
C-8		20.0	7.3		mg/kg	ASTM D3328-06

Summary of Hits

Job Number: MC21754A
Account: Lockheed Martin
Project: USEPA SERAS 1-089
Collected: 06/10/13

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Lab Sample ID Client Sample ID Analyte	Result/ Qual	RL	MDL	Units	Method
C-10	420	7.3		mg/kg	ASTM D3328-06
C-11	403	7.3		mg/kg	ASTM D3328-06
C-12	114	7.3		mg/kg	ASTM D3328-06
C-13	122	7.3		mg/kg	ASTM D3328-06
2,6,10-trimethyldodecane (1380)	315	7.3		mg/kg	ASTM D3328-06
C-14	159	7.3		mg/kg	ASTM D3328-06
2,6,10-trimethyltridecane (1470)	58.3	7.3		mg/kg	ASTM D3328-06
C-15	185	7.3		mg/kg	ASTM D3328-06
C-16	246	7.3		mg/kg	ASTM D3328-06
2,6,10-trimethylpentadecane (1650)	748	7.3		mg/kg	ASTM D3328-06
C-17	198	7.3		mg/kg	ASTM D3328-06
Pristane	90.5	7.3		mg/kg	ASTM D3328-06
C-18	189	7.3		mg/kg	ASTM D3328-06
Phytane	222	7.3		mg/kg	ASTM D3328-06
C-19	99.9	7.3		mg/kg	ASTM D3328-06
C-20	43.6	7.3		mg/kg	ASTM D3328-06
C-21	31.4	7.3		mg/kg	ASTM D3328-06
C-24	43.8	7.3		mg/kg	ASTM D3328-06
TPH (C8-C40)	73800	730		mg/kg	ASTM D3328-06

(a) Concentration may be bias high due to possible matrix interference.

New England ACCUTEST LABORATORIES

Sample Results

Report of Analysis

Accutest Laboratories

Report of Analysis

Client Sample ID:	1-089-0001		
Lab Sample ID:	MC21754-1A	**Date Sampled:**	06/10/13
Matrix:	SO - Sludge	**Date Received:**	06/13/13
Method:	D5739-06/8270C SIM SW846 3570	**Percent Solids:**	75.2
Project:	USEPA SERAS 1-089		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	S33036.D	10	07/24/13	KR	06/19/13	OP33686	MSS1444
Run #2 [a]	S32995.D	10	07/16/13	KR	06/19/13	OP33686	MSS1443

	Initial Weight	Final Volume
Run #1	5.27 g	2.0 ml
Run #2	5.27 g	2.0 ml

Alkyl PAHs

CAS No.	Compound	Result	RL	Units	Q
91-20-3	Naphthalene	82900	50	ug/kg	
91-57-6	2-Methylnaphthalene	7380	50	ug/kg	
90-12-0	1-Methylnaphthalene	3080	50	ug/kg	
	C1-Naphthalenes	6280	50	ug/kg	
	C2-Naphthalenes	5350	50	ug/kg	
	C3-Naphthalenes	6080	50	ug/kg	
	C4-Naphthalenes	5380	50	ug/kg	
208-96-8	Acenaphthylene	61.5	50	ug/kg	
83-32-9	Acenaphthene	340	50	ug/kg	
132-64-9	Dibenzofuran	269	50	ug/kg	
86-73-7	Fluorene	766	50	ug/kg	
	C1-Fluorenes	2000	50	ug/kg	
	C2-Fluorenes	4380	50	ug/kg	
	C3-Fluorenes	3940	50	ug/kg	
132-65-0	Dibenzothiophene	371	50	ug/kg	
	C1-Dibenzothiophenes	1430	50	ug/kg	
	C2-Dibenzothiophenes	1920	50	ug/kg	
	C3-Dibenzothiophenes	1470	50	ug/kg	
	C4-Dibenzothiophenes	1220	50	ug/kg	
85-01-8	Phenanthrene	3850	50	ug/kg	
120-12-7	Anthracene	508	50	ug/kg	
	C1-Phenanthrenes/Anthracene	3640	50	ug/kg	
	C2-Phenanthrenes/Anthracene	3200	50	ug/kg	
	C3-Phenanthrenes/Anthracene	2910	50	ug/kg	
	C4-Phenanthrenes/Anthracene	4460	50	ug/kg	
206-44-0	Fluoranthene	6160	50	ug/kg	
129-00-0	Pyrene	5370	50	ug/kg	
	C1-Fluoranthenes/Pyrenes	2130	50	ug/kg	
	C2-Fluoranthenes/Pyrenes	894	50	ug/kg	
	C3-Fluoranthenes/Pyrenes	441	50	ug/kg	
56-55-3	Benzo(a)anthracene	1940	50	ug/kg	
218-01-9	Chrysene	2610	50	ug/kg	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	1-089-0001			
Lab Sample ID:	MC21754-1A		**Date Sampled:**	06/10/13
Matrix:	SO - Sludge		**Date Received:**	06/13/13
Method:	D5739-06/8270C SIM	SW846 3570	**Percent Solids:**	75.2
Project:	USEPA SERAS 1-089			

Alkyl PAHs

CAS No.	Compound	Result	RL	Units	Q
	C1-Benzo(a)anthracenes/Chrys	554	50	ug/kg	
	C2-Benzo(a)anthracenes/Chrys	468	50	ug/kg	
	C3-Benzo(a)anthracenes/Chrys	ND	50	ug/kg	
	C4-Benzo(a)anthracenes/Chrys	ND	50	ug/kg	
205-99-2	Benzo(b)fluoranthene	2330	50	ug/kg	
207-08-9	Benzo(k)fluoranthene	1960	50	ug/kg	
192-97-2	Benzo(e)pyrene	1900	50	ug/kg	
50-32-8	Benzo(a)pyrene	2150	50	ug/kg	
198-55-0	Perylene	658	50	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	1740	50	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	416	50	ug/kg	
191-24-2	Benzo(g,h,i)perylene	1760	50	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1146-65-2	Naphthalene-d8	29% [b]	28% [b]	40-140%
1517-22-2	Phenanthrene-d10	98%	25% [b]	40-140%
	Perylene-d12	39% [b]	39% [b]	40-140%

(a) Confirmation run for surrogate recoveries.
(b) Outside control limits due to matrix interference and/or dilution. Confirmed by refractionation/reanalysis.

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID: 1-089-0001
Lab Sample ID: MC21754-1A
Matrix: SO - Sludge
Method: ASTM D3328-06 SW846 3570
Project: USEPA SERAS 1-089

Date Sampled: 06/10/13
Date Received: 06/13/13
Percent Solids: 75.2

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BG40436.D	10	06/25/13	DB	06/19/13	OP33685	GBG1529
Run #2							

	Initial Weight	Final Volume
Run #1	5.27 g	2.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
	C-8	64.1	5.0	mg/kg	
	C-9	16.7	5.0	mg/kg	
	C-10	25.0	5.0	mg/kg	
	C-11	35.2	5.0	mg/kg	
	C-12	195	5.0	mg/kg	
	C-13	21.3	5.0	mg/kg	
3891-98-3	2,6,10-trimethyldodecane (138	12.7	5.0	mg/kg	
	C-14	49.9	5.0	mg/kg	
3891-99-4	2,6,10-trimethyltridecane (147	22.1	5.0	mg/kg	
	C-15	87.9	5.0	mg/kg	
	C-16	117	5.0	mg/kg	
3892-00-0	2,6,10-trimethylpentadecane ([a]	IND	5.0	mg/kg	
	C-17	124	5.0	mg/kg	
1921-70-6	Pristane	107	5.0	mg/kg	
	C-18	113	5.0	mg/kg	
638-36-8	Phytane	83.3	5.0	mg/kg	
	C-19	53.8	5.0	mg/kg	
	C-20	52.0	5.0	mg/kg	
	C-21	42.8	5.0	mg/kg	
	C-22	220	5.0	mg/kg	
	C-23	331	5.0	mg/kg	
	C-24	394	5.0	mg/kg	
	C-25	399	5.0	mg/kg	
	C-26	388	5.0	mg/kg	
	C-27	328	5.0	mg/kg	
	C-28	231	5.0	mg/kg	
	C-29	195	5.0	mg/kg	
	C-30	142	5.0	mg/kg	
	C-31	107	5.0	mg/kg	
	C-32	67.3	5.0	mg/kg	
	C-33	47.7	5.0	mg/kg	
	C-34	24.9	5.0	mg/kg	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	1-089-0001		
Lab Sample ID:	MC21754-1A	**Date Sampled:**	06/10/13
Matrix:	SO - Sludge	**Date Received:**	06/13/13
Method:	ASTM D3328-06 SW846 3570	**Percent Solids:**	75.2
Project:	USEPA SERAS 1-089		

CAS No.	Compound	Result	RL	Units	Q
	C-35	18.6	5.0	mg/kg	
	C-36	9.32	5.0	mg/kg	
	C-37	8.47	5.0	mg/kg	
	C-38	ND	5.0	mg/kg	
	C-39	ND	5.0	mg/kg	
	C-40	ND	5.0	mg/kg	
	TPH (C8-C40)	123000	500	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	51%		40-140%

(a) Indeterminate due to possible matrix interference.

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

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Report of Analysis

Client Sample ID:	1-089-0002		
Lab Sample ID:	MC21754-2A	**Date Sampled:**	06/10/13
Matrix:	SO - Sludge	**Date Received:**	06/13/13
Method:	D5739-06/8270C SIM SW846 3570	**Percent Solids:**	62.1
Project:	USEPA SERAS 1-089		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	S33025.D	10	07/24/13	KR	06/19/13	OP33686	MSS1444
Run #2 [a]	S32996.D	10	07/16/13	KR	06/19/13	OP33686	MSS1443
Run #3	S33039.D	50	07/24/13	KR	06/19/13	OP33686	MSS1444

	Initial Weight	Final Volume
Run #1	5.13 g	2.0 ml
Run #2	5.13 g	2.0 ml
Run #3	5.13 g	2.0 ml

Alkyl PAHs

CAS No.	Compound	Result	RL	Units	Q
91-20-3	Naphthalene	216000 [b]	310	ug/kg	
91-57-6	2-Methylnaphthalene	36800	63	ug/kg	
90-12-0	1-Methylnaphthalene	13200	63	ug/kg	
	C1-Naphthalenes	30200	63	ug/kg	
	C2-Naphthalenes	6360	63	ug/kg	
	C3-Naphthalenes	6240	63	ug/kg	
	C4-Naphthalenes	6000	63	ug/kg	
208-96-8	Acenaphthylene	ND	63	ug/kg	
83-32-9	Acenaphthene	174	63	ug/kg	
132-64-9	Dibenzofuran	217	63	ug/kg	
86-73-7	Fluorene	776	63	ug/kg	
	C1-Fluorenes	2270	63	ug/kg	
	C2-Fluorenes	4480	63	ug/kg	
	C3-Fluorenes	3530	63	ug/kg	
132-65-0	Dibenzothiophene	233	63	ug/kg	
	C1-Dibenzothiophenes	1360	63	ug/kg	
	C2-Dibenzothiophenes	2430	63	ug/kg	
	C3-Dibenzothiophenes	1220	63	ug/kg	
	C4-Dibenzothiophenes	1120	63	ug/kg	
85-01-8	Phenanthrene	1460	63	ug/kg	
120-12-7	Anthracene	84.1	63	ug/kg	
	C1-Phenanthrenes/Anthracene	2860	63	ug/kg	
	C2-Phenanthrenes/Anthracene	2590	63	ug/kg	
	C3-Phenanthrenes/Anthracene	2250	63	ug/kg	
	C4-Phenanthrenes/Anthracene	2230	63	ug/kg	
206-44-0	Fluoranthene	406	63	ug/kg	
129-00-0	Pyrene	437	63	ug/kg	
	C1-Fluoranthenes/Pyrenes	2630	63	ug/kg	
	C2-Fluoranthenes/Pyrenes	375	63	ug/kg	
	C3-Fluoranthenes/Pyrenes	294	63	ug/kg	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	1-089-0002			
Lab Sample ID:	MC21754-2A		**Date Sampled:**	06/10/13
Matrix:	SO - Sludge		**Date Received:**	06/13/13
Method:	D5739-06/8270C SIM	SW846 3570	**Percent Solids:**	62.1
Project:	USEPA SERAS 1-089			

Alkyl PAHs

CAS No.	Compound	Result	RL	Units	Q
56-55-3	Benzo(a)anthracene	110	63	ug/kg	
218-01-9	Chrysene	165	63	ug/kg	
	C1-Benzo(a)anthracenes/Chrys	90.1	63	ug/kg	
	C2-Benzo(a)anthracenes/Chrys	ND	63	ug/kg	
	C3-Benzo(a)anthracenes/Chrys	ND	63	ug/kg	
	C4-Benzo(a)anthracenes/Chrys	ND	63	ug/kg	
205-99-2	Benzo(b)fluoranthene	111	63	ug/kg	
207-08-9	Benzo(k)fluoranthene	105	63	ug/kg	
192-97-2	Benzo(e)pyrene	104	63	ug/kg	
50-32-8	Benzo(a)pyrene	107	63	ug/kg	
198-55-0	Perylene	ND	63	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	81.3	63	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	63	ug/kg	
191-24-2	Benzo(g,h,i)perylene	82.2	63	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Run# 3	Limits
1146-65-2	Naphthalene-d8	37% c	31% c	37% c	40-140%
1517-22-2	Phenanthrene-d10	38% c	35% c	39% c	40-140%
	Perylene-d12	33% c	38% c	38% c	40-140%

(a) Confirmation run for surrogate recoveries.
(b) Result is from Run# 3
(c) Outside control limits due to matrix interference and/or dilution. Confirmed by refractionation/reanalysis.

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	1-089-0002		
Lab Sample ID:	MC21754-2A	**Date Sampled:**	06/10/13
Matrix:	SO - Sludge	**Date Received:**	06/13/13
Method:	ASTM D3328-06 SW846 3570	**Percent Solids:**	62.1
Project:	USEPA SERAS 1-089		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BG40437.D	10	06/25/13	DB	06/19/13	OP33685	GBG1529
Run #2							

	Initial Weight	Final Volume
Run #1	5.13 g	2.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
	C-8	61.8	6.3	mg/kg	
	C-9 [a]	IND	6.3	mg/kg	
	C-10	55.3	6.3	mg/kg	
	C-11	86.9	6.3	mg/kg	
	C-12	687	6.3	mg/kg	
	C-13	20.2	6.3	mg/kg	
3891-98-3	2,6,10-trimethyldodecane (138	50.3	6.3	mg/kg	
	C-14	68.8	6.3	mg/kg	
3891-99-4	2,6,10-trimethyltridecane (147	23.5	6.3	mg/kg	
	C-15	113	6.3	mg/kg	
	C-16	176	6.3	mg/kg	
3892-00-0	2,6,10-trimethylpentadecane ([a]	IND	6.3	mg/kg	
	C-17	183	6.3	mg/kg	
1921-70-6	Pristane	158	6.3	mg/kg	
	C-18	128	6.3	mg/kg	
638-36-8	Phytane	96.6	6.3	mg/kg	
	C-19	56.6	6.3	mg/kg	
	C-20	30.3	6.3	mg/kg	
	C-21	17.3	6.3	mg/kg	
	C-22	16.9	6.3	mg/kg	
	C-23	14.5	6.3	mg/kg	
	C-24	62.7	6.3	mg/kg	
	C-25	ND	6.3	mg/kg	
	C-26	ND	6.3	mg/kg	
	C-27	27.6	6.3	mg/kg	
	C-28	ND	6.3	mg/kg	
	C-29	ND	6.3	mg/kg	
	C-30	ND	6.3	mg/kg	
	C-31	ND	6.3	mg/kg	
	C-32	ND	6.3	mg/kg	
	C-33	ND	6.3	mg/kg	
	C-34	ND	6.3	mg/kg	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	1-089-0002		
Lab Sample ID:	MC21754-2A	**Date Sampled:**	06/10/13
Matrix:	SO - Sludge	**Date Received:**	06/13/13
Method:	ASTM D3328-06 SW846 3570	**Percent Solids:**	62.1
Project:	USEPA SERAS 1-089		

CAS No.	Compound	Result	RL	Units	Q
	C-35	ND	6.3	mg/kg	
	C-36	ND	6.3	mg/kg	
	C-37	ND	6.3	mg/kg	
	C-38	ND	6.3	mg/kg	
	C-39	ND	6.3	mg/kg	
	C-40	ND	6.3	mg/kg	
	TPH (C8-C40)	106000	630	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	68%		40-140%

(a) Indeterminate due to possible matrix interference.

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	1-089-0003		
Lab Sample ID:	MC21754-3A	**Date Sampled:**	06/10/13
Matrix:	SO - Sludge	**Date Received:**	06/13/13
Method:	D5739-06/8270C SIM SW846 3570	**Percent Solids:**	68.9
Project:	USEPA SERAS 1-089		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	S33022.D	10	07/23/13	KR	06/19/13	OP33686	MSS1444
Run #2 [a]	S33017.D	10	07/23/13	KR	06/19/13	OP33686	MSS1444
Run #3	S33041.D	50	07/24/13	KR	06/19/13	OP33686	MSS1444

	Initial Weight	Final Volume
Run #1	5.18 g	2.0 ml
Run #2	5.18 g	2.0 ml
Run #3	5.18 g	2.0 ml

Alkyl PAHs

CAS No.	Compound	Result	RL	Units	Q
91-20-3	Naphthalene	197000 [b]	280	ug/kg	
91-57-6	2-Methylnaphthalene	37900	56	ug/kg	
90-12-0	1-Methylnaphthalene	13600	56	ug/kg	
	C1-Naphthalenes	31000	56	ug/kg	
	C2-Naphthalenes	7520	56	ug/kg	
	C3-Naphthalenes	7460	56	ug/kg	
	C4-Naphthalenes	6480	56	ug/kg	
208-96-8	Acenaphthylene	ND	56	ug/kg	
83-32-9	Acenaphthene	308	56	ug/kg	
132-64-9	Dibenzofuran	275	56	ug/kg	
86-73-7	Fluorene	1050	56	ug/kg	
	C1-Fluorenes	2410	56	ug/kg	
	C2-Fluorenes	5070	56	ug/kg	
	C3-Fluorenes	4680	56	ug/kg	
132-65-0	Dibenzothiophene	302	56	ug/kg	
	C1-Dibenzothiophenes	1630	56	ug/kg	
	C2-Dibenzothiophenes	2220	56	ug/kg	
	C3-Dibenzothiophenes	1460	56	ug/kg	
	C4-Dibenzothiophenes	1310	56	ug/kg	
85-01-8	Phenanthrene	2170	56	ug/kg	
120-12-7	Anthracene	195	56	ug/kg	
	C1-Phenanthrenes/Anthracene	3580	56	ug/kg	
	C2-Phenanthrenes/Anthracene	3760	56	ug/kg	
	C3-Phenanthrenes/Anthracene	3960	56	ug/kg	
	C4-Phenanthrenes/Anthracene	4220	56	ug/kg	
206-44-0	Fluoranthene	1410	56	ug/kg	
129-00-0	Pyrene	1330	56	ug/kg	
	C1-Fluoranthenes/Pyrenes	2680	56	ug/kg	
	C2-Fluoranthenes/Pyrenes	582	56	ug/kg	
	C3-Fluoranthenes/Pyrenes	473	56	ug/kg	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	1-089-0003			
Lab Sample ID:	MC21754-3A		**Date Sampled:**	06/10/13
Matrix:	SO - Sludge		**Date Received:**	06/13/13
Method:	D5739-06/8270C SIM	SW846 3570	**Percent Solids:**	68.9
Project:	USEPA SERAS 1-089			

Alkyl PAHs

CAS No.	Compound	Result	RL	Units	Q
243-17-4	Benzo(b)fluorene	118	56	ug/kg	
205-12-9	Benzo(c)fluorene	ND	56	ug/kg	
3442-78-2	2-Methylpyrene	105	56	ug/kg	
3353-12-6	4-Methylpyrene	151	56	ug/kg	
2381-21-7	1-Methylpyrene	102	56	ug/kg	
56-55-3	Benzo(a)anthracene	448	56	ug/kg	
218-01-9	Chrysene	606	56	ug/kg	
	C1-Benzo(a)anthracenes/Chrys	216	56	ug/kg	
	C2-Benzo(a)anthracenes/Chrys	551	56	ug/kg	
	C3-Benzo(a)anthracenes/Chrys	ND	56	ug/kg	
	C4-Benzo(a)anthracenes/Chrys	ND	56	ug/kg	
205-99-2	Benzo(b)fluoranthene	497	56	ug/kg	
207-08-9	Benzo(k)fluoranthene	414	56	ug/kg	
192-97-2	Benzo(e)pyrene	434	56	ug/kg	
50-32-8	Benzo(a)pyrene	484	56	ug/kg	
198-55-0	Perylene	148	56	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	365	56	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	95.6	56	ug/kg	
191-24-2	Benzo(g,h,i)perylene	370	56	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Run# 3	Limits
1146-65-2	Naphthalene-d8	34% [c]	696% [c]	42%	40-140%
1517-22-2	Phenanthrene-d10	44%	44%	46%	40-140%
	Perylene-d12	43%	41%	48%	40-140%

(a) Confirmation run for surrogate recoveries.
(b) Result is from Run# 3
(c) Outside control limits due to matrix interference and/or dilution. Confirmed by refractionation/reanalysis.

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	1-089-0003		
Lab Sample ID:	MC21754-3A	**Date Sampled:**	06/10/13
Matrix:	SO - Sludge	**Date Received:**	06/13/13
Method:	ASTM D3328-06 SW846 3570	**Percent Solids:**	68.9
Project:	USEPA SERAS 1-089		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BG40439.D	10	06/25/13	DB	06/19/13	OP33685	GBG1529
Run #2							

	Initial Weight	Final Volume
Run #1	5.18 g	2.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
	C-8	85.0	5.6	mg/kg	
	C-9 [a]	IND	5.6	mg/kg	
	C-10	50.0	5.6	mg/kg	
	C-11	80.5	5.6	mg/kg	
	C-12	348	5.6	mg/kg	
	C-13	28.4	5.6	mg/kg	
3891-98-3	2,6,10-trimethyldodecane (138	74.6	5.6	mg/kg	
	C-14	61.1	5.6	mg/kg	
3891-99-4	2,6,10-trimethyltridecane (147	28.6	5.6	mg/kg	
	C-15	100	5.6	mg/kg	
	C-16	193	5.6	mg/kg	
3892-00-0	2,6,10-trimethylpentadecane ([a]	IND	5.6	mg/kg	
	C-17	185	5.6	mg/kg	
1921-70-6	Pristane	203	5.6	mg/kg	
	C-18	127	5.6	mg/kg	
638-36-8	Phytane	116	5.6	mg/kg	
	C-19	56.4	5.6	mg/kg	
	C-20	79.3	5.6	mg/kg	
	C-21	15.3	5.6	mg/kg	
	C-22	42.0	5.6	mg/kg	
	C-23	54.5	5.6	mg/kg	
	C-24	84.9	5.6	mg/kg	
	C-25	46.4	5.6	mg/kg	
	C-26	66.5	5.6	mg/kg	
	C-27	50.9	5.6	mg/kg	
	C-28	33.0	5.6	mg/kg	
	C-29	32.4	5.6	mg/kg	
	C-30	17.3	5.6	mg/kg	
	C-31	21.7	5.6	mg/kg	
	C-32	9.55	5.6	mg/kg	
	C-33	11.0	5.6	mg/kg	
	C-34	ND	5.6	mg/kg	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	1-089-0003		
Lab Sample ID:	MC21754-3A	**Date Sampled:**	06/10/13
Matrix:	SO - Sludge	**Date Received:**	06/13/13
Method:	ASTM D3328-06 SW846 3570	**Percent Solids:**	68.9
Project:	USEPA SERAS 1-089		

CAS No.	Compound	Result	RL	Units	Q
	C-35	ND	5.6	mg/kg	
	C-36	ND	5.6	mg/kg	
	C-37	ND	5.6	mg/kg	
	C-38	ND	5.6	mg/kg	
	C-39	ND	5.6	mg/kg	
	C-40	ND	5.6	mg/kg	
	TPH (C8-C40)	94000	560	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	107%		40-140%

(a) Indeterminate due to possible matrix interference.

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

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Report of Analysis

Client Sample ID:	1-089-0004		
Lab Sample ID:	MC21754-4A	**Date Sampled:**	06/10/13
Matrix:	SO - Sludge	**Date Received:**	06/13/13
Method:	D5739-06/8270C SIM SW846 3570	**Percent Solids:**	62.1
Project:	USEPA SERAS 1-089		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	S33026.D	10	07/24/13	KR	06/19/13	OP33686	MSS1444
Run #2 [a]	S32999.D	10	07/17/13	KR	06/19/13	OP33686	MSS1443

	Initial Weight	Final Volume
Run #1	5.05 g	2.0 ml
Run #2	5.05 g	2.0 ml

Alkyl PAHs

CAS No.	Compound	Result	RL	Units	Q
91-20-3	Naphthalene	96600	64	ug/kg	
91-57-6	2-Methylnaphthalene	16800	64	ug/kg	
90-12-0	1-Methylnaphthalene	7050	64	ug/kg	
	C1-Naphthalenes	14300	64	ug/kg	
	C2-Naphthalenes	9110	64	ug/kg	
	C3-Naphthalenes	7540	64	ug/kg	
	C4-Naphthalenes	5000	64	ug/kg	
208-96-8	Acenaphthylene	ND	64	ug/kg	
83-32-9	Acenaphthene	241	64	ug/kg	
132-64-9	Dibenzofuran	180	64	ug/kg	
86-73-7	Fluorene	1540	64	ug/kg	
	C1-Fluorenes	1760	64	ug/kg	
	C2-Fluorenes	2830	64	ug/kg	
	C3-Fluorenes	3330	64	ug/kg	
132-65-0	Dibenzothiophene	218	64	ug/kg	
	C1-Dibenzothiophenes	1330	64	ug/kg	
	C2-Dibenzothiophenes	1450	64	ug/kg	
	C3-Dibenzothiophenes	905	64	ug/kg	
	C4-Dibenzothiophenes	1040	64	ug/kg	
85-01-8	Phenanthrene	1070	64	ug/kg	
120-12-7	Anthracene	ND	64	ug/kg	
	C1-Phenanthrenes/Anthracene	2390	64	ug/kg	
	C2-Phenanthrenes/Anthracene	2470	64	ug/kg	
	C3-Phenanthrenes/Anthracene	1520	64	ug/kg	
	C4-Phenanthrenes/Anthracene	1740	64	ug/kg	
206-44-0	Fluoranthene	83.9	64	ug/kg	
129-00-0	Pyrene	221	64	ug/kg	
	C1-Fluoranthenes/Pyrenes	575	64	ug/kg	
	C2-Fluoranthenes/Pyrenes	432	64	ug/kg	
	C3-Fluoranthenes/Pyrenes	318	64	ug/kg	
56-55-3	Benzo(a)anthracene	ND	64	ug/kg	
218-01-9	Chrysene	ND	64	ug/kg	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	1-089-0004			
Lab Sample ID:	MC21754-4A		**Date Sampled:**	06/10/13
Matrix:	SO - Sludge		**Date Received:**	06/13/13
Method:	D5739-06/8270C SIM	SW846 3570	**Percent Solids:**	62.1
Project:	USEPA SERAS 1-089			

Alkyl PAHs

CAS No.	Compound	Result	RL	Units	Q
	C1-Benzo(a)anthracenes/Chrys	ND	64	ug/kg	
	C2-Benzo(a)anthracenes/Chrys	179	64	ug/kg	
	C3-Benzo(a)anthracenes/Chrys	ND	64	ug/kg	
	C4-Benzo(a)anthracenes/Chrys	ND	64	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	64	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	64	ug/kg	
192-97-2	Benzo(e)pyrene	ND	64	ug/kg	
50-32-8	Benzo(a)pyrene	ND	64	ug/kg	
198-55-0	Perylene	ND	64	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	64	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	64	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	64	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1146-65-2	Naphthalene-d8	20% [b]	24% [b]	40-140%
1517-22-2	Phenanthrene-d10	22% [b]	23% [b]	40-140%
	Perylene-d12	23% [b]	20% [b]	40-140%

(a) Confirmation run for surrogate recoveries.
(b) Outside control limits due to matrix interference and/or dilution. Confirmed by refractionation/reanalysis.

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

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Report of Analysis

Client Sample ID:	1-089-0004		
Lab Sample ID:	MC21754-4A	**Date Sampled:**	06/10/13
Matrix:	SO - Sludge	**Date Received:**	06/13/13
Method:	ASTM D3328-06 SW846 3570	**Percent Solids:**	62.1
Project:	USEPA SERAS 1-089		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BG40440.D	10	06/25/13	DB	06/19/13	OP33685	GBG1529
Run #2							

	Initial Weight	Final Volume
Run #1	5.05 g	2.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
	C-8	55.0	6.4	mg/kg	
	C-9	15.1	6.4	mg/kg	
	C-10	33.4	6.4	mg/kg	
	C-11	70.6	6.4	mg/kg	
	C-12	851	6.4	mg/kg	
	C-13	57.2	6.4	mg/kg	
3891-98-3	2,6,10-trimethyldodecane (138	137	6.4	mg/kg	
	C-14	48.8	6.4	mg/kg	
3891-99-4	2,6,10-trimethyltridecane (147	22.8	6.4	mg/kg	
	C-15	51.3	6.4	mg/kg	
	C-16	134	6.4	mg/kg	
3892-00-0	2,6,10-trimethylpentadecane (1	860	6.4	mg/kg	
	C-17	71.5	6.4	mg/kg	
1921-70-6	Pristane	245	6.4	mg/kg	
	C-18	58.3	6.4	mg/kg	
638-36-8	Phytane	41.4	6.4	mg/kg	
	C-19	31.9	6.4	mg/kg	
	C-20	19.0	6.4	mg/kg	
	C-21	14.0	6.4	mg/kg	
	C-22	20.5	6.4	mg/kg	
	C-23	27.6	6.4	mg/kg	
	C-24	59.5	6.4	mg/kg	
	C-25	ND	6.4	mg/kg	
	C-26	34.8	6.4	mg/kg	
	C-27	7.82	6.4	mg/kg	
	C-28	ND	6.4	mg/kg	
	C-29	ND	6.4	mg/kg	
	C-30	ND	6.4	mg/kg	
	C-31	ND	6.4	mg/kg	
	C-32	ND	6.4	mg/kg	
	C-33	ND	6.4	mg/kg	
	C-34	ND	6.4	mg/kg	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	1-089-0004		
Lab Sample ID:	MC21754-4A	**Date Sampled:**	06/10/13
Matrix:	SO - Sludge	**Date Received:**	06/13/13
Method:	ASTM D3328-06 SW846 3570	**Percent Solids:**	62.1
Project:	USEPA SERAS 1-089		

CAS No.	Compound	Result	RL	Units	Q
	C-35	ND	6.4	mg/kg	
	C-36	ND	6.4	mg/kg	
	C-37	ND	6.4	mg/kg	
	C-38	ND	6.4	mg/kg	
	C-39	ND	6.4	mg/kg	
	C-40	ND	6.4	mg/kg	
	TPH (C8-C40)	69800	640	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	72%		40-140%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

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Report of Analysis

Client Sample ID:	1-089-0005		
Lab Sample ID:	MC21754-5A	**Date Sampled:**	06/10/13
Matrix:	SO - Sludge	**Date Received:**	06/13/13
Method:	D5739-06/8270C SIM SW846 3570	**Percent Solids:**	51.2
Project:	USEPA SERAS 1-089		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	S33037.D	10	07/24/13	KR	06/19/13	OP33686	MSS1444
Run #2 [a]	S33000.D	10	07/17/13	KR	06/19/13	OP33686	MSS1443

	Initial Weight	Final Volume
Run #1	5.47 g	2.0 ml
Run #2	5.47 g	2.0 ml

Alkyl PAHs

CAS No.	Compound	Result	RL	Units	Q
91-20-3	Naphthalene	19200	71	ug/kg	
91-57-6	2-Methylnaphthalene	35200	71	ug/kg	
90-12-0	1-Methylnaphthalene	14900	71	ug/kg	
	C1-Naphthalenes	30300	71	ug/kg	
	C2-Naphthalenes	40500	71	ug/kg	
	C3-Naphthalenes	32200	71	ug/kg	
	C4-Naphthalenes	19100	71	ug/kg	
208-96-8	Acenaphthylene	96.7	71	ug/kg	
83-32-9	Acenaphthene	711	71	ug/kg	
132-64-9	Dibenzofuran	1030	71	ug/kg	
86-73-7	Fluorene	3740	71	ug/kg	
	C1-Fluorenes	7480	71	ug/kg	
	C2-Fluorenes	11500	71	ug/kg	
	C3-Fluorenes	7930	71	ug/kg	
132-65-0	Dibenzothiophene	834	71	ug/kg	
	C1-Dibenzothiophenes	4430	71	ug/kg	
	C2-Dibenzothiophenes	6440	71	ug/kg	
	C3-Dibenzothiophenes	3620	71	ug/kg	
	C4-Dibenzothiophenes	8050	71	ug/kg	
85-01-8	Phenanthrene	5380	71	ug/kg	
120-12-7	Anthracene	ND	71	ug/kg	
	C1-Phenanthrenes/Anthracene	11500	71	ug/kg	
	C2-Phenanthrenes/Anthracene	7810	71	ug/kg	
	C3-Phenanthrenes/Anthracene	2500	71	ug/kg	
	C4-Phenanthrenes/Anthracene	1040	71	ug/kg	
206-44-0	Fluoranthene	414	71	ug/kg	
129-00-0	Pyrene	582	71	ug/kg	
	C1-Fluoranthenes/Pyrenes	1750	71	ug/kg	
	C2-Fluoranthenes/Pyrenes	357	71	ug/kg	
	C3-Fluoranthenes/Pyrenes	ND	71	ug/kg	
56-55-3	Benzo(a)anthracene	104	71	ug/kg	
218-01-9	Chrysene	175	71	ug/kg	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	1-089-0005			
Lab Sample ID:	MC21754-5A		**Date Sampled:**	06/10/13
Matrix:	SO - Sludge		**Date Received:**	06/13/13
Method:	D5739-06/8270C SIM	SW846 3570	**Percent Solids:**	51.2
Project:	USEPA SERAS 1-089			

Alkyl PAHs

CAS No.	Compound	Result	RL	Units	Q
	C1-Benzo(a)anthracenes/Chrys	174	71	ug/kg	
	C2-Benzo(a)anthracenes/Chrys	ND	71	ug/kg	
	C3-Benzo(a)anthracenes/Chrys	ND	71	ug/kg	
	C4-Benzo(a)anthracenes/Chrys	ND	71	ug/kg	
205-99-2	Benzo(b)fluoranthene	113	71	ug/kg	
207-08-9	Benzo(k)fluoranthene	89.7	71	ug/kg	
192-97-2	Benzo(e)pyrene	97.3	71	ug/kg	
50-32-8	Benzo(a)pyrene	188	71	ug/kg	
198-55-0	Perylene	ND	71	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	147	71	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	71	ug/kg	
191-24-2	Benzo(g,h,i)perylene	86.3	71	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1146-65-2	Naphthalene-d8	28% [b]	34% [b]	40-140%
1517-22-2	Phenanthrene-d10	33% [b]	34% [b]	40-140%
	Perylene-d12	34% [b]	36% [b]	40-140%

(a) Confirmation run for surrogate recoveries.
(b) Outside control limits due to matrix interference and/or dilution. Confirmed by refractionation/reanalysis.

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	1-089-0005		
Lab Sample ID:	MC21754-5A	**Date Sampled:**	06/10/13
Matrix:	SO - Sludge	**Date Received:**	06/13/13
Method:	ASTM D3328-06 SW846 3570	**Percent Solids:**	51.2
Project:	USEPA SERAS 1-089		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BG40441.D	10	06/25/13	DB	06/19/13	OP33685	GBG1529
Run #2							

	Initial Weight	Final Volume
Run #1	5.47 g	2.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
	C-8 [a]	25.7	7.1	mg/kg	
	C-9 [b]	IND	7.1	mg/kg	
	C-10	407	7.1	mg/kg	
	C-11	384	7.1	mg/kg	
	C-12	111	7.1	mg/kg	
	C-13	116	7.1	mg/kg	
3891-98-3	2,6,10-trimethyldodecane (138	225	7.1	mg/kg	
	C-14	159	7.1	mg/kg	
3891-99-4	2,6,10-trimethyltridecane (147	55.2	7.1	mg/kg	
	C-15	179	7.1	mg/kg	
	C-16	254	7.1	mg/kg	
3892-00-0	2,6,10-trimethylpentadecane [b]	IND	7.1	mg/kg	
	C-17	202	7.1	mg/kg	
1921-70-6	Pristane	86.2	7.1	mg/kg	
	C-18	190	7.1	mg/kg	
638-36-8	Phytane	227	7.1	mg/kg	
	C-19	102	7.1	mg/kg	
	C-20	43.6	7.1	mg/kg	
	C-21	31.3	7.1	mg/kg	
	C-22	35.5	7.1	mg/kg	
	C-23	313	7.1	mg/kg	
	C-24	46.6	7.1	mg/kg	
	C-25	ND	7.1	mg/kg	
	C-26	16.1	7.1	mg/kg	
	C-27	ND	7.1	mg/kg	
	C-28	9.95	7.1	mg/kg	
	C-29	46.9	7.1	mg/kg	
	C-30	11.3	7.1	mg/kg	
	C-31	ND	7.1	mg/kg	
	C-32	ND	7.1	mg/kg	
	C-33	ND	7.1	mg/kg	
	C-34	ND	7.1	mg/kg	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	1-089-0005		
Lab Sample ID:	MC21754-5A	**Date Sampled:**	06/10/13
Matrix:	SO - Sludge	**Date Received:**	06/13/13
Method:	ASTM D3328-06 SW846 3570	**Percent Solids:**	51.2
Project:	USEPA SERAS 1-089		

CAS No.	Compound	Result	RL	Units	Q
	C-35	ND	7.1	mg/kg	
	C-36	ND	7.1	mg/kg	
	C-37	ND	7.1	mg/kg	
	C-38	ND	7.1	mg/kg	
	C-39	ND	7.1	mg/kg	
	C-40	ND	7.1	mg/kg	
	TPH (C8-C40)	76900	710	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	57%		40-140%

(a) Concentration may be bias high due to possible matrix interference.
(b) Indeterminate due to possible matrix interference.

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

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Report of Analysis

Client Sample ID:	1-089-0006		
Lab Sample ID:	MC21754-6A	**Date Sampled:**	06/10/13
Matrix:	SO - Sludge	**Date Received:**	06/13/13
Method:	D5739-06/8270C SIM SW846 3570	**Percent Solids:**	55.5
Project:	USEPA SERAS 1-089		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	S33028.D	10	07/24/13	KR	06/19/13	OP33686	MSS1444
Run #2 [a]	S33001.D	10	07/17/13	KR	06/19/13	OP33686	MSS1443

	Initial Weight	Final Volume
Run #1	5.30 g	2.0 ml
Run #2	5.30 g	2.0 ml

Alkyl PAHs

CAS No.	Compound	Result	RL	Units	Q
91-20-3	Naphthalene	7020	68	ug/kg	
91-57-6	2-Methylnaphthalene	9330	68	ug/kg	
90-12-0	1-Methylnaphthalene	3740	68	ug/kg	
	C1-Naphthalenes	7910	68	ug/kg	
	C2-Naphthalenes	12600	68	ug/kg	
	C3-Naphthalenes	12100	68	ug/kg	
	C4-Naphthalenes	8160	68	ug/kg	
208-96-8	Acenaphthylene	69.5	68	ug/kg	
83-32-9	Acenaphthene	961	68	ug/kg	
132-64-9	Dibenzofuran	830	68	ug/kg	
86-73-7	Fluorene	1710	68	ug/kg	
	C1-Fluorenes	3100	68	ug/kg	
	C2-Fluorenes	5240	68	ug/kg	
	C3-Fluorenes	4040	68	ug/kg	
132-65-0	Dibenzothiophene	783	68	ug/kg	
	C1-Dibenzothiophenes	2380	68	ug/kg	
	C2-Dibenzothiophenes	2730	68	ug/kg	
	C3-Dibenzothiophenes	1310	68	ug/kg	
	C4-Dibenzothiophenes	3160	68	ug/kg	
85-01-8	Phenanthrene	8170	68	ug/kg	
120-12-7	Anthracene	805	68	ug/kg	
	C1-Phenanthrenes/Anthracene	4970	68	ug/kg	
	C2-Phenanthrenes/Anthracene	3080	68	ug/kg	
	C3-Phenanthrenes/Anthracene	885	68	ug/kg	
	C4-Phenanthrenes/Anthracene	564	68	ug/kg	
206-44-0	Fluoranthene	8520	68	ug/kg	
129-00-0	Pyrene	6810	68	ug/kg	
	C1-Fluoranthenes/Pyrenes	2210	68	ug/kg	
	C2-Fluoranthenes/Pyrenes	793	68	ug/kg	
	C3-Fluoranthenes/Pyrenes	836	68	ug/kg	
56-55-3	Benzo(a)anthracene	2470	68	ug/kg	
218-01-9	Chrysene	3000	68	ug/kg	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	1-089-0006			
Lab Sample ID:	MC21754-6A		**Date Sampled:**	06/10/13
Matrix:	SO - Sludge		**Date Received:**	06/13/13
Method:	D5739-06/8270C SIM	SW846 3570	**Percent Solids:**	55.5
Project:	USEPA SERAS 1-089			

Alkyl PAHs

CAS No.	Compound	Result	RL	Units	Q
	C1-Benzo(a)anthracenes/Chrys	608	68	ug/kg	
	C2-Benzo(a)anthracenes/Chrys	888	68	ug/kg	
	C3-Benzo(a)anthracenes/Chrys	ND	68	ug/kg	
	C4-Benzo(a)anthracenes/Chrys	ND	68	ug/kg	
205-99-2	Benzo(b)fluoranthene	2460	68	ug/kg	
207-08-9	Benzo(k)fluoranthene	2380	68	ug/kg	
192-97-2	Benzo(e)pyrene	2030	68	ug/kg	
50-32-8	Benzo(a)pyrene	3030	68	ug/kg	
198-55-0	Perylene	805	68	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	2010	68	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	471	68	ug/kg	
191-24-2	Benzo(g,h,i)perylene	1830	68	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1146-65-2	Naphthalene-d8	21% [b]	23% [b]	40-140%
1517-22-2	Phenanthrene-d10	20% [b]	20% [b]	40-140%
	Perylene-d12	22% [b]	21% [b]	40-140%

(a) Confirmation run for surrogate recoveries.
(b) Outside control limits due to matrix interference and/or dilution. Confirmed by refractionation/reanalysis.

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	1-089-0006		
Lab Sample ID:	MC21754-6A	**Date Sampled:**	06/10/13
Matrix:	SO - Sludge	**Date Received:**	06/13/13
Method:	ASTM D3328-06 SW846 3570	**Percent Solids:**	55.5
Project:	USEPA SERAS 1-089		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BG40442.D	10	06/26/13	DB	06/19/13	OP33685	GBG1529
Run #2							

	Initial Weight	Final Volume
Run #1	5.30 g	2.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
	C-8	15.6	6.8	mg/kg	
	C-9	54.7	6.8	mg/kg	
	C-10	159	6.8	mg/kg	
	C-11	244	6.8	mg/kg	
	C-12	49.6	6.8	mg/kg	
	C-13	73.3	6.8	mg/kg	
3891-98-3	2,6,10-trimethyldodecane (138	85.6	6.8	mg/kg	
	C-14	122	6.8	mg/kg	
3891-99-4	2,6,10-trimethyltridecane (147	79.7	6.8	mg/kg	
	C-15	138	6.8	mg/kg	
	C-16	283	6.8	mg/kg	
3892-00-0	2,6,10-trimethylpentadecane (1	867	6.8	mg/kg	
	C-17	121	6.8	mg/kg	
1921-70-6	Pristane	57.3	6.8	mg/kg	
	C-18	118	6.8	mg/kg	
638-36-8	Phytane	245	6.8	mg/kg	
	C-19	55.3	6.8	mg/kg	
	C-20	23.1	6.8	mg/kg	
	C-21	11.5	6.8	mg/kg	
	C-22	ND	6.8	mg/kg	
	C-23	ND	6.8	mg/kg	
	C-24	22.2	6.8	mg/kg	
	C-25	ND	6.8	mg/kg	
	C-26	ND	6.8	mg/kg	
	C-27	ND	6.8	mg/kg	
	C-28	ND	6.8	mg/kg	
	C-29	ND	6.8	mg/kg	
	C-30	ND	6.8	mg/kg	
	C-31	ND	6.8	mg/kg	
	C-32	ND	6.8	mg/kg	
	C-33	ND	6.8	mg/kg	
	C-34	ND	6.8	mg/kg	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	1-089-0006		
Lab Sample ID:	MC21754-6A	**Date Sampled:**	06/10/13
Matrix:	SO - Sludge	**Date Received:**	06/13/13
Method:	ASTM D3328-06 SW846 3570	**Percent Solids:**	55.5
Project:	USEPA SERAS 1-089		

CAS No.	Compound	Result	RL	Units	Q
	C-35	ND	6.8	mg/kg	
	C-36	ND	6.8	mg/kg	
	C-37	ND	6.8	mg/kg	
	C-38	ND	6.8	mg/kg	
	C-39	ND	6.8	mg/kg	
	C-40	ND	6.8	mg/kg	
	TPH (C8-C40)	41200	680	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	45%		40-140%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	1-089-0007		
Lab Sample ID:	MC21754-7A	**Date Sampled:**	06/10/13
Matrix:	SO - Sludge	**Date Received:**	06/13/13
Method:	D5739-06/8270C SIM SW846 3570	**Percent Solids:**	52.4
Project:	USEPA SERAS 1-089		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	S33029.D	10	07/24/13	KR	06/19/13	OP33686	MSS1444
Run #2 [a]	S33002.D	10	07/17/13	KR	06/19/13	OP33686	MSS1443

	Initial Weight	Final Volume
Run #1	5.20 g	2.0 ml
Run #2	5.20 g	2.0 ml

Alkyl PAHs

CAS No.	Compound	Result	RL	Units	Q
91-20-3	Naphthalene	17800	73	ug/kg	
91-57-6	2-Methylnaphthalene	31500	73	ug/kg	
90-12-0	1-Methylnaphthalene	13700	73	ug/kg	
	C1-Naphthalenes	27200	73	ug/kg	
	C2-Naphthalenes	36500	73	ug/kg	
	C3-Naphthalenes	28700	73	ug/kg	
	C4-Naphthalenes	16100	73	ug/kg	
208-96-8	Acenaphthylene	108	73	ug/kg	
83-32-9	Acenaphthene	699	73	ug/kg	
132-64-9	Dibenzofuran	950	73	ug/kg	
86-73-7	Fluorene	4190	73	ug/kg	
	C1-Fluorenes	6170	73	ug/kg	
	C2-Fluorenes	9620	73	ug/kg	
	C3-Fluorenes	6790	73	ug/kg	
132-65-0	Dibenzothiophene	735	73	ug/kg	
	C1-Dibenzothiophenes	3620	73	ug/kg	
	C2-Dibenzothiophenes	5910	73	ug/kg	
	C3-Dibenzothiophenes	4140	73	ug/kg	
	C4-Dibenzothiophenes	7550	73	ug/kg	
85-01-8	Phenanthrene	4750	73	ug/kg	
120-12-7	Anthracene	ND	73	ug/kg	
	C1-Phenanthrenes/Anthracene	9880	73	ug/kg	
	C2-Phenanthrenes/Anthracene	7800	73	ug/kg	
	C3-Phenanthrenes/Anthracene	2360	73	ug/kg	
	C4-Phenanthrenes/Anthracene	886	73	ug/kg	
206-44-0	Fluoranthene	853	73	ug/kg	
129-00-0	Pyrene	982	73	ug/kg	
	C1-Fluoranthenes/Pyrenes	1770	73	ug/kg	
	C2-Fluoranthenes/Pyrenes	368	73	ug/kg	
	C3-Fluoranthenes/Pyrenes	ND	73	ug/kg	
56-55-3	Benzo(a)anthracene	265	73	ug/kg	
218-01-9	Chrysene	354	73	ug/kg	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	1-089-0007			
Lab Sample ID:	MC21754-7A		**Date Sampled:**	06/10/13
Matrix:	SO - Sludge		**Date Received:**	06/13/13
Method:	D5739-06/8270C SIM	SW846 3570	**Percent Solids:**	52.4
Project:	USEPA SERAS 1-089			

Alkyl PAHs

CAS No.	Compound	Result	RL	Units	Q
	C1-Benzo(a)anthracenes/Chrys	203	73	ug/kg	
	C2-Benzo(a)anthracenes/Chrys	ND	73	ug/kg	
	C3-Benzo(a)anthracenes/Chrys	ND	73	ug/kg	
	C4-Benzo(a)anthracenes/Chrys	ND	73	ug/kg	
205-99-2	Benzo(b)fluoranthene	262	73	ug/kg	
207-08-9	Benzo(k)fluoranthene	250	73	ug/kg	
192-97-2	Benzo(e)pyrene	241	73	ug/kg	
50-32-8	Benzo(a)pyrene	373	73	ug/kg	
198-55-0	Perylene	127	73	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	260	73	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	73	ug/kg	
191-24-2	Benzo(g,h,i)perylene	223	73	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1146-65-2	Naphthalene-d8	29% [b]	35% [b]	40-140%
1517-22-2	Phenanthrene-d10	40%	38% [b]	40-140%
	Perylene-d12	41%	41%	40-140%

(a) Confirmation run for surrogate recoveries.
(b) Outside control limits due to matrix interference and/or dilution. Confirmed by refractionation/reanalysis.

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	1-089-0007		
Lab Sample ID:	MC21754-7A	**Date Sampled:**	06/10/13
Matrix:	SO - Sludge	**Date Received:**	06/13/13
Method:	ASTM D3328-06 SW846 3570	**Percent Solids:**	52.4
Project:	USEPA SERAS 1-089		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BG40443.D	10	06/26/13	DB	06/19/13	OP33685	GBG1529
Run #2							

	Initial Weight	Final Volume
Run #1	5.20 g	2.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
	C-8	20.0	7.3	mg/kg	
	C-9 [a]	IND	7.3	mg/kg	
	C-10	420	7.3	mg/kg	
	C-11	403	7.3	mg/kg	
	C-12	114	7.3	mg/kg	
	C-13	122	7.3	mg/kg	
3891-98-3	2,6,10-trimethyldodecane (138	315	7.3	mg/kg	
	C-14	159	7.3	mg/kg	
3891-99-4	2,6,10-trimethyltridecane (147	58.3	7.3	mg/kg	
	C-15	185	7.3	mg/kg	
	C-16	246	7.3	mg/kg	
3892-00-0	2,6,10-trimethylpentadecane (1	748	7.3	mg/kg	
	C-17	198	7.3	mg/kg	
1921-70-6	Pristane	90.5	7.3	mg/kg	
	C-18	189	7.3	mg/kg	
638-36-8	Phytane	222	7.3	mg/kg	
	C-19	99.9	7.3	mg/kg	
	C-20	43.6	7.3	mg/kg	
	C-21	31.4	7.3	mg/kg	
	C-22	ND	7.3	mg/kg	
	C-23	ND	7.3	mg/kg	
	C-24	43.8	7.3	mg/kg	
	C-25	ND	7.3	mg/kg	
	C-26	ND	7.3	mg/kg	
	C-27	ND	7.3	mg/kg	
	C-28	ND	7.3	mg/kg	
	C-29	ND	7.3	mg/kg	
	C-30	ND	7.3	mg/kg	
	C-31	ND	7.3	mg/kg	
	C-32	ND	7.3	mg/kg	
	C-33	ND	7.3	mg/kg	
	C-34	ND	7.3	mg/kg	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	1-089-0007		
Lab Sample ID:	MC21754-7A	**Date Sampled:**	06/10/13
Matrix:	SO - Sludge	**Date Received:**	06/13/13
Method:	ASTM D3328-06 SW846 3570	**Percent Solids:**	52.4
Project:	USEPA SERAS 1-089		

CAS No.	Compound	Result	RL	Units	Q
	C-35	ND	7.3	mg/kg	
	C-36	ND	7.3	mg/kg	
	C-37	ND	7.3	mg/kg	
	C-38	ND	7.3	mg/kg	
	C-39	ND	7.3	mg/kg	
	C-40	ND	7.3	mg/kg	
	TPH (C8-C40)	73800	730	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	52%		40-140%

(a) Indeterminate due to possible matrix interference.

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

New England ACCUTEST LABORATORIES

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody

MC21754A ~~B34310~~

USEPA
DateShipped: 6/11/2013
CarrierName: Hand Delivery
AirbillNo:

CHAIN OF CUSTODY RECORD
SERAS 1-089
Contact Name: Sandra Richards
Contact Phone: 908-217-5668

No: 2-061113-113620-0001
Cooler #:
Lab: Accutest
Lab Phone: 508-481-6200

~~Sludge~~ SOC 50

Lab #	Sample #	Location	Sub Location	Analyses	Matrix	Collected	Sample Time	Numb Cont	Container	Preservative	MS/MSD
06/11/13 1	1-089-0001	V1-1	A	TPH/PAH	Sludge	6/10/2013	10:25	1	4oz glass jar	None	-1
2	1-089-0001	V1-1	A	Hexavalent Chromium	Sludge	6/10/2013	10:25	2	4oz glass jar	None	
3	1-089-0002	V1-1	B	TPH/PAH	Sludge	6/10/2013	10:52	1	4oz glass jar	None	-2
4	1-089-0002	V1-1	B	Hexavalent Chromium	Sludge	6/10/2013	10:52	2	4oz glass jar	None	
5	1-089-0003	V1-1	C	TPH/PAH	Sludge	6/10/2013	11:30	1	4oz glass jar	None	-3
6	1-089-0003	V1-1	C	Hexavalent Chromium	Sludge	6/10/2013	11:30	2	4oz glass jar	None	
7	1-089-0004	V1-2	A	TPH/PAH	Sludge	6/10/2013	12:08	1	4oz glass jar	None	-4
8	1-089-0004	V1-2	A	Hexavalent Chromium	Sludge	6/10/2013	12:08	2	4oz glass jar	None	
9	1-089-0005	V2-1	A	TPH/PAH	Sludge	6/10/2013	13:50	1	4oz glass jar	None	-5
10	1-089-0005	V2-1	A	Hexavalent Chromium	Sludge	6/10/2013	13:50	2	4oz glass jar	None	
11	1-089-0006	V2-1	B	TPH/PAH	Sludge	6/10/2013	14:25	1	4oz glass jar	None	-6
12	1-089-0006	V2-1	B	Hexavalent Chromium	Sludge	6/10/2013	14:25	2	4oz glass jar	None	
13	1-089-0007	V2-1	D	TPH/PAH	Sludge	6/10/2013	14:58	1	4oz glass jar	None	-7
14	1-089-0007	V2-1	D	Hexavalent Chromium	Sludge	6/10/2013	14:58	2	4oz glass jar	None	
15											H6 T3
				Sandra Richards							
											12D

Special Instructions:

SAMPLES TRANSFERRED FROM CHAIN OF CUSTODY #

Items/Reason	Relinquished by	Date	Received by	Date	Time	Items/Reason	Relinquished By	Date	Received by	Date	Time
All samples for analysis	D. Richards	6/11/2013	Chris Ford	6/11/13	16:30 ~~17:00~~		Chris Ford	17:00 6/11/13		6-11-13	17:00
	SM.	6-12-13 1700	FEDEX				Fedex	6/13/13 9:30		6/13/13	9:30 3.5°C

SEAL # 742

ICE 1.0°C
I

MC21754A: Chain of Custody
Page 1 of 1

New England ACCUTEST LABORATORIES

GC/MS Semi-volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Surrogate Recovery Summaries

Method Blank Summary

Job Number: MC21754A
Account: LMNJE Lockheed Martin
Project: USEPA SERAS 1-089

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP33686-MB	S33020.D	10	07/23/13	KR	06/21/13	OP33686	MSS1444

The QC reported here applies to the following samples: **Method:** D5739-06/8270C SIM

MC21754-1A, MC21754-2A, MC21754-3A, MC21754-4A, MC21754-5A, MC21754-6A, MC21754-7A

CAS No.	Compound	Result	RL	Units	Q
91-20-3	Naphthalene	101	39	ug/kg	
91-57-6	2-Methylnaphthalene	43.8	39	ug/kg	
90-12-0	1-Methylnaphthalene	ND	39	ug/kg	
	C1-Naphthalenes	36.9	39	ug/kg	J
	C2-Naphthalenes	32.1	39	ug/kg	J
	C3-Naphthalenes	ND	39	ug/kg	
	C4-Naphthalenes	ND	39	ug/kg	
208-96-8	Acenaphthylene	ND	39	ug/kg	
83-32-9	Acenaphthene	ND	39	ug/kg	
132-64-9	Dibenzofuran	ND	39	ug/kg	
86-73-7	Fluorene	ND	39	ug/kg	
	C1-Fluorenes	ND	39	ug/kg	
	C2-Fluorenes	ND	39	ug/kg	
	C3-Fluorenes	ND	39	ug/kg	
132-65-0	Dibenzothiophene	ND	39	ug/kg	
	C1-Dibenzothiophenes	ND	39	ug/kg	
	C2-Dibenzothiophenes	ND	39	ug/kg	
	C3-Dibenzothiophenes	ND	39	ug/kg	
	C4-Dibenzothiophenes	ND	39	ug/kg	
85-01-8	Phenanthrene	26.4	39	ug/kg	J
120-12-7	Anthracene	ND	39	ug/kg	
	C1-Phenanthrenes/Anthracene	ND	39	ug/kg	
	C2-Phenanthrenes/Anthracene	ND	39	ug/kg	
	C3-Phenanthrenes/Anthracene	ND	39	ug/kg	
	C4-Phenanthrenes/Anthracene	ND	39	ug/kg	
206-44-0	Fluoranthene	ND	39	ug/kg	
129-00-0	Pyrene	ND	39	ug/kg	
	C1-Fluoranthenes/Pyrenes	ND	39	ug/kg	
	C2-Fluoranthenes/Pyrenes	ND	39	ug/kg	
	C3-Fluoranthenes/Pyrenes	ND	39	ug/kg	
243-17-4	Benzo(b)fluorene	ND	39	ug/kg	
205-12-9	Benzo(c)fluorene	ND	39	ug/kg	
3442-78-2	2-Methylpyrene	ND	39	ug/kg	
3353-12-6	4-Methylpyrene	ND	39	ug/kg	
2381-21-7	1-Methylpyrene	ND	39	ug/kg	
56-55-3	Benzo(a)anthracene	ND	39	ug/kg	

Method Blank Summary

Job Number: MC21754A
Account: LMNJE Lockheed Martin
Project: USEPA SERAS 1-089

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP33686-MB	S33020.D	10	07/23/13	KR	06/21/13	OP33686	MSS1444

The QC reported here applies to the following samples: **Method:** D5739-06/8270C SIM

MC21754-1A, MC21754-2A, MC21754-3A, MC21754-4A, MC21754-5A, MC21754-6A, MC21754-7A

CAS No.	Compound	Result	RL	Units	Q
218-01-9	Chrysene	ND	39	ug/kg	
	C1-Benzo(a)anthracenes/Chrys	ND	39	ug/kg	
	C2-Benzo(a)anthracenes/Chrys	ND	39	ug/kg	
	C3-Benzo(a)anthracenes/Chrys	ND	39	ug/kg	
	C4-Benzo(a)anthracenes/Chrys	ND	39	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	39	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	39	ug/kg	
192-97-2	Benzo(e)pyrene	ND	39	ug/kg	
50-32-8	Benzo(a)pyrene	ND	39	ug/kg	
198-55-0	Perylene	ND	39	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	39	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	39	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	39	ug/kg	

CAS No.	Surrogate Recoveries		Limits
1146-65-2	Naphthalene-d8	55%	40-140%
1517-22-2	Phenanthrene-d10	53%	40-140%
	Perylene-d12	60%	40-140%

Blank Spike Summary

Job Number: MC21754A
Account: LMNJE Lockheed Martin
Project: USEPA SERAS 1-089

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP33686-BS [a]	S32994.D	10	07/16/13	KR	06/21/13	OP33686	MSS1443

The QC reported here applies to the following samples: **Method:** D5739-06/8270C SIM

MC21754-1A, MC21754-2A, MC21754-3A, MC21754-4A, MC21754-5A, MC21754-6A, MC21754-7A

CAS No.	Compound	Spike ug/kg	CFS ug/kg	CFS %	Limits
86-73-7	Fluorene	1840	805	44* [b]	50-150
132-65-0	Dibenzothiophene	1840	406	22* [b]	50-150 [c]
120-12-7	Anthracene	1840	920	50 [b]	50-150

CAS No.	Surrogate Recoveries	BSP	Limits
1146-65-2	Naphthalene-d8	56%	40-140%
1517-22-2	Phenanthrene-d10	61%	40-140%
	Perylene-d12	56%	40-140%

(a) Confirmation run for surrogate recoveries.
(b) Outside control limits. Confirmed by refractionation/reanalysis.
(c) Advisory control limits.

* = Outside of Control Limits.

Blank Spike Summary

Job Number: MC21754A
Account: LMNJE Lockheed Martin
Project: USEPA SERAS 1-089

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP33686-BS	S33035.D	10	07/24/13	KR	06/21/13	OP33686	MSS1444

The QC reported here applies to the following samples: **Method:** D5739-06/8270C SIM

MC21754-1A, MC21754-2A, MC21754-3A, MC21754-4A, MC21754-5A, MC21754-6A, MC21754-7A

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
91-20-3	Naphthalene	1790	1020	57	50-150
91-57-6	2-Methylnaphthalene	1790	1010	56	50-150
90-12-0	1-Methylnaphthalene	1790	984	55	50-150
	C1-Naphthalenes		ND		50-150 [a]
	C2-Naphthalenes		ND		50-150 [a]
	C3-Naphthalenes		ND		50-150 [a]
	C4-Naphthalenes		ND		50-150 [a]
208-96-8	Acenaphthylene	1790	898	50	50-150
83-32-9	Acenaphthene	1790	1000	56	50-150
132-64-9	Dibenzofuran	1790	976	54	50-150
86-73-7	Fluorene	1790	859	48* [b]	50-150
	C1-Fluorenes		ND		50-150 [a]
	C2-Fluorenes		ND		50-150 [a]
	C3-Fluorenes		ND		50-150 [a]
132-65-0	Dibenzothiophene	1790	482	27* [b]	50-150 [a]
	C1-Dibenzothiophenes		ND		50-150 [a]
	C2-Dibenzothiophenes		ND		50-150 [a]
	C3-Dibenzothiophenes		ND		50-150 [a]
	C4-Dibenzothiophenes		ND		50-150 [a]
85-01-8	Phenanthrene	1790	913	51	50-150
120-12-7	Anthracene	1790	774	43* [b]	50-150
	C1-Phenanthrenes/Anthracene		ND		50-150 [a]
	C2-Phenanthrenes/Anthracene		ND		50-150 [a]
	C3-Phenanthrenes/Anthracene		ND		50-150 [a]
	C4-Phenanthrenes/Anthracene		ND		50-150 [a]
206-44-0	Fluoranthene	1790	1210	68	50-150
129-00-0	Pyrene	1790	1220	68	50-150
	C1-Fluoranthenes/Pyrenes		ND		50-150 [a]
	C2-Fluoranthenes/Pyrenes		ND		50-150 [a]
	C3-Fluoranthenes/Pyrenes		ND		50-150 [a]
243-17-4	Benzo(b)fluorene		ND		50-150 [a]
205-12-9	Benzo(c)fluorene		ND		50-150 [a]
3442-78-2	2-Methylpyrene		ND		50-150 [a]
3353-12-6	4-Methylpyrene		ND		50-150 [a]
2381-21-7	1-Methylpyrene		ND		50-150 [a]
56-55-3	Benzo(a)anthracene	1790	987	55	50-150

* = Outside of Control Limits.

Blank Spike Summary

Job Number: MC21754A
Account: LMNJE Lockheed Martin
Project: USEPA SERAS 1-089

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP33686-BS	S33035.D	10	07/24/13	KR	06/21/13	OP33686	MSS1444

The QC reported here applies to the following samples: **Method:** D5739-06/8270C SIM

MC21754-1A, MC21754-2A, MC21754-3A, MC21754-4A, MC21754-5A, MC21754-6A, MC21754-7A

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
218-01-9	Chrysene	1790	1020	57	50-150
	C1-Benzo(a)anthracenes/Chrys		ND		50-150 [a]
	C2-Benzo(a)anthracenes/Chrys		ND		50-150 [a]
	C3-Benzo(a)anthracenes/Chrys		ND		50-150 [a]
	C4-Benzo(a)anthracenes/Chrys		ND		50-150 [a]
205-99-2	Benzo(b)fluoranthene	1790	1040	58	50-150
207-08-9	Benzo(k)fluoranthene	1790	1150	64	50-150
192-97-2	Benzo(e)pyrene	1790	1170	65	50-150 [a]
50-32-8	Benzo(a)pyrene	1790	992	55	50-150
198-55-0	Perylene	1790	1040	58	50-150 [a]
193-39-5	Indeno(1,2,3-cd)pyrene	1790	1220	68	50-150
53-70-3	Dibenzo(a,h)anthracene	1790	1100	61	50-150
191-24-2	Benzo(g,h,i)perylene	1790	1150	64	50-150

CAS No.	Surrogate Recoveries	BSP	Limits
1146-65-2	Naphthalene-d8	61%	40-140%
1517-22-2	Phenanthrene-d10	63%	40-140%
	Perylene-d12	78%	40-140%

(a) Advisory control limits.
(b) Outside control limits. Confirmed by refractionation/reanalysis.

* = Outside of Control Limits.

Duplicate Summary

Job Number: MC21754A
Account: LMNJE Lockheed Martin
Project: USEPA SERAS 1-089

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP33686-DUP [a]	S33018.D	10	07/23/13	KR	06/21/13	OP33686	MSS1444
MC21754-3A	S33022.D	10	07/23/13	KR	06/19/13	OP33686	MSS1444
MC21754-3A	S33041.D	50	07/24/13	KR	06/19/13	OP33686	MSS1444

The QC reported here applies to the following samples: **Method:** D5739-06/8270C SIM

MC21754-1A, MC21754-2A, MC21754-3A, MC21754-4A, MC21754-5A, MC21754-6A, MC21754-7A

		MC21754-3ADUP					
CAS No.	**Compound**	**ug/kg**	**Q**	**ug/kg**	**Q**	**RPD**	**Limits**
91-20-3	Naphthalene	197000 [c]		132000	E	40* [b]	30
91-57-6	2-Methylnaphthalene	37900		23200		48* [b]	30
90-12-0	1-Methylnaphthalene	13600		8360		48* [b]	30
	C1-Naphthalenes	31000		19000		48* [b]	30 [d]
	C2-Naphthalenes	7520		4720		46* [b]	30 [d]
	C3-Naphthalenes	7460		4510		49* [b]	30 [d]
	C4-Naphthalenes	6480		3890		50* [b]	30 [d]
208-96-8	Acenaphthylene	ND		36.7	J	200* [b]	30
83-32-9	Acenaphthene	308		419		31* [b]	30
132-64-9	Dibenzofuran	275		287		4	30
86-73-7	Fluorene	1050		800		27	30
	C1-Fluorenes	2410		1300		60* [b]	30 [d]
	C2-Fluorenes	5070		3070		49* [b]	30 [d]
	C3-Fluorenes	4680		2590		57* [b]	30 [d]
132-65-0	Dibenzothiophene	302		314		4	30 [d]
	C1-Dibenzothiophenes	1630		988		49* [b]	30 [d]
	C2-Dibenzothiophenes	2220		1570		34* [b]	30 [d]
	C3-Dibenzothiophenes	1460		895		48* [b]	30 [d]
	C4-Dibenzothiophenes	1310		766		52* [b]	30 [d]
85-01-8	Phenanthrene	2170		3610		50* [b]	30
120-12-7	Anthracene	195		487		86* [b]	30
	C1-Phenanthrenes/Anthracene	3580		2450		37* [b]	30 [d]
	C2-Phenanthrenes/Anthracene	3760		2270		49* [b]	30 [d]
	C3-Phenanthrenes/Anthracene	3960		1640		83* [b]	30 [d]
	C4-Phenanthrenes/Anthracene	4220		2570		49* [b]	30 [d]
206-44-0	Fluoranthene	1410		4770		109* [b]	30
129-00-0	Pyrene	1330		4050		101* [b]	30
	C1-Fluoranthenes/Pyrenes	2680		1680		46* [b]	30 [d]
	C2-Fluoranthenes/Pyrenes	582		647		11	30 [d]
	C3-Fluoranthenes/Pyrenes	473		285		50* [b]	30 [d]
243-17-4	Benzo(b)fluorene	118		125		12	30 [d]
205-12-9	Benzo(c)fluorene	55.1		63.7		32* [b]	30 [d]
3442-78-2	2-Methylpyrene	105		147		35* [b]	30 [d]
3353-12-6	4-Methylpyrene	151		143		34* [b]	30 [d]
2381-21-7	1-Methylpyrene	102		94.6		37* [b]	30 [d]
56-55-3	Benzo(a)anthracene	448		1590		112* [b]	30

* = Outside of Control Limits.

Duplicate Summary

Job Number: MC21754A
Account: LMNJE Lockheed Martin
Project: USEPA SERAS 1-089

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP33686-DUP [a]	S33018.D	10	07/23/13	KR	06/21/13	OP33686	MSS1444
MC21754-3A	S33022.D	10	07/23/13	KR	06/19/13	OP33686	MSS1444
MC21754-3A	S33041.D	50	07/24/13	KR	06/19/13	OP33686	MSS1444

The QC reported here applies to the following samples: **Method:** D5739-06/8270C SIM

MC21754-1A, MC21754-2A, MC21754-3A, MC21754-4A, MC21754-5A, MC21754-6A, MC21754-7A

CAS No.	Compound	MC21754-3A ug/kg	Q	DUP ug/kg	Q	RPD	Limits
218-01-9	Chrysene	606		1820		100* [b]	30
	C1-Benzo(a)anthracenes/Chrys	216		390		57* [b]	30 [d]
	C2-Benzo(a)anthracenes/Chrys	551		264		70* [b]	30 [d]
	C3-Benzo(a)anthracenes/Chrys	ND		ND		nc	30 [d]
	C4-Benzo(a)anthracenes/Chrys	ND		ND		nc	30 [d]
205-99-2	Benzo(b)fluoranthene	497		1640		107* [b]	30
207-08-9	Benzo(k)fluoranthene	414		1560		116* [b]	30
192-97-2	Benzo(e)pyrene	434		1420		106* [b]	30 [d]
50-32-8	Benzo(a)pyrene	484		1940		120* [b]	30
198-55-0	Perylene	148		590		120* [b]	30 [d]
193-39-5	Indeno(1,2,3-cd)pyrene	365		1420		118* [b]	30
53-70-3	Dibenzo(a,h)anthracene	95.6		305		105* [b]	30
191-24-2	Benzo(g,h,i)perylene	370		1410		117* [b]	30

CAS No.	Surrogate Recoveries	DUP	MC21754-3A	MC21754-3A	Limits
1146-65-2	Naphthalene-d8	400%* [e]	34%* [e]	42%	40-140%
1517-22-2	Phenanthrene-d10	26%* [e]	44%	46%	40-140%
	Perylene-d12	25%* [e]	43%	48%	40-140%

(a) Confirmation run for surrogate recoveries.
(b) High RPD due to possible sample heterogeneity.
(c) Result is from Run #2.
(d) Advisory control limits.
(e) Outside control limits due to matrix interference and/or dilution. Confirmed by refractionation/reanalysis.

* = Outside of Control Limits.

Duplicate Summary

Job Number: MC21754A
Account: LMNJE Lockheed Martin
Project: USEPA SERAS 1-089

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP33686-DUP	S33023.D	10	07/23/13	KR	06/21/13	OP33686	MSS1444
MC21754-3A	S33022.D	10	07/23/13	KR	06/19/13	OP33686	MSS1444

The QC reported here applies to the following samples: **Method:** D5739-06/8270C SIM

MC21754-1A, MC21754-2A, MC21754-3A, MC21754-4A, MC21754-5A, MC21754-6A, MC21754-7A

		MC21754-3A		DUP			
CAS No.	**Compound**	**ug/kg**	**Q**	**ug/kg**	**Q**	**RPD**	**Limits**
91-57-6	2-Methylnaphthalene	37900		22700		50* [a]	30
90-12-0	1-Methylnaphthalene	13600		8180		50* [a]	30
	C1-Naphthalenes	31000		18500		51* [a]	30 [b]
	C2-Naphthalenes	7520		4700		46* [a]	30 [b]
	C3-Naphthalenes	7460		4430		51* [a]	30 [b]
	C4-Naphthalenes	6480		3720		54* [a]	30 [b]
208-96-8	Acenaphthylene	ND		42.8	J	200* [a]	30
83-32-9	Acenaphthene	308		416		30	30
132-64-9	Dibenzofuran	275		304		10	30
86-73-7	Fluorene	1050		717		38* [a]	30
	C1-Fluorenes	2410		1340		57* [a]	30 [b]
	C2-Fluorenes	5070		2820		57* [a]	30 [b]
	C3-Fluorenes	4680		2460		62* [a]	30 [b]
132-65-0	Dibenzothiophene	302		309		2	30 [b]
	C1-Dibenzothiophenes	1630		692		81* [a]	30 [b]
	C2-Dibenzothiophenes	2220		219		164* [a]	30 [b]
	C3-Dibenzothiophenes	1460		189		154* [a]	30 [b]
	C4-Dibenzothiophenes	1310		43.6	J	187* [a]	30 [b]
85-01-8	Phenanthrene	2170		3350		43* [a]	30
120-12-7	Anthracene	195		443		78* [a]	30
	C1-Phenanthrenes/Anthracene	3580		476		153* [a]	30 [b]
	C2-Phenanthrenes/Anthracene	3760		ND		200* [a]	30 [b]
	C3-Phenanthrenes/Anthracene	3960		239		177* [a]	30 [b]
	C4-Phenanthrenes/Anthracene	4220		ND		200* [a]	30 [b]
206-44-0	Fluoranthene	1410		4310		101* [a]	30
129-00-0	Pyrene	1330		3710		94* [a]	30
	C1-Fluoranthenes/Pyrenes	2680		114		184* [a]	30 [b]
	C2-Fluoranthenes/Pyrenes	582		33.8	J	178* [a]	30 [b]
	C3-Fluoranthenes/Pyrenes	473		ND		200* [a]	30 [b]
243-17-4	Benzo(b)fluorene	118		114		3	30 [b]
205-12-9	Benzo(c)fluorene	55.1		131		82* [a]	30 [b]
3442-78-2	2-Methylpyrene	105		74.9		33* [a]	30 [b]
3353-12-6	4-Methylpyrene	151		123		20	30 [b]
2381-21-7	1-Methylpyrene	102		141		32* [a]	30 [b]
56-55-3	Benzo(a)anthracene	448		1440		105* [a]	30
218-01-9	Chrysene	606		1650		93* [a]	30

* = Outside of Control Limits.

Duplicate Summary

Job Number: MC21754A
Account: LMNJE Lockheed Martin
Project: USEPA SERAS 1-089

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP33686-DUP	S33023.D	10	07/23/13	KR	06/21/13	OP33686	MSS1444
MC21754-3A	S33022.D	10	07/23/13	KR	06/19/13	OP33686	MSS1444

The QC reported here applies to the following samples: **Method:** D5739-06/8270C SIM

MC21754-1A, MC21754-2A, MC21754-3A, MC21754-4A, MC21754-5A, MC21754-6A, MC21754-7A

CAS No.	Compound	MC21754-3A ug/kg	Q	DUP ug/kg	Q	RPD	Limits
	C1-Benzo(a)anthracenes/Chrys	216		166		26	30 [b]
	C2-Benzo(a)anthracenes/Chrys	551		ND		200* [a]	30 [b]
	C3-Benzo(a)anthracenes/Chrys	ND		ND		nc	30 [b]
	C4-Benzo(a)anthracenes/Chrys	ND		ND		nc	30 [b]
205-99-2	Benzo(b)fluoranthene	497		1560		103* [a]	30
207-08-9	Benzo(k)fluoranthene	414		1560		116* [a]	30
192-97-2	Benzo(e)pyrene	434		1290		99* [a]	30 [b]
50-32-8	Benzo(a)pyrene	484		1830		116* [a]	30
198-55-0	Perylene	148		542		114* [a]	30 [b]
193-39-5	Indeno(1,2,3-cd)pyrene	365		1310		113* [a]	30
53-70-3	Dibenzo(a,h)anthracene	95.6		ND		200* [a]	30
191-24-2	Benzo(g,h,i)perylene	370		1330		113* [a]	30

CAS No.	Surrogate Recoveries	DUP	MC21754-3A	Limits
1146-65-2	Naphthalene-d8	24%* [c]	34%* [c]	40-140%
1517-22-2	Phenanthrene-d10	25%* [c]	44%	40-140%
	Perylene-d12	23%* [c]	43%	40-140%

(a) High RPD due to possible sample heterogeneity.
(b) Advisory control limits.
(c) Outside control limits due to matrix interference and/or dilution. Confirmed by refractionation/reanalysis.

* = Outside of Control Limits.

Duplicate Summary

Job Number: MC21754A
Account: LMNJE Lockheed Martin
Project: USEPA SERAS 1-089

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP33686-DUP	S33040.D	50	07/24/13	KR	06/21/13	OP33686	MSS1444
MC21754-3A	S33041.D	50	07/24/13	KR	06/19/13	OP33686	MSS1444

The QC reported here applies to the following samples: **Method:** D5739-06/8270C SIM

MC21754-1A, MC21754-2A, MC21754-3A, MC21754-4A, MC21754-5A, MC21754-6A, MC21754-7A

CAS No.	Compound	MC21754-3A ug/kg	Q	DUP ug/kg	Q	RPD	Limits
91-20-3	Naphthalene	197000		118000		50* [a]	30

CAS No.	Surrogate Recoveries	DUP	MC21754-3A	Limits
1146-65-2	Naphthalene-d8	26%* [b]	42%	40-140%
1517-22-2	Phenanthrene-d10	27%* [b]	46%	40-140%
	Perylene-d12	26%* [b]	48%	40-140%

(a) High RPD due to possible sample heterogeneity.
(b) Outside control limits due to matrix interference and/or dilution. Confirmed by refractionation/reanalysis.

* = Outside of Control Limits.

Semivolatile Surrogate Recovery Summary

Job Number: MC21754A
Account: LMNJE Lockheed Martin
Project: USEPA SERAS 1-089

Method: D5739-06/8270C SIM **Matrix:** SO

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3
MC21754-1A	S33036.D	29.0* [a]	98.0	39.0* [a]
MC21754-1A	S32995.D	28.0* [a]	25.0* [a]	39.0* [a]
MC21754-2A	S33039.D	37.0* [a]	39.0* [a]	38.0* [a]
MC21754-2A	S32996.D	31.0* [a]	35.0* [a]	38.0* [a]
MC21754-2A	S33025.D	37.0* [a]	38.0* [a]	33.0* [a]
MC21754-3A	S33041.D	42.0	46.0	48.0
MC21754-3A	S33017.D	696.0* [a]	44.0	41.0
MC21754-3A	S33022.D	34.0* [a]	44.0	43.0
MC21754-4A	S32999.D	24.0* [a]	23.0* [a]	20.0* [a]
MC21754-4A	S33026.D	20.0* [a]	22.0* [a]	23.0* [a]
MC21754-5A	S33000.D	34.0* [a]	34.0* [a]	36.0* [a]
MC21754-5A	S33037.D	28.0* [a]	33.0* [a]	34.0* [a]
MC21754-6A	S33001.D	23.0* [a]	20.0* [a]	21.0* [a]
MC21754-6A	S33028.D	21.0* [a]	20.0* [a]	22.0* [a]
MC21754-7A	S33002.D	35.0* [a]	38.0* [a]	41.0
MC21754-7A	S33029.D	29.0* [a]	40.0	41.0
OP33686-BS	S32994.D	56.0	61.0	56.0
OP33686-BS	S33035.D	61.0	63.0	78.0
OP33686-DUP	S33018.D	400.0* [a]	26.0* [a]	25.0* [a]
OP33686-DUP	S33023.D	24.0* [a]	25.0* [a]	23.0* [a]
OP33686-DUP	S33040.D	26.0* [a]	27.0* [a]	26.0* [a]
OP33686-MB	S33020.D	55.0	53.0	60.0

Surrogate Compounds	Recovery Limits
S1 = Naphthalene-d8	40-140%
S2 = Phenanthrene-d10	40-140%
S3 = Perylene-d12	40-140%

(a) Outside control limits due to matrix interference and/or dilution. Confirmed by refractionation/reanalysis.

New England ACCUTEST LABORATORIES

GC/MS Semi-volatiles

Raw Data

Manual Integrations APPROVED (compounds with "m" flag)
James Roush
07/29/13 14:06

Quantitation Report (QT Reviewed)

Data Path : S:\1\data\S130723\
Data File : S33036.D
Acq On : 24 Jul 2013 2:50 pm
Operator : kristinr
Sample : mc21754-1a
Misc : op33686,mss1444,5.27,,,2,10
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jul 25 18:26:57 2013
Quant Method : S:\1\methods\S130705-B5739ALKPAH.M
Quant Title : PAHs & Alkylated PAHs by GC/MS/SIM
QLast Update : Thu Jul 11 09:13:24 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Acenaphthene-d10	28.056	164	154229	1100.00	ng/mL	0.00
System Monitoring Compounds						
2) Toluene-d8	9.196	98	1597	9.67	µg/mL	0.00
Spiked Amount 1000.000			Recovery = 0.97%			
3) Naphthalene-d8	21.110	136	7835	28.74	ng/mL	0.00
Spiked Amount 1000.000	Range 1 - 0		Recovery = 2.87%#			
4) Phenanthrene-d10	33.861	188	21995	97.99	ng/mL	-0.03
Spiked Amount 1000.000			Recovery = 9.80%			
5) Perylene-d12	49.709	264	7662	38.67	ng/mL	0.03
Spiked Amount 1000.000			Recovery = 3.87%			
Target Compounds						Qvalue
6) Naphthalene	21.193	128	5692987	16427.29	ng/mL	99
7) 2-Methylnaphthalene	23.882	142	300772	1462.66	ng/mL	100
8) 1-Methylnaphthalene	24.294	142	130904	610.21	ng/mL	97
9) C1-Naphthalenes	23.882	142	431439m	1244.93	ng/mL	
10) C2-Naphthalenes	26.719	156	367116m	1059.32	ng/mL	
11) C3-Naphthalenes	29.049	170	417310m	1204.16	ng/mL	
12) C4-Naphthalenes	31.806	184	369379m	1065.85	ng/mL	
13) Acenaphthylene	27.445	152	3907	12.19	ng/mL#	67
14) Acenaphthene	28.179	154	13178m	67.40	ng/mL	
15) Dibenzofuran	28.819	168	14847m	53.28	ng/mL	
16) Fluorene	30.186	166	37644m	151.78	ng/mL	
17) C1-Fluorenes	32.549	180	98420m	396.84	ng/mL	
18) C2-Fluorenes	34.738	194	215317m	868.18	ng/mL	
19) C3-Fluorenes	36.572	208	193634m	780.75	ng/mL	
20) Dibenzothiophene	33.483	184	22971m	73.46	ng/mL	
21) C1-Dibenzothiophenes (...	35.251	198	88361m	286.68	ng/mL	
22) C1-Dibenzothiophenes (...	35.687	198	794m	2.58	µg/mL	
23) C2-Dibenzothiophenes	36.938	212	117526m	381.30	ng/mL	
24) C3-Dibenzothiophenes	38.752	226	89701m	291.03	ng/mL	
25) C4-Dibenzothiophenes	40.934	240	74539m	241.84	ng/mL	
26) Phenanthrene	33.976	178	272849m	763.17	ng/mL	
27) Anthracene	34.156	178	33412m	100.57	ng/mL	
28) C1-Phenanthrenes/anthr...	36.047	192	257635m	720.62	ng/mL	
29) C2-Phenanthrenes/anthr...	38.208	206	226359m	633.14	ng/mL	
31) C3-Phenanthrenes/anthr...	40.052	220	206385m	577.27	ng/mL	
32) C4-Phenanthrenes/anthr...	40.975	234	315814m	883.35	ng/mL	
33) Fluoranthene	38.734	202	386354	1219.82	ng/mL	98
34) Pyrene	39.599	202	348885	1063.12	ng/mL	95
35) C1-Fluoranthenes/pyrenes	41.016	216	138471m	421.95	ng/mL	
36) Benzo(b)fluorene	41.257	216	12459	37.97	ng/mL#	56
37) Benzo(c)fluorene	41.298	216	5562m	16.95	µg/mL	
38) 2-Methylpyrene	41.404	216	12032m	36.66	ng/mL	
39) 4-Methylpyrene	41.775	216	12659m	38.57	ng/mL	
40) 1-Methylpyrene	41.880	216	7693m	23.44	ng/mL	
41) C2-Fluoranthenes/pyrenes	43.063	230	58165m	177.24	ng/mL	
42) C3-Fluoranthenes/pyrenes	44.400	244	28697m	87.45	ng/mL	

Quantitation Report (QT Reviewed)

Data Path : S:\1\data\S130723\
Data File : S33036.D
Acq On : 24 Jul 2013 2:50 pm
Operator : kristinr
Sample : mc21754-1a
Misc : op33686,mss1444,5.27,,,2,10
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jul 25 18:26:57 2013
Quant Method : S:\1\methods\S130705-B5739ALKPAH.M
Quant Title : PAHs & Alkylated PAHs by GC/MS/SIM
QLast Update : Thu Jul 11 09:13:24 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
43) Benz(a)anthracene	44.386	228	121707	384.00	ng/mL	95
44) Chrysene	44.540	228	153040	517.64	ng/mL	100
45) C1-Benz(a)anthracenes/...	46.029	242	32430m	109.69	ng/mL	
46) C2-Benz(a)anthracenes/...	47.805	256	27427m	92.77	ng/mL	
49) Benzo(b)fluoranthene	48.427	252	167407	461.34	ng/mL#	86
50) Benzo(k)fluoranthene	48.500	252	140720	389.10	ng/mL#	80
51) Benzo(e)pyrene	49.355	252	122934	376.61	ng/mL	98
52) Benzo(a)pyrene	49.524	252	134987m	426.93	ng/mL	
53) Perylene	49.794	252	40060	130.40	ng/mL#	92
54) Indeno(1,2,3-cd)pyrene	53.018	276	125028	344.65	ng/mL#	91
55) Dibenz(a,h)anthracene	53.056	278	27088m	82.44	ng/mL	
56) Benzo(g,h,i)perylene	53.828	276	135138m	348.35	ng/mL	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

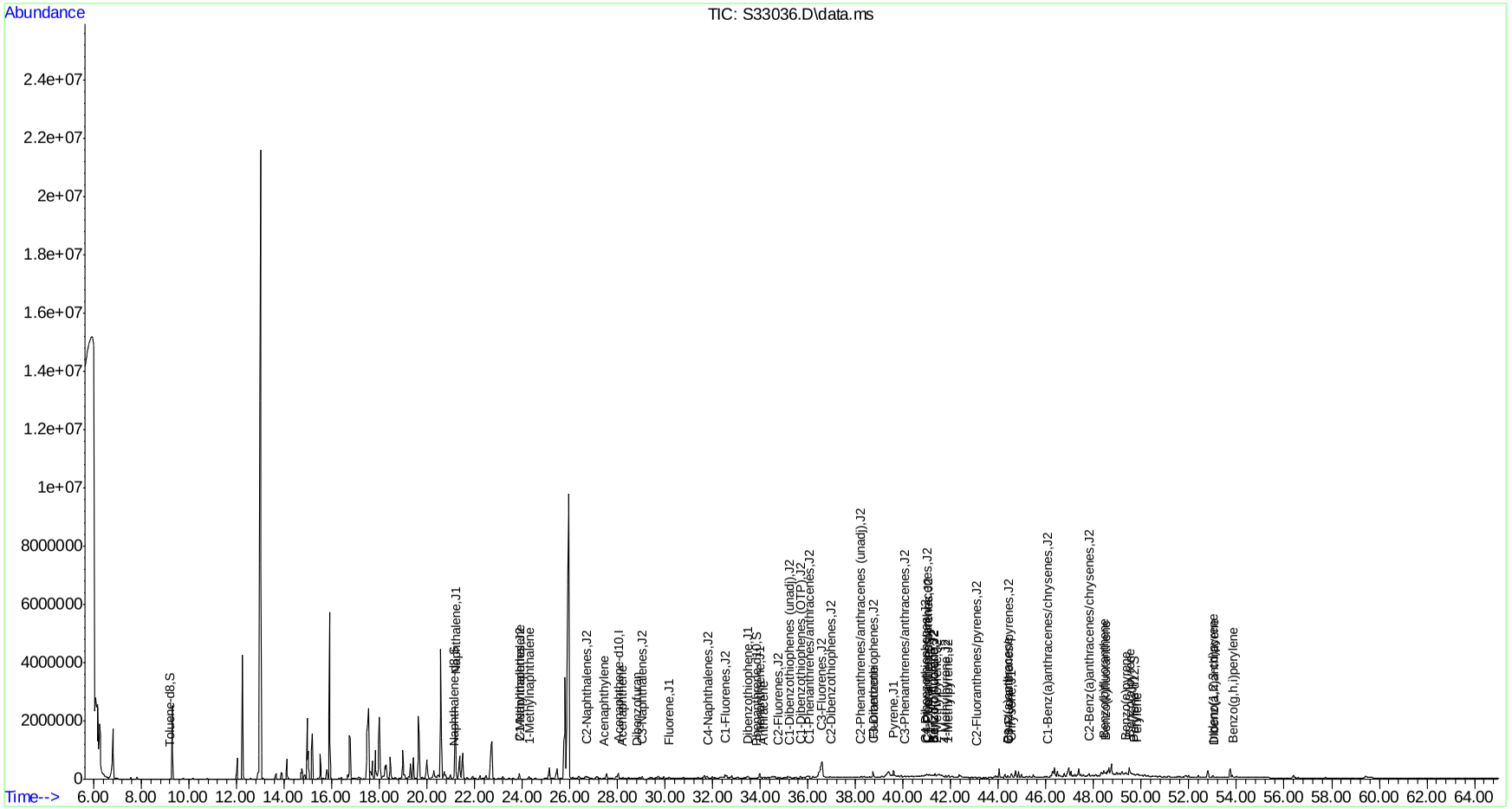
7.1.1

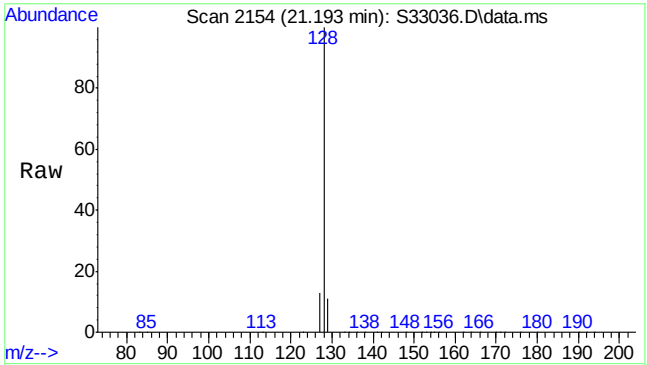
7

Quantitation Report (QT Reviewed)

Data Path : S:\1\data\S130723\
Data File : S33036.D
Acq On : 24 Jul 2013 2:50 pm
Operator : kristinr
Sample : mc21754-1a
Misc : op33686,mss1444,5.27,,,2,10
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jul 25 18:26:57 2013
Quant Method : S:\1\methods\S130705-B5739ALKPAH.M
Quant Title : PAHs & Alkylated PAHs by GC/MS/SIM
QLast Update : Thu Jul 11 09:13:24 2013
Response via : Initial Calibration

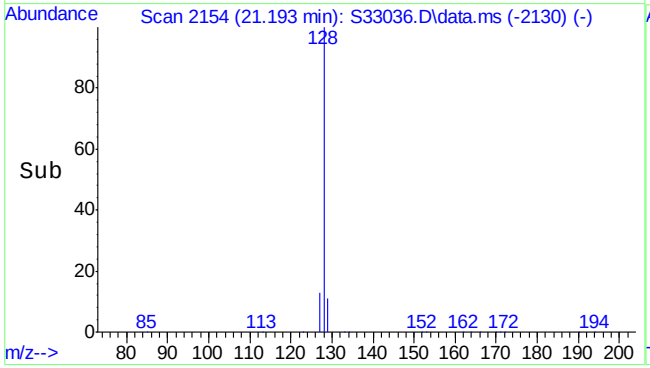


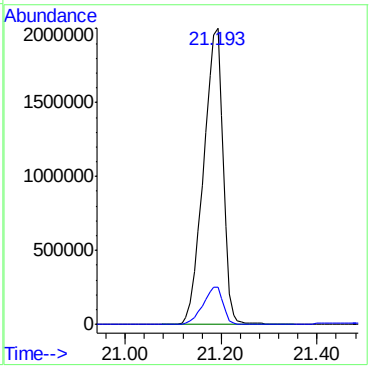


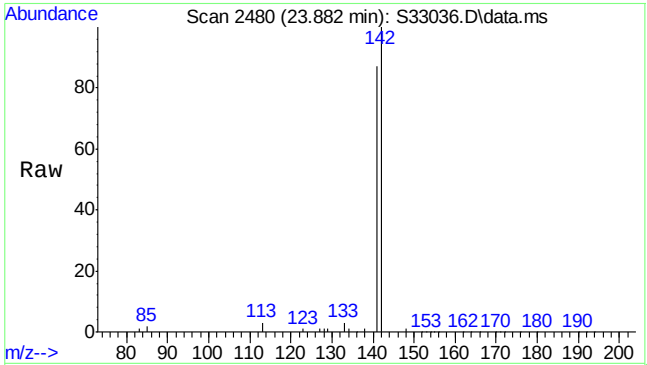
#6
Naphthalene
Concen: 16427.29 ng/mL
RT: 21.193 min Scan# 2154
Delta R.T. -0.000 min
Lab File: S33036.D
Acq: 24 Jul 2013 2:50 pm

Tgt Ion:128 Resp: 5692987

Ion	Ratio	Lower	Upper
128	100		
127	12.8	10.0	15.0



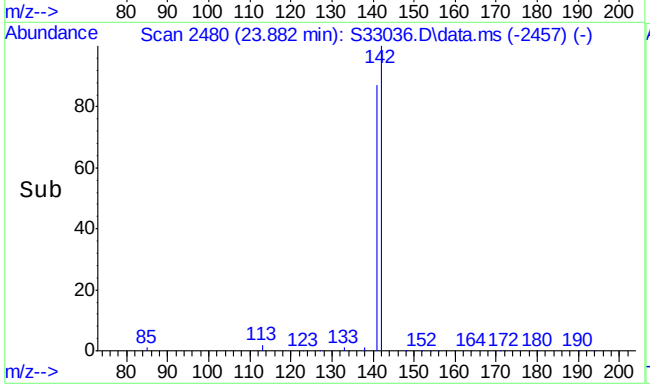


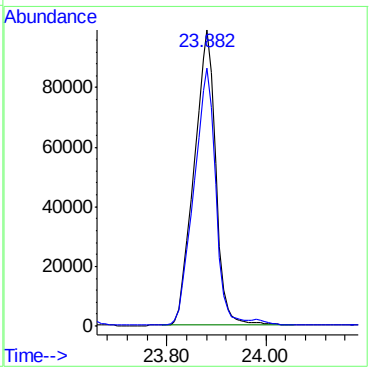


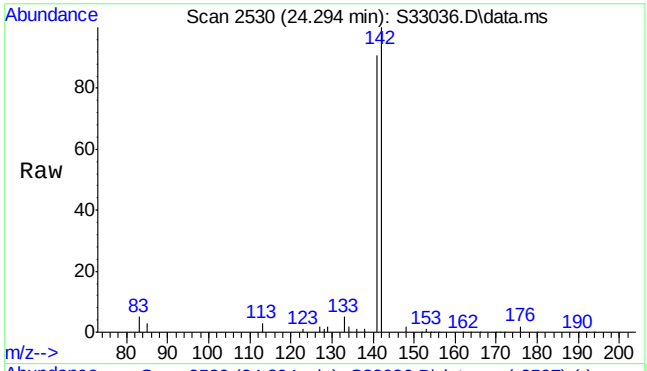
#7
2-Methylnaphthalene
Concen: 1462.66 ng/mL
RT: 23.882 min Scan# 2480
Delta R.T. -0.008 min
Lab File: S33036.D
Acq: 24 Jul 2013 2:50 pm

Tgt Ion:142 Resp: 300772

Ion	Ratio	Lower	Upper
142	100		
141	86.8	69.7	104.5



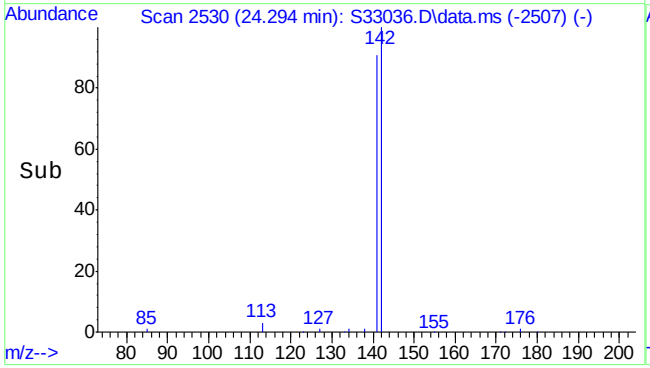


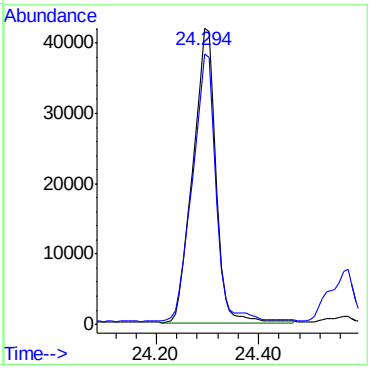


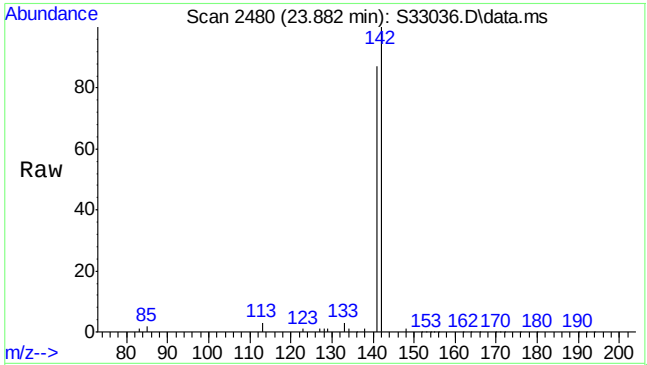
#8
1-Methylnaphthalene
Concen: 610.21 ng/mL
RT: 24.294 min Scan# 2530
Delta R.T. -0.008 min
Lab File: S33036.D
Acq: 24 Jul 2013 2:50 pm

Tgt Ion:142 Resp: 130904

Ion	Ratio	Lower	Upper
142	100		
141	93.4	72.6	108.8



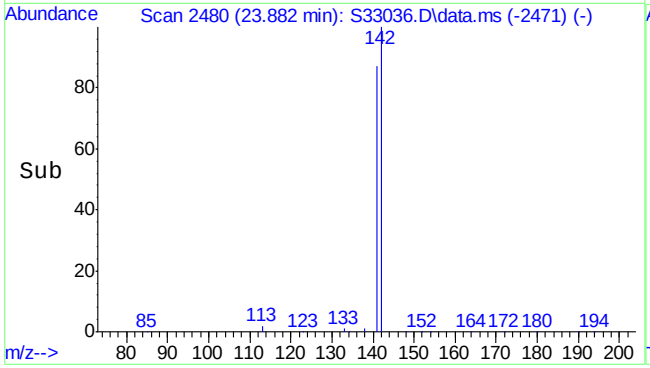


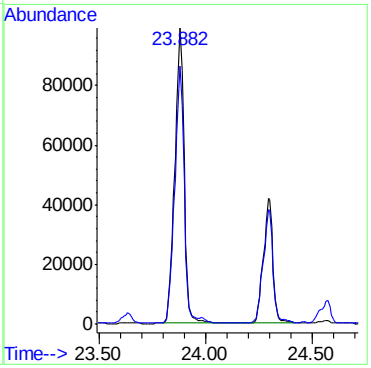


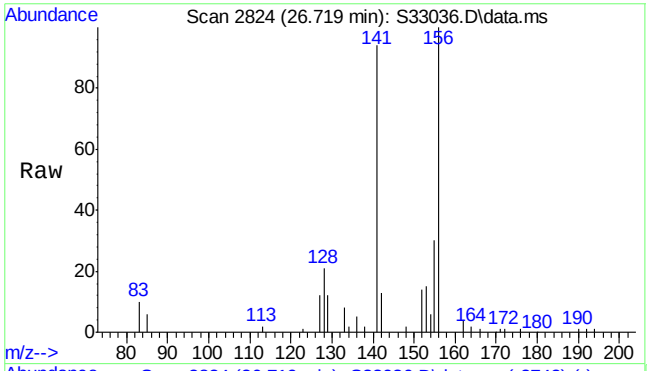
#9
C1-Naphthalenes
Concen: 1244.93 ng/mL m
RT: 23.882 min Scan# 2480
Delta R.T. 0.000 min
Lab File: S33036.D
Acq: 24 Jul 2013 2:50 pm

Tgt Ion:142 Resp: 431439

Ion	Ratio	Lower	Upper
142	100		
141	56.4	69.9	104.9#



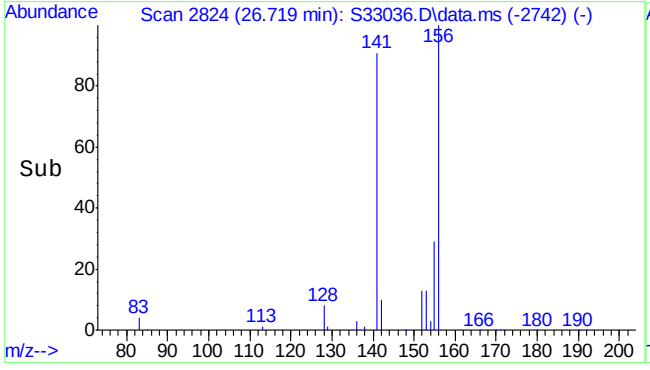


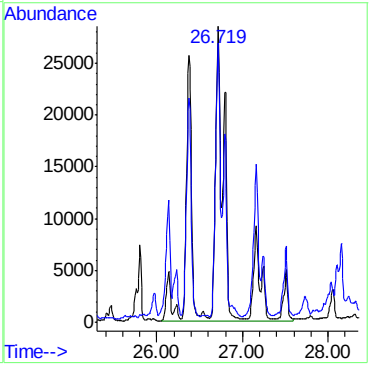


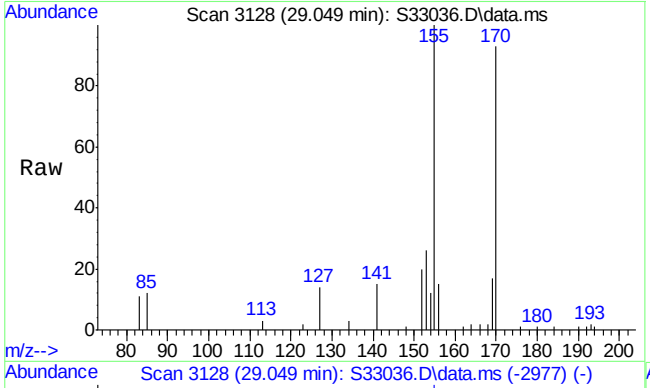
#10
C2-Naphthalenes
Concen: 1059.32 ng/mL m
RT: 26.719 min Scan# 2824
Delta R.T. -0.082 min
Lab File: S33036.D
Acq: 24 Jul 2013 2:50 pm

Tgt Ion:156 Resp: 367116

Ion	Ratio	Lower	Upper
156	100		
141	11.7	64.9	97.3#



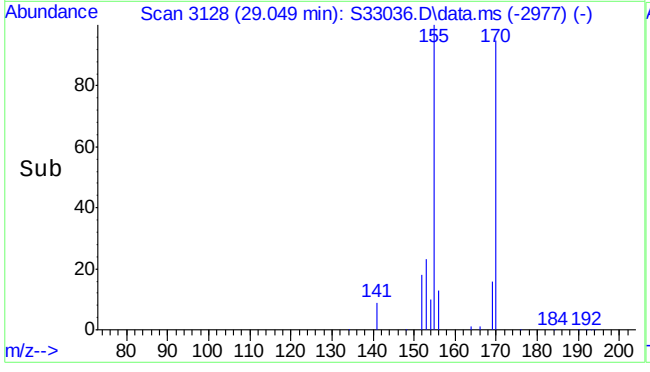


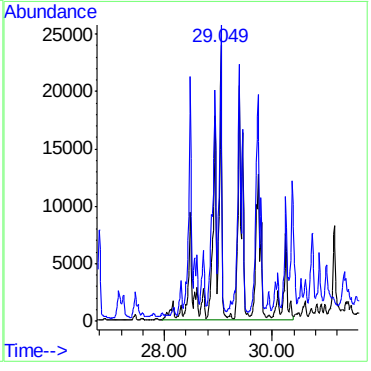


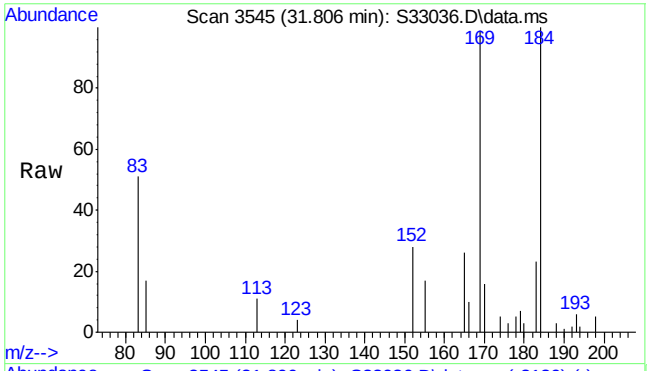
#11
C3-Naphthalenes
Concen: 1204.16 ng/mL m
RT: 29.049 min Scan# 3128
Delta R.T. -0.007 min
Lab File: S33036.D
Acq: 24 Jul 2013 2:50 pm

Tgt Ion:170 Resp: 417310

Ion	Ratio	Lower	Upper
170	100		
155	18.1	85.4	128.2#



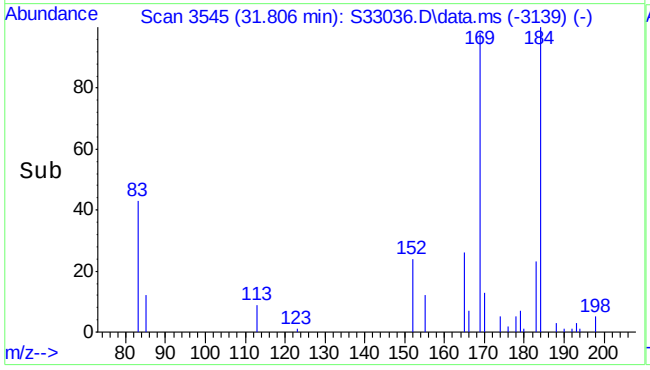


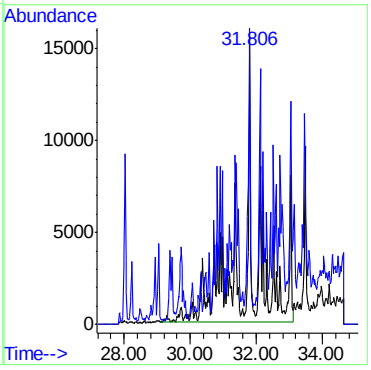


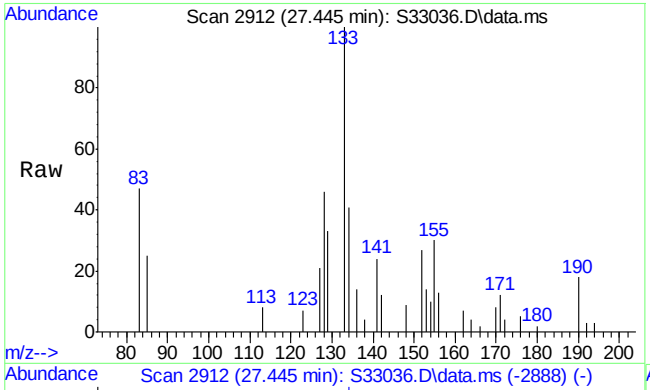
#12
C4-Naphthalenes
Concen: 1065.85 ng/mL m
RT: 31.806 min Scan# 3545
Delta R.T. -0.006 min
Lab File: S33036.D
Acq: 24 Jul 2013 2:50 pm

Tgt Ion:184 Resp: 369379

Ion	Ratio	Lower	Upper
184	100		
169	3.2	81.0	121.6#



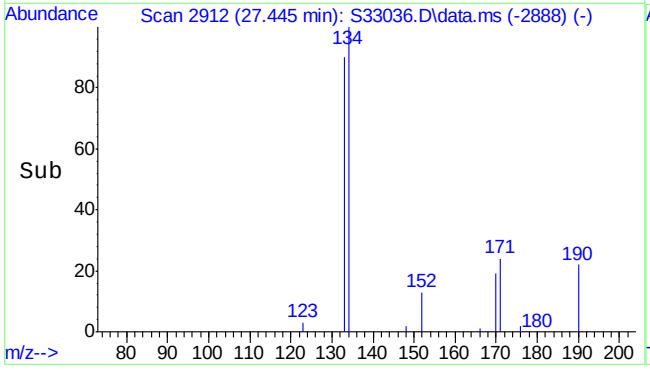


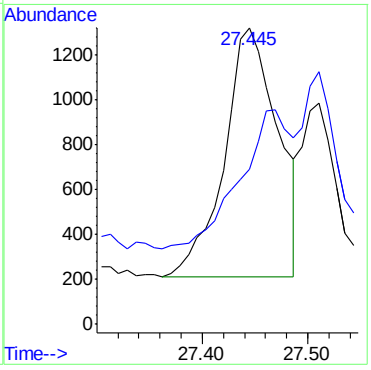


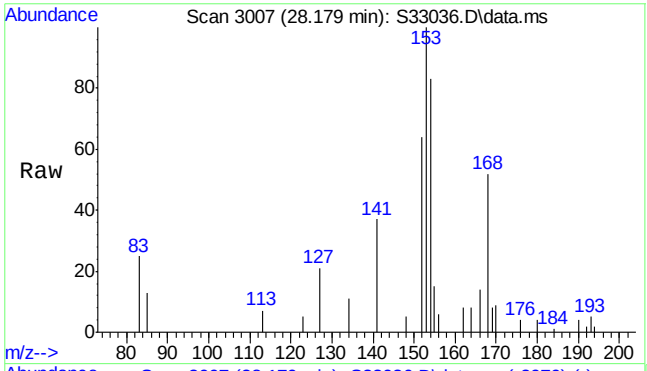
#13
Acenaphthylene
Concen: 12.19 ng/mL
RT: 27.445 min Scan# 2912
Delta R.T. -0.000 min
Lab File: S33036.D
Acq: 24 Jul 2013 2:50 pm

Tgt Ion:152 Resp: 3907

Ion	Ratio	Lower	Upper
152	100		
153	0.0	10.5	15.7#



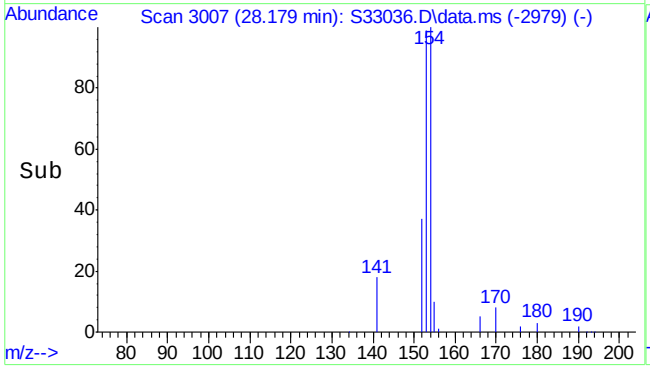


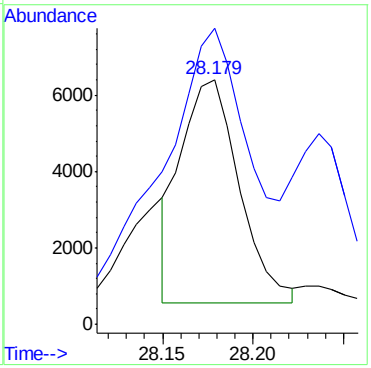


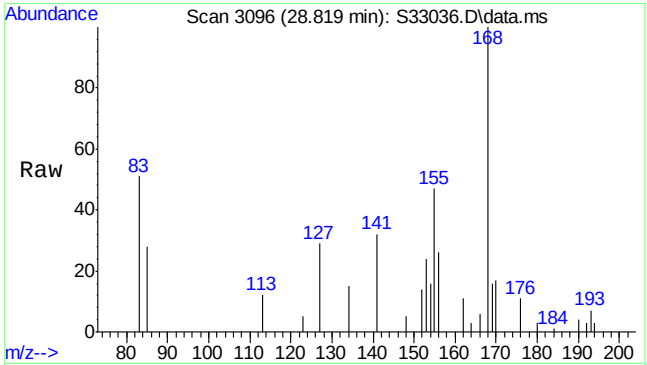
#14
Acenaphthene
Concen: 67.40 ng/mL m
RT: 28.179 min Scan# 3007
Delta R.T. -0.000 min
Lab File: S33036.D
Acq: 24 Jul 2013 2:50 pm

Tgt Ion:154 Resp: 13178

Ion	Ratio	Lower	Upper
154	100		
153	173.9	88.2	132.4#



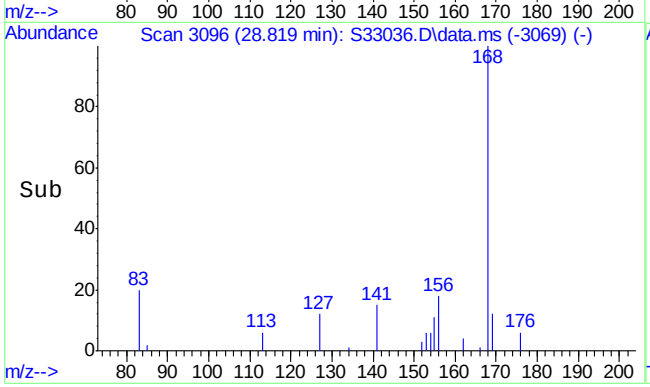


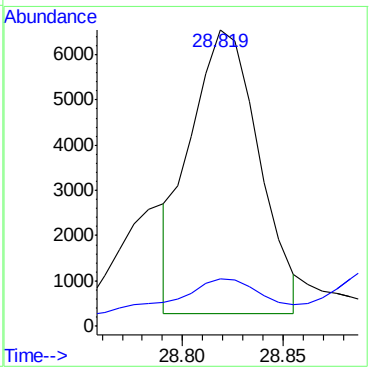


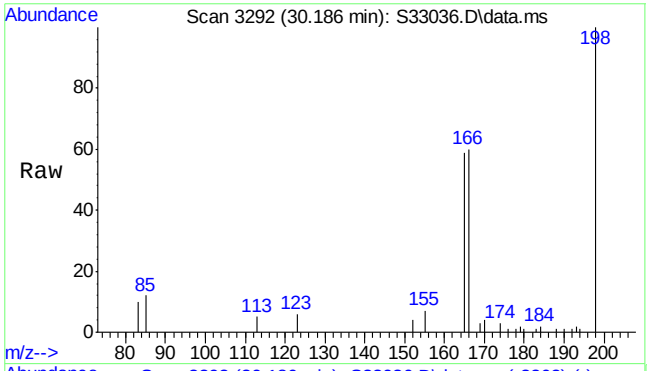
#15
Dibenzofuran
Concen: 53.28 ng/mL m
RT: 28.819 min Scan# 3096
Delta R.T. -0.007 min
Lab File: S33036.D
Acq: 24 Jul 2013 2:50 pm

Tgt Ion:168 Resp: 14847

Ion	Ratio	Lower	Upper
168	100		
169	16.5	10.7	16.1#



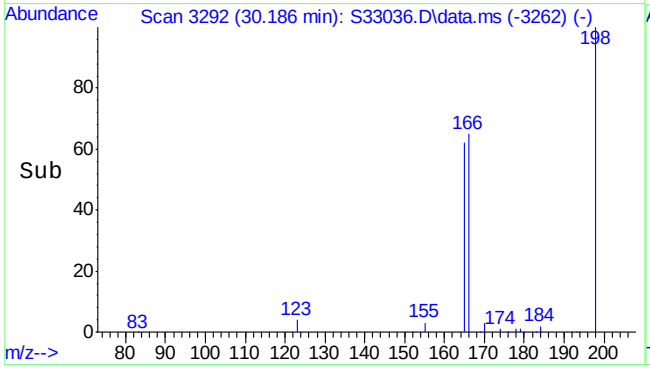


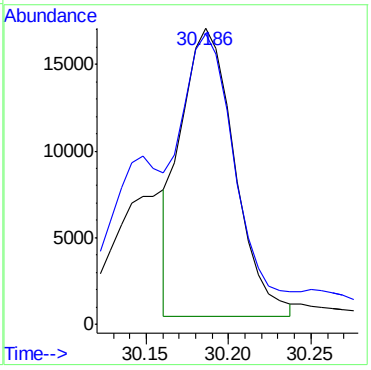


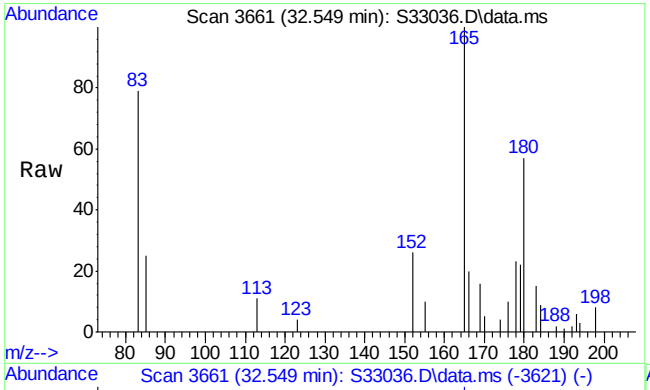
#16
Fluorene
Concen: 151.78 ng/mL m
RT: 30.186 min Scan# 3292
Delta R.T. -0.006 min
Lab File: S33036.D
Acq: 24 Jul 2013 2:50 pm

Tgt Ion:166 Resp: 37644

Ion	Ratio	Lower	Upper
166	100		
165	87.0	76.3	114.5



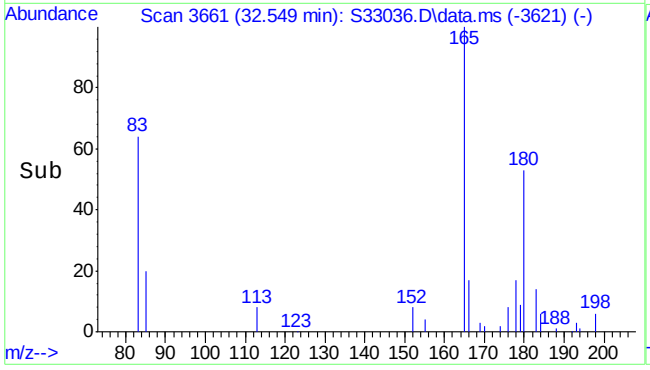


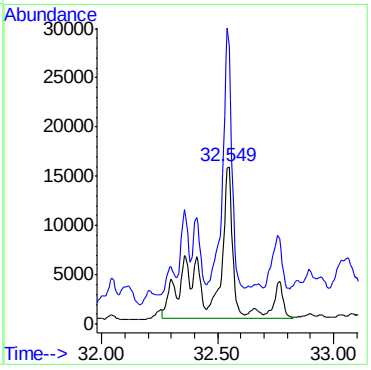


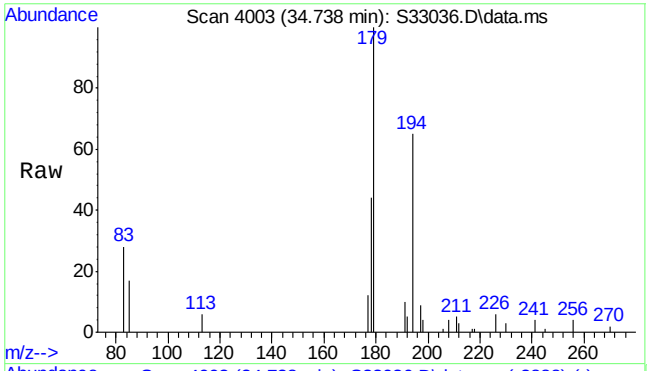
#17
C1-Fluorenes
Concen: 396.84 ng/mL m
RT: 32.549 min Scan# 3661
Delta R.T. 0.017 min
Lab File: S33036.D
Acq: 24 Jul 2013 2:50 pm

Tgt Ion:180 Resp: 98420

Ion	Ratio	Lower	Upper
180	100		
165	72.2	134.2	201.4#



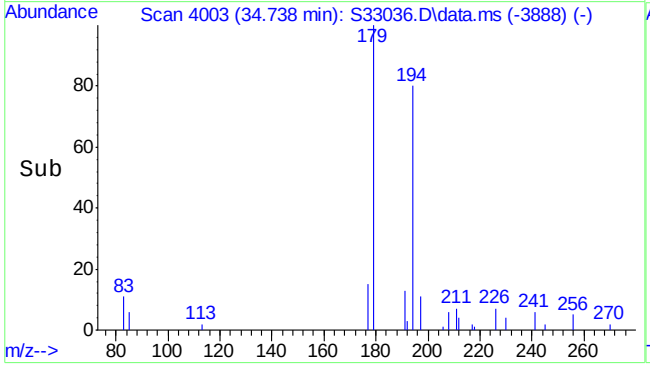


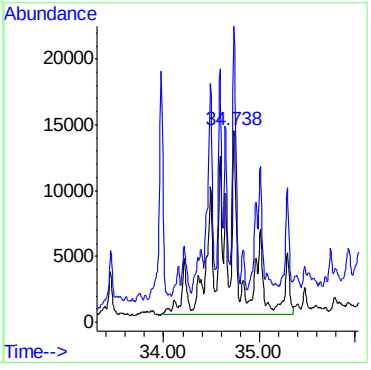


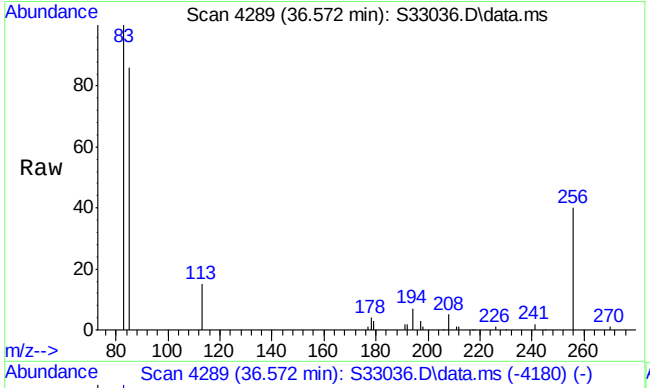
#18
C2-Fluorenes
Concen: 868.18 ng/mL m
RT: 34.738 min Scan# 4003
Delta R.T. -0.006 min
Lab File: S33036.D
Acq: 24 Jul 2013 2:50 pm

Tgt Ion:194 Resp: 215317

Ion	Ratio	Lower	Upper
194	100		
179	24.0	126.2	189.4#



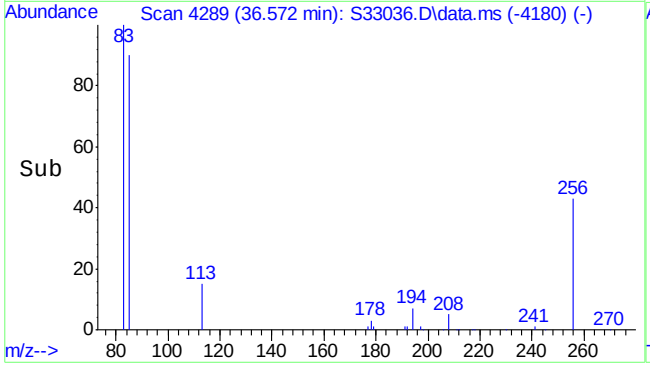


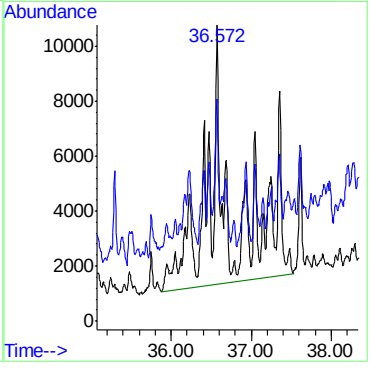


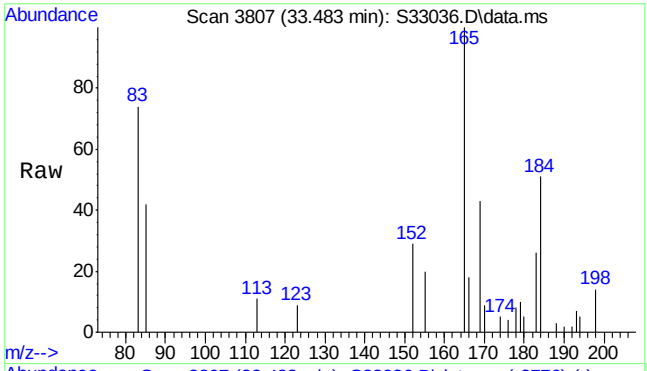
#19
C3-Fluorenes
Concen: 780.75 ng/mL m
RT: 36.572 min Scan# 4289
Delta R.T. -0.006 min
Lab File: S33036.D
Acq: 24 Jul 2013 2:50 pm

Tgt Ion:208 Resp: 193634

Ion	Ratio	Lower	Upper
208	100		
178	3.3	54.9	82.3#



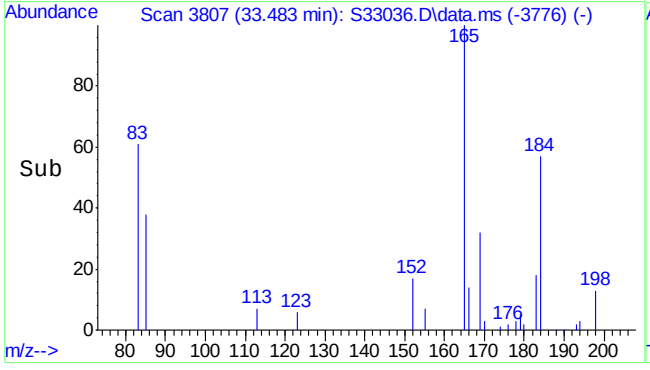


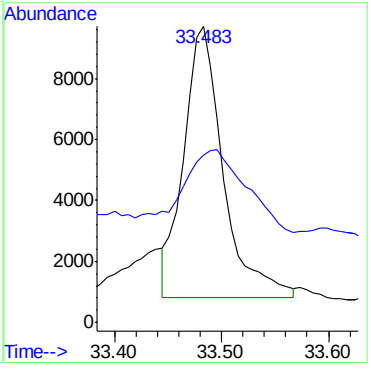


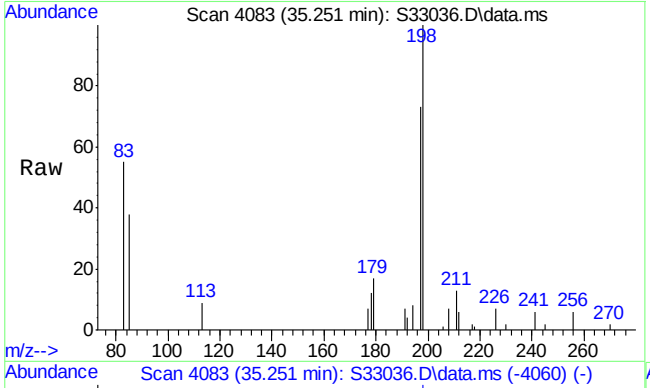
#20
Dibenzothiophene
Concen: 73.46 ng/mL m
RT: 33.483 min Scan# 3807
Delta R.T. -0.000 min
Lab File: S33036.D
Acq: 24 Jul 2013 2:50 pm

Tgt Ion:184 Resp: 22971

Ion	Ratio	Lower	Upper
184	100		
152	48.5	7.7	11.5#



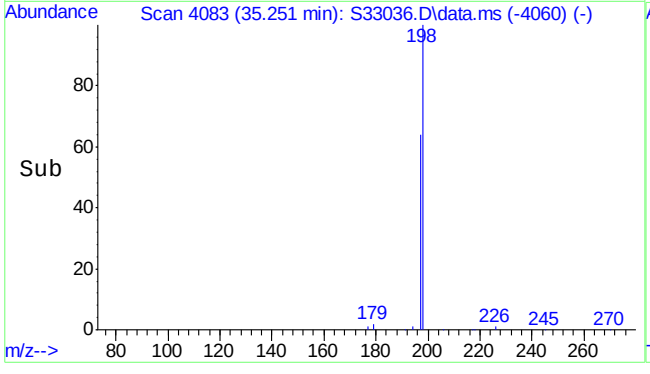


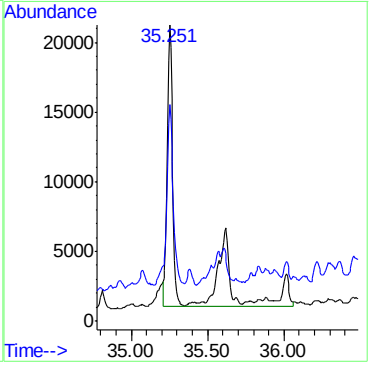


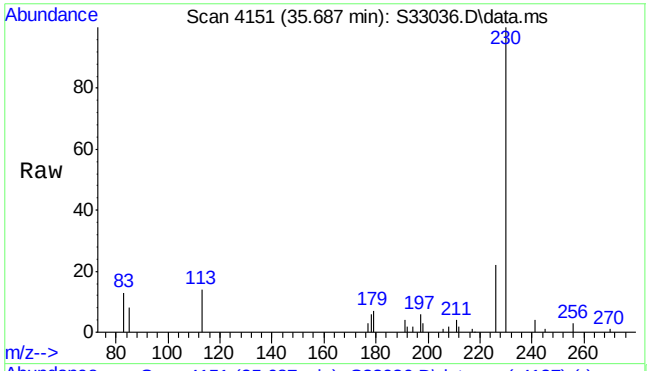
#21
C1-Dibenzothiophenes (unadj)
Concen: 286.68 ng/mL m
RT: 35.251 min Scan# 4083
Delta R.T. -0.006 min
Lab File: S33036.D
Acq: 24 Jul 2013 2:50 pm

Tgt Ion:198 Resp: 88361

Ion	Ratio	Lower	Upper
198	100		
197	42.7	53.4	80.0#



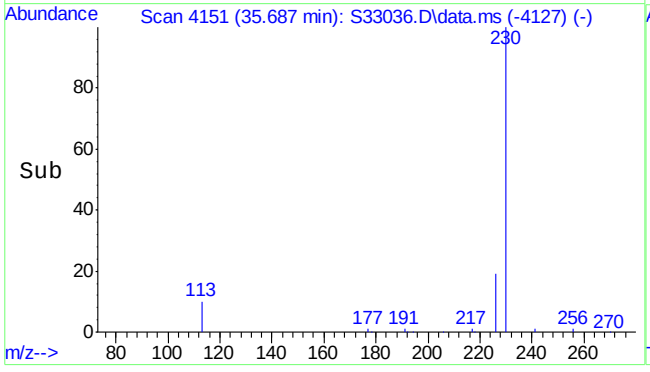


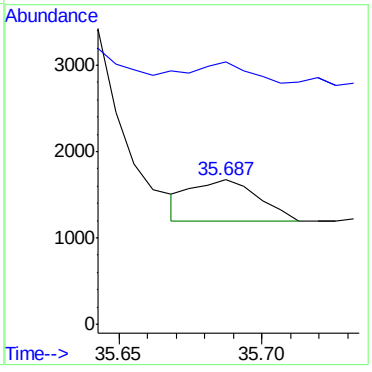


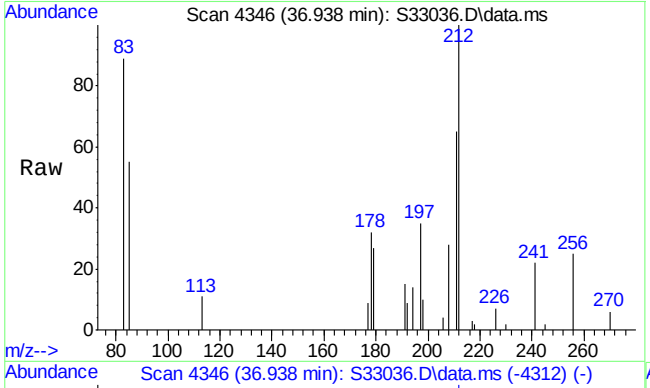
#22
C1-Dibenzothiophenes (OTP)
Concen: 2.58 µg/mL m
RT: 35.687 min Scan# 4151
Delta R.T. 0.064 min
Lab File: S33036.D
Acq: 24 Jul 2013 2:50 pm

Tgt Ion:198 Resp: 794

Ion	Ratio	Lower	Upper
198	100		
197	0.0	58.2	87.2#



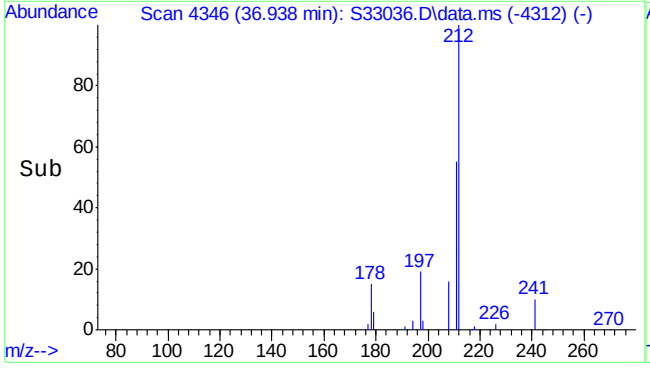


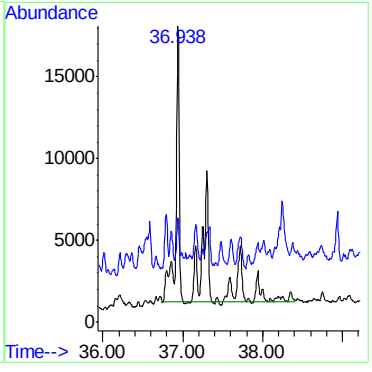


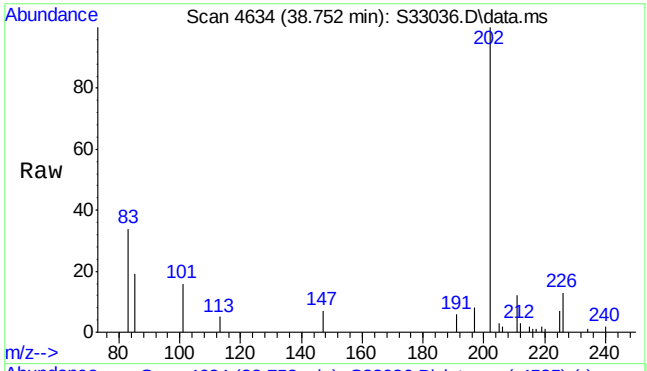
#23
C2-Dibenzothiophenes
Concen: 381.30 ng/mL m
RT: 36.938 min Scan# 4346
Delta R.T. -0.365 min
Lab File: S33036.D
Acq: 24 Jul 2013 2:50 pm

Tgt Ion:212 Resp: 117526

Ion	Ratio	Lower	Upper
212	100		
197	0.0	20.6	30.8#



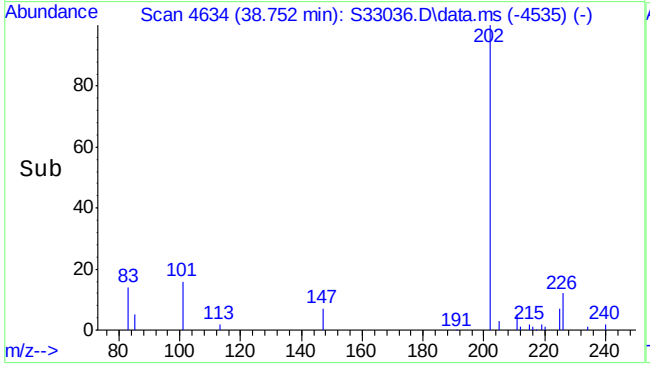


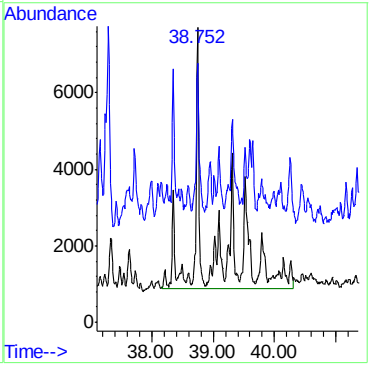


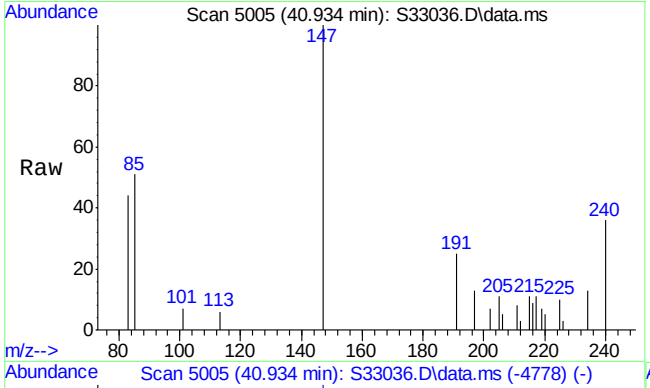
#24
C3-Dibenzothiophenes
Concen: 291.03 ng/mL m
RT: 38.752 min Scan# 4634
Delta R.T. 0.000 min
Lab File: S33036.D
Acq: 24 Jul 2013 2:50 pm

Tgt Ion:226 Resp: 89701

Ion	Ratio	Lower	Upper
226	100		
211	14.8	49.7	74.5#

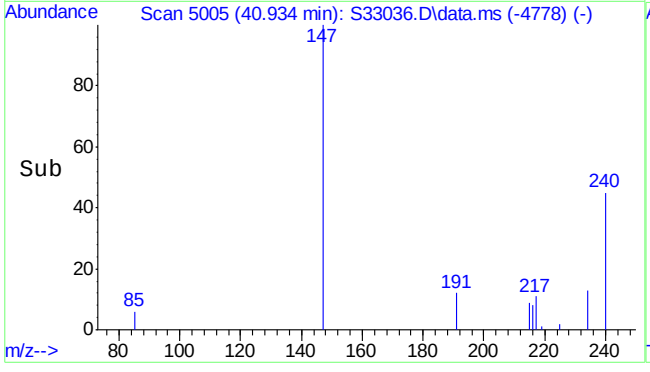


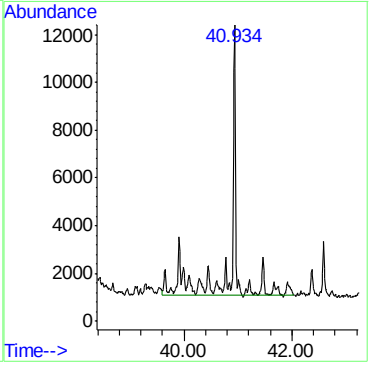


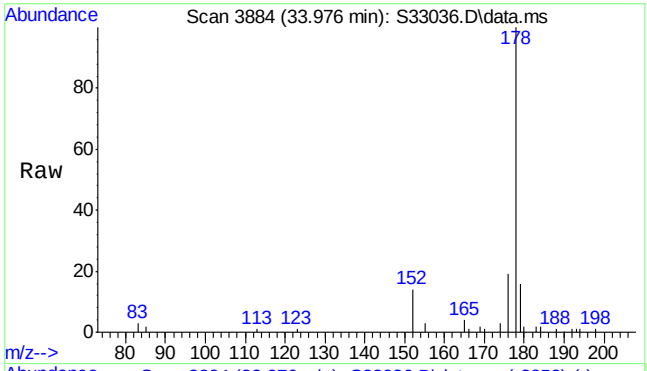


#25
C4-Dibenzothiophenes
Concen: 241.84 ng/mL m
RT: 40.934 min Scan# 5005
Delta R.T. 0.488 min
Lab File: S33036.D
Acq: 24 Jul 2013 2:50 pm

Tgt Ion:240 Resp: 74539



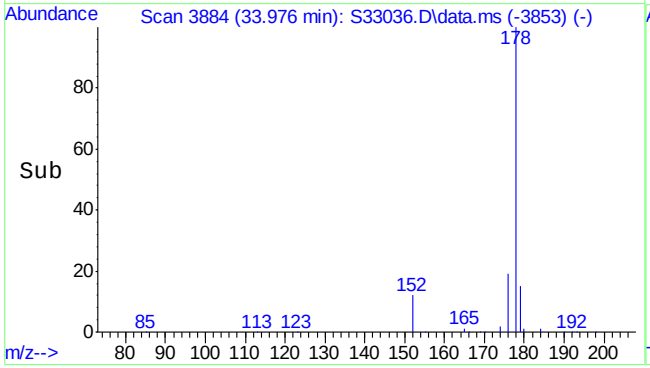


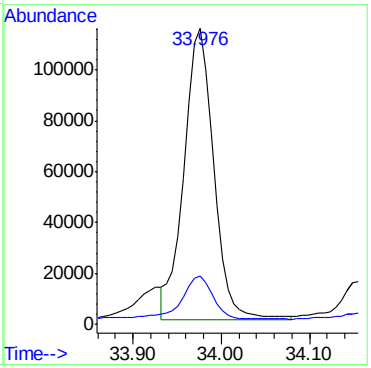


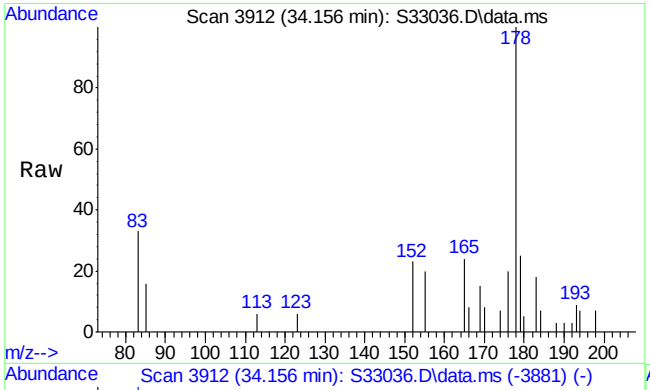
#26
Phenanthrene
Concen: 763.17 ng/mL m
RT: 33.976 min Scan# 3884
Delta R.T. -0.000 min
Lab File: S33036.D
Acq: 24 Jul 2013 2:50 pm

Tgt Ion:178 Resp: 272849

Ion	Ratio	Lower	Upper
178	100		
179	17.5	12.6	18.8



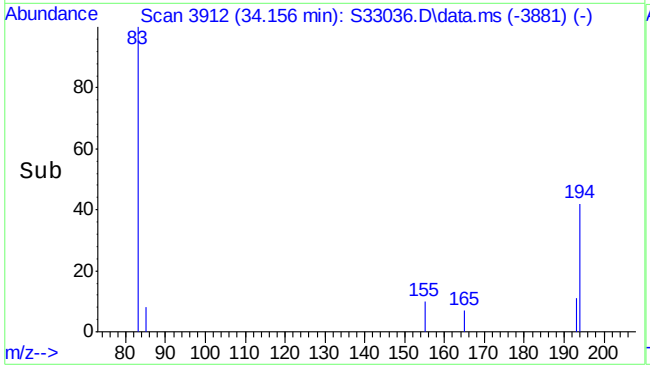


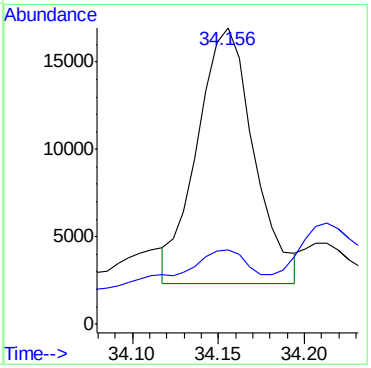


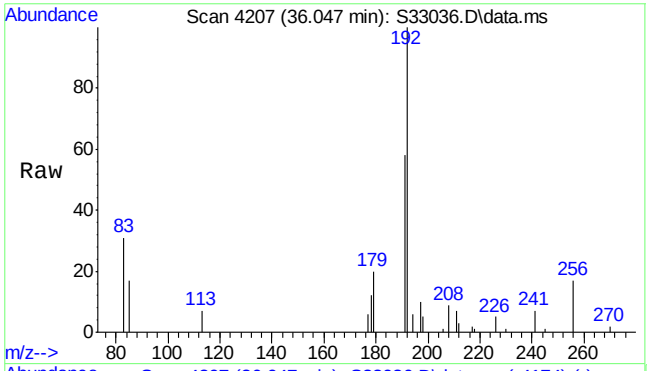
#27
Anthracene
Concen: 100.57 ng/mL m
RT: 34.156 min Scan# 3912
Delta R.T. -0.000 min
Lab File: S33036.D
Acq: 24 Jul 2013 2:50 pm

Tgt Ion:178 Resp: 33412

Ion	Ratio	Lower	Upper
178	100		
179	19.4	12.9	19.3#



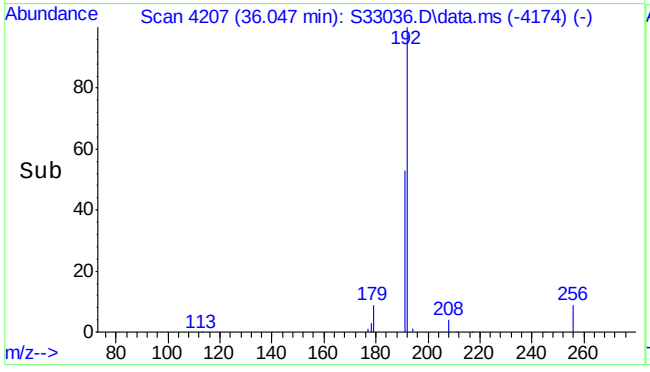


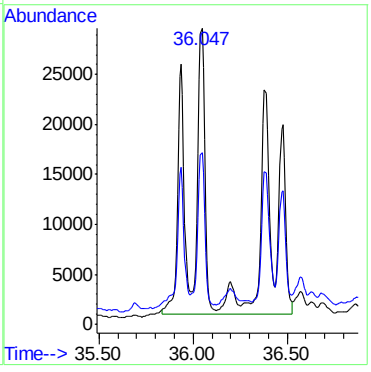


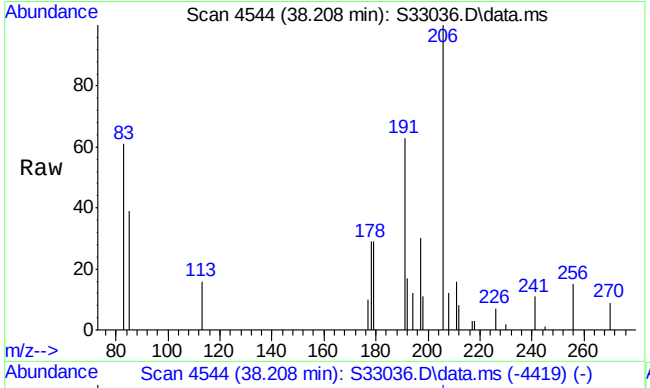
#28
C1-Phenanthrenes/anthracenes
Concen: 720.62 ng/mL m
RT: 36.047 min Scan# 4207
Delta R.T. -0.340 min
Lab File: S33036.D
Acq: 24 Jul 2013 2:50 pm

Tgt Ion:192 Resp: 257635

Ion	Ratio	Lower	Upper
192	100		
191	13.9	46.7	70.1#



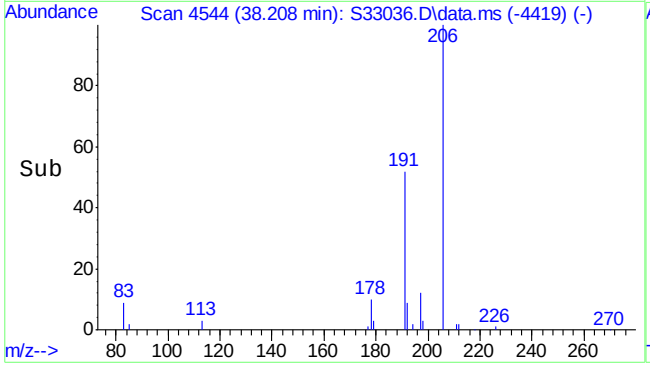


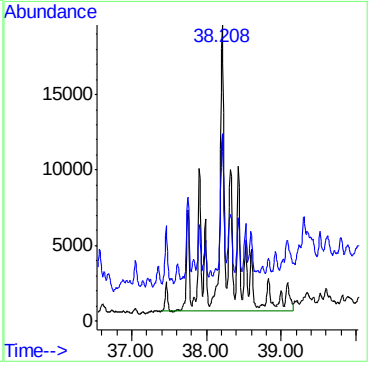


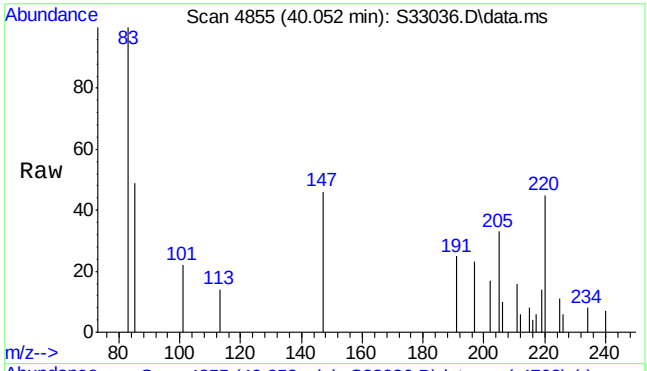
#29
C2-Phenanthrenes/anthracenes (unadj)
Concen: 633.14 ng/mL m
RT: 38.208 min Scan# 4544
Delta R.T. 0.000 min
Lab File: S33036.D
Acq: 24 Jul 2013 2:50 pm

Tgt Ion:206 Resp: 226359

Ion	Ratio	Lower	Upper
206	100		
191	6.4	49.1	73.7#



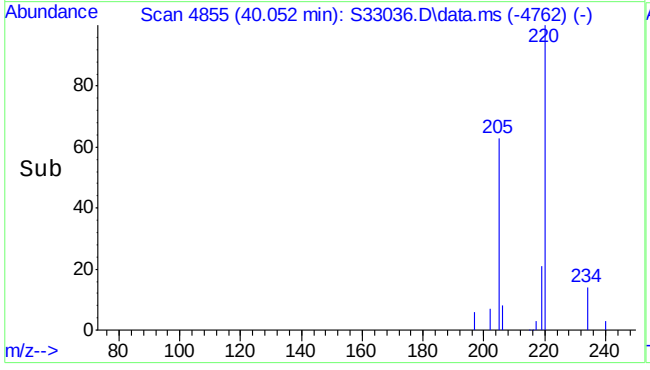


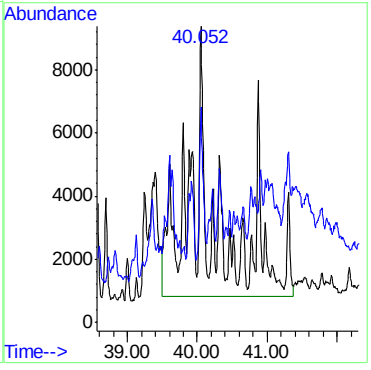


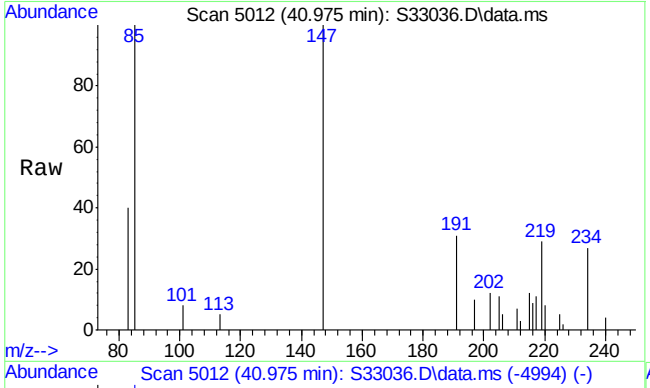
#31
C3-Phenanthrenes/anthracenes
Concen: 577.27 ng/mL m
RT: 40.052 min Scan# 4855
Delta R.T. 0.000 min
Lab File: S33036.D
Acq: 24 Jul 2013 2:50 pm

Tgt Ion:220 Resp: 206385

Ion	Ratio	Lower	Upper
220	100		
205	8.7	45.1	67.7#



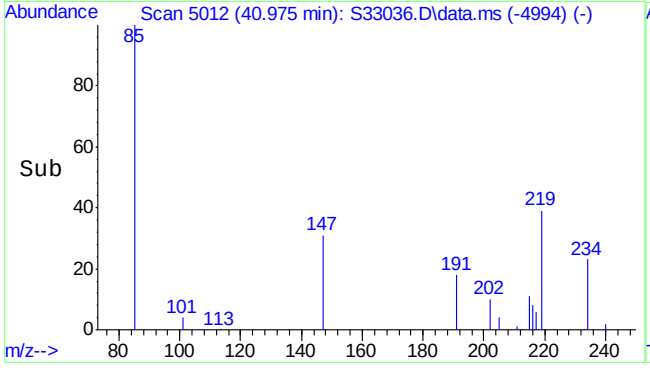


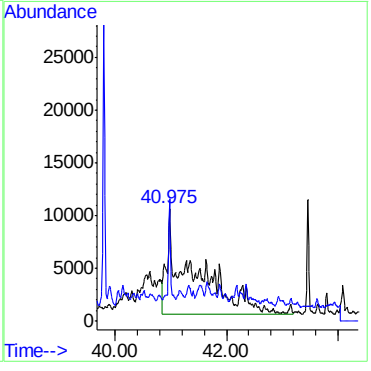


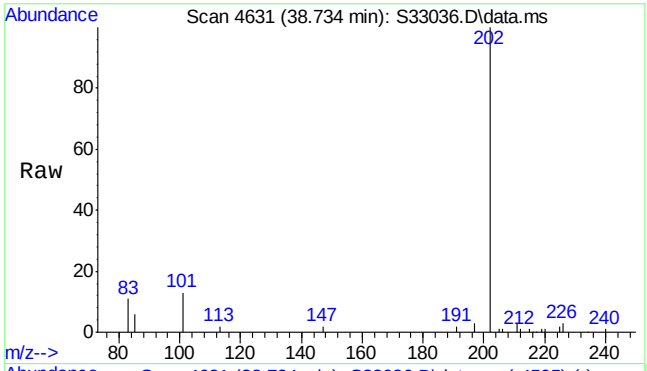
#32
C4-Phenanthrenes/anthracenes
Concen: 883.35 ng/mL m
RT: 40.975 min Scan# 5012
Delta R.T. -1.258 min
Lab File: S33036.D
Acq: 24 Jul 2013 2:50 pm

Tgt Ion:234 Resp: 315814

Ion	Ratio	Lower	Upper
234	100		
219	0.8	49.0	73.4#



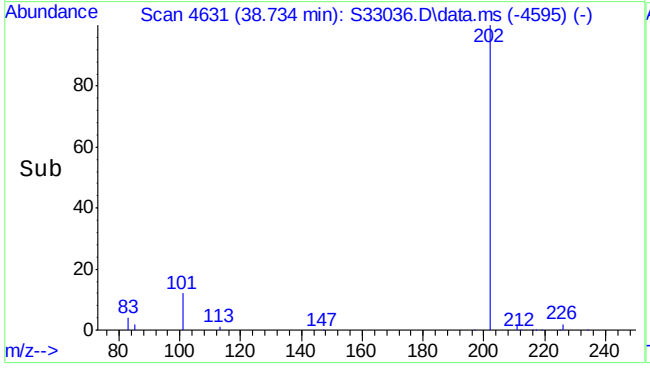


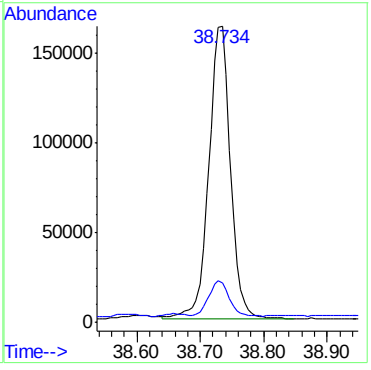


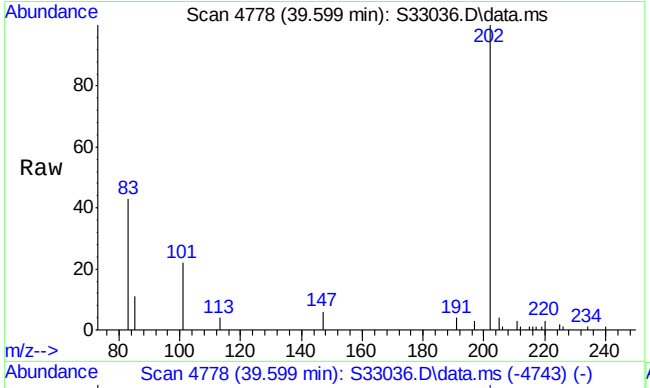
#33
Fluoranthene
Concen: 1219.82 ng/mL
RT: 38.734 min Scan# 4631
Delta R.T. 0.012 min
Lab File: S33036.D
Acq: 24 Jul 2013 2:50 pm

Tgt Ion:202 Resp: 386354

Ion	Ratio	Lower	Upper
202	100		
101	11.5	9.8	14.6



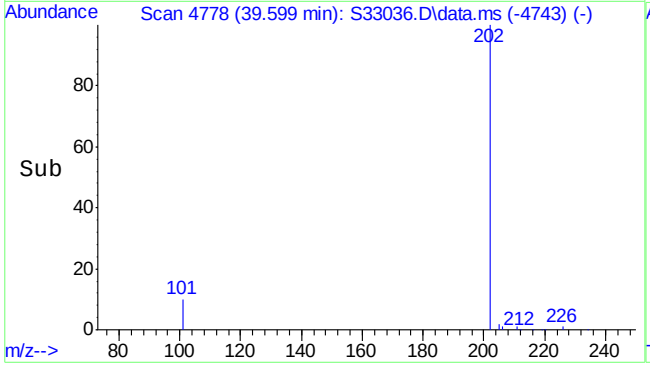


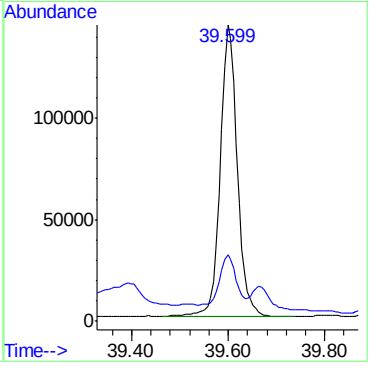


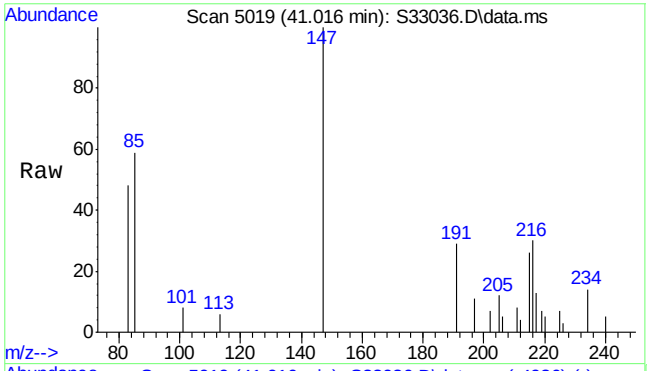
#34
Pyrene
Concen: 1063.12 ng/mL
RT: 39.599 min Scan# 4778
Delta R.T. 0.006 min
Lab File: S33036.D
Acq: 24 Jul 2013 2:50 pm

Tgt Ion:202 Resp: 348885

Ion	Ratio	Lower	Upper
202	100		
101	16.3	11.4	17.0



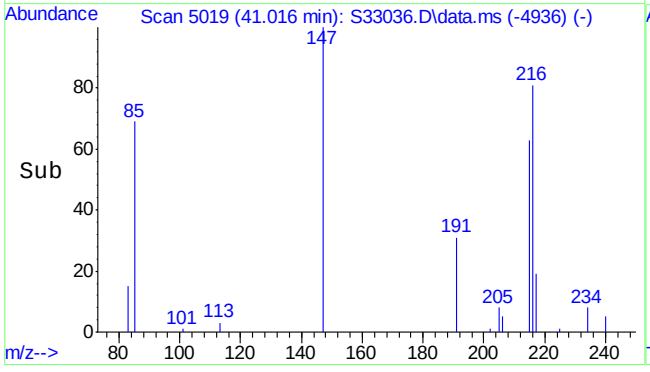


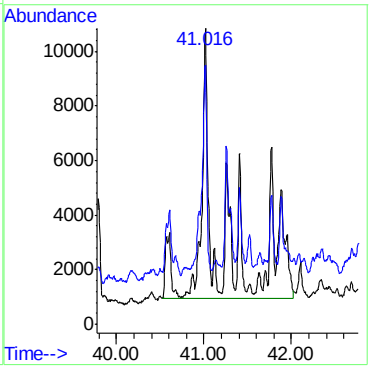


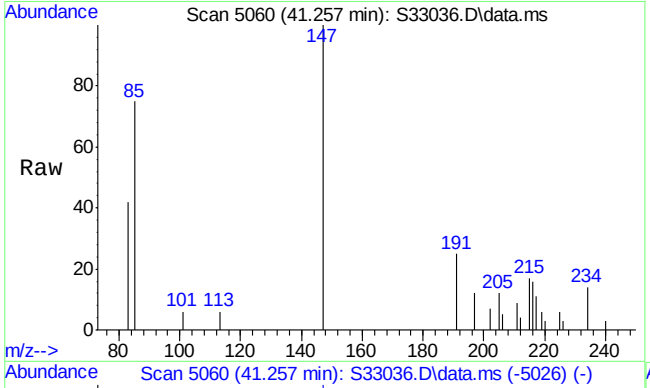
#35
C1-Fluoranthenes/pyrenes
Concen: 421.95 ng/mL m
RT: 41.016 min Scan# 5019
Delta R.T. 0.012 min
Lab File: S33036.D
Acq: 24 Jul 2013 2:50 pm

Tgt Ion:216 Resp: 138471

Ion	Ratio	Lower	Upper
216	100		
215	7.8	79.0	118.4#



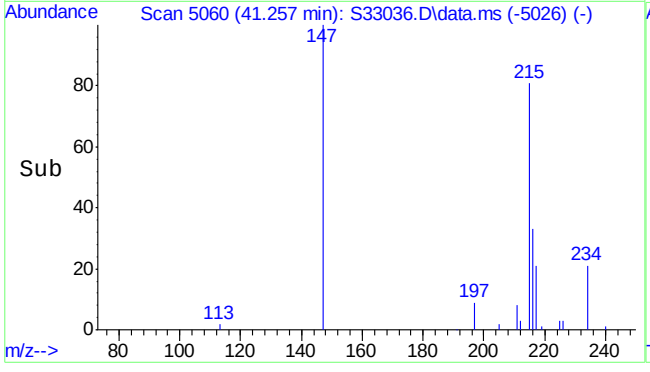


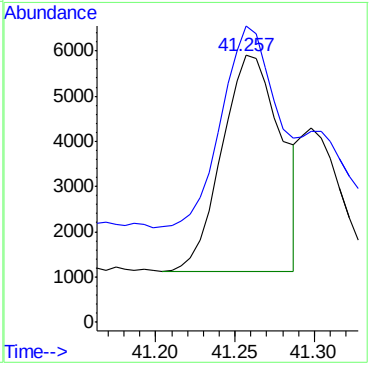


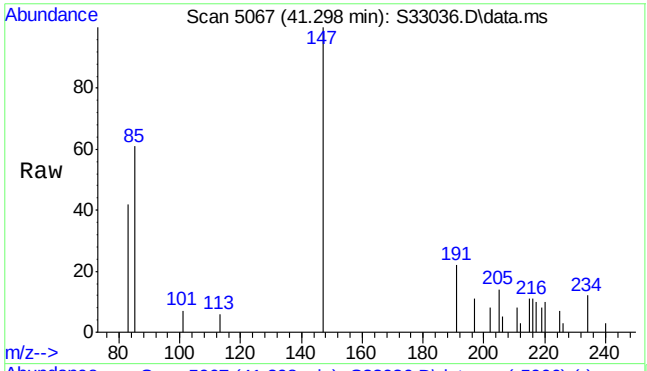
#36
Benzo(b)fluorene
Concen: 37.97 ng/mL
RT: 41.257 min Scan# 5060
Delta R.T. 0.000 min
Lab File: S33036.D
Acq: 24 Jul 2013 2:50 pm

Tgt Ion:216 Resp: 12459

Ion	Ratio	Lower	Upper
216	100		
215	87.2	112.3	168.5#



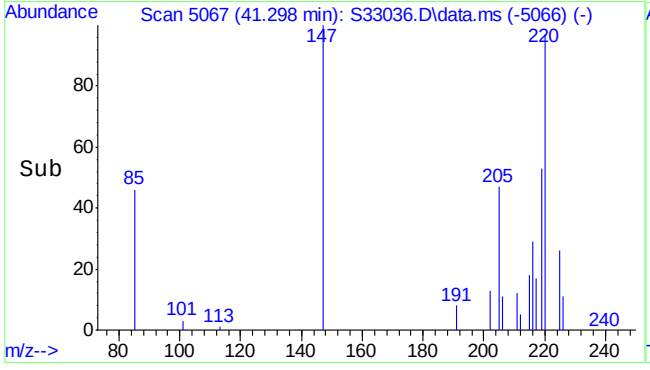


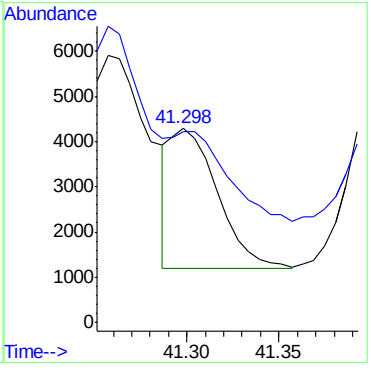


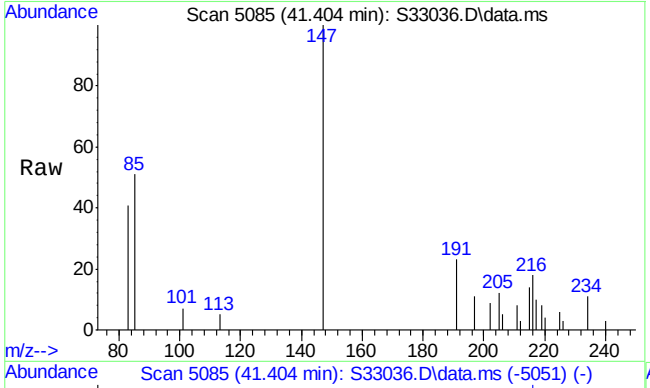
#37
Benzo(c)fluorene
Concen: 16.95 µg/mL m
RT: 41.298 min Scan# 5067
Delta R.T. 0.006 min
Lab File: S33036.D
Acq: 24 Jul 2013 2:50 pm

Tgt Ion:216 Resp: 5562

Ion	Ratio	Lower	Upper
216	100		
215	120.7	114.9	172.3



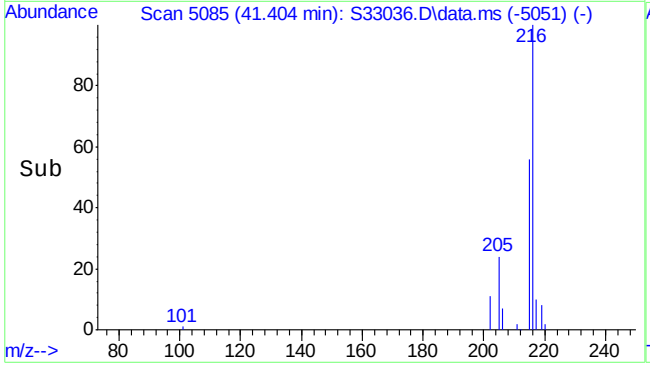


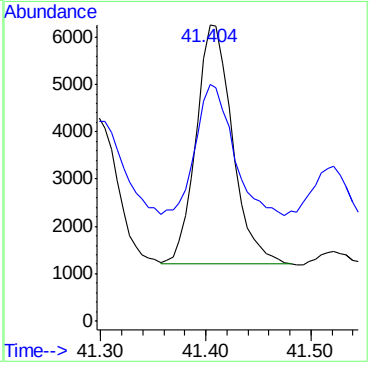


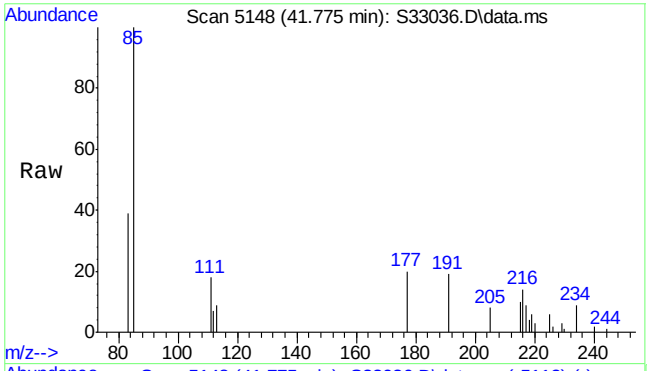
#38
2-Methylpyrene
Concen: 36.66 ng/mL m
RT: 41.404 min Scan# 5085
Delta R.T. 0.000 min
Lab File: S33036.D
Acq: 24 Jul 2013 2:50 pm

Tgt Ion:216 Resp: 12032

Ion	Ratio	Lower	Upper
216	100		
215	84.6	81.0	121.6



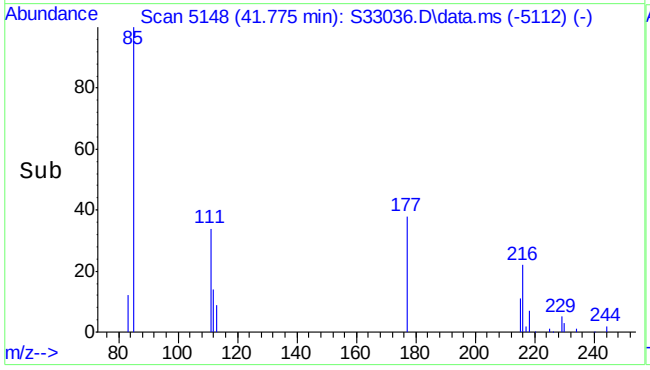


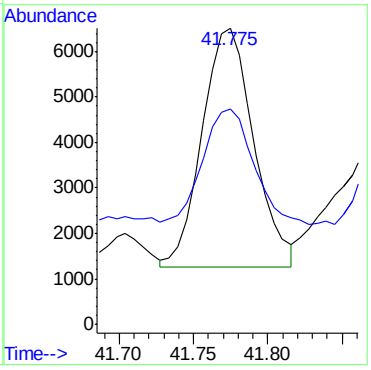


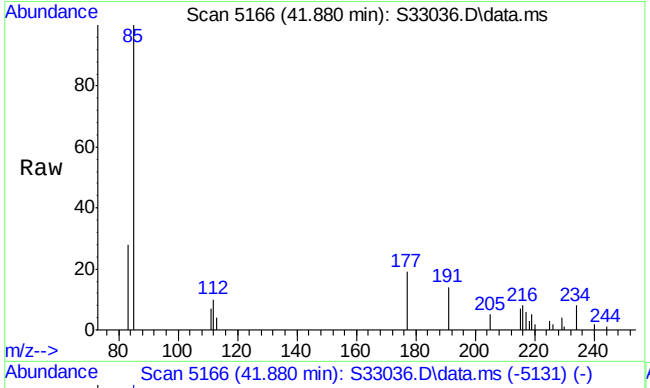
#39
4-Methylpyrene
Concen: 38.57 ng/mL m
RT: 41.775 min Scan# 5148
Delta R.T. 0.012 min
Lab File: S33036.D
Acq: 24 Jul 2013 2:50 pm

Tgt Ion:216 Resp: 12659

Ion	Ratio	Lower	Upper
216	100		
215	52.1	58.1	87.1#



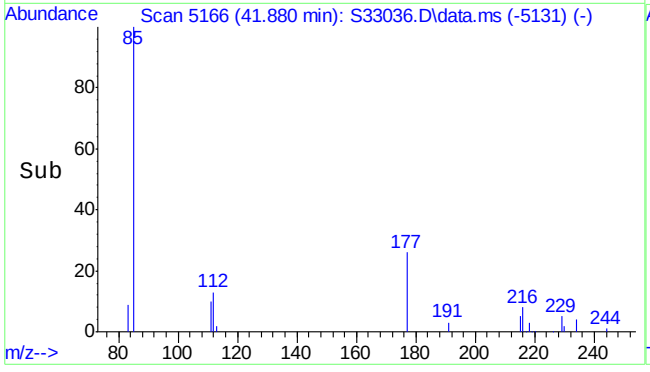


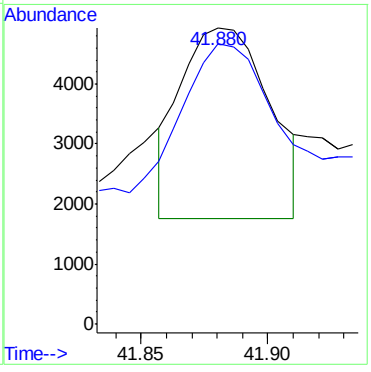


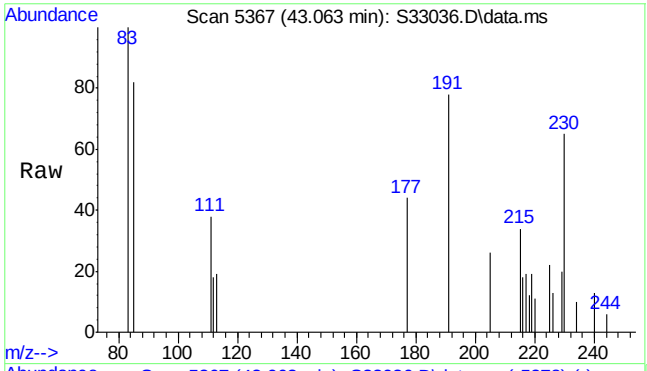
#40
1-Methylpyrene
Concen: 23.44 ng/mL m
RT: 41.880 min Scan# 5166
Delta R.T. 0.006 min
Lab File: S33036.D
Acq: 24 Jul 2013 2:50 pm

Tgt Ion:216 Resp: 7693

Ion	Ratio	Lower	Upper
216	100		
215	101.7	80.5	120.7



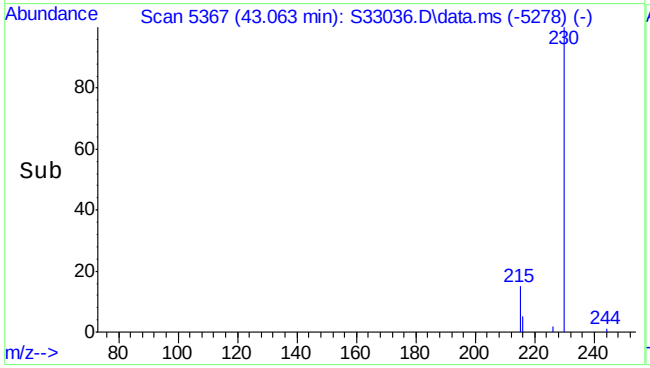


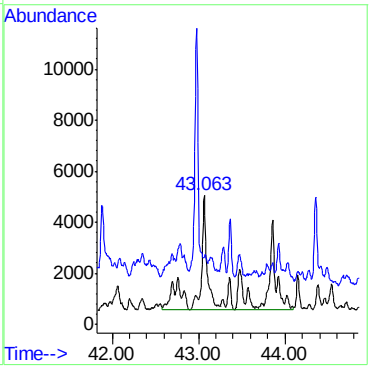


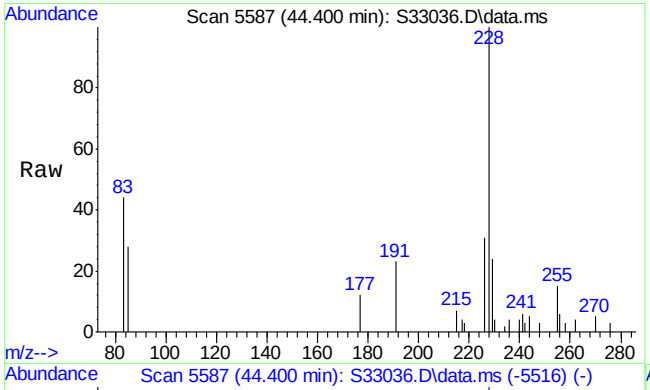
#41
C2-Fluoranthenes/pyrenes
Concen: 177.24 ng/mL m
RT: 43.063 min Scan# 5367
Delta R.T. -0.853 min
Lab File: S33036.D
Acq: 24 Jul 2013 2:50 pm

Tgt Ion:230 Resp: 58165

Ion	Ratio	Lower	Upper
230	100		
215	2.4	79.2	118.8#



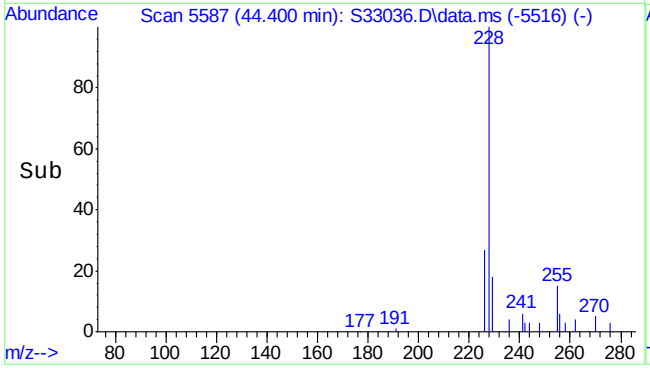


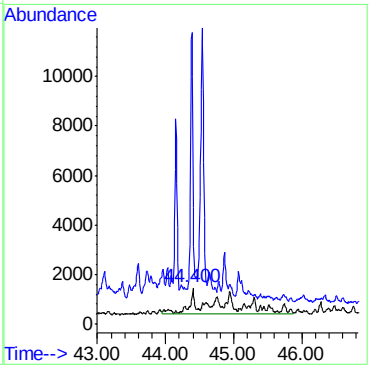


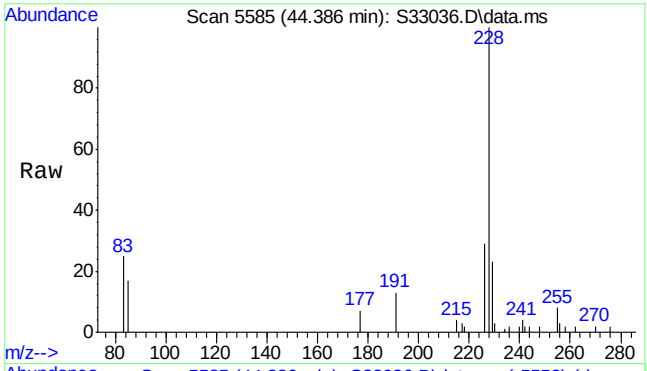
#42
C3-Fluoranthenes/pyrenes
Concen: 87.45 ng/mL m
RT: 44.400 min Scan# 5587
Delta R.T. -0.427 min
Lab File: S33036.D
Acq: 24 Jul 2013 2:50 pm

Tgt Ion:244 Resp: 28697

Ion	Ratio	Lower	Upper
244	100		
229	1.2	81.8	122.8#



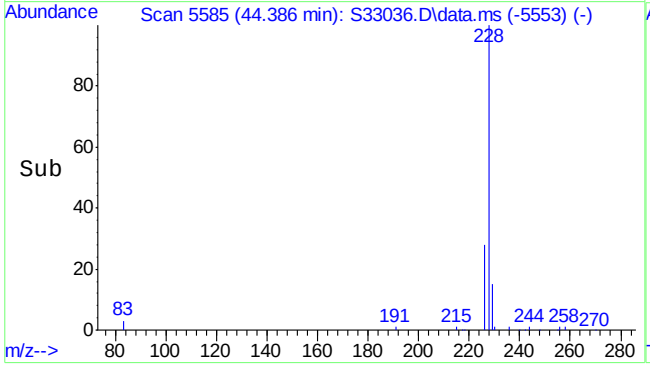


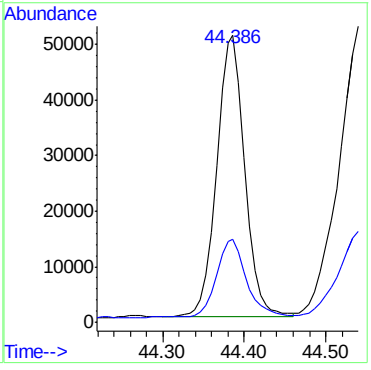


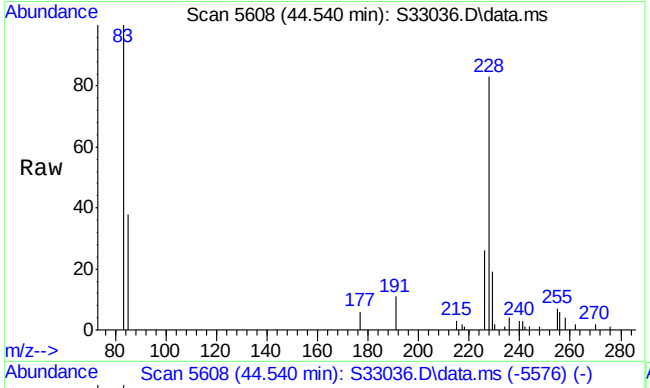
#43
Benz(a)anthracene
Concen: 384.00 ng/mL
RT: 44.386 min Scan# 5585
Delta R.T. 0.013 min
Lab File: S33036.D
Acq: 24 Jul 2013 2:50 pm

Tgt Ion:228 Resp: 121707

Ion	Ratio	Lower	Upper
228	100		
226	29.5	21.4	32.2



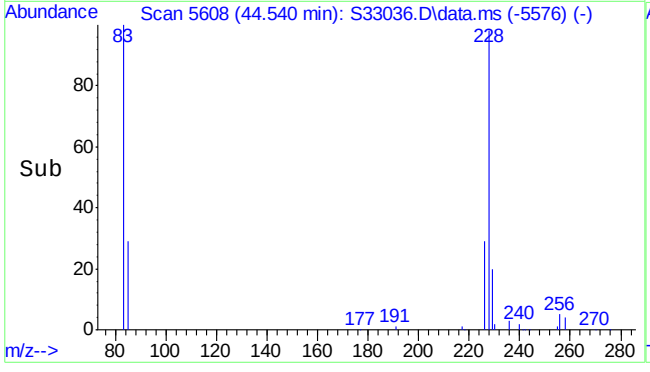


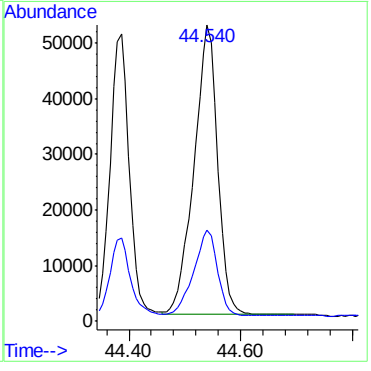


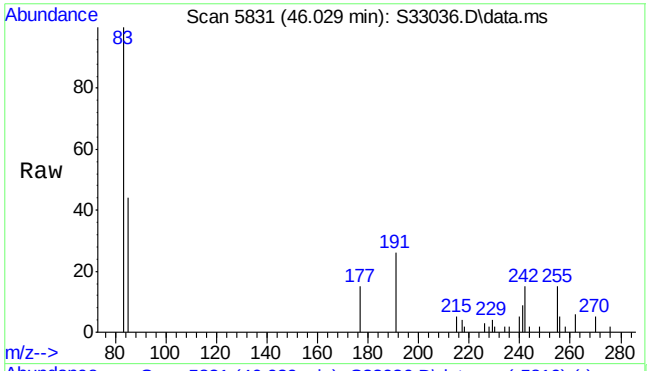
#44
Chrysene
Concen: 517.64 ng/mL
RT: 44.540 min Scan# 5608
Delta R.T. 0.013 min
Lab File: S33036.D
Acq: 24 Jul 2013 2:50 pm

Tgt Ion:228 Resp: 153040

Ion	Ratio	Lower	Upper
228	100		
226	29.7	23.8	35.6



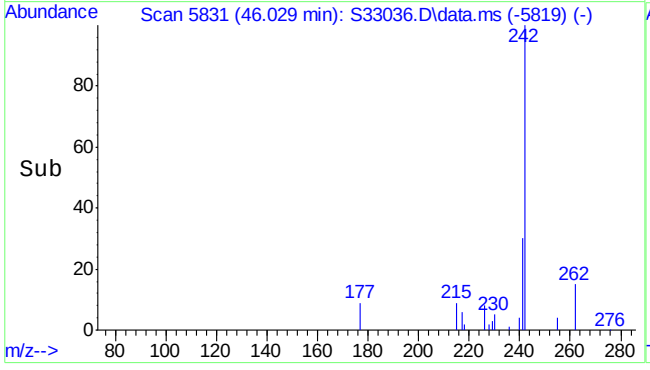


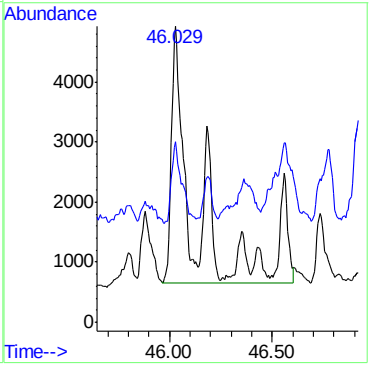


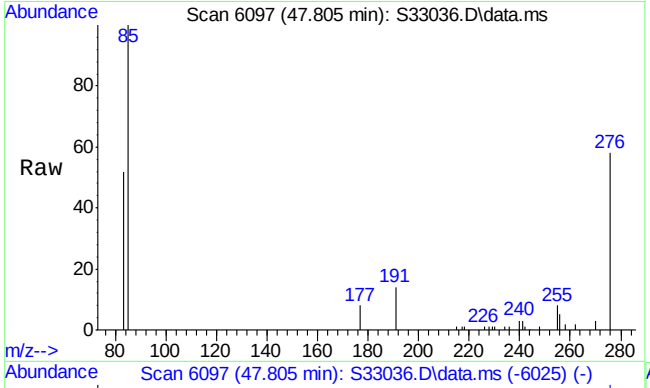
#45
C1-Benz(a)anthracenes/chrysenes
Concen: 109.69 ng/mL m
RT: 46.029 min Scan# 5831
Delta R.T. 0.014 min
Lab File: S33036.D
Acq: 24 Jul 2013 2:50 pm

Tgt Ion:242 Resp: 32430

Ion	Ratio	Lower	Upper
242	100		
241	14.8	39.4	59.0#



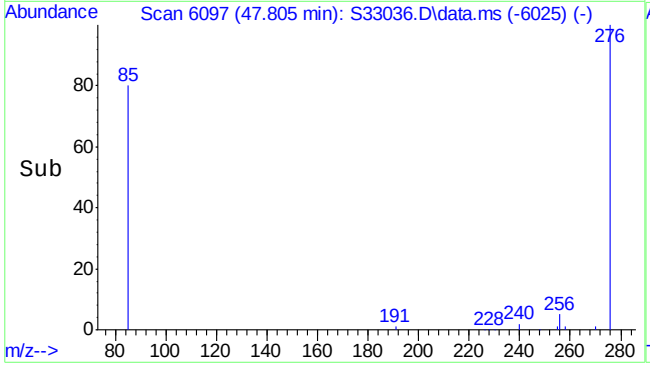


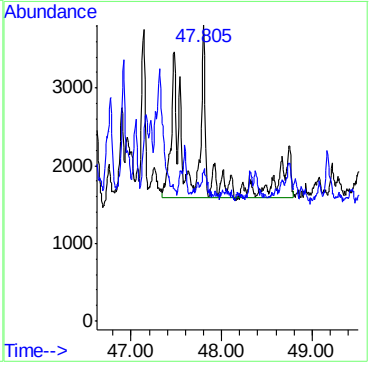


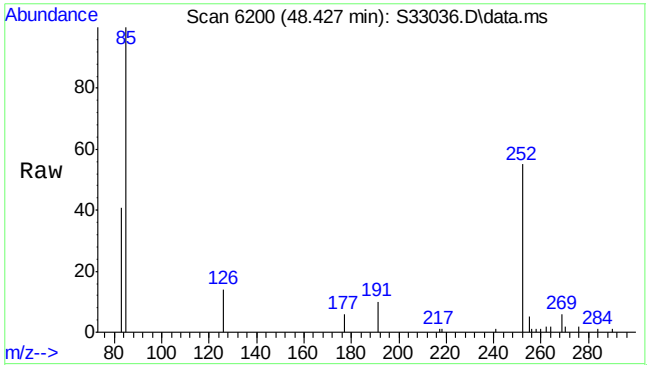
#46
C2-Benz(a)anthracenes/chrysenes
Concen: 92.77 ng/mL m
RT: 47.805 min Scan# 6097
Delta R.T. -0.289 min
Lab File: S33036.D
Acq: 24 Jul 2013 2:50 pm

Tgt Ion:256 Resp: 27427

Ion	Ratio	Lower	Upper
256	100		
241	1.6	29.9	44.9#



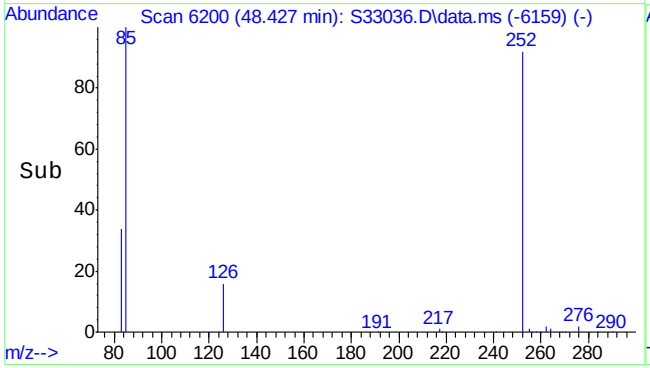


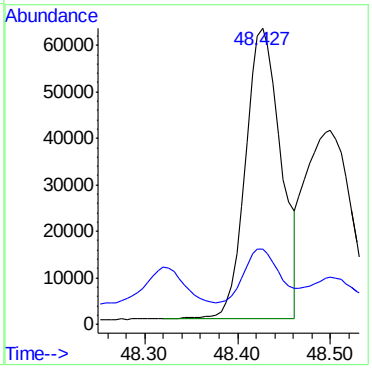


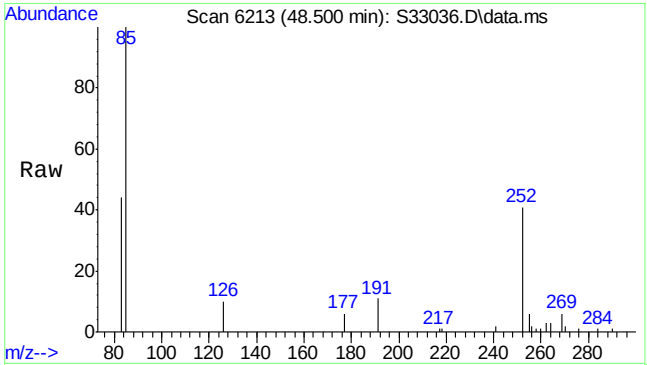
#49
Benzo(b)fluoranthene
Concen: 461.34 ng/mL
RT: 48.427 min Scan# 6200
Delta R.T. 0.028 min
Lab File: S33036.D
Acq: 24 Jul 2013 2:50 pm

Tgt Ion:252 Resp: 167407

Ion	Ratio	Lower	Upper
252	100		
126	18.9	10.6	15.8#



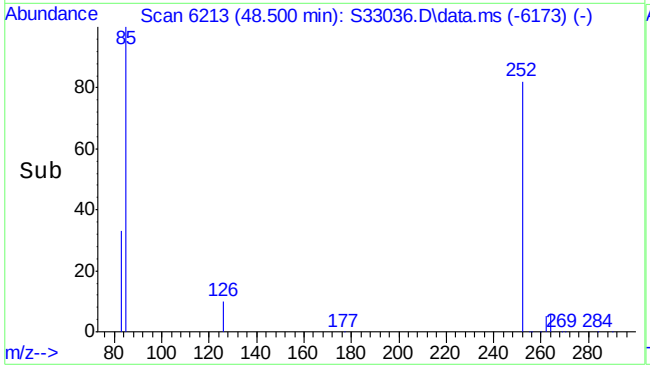


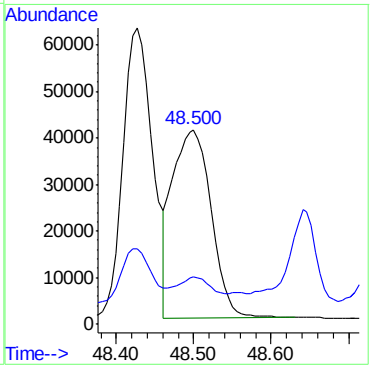


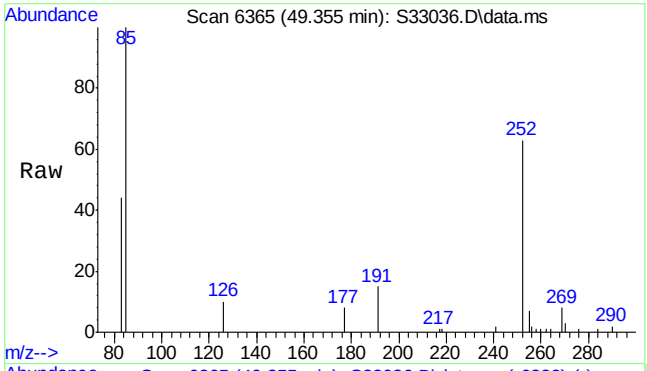
#50
Benzo(k)fluoranthene
Concen: 389.10 ng/mL
RT: 48.500 min Scan# 6213
Delta R.T. 0.022 min
Lab File: S33036.D
Acq: 24 Jul 2013 2:50 pm

Tgt Ion:252 Resp: 140720

Ion	Ratio	Lower	Upper
252	100		
126	6.6	11.9	17.9#



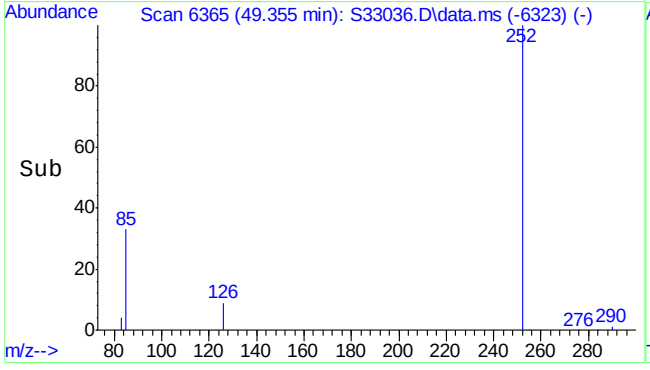


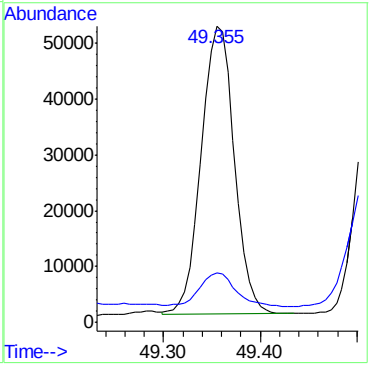


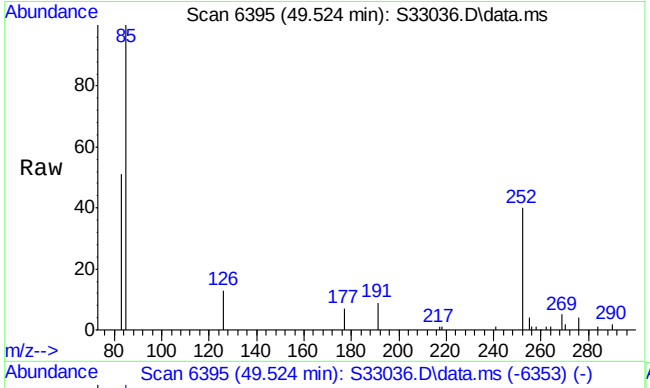
#51
Benzo(e)pyrene
Concen: 376.61 ng/mL
RT: 49.355 min Scan# 6365
Delta R.T. 0.034 min
Lab File: S33036.D
Acq: 24 Jul 2013 2:50 pm

Tgt Ion:252 Resp: 122934

Ion	Ratio	Lower	Upper
252	100		
126	13.0	9.9	14.9



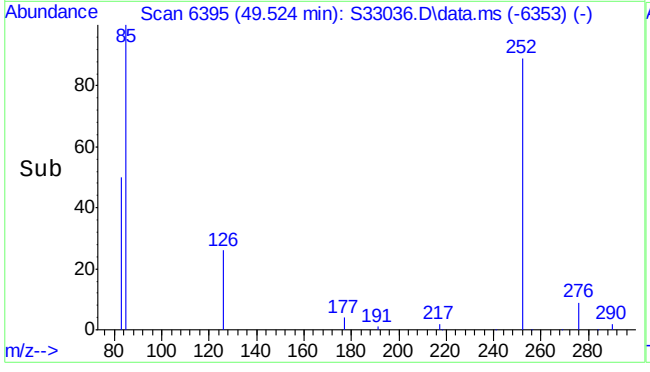


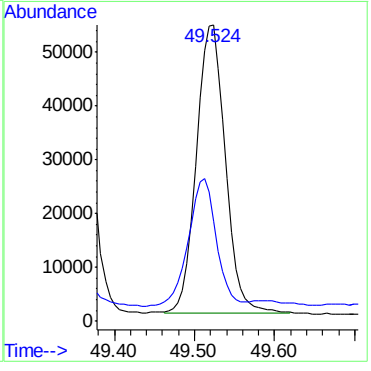


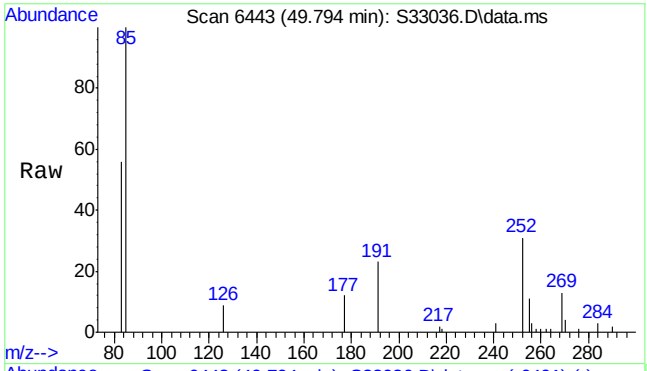
#52
Benzo(a)pyrene
Concen: 426.93 ng/mL m
RT: 49.524 min Scan# 6395
Delta R.T. 0.034 min
Lab File: S33036.D
Acq: 24 Jul 2013 2:50 pm

Tgt Ion:252 Resp: 134987

Ion	Ratio	Lower	Upper
252	100		
126	11.9	11.6	17.4



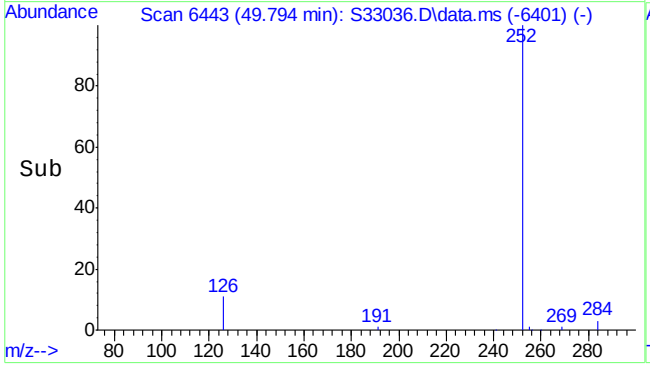


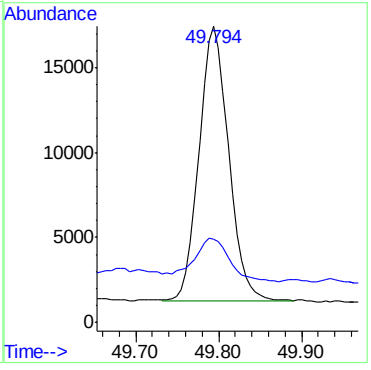


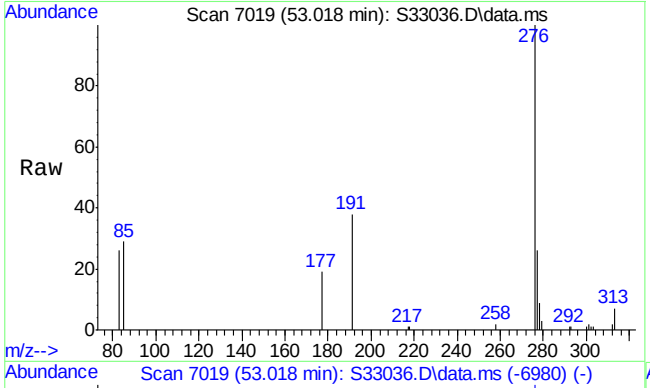
#53
Perylene
Concen: 130.40 ng/mL
RT: 49.794 min Scan# 6443
Delta R.T. 0.034 min
Lab File: S33036.D
Acq: 24 Jul 2013 2:50 pm

Tgt Ion:252 Resp: 40060

Ion	Ratio	Lower	Upper
252	100		
126	18.8	12.5	18.7#



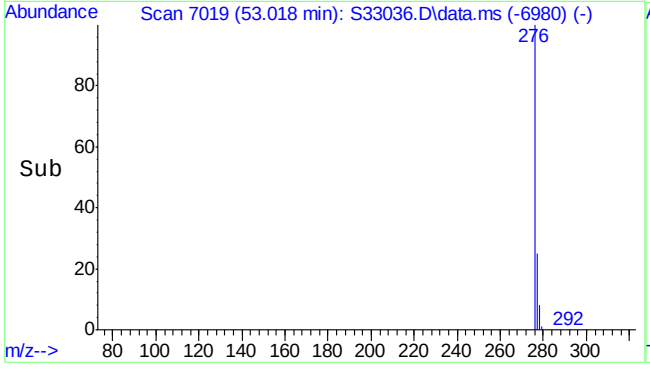


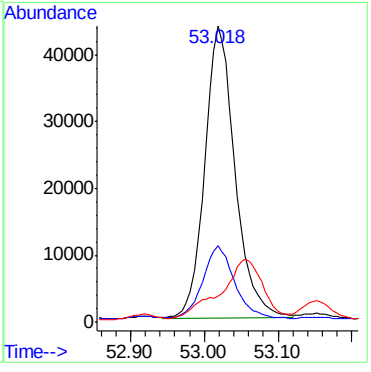


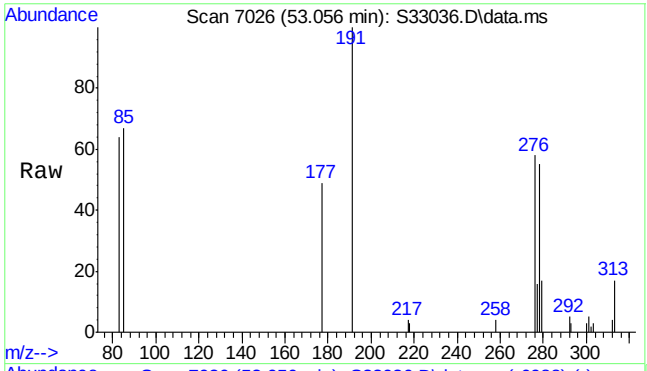
#54
Indeno(1,2,3-cd)pyrene
Concen: 344.65 ng/mL
RT: 53.018 min Scan# 7019
Delta R.T. 0.011 min
Lab File: S33036.D
Acq: 24 Jul 2013 2:50 pm

Tgt Ion:276 Resp: 125028

Ion	Ratio	Lower	Upper
276	100		
277	26.2	19.0	28.4
278	0.0	5.7	8.5#



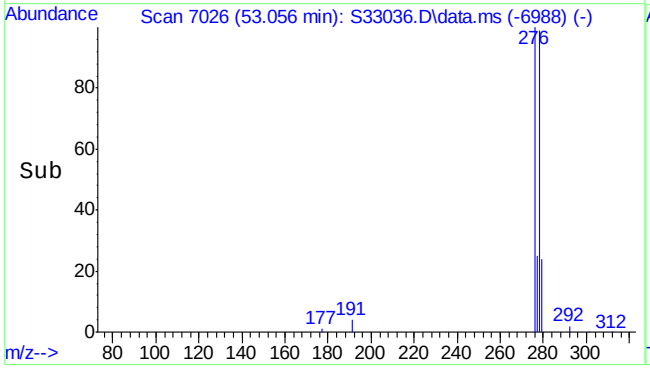


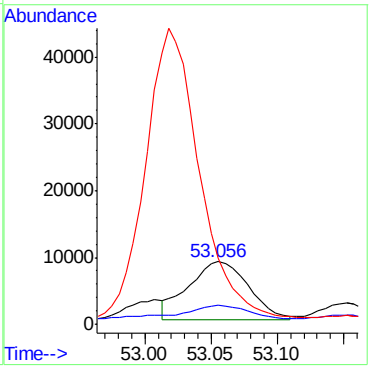


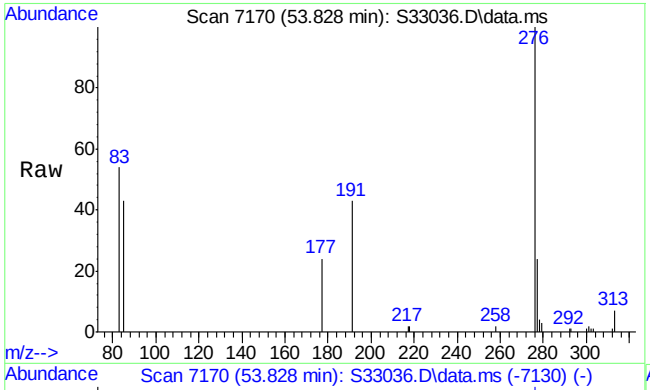
#55
Dibenz(a,h)anthracene
Concen: 82.44 ng/mL m
RT: 53.056 min Scan# 7026
Delta R.T. 0.005 min
Lab File: S33036.D
Acq: 24 Jul 2013 2:50 pm

Tgt Ion:278 Resp: 27088

Ion	Ratio	Lower	Upper
278	100		
279	1.6	19.2	28.8#
276	2.7	29.6	44.4#



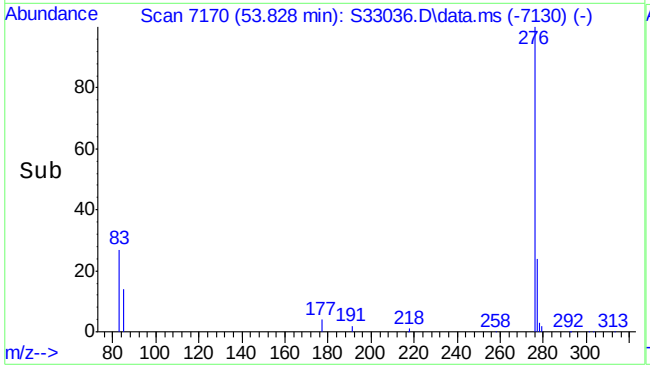


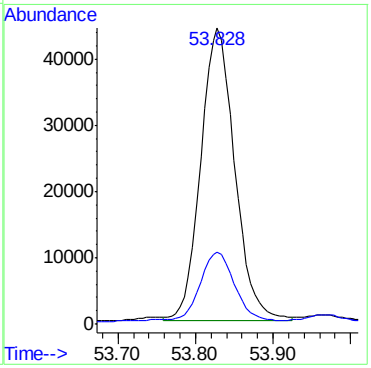


#56
Benzo(g,h,i)perylene
Concen: 348.35 ng/mL m
RT: 53.828 min Scan# 7170
Delta R.T. 0.016 min
Lab File: S33036.D
Acq: 24 Jul 2013 2:50 pm

Tgt Ion:276 Resp: 135138

Ion	Ratio	Lower	Upper
276	100		
277	22.8	18.9	28.3





Manual Integrations APPROVED (compounds with "m" flag)
James Roush
07/31/13 10:55

Quantitation Report (QT Reviewed)

Data Path : S:\1\data\S130716\
Data File : S32995.D
Acq On : 16 Jul 2013 7:40 pm
Operator : kristinr
Sample : mc21754-1a
Misc : op33686,mss1443,5.27,,,2,10
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jul 18 14:02:13 2013
Quant Method : S:\1\methods\S130705-MAHPAHEXT.M
Quant Title : PAHs & Alkylated PAHs by GC/MS/SIM
QLast Update : Thu Jul 11 09:13:24 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Acenaphthene-d10	28.143	164	134365	1100.00	ng/mL	-0.05
System Monitoring Compounds						
2) Toluene-d8	9.210	98	1655m	11.50	µg/mL	-0.09
Spiked Amount 1000.000			Recovery = 1.15%			
3) Naphthalene-d8	21.201	136	6695	28.19	ng/mL	-0.04
Spiked Amount 1000.000	Range 1 - 0		Recovery = 2.82%#			
4) Phenanthrene-d10	34.034	188	4953m	25.33	ng/mL	0.00
Spiked Amount 1000.000			Recovery = 2.53%			
5) Perylene-d12	49.800	264	6806m	39.43	ng/mL	-0.03
Spiked Amount 1000.000			Recovery = 3.94%			
Target Compounds						Qvalue
7) Benzene	6.761	78	15474m	84.94	µg/mL	
8) C1-Benzene	9.318	92	1512624	8303.27	µg/mL	99
9) C2-Benzenes	13.085	106	14613078m	80215.80	µg/mL	
10) C3-Benzenes	16.003	120	4723154m	25926.88	µg/mL	
11) C4-Benzenes	19.504	134	2080963m	11423.06	µg/mL	
12) C5-Benzenes	21.465	148	379122m	2081.12	µg/mL	
13) Methylcyclohexane	8.130	83	54539	651.69	µg/mL	95
14) Toluene	9.318	91	2618374	12489.25	µg/mL	99
15) Ethylbenzene	12.091	91	815964	3306.96	µg/mL	97
16) m,p-xylene	12.329	91	4063599	20939.14	µg/mL	97
17) Styrene	12.985	104	351774	2525.82	µg/mL	91
18) o-Xylene	13.071	91	26002021	131363.62	µg/mL	89
19) Isopropylbenzene	13.971	105	220826	994.26	µg/mL	98
20) n-Propylbenzene	14.829	91	402144m	1421.19	µg/mL	
21) 1,3,5-Trimethylbenzene	15.254	105	1334346	6476.20	µg/mL	97
22) t-Butylbenzene	16.003	119	617035	3085.96	µg/mL#	54
23) 1,2,4-Trimethylbenzene	16.003	105	5298534	25991.76	µg/mL	100
24) sec-Butylbenzene	16.485	105	69582	260.87	µg/mL	97
25) 1,2,3-Trimethylbenzene	16.838	105	1420359	6565.06	µg/mL	95
26) p-Isopropyltoluene	16.853	119	280788m	1221.02	µg/mL	
27) n-Butylbenzene	17.732	91	121473m	601.26	µg/mL	
28) trans-Decalin	17.818	96	648	15.72	µg/mL	88
29) cis-Decalin	19.071	96	4362	81.13	µg/mL#	10
30) C1-Decalins	19.324	152	3401m	82.50	µg/mL	
31) C2-Decalins	21.655	166	2094m	50.79	µg/mL	
32) C3-Decalins	24.005	180	3348m	81.21	µg/mL	
33) C4-Decalins	26.752	194	11721m	284.32	µg/mL	
34) Benzo(b)thiophene	21.490	134	92644	381.65	µg/mL#	84
35) C1-Benzo(b)thiophenes	23.560	148	39601m	163.14	µg/mL	
36) C2-Benzo(b)thiophenes	26.051	162	24558166m	101167.49	µg/mL	
37) C3-Benzo(b)thiophenes	27.651	176	36738m	151.34	µg/mL	
38) C4-Benzo(b)thiophenes	29.847	190	15968m	65.78	µg/mL	
44) Naphthalene	21.275	128	4943581	16373.71	ng/mL	100
45) 2-Methylnaphthalene	23.972	142	261257	1458.32	ng/mL	97
46) 1-Methylnaphthalene	24.393	142	113780	608.79	ng/mL	97
47) C1-Naphthalenes	23.972	142	377008m	1248.69	ng/mL	

Quantitation Report (QT Reviewed)

Data Path : S:\1\data\S130716\
Data File : S32995.D
Acq On : 16 Jul 2013 7:40 pm
Operator : kristinr
Sample : mc21754-1a
Misc : op33686,mss1443,5.27,,,2,10
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jul 18 14:02:13 2013
Quant Method : S:\1\methods\S130705-MAHPAHEXT.M
Quant Title : PAHs & Alkylated PAHs by GC/MS/SIM
QLast Update : Thu Jul 11 09:13:24 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
48) C2-Naphthalenes	26.810	156	327954m	1086.22	ng/mL	
49) C3-Naphthalenes	29.143	170	376717m	1247.73	ng/mL	
50) C4-Naphthalenes	31.896	184	319140m	1057.03	ng/mL	
51) Biphenyl	25.894	154	2660028	11314.92	µg/mL	100
52) Acenaphthylene	27.535	152	3398	12.17	ng/mL#	29
53) Acenaphthene	28.265	154	16381	96.16	ng/mL	99
54) Dibenzofuran	28.912	168	17419m	71.75	ng/mL	
55) Fluorene	30.276	166	45755m	211.76	ng/mL	
56) C1-Fluorenes	32.638	180	84536m	391.25	ng/mL	
57) C2-Fluorenes	34.828	194	199463m	923.15	ng/mL	
58) C3-Fluorenes	36.662	208	190848m	883.28	ng/mL	
59) Dibenzothiophene	33.579	184	24122	88.55	ng/mL#	1
60) C1-Dibenzothiophenes (...	35.348	198	78830m	293.57	ng/mL	
61) C1-Dibenzothiophenes (...	35.348	198	80519m	299.86	µg/mL	
62) C2-Dibenzothiophenes	37.034	212	115793m	431.22	ng/mL	
63) C3-Dibenzothiophenes	38.840	226	76554m	285.09	ng/mL	
64) C4-Dibenzothiophenes	41.022	240	69665m	259.44	ng/mL	
65) Phenanthrene	34.066	178	277575	891.17	ng/mL	100
66) Anthracene	34.245	178	36040m	124.51	ng/mL	
67) C1-Phenanthrenes/anthr...	36.136	192	227791m	731.34	ng/mL	
68) C2-Phenanthrenes/anthr...	38.298	206	206421m	662.73	ng/mL	
70) C3-Phenanthrenes/anthr...	40.140	220	150154m	482.08	ng/mL	
71) C4-Phenanthrenes/anthr...	41.069	234	287579m	923.29	ng/mL	
72) Retene	41.069	234	16509	409.14	µg/mL#	70
73) Benzo(b)naphtho(2,1-d)...	43.551	234	22665	78.86	µg/mL	100
74) C1-Benzonaphthothiophenes	45.562	248	133021m	462.83	µg/mL	
75) C2-Benzonaphthothiophenes	47.465	262	442353m	1539.10	µg/mL	
76) C3-Benzonaphthothiophenes	48.843	276	488637m	1700.13	µg/mL	
77) C4-Benzonaphthothiophenes	49.608	290	101801m	354.20	µg/mL	
78) Fluoranthene	38.822	202	358417	1298.91	ng/mL	97
79) Pyrene	39.693	202	327138	1144.23	ng/mL#	80
80) C1-Fluoranthenes/pyrenes	41.104	216	143320m	501.29	ng/mL	
81) Benzo(b)fluorene	41.351	216	11903	41.63	ng/mL#	55
82) Benzo(c)fluorene	41.387	216	5583m	19.53	µg/mL	
83) 2-Methylpyrene	41.498	216	11967m	41.86	ng/mL	
84) 4-Methylpyrene	41.863	216	11141	38.97	ng/mL#	75
85) 1-Methylpyrene	41.975	216	11147m	38.99	ng/mL	
86) C2-Fluoranthenes/pyrenes	43.151	230	62578m	218.88	ng/mL	
87) C3-Fluoranthenes/pyrenes	44.493	244	28482m	99.62	ng/mL	
88) Benz(a)anthracene	44.473	228	106853	386.97	ng/mL	93
89) Chrysene	44.633	228	138517	537.78	ng/mL	99
90) C1-Benz(a)anthracenes/...	46.116	242	29643m	115.09	ng/mL	
91) C2-Benz(a)anthracenes/...	47.892	256	26664m	103.52	ng/mL	
92) C3-Benz(a)anthracenes/...	50.171	270	12464m	48.39	ng/mL	
93) C4-Benz(a)anthracenes/...	48.911	284	17303m	67.18	ng/mL	
94) Benzo(b)fluoranthene	48.511	252	142032	449.27	ng/mL#	91
95) Benzo(k)fluoranthene	48.579	252	129595m	411.32	ng/mL	
96) Benzo(e)pyrene	49.445	252	110830	389.73	ng/mL	98
97) Benzo(a)pyrene	49.608	252	114064m	414.09	ng/mL	
98) Perylene	49.878	252	35865	134.00	ng/mL#	89

Quantitation Report (QT Reviewed)

Data Path : S:\1\data\S130716\
Data File : S32995.D
Acq On : 16 Jul 2013 7:40 pm
Operator : kristinr
Sample : mc21754-1a
Misc : op33686,mss1443,5.27,,,2,10
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jul 18 14:02:13 2013
Quant Method : S:\1\methods\S130705-MAHPAHEXT.M
Quant Title : PAHs & Alkylated PAHs by GC/MS/SIM
QLast Update : Thu Jul 11 09:13:24 2013
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
99)	Indeno(1,2,3-cd)pyrene	53.120	276	107572	340.38	ng/mL#	94
100)	Dibenz(a,h)anthracene	53.158	278	26734m	93.39	ng/mL	
101)	Benzo(g,h,i)perylene	53.930	276	118524m	350.69	ng/mL	
102)	Coronene	59.783	300	31988m	98.21	µg/mL	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

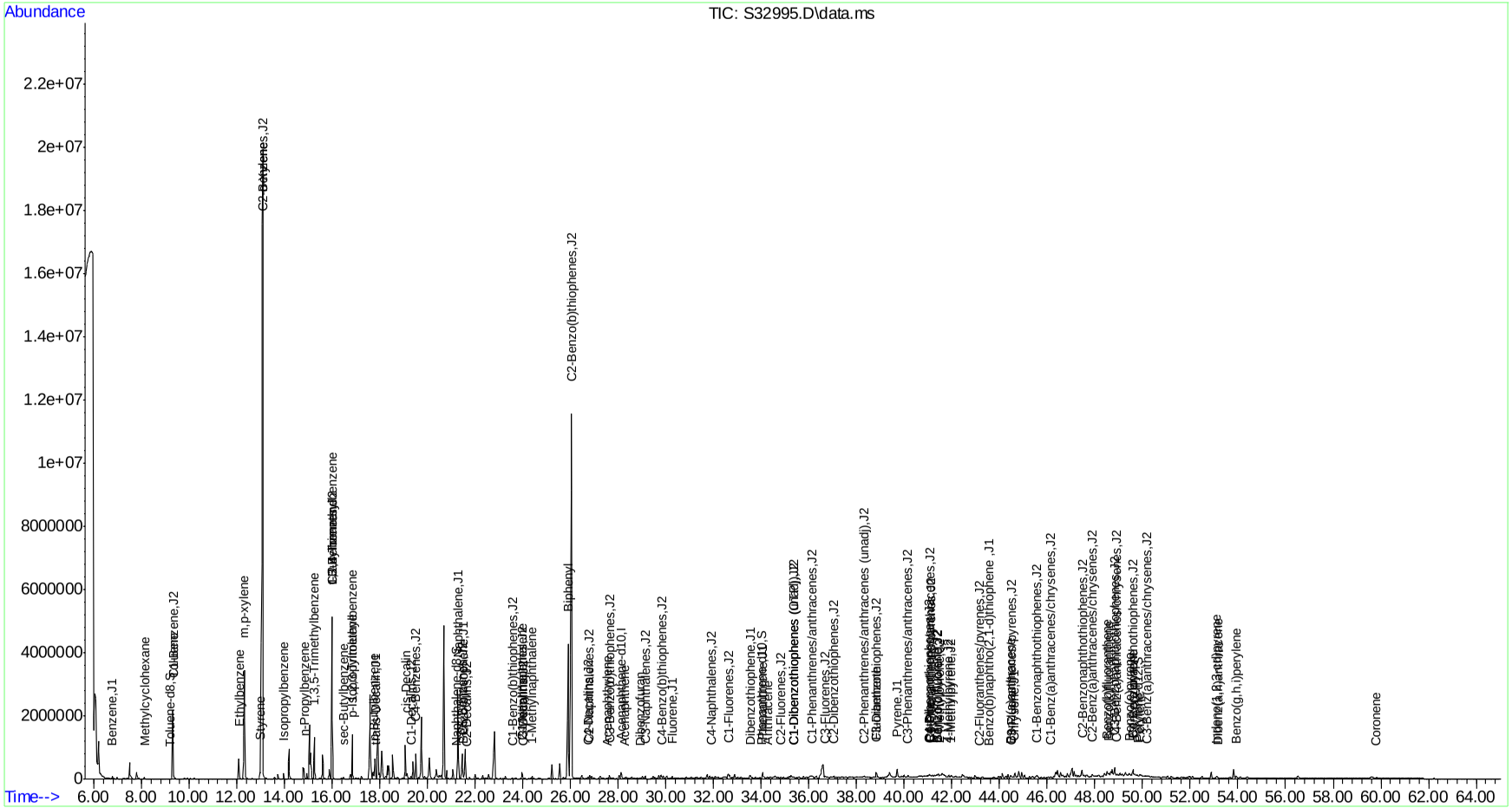
7.1.2

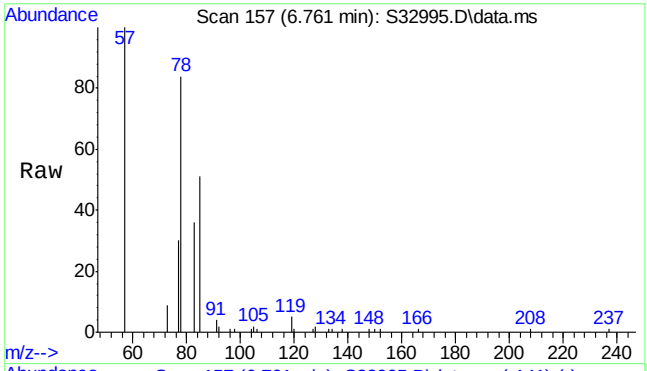
7

Quantitation Report (QT Reviewed)

Data Path : S:\1\data\S130716\
Data File : S32995.D
Acq On : 16 Jul 2013 7:40 pm
Operator : kristinr
Sample : mc21754-1a
Misc : op33686,mss1443,5.27,,,2,10
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jul 18 14:02:13 2013
Quant Method : S:\1\methods\S130705-MAHPAHEXT.M
Quant Title : PAHs & Alkylated PAHs by GC/MS/SIM
QLast Update : Thu Jul 11 09:13:24 2013
Response via : Initial Calibration

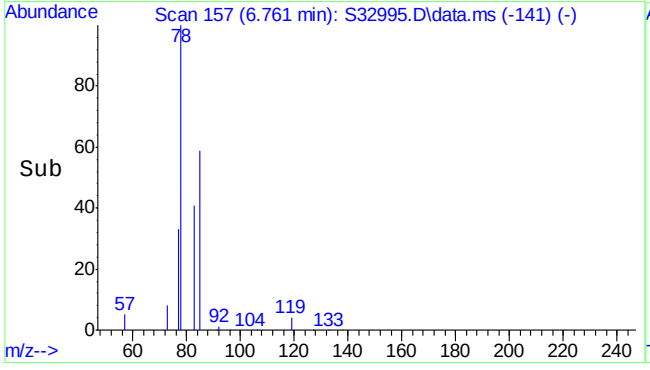


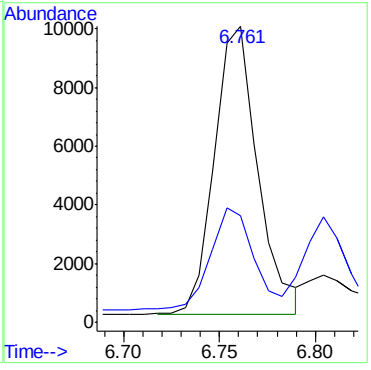


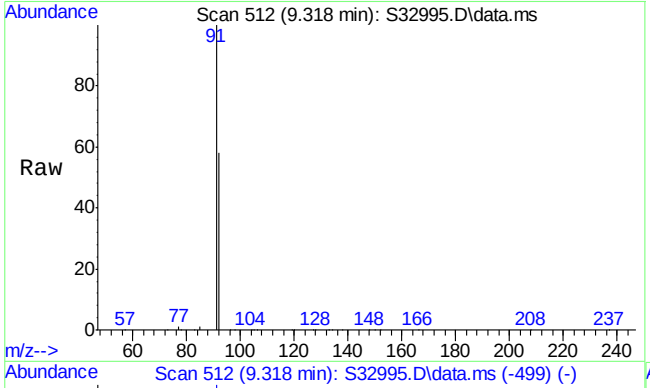
#7
Benzene
Concen: 84.94 µg/mL m
RT: 6.761 min Scan# 157
Delta R.T. -0.086 min
Lab File: S32995.D
Acq: 16 Jul 2013 7:40 pm

Tgt Ion: 78 Resp: 15474

Ion	Ratio	Lower	Upper
78	100		
77	32.0	19.2	28.8#



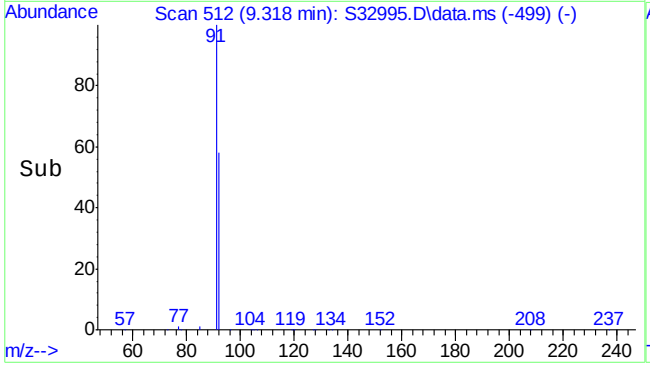


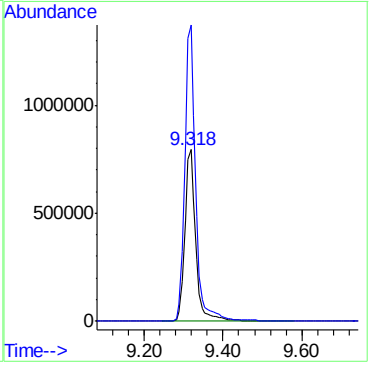


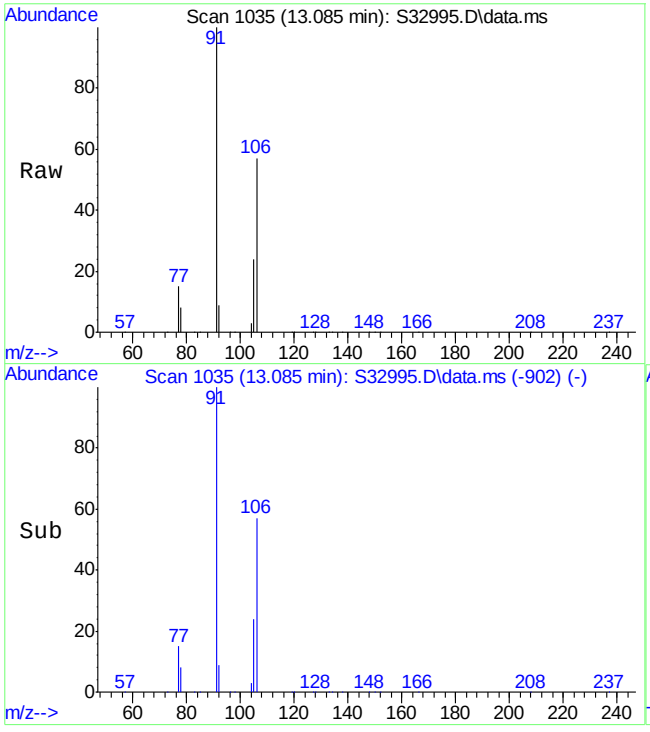
#8
C1-Benzene
Concen: 8303.27 µg/mL
RT: 9.318 min Scan# 512
Delta R.T. -0.108 min
Lab File: S32995.D
Acq: 16 Jul 2013 7:40 pm

Tgt Ion: 92 Resp: 1512624

Ion	Ratio	Lower	Upper
92	100		
91	173.2	139.3	208.9



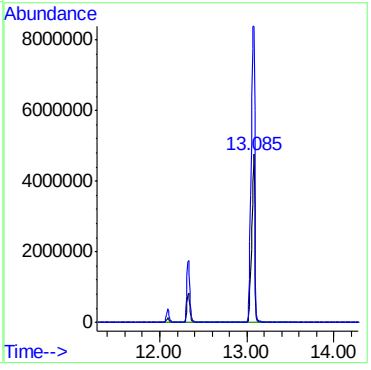


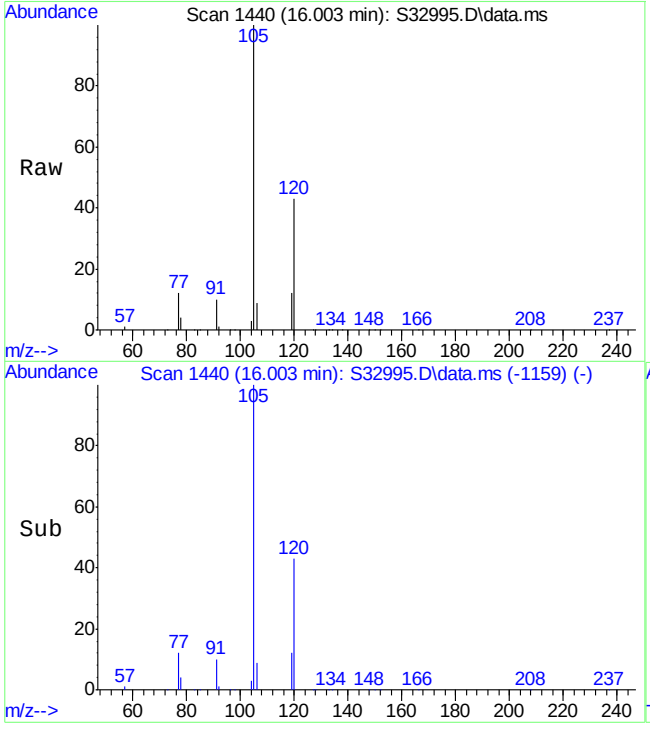


#9
C2-Benzenes
Concen: 80215.80 µg/mL m
RT: 13.085 min Scan# 1035
Delta R.T. 0.684 min
Lab File: S32995.D
Acq: 16 Jul 2013 7:40 pm

Tgt Ion:106 Resp:14613078

Ion	Ratio	Lower	Upper
106	100		
91	27.9	172.2	258.4#

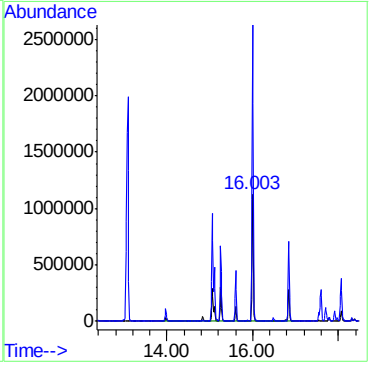


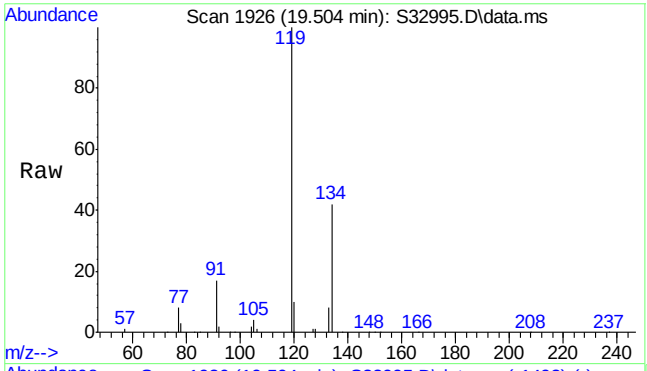


#10
C3-Benzenes
Concen: 25926.88 µg/mL m
RT: 16.003 min Scan# 1440
Delta R.T. -0.043 min
Lab File: S32995.D
Acq: 16 Jul 2013 7:40 pm

Tgt Ion:120 Resp: 4723154

Ion	Ratio	Lower	Upper
120	100		
105	112.3	194.8	292.2#

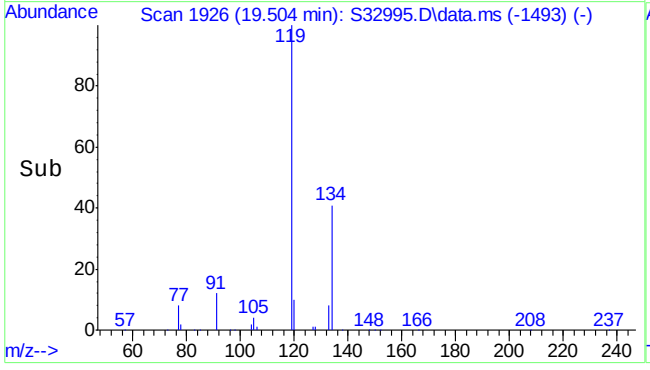


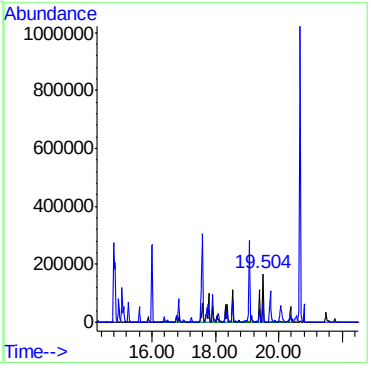


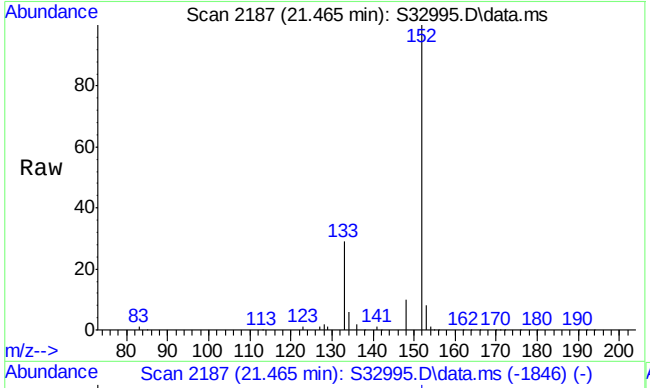
#11
C4-Benzenes
Concen: 11423.06 µg/mL m
RT: 19.504 min Scan# 1926
Delta R.T. -0.915 min
Lab File: S32995.D
Acq: 16 Jul 2013 7:40 pm

Tgt Ion:134 Resp: 2080963

Ion	Ratio	Lower	Upper
134	100		
91	3.6	36.2	54.4#



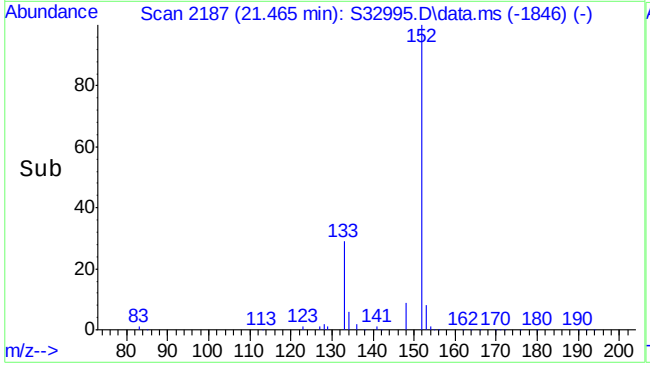


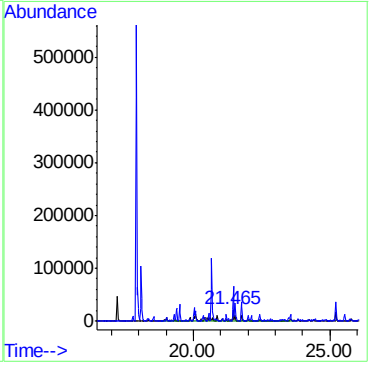


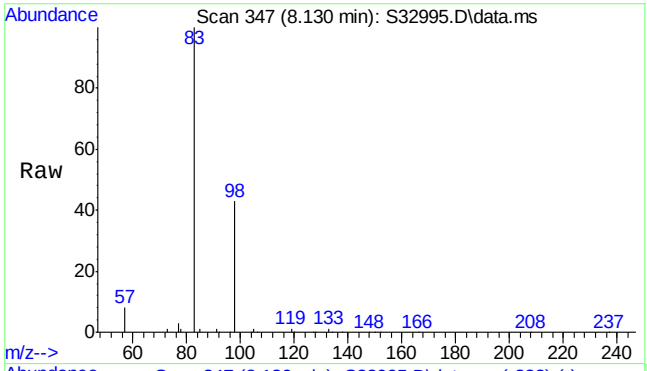
#12
C5-Benzenes
Concen: 2081.12 µg/mL m
RT: 21.465 min Scan# 2187
Delta R.T. 1.342 min
Lab File: S32995.D
Acq: 16 Jul 2013 7:40 pm

Tgt Ion:148 Resp: 379122

Ion	Ratio	Lower	Upper
148	100		
133	8.8	143.5	215.3#



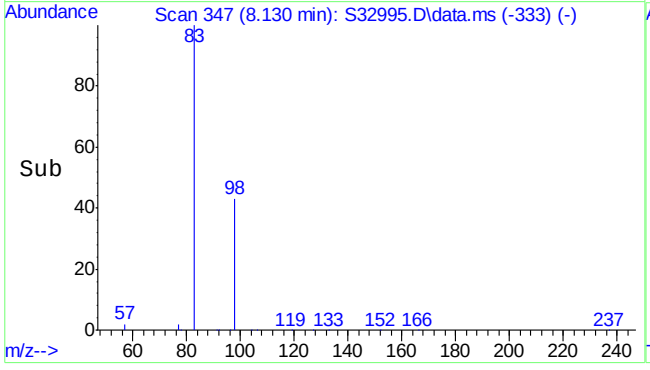


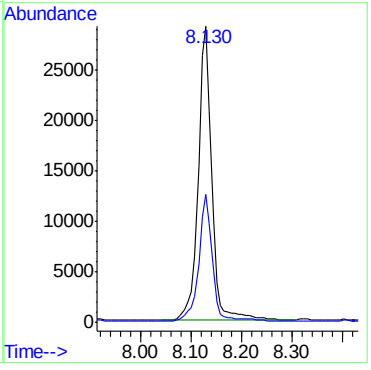


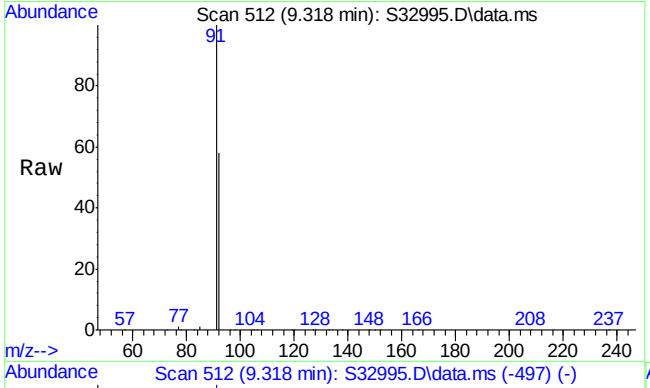
#13
Methylcyclohexane
Concen: 651.69 µg/mL
RT: 8.130 min Scan# 347
Delta R.T. -0.101 min
Lab File: S32995.D
Acq: 16 Jul 2013 7:40 pm

Tgt Ion: 83 Resp: 54539

Ion	Ratio	Lower	Upper
83	100		
98	43.7	32.3	48.5



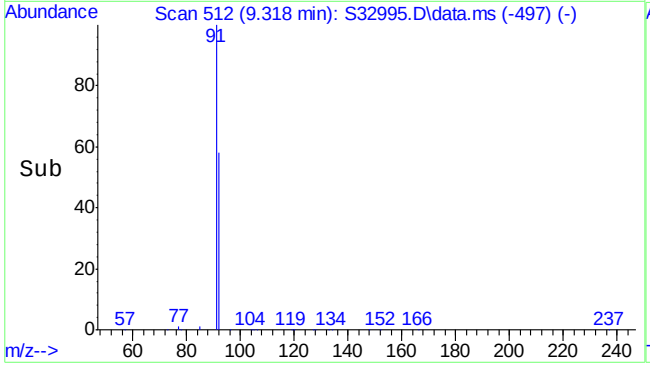


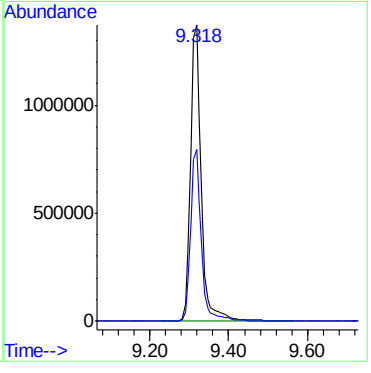


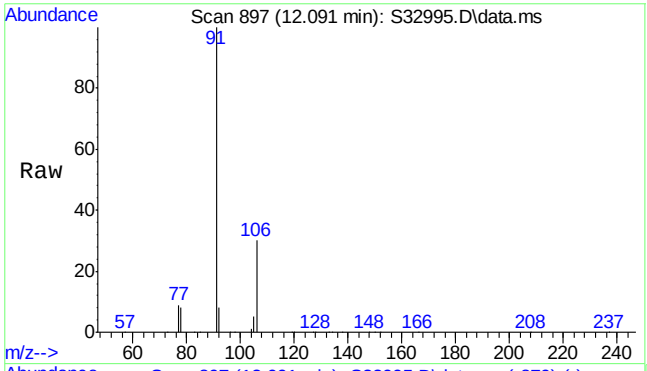
#14
Toluene
Concen: 12489.25 µg/mL
RT: 9.318 min Scan# 512
Delta R.T. -0.094 min
Lab File: S32995.D
Acq: 16 Jul 2013 7:40 pm

Tgt Ion: 91 Resp: 2618374

Ion	Ratio	Lower	Upper
91	100		
92	57.7	45.5	68.3



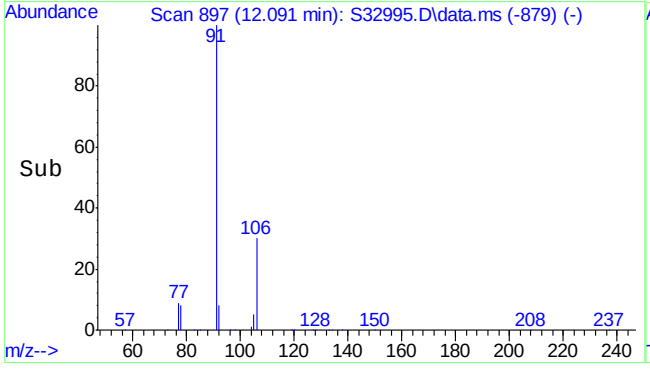


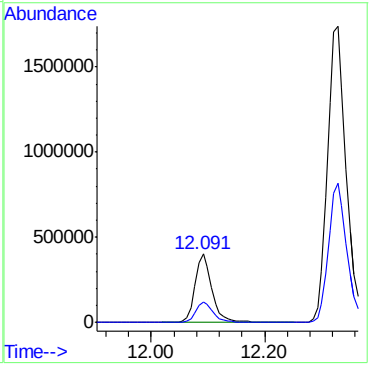


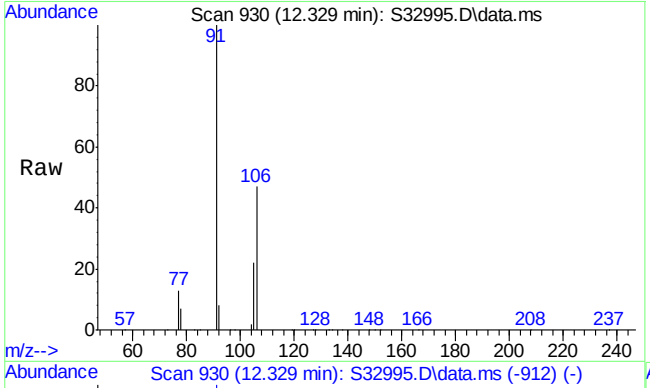
#15
Ethylbenzene
Concen: 3306.96 µg/mL
RT: 12.091 min Scan# 897
Delta R.T. -0.072 min
Lab File: S32995.D
Acq: 16 Jul 2013 7:40 pm

Tgt Ion: 91 Resp: 815964

Ion	Ratio	Lower	Upper
91	100		
106	29.9	22.6	34.0



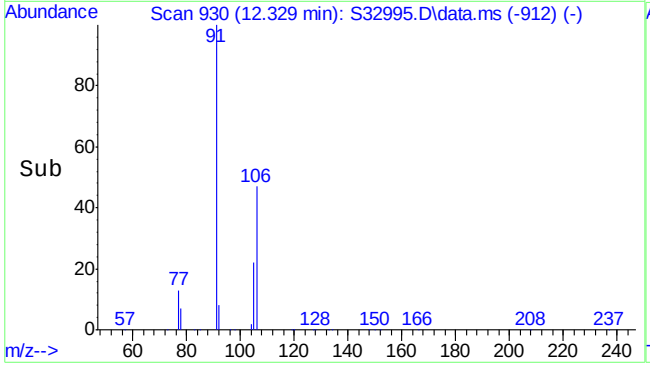


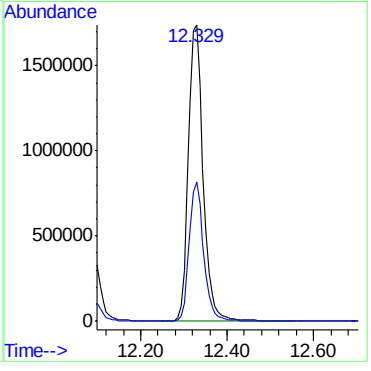


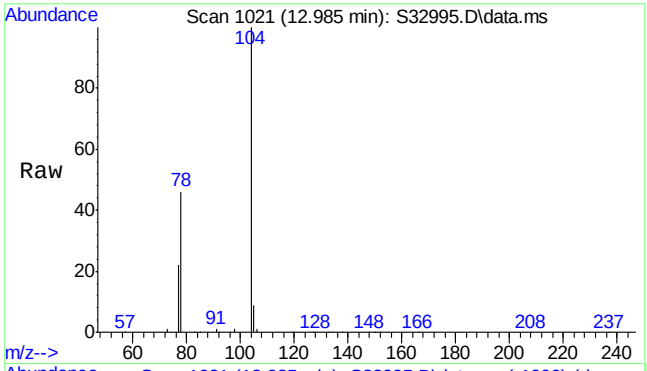
#16
m,p-xylene
Concen: 20939.14 µg/mL
RT: 12.329 min Scan# 930
Delta R.T. -0.072 min
Lab File: S32995.D
Acq: 16 Jul 2013 7:40 pm

Tgt Ion: 91 Resp: 4063599

Ion	Ratio	Lower	Upper
91	100		
106	46.1	35.5	53.3



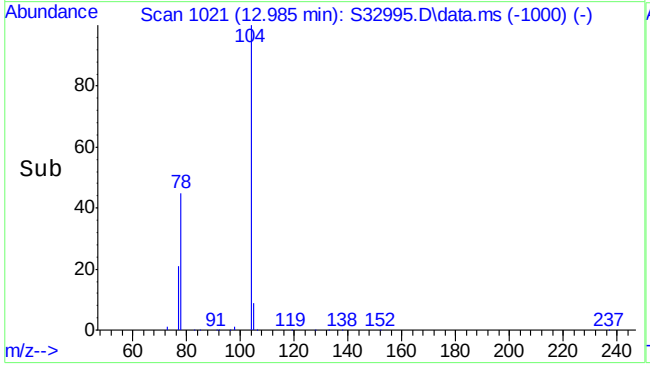


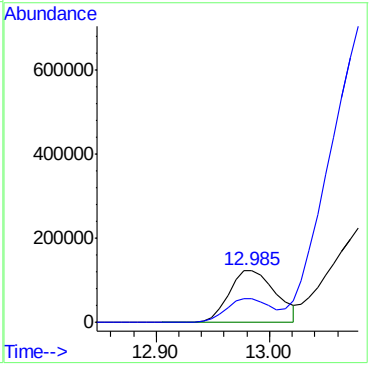


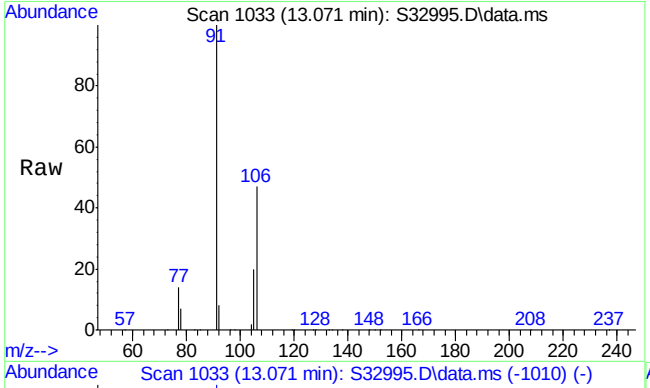
#17
Styrene
Concen: 2525.82 µg/mL
RT: 12.985 min Scan# 1021
Delta R.T. -0.050 min
Lab File: S32995.D
Acq: 16 Jul 2013 7:40 pm

Tgt Ion:104 Resp: 351774

Ion	Ratio	Lower	Upper
104	100		
78	42.1	38.5	57.7



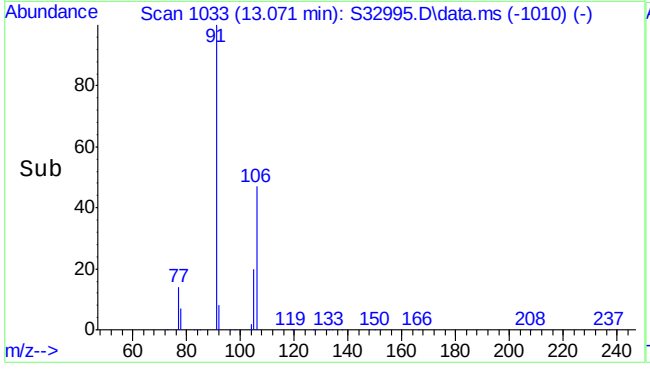


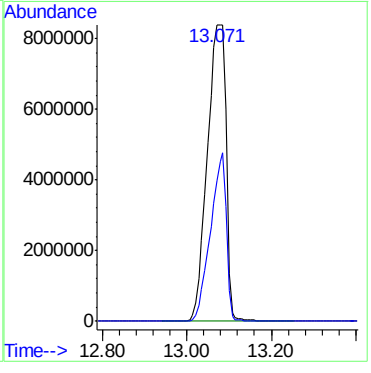


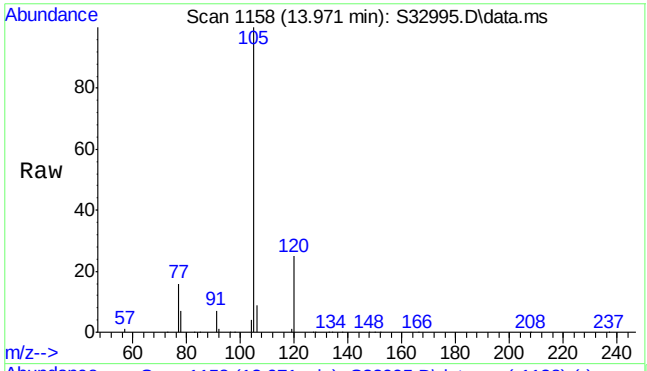
#18
o-Xylene
Concen: 131363.62 µg/mL
RT: 13.071 min Scan# 1033
Delta R.T. -0.036 min
Lab File: S32995.D
Acq: 16 Jul 2013 7:40 pm

Tgt Ion: 91 Resp:26002021

Ion	Ratio	Lower	Upper
91	100		
106	47.9	32.8	49.2



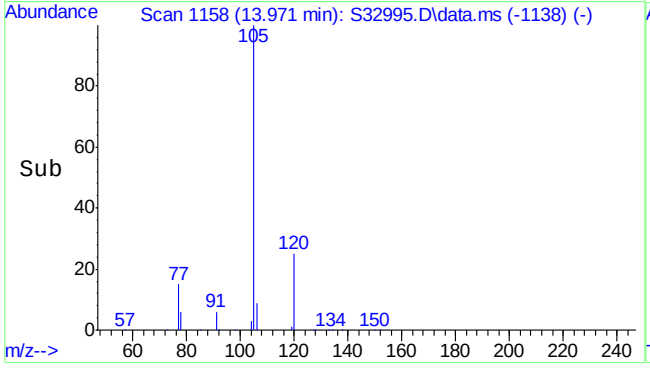


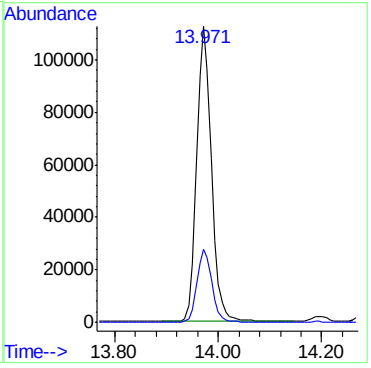


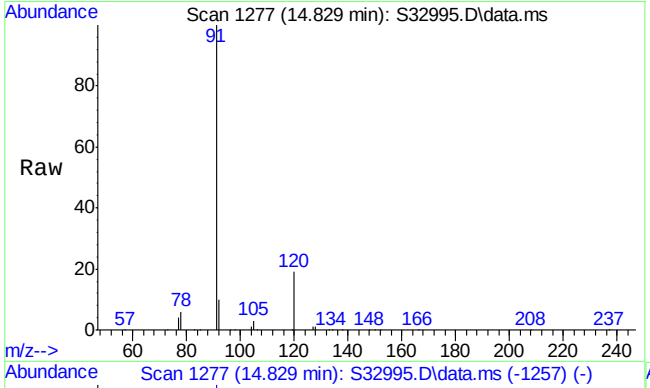
#19
Isopropylbenzene
Concen: 994.26 µg/mL
RT: 13.971 min Scan# 1158
Delta R.T. -0.058 min
Lab File: S32995.D
Acq: 16 Jul 2013 7:40 pm

Tgt Ion:105 Resp: 220826

Ion	Ratio	Lower	Upper
105	100		
120	25.0	19.2	28.8



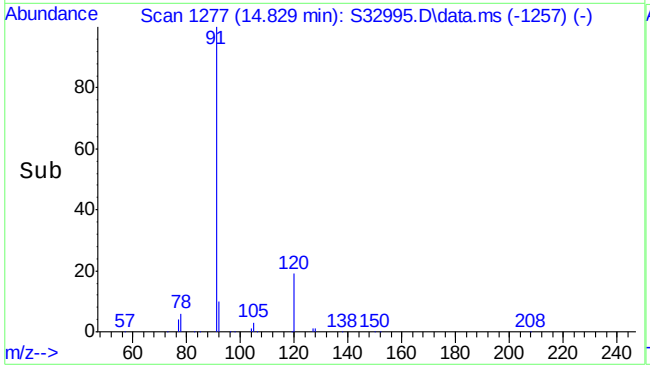


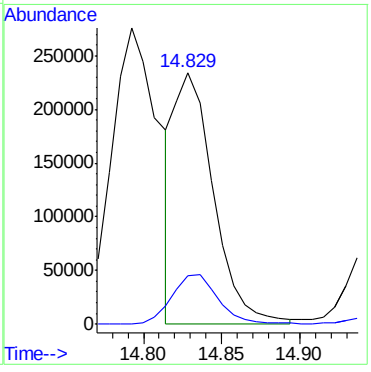


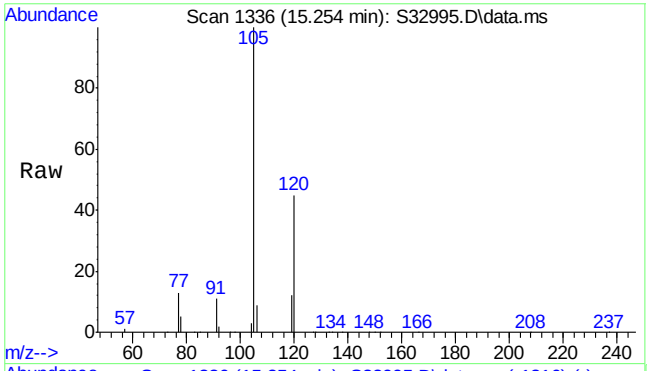
#20
n-Propylbenzene
Concen: 1421.19 µg/mL m
RT: 14.829 min Scan# 1277
Delta R.T. -0.058 min
Lab File: S32995.D
Acq: 16 Jul 2013 7:40 pm

Tgt Ion: 91 Resp: 402144

Ion	Ratio	Lower	Upper
91	100		
120	0.0	16.8	25.2#



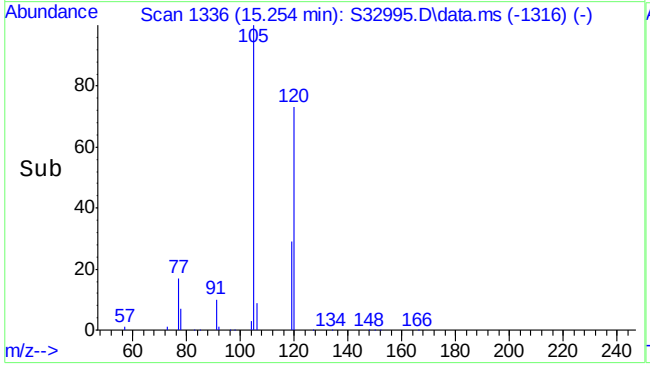


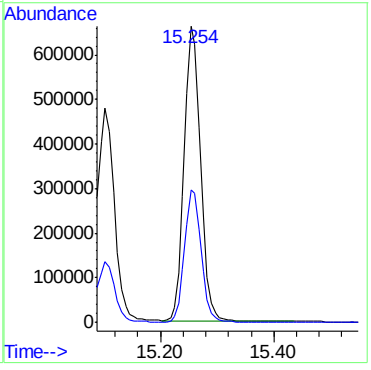


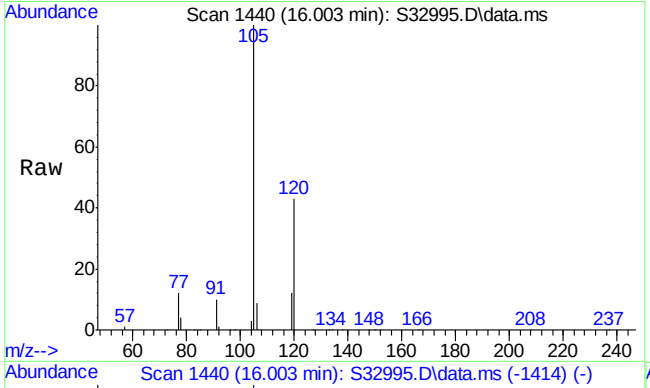
#21
1,3,5-Trimethylbenzene
Concen: 6476.20 µg/mL
RT: 15.254 min Scan# 1336
Delta R.T. -0.058 min
Lab File: S32995.D
Acq: 16 Jul 2013 7:40 pm

Tgt Ion:105 Resp: 1334346

Ion	Ratio	Lower	Upper
105	100		
120	45.2	34.8	52.2



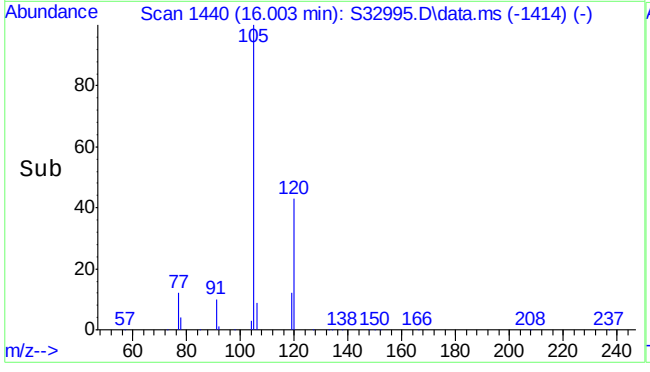


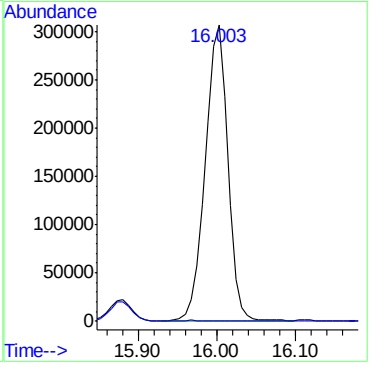


#22
t-Butylbenzene
Concen: 3085.96 µg/mL
RT: 16.003 min Scan# 1440
Delta R.T. -0.014 min
Lab File: S32995.D
Acq: 16 Jul 2013 7:40 pm

Tgt Ion:119 Resp: 617035

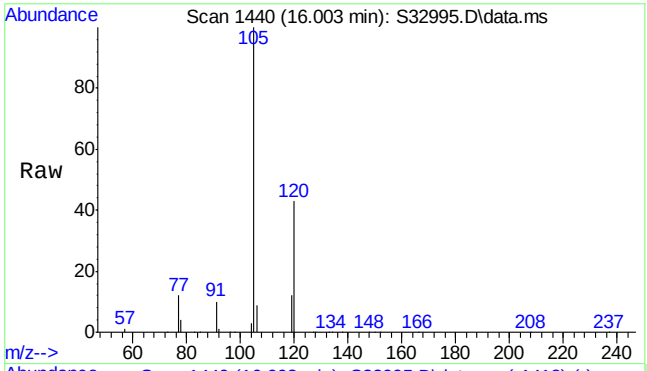
Ion	Ratio	Lower	Upper
119	100		
134	0.0	17.6	26.4#





7.1.2

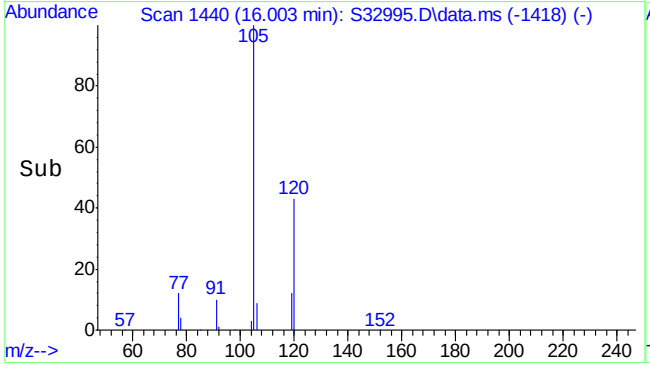
7

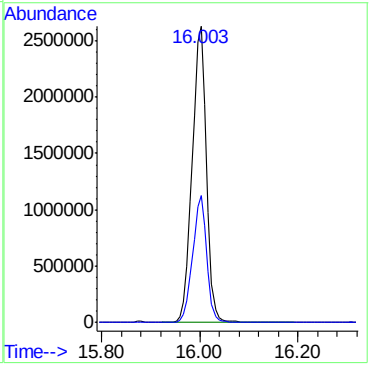


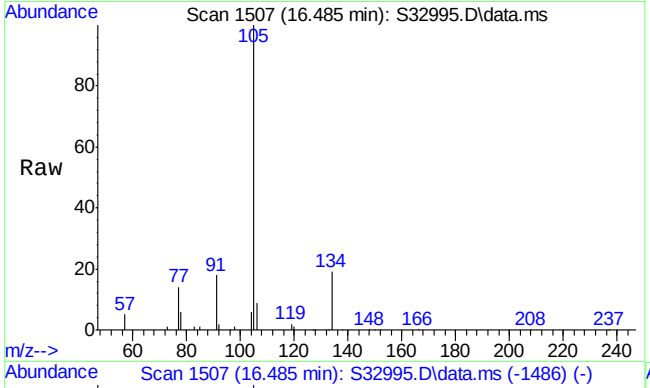
#23
1,2,4-Trimethylbenzene
Concen: 25991.76 µg/mL
RT: 16.003 min Scan# 1440
Delta R.T. -0.043 min
Lab File: S32995.D
Acq: 16 Jul 2013 7:40 pm

Tgt Ion:105 Resp: 5298534

Ion	Ratio	Lower	Upper
105	100		
120	42.3	33.6	50.4



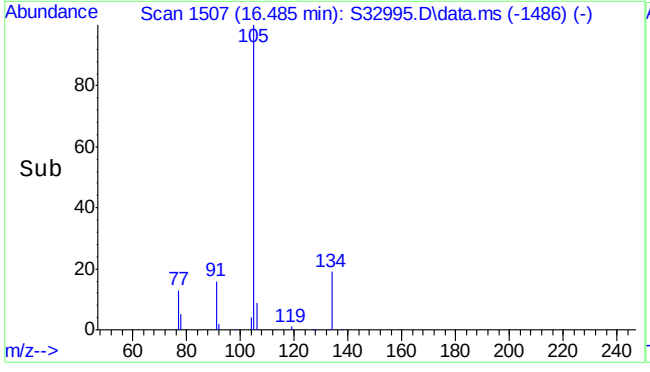


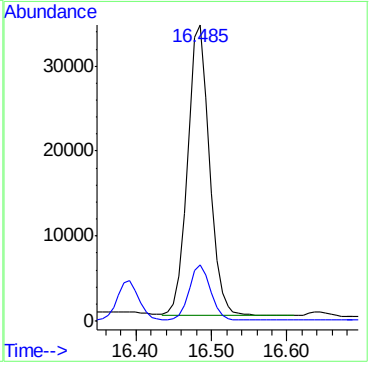


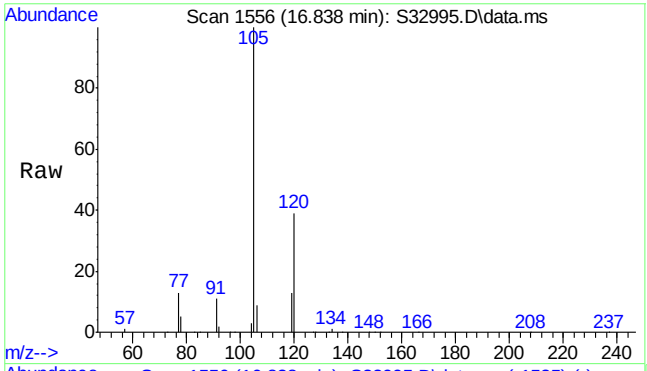
#24
sec-Butylbenzene
Concen: 260.87 µg/mL
RT: 16.485 min Scan# 1507
Delta R.T. -0.050 min
Lab File: S32995.D
Acq: 16 Jul 2013 7:40 pm

Tgt Ion:105 Resp: 69582

Ion	Ratio	Lower	Upper
105	100		
134	18.6	14.0	21.0



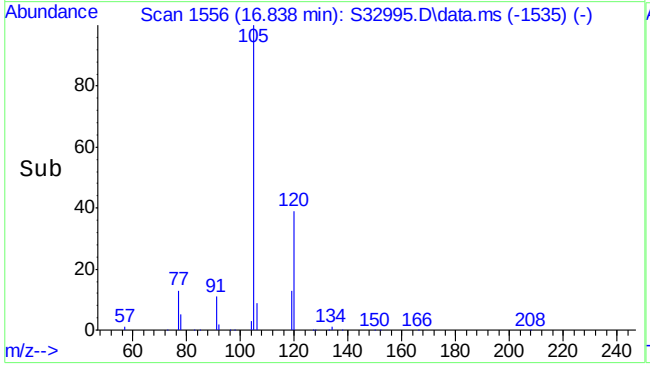


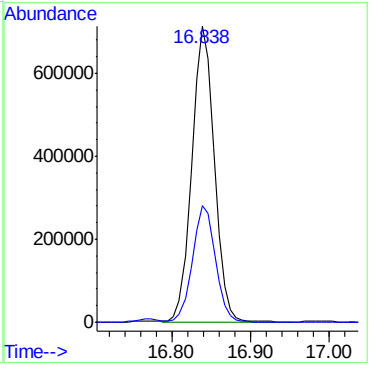


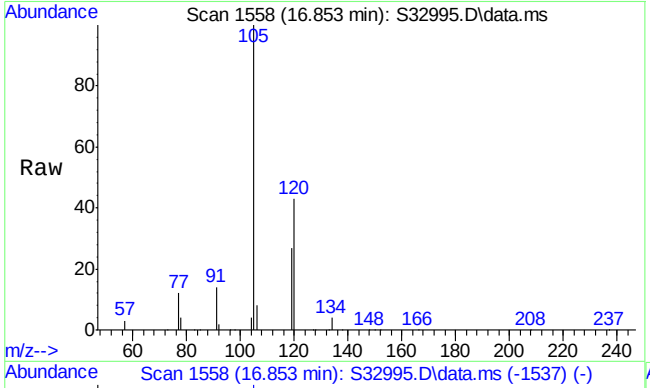
#25
1,2,3-Trimethylbenzene
Concen: 6565.06 µg/mL
RT: 16.838 min Scan# 1556
Delta R.T. -0.050 min
Lab File: S32995.D
Acq: 16 Jul 2013 7:40 pm

Tgt Ion:105 Resp: 1420359

Ion	Ratio	Lower	Upper
105	100		
120	40.1	34.6	51.8



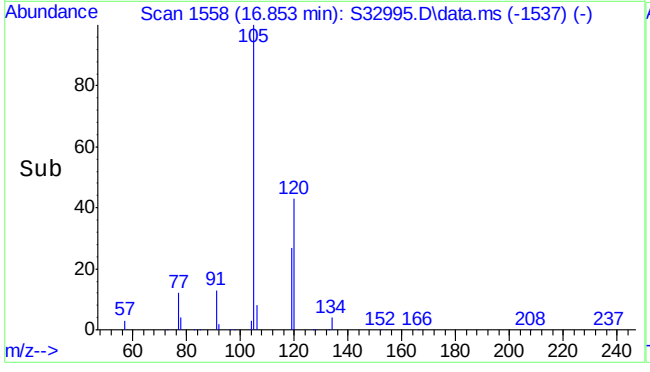


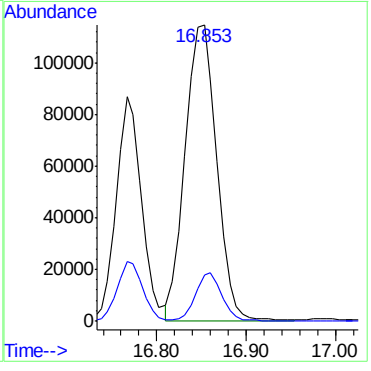


#26
p-Isopropyltoluene
Concen: 1221.02 µg/mL m
RT: 16.853 min Scan# 1558
Delta R.T. -0.050 min
Lab File: S32995.D
Acq: 16 Jul 2013 7:40 pm

Tgt Ion:119 Resp: 280788

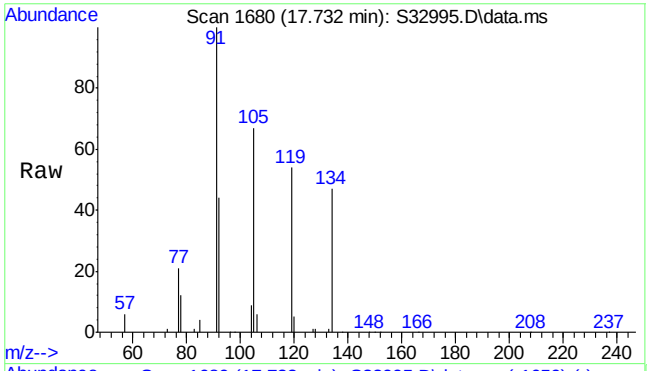
Ion	Ratio	Lower	Upper
119	100		
134	16.2	18.6	28.0#





7.1.2

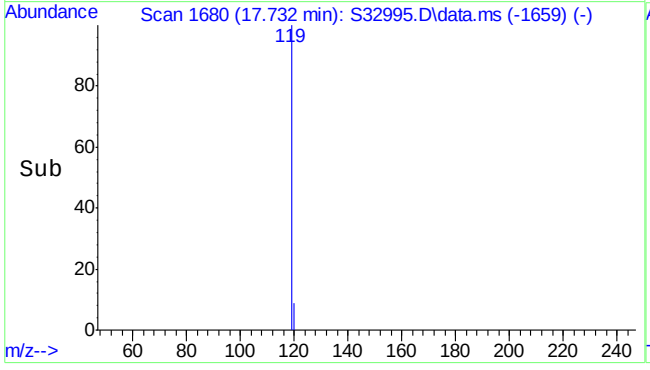
7

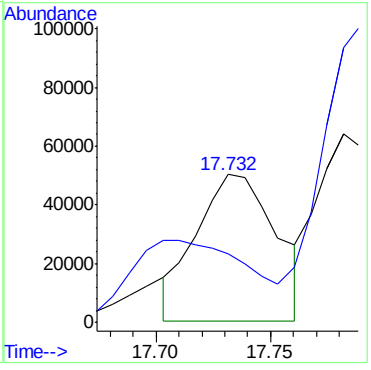


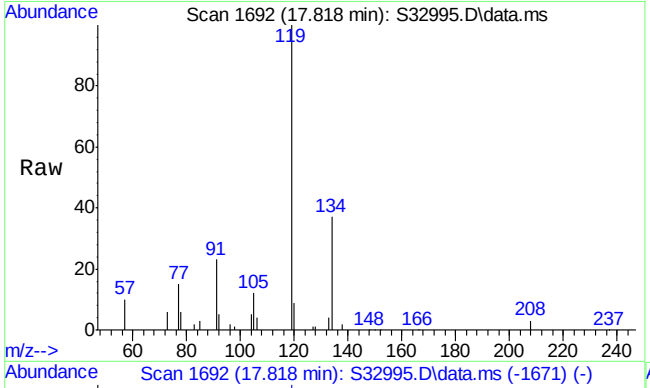
#27
n-Butylbenzene
Concen: 601.26 µg/mL m
RT: 17.732 min Scan# 1680
Delta R.T. -0.050 min
Lab File: S32995.D
Acq: 16 Jul 2013 7:40 pm

Tgt Ion: 91 Resp: 121473

Ion	Ratio	Lower	Upper
91	100		
134	106.0	16.6	25.0#



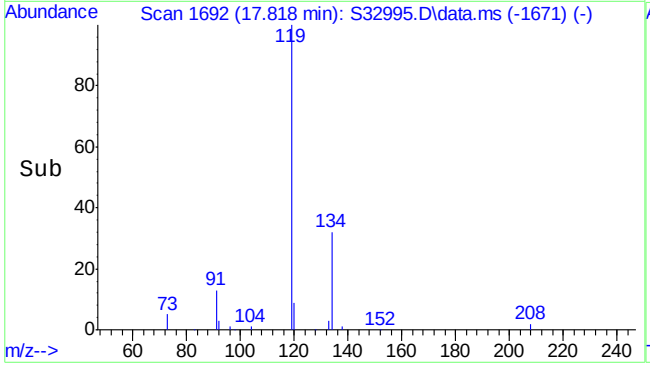


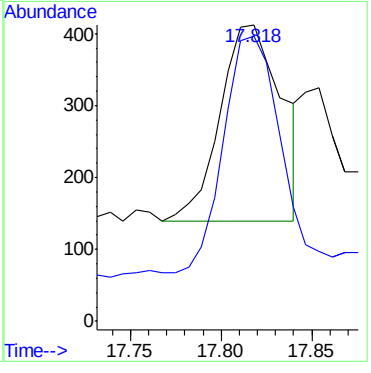


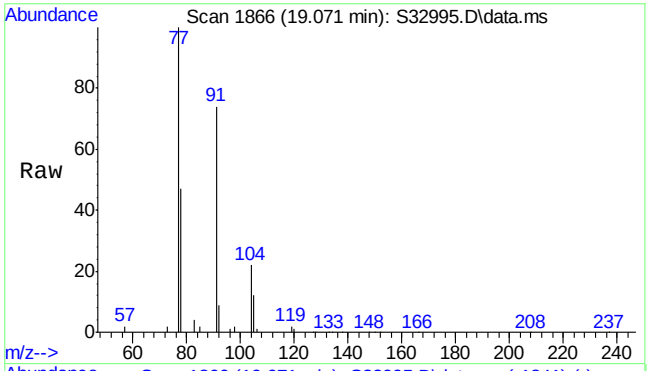
#28
trans-Decalin
Concen: 15.72 µg/mL
RT: 17.818 min Scan# 1692
Delta R.T. -0.050 min
Lab File: S32995.D
Acq: 16 Jul 2013 7:40 pm

Tgt Ion: 96 Resp: 648

Ion	Ratio	Lower	Upper
96	100		
138	121.0	107.8	161.8



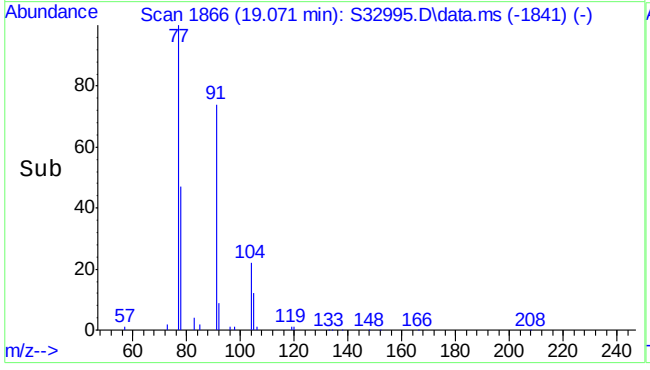


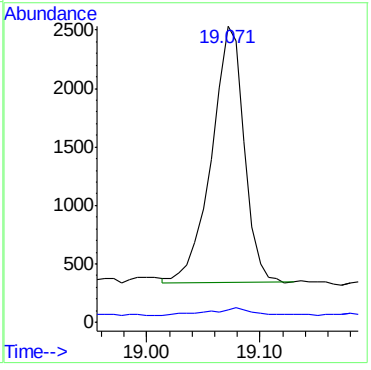


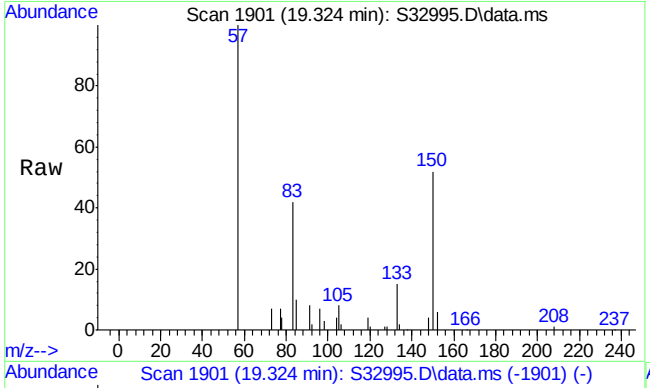
#29
cis-Decalin
Concen: 81.13 µg/mL
RT: 19.071 min Scan# 1866
Delta R.T. -0.022 min
Lab File: S32995.D
Acq: 16 Jul 2013 7:40 pm

Tgt Ion: 96 Resp: 4362

Ion	Ratio	Lower	Upper
96	100		
138	0.0	63.5	95.3#

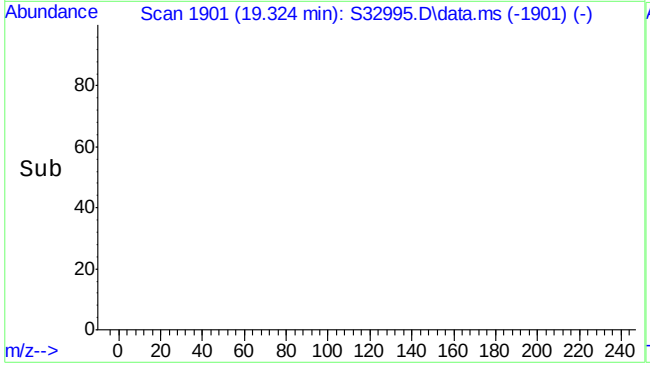


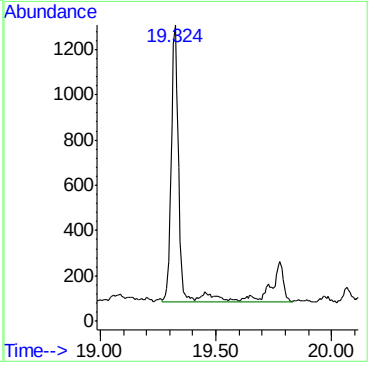


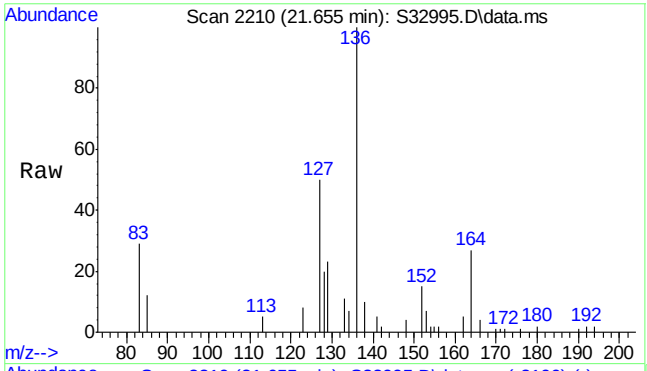


#30
C1-Decalins
Concen: 82.50 µg/mL m
RT: 19.324 min Scan# 1901
Delta R.T. -0.504 min
Lab File: S32995.D
Acq: 16 Jul 2013 7:40 pm

Tgt Ion:152 Resp: 3401

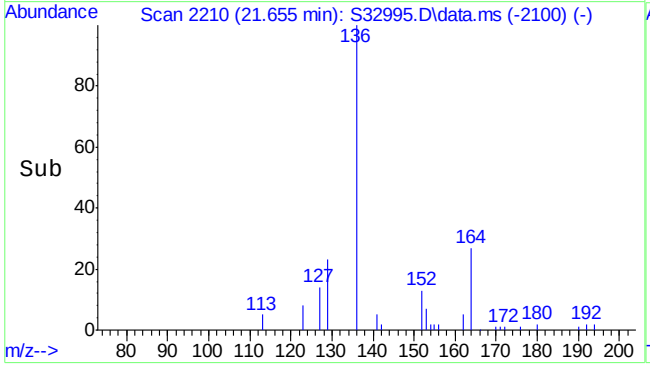


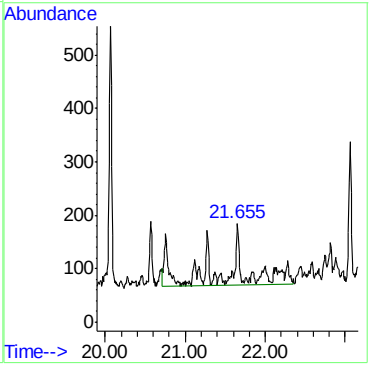


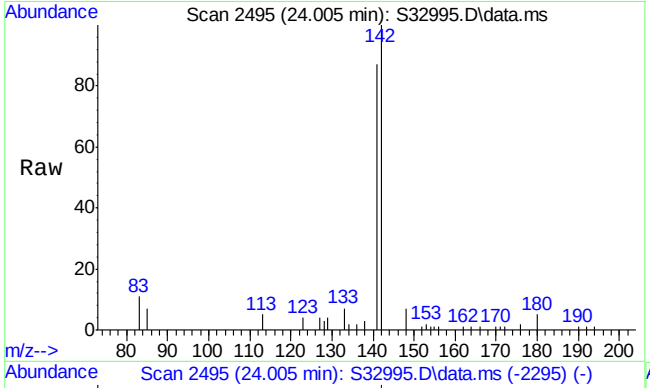


#31
C2-Decalins
Concen: 50.79 µg/mL m
RT: 21.655 min Scan# 2210
Delta R.T. 0.487 min
Lab File: S32995.D
Acq: 16 Jul 2013 7:40 pm

Tgt Ion:166 Resp: 2094

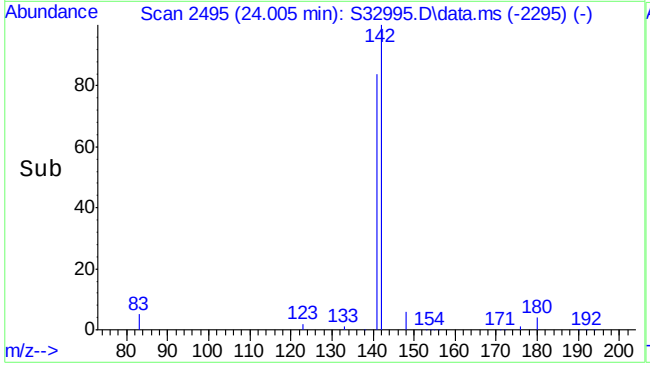


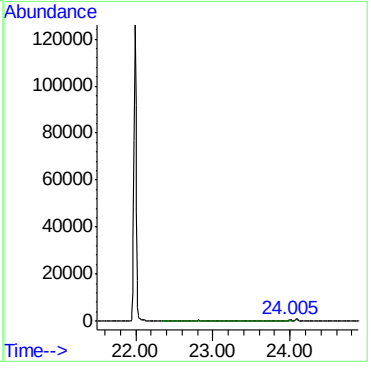




#32
C3-Decalins
Concen: 81.21 µg/mL m
RT: 24.005 min Scan# 2495
Delta R.T. 0.825 min
Lab File: S32995.D
Acq: 16 Jul 2013 7:40 pm

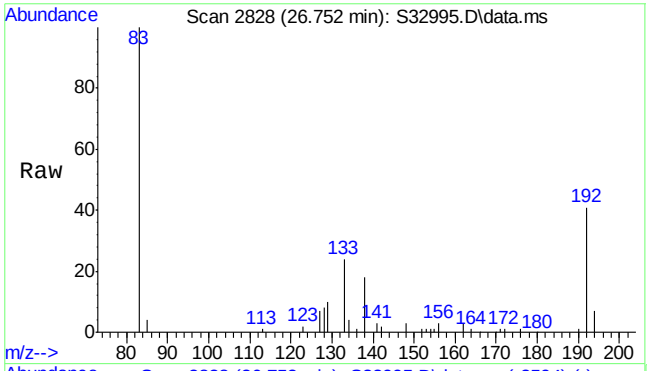
Tgt Ion:180 Resp: 3348





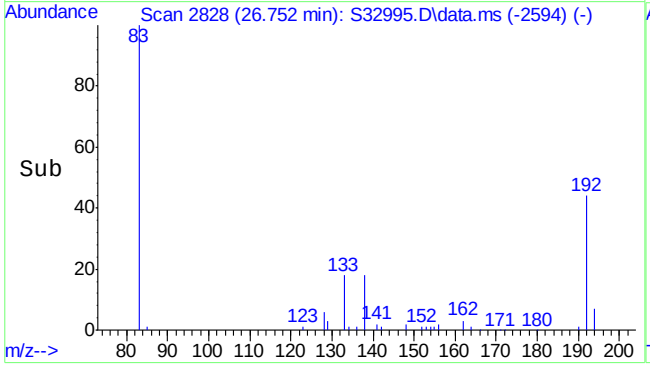
7.1.2

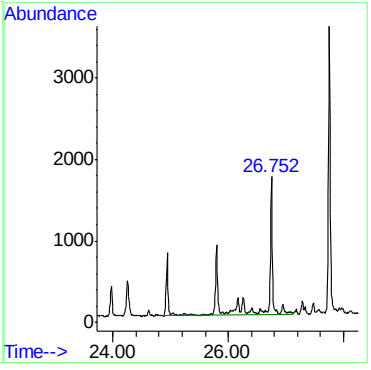
7

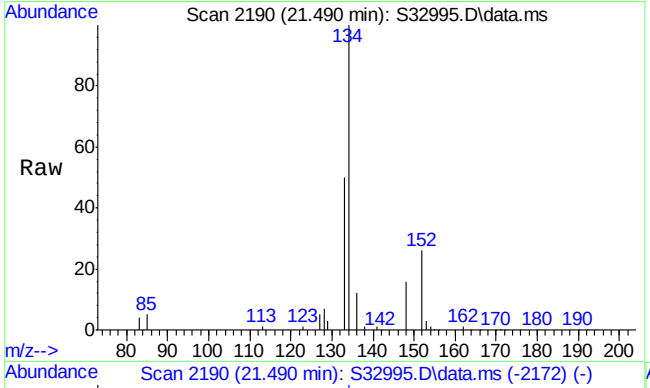


#33
C4-Decalins
Concen: 284.32 µg/mL m
RT: 26.752 min Scan# 2828
Delta R.T. -0.255 min
Lab File: S32995.D
Acq: 16 Jul 2013 7:40 pm

Tgt Ion:194 Resp: 11721



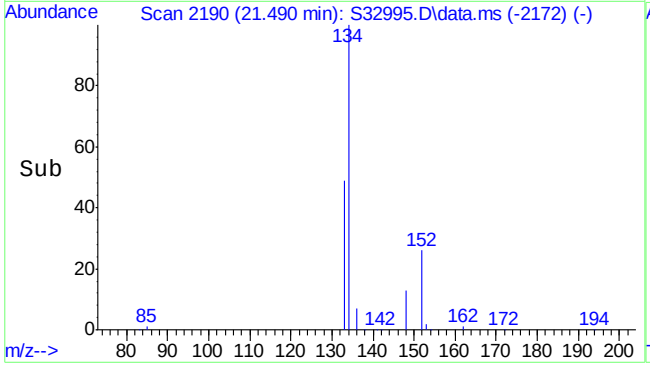


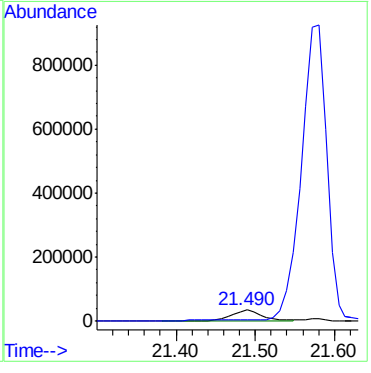


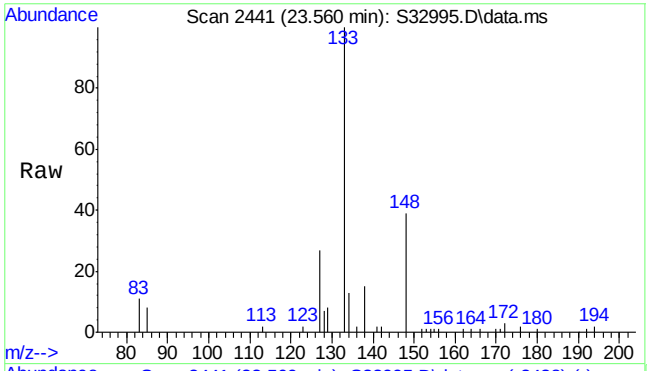
#34
Benzo(b)thiophene
Concen: 381.65 µg/mL
RT: 21.490 min Scan# 2190
Delta R.T. -0.049 min
Lab File: S32995.D
Acq: 16 Jul 2013 7:40 pm

Tgt Ion:134 Resp: 92644

Ion	Ratio	Lower	Upper
134	100		
136	0.0	4.3	6.5#

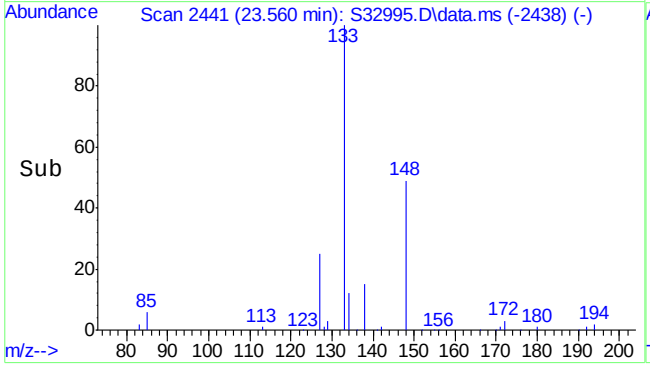


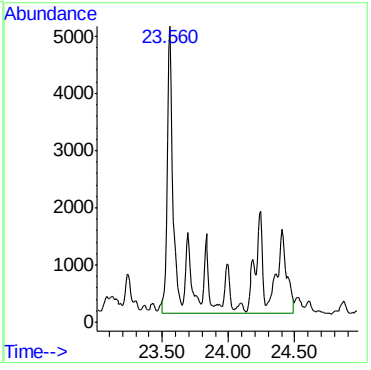


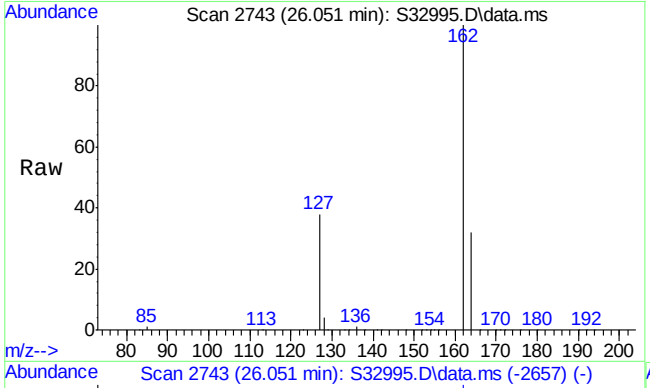


#35
C1-Benzo(b)thiophenes
Concen: 163.14 µg/mL m
RT: 23.560 min Scan# 2441
Delta R.T. -0.041 min
Lab File: S32995.D
Acq: 16 Jul 2013 7:40 pm

Tgt Ion:148 Resp: 39601

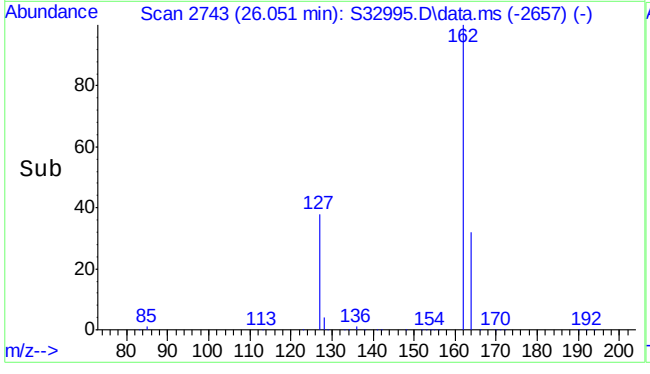


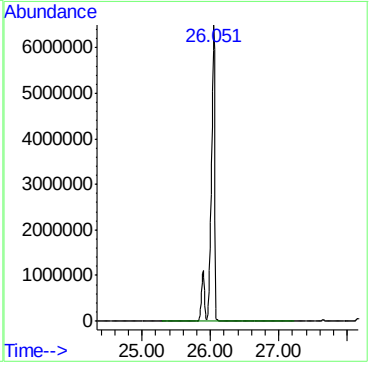




#36
C2-Benzo(b)thiophenes
Concen: 101167.49 µg/mL m
RT: 26.051 min Scan# 2743
Delta R.T. -1.006 min
Lab File: S32995.D
Acq: 16 Jul 2013 7:40 pm

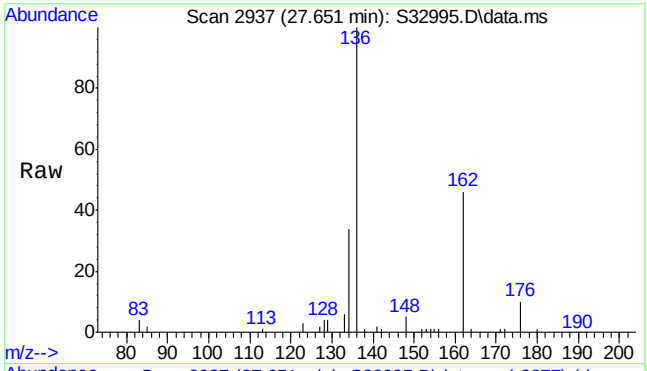
Tgt Ion:162 Resp:24558166





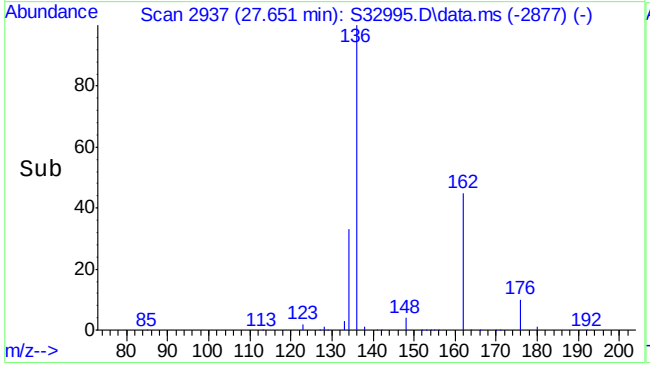
7.1.2

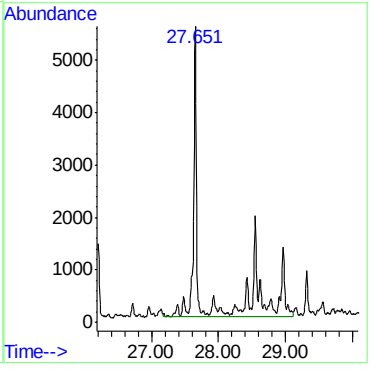
7

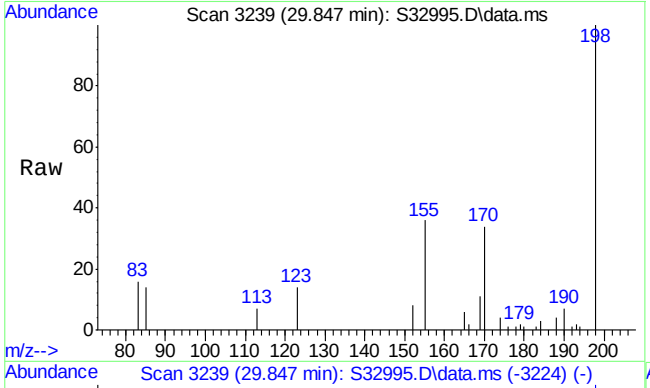


#37
C3-Benzo(b)thiophenes
Concen: 151.34 µg/mL m
RT: 27.651 min Scan# 2937
Delta R.T. -1.396 min
Lab File: S32995.D
Acq: 16 Jul 2013 7:40 pm

Tgt Ion:176 Resp: 36738

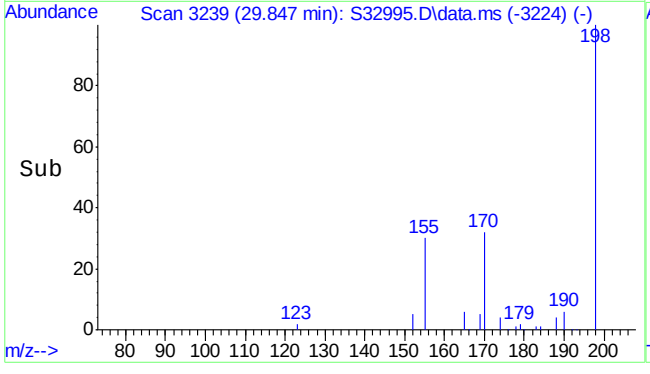


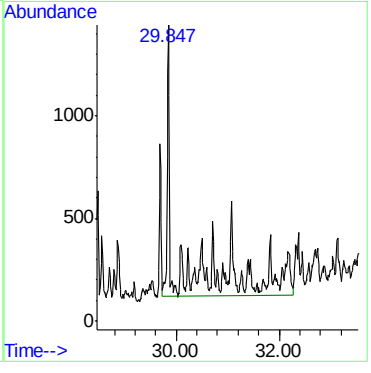


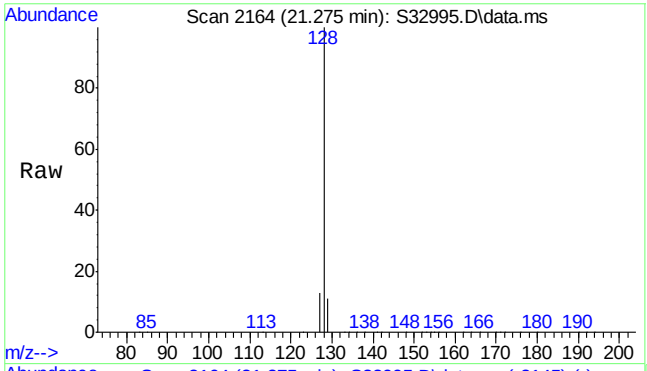


#38
C4-Benzo(b)thiophenes
Concen: 65.78 µg/mL m
RT: 29.847 min Scan# 3239
Delta R.T. -1.280 min
Lab File: S32995.D
Acq: 16 Jul 2013 7:40 pm

Tgt Ion:190 Resp: 15968



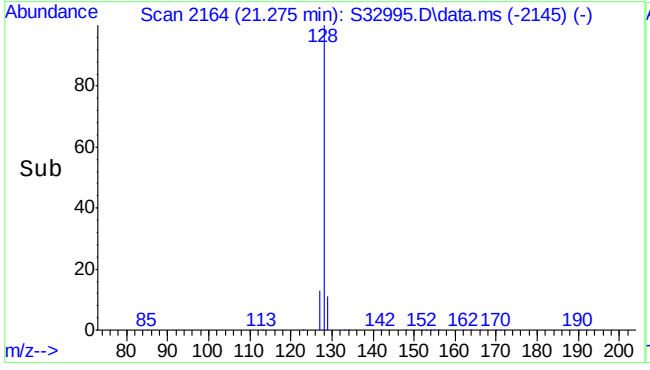


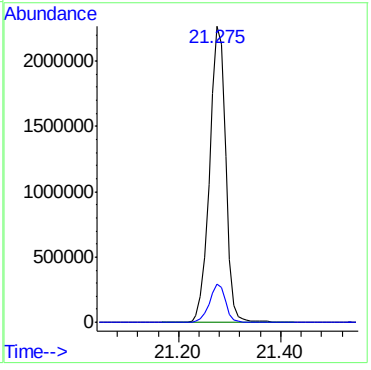


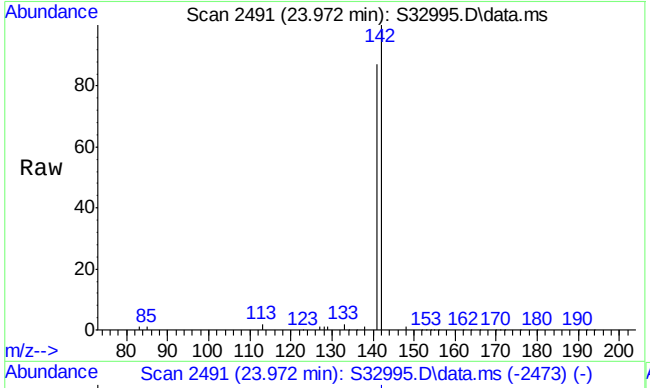
#44
Naphthalene
Concen: 16373.71 ng/mL
RT: 21.275 min Scan# 2164
Delta R.T. -0.041 min
Lab File: S32995.D
Acq: 16 Jul 2013 7:40 pm

Tgt Ion:128 Resp: 4943581

Ion	Ratio	Lower	Upper
128	100		
127	12.7	10.2	15.2



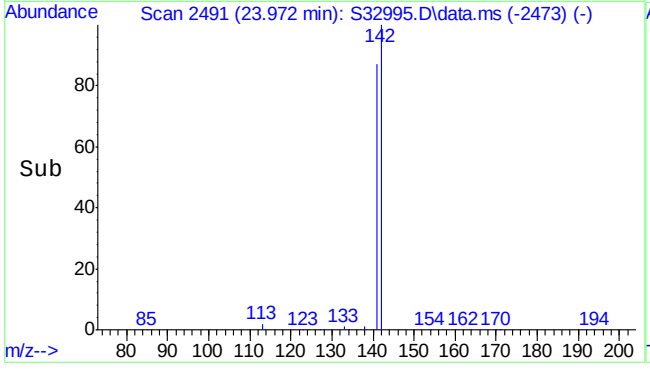


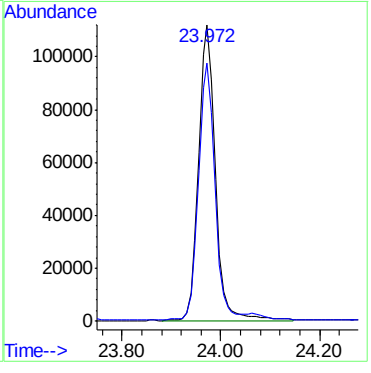


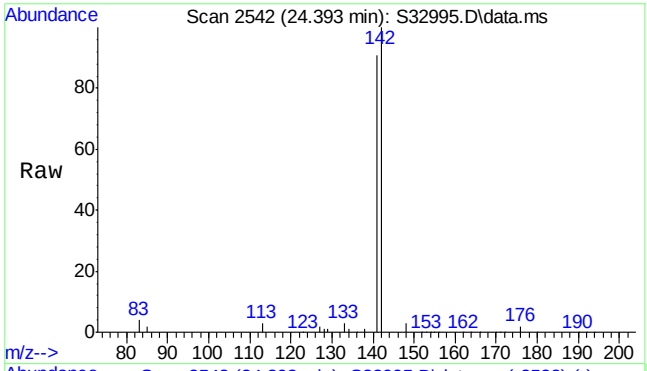
#45
2-Methylnaphthalene
Concen: 1458.32 ng/mL
RT: 23.972 min Scan# 2491
Delta R.T. -0.049 min
Lab File: S32995.D
Acq: 16 Jul 2013 7:40 pm

Tgt Ion:142 Resp: 261257

Ion	Ratio	Lower	Upper
142	100		
141	85.1	70.2	105.2



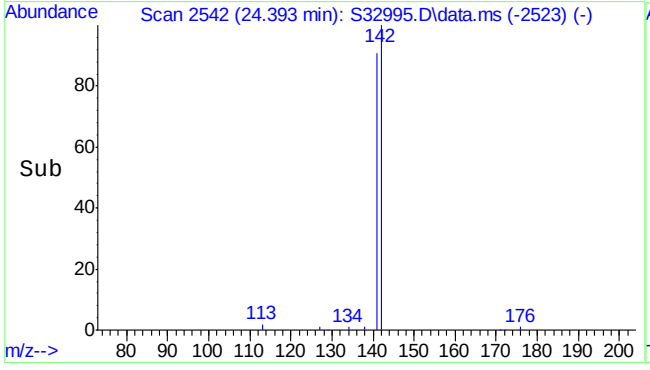


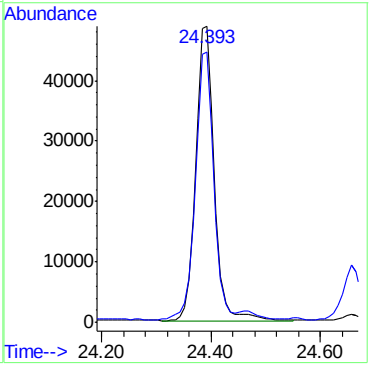


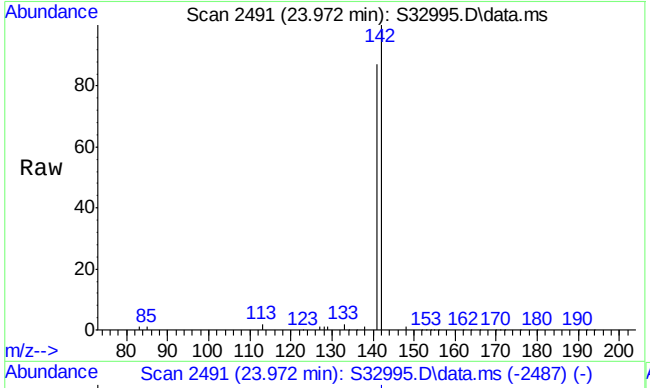
#46
1-Methylnaphthalene
Concen: 608.79 ng/mL
RT: 24.393 min Scan# 2542
Delta R.T. -0.041 min
Lab File: S32995.D
Acq: 16 Jul 2013 7:40 pm

Tgt Ion:142 Resp: 113780

Ion	Ratio	Lower	Upper
142	100		
141	90.2	74.1	111.1



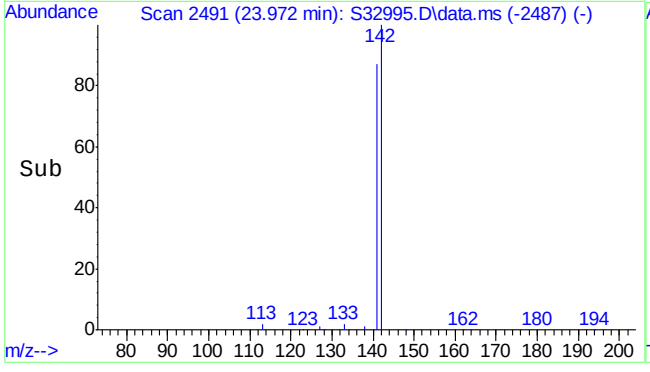


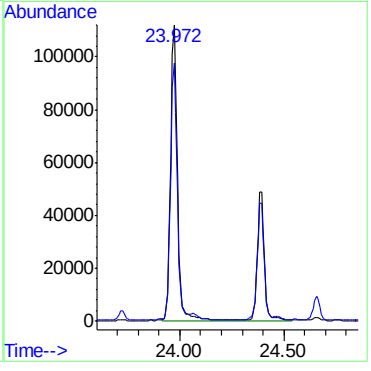


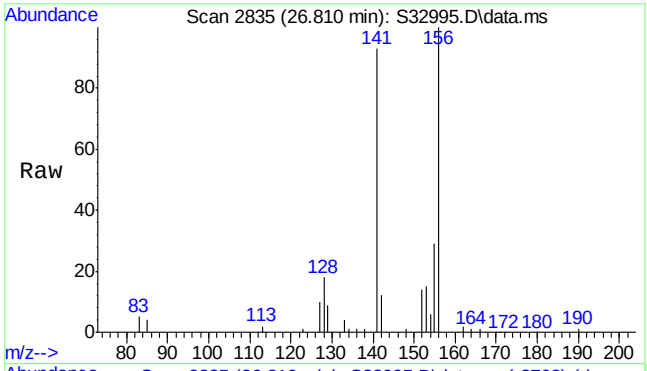
#47
C1-Naphthalenes
Concen: 1248.69 ng/mL m
RT: 23.972 min Scan# 2491
Delta R.T. -0.049 min
Lab File: S32995.D
Acq: 16 Jul 2013 7:40 pm

Tgt Ion:142 Resp: 377008

Ion	Ratio	Lower	Upper
142	100		
141	58.3	70.5	105.7#



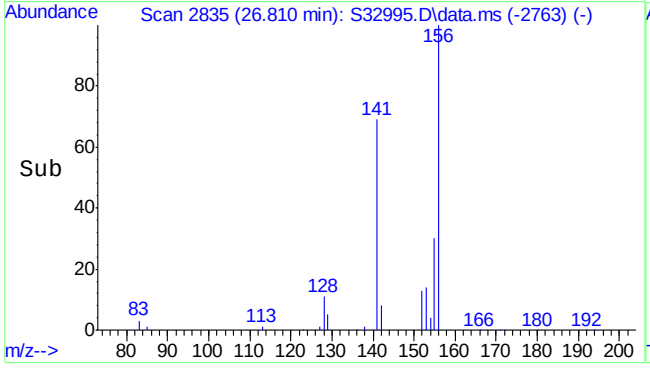


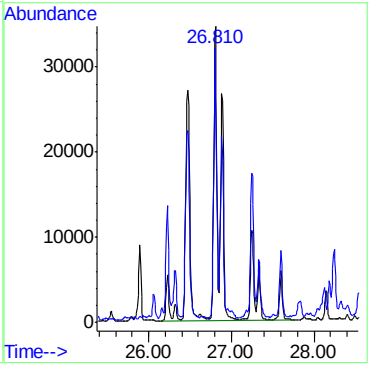


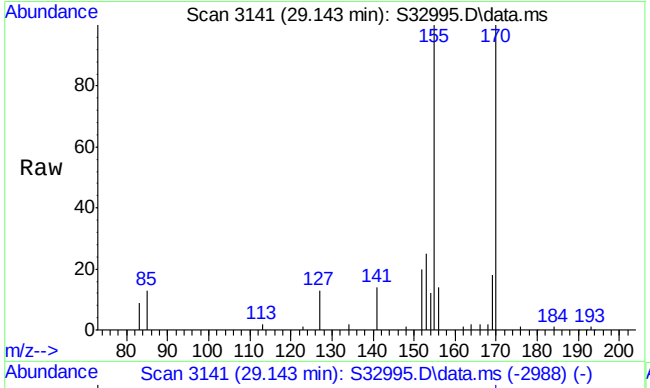
#48
C2-Naphthalenes
Concen: 1086.22 ng/mL m
RT: 26.810 min Scan# 2835
Delta R.T. -0.139 min
Lab File: S32995.D
Acq: 16 Jul 2013 7:40 pm

Tgt Ion:156 Resp: 327954

Ion	Ratio	Lower	Upper
156	100		
141	14.1	60.2	90.2#



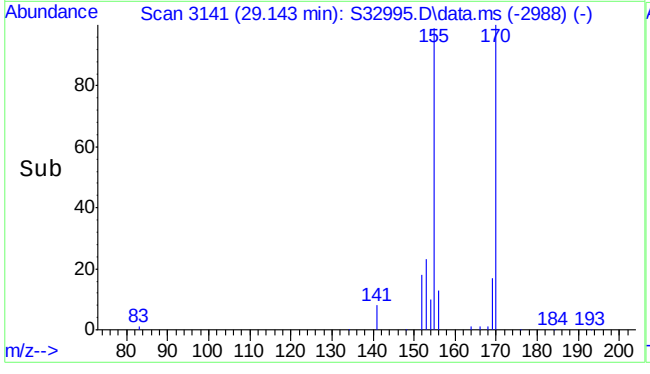


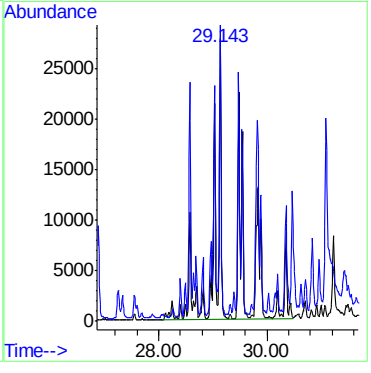


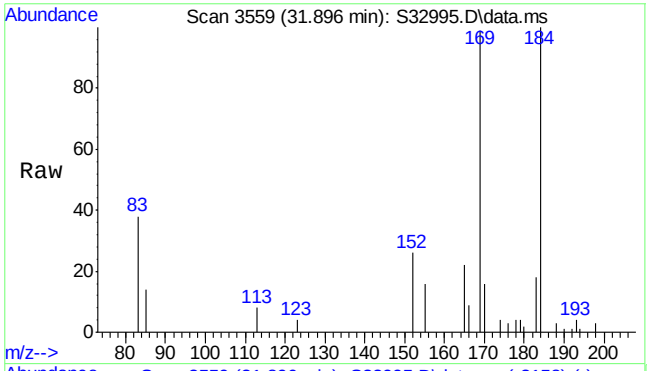
#49
C3-Naphthalenes
Concen: 1247.73 ng/mL m
RT: 29.143 min Scan# 3141
Delta R.T. -0.050 min
Lab File: S32995.D
Acq: 16 Jul 2013 7:40 pm

Tgt Ion:170 Resp: 376717

Ion	Ratio	Lower	Upper
170	100		
155	17.4	83.9	125.9#



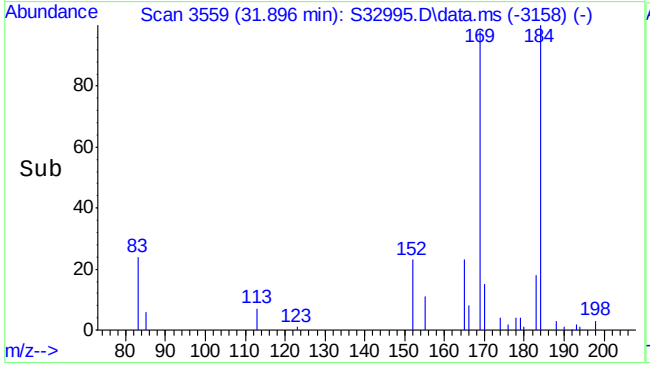


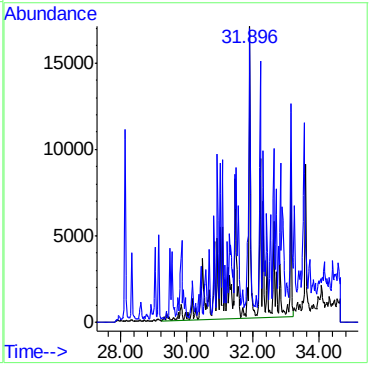


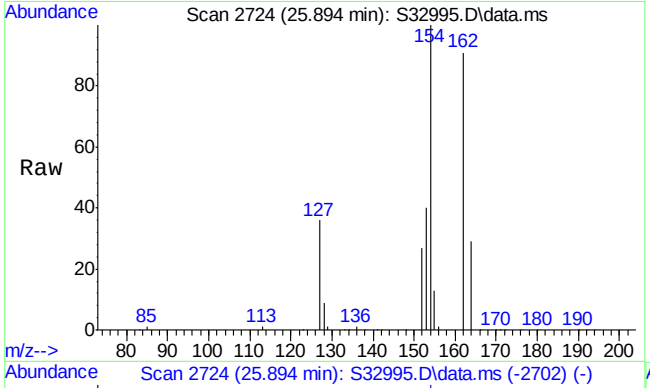
#50
C4-Naphthalenes
Concen: 1057.03 ng/mL m
RT: 31.896 min Scan# 3559
Delta R.T. -0.051 min
Lab File: S32995.D
Acq: 16 Jul 2013 7:40 pm

Tgt Ion:184 Resp: 319140

Ion	Ratio	Lower	Upper
184	100		
169	5.0	83.1	124.7#



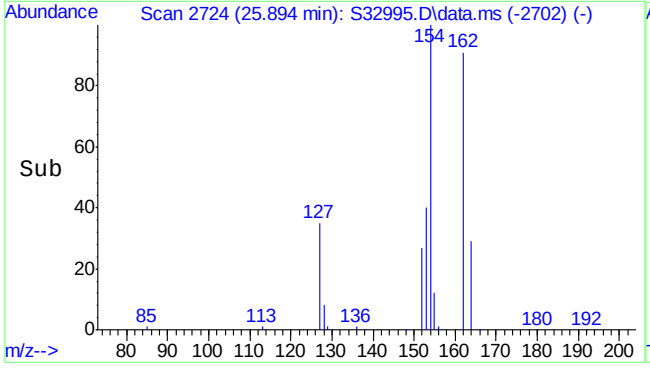


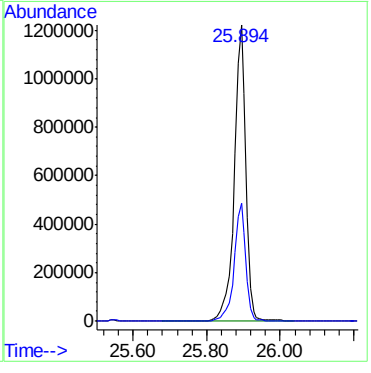


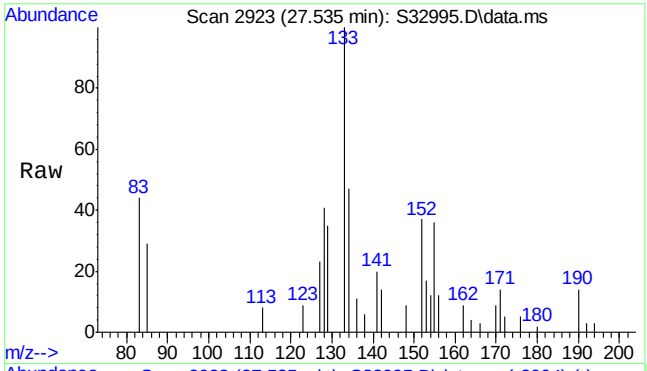
#51
Biphenyl
Concen: 11314.92 µg/mL
RT: 25.894 min Scan# 2724
Delta R.T. -0.016 min
Lab File: S32995.D
Acq: 16 Jul 2013 7:40 pm

Tgt Ion:154 Resp: 2660028

Ion	Ratio	Lower	Upper
154	100		
153	39.8	32.1	48.1



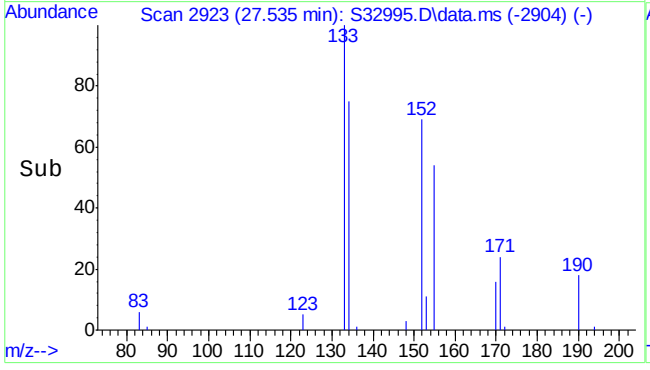


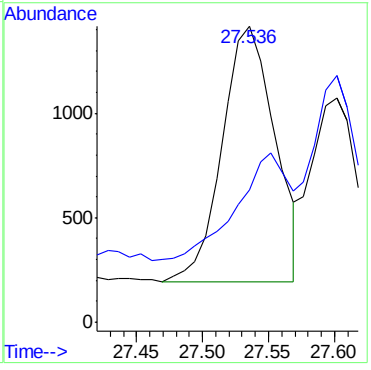


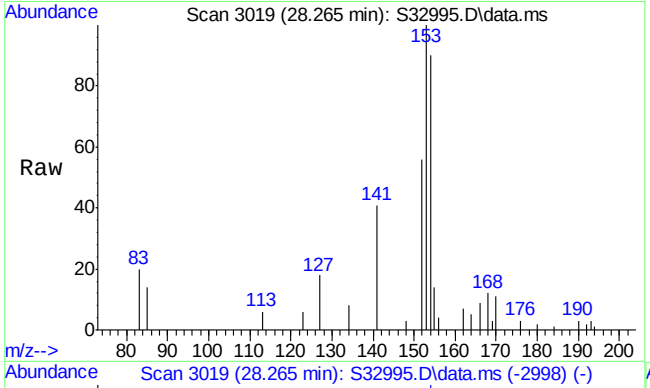
#52
Acenaphthylene
Concen: 12.17 ng/mL
RT: 27.535 min Scan# 2923
Delta R.T. -0.041 min
Lab File: S32995.D
Acq: 16 Jul 2013 7:40 pm

Tgt Ion:152 Resp: 3398

Ion	Ratio	Lower	Upper
152	100		
153	41.3	10.3	15.5#



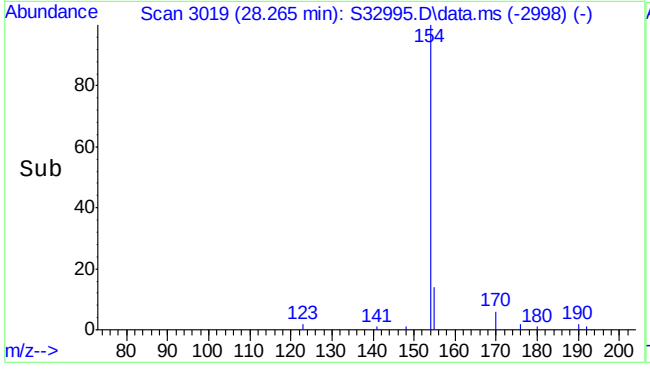


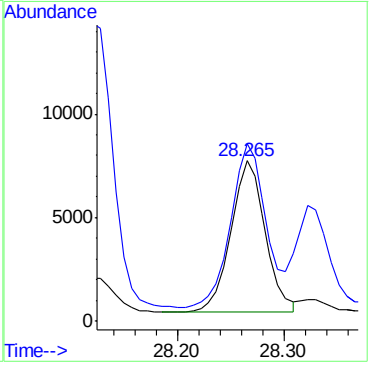


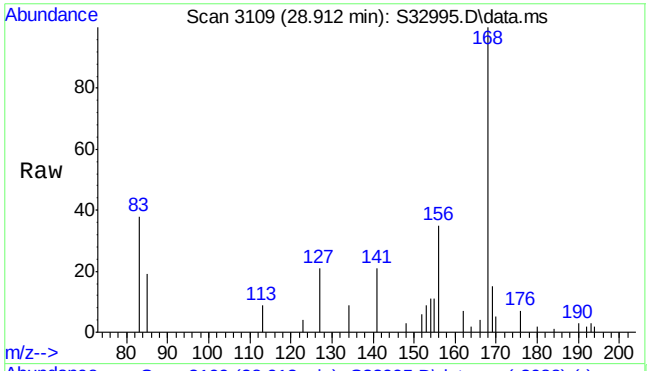
#53
Acenaphthene
Concen: 96.16 ng/mL
RT: 28.265 min Scan# 3019
Delta R.T. -0.050 min
Lab File: S32995.D
Acq: 16 Jul 2013 7:40 pm

Tgt Ion:154 Resp: 16381

Ion	Ratio	Lower	Upper
154	100		
153	111.5	88.5	132.7



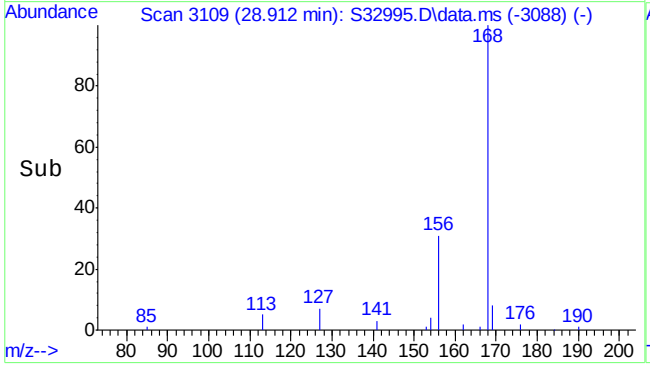


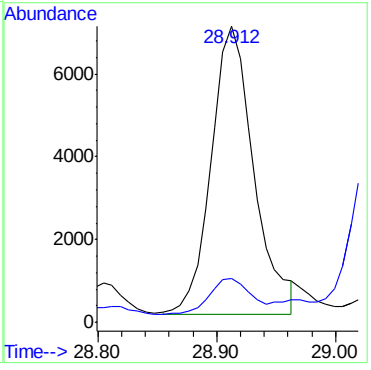


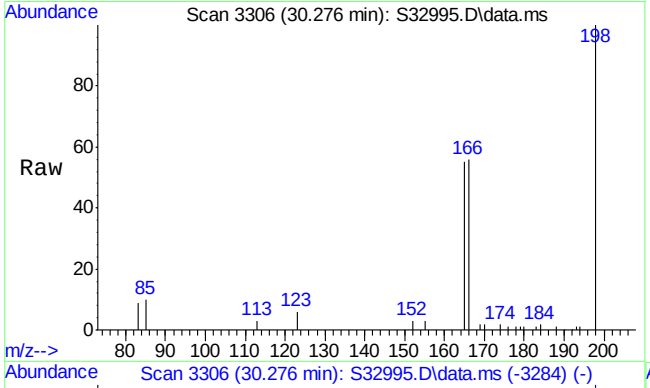
#54
Dibenzofuran
Concen: 71.75 ng/mL m
RT: 28.912 min Scan# 3109
Delta R.T. -0.050 min
Lab File: S32995.D
Acq: 16 Jul 2013 7:40 pm

Tgt Ion:168 Resp: 17419

Ion	Ratio	Lower	Upper
168	100		
169	11.7	10.5	15.7



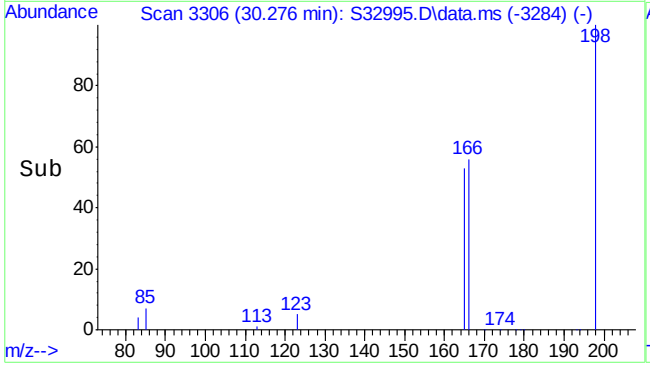


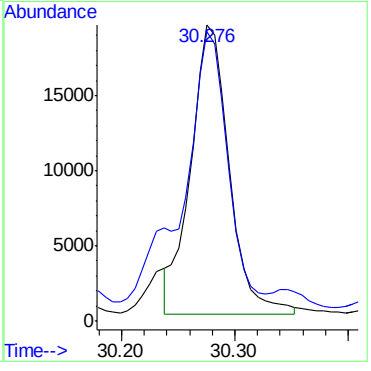


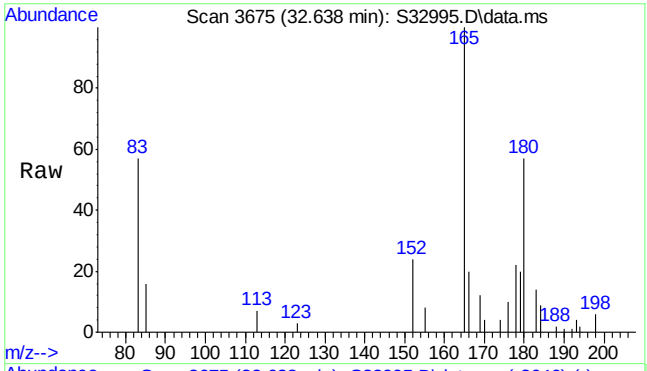
#55
Fluorene
Concen: 211.76 ng/mL m
RT: 30.276 min Scan# 3306
Delta R.T. -0.058 min
Lab File: S32995.D
Acq: 16 Jul 2013 7:40 pm

Tgt Ion:166 Resp: 45755

Ion	Ratio	Lower	Upper
166	100		
165	106.9	76.3	114.5



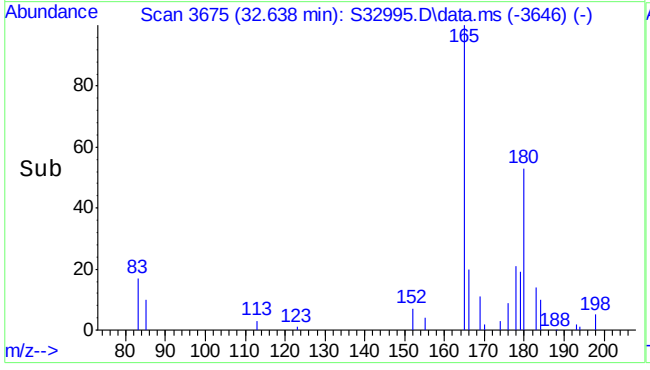


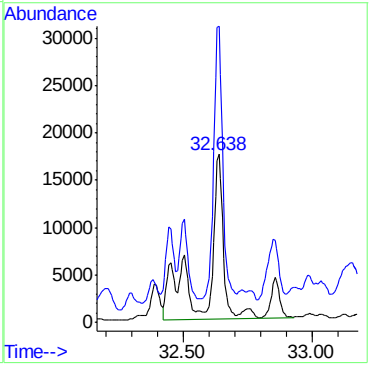


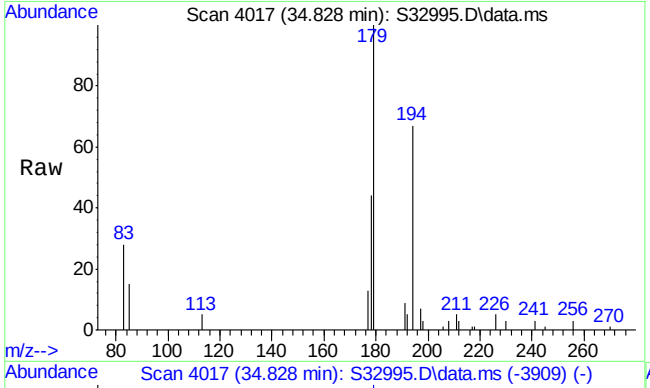
#56
C1-Fluorenes
Concen: 391.25 ng/mL m
RT: 32.638 min Scan# 3675
Delta R.T. -0.051 min
Lab File: S32995.D
Acq: 16 Jul 2013 7:40 pm

Tgt Ion:180 Resp: 84536

Ion	Ratio	Lower	Upper
180	100		
165	81.9	134.2	201.4#



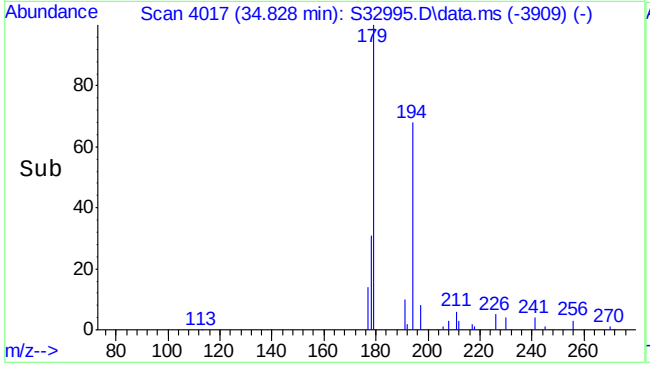


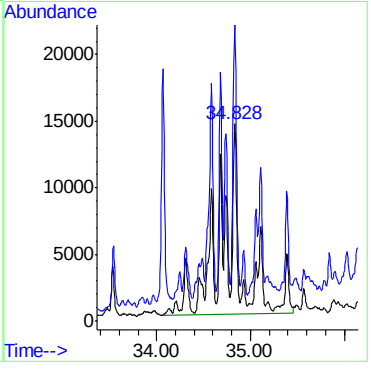


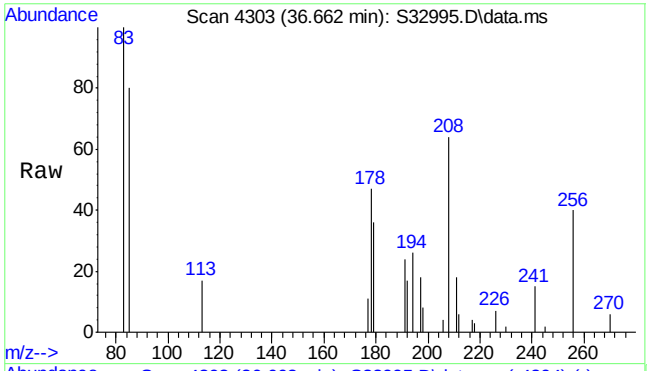
#57
C2-Fluorenes
Concen: 923.15 ng/mL m
RT: 34.828 min Scan# 4017
Delta R.T. -0.058 min
Lab File: S32995.D
Acq: 16 Jul 2013 7:40 pm

Tgt Ion:194 Resp: 199463

Ion	Ratio	Lower	Upper
194	100		
179	24.0	125.0	187.4#



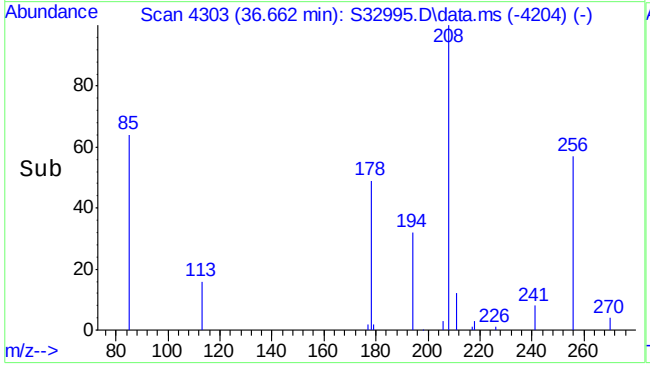


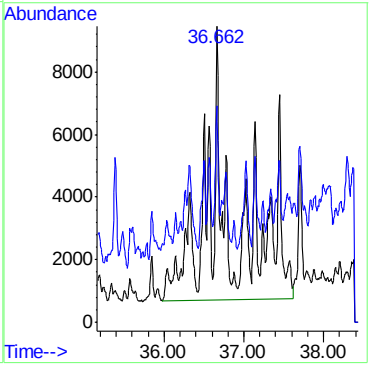


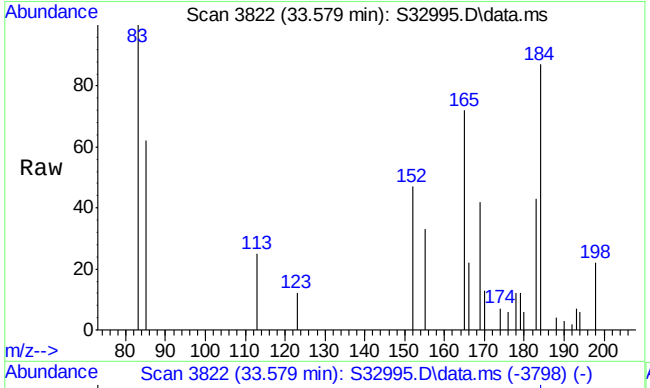
#58
C3-Fluorenes
Concen: 883.28 ng/mL m
RT: 36.662 min Scan# 4303
Delta R.T. -0.058 min
Lab File: S32995.D
Acq: 16 Jul 2013 7:40 pm

Tgt Ion:208 Resp: 190848

Ion	Ratio	Lower	Upper
208	100		
178	4.8	58.5	87.7#



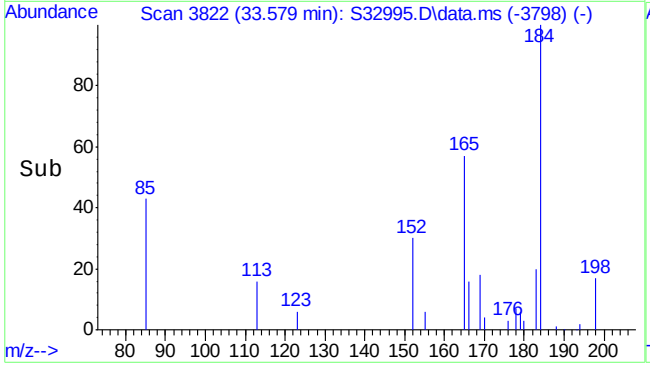


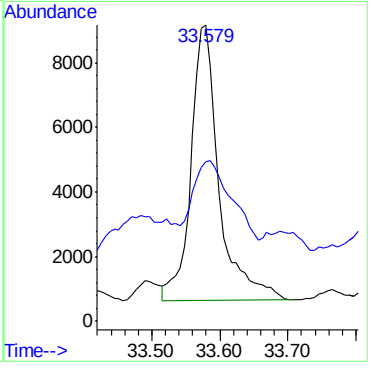


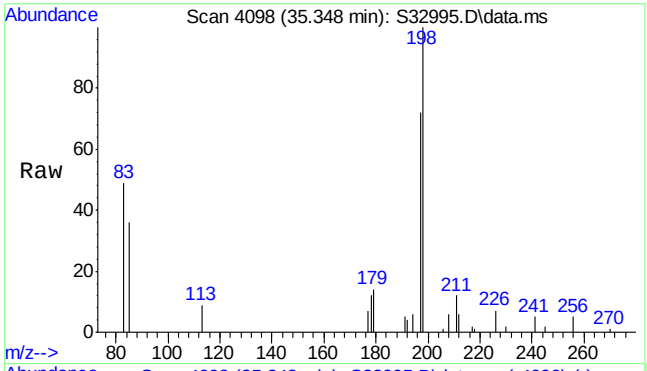
#59
Dibenzothiophene
Concen: 88.55 ng/mL
RT: 33.579 min Scan# 3822
Delta R.T. -0.045 min
Lab File: S32995.D
Acq: 16 Jul 2013 7:40 pm

Tgt Ion:184 Resp: 24122

Ion	Ratio	Lower	Upper
184	100		
152	49.4	7.3	10.9#



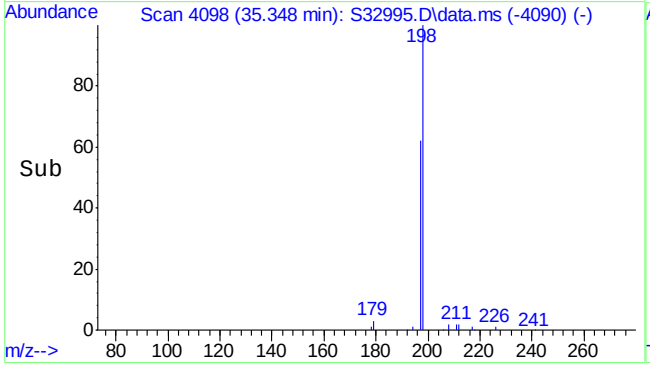


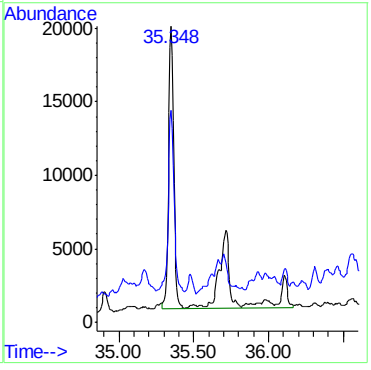


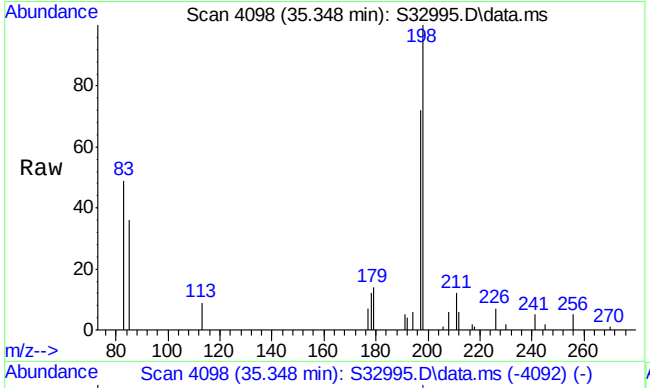
#60
C1-Dibenzothiophenes (unadj)
Concen: 293.57 ng/mL m
RT: 35.348 min Scan# 4098
Delta R.T. -0.051 min
Lab File: S32995.D
Acq: 16 Jul 2013 7:40 pm

Tgt Ion:198 Resp: 78830

Ion	Ratio	Lower	Upper
198	100		
197	41.4	52.9	79.3#



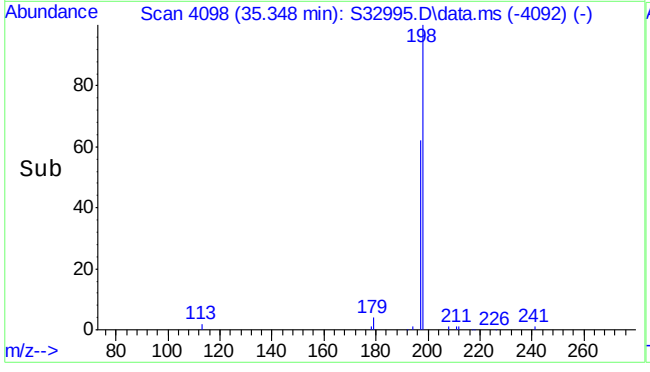


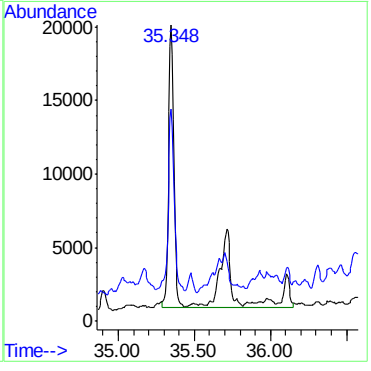


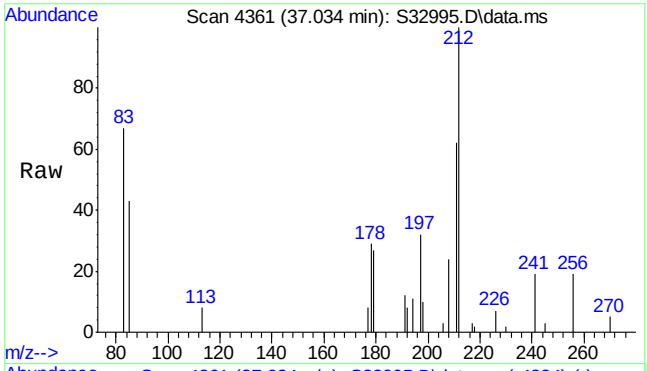
#61
C1-Dibenzothiophenes (OTP)
Concen: 299.86 µg/mL m
RT: 35.348 min Scan# 4098
Delta R.T. -0.051 min
Lab File: S32995.D
Acq: 16 Jul 2013 7:40 pm

Tgt Ion:198 Resp: 80519

Ion	Ratio	Lower	Upper
198	100		
197	40.5	52.9	79.3#



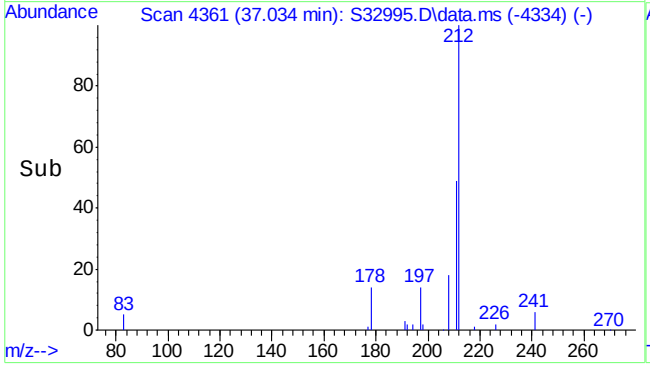


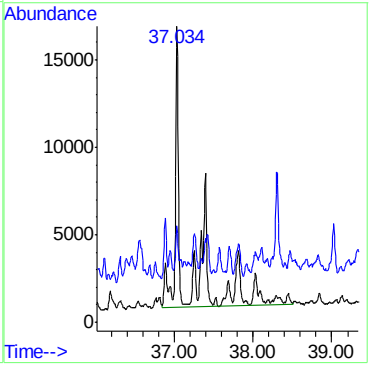


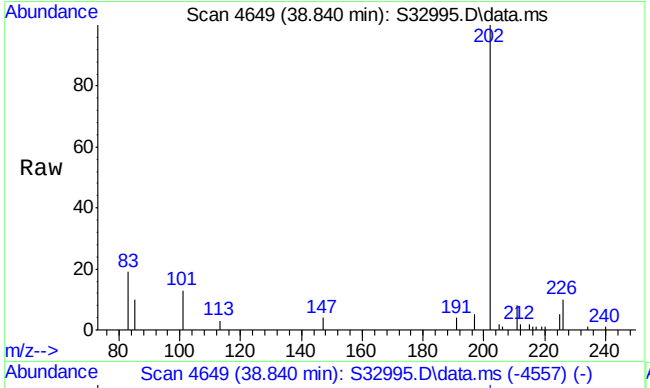
#62
C2-Dibenzothiophenes
Concen: 431.22 ng/mL m
RT: 37.034 min Scan# 4361
Delta R.T. -0.410 min
Lab File: S32995.D
Acq: 16 Jul 2013 7:40 pm

Tgt Ion:212 Resp: 115793

Ion	Ratio	Lower	Upper
212	100		
197	1.6	19.0	28.4#



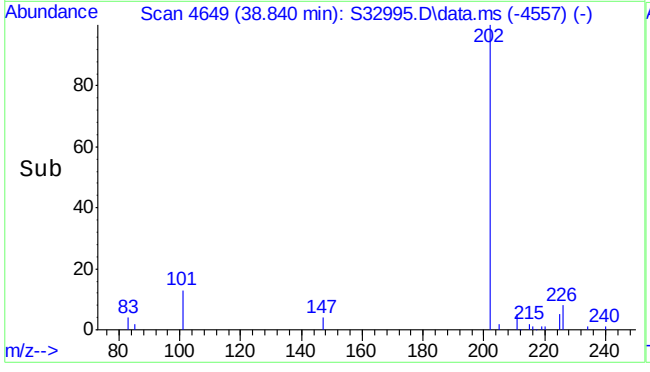


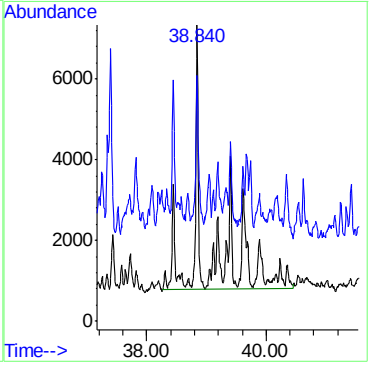


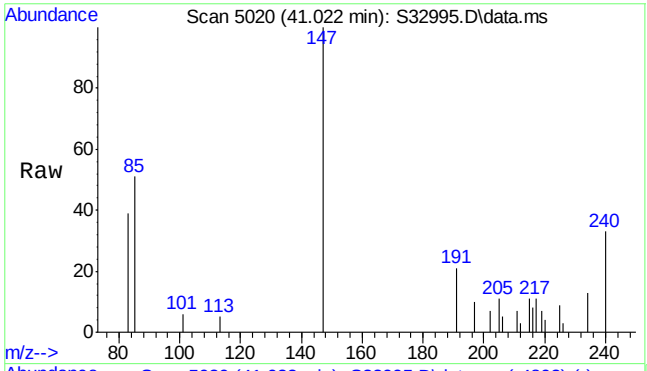
#63
C3-Dibenzothiophenes
Concen: 285.09 ng/mL m
RT: 38.840 min Scan# 4649
Delta R.T. -0.053 min
Lab File: S32995.D
Acq: 16 Jul 2013 7:40 pm

Tgt Ion:226 Resp: 76554

Ion	Ratio	Lower	Upper
226	100		
211	15.9	50.2	75.2#

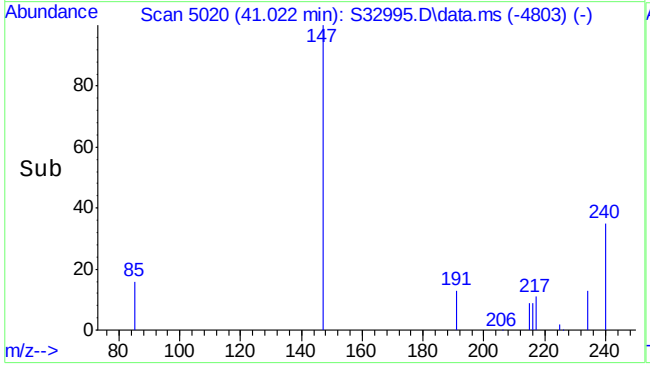


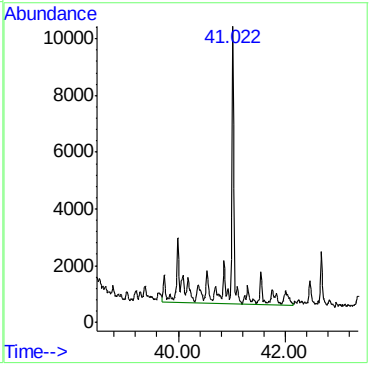


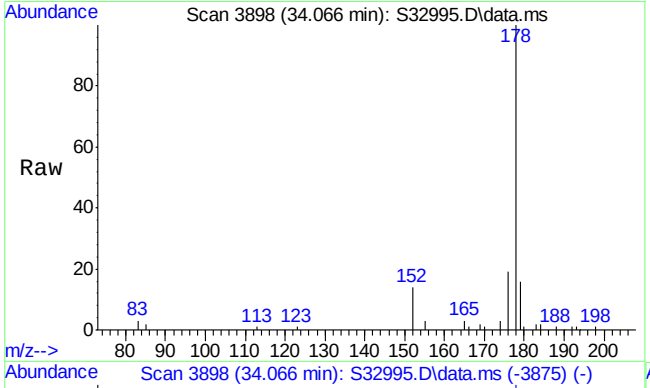


#64
C4-Dibenzothiophenes
Concen: 259.44 ng/mL m
RT: 41.022 min Scan# 5020
Delta R.T. 0.429 min
Lab File: S32995.D
Acq: 16 Jul 2013 7:40 pm

Tgt Ion:240 Resp: 69665



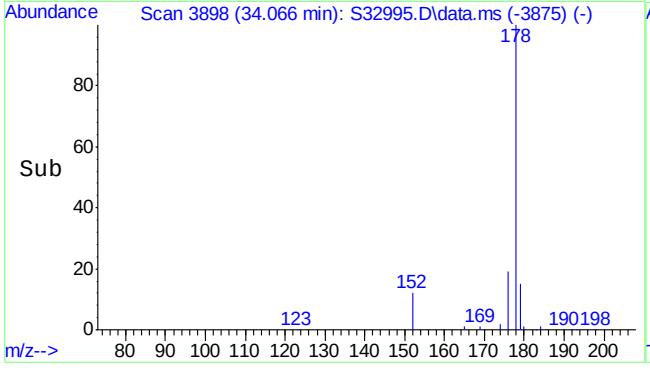


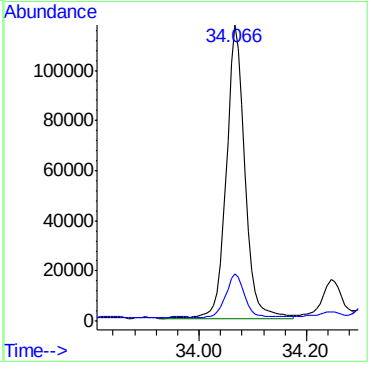


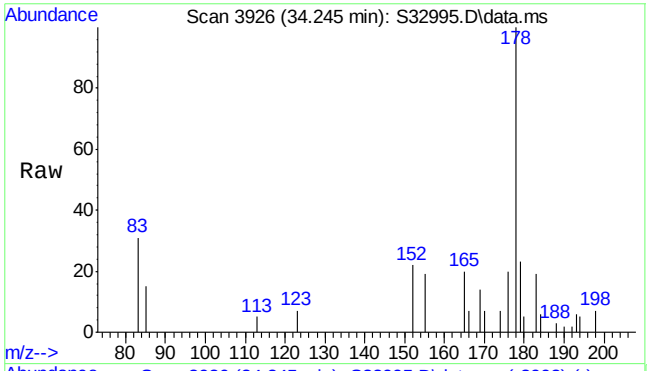
#65
Phenanthrene
Concen: 891.17 ng/mL
RT: 34.066 min Scan# 3898
Delta R.T. -0.051 min
Lab File: S32995.D
Acq: 16 Jul 2013 7:40 pm

Tgt Ion:178 Resp: 277575

Ion	Ratio	Lower	Upper
178	100		
179	15.2	12.3	18.5



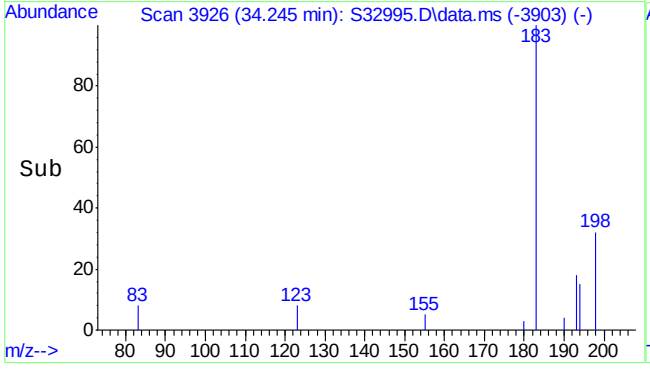


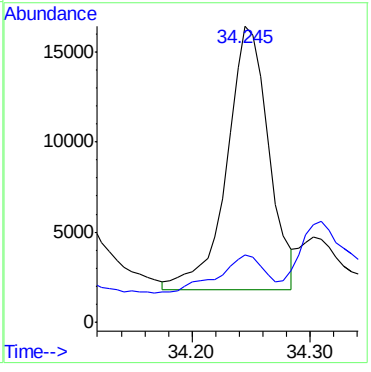


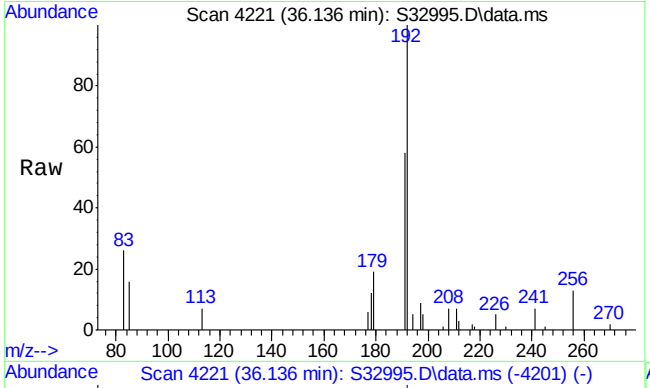
#66
Anthracene
Concen: 124.51 ng/mL m
RT: 34.245 min Scan# 3926
Delta R.T. -0.051 min
Lab File: S32995.D
Acq: 16 Jul 2013 7:40 pm

Tgt Ion:178 Resp: 36040

Ion	Ratio	Lower	Upper
178	100		
179	15.8	12.1	18.1



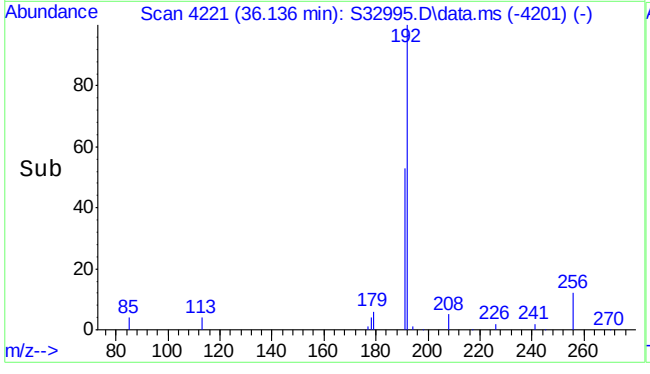


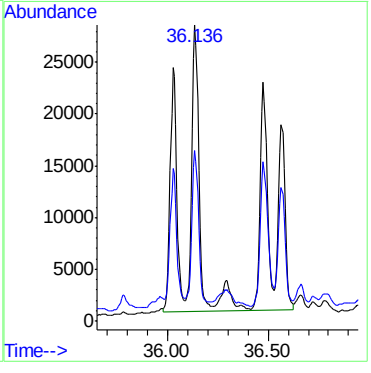


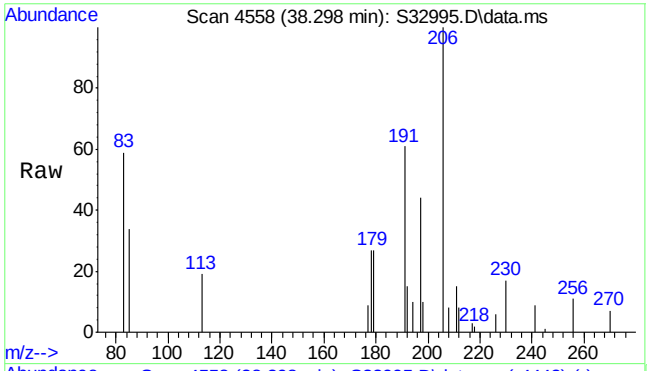
#67
C1-Phenanthrenes/anthracenes
Concen: 731.34 ng/mL m
RT: 36.136 min Scan# 4221
Delta R.T. -0.398 min
Lab File: S32995.D
Acq: 16 Jul 2013 7:40 pm

Tgt Ion:192 Resp: 227791

Ion	Ratio	Lower	Upper
192	100		
191	10.3	45.8	68.6#



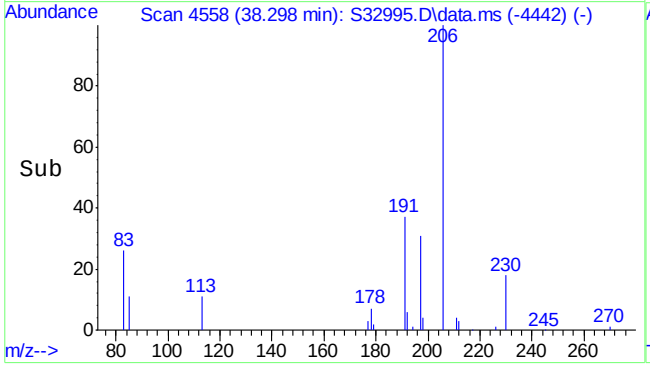


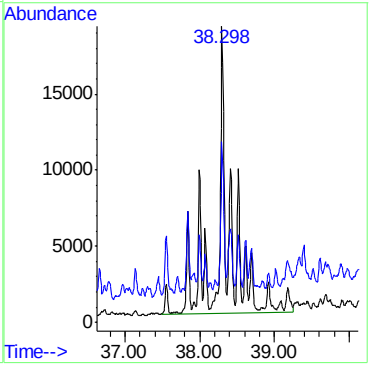


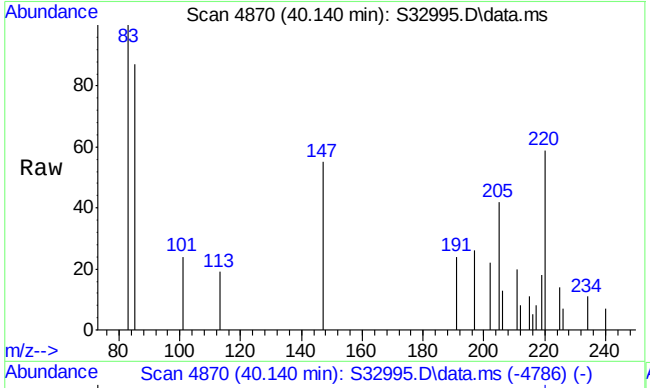
#68
C2-Phenanthrenes/anthracenes (unadj)
Concen: 662.73 ng/mL m
RT: 38.298 min Scan# 4558
Delta R.T. -0.058 min
Lab File: S32995.D
Acq: 16 Jul 2013 7:40 pm

Tgt Ion:206 Resp: 206421

Ion	Ratio	Lower	Upper
206	100		
191	12.4	46.2	69.4#



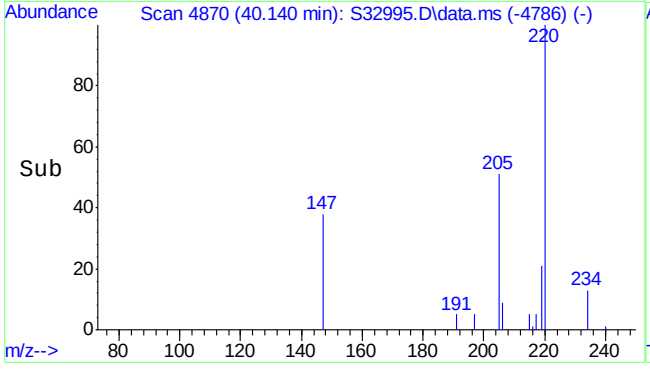


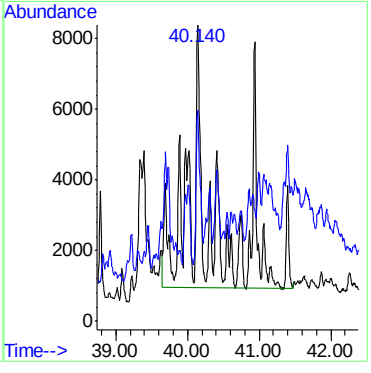


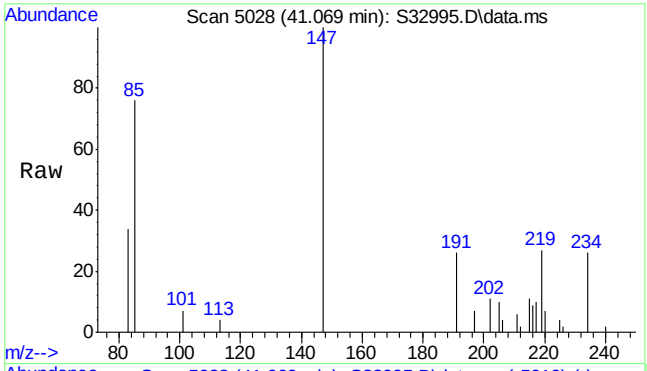
#70
C3-Phenanthrenes/anthracenes
Concen: 482.08 ng/mL m
RT: 40.140 min Scan# 4870
Delta R.T. -0.053 min
Lab File: S32995.D
Acq: 16 Jul 2013 7:40 pm

Tgt Ion:220 Resp: 150154

Ion	Ratio	Lower	Upper
220	100		
205	11.2	42.6	63.8#



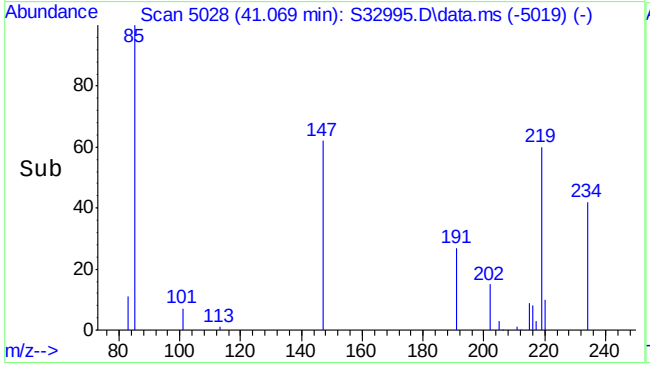


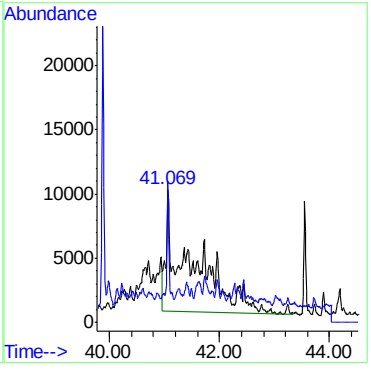


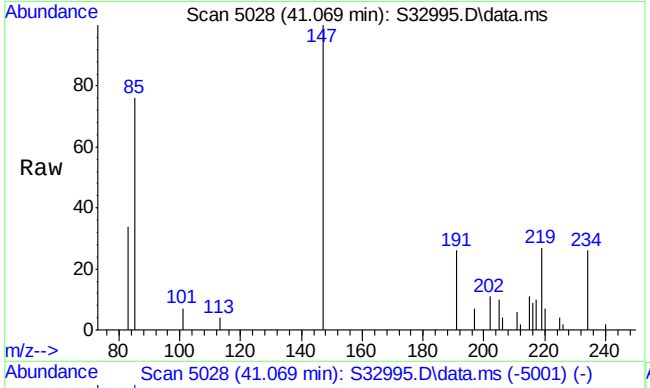
#71
C4-Phenanthrenes/anthracenes
Concen: 923.29 ng/mL m
RT: 41.069 min Scan# 5028
Delta R.T. -1.306 min
Lab File: S32995.D
Acq: 16 Jul 2013 7:40 pm

Tgt Ion:234 Resp: 287579

Ion	Ratio	Lower	Upper
234	100		
219	0.0	49.6	74.4#



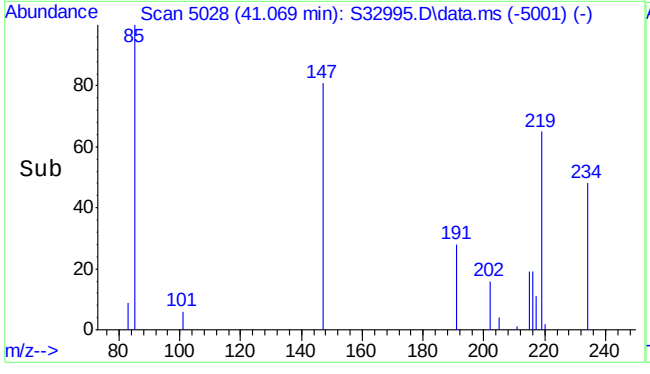


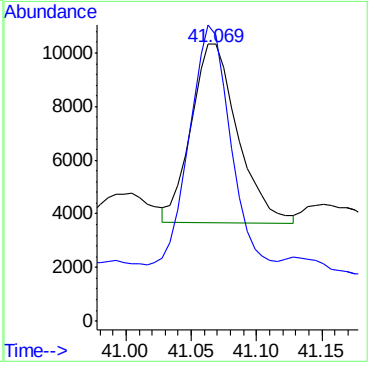


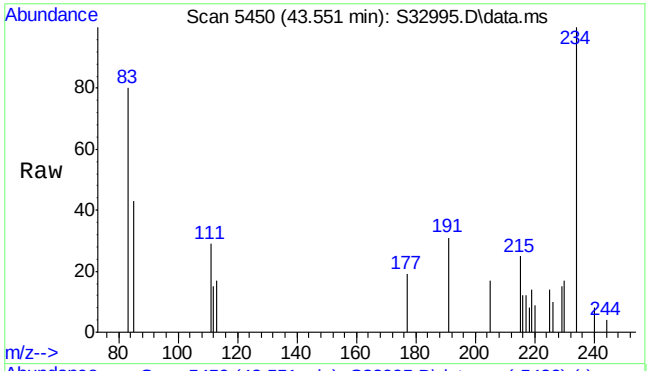
#72
Retene
Concen: 409.14 µg/mL
RT: 41.069 min Scan# 5028
Delta R.T. -0.041 min
Lab File: S32995.D
Acq: 16 Jul 2013 7:40 pm

Tgt Ion:234 Resp: 16509

Ion	Ratio	Lower	Upper
234	100		
219	127.3	134.4	201.6#

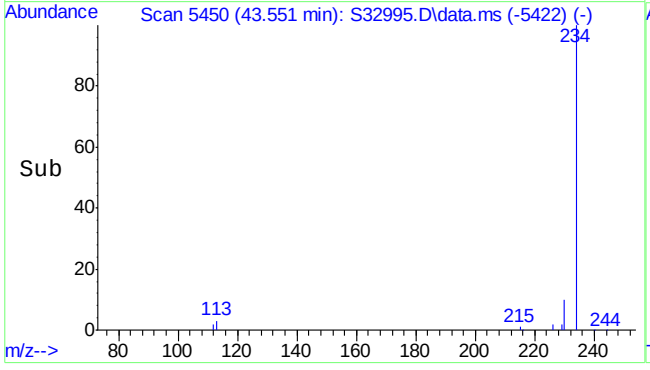


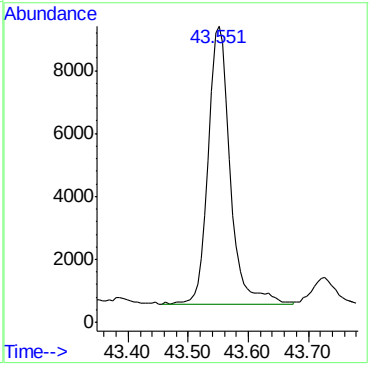


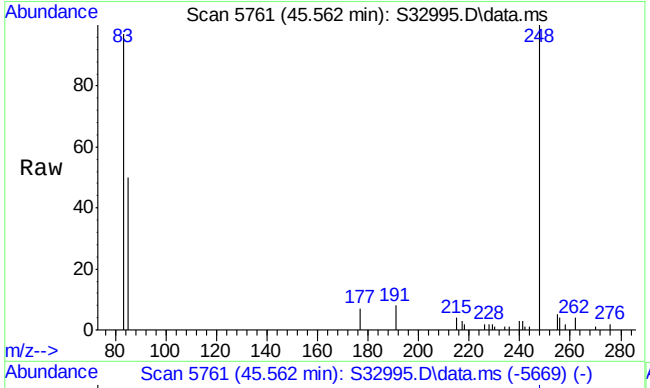


#73
Benzo(b)naphtho(2,1-d)thiophene
Concen: 78.86 µg/mL
RT: 43.551 min Scan# 5450
Delta R.T. -0.035 min
Lab File: S32995.D
Acq: 16 Jul 2013 7:40 pm

Tgt Ion:234 Resp: 22665

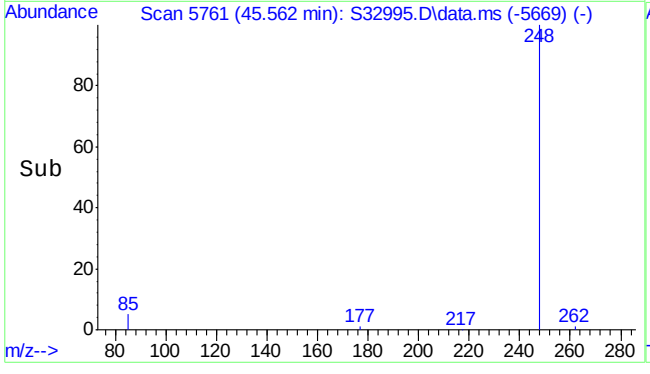


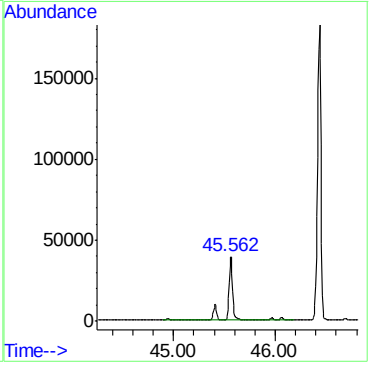


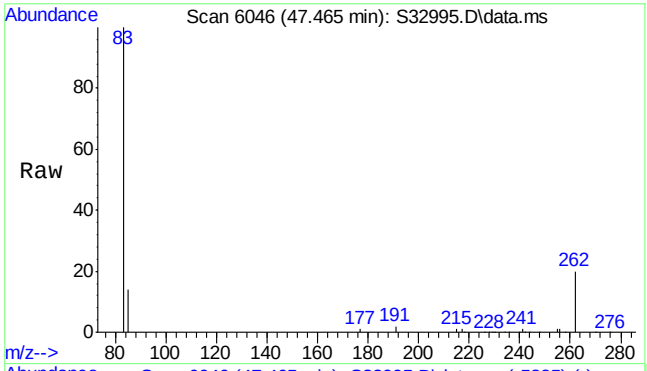


#74
C1-Benzonaphthothiophenes
Concen: 462.83 µg/mL m
RT: 45.562 min Scan# 5761
Delta R.T. 0.568 min
Lab File: S32995.D
Acq: 16 Jul 2013 7:40 pm

Tgt Ion:248 Resp: 133021

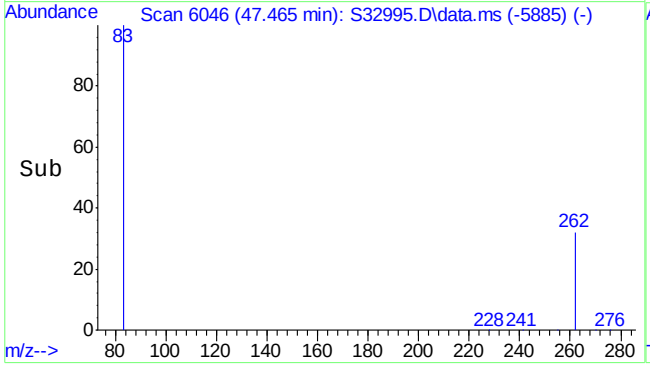


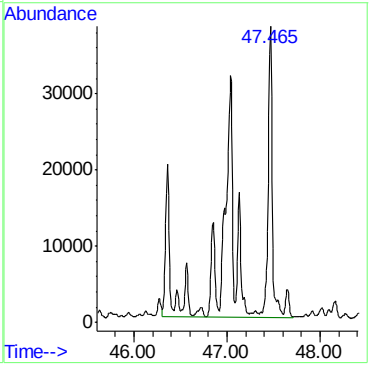


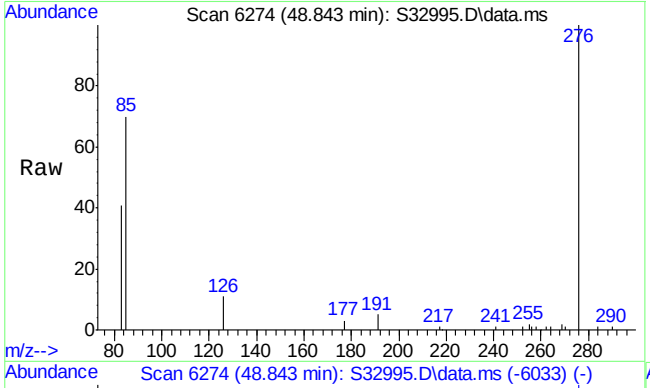


#75
C2-Benzonaphthothiophenes
Concen: 1539.10 µg/mL m
RT: 47.465 min Scan# 6046
Delta R.T. 0.414 min
Lab File: S32995.D
Acq: 16 Jul 2013 7:40 pm

Tgt Ion:262 Resp: 442353

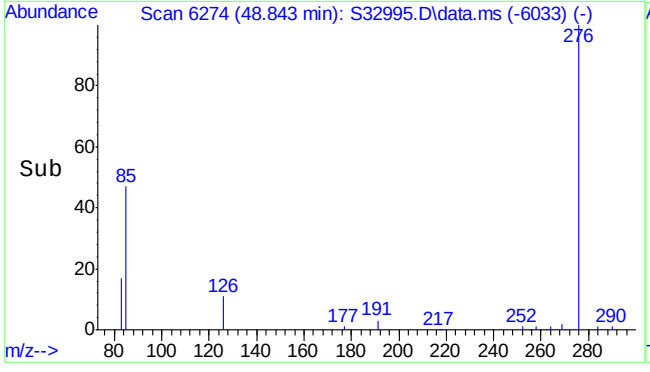


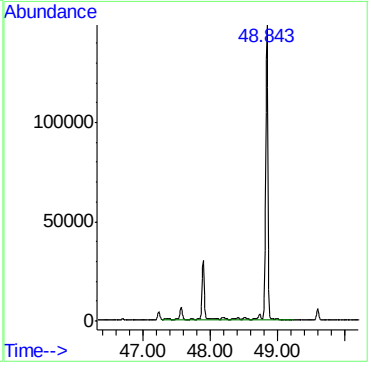


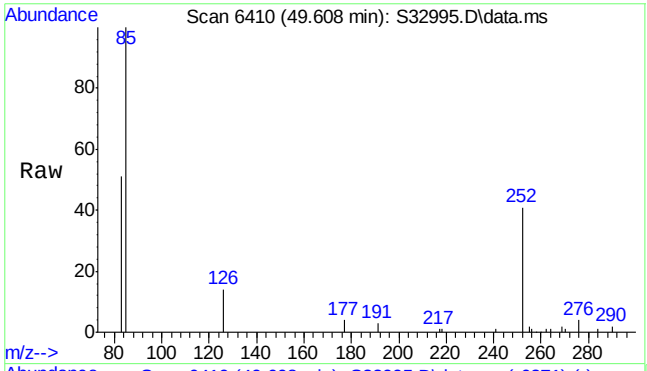


#76
C3-Benzonaphthothiophenes
Concen: 1700.13 µg/mL m
RT: 48.843 min Scan# 6274
Delta R.T. 0.242 min
Lab File: S32995.D
Acq: 16 Jul 2013 7:40 pm

Tgt Ion:276 Resp: 488637

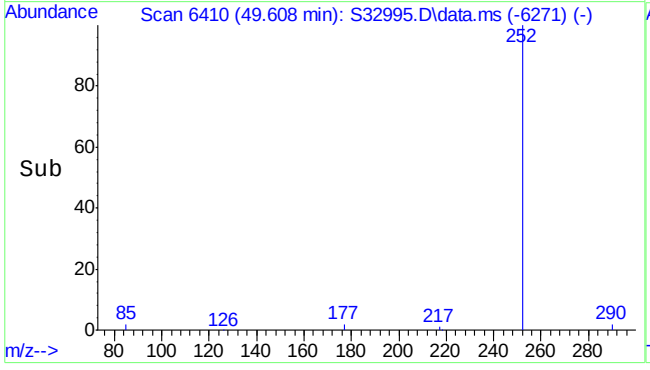


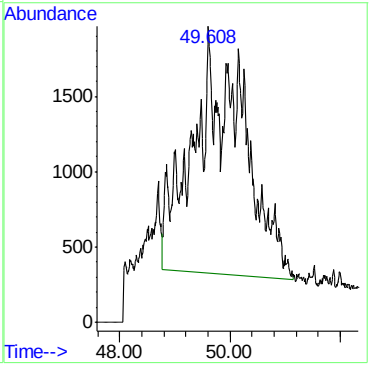


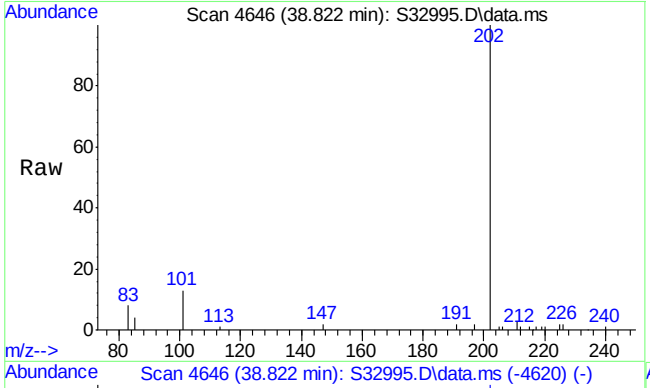


#77
C4-Benzonaphthothiophenes
Concen: 354.20 µg/mL m
RT: 49.608 min Scan# 6410
Delta R.T. -0.011 min
Lab File: S32995.D
Acq: 16 Jul 2013 7:40 pm

Tgt Ion:290 Resp: 101801



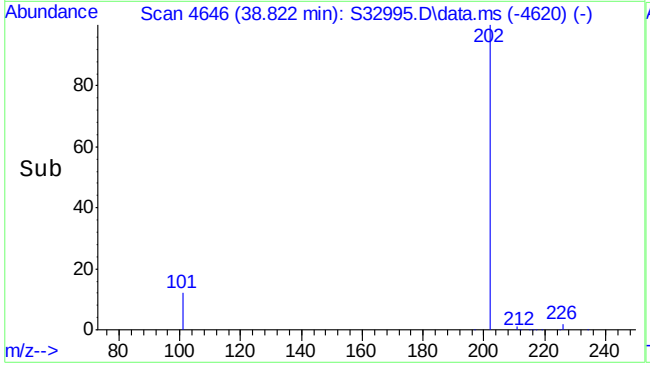


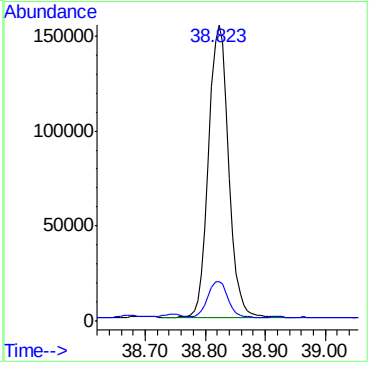


#78
Fluoranthene
Concen: 1298.91 ng/mL
RT: 38.822 min Scan# 4646
Delta R.T. -0.047 min
Lab File: S32995.D
Acq: 16 Jul 2013 7:40 pm

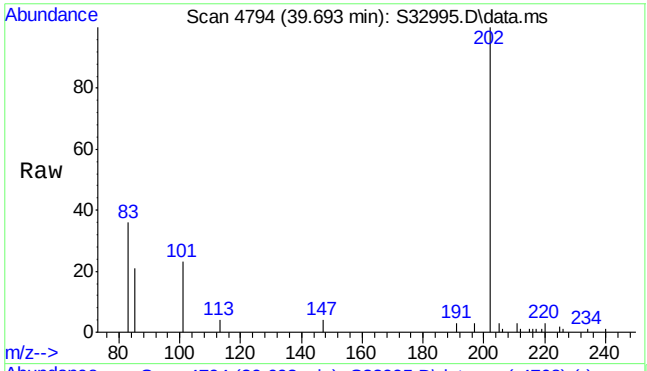
Tgt Ion:202 Resp: 358417

Ion	Ratio	Lower	Upper
202	100		
101	12.4	10.9	16.3





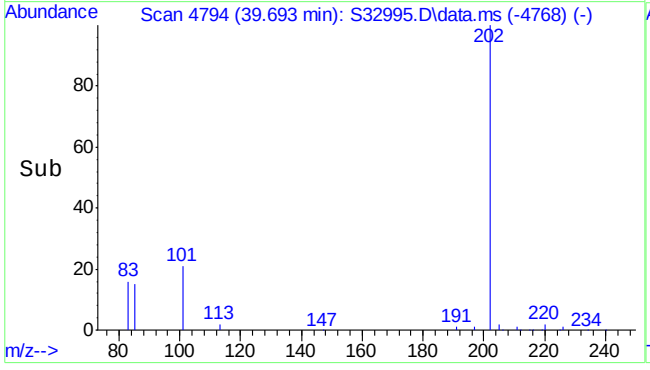
7.1.2
7

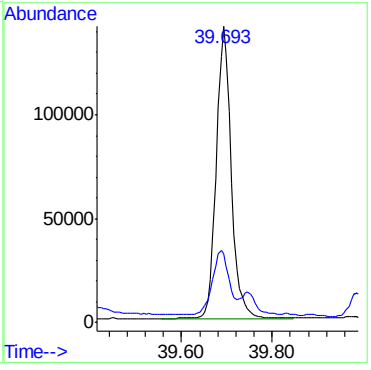


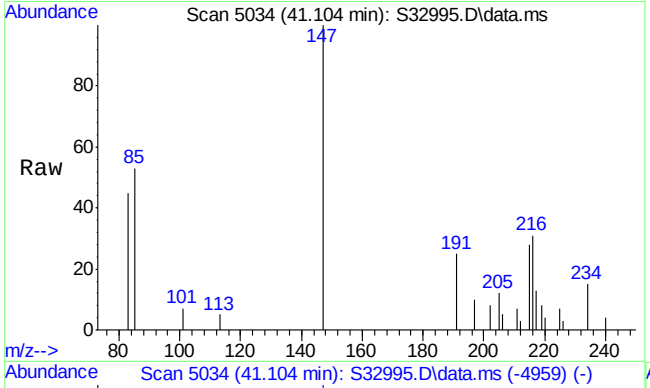
#79
Pyrene
Concen: 1144.23 ng/mL
RT: 39.693 min Scan# 4794
Delta R.T. -0.047 min
Lab File: S32995.D
Acq: 16 Jul 2013 7:40 pm

Tgt Ion:202 Resp: 327138

Ion	Ratio	Lower	Upper
202	100		
101	24.5	12.8	19.2#



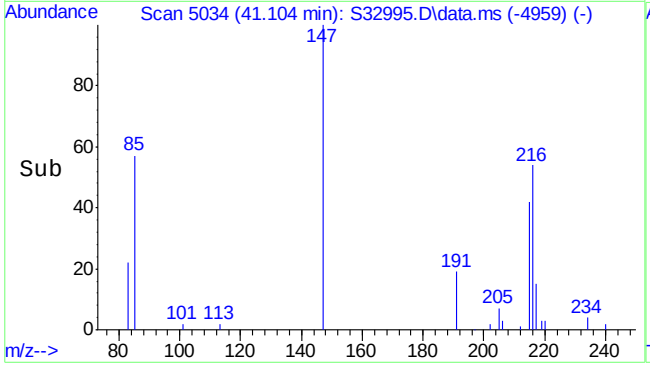


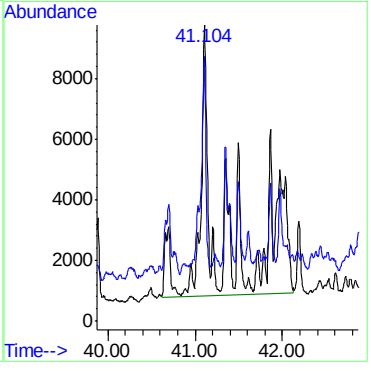


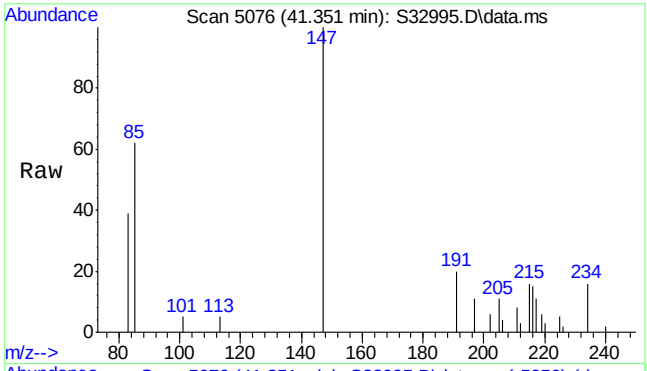
#80
C1-Fluoranthenes/pyrenes
Concen: 501.29 ng/mL m
RT: 41.104 min Scan# 5034
Delta R.T. -0.047 min
Lab File: S32995.D
Acq: 16 Jul 2013 7:40 pm

Tgt Ion:216 Resp: 143320

Ion	Ratio	Lower	Upper
216	100		
215	3.0	80.6	120.8#



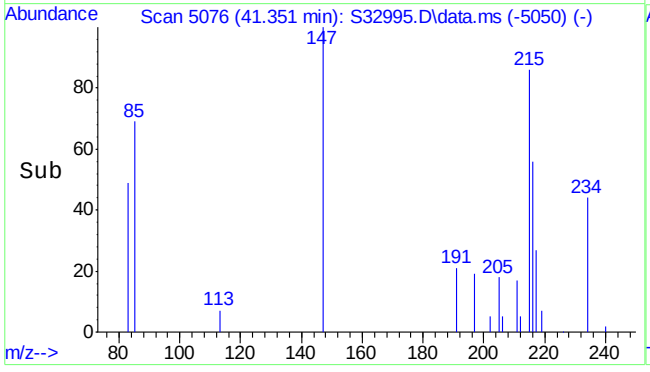


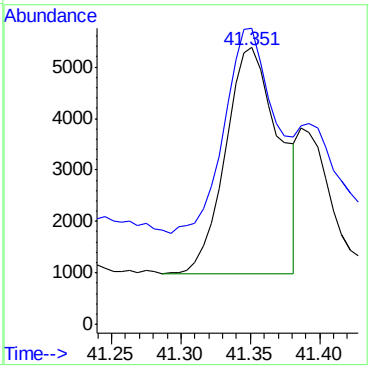


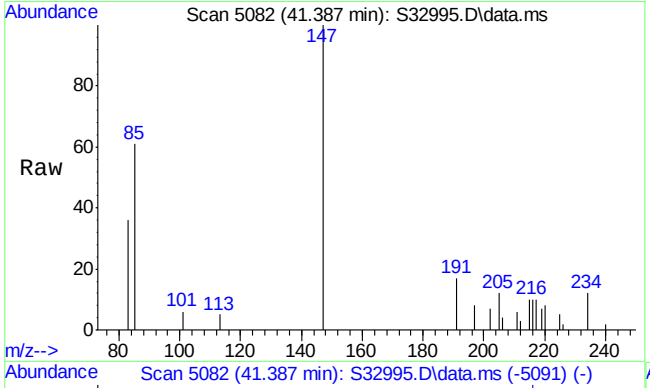
#81
Benzo(b)fluorene
Concen: 41.63 ng/mL
RT: 41.351 min Scan# 5076
Delta R.T. -0.047 min
Lab File: S32995.D
Acq: 16 Jul 2013 7:40 pm

Tgt Ion:216 Resp: 11903

Ion	Ratio	Lower	Upper
216	100		
215	86.3	113.7	170.5#



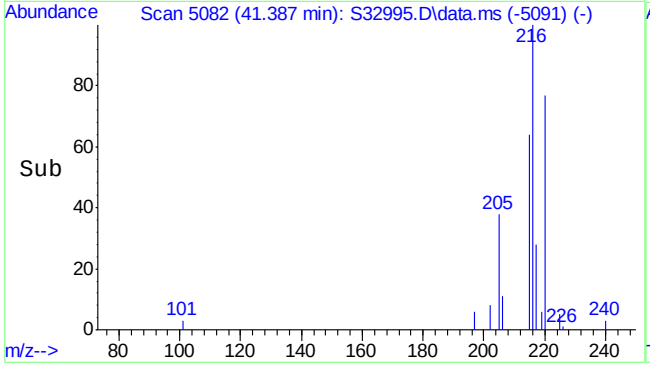


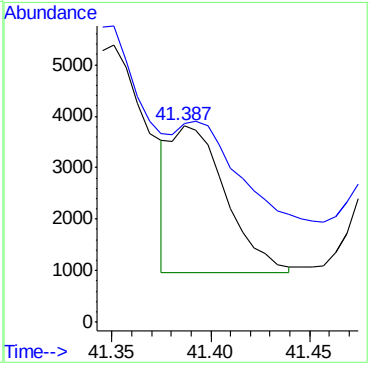


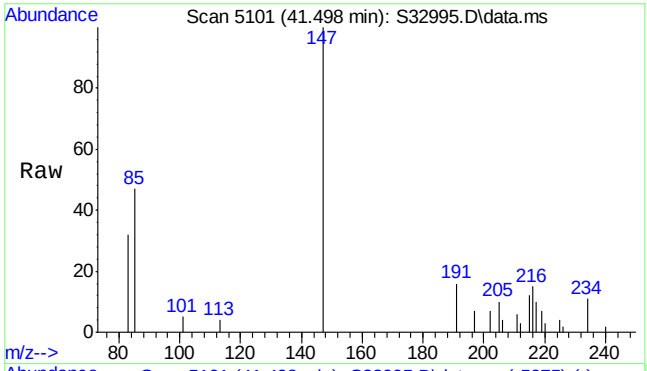
#82
Benzo(c)fluorene
Concen: 19.53 µg/mL m
RT: 41.387 min Scan# 5082
Delta R.T. -0.053 min
Lab File: S32995.D
Acq: 16 Jul 2013 7:40 pm

Tgt Ion:216 Resp: 5583

Ion	Ratio	Lower	Upper
216	100		
215	113.2	117.8	176.8#



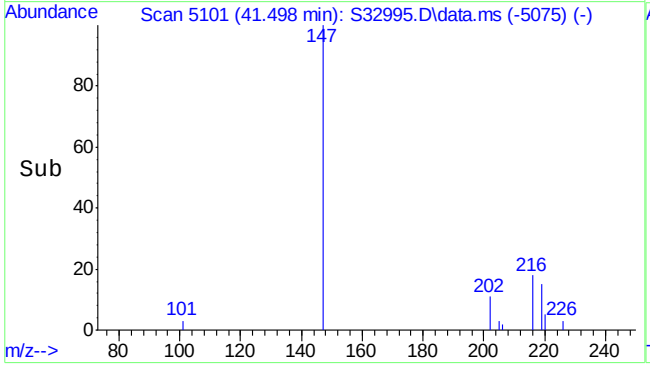


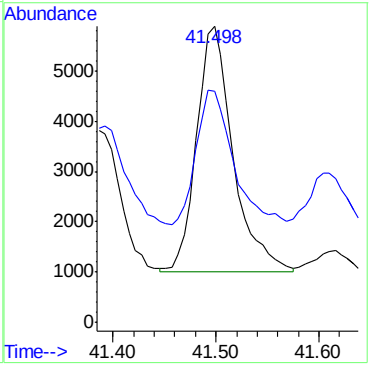


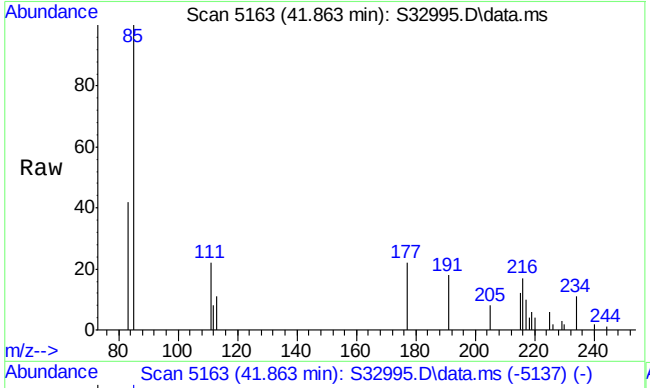
#83
2-Methylpyrene
Concen: 41.86 ng/mL m
RT: 41.498 min Scan# 5101
Delta R.T. -0.047 min
Lab File: S32995.D
Acq: 16 Jul 2013 7:40 pm

Tgt Ion:216 Resp: 11967

Ion	Ratio	Lower	Upper
216	100		
215	85.9	81.2	121.8



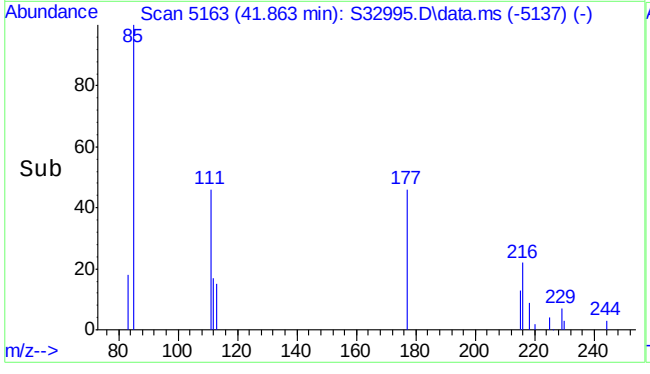


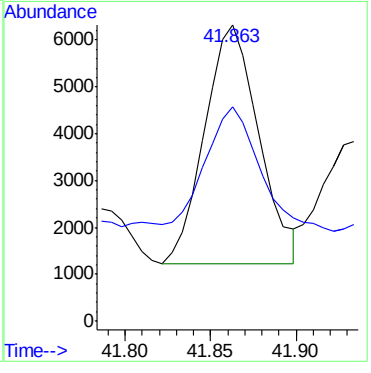


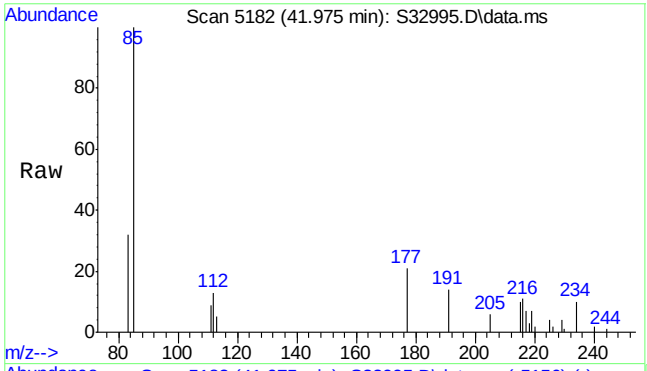
#84
4-Methylpyrene
Concen: 38.97 ng/mL
RT: 41.863 min Scan# 5163
Delta R.T. -0.047 min
Lab File: S32995.D
Acq: 16 Jul 2013 7:40 pm

Tgt Ion:216 Resp: 11141

Ion	Ratio	Lower	Upper
216	100		
215	52.4	58.7	88.1#



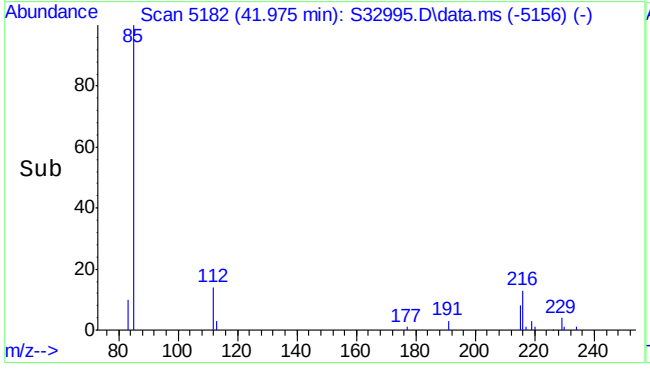


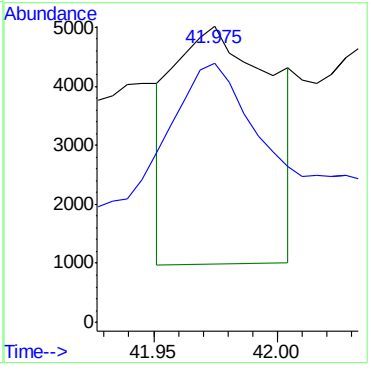


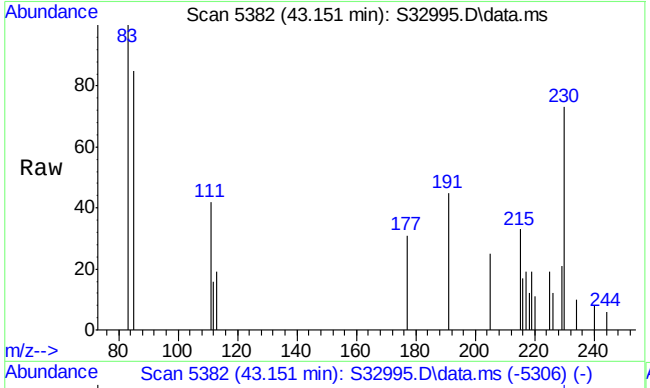
#85
1-Methylpyrene
Concen: 38.99 ng/mL m
RT: 41.975 min Scan# 5182
Delta R.T. -0.047 min
Lab File: S32995.D
Acq: 16 Jul 2013 7:40 pm

Tgt Ion:216 Resp: 11147

Ion	Ratio	Lower	Upper
216	100		
215	60.9	79.4	119.2#



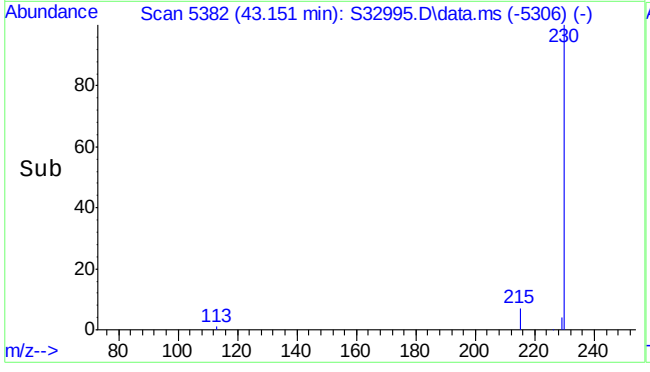


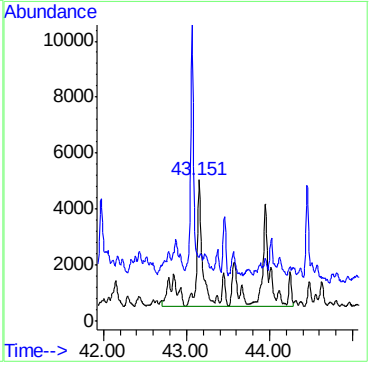


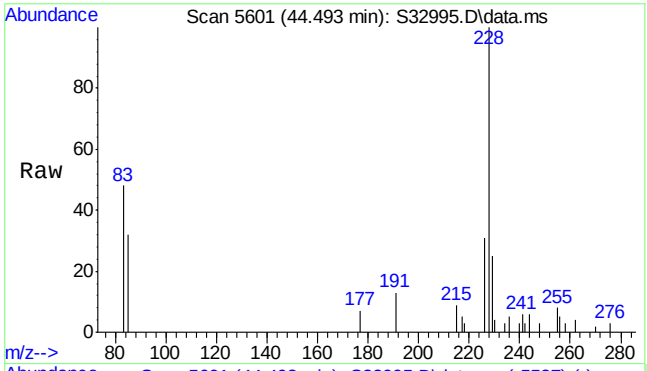
#86
C2-Fluoranthenes/pyrenes
Concen: 218.88 ng/mL m
RT: 43.151 min Scan# 5382
Delta R.T. -0.459 min
Lab File: S32995.D
Acq: 16 Jul 2013 7:40 pm

Tgt Ion:230 Resp: 62578

Ion	Ratio	Lower	Upper
230	100		
215	4.6	78.6	118.0#



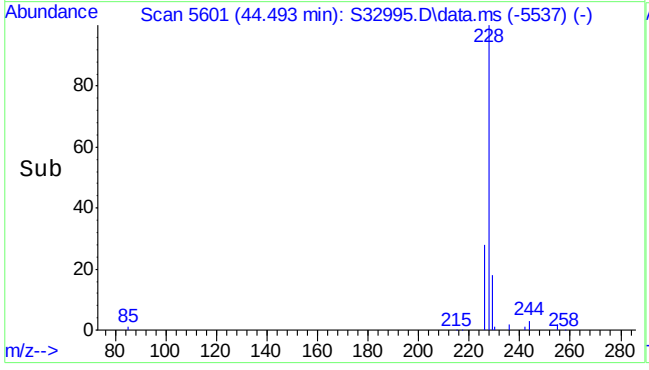


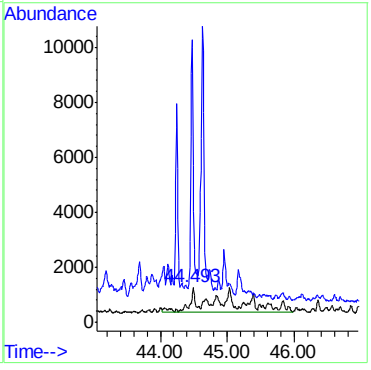


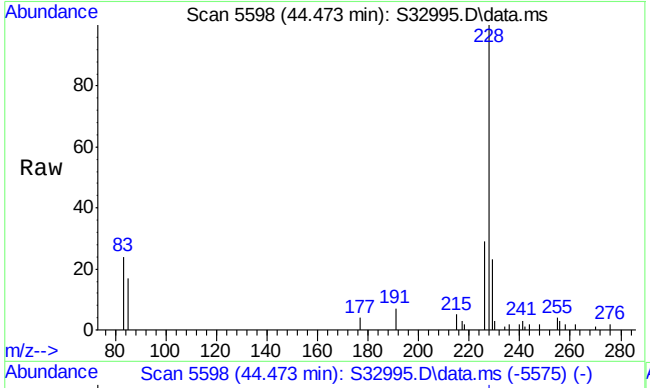
#87
C3-Fluoranthenes/pyrenes
Concen: 99.62 ng/mL m
RT: 44.493 min Scan# 5601
Delta R.T. -0.481 min
Lab File: S32995.D
Acq: 16 Jul 2013 7:40 pm

Tgt Ion:244 Resp: 28482

Ion	Ratio	Lower	Upper
244	100		
229	3.6	80.8	121.2#



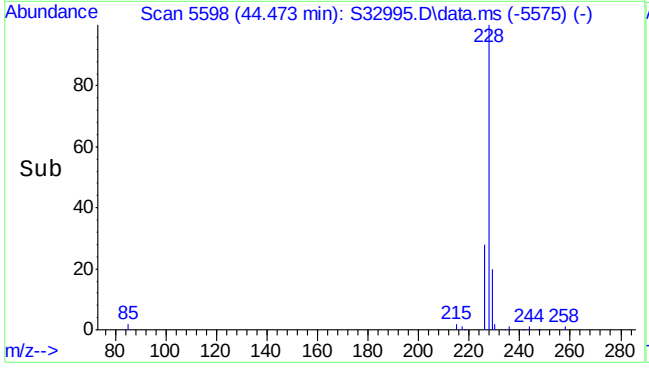


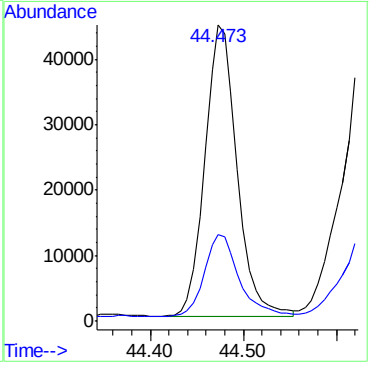


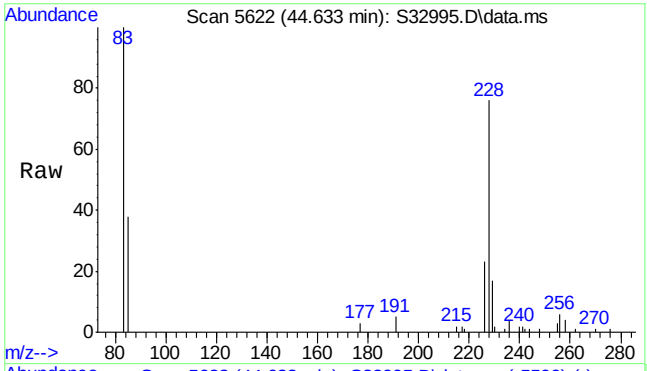
#88
Benz(a)anthracene
Concen: 386.97 ng/mL
RT: 44.473 min Scan# 5598
Delta R.T. -0.047 min
Lab File: S32995.D
Acq: 16 Jul 2013 7:40 pm

Tgt Ion:228 Resp: 106853

Ion	Ratio	Lower	Upper
228	100		
226	30.0	21.2	31.8



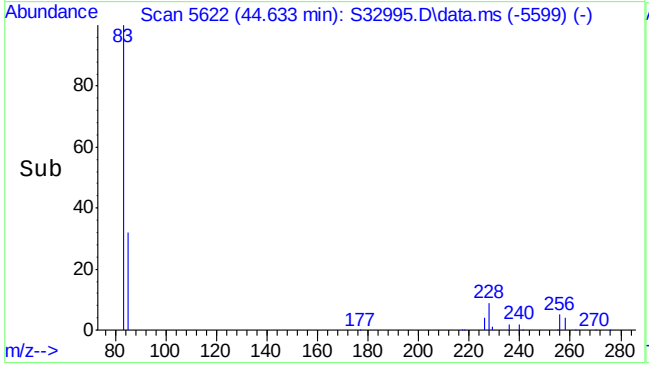


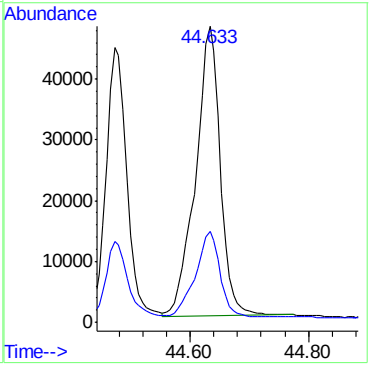


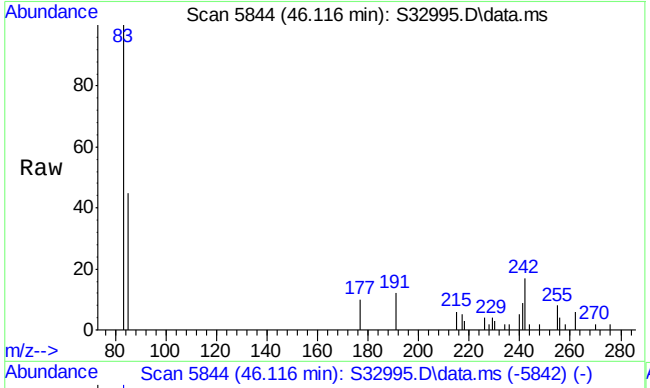
#89
Chrysene
Concen: 537.78 ng/mL
RT: 44.633 min Scan# 5622
Delta R.T. -0.047 min
Lab File: S32995.D
Acq: 16 Jul 2013 7:40 pm

Tgt Ion:228 Resp: 138517

Ion	Ratio	Lower	Upper
228	100		
226	29.6	23.4	35.2



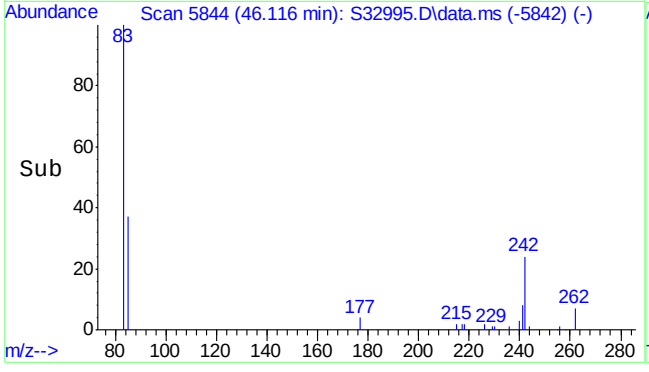


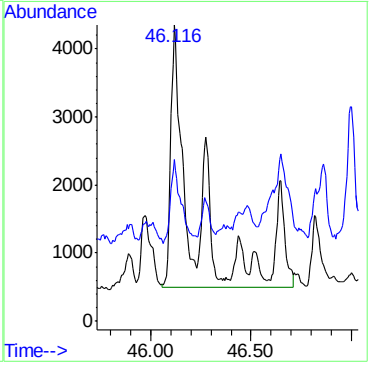


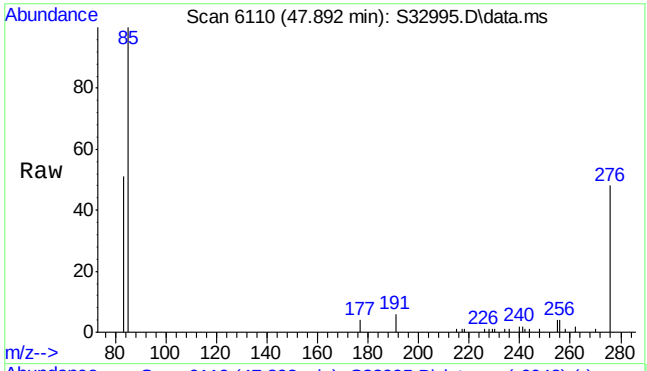
#90
C1-Benz(a)anthracenes/chrysenes
Concen: 115.09 ng/mL m
RT: 46.116 min Scan# 5844
Delta R.T. -0.047 min
Lab File: S32995.D
Acq: 16 Jul 2013 7:40 pm

Tgt Ion:242 Resp: 29643

Ion	Ratio	Lower	Upper
242	100		
241	15.1	36.3	54.5#



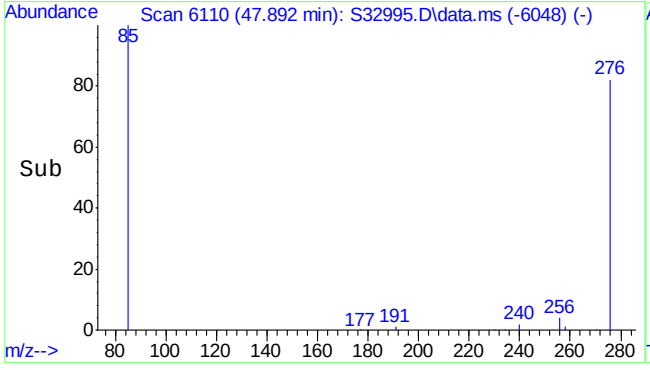


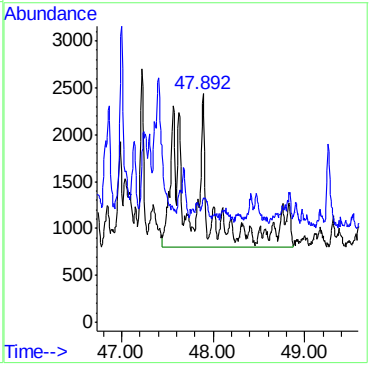


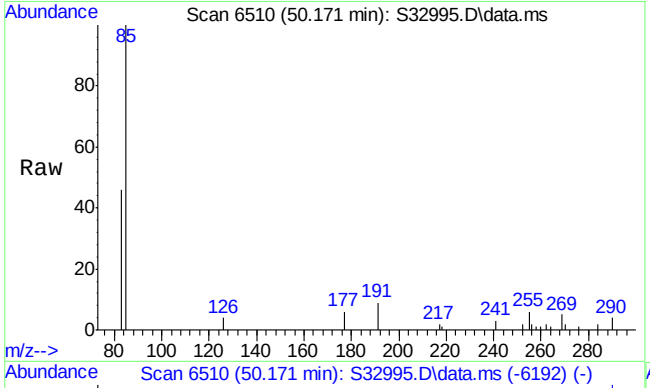
#91
C2-Benz(a)anthracenes/chrysenes
Concen: 103.52 ng/mL m
RT: 47.892 min Scan# 6110
Delta R.T. -0.349 min
Lab File: S32995.D
Acq: 16 Jul 2013 7:40 pm

Tgt Ion:256 Resp: 26664

Ion	Ratio	Lower	Upper
256	100		
241	0.0	26.4	39.6#



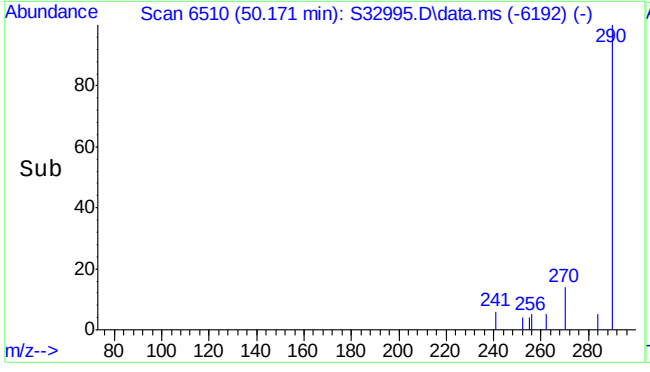


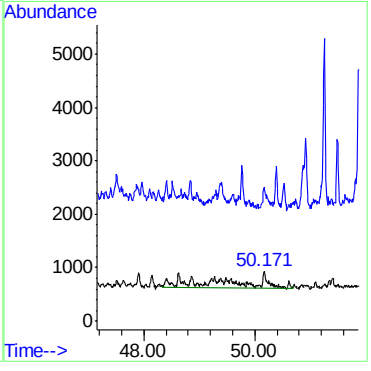


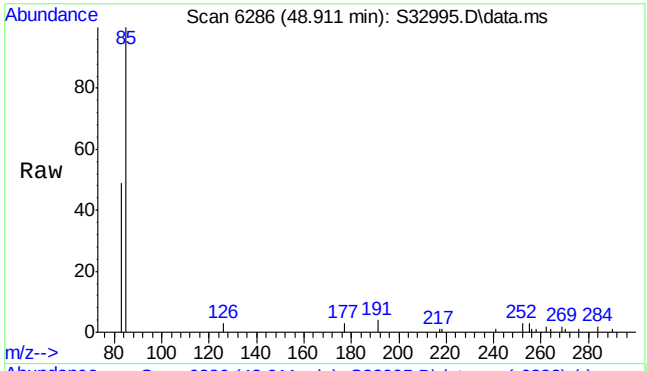
#92
C3-Benz(a)anthracenes/chrysenes
Concen: 48.39 ng/mL m
RT: 50.171 min Scan# 6510
Delta R.T. -0.495 min
Lab File: S32995.D
Acq: 16 Jul 2013 7:40 pm

Tgt Ion:270 Resp: 12464

Ion	Ratio	Lower	Upper
270	100		
255	2.0	41.9	62.9#



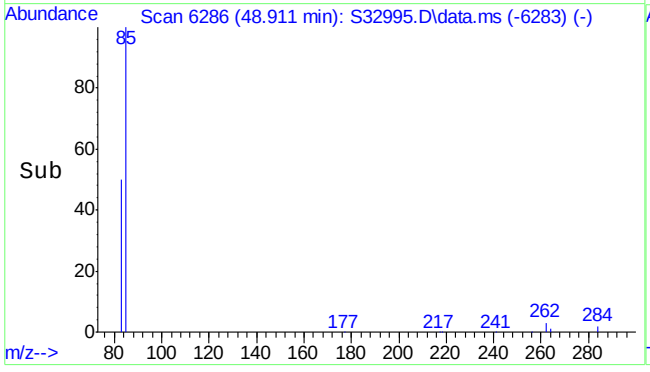


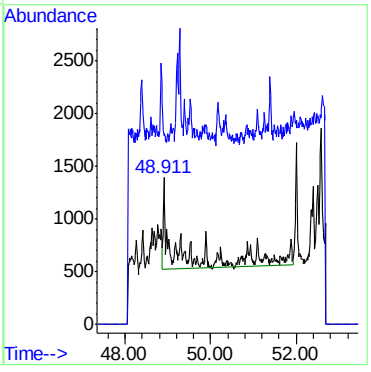


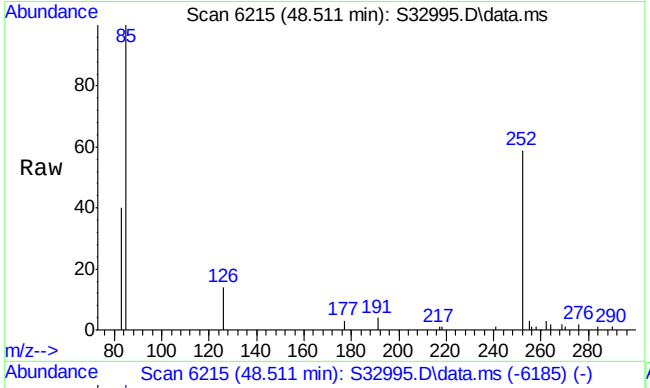
#93
C4-Benz(a)anthracenes/chrysenes
Concen: 67.18 ng/mL m
RT: 48.911 min Scan# 6286
Delta R.T. -1.440 min
Lab File: S32995.D
Acq: 16 Jul 2013 7:40 pm

Tgt Ion:284 Resp: 17303

Ion	Ratio	Lower	Upper
284	100		
269	0.0	84.0	126.0#



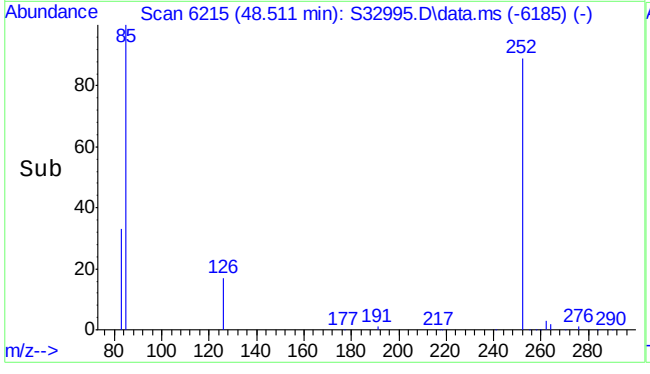


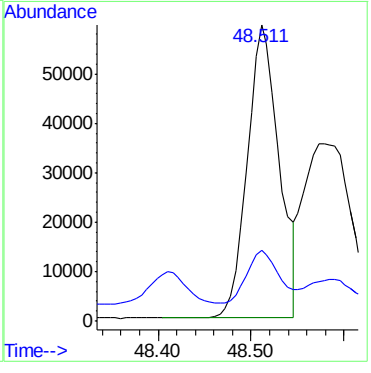


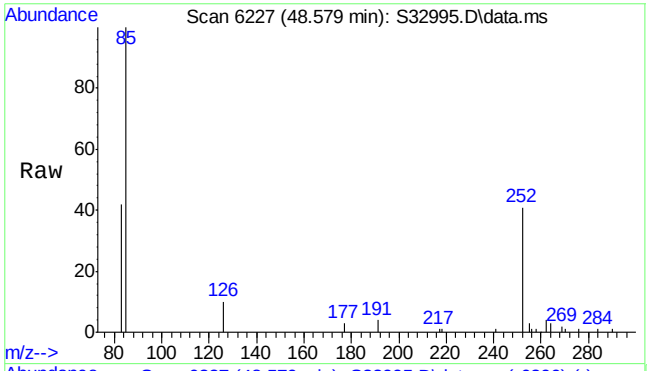
#94
Benzo(b)fluoranthene
Concen: 449.27 ng/mL
RT: 48.511 min Scan# 6215
Delta R.T. -0.034 min
Lab File: S32995.D
Acq: 16 Jul 2013 7:40 pm

Tgt Ion:252 Resp: 142032

Ion	Ratio	Lower	Upper
252	100		
126	17.9	11.4	17.2#



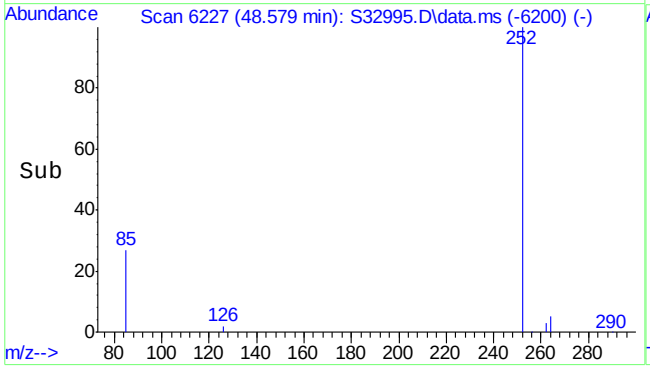


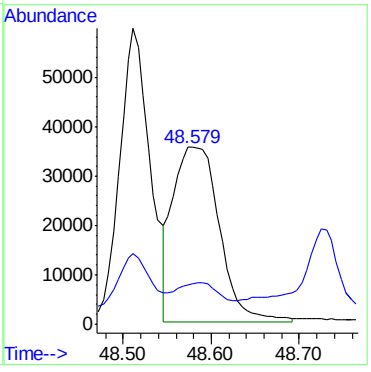


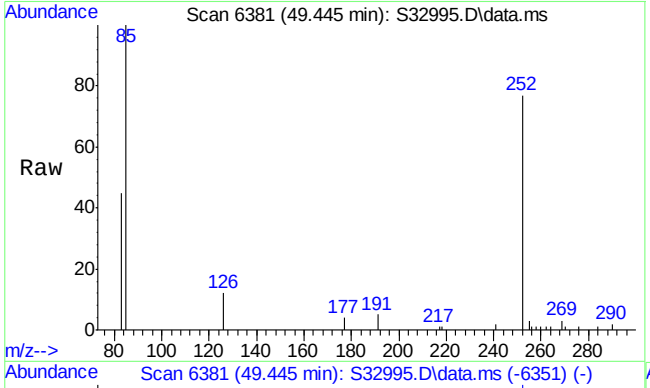
#95
Benzo(k)fluoranthene
Concen: 411.32 ng/mL m
RT: 48.579 min Scan# 6227
Delta R.T. -0.051 min
Lab File: S32995.D
Acq: 16 Jul 2013 7:40 pm

Tgt Ion:252 Resp: 129595

Ion	Ratio	Lower	Upper
252	100		
126	19.7	12.4	18.6#



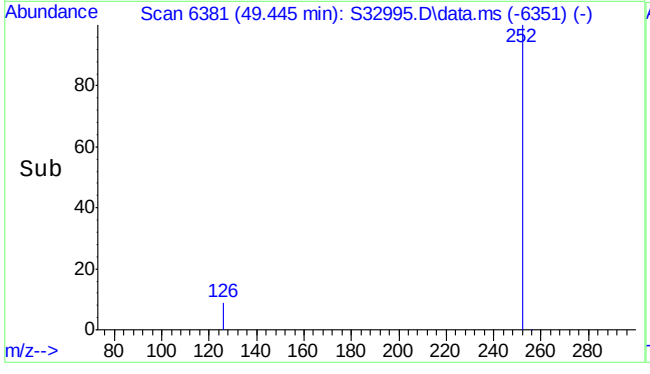


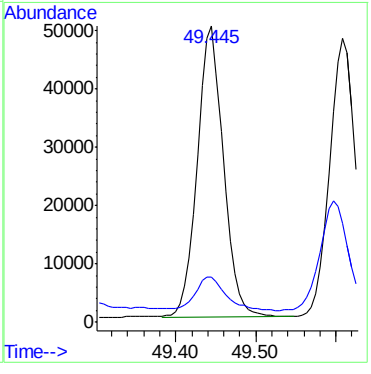


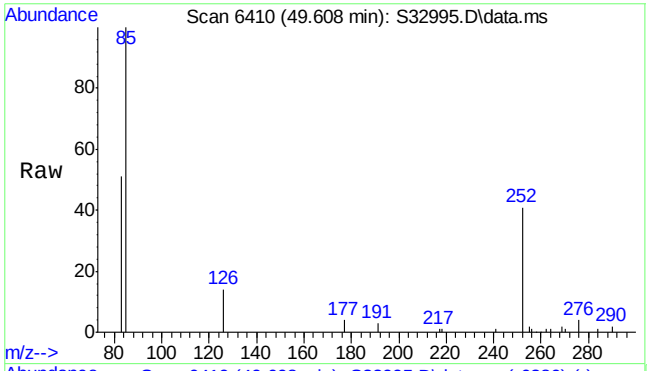
#96
Benzo(e)pyrene
Concen: 389.73 ng/mL
RT: 49.445 min Scan# 6381
Delta R.T. -0.034 min
Lab File: S32995.D
Acq: 16 Jul 2013 7:40 pm

Tgt Ion:252 Resp: 110830

Ion	Ratio	Lower	Upper
252	100		
126	13.5	10.2	15.2



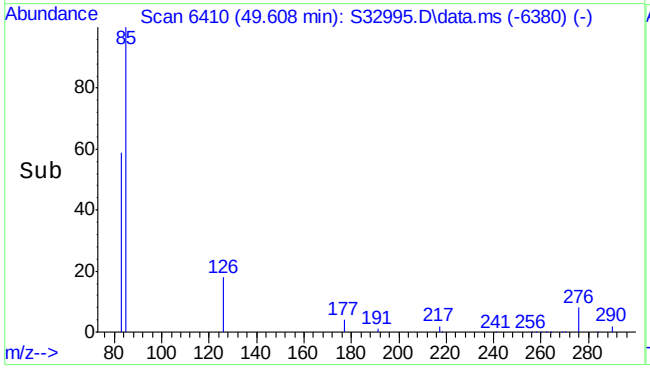


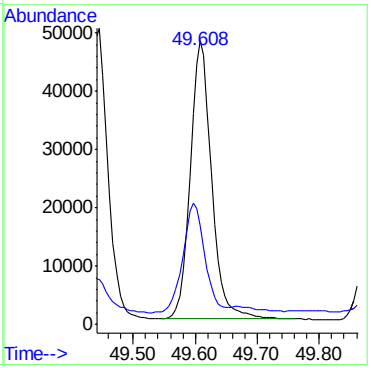


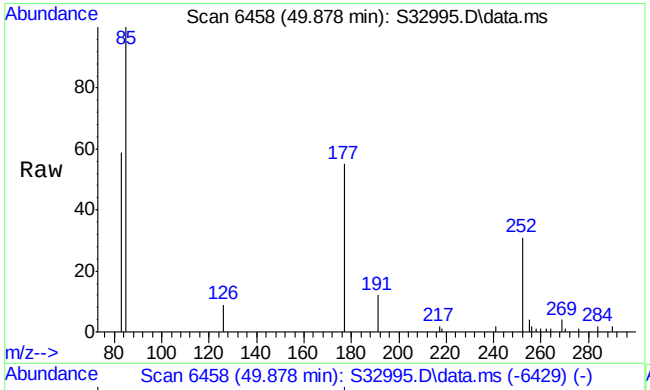
#97
Benzo(a)pyrene
Concen: 414.09 ng/mL m
RT: 49.608 min Scan# 6410
Delta R.T. -0.034 min
Lab File: S32995.D
Acq: 16 Jul 2013 7:40 pm

Tgt Ion:252 Resp: 114064

Ion	Ratio	Lower	Upper
252	100		
126	13.2	11.8	17.6



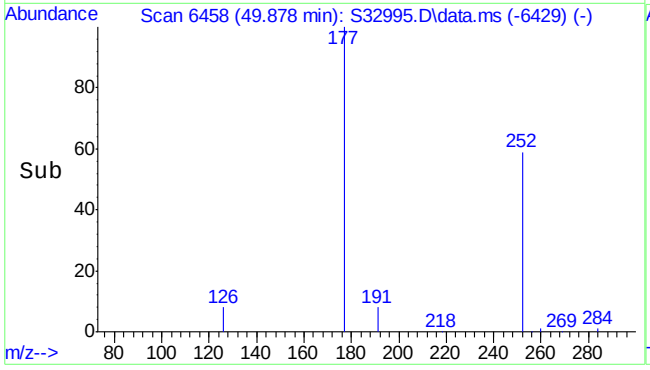


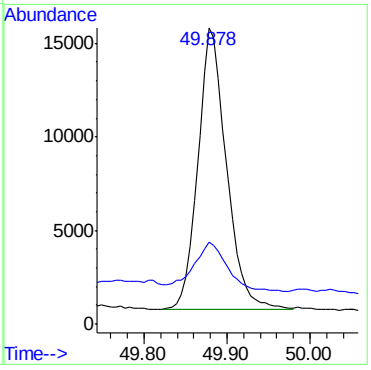


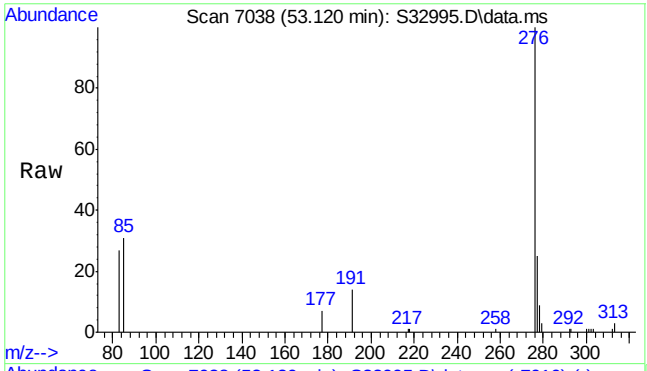
#98
Perylene
Concen: 134.00 ng/mL
RT: 49.878 min Scan# 6458
Delta R.T. -0.039 min
Lab File: S32995.D
Acq: 16 Jul 2013 7:40 pm

Tgt Ion:252 Resp: 35865

Ion	Ratio	Lower	Upper
252	100		
126	20.8	12.9	19.3#



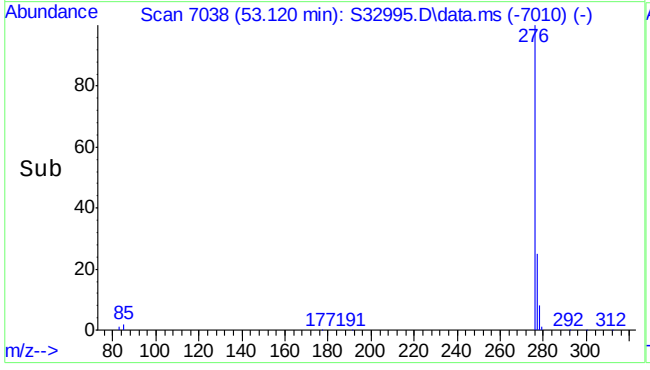


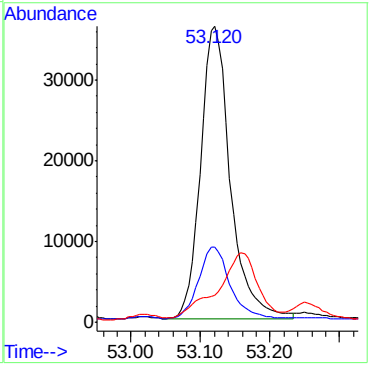


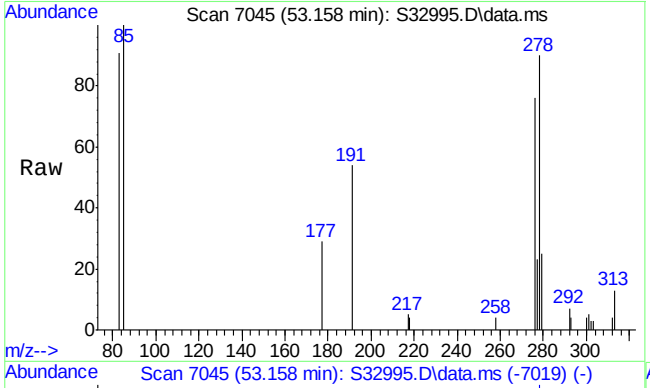
#99
Indeno(1,2,3-cd)pyrene
Concen: 340.38 ng/mL
RT: 53.120 min Scan# 7038
Delta R.T. -0.048 min
Lab File: S32995.D
Acq: 16 Jul 2013 7:40 pm

Tgt Ion:276 Resp: 107572

Ion	Ratio	Lower	Upper
276	100		
277	25.7	18.9	28.3
278	0.0	3.8	5.8#



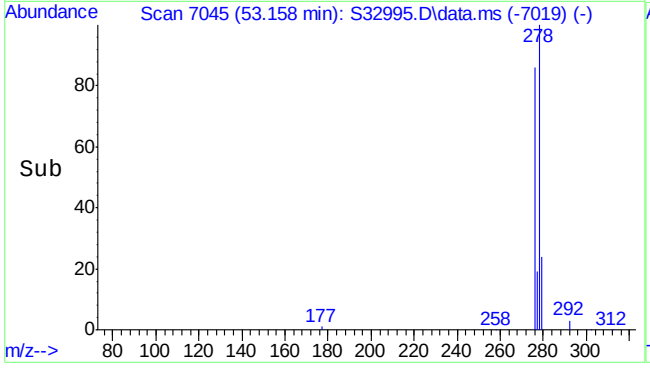


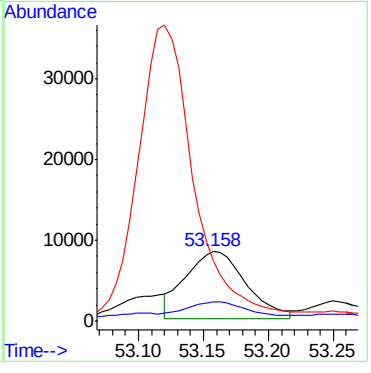


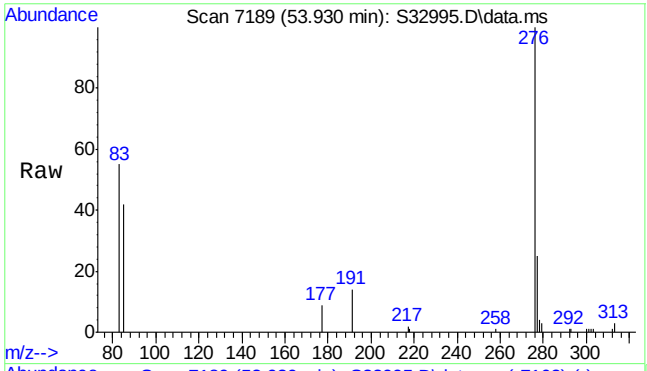
#100
Dibenz(a,h)anthracene
Concen: 93.39 ng/mL m
RT: 53.158 min Scan# 7045
Delta R.T. -0.059 min
Lab File: S32995.D
Acq: 16 Jul 2013 7:40 pm

Tgt Ion:278 Resp: 26734

Ion	Ratio	Lower	Upper
278	100		
279	1.2	19.1	28.7#
276	2.2	25.2	37.8#



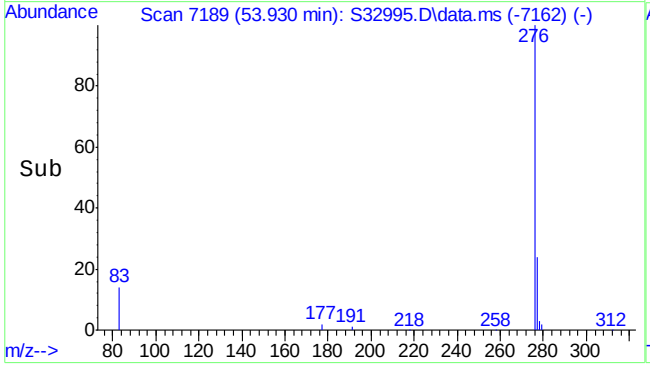


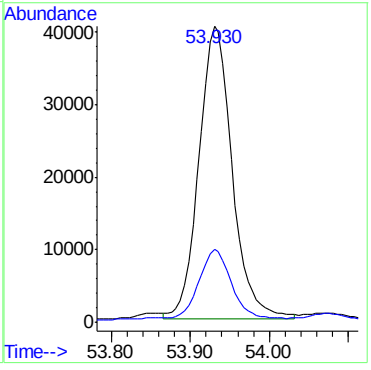


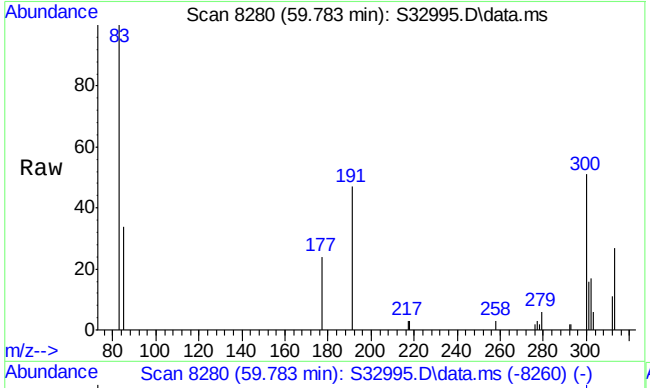
#101
Benzo(g,h,i)perylene
Concen: 350.69 ng/mL m
RT: 53.930 min Scan# 7189
Delta R.T. -0.054 min
Lab File: S32995.D
Acq: 16 Jul 2013 7:40 pm

Tgt Ion:276 Resp: 118524

Ion	Ratio	Lower	Upper
276	100		
277	22.7	19.0	28.4



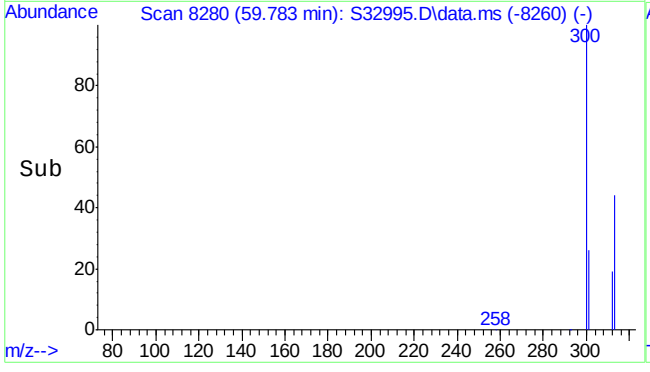


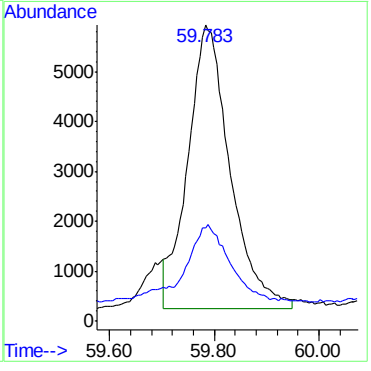


#102
Coronene
Concen: 98.21 µg/mL m
RT: 59.783 min Scan# 8280
Delta R.T. -0.091 min
Lab File: S32995.D
Acq: 16 Jul 2013 7:40 pm

Tgt Ion:300 Resp: 31988

Ion	Ratio	Lower	Upper
300	100		
301	27.9	21.4	32.0





Manual Integrations APPROVED (compounds with "m" flag)
James Roush
07/29/13 14:06

Quantitation Report (QT Reviewed)

Data Path : S:\1\data\S130723\
Data File : S33025.D
Acq On : 24 Jul 2013 1:26 am
Operator : kristinr
Sample : mc21754-2a
Misc : op33686,mss1444,5.13,,,2,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Jul 24 14:15:48 2013
Quant Method : S:\1\methods\S130705-B5739ALKPAH.M
Quant Title : PAHs & Alkylated PAHs by GC/MS/SIM
QLast Update : Thu Jul 11 09:13:24 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Acenaphthene-d10	28.064	164	141110	1100.00	ng/mL	0.00
System Monitoring Compounds						
2) Toluene-d8	9.167	98	2036	13.48	µg/mL	-0.02
Spiked Amount 1000.000			Recovery = 1.35%			
3) Naphthalene-d8	21.127	136	9304	37.30	ng/mL	0.00
Spiked Amount 1000.000	Range 1 - 0		Recovery = 3.73%#			
4) Phenanthrene-d10	33.893	188	7714	37.56	ng/mL	0.00
Spiked Amount 1000.000			Recovery = 3.76%			
5) Perylene-d12	49.710	264	6008	33.14	ng/mL	0.03
Spiked Amount 1000.000			Recovery = 3.31%			
Target Compounds						Qvalue
6) Naphthalene	21.218	128	10548295	33267.19	ng/mL	99
7) 2-Methylnaphthalene	23.898	142	1104333	5869.67	ng/mL	100
8) 1-Methylnaphthalene	24.311	142	411204	2095.03	ng/mL	99
9) C1-Naphthalenes	23.898	142	1525625m	4811.51	ng/mL	
10) C2-Naphthalenes	26.727	156	321111m	1012.72	ng/mL	
11) C3-Naphthalenes	29.056	170	315125m	993.84	ng/mL	
12) C4-Naphthalenes	31.812	184	303150m	956.07	ng/mL	
13) Acenaphthylene	27.470	152	1313	4.48	ng/mL#	67
14) Acenaphthene	28.186	154	4964	27.75	ng/mL#	57
15) Dibenzofuran	28.826	168	8802m	34.52	ng/mL	
16) Fluorene	30.193	166	28039m	123.57	ng/mL	
17) C1-Fluorenes	32.549	180	82117m	361.89	ng/mL	
18) C2-Fluorenes	34.745	194	161875m	713.38	ng/mL	
19) C3-Fluorenes	37.361	208	127752m	563.00	ng/mL	
20) Dibenzothiophene	33.490	184	10607m	37.08	ng/mL	
21) C1-Dibenzothiophenes (...	35.258	198	61688m	218.75	ng/mL	
22) C1-Dibenzothiophenes (...	35.694	198	666m	2.36	µg/mL	
23) C2-Dibenzothiophenes	36.944	212	109296m	387.57	ng/mL	
24) C3-Dibenzothiophenes	38.752	226	54726m	194.06	ng/mL	
25) C4-Dibenzothiophenes	40.922	240	50425m	178.81	ng/mL	
26) Phenanthrene	33.983	178	76067m	232.54	ng/mL	
27) Anthracene	34.162	178	4069	13.39	ng/mL#	62
28) C1-Phenanthrenes/anthr...	36.053	192	149025m	455.58	ng/mL	
29) C2-Phenanthrenes/anthr...	38.208	206	134882m	412.35	ng/mL	
31) C3-Phenanthrenes/anthr...	39.799	220	117460m	359.09	ng/mL	
32) C4-Phenanthrenes/anthr...	40.969	234	116195m	355.22	ng/mL	
33) Fluoranthene	38.728	202	18720m	64.60	ng/mL	
34) Pyrene	39.599	202	20884	69.55	ng/mL#	53
35) C1-Fluoranthenes/pyrenes	41.945	216	125833m	419.09	ng/mL	
36) Benzo(b)fluorene	41.263	216	4010m	13.36	ng/mL	
37) Benzo(c)fluorene	41.281	216	1259m	4.19	µg/mL	
38) 2-Methylpyrene	41.404	216	2563m	8.54	ng/mL	
39) 4-Methylpyrene	41.769	216	5597	18.64	ng/mL#	77
40) 1-Methylpyrene	41.857	216	2700m	8.99	ng/mL	
41) C2-Fluoranthenes/pyrenes	43.580	230	17921m	59.69	ng/mL	
42) C3-Fluoranthenes/pyrenes	44.713	244	14042m	46.77	ng/mL	

Quantitation Report (QT Reviewed)

Data Path : S:\1\data\S130723\
Data File : S33025.D
Acq On : 24 Jul 2013 1:26 am
Operator : kristinr
Sample : mc21754-2a
Misc : op33686,mss1444,5.13,,,2,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Jul 24 14:15:48 2013
Quant Method : S:\1\methods\S130705-B5739ALKPAH.M
Quant Title : PAHs & Alkylated PAHs by GC/MS/SIM
QLast Update : Thu Jul 11 09:13:24 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
43) Benz(a)anthracene	44.380	228	5074m	17.50	ng/mL	
44) Chrysene	44.540	228	7104	26.26	ng/mL#	82
45) C1-Benz(a)anthracenes/...	46.022	242	3880m	14.34	ng/mL	
49) Benzo(b)fluoranthene	48.421	252	5884	17.72	ng/mL#	1
50) Benzo(k)fluoranthene	48.494	252	5530m	16.71	ng/mL	
51) Benzo(e)pyrene	49.355	252	4945	16.56	ng/mL#	68
52) Benzo(a)pyrene	49.518	252	4922m	17.01	ng/mL#	
53) Perylene	49.800	252	1804	6.42	ng/mL#	80
54) Indeno(1,2,3-cd)pyrene	53.024	276	4290	12.95	ng/mL#	88
55) Dibenz(a,h)anthracene	53.056	278	975m	3.24	ng/mL	
56) Benzo(g,h,i)perylene	53.823	276	4647	13.09	ng/mL#	88

(#) = qualifier out of range (m) = manual integration (+) = signals summed

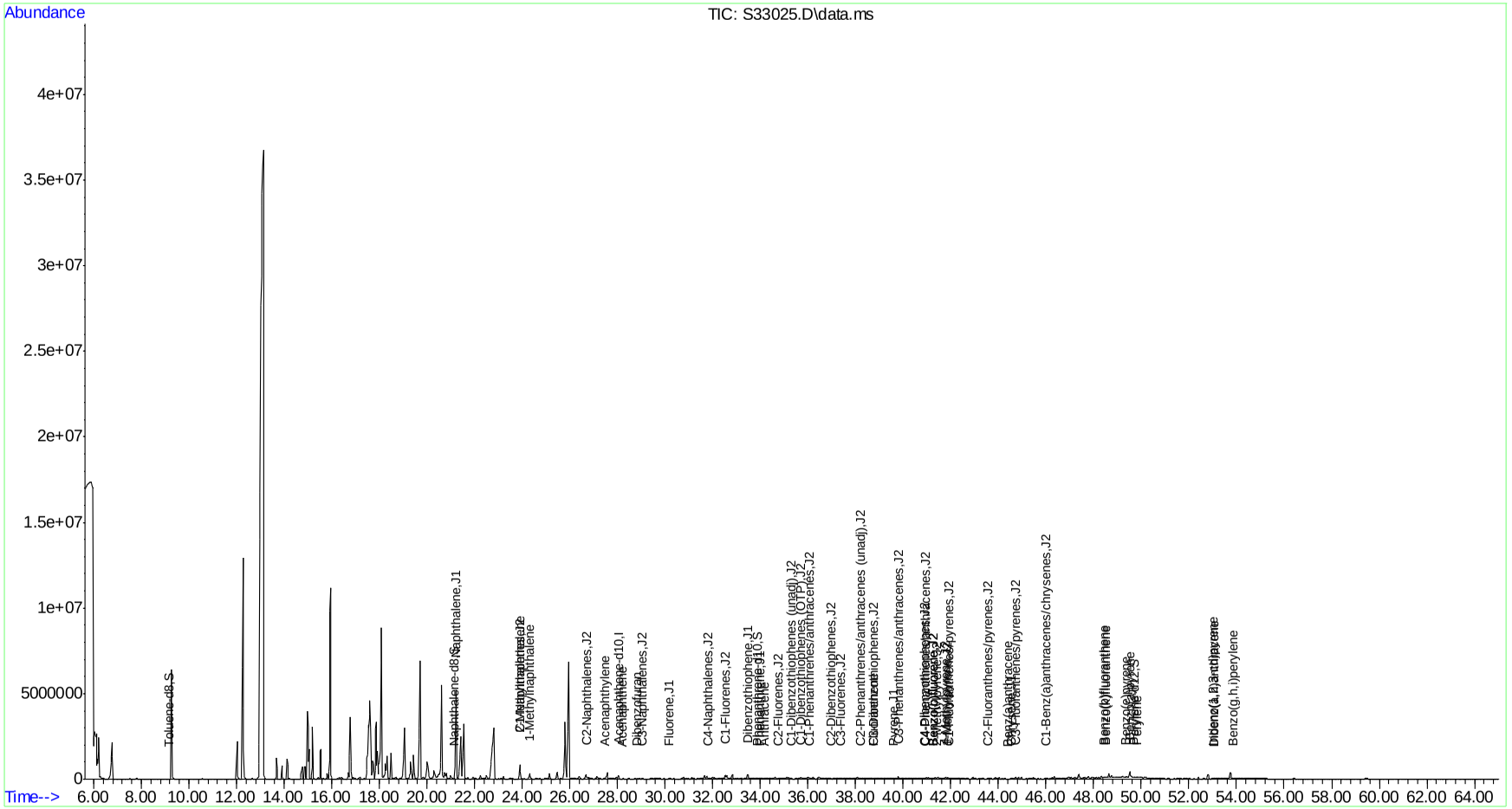
7.1.3

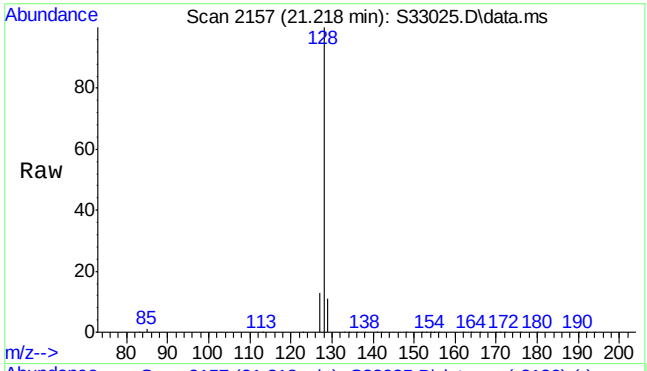
7

Quantitation Report (QT Reviewed)

Data Path : S:\1\data\S130723\
Data File : S33025.D
Acq On : 24 Jul 2013 1:26 am
Operator : kristinr
Sample : mc21754-2a
Misc : op33686,mss1444,5.13,,,2,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Jul 24 14:15:48 2013
Quant Method : S:\1\methods\S130705-B5739ALKPAH.M
Quant Title : PAHs & Alkylated PAHs by GC/MS/SIM
QLast Update : Thu Jul 11 09:13:24 2013
Response via : Initial Calibration

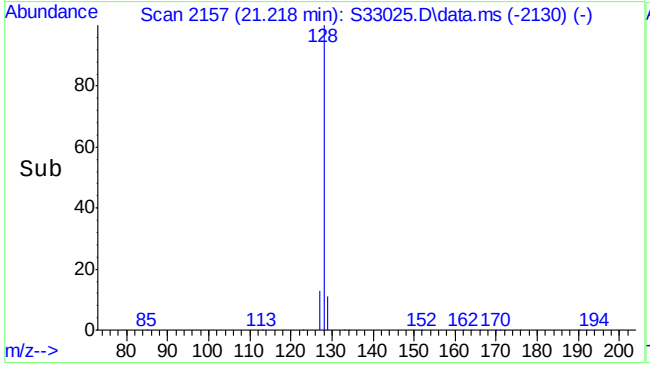


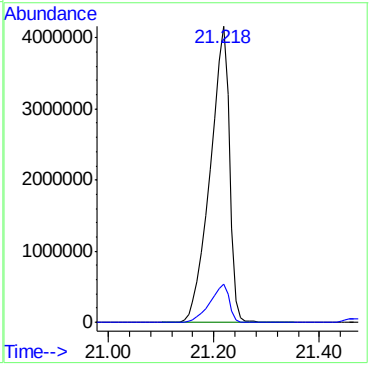


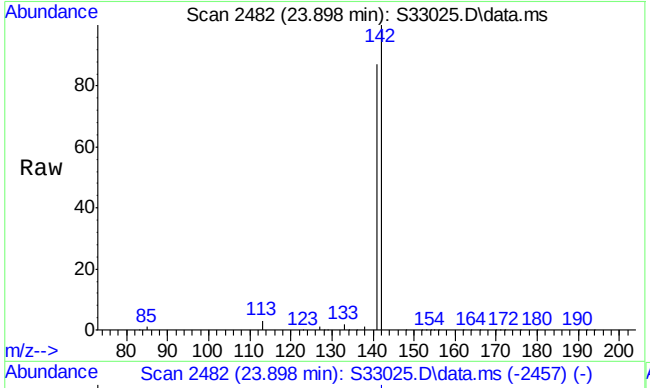
#6
Naphthalene
Concen: 33267.19 ng/mL
RT: 21.218 min Scan# 2157
Delta R.T. 0.025 min
Lab File: S33025.D
Acq: 24 Jul 2013 1:26 am

Tgt Ion:128 Resp:10548295

Ion	Ratio	Lower	Upper
128	100		
127	12.8	10.0	15.0



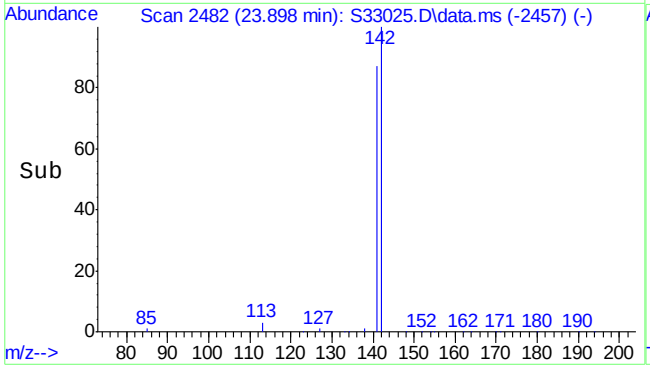


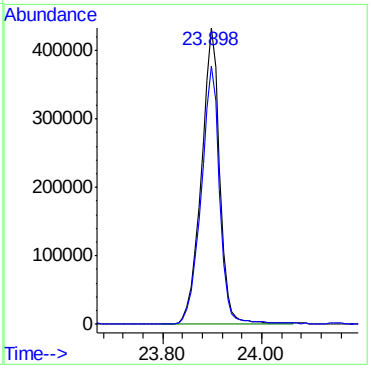


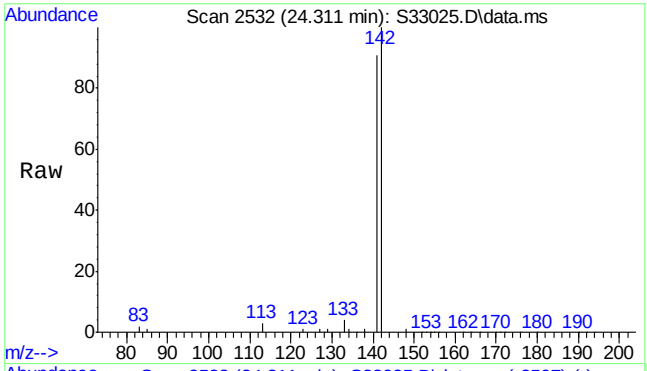
#7
2-Methylnaphthalene
Concen: 5869.67 ng/mL
RT: 23.898 min Scan# 2482
Delta R.T. 0.008 min
Lab File: S33025.D
Acq: 24 Jul 2013 1:26 am

Tgt Ion:142 Resp: 1104333

Ion	Ratio	Lower	Upper
142	100		
141	87.4	69.7	104.5



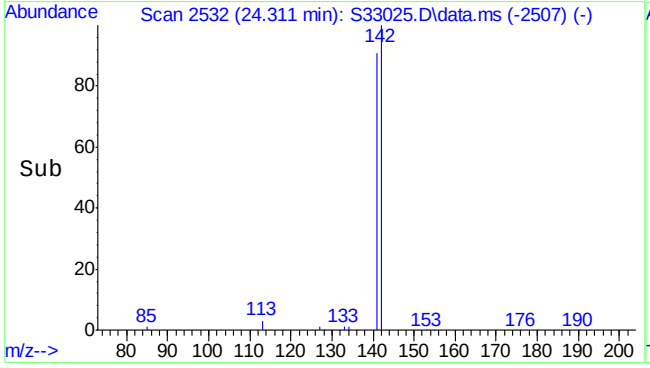


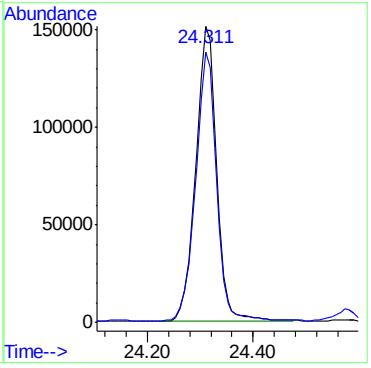


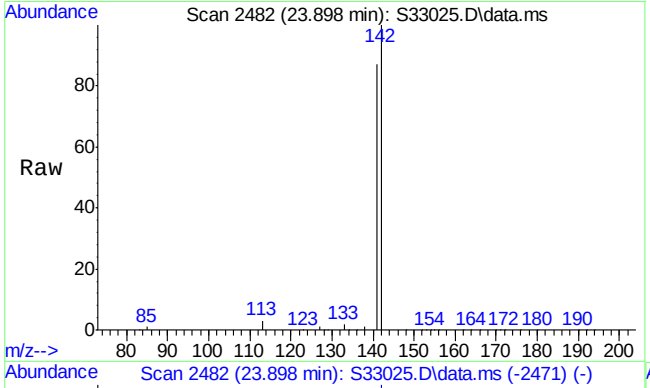
#8
1-Methylnaphthalene
Concen: 2095.03 ng/mL
RT: 24.311 min Scan# 2532
Delta R.T. 0.008 min
Lab File: S33025.D
Acq: 24 Jul 2013 1:26 am

Tgt Ion:142 Resp: 411204

Ion	Ratio	Lower	Upper
142	100		
141	91.6	72.6	108.8



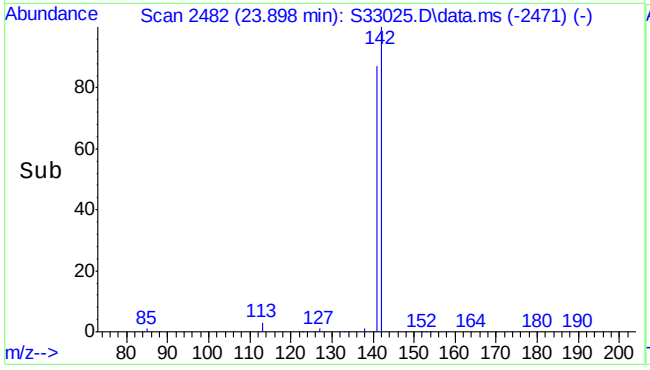


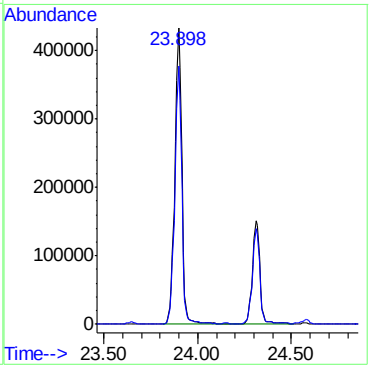


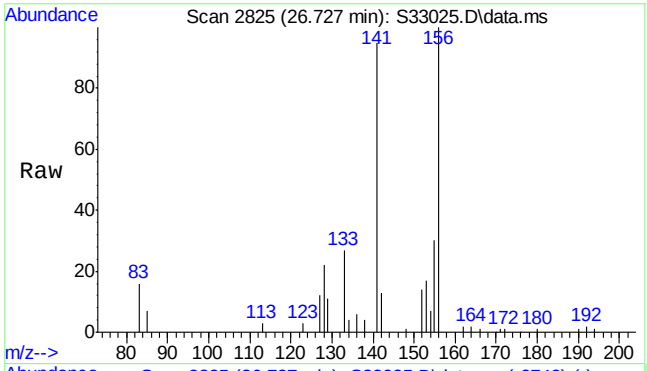
#9
C1-Naphthalenes
Concen: 4811.51 ng/mL m
RT: 23.898 min Scan# 2482
Delta R.T. 0.017 min
Lab File: S33025.D
Acq: 24 Jul 2013 1:26 am

Tgt Ion:142 Resp: 1525625

Ion	Ratio	Lower	Upper
142	100		
141	62.8	69.9	104.9#



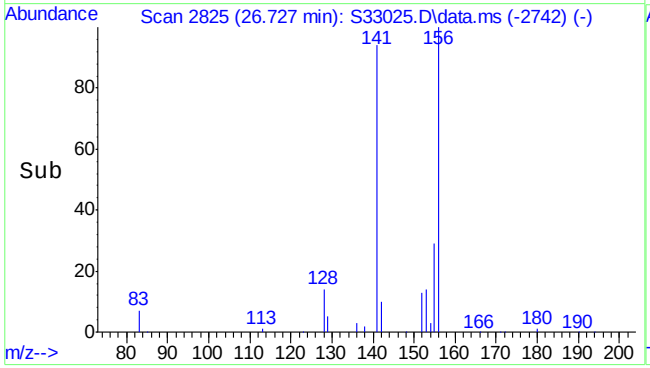


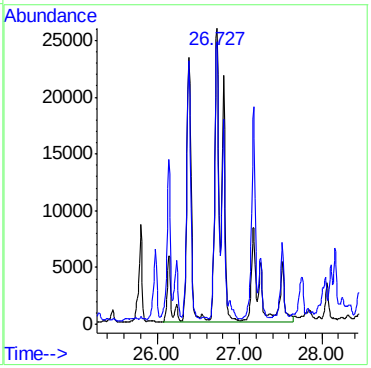


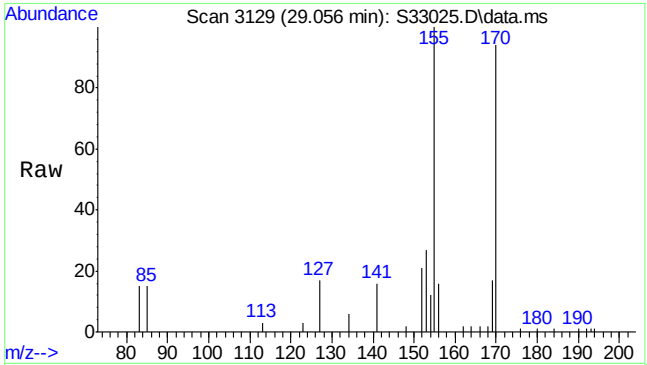
#10
C2-Naphthalenes
Concen: 1012.72 ng/mL m
RT: 26.727 min Scan# 2825
Delta R.T. -0.074 min
Lab File: S33025.D
Acq: 24 Jul 2013 1:26 am

Tgt Ion:156 Resp: 321111

Ion	Ratio	Lower	Upper
156	100		
141	13.4	64.9	97.3#



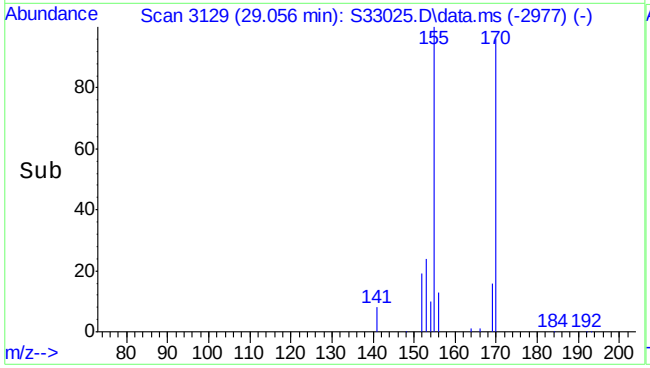


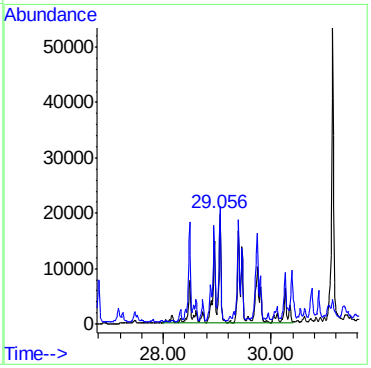


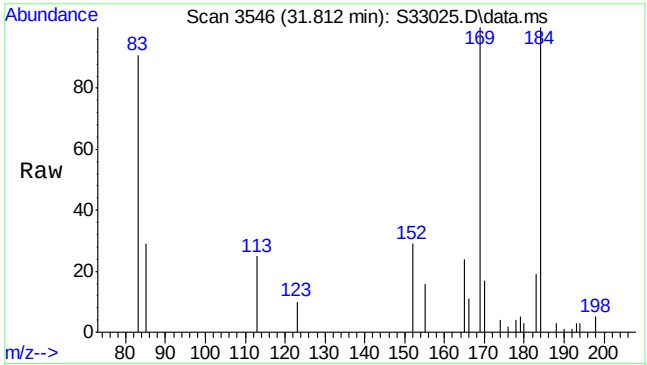
#11
C3-Naphthalenes
Concen: 993.84 ng/mL m
RT: 29.056 min Scan# 3129
Delta R.T. 0.000 min
Lab File: S33025.D
Acq: 24 Jul 2013 1:26 am

Tgt Ion:170 Resp: 315125

Ion	Ratio	Lower	Upper
170	100		
155	17.9	85.4	128.2#



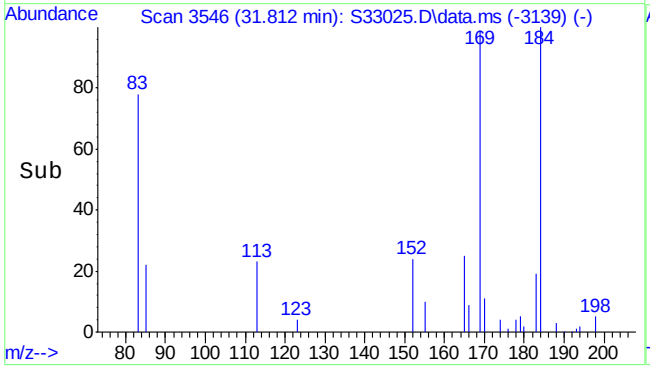


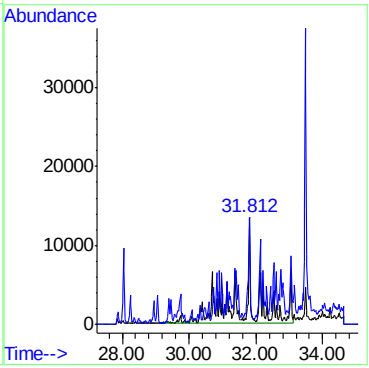


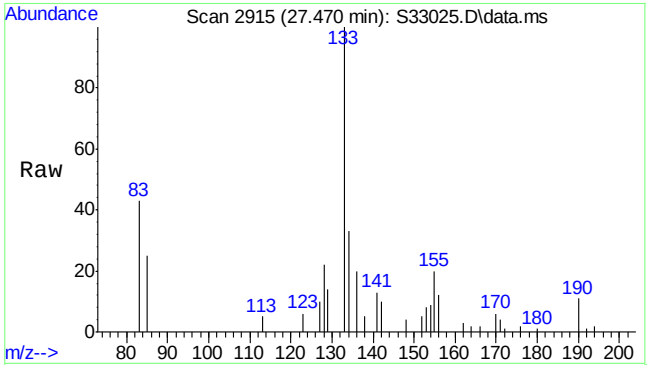
#12
C4-Naphthalenes
Concen: 956.07 ng/mL m
RT: 31.812 min Scan# 3546
Delta R.T. 0.000 min
Lab File: S33025.D
Acq: 24 Jul 2013 1:26 am

Tgt Ion:184 Resp: 303150

Ion	Ratio	Lower	Upper
184	100		
169	3.3	81.0	121.6#



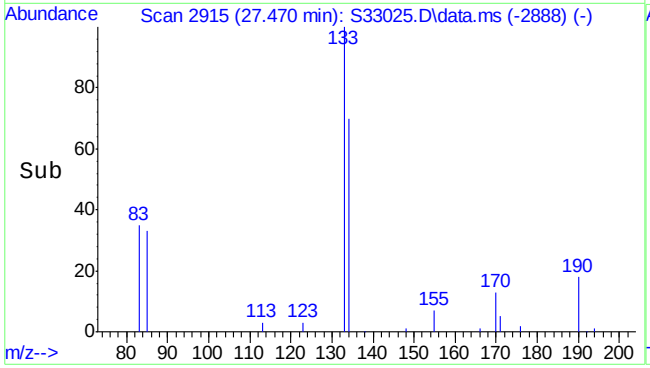


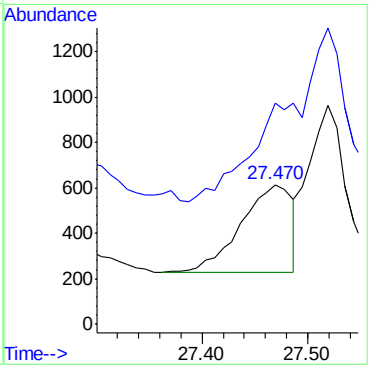


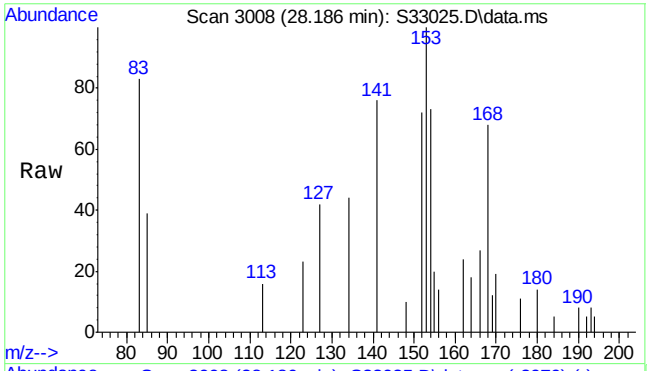
#13
Acenaphthylene
Concen: 4.48 ng/mL
RT: 27.470 min Scan# 2915
Delta R.T. 0.025 min
Lab File: S33025.D
Acq: 24 Jul 2013 1:26 am

Tgt Ion:152 Resp: 1313

Ion	Ratio	Lower	Upper
152	100		
153	0.0	10.5	15.7#



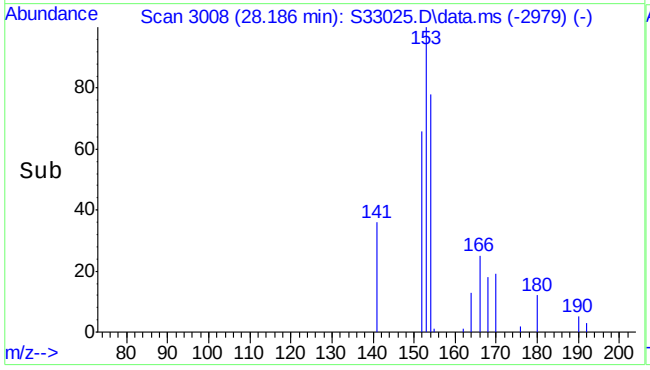


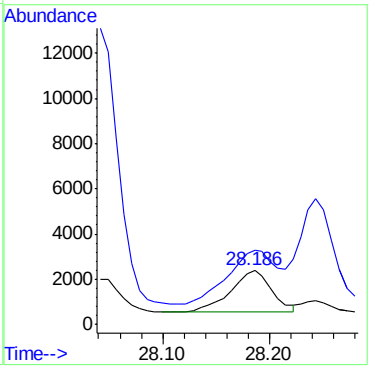


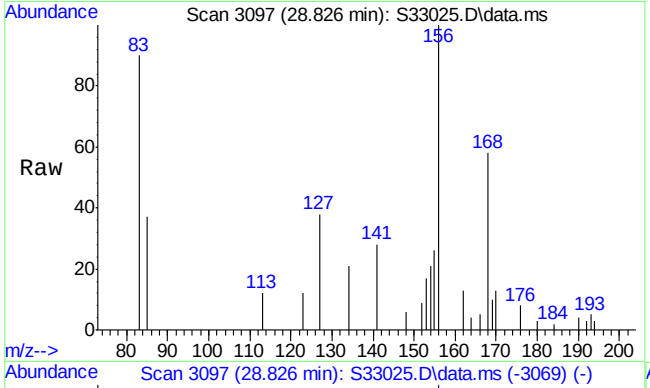
#14
Acenaphthene
Concen: 27.75 ng/mL
RT: 28.186 min Scan# 3008
Delta R.T. 0.007 min
Lab File: S33025.D
Acq: 24 Jul 2013 1:26 am

Tgt Ion:154 Resp: 4964

Ion	Ratio	Lower	Upper
154	100		
153	155.3	88.2	132.4#



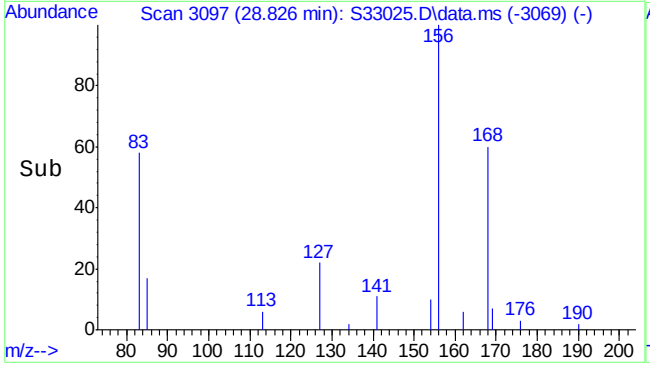


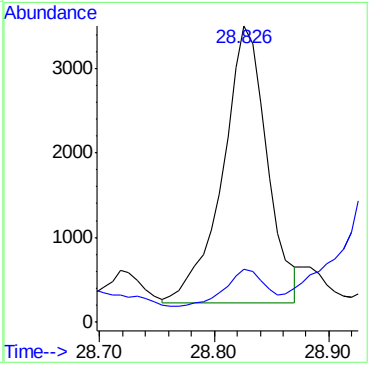


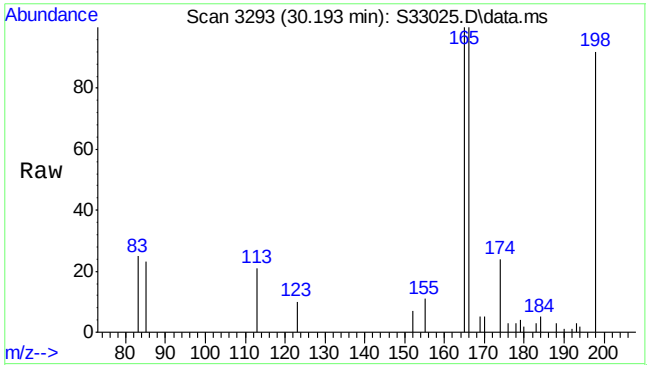
#15
Dibenzofuran
Concen: 34.52 ng/mL m
RT: 28.826 min Scan# 3097
Delta R.T. -0.000 min
Lab File: S33025.D
Acq: 24 Jul 2013 1:26 am

Tgt Ion:168 Resp: 8802

Ion	Ratio	Lower	Upper
168	100		
169	11.8	10.7	16.1



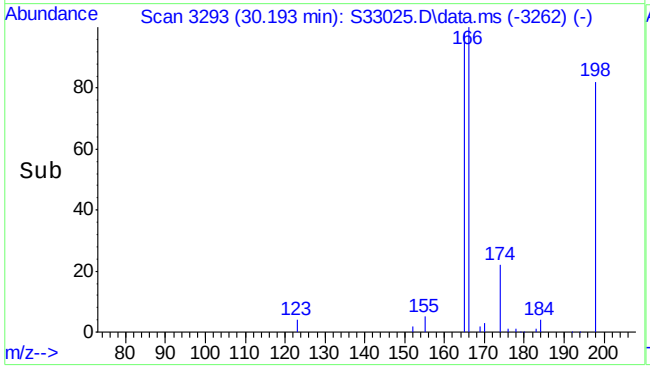


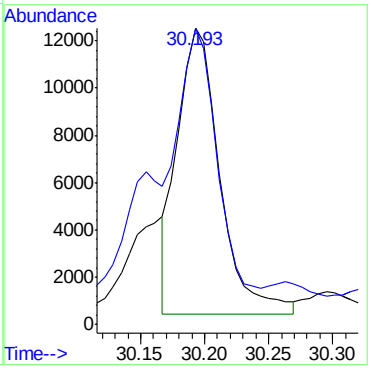


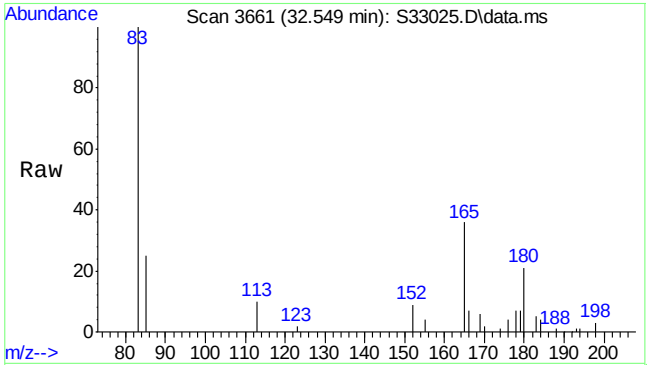
#16
Fluorene
Concen: 123.57 ng/mL m
RT: 30.193 min Scan# 3293
Delta R.T. -0.000 min
Lab File: S33025.D
Acq: 24 Jul 2013 1:26 am

Tgt Ion:166 Resp: 28039

Ion	Ratio	Lower	Upper
166	100		
165	83.2	76.3	114.5



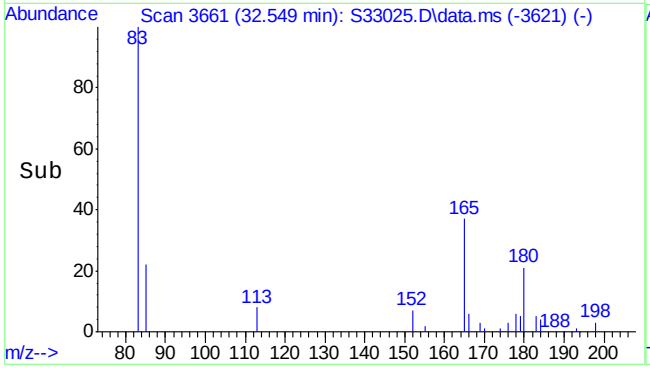


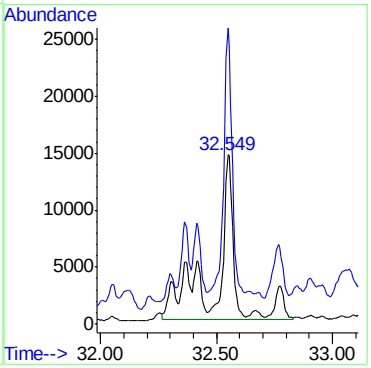


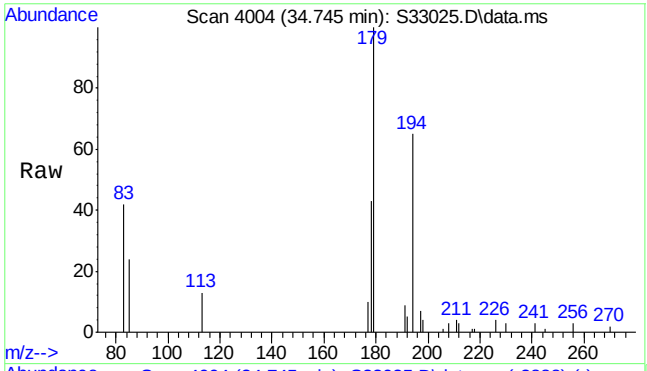
#17
C1-Fluorenes
Concen: 361.89 ng/mL m
RT: 32.549 min Scan# 3661
Delta R.T. 0.017 min
Lab File: S33025.D
Acq: 24 Jul 2013 1:26 am

Tgt Ion:180 Resp: 82117

Ion	Ratio	Lower	Upper
180	100		
165	67.9	134.2	201.4#



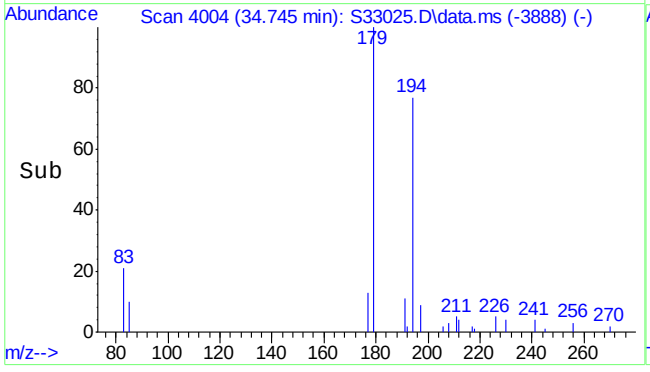


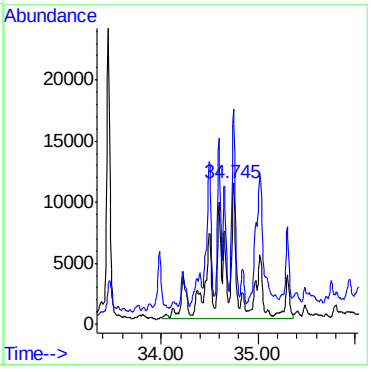


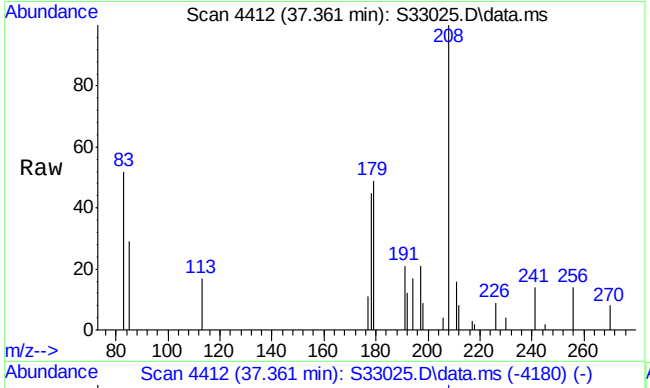
#18
C2-Fluorenes
Concen: 713.38 ng/mL m
RT: 34.745 min Scan# 4004
Delta R.T. 0.000 min
Lab File: S33025.D
Acq: 24 Jul 2013 1:26 am

Tgt Ion:194 Resp: 161875

Ion	Ratio	Lower	Upper
194	100		
179	24.4	126.2	189.4#



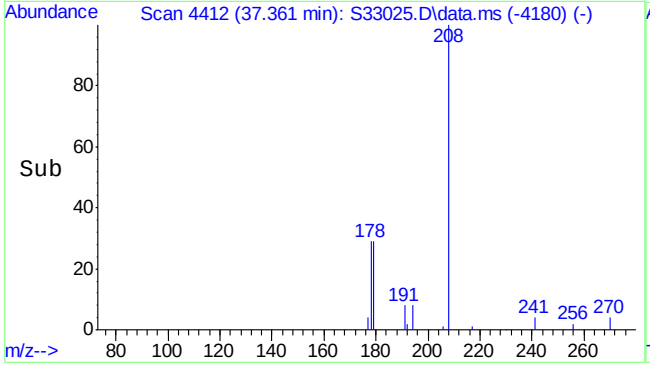


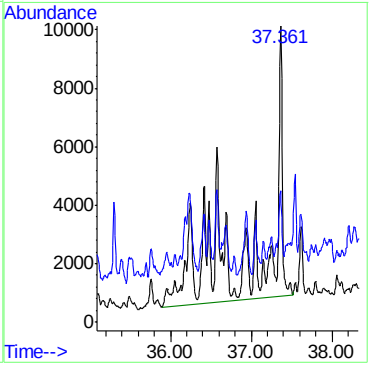


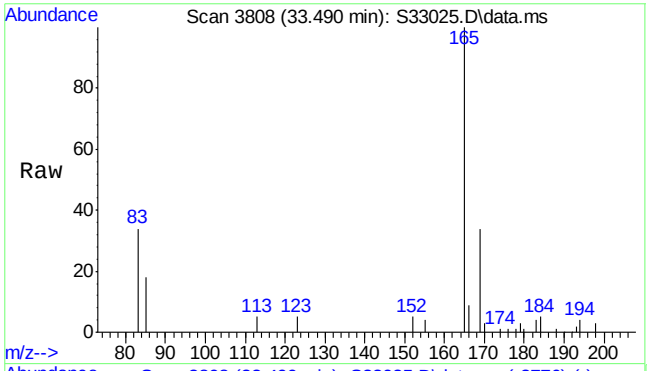
#19
C3-Fluorenes
Concen: 563.00 ng/mL m
RT: 37.361 min Scan# 4412
Delta R.T. 0.783 min
Lab File: S33025.D
Acq: 24 Jul 2013 1:26 am

Tgt Ion:208 Resp: 127752

Ion	Ratio	Lower	Upper
208	100		
178	3.4	54.9	82.3#



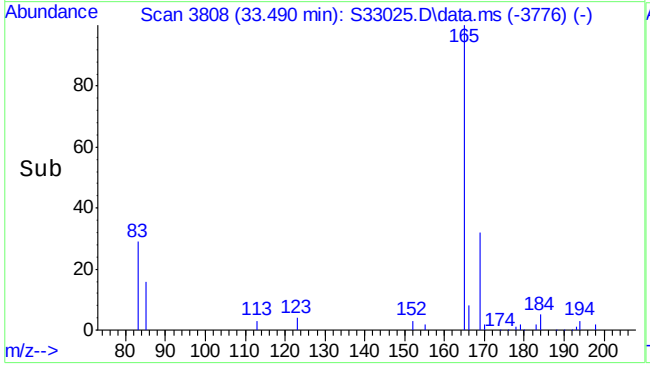


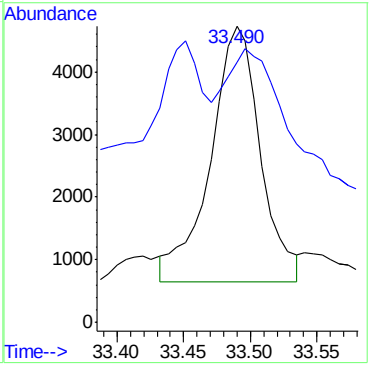


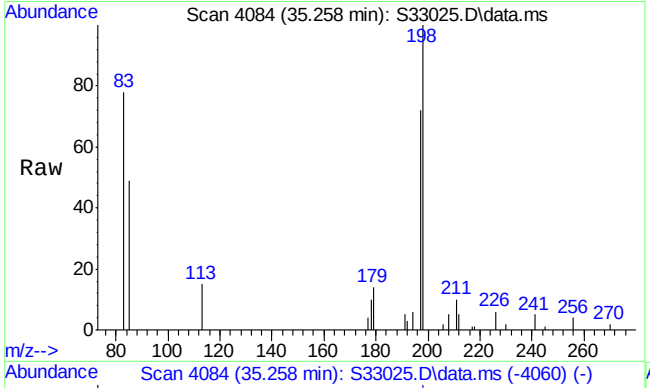
#20
Dibenzothiophene
Concen: 37.08 ng/mL m
RT: 33.490 min Scan# 3808
Delta R.T. 0.006 min
Lab File: S33025.D
Acq: 24 Jul 2013 1:26 am

Tgt Ion:184 Resp: 10607

Ion	Ratio	Lower	Upper
184	100		
152	74.3	7.7	11.5#



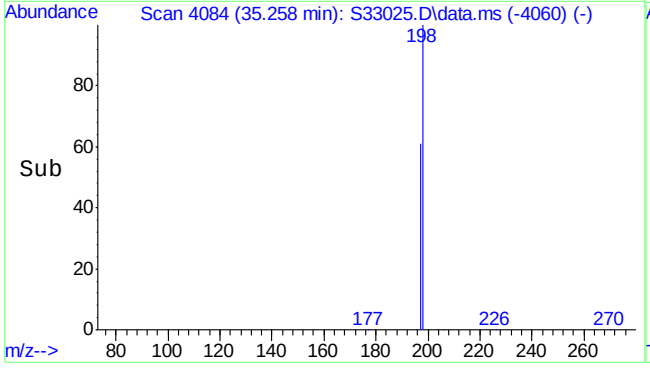


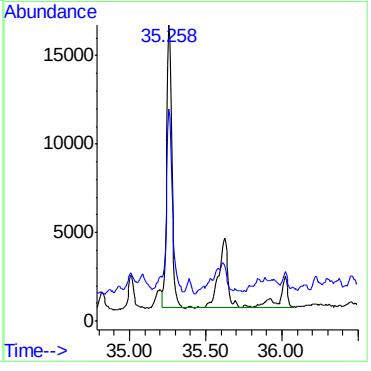


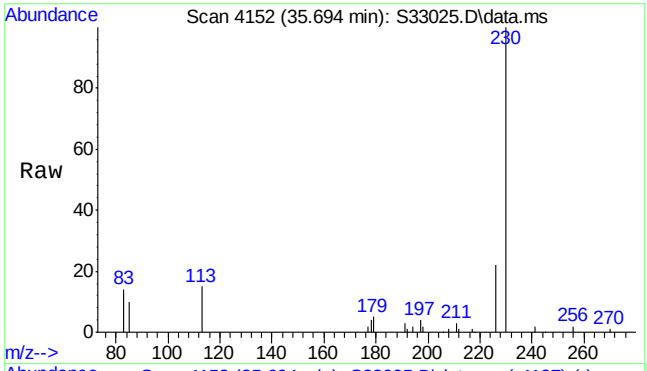
#21
C1-Dibenzothiophenes (unadj)
Concen: 218.75 ng/mL m
RT: 35.258 min Scan# 4084
Delta R.T. 0.000 min
Lab File: S33025.D
Acq: 24 Jul 2013 1:26 am

Tgt Ion:198 Resp: 61688

Ion	Ratio	Lower	Upper
198	100		
197	47.7	53.4	80.0#



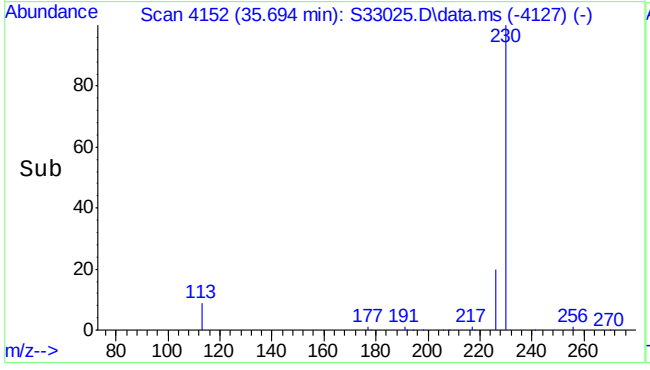


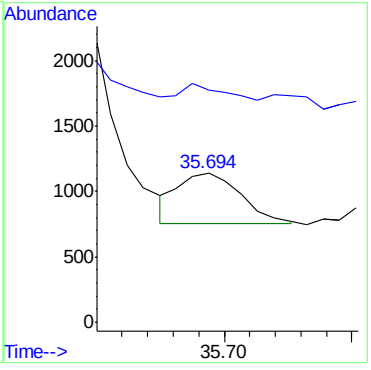


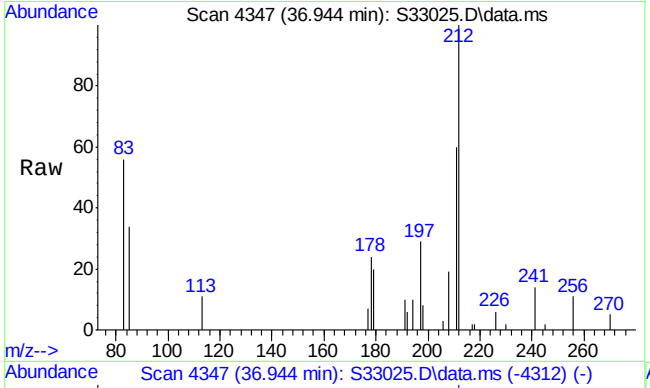
#22
C1-Dibenzothiophenes (OTP)
Concen: 2.36 µg/mL m
RT: 35.694 min Scan# 4152
Delta R.T. 0.071 min
Lab File: S33025.D
Acq: 24 Jul 2013 1:26 am

Tgt Ion:198 Resp: 666

Ion	Ratio	Lower	Upper
198	100		
197	505.9	58.2	87.2#



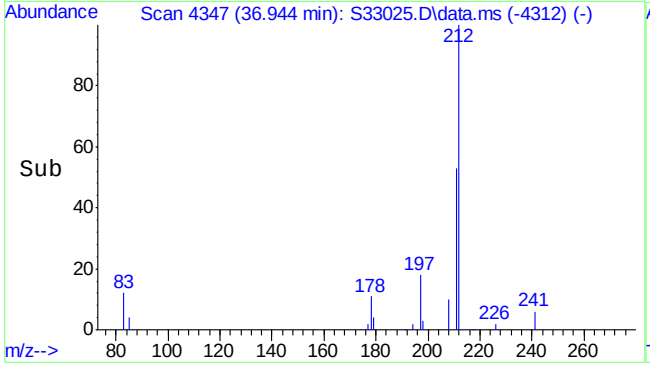


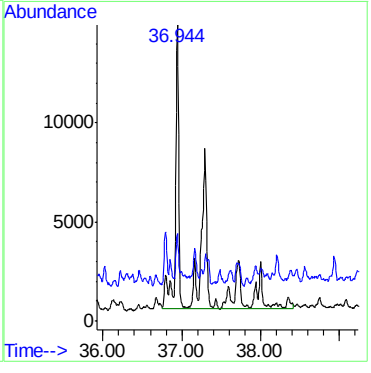


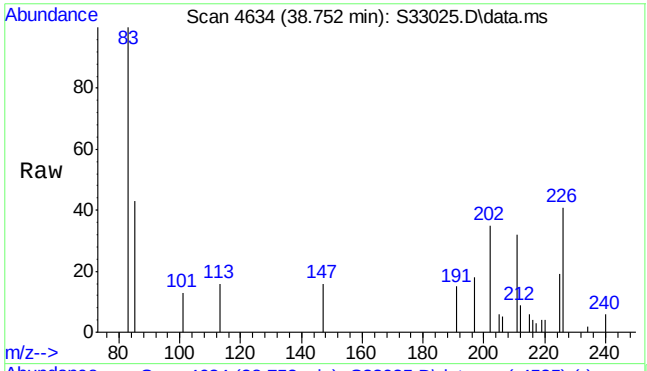
#23
C2-Dibenzothiophenes
Concen: 387.57 ng/mL m
RT: 36.944 min Scan# 4347
Delta R.T. -0.359 min
Lab File: S33025.D
Acq: 24 Jul 2013 1:26 am

Tgt Ion:212 Resp: 109296

Ion	Ratio	Lower	Upper
212	100		
197	1.0	20.6	30.8#



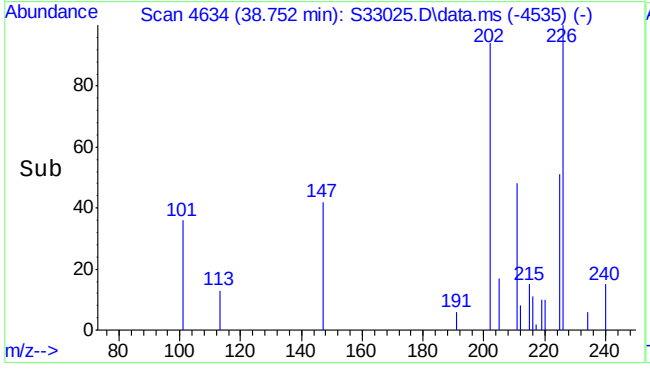


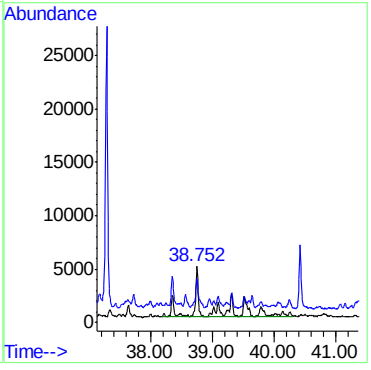


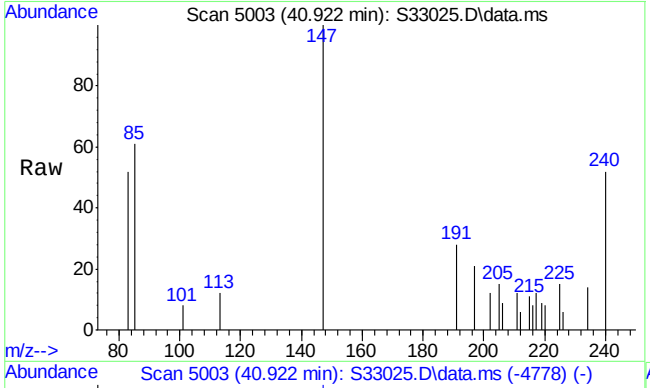
#24
C3-Dibenzothiophenes
Concen: 194.06 ng/mL m
RT: 38.752 min Scan# 4634
Delta R.T. 0.000 min
Lab File: S33025.D
Acq: 24 Jul 2013 1:26 am

Tgt Ion:226 Resp: 54726

Ion	Ratio	Lower	Upper
226	100		
211	17.4	49.7	74.5#

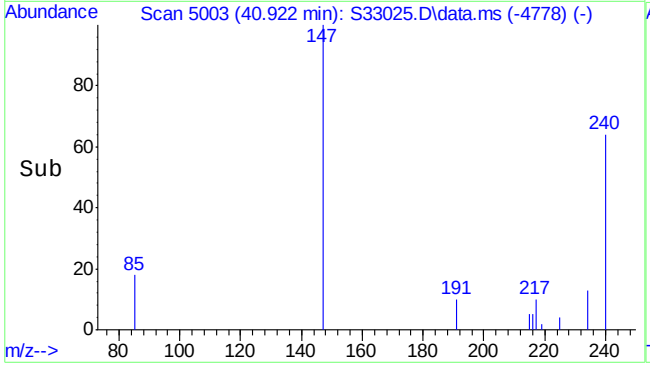


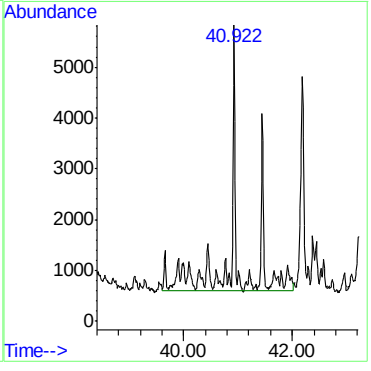


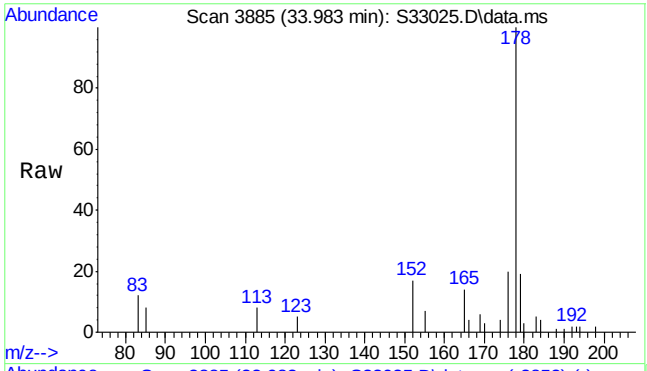


#25
C4-Dibenzothiophenes
Concen: 178.81 ng/mL m
RT: 40.922 min Scan# 5003
Delta R.T. 0.477 min
Lab File: S33025.D
Acq: 24 Jul 2013 1:26 am

Tgt Ion:240 Resp: 50425



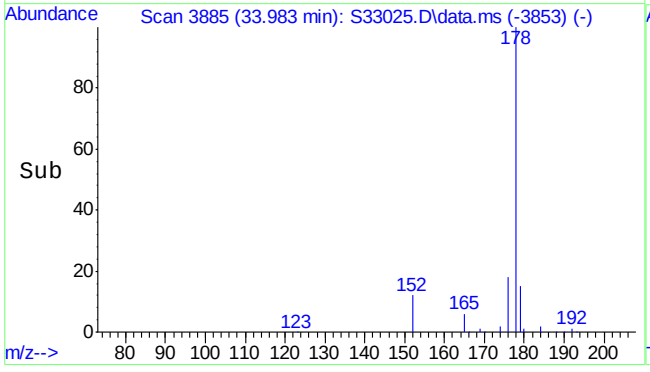


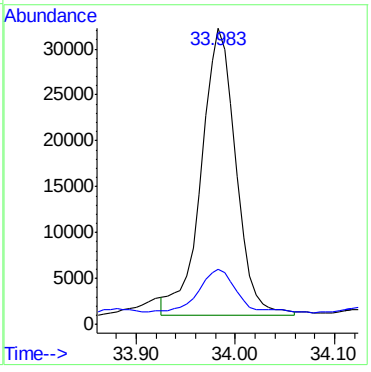


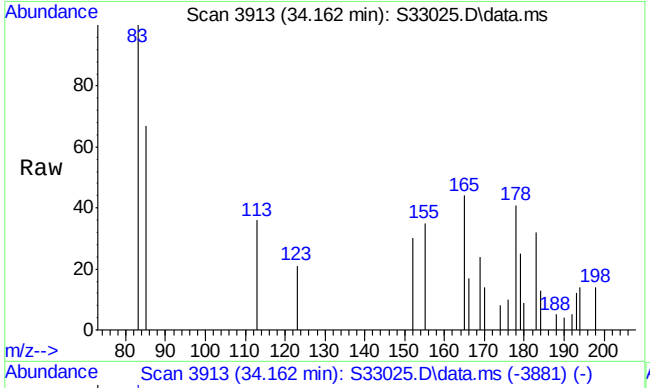
#26
Phenanthrene
Concen: 232.54 ng/mL m
RT: 33.983 min Scan# 3885
Delta R.T. 0.006 min
Lab File: S33025.D
Acq: 24 Jul 2013 1:26 am

Tgt Ion:178 Resp: 76067

Ion	Ratio	Lower	Upper
178	100		
179	16.7	12.6	18.8



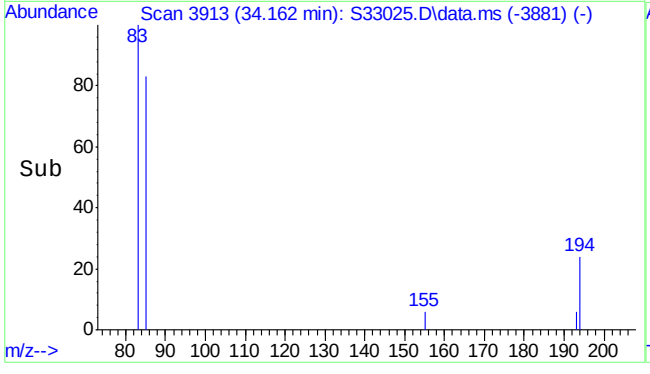


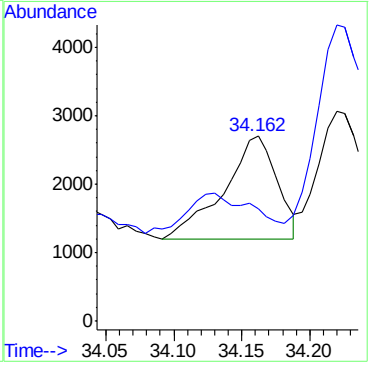


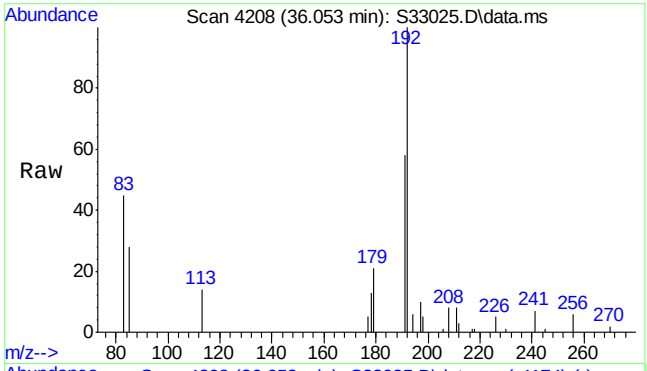
#27
Anthracene
Concen: 13.39 ng/mL
RT: 34.162 min Scan# 3913
Delta R.T. 0.006 min
Lab File: S33025.D
Acq: 24 Jul 2013 1:26 am

Tgt Ion:178 Resp: 4069

Ion	Ratio	Lower	Upper
178	100		
179	0.0	12.9	19.3#



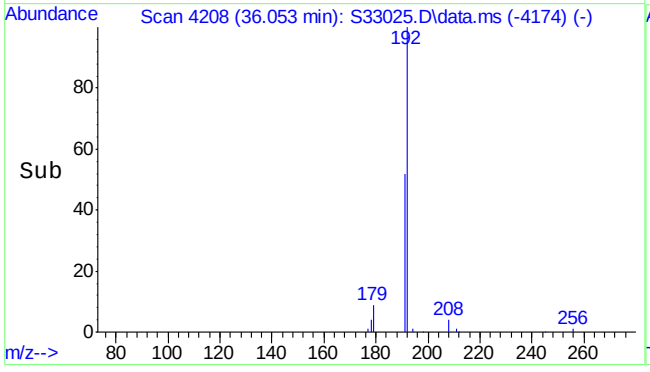


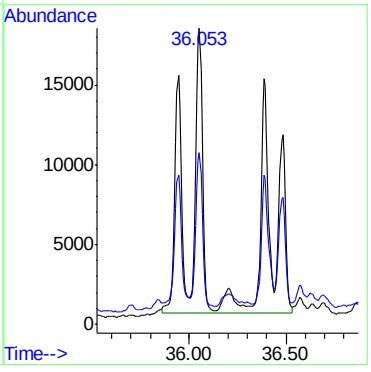


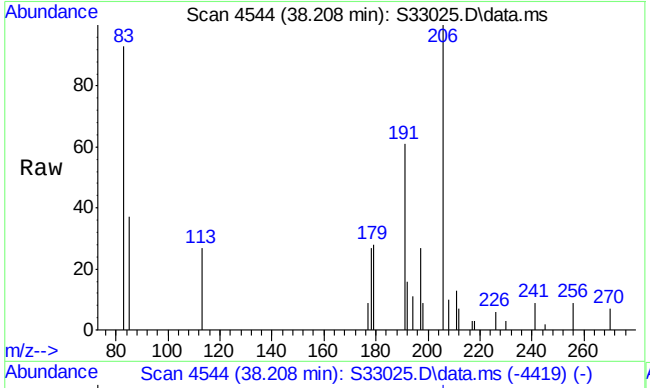
#28
C1-Phenanthrenes/anthracenes
Concen: 455.58 ng/mL m
RT: 36.053 min Scan# 4208
Delta R.T. -0.333 min
Lab File: S33025.D
Acq: 24 Jul 2013 1:26 am

Tgt Ion:192 Resp: 149025

Ion	Ratio	Lower	Upper
192	100		
191	14.0	46.7	70.1#



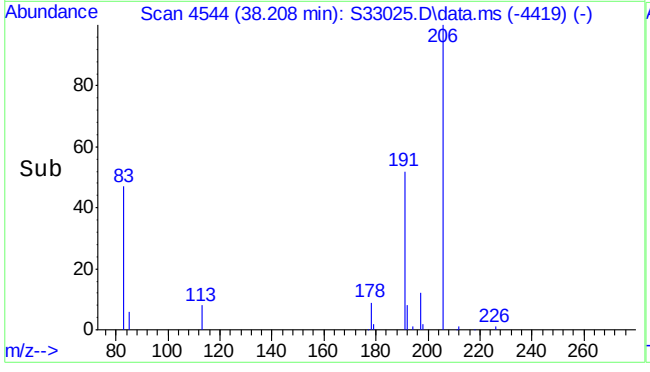


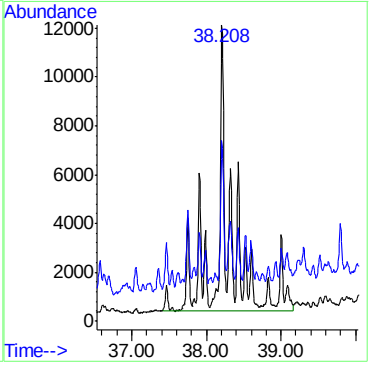


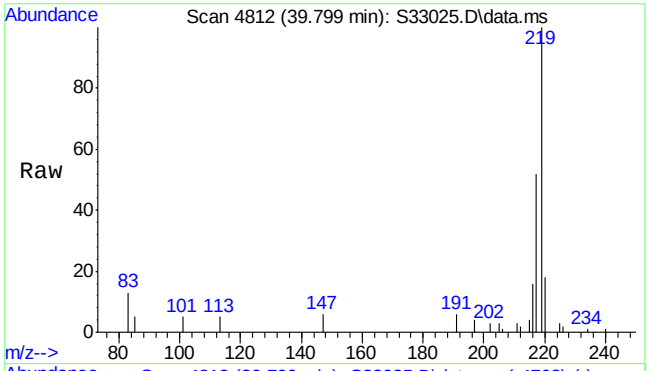
#29
C2-Phenanthrenes/anthracenes (unadj)
Concen: 412.35 ng/mL m
RT: 38.208 min Scan# 4544
Delta R.T. 0.000 min
Lab File: S33025.D
Acq: 24 Jul 2013 1:26 am

Tgt Ion:206 Resp: 134882

Ion	Ratio	Lower	Upper
206	100		
191	3.2	49.1	73.7#



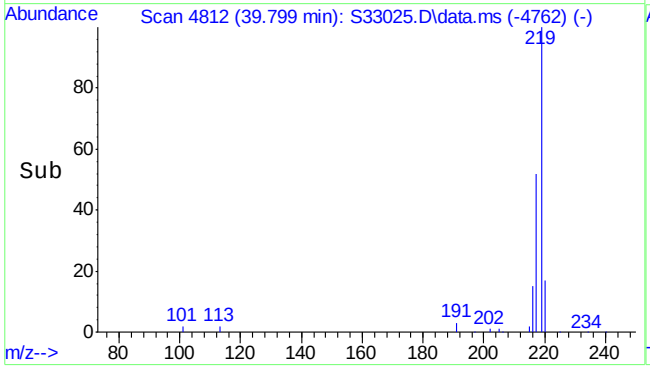


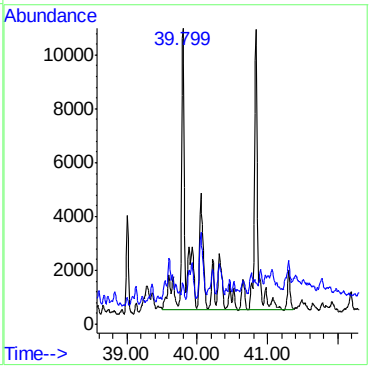


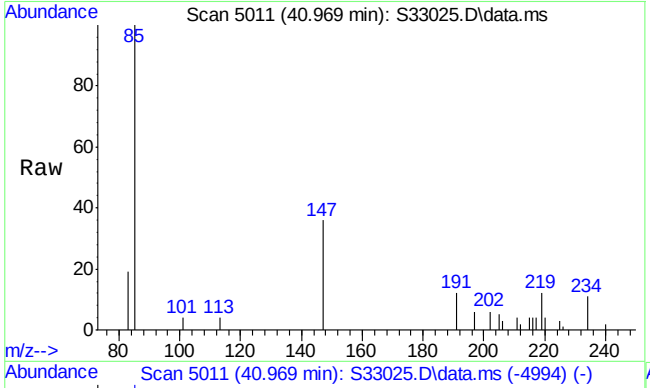
#31
C3-Phenanthrenes/anthracenes
Concen: 359.09 ng/mL m
RT: 39.799 min Scan# 4812
Delta R.T. -0.253 min
Lab File: S33025.D
Acq: 24 Jul 2013 1:26 am

Tgt Ion:220 Resp: 117460

Ion	Ratio	Lower	Upper
220	100		
205	7.5	45.1	67.7#



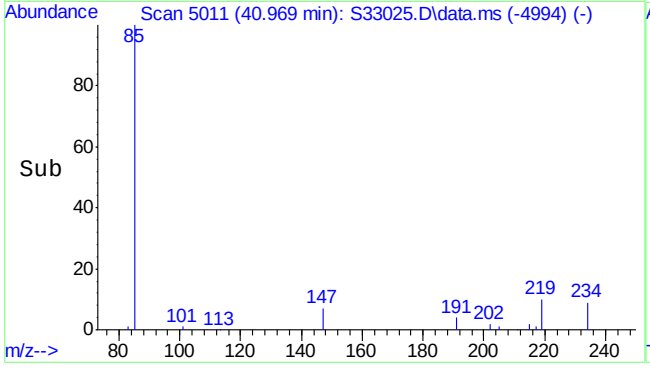


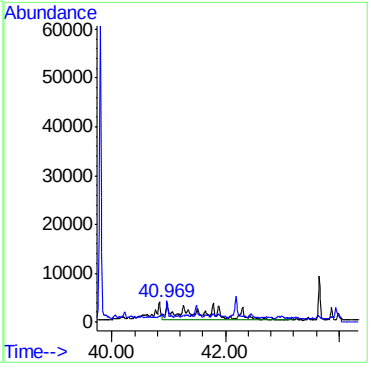


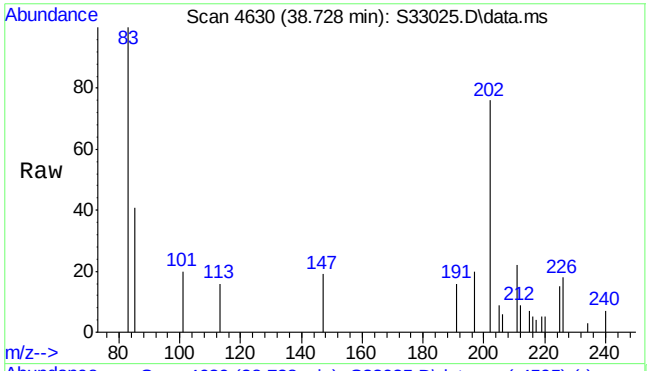
#32
C4-Phenanthrenes/anthracenes
Concen: 355.22 ng/mL m
RT: 40.969 min Scan# 5011
Delta R.T. -1.264 min
Lab File: S33025.D
Acq: 24 Jul 2013 1:26 am

Tgt Ion:234 Resp: 116195

Ion	Ratio	Lower	Upper
234	100		
219	1.0	49.0	73.4#



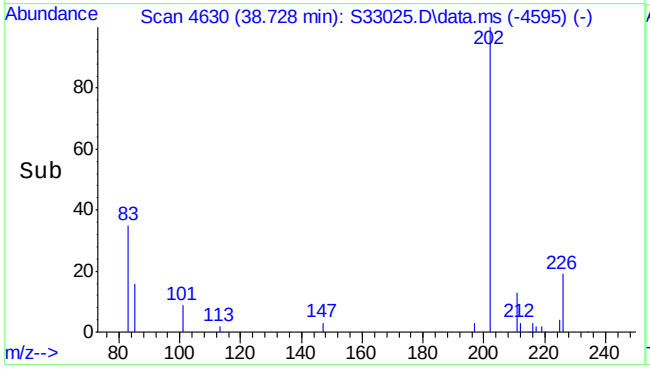


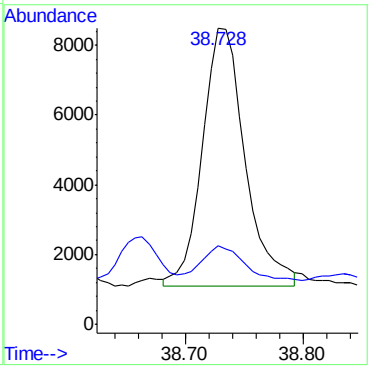


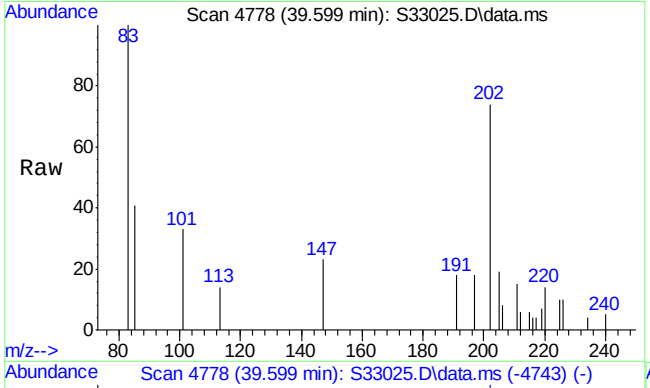
#33
Fluoranthene
Concen: 64.60 ng/mL m
RT: 38.728 min Scan# 4630
Delta R.T. 0.006 min
Lab File: S33025.D
Acq: 24 Jul 2013 1:26 am

Tgt Ion:202 Resp: 18720

Ion	Ratio	Lower	Upper
202	100		
101	14.6	9.8	14.6



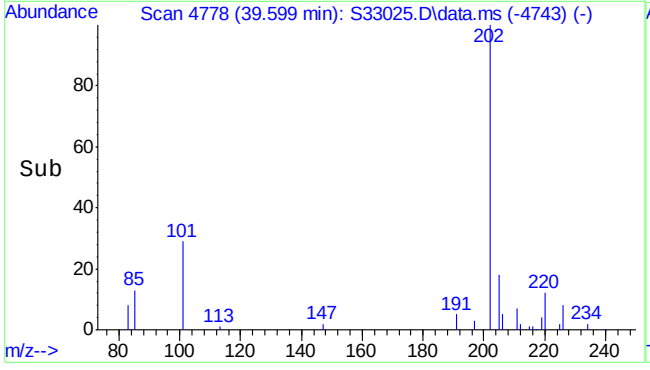


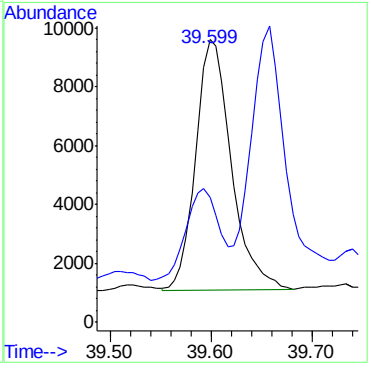


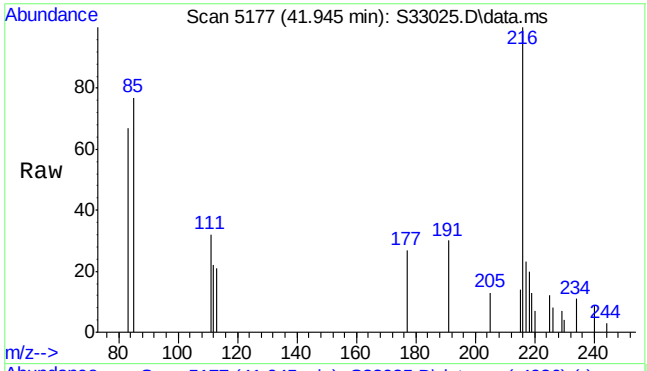
#34
Pyrene
Concen: 69.55 ng/mL
RT: 39.599 min Scan# 4778
Delta R.T. 0.006 min
Lab File: S33025.D
Acq: 24 Jul 2013 1:26 am

Tgt Ion:202 Resp: 20884

Ion	Ratio	Lower	Upper
202	100		
101	33.6	11.4	17.0#



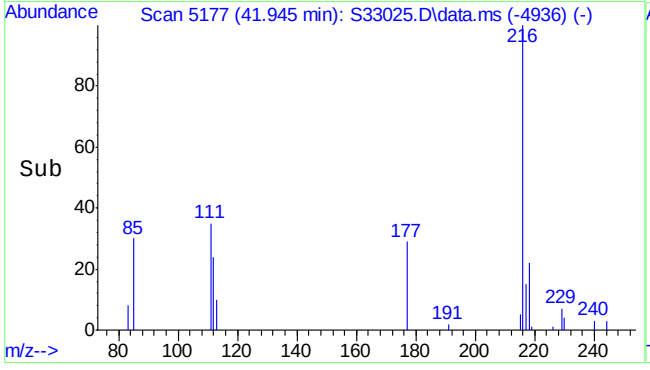


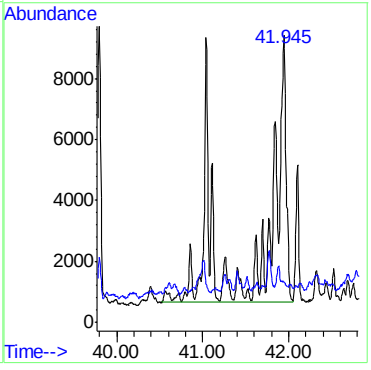


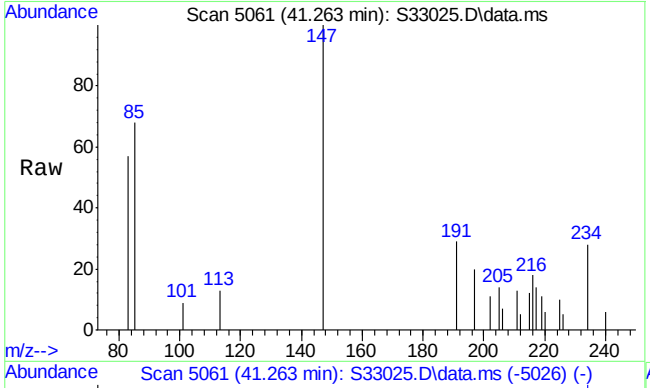
#35
C1-Fluoranthenes/pyrenes
Concen: 419.09 ng/mL m
RT: 41.945 min Scan# 5177
Delta R.T. 0.941 min
Lab File: S33025.D
Acq: 24 Jul 2013 1:26 am

Tgt Ion:216 Resp: 125833

Ion	Ratio	Lower	Upper
216	100		
215	0.7	79.0	118.4#



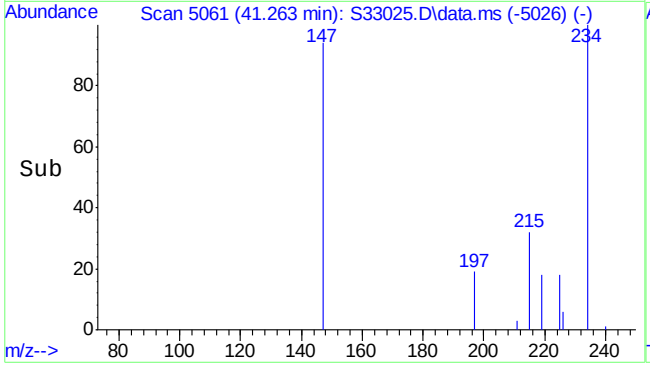


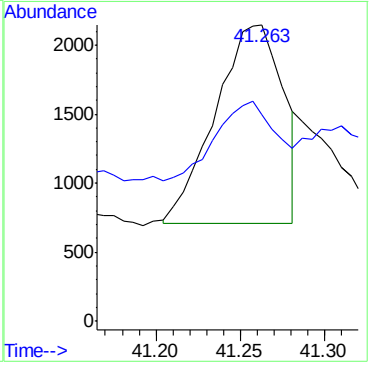


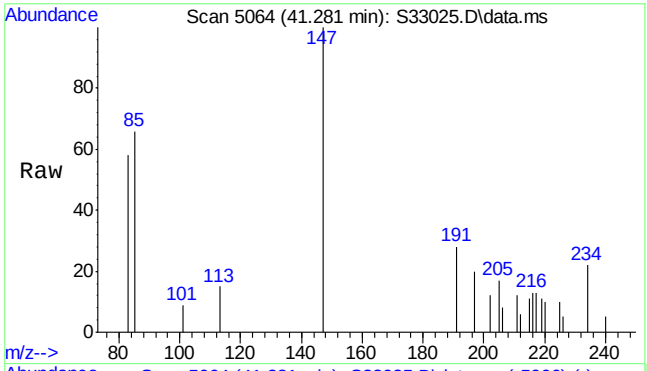
#36
Benzo(b)fluorene
Concen: 13.36 ng/mL m
RT: 41.263 min Scan# 5061
Delta R.T. 0.006 min
Lab File: S33025.D
Acq: 24 Jul 2013 1:26 am

Tgt Ion:216 Resp: 4010

Ion	Ratio	Lower	Upper
216	100		
215	36.1	112.3	168.5#



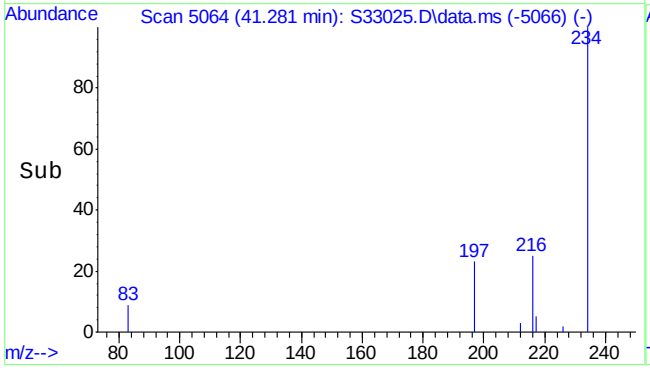


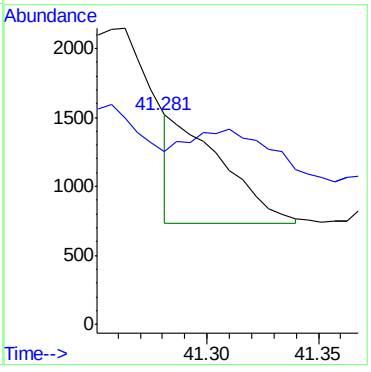


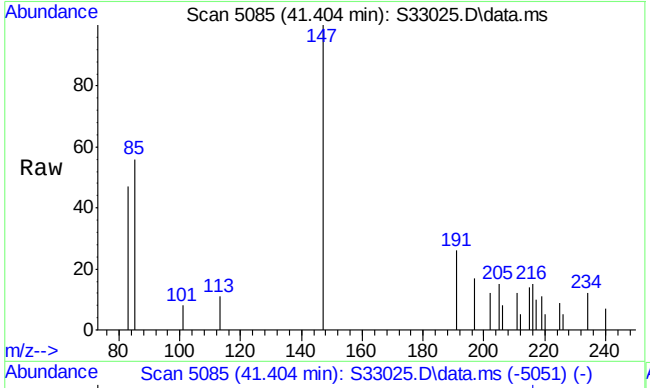
#37
Benzo(c)fluorene
Concen: 4.19 µg/mL m
RT: 41.281 min Scan# 5064
Delta R.T. -0.012 min
Lab File: S33025.D
Acq: 24 Jul 2013 1:26 am

Tgt Ion:216 Resp: 1259

Ion	Ratio	Lower	Upper
216	100		
215	143.4	114.9	172.3



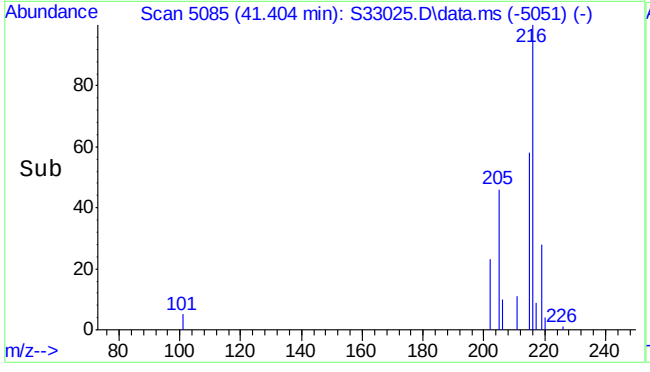


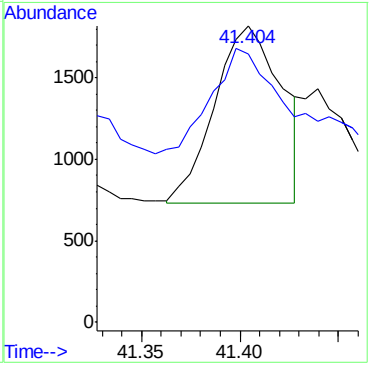


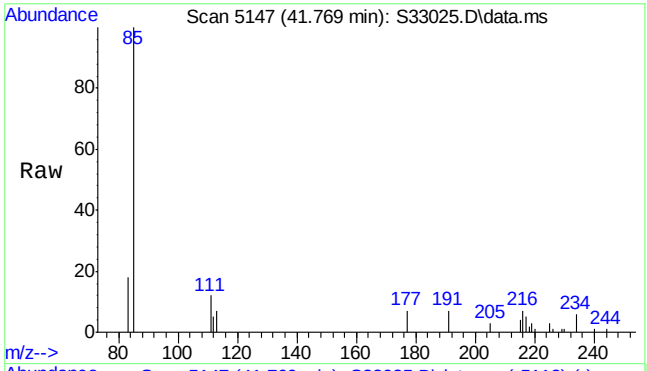
#38
2-Methylpyrene
Concen: 8.54 ng/mL m
RT: 41.404 min Scan# 5085
Delta R.T. 0.000 min
Lab File: S33025.D
Acq: 24 Jul 2013 1:26 am

Tgt Ion:216 Resp: 2563

Ion	Ratio	Lower	Upper
216	100		
215	70.4	81.0	121.6#



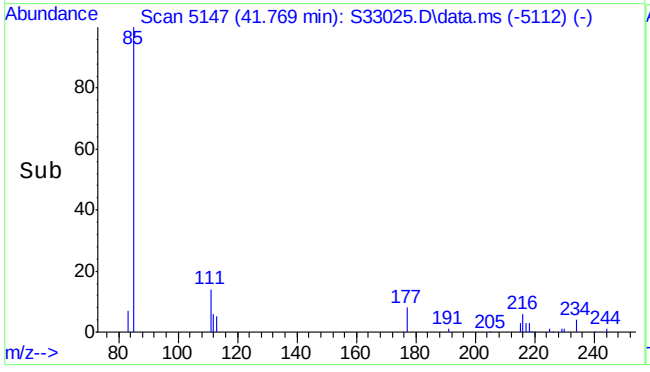


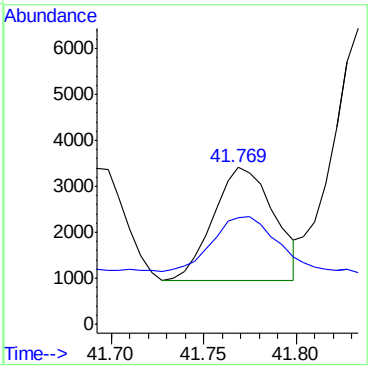


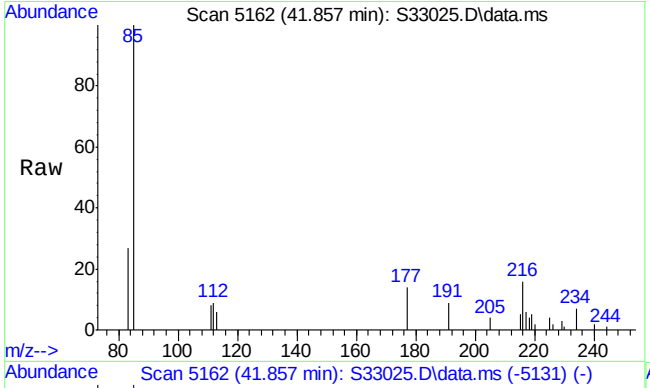
#39
4-Methylpyrene
Concen: 18.64 ng/mL
RT: 41.769 min Scan# 5147
Delta R.T. 0.006 min
Lab File: S33025.D
Acq: 24 Jul 2013 1:26 am

Tgt Ion:216 Resp: 5597

Ion	Ratio	Lower	Upper
216	100		
215	53.3	58.1	87.1#



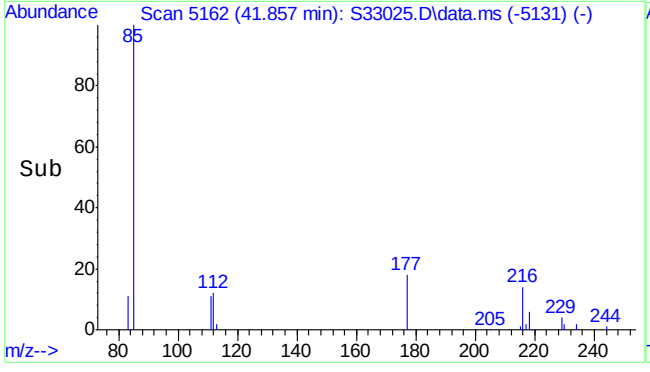


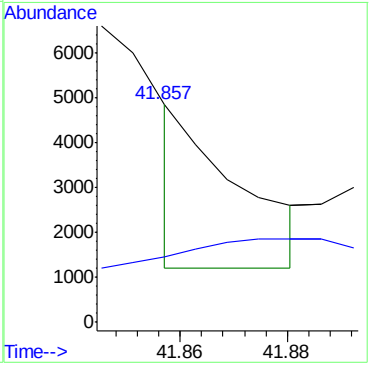


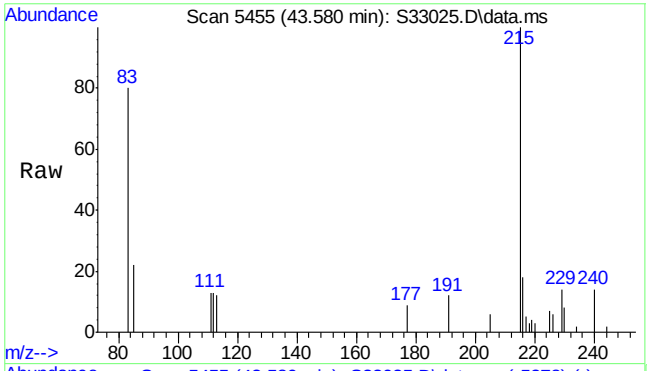
#40
1-Methylpyrene
Concen: 8.99 ng/mL m
RT: 41.857 min Scan# 5162
Delta R.T. -0.017 min
Lab File: S33025.D
Acq: 24 Jul 2013 1:26 am

Tgt Ion:216 Resp: 2700

Ion	Ratio	Lower	Upper
216	100		
215	0.0	80.5	120.7#



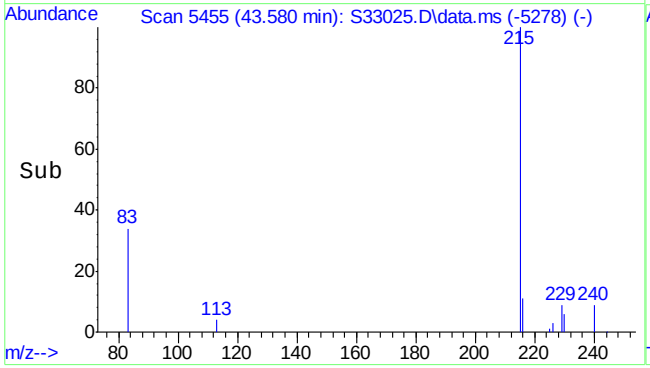


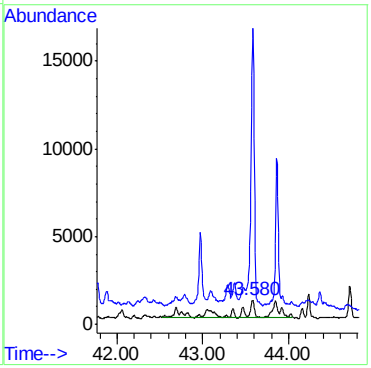


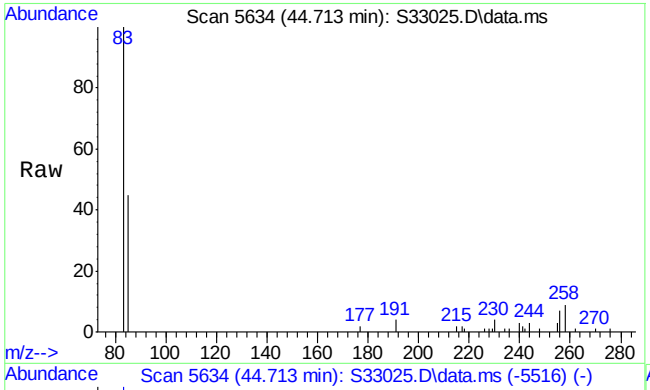
#41
C2-Fluoranthenes/pyrenes
Concen: 59.69 ng/mL m
RT: 43.580 min Scan# 5455
Delta R.T. -0.335 min
Lab File: S33025.D
Acq: 24 Jul 2013 1:26 am

Tgt Ion:230 Resp: 17921

Ion	Ratio	Lower	Upper
230	100		
215	0.0	79.2	118.8#



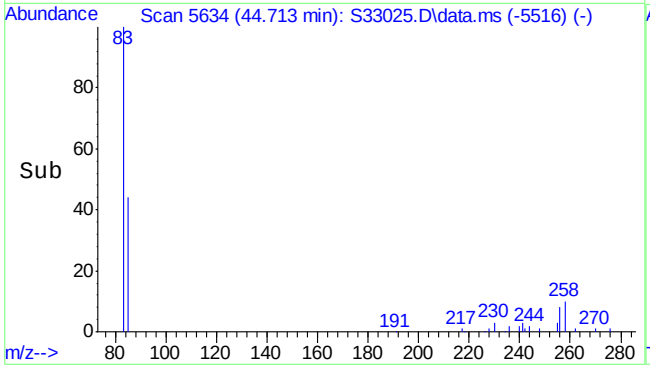


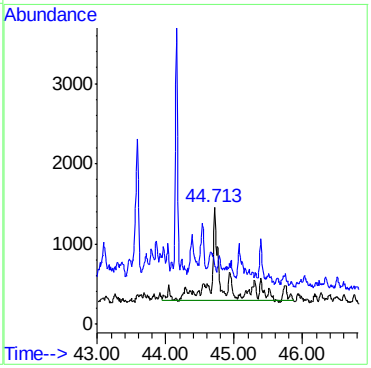


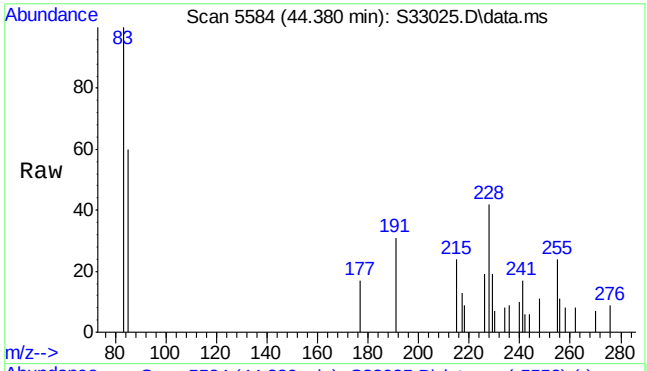
#42
C3-Fluoranthenes/pyrenes
Concen: 46.77 ng/mL m
RT: 44.713 min Scan# 5634
Delta R.T. -0.113 min
Lab File: S33025.D
Acq: 24 Jul 2013 1:26 am

Tgt Ion:244 Resp: 14042

Ion	Ratio	Lower	Upper
244	100		
229	0.0	81.8	122.8#



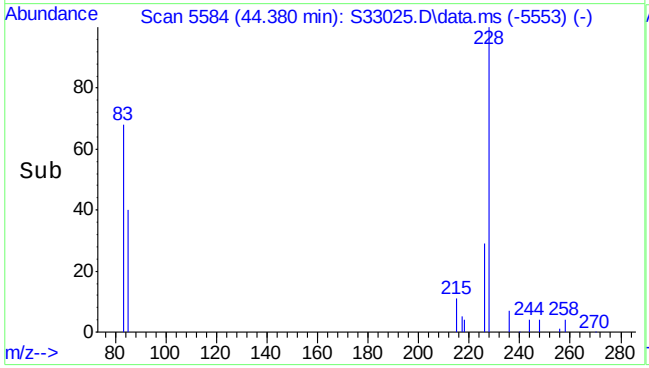


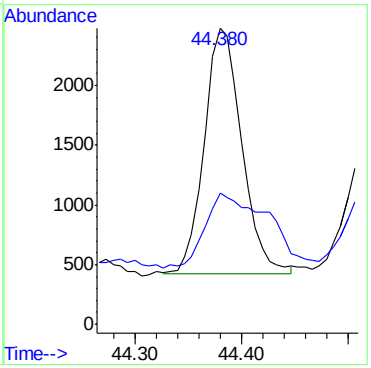


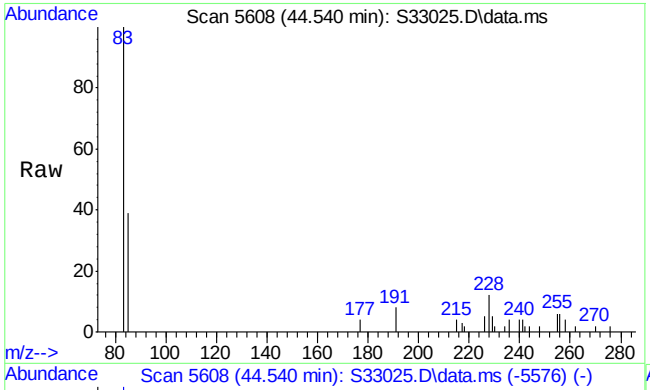
#43
Benz(a)anthracene
Concen: 17.50 ng/mL m
RT: 44.380 min Scan# 5584
Delta R.T. 0.007 min
Lab File: S33025.D
Acq: 24 Jul 2013 1:26 am

Tgt Ion:228 Resp: 5074

Ion	Ratio	Lower	Upper
228	100		
226	51.6	21.4	32.2#



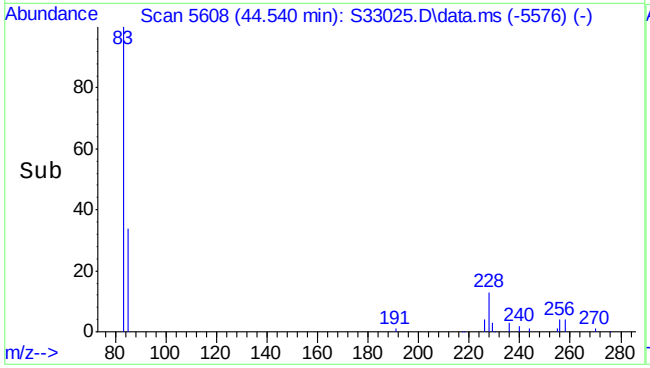


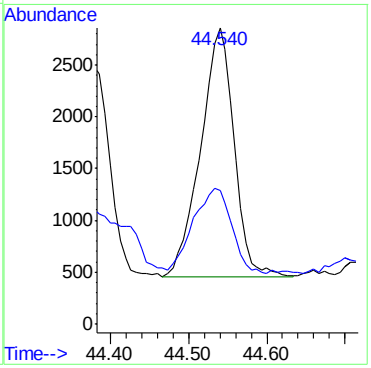


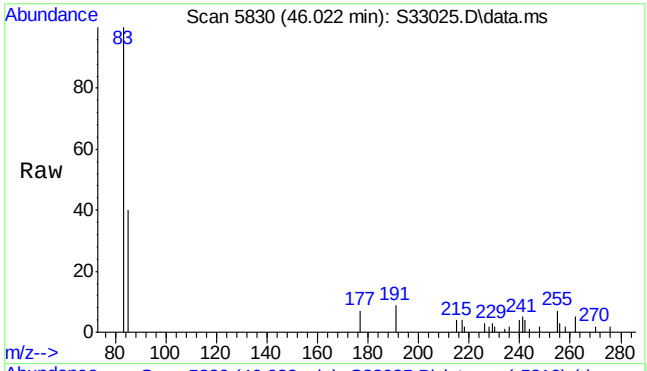
#44
Chrysene
Concen: 26.26 ng/mL
RT: 44.540 min Scan# 5608
Delta R.T. 0.013 min
Lab File: S33025.D
Acq: 24 Jul 2013 1:26 am

Tgt Ion:228 Resp: 7104

Ion	Ratio	Lower	Upper
228	100		
226	39.4	23.8	35.6#



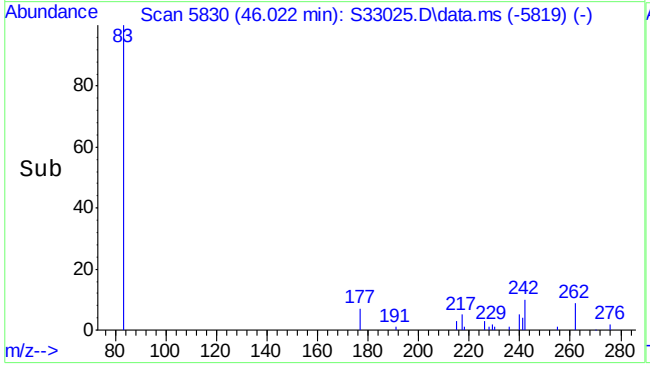


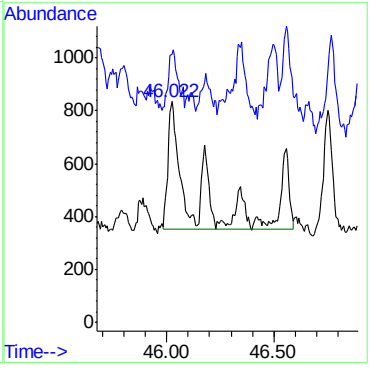


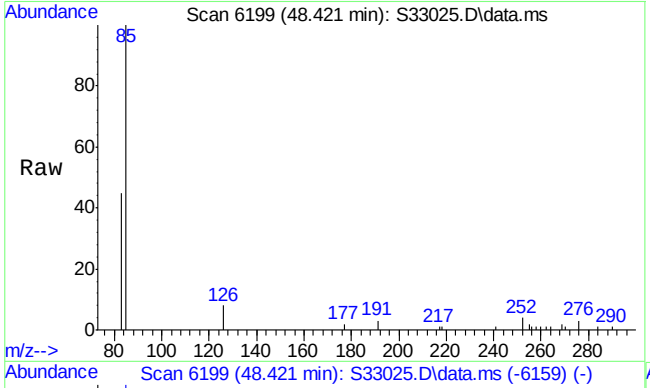
#45
C1-Benz(a)anthracenes/chrysenes
Concen: 14.34 ng/mL m
RT: 46.022 min Scan# 5830
Delta R.T. 0.007 min
Lab File: S33025.D
Acq: 24 Jul 2013 1:26 am

Tgt Ion:242 Resp: 3880

Ion	Ratio	Lower	Upper
242	100		
241	18.1	39.4	59.0#



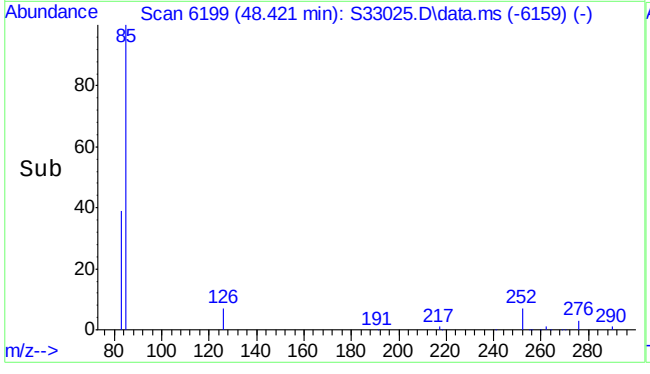


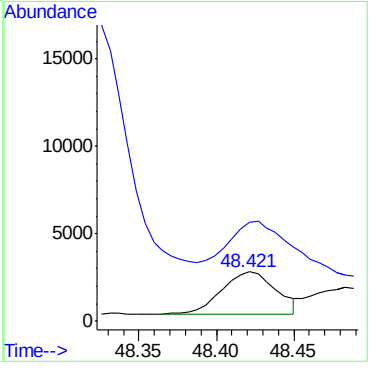


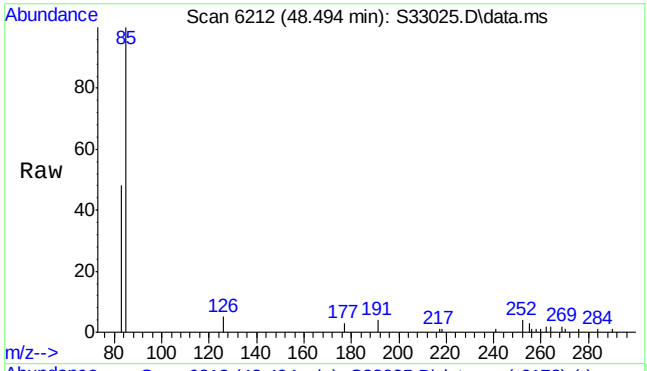
#49
Benzo(b)fluoranthene
Concen: 17.72 ng/mL
RT: 48.421 min Scan# 6199
Delta R.T. 0.022 min
Lab File: S33025.D
Acq: 24 Jul 2013 1:26 am

Tgt Ion:252 Resp: 5884

Ion	Ratio	Lower	Upper
252	100		
126	156.0	10.6	15.8#



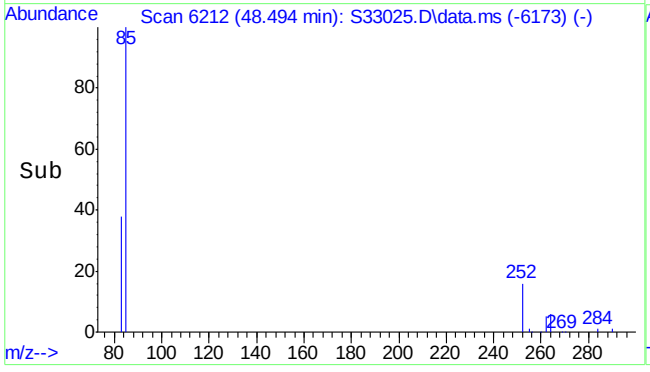


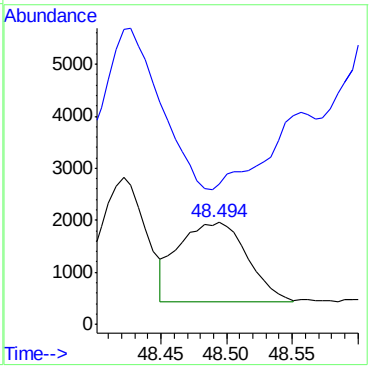


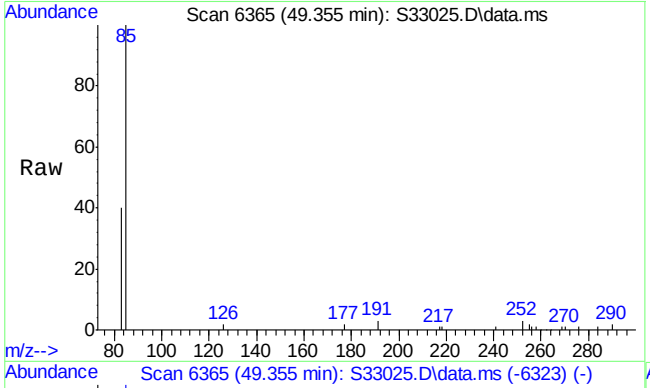
#50
Benzo(k)fluoranthene
Concen: 16.71 ng/mL m
RT: 48.494 min Scan# 6212
Delta R.T. 0.017 min
Lab File: S33025.D
Acq: 24 Jul 2013 1:26 am

Tgt Ion:252 Resp: 5530

Ion	Ratio	Lower	Upper
252	100		
126	0.0	11.9	17.9#



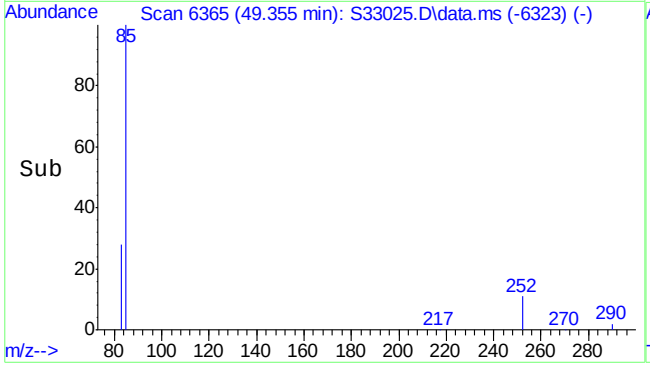


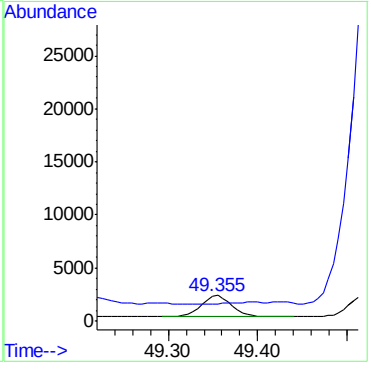


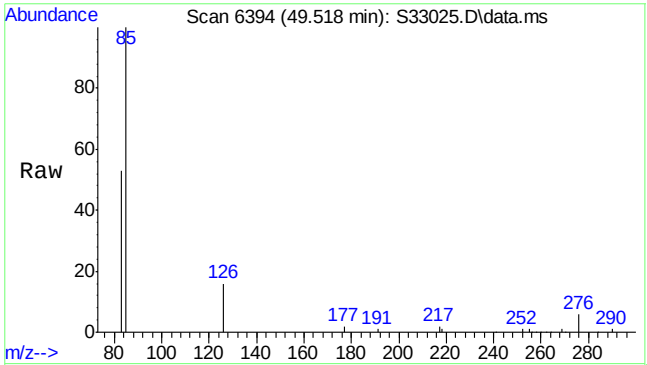
#51
Benzo(e)pyrene
Concen: 16.56 ng/mL
RT: 49.355 min Scan# 6365
Delta R.T. 0.034 min
Lab File: S33025.D
Acq: 24 Jul 2013 1:26 am

Tgt Ion:252 Resp: 4945

Ion	Ratio	Lower	Upper
252	100		
126	0.0	9.9	14.9#



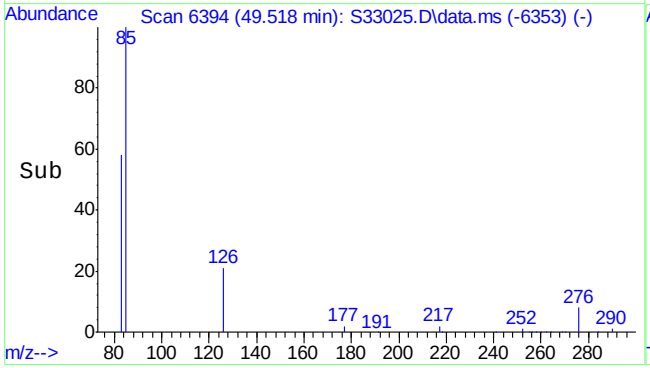


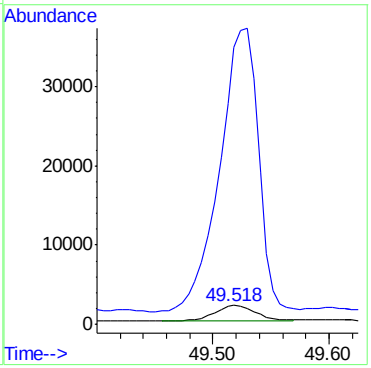


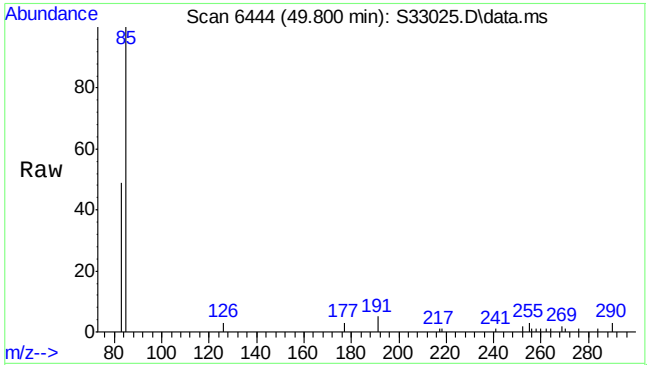
#52
Benzo(a)pyrene
Concen: 17.01 ng/mL m
RT: 49.518 min Scan# 6394
Delta R.T. 0.028 min
Lab File: S33025.D
Acq: 24 Jul 2013 1:26 am

Tgt Ion:252 Resp: 4922

Ion	Ratio	Lower	Upper
252	100		
126	1691.5	11.6	17.4#



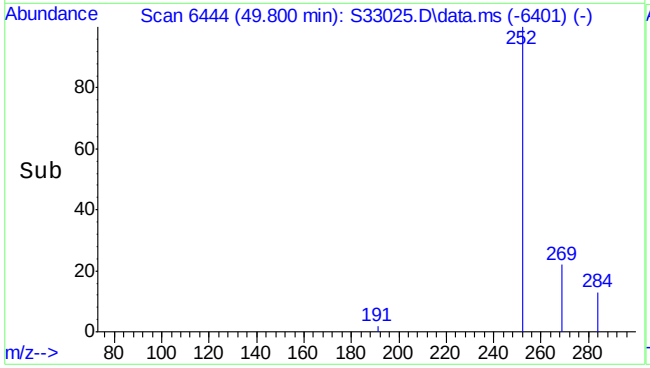


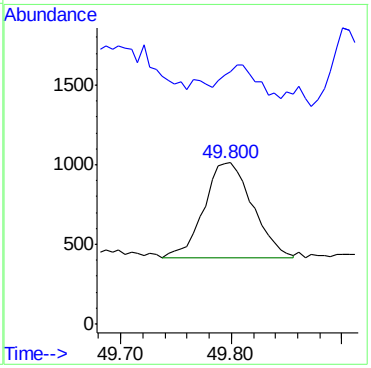


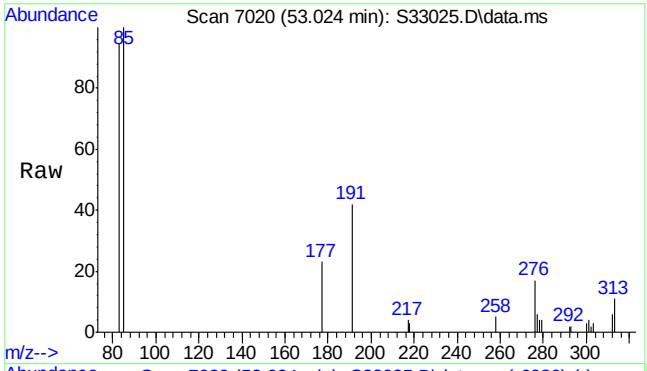
#53
Perylene
Concen: 6.42 ng/mL
RT: 49.800 min Scan# 6444
Delta R.T. 0.039 min
Lab File: S33025.D
Acq: 24 Jul 2013 1:26 am

Tgt Ion:252 Resp: 1804

Ion	Ratio	Lower	Upper
252	100		
126	23.9	12.5	18.7#



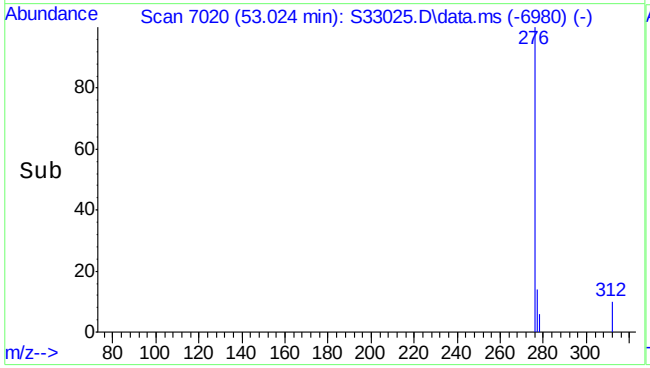


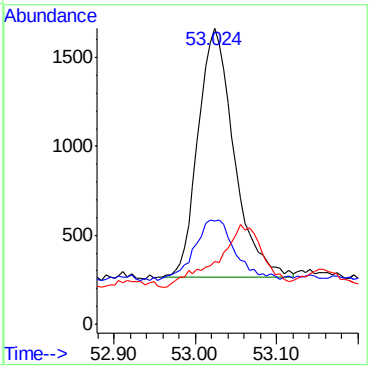


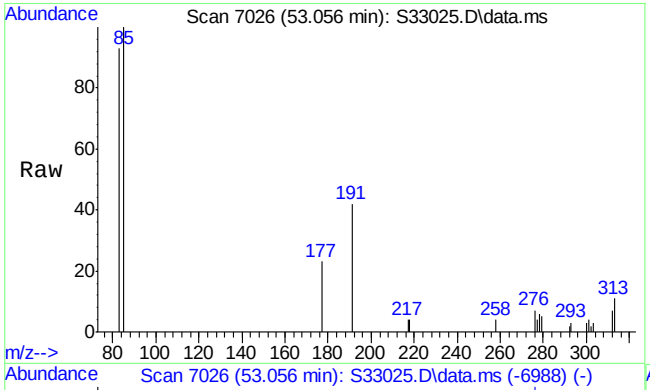
#54
Indeno(1,2,3-cd)pyrene
Concen: 12.95 ng/mL
RT: 53.024 min Scan# 7020
Delta R.T. 0.016 min
Lab File: S33025.D
Acq: 24 Jul 2013 1:26 am

Tgt Ion:276 Resp: 4290

Ion	Ratio	Lower	Upper
276	100		
277	28.4	19.0	28.4
278	0.0	5.7	8.5#



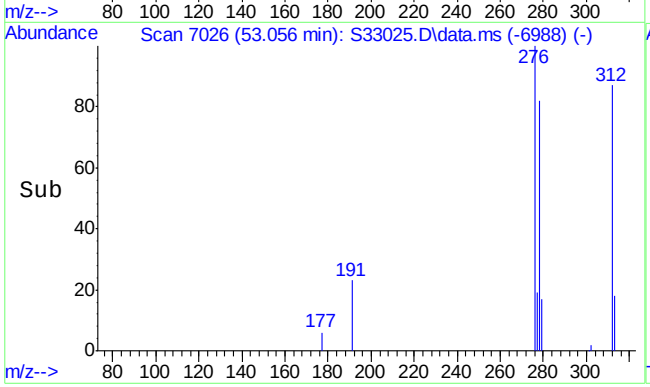


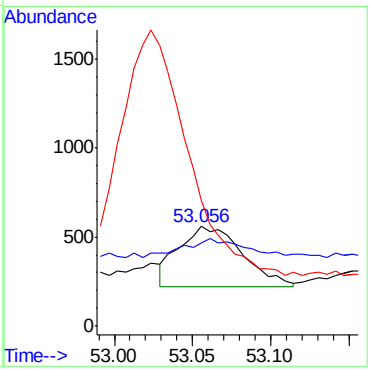


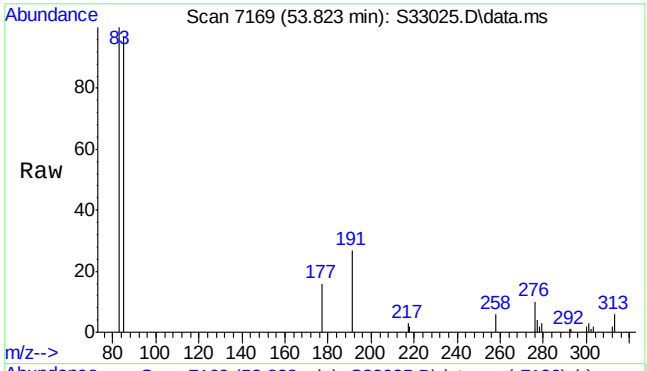
#55
Dibenz(a,h)anthracene
Concen: 3.24 ng/mL m
RT: 53.056 min Scan# 7026
Delta R.T. 0.005 min
Lab File: S33025.D
Acq: 24 Jul 2013 1:26 am

Tgt Ion:278 Resp: 975

Ion	Ratio	Lower	Upper
278	100		
279	31.5	19.2	28.8#
276	0.0	29.6	44.4#



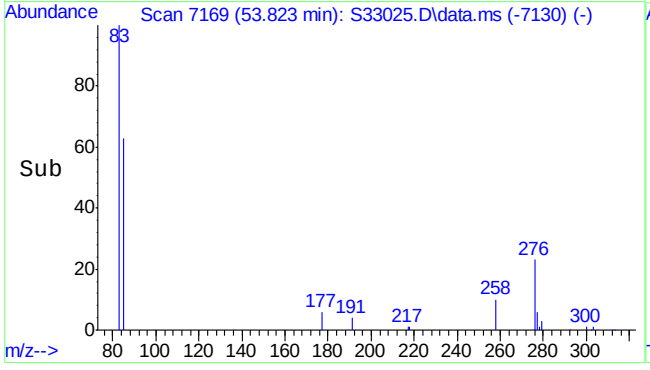


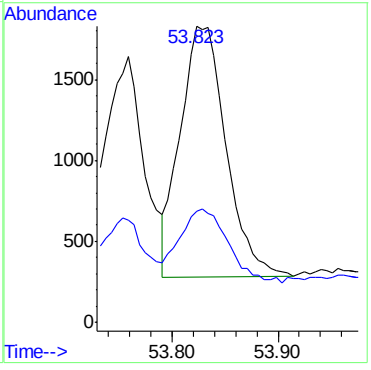


#56
Benzo(g,h,i)perylene
Concen: 13.09 ng/mL
RT: 53.823 min Scan# 7169
Delta R.T. 0.011 min
Lab File: S33025.D
Acq: 24 Jul 2013 1:26 am

Tgt Ion:276 Resp: 4647

Ion	Ratio	Lower	Upper
276	100		
277	29.7	18.9	28.3#





7.1.3

7

Manual Integrations APPROVED (compounds with "m" flag)
James Roush
07/29/13 14:06

Quantitation Report (QT Reviewed)

Data Path : S:\1\data\S130723\
Data File : S33039.D
Acq On : 24 Jul 2013 6:29 pm
Operator : kristinr
Sample : mc21754-2a
Misc : op33686,mss1444,5.13,,,2,5
ALS Vial : 86 Sample Multiplier: 1

Quant Time: Jul 25 12:05:46 2013
Quant Method : S:\1\methods\S130705-B5739ALKPAH.M
Quant Title : PAHs & Alkylated PAHs by GC/MS/SIM
QLast Update : Thu Jul 11 09:13:24 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Acenaphthene-d10	28.049	164	117465	1100.00	ng/mL	0.00
System Monitoring Compounds						
2) Toluene-d8	9.196	98	489m	3.89	µg/mL	0.00
Spiked Amount 1000.000			Recovery = 0.39%			
3) Naphthalene-d8	21.102	136	1535	7.39	ng/mL	-0.02
Spiked Amount 1000.000	Range 1 - 0		Recovery = 0.74%#			
4) Phenanthrene-d10	33.887	188	1340	7.84	ng/mL	0.00
Spiked Amount 1000.000			Recovery = 0.78%			
5) Perylene-d12	49.687	264	1140	7.55	ng/mL	0.00
Spiked Amount 1000.000			Recovery = 0.75%			
Target Compounds						Qvalue
6) Naphthalene	21.177	128	1815368	6877.77	ng/mL	99
9) C1-Naphthalenes	23.882	142	272780m	1033.46	ng/mL	
10) C2-Naphthalenes	26.711	156	57509m	217.88	ng/mL	
11) C3-Naphthalenes	29.049	170	56773m	215.09	ng/mL	
12) C4-Naphthalenes	31.800	184	57054m	216.16	ng/mL	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

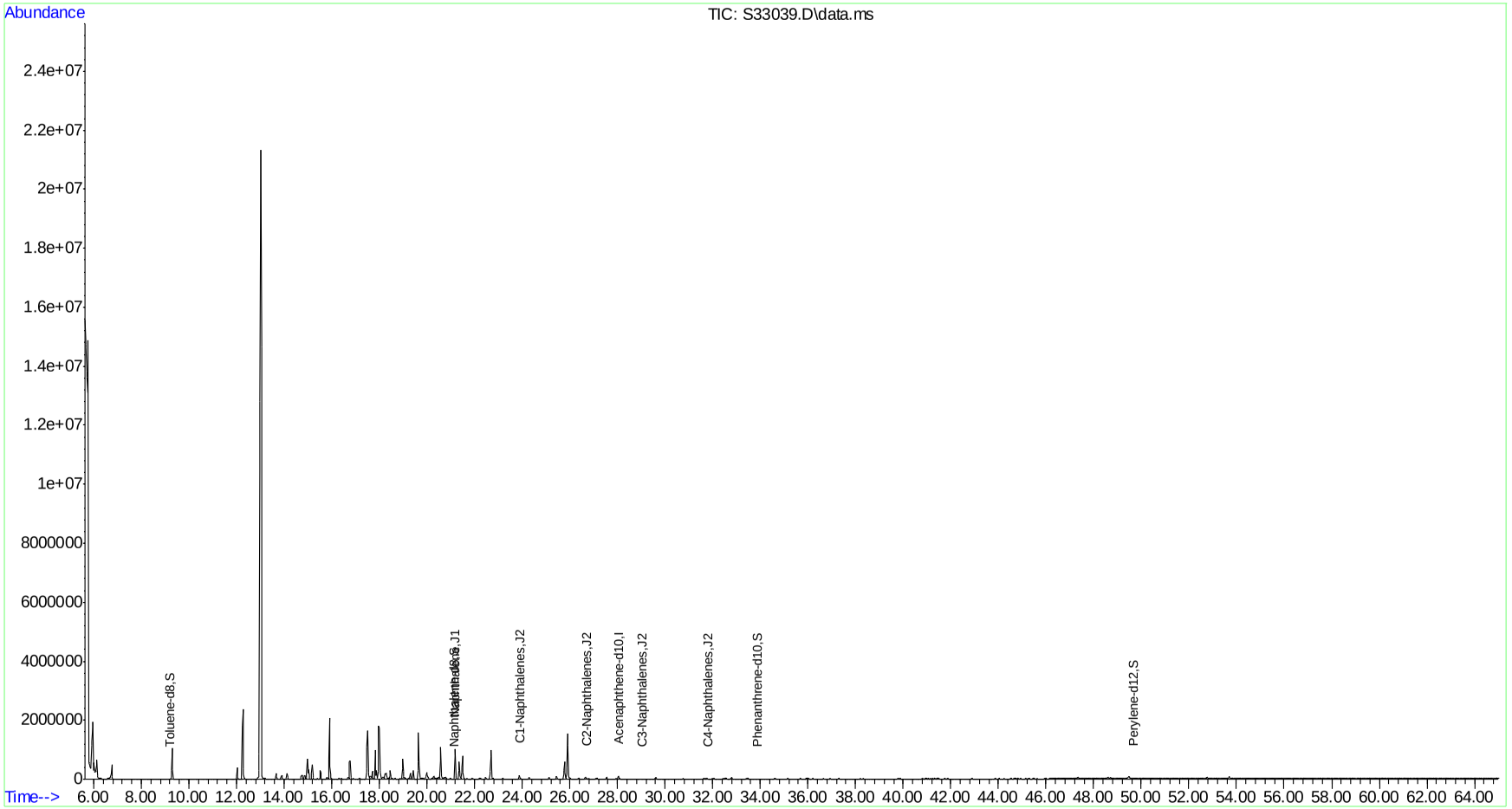
7.1.4

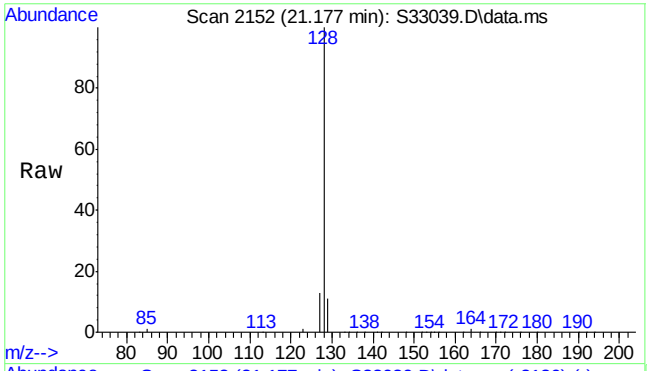
7

Quantitation Report (QT Reviewed)

Data Path : S:\1\data\S130723\
Data File : S33039.D
Acq On : 24 Jul 2013 6:29 pm
Operator : kristinr
Sample : mc21754-2a
Misc : op33686,mss1444,5.13,,,2,5
ALS Vial : 86 Sample Multiplier: 1

Quant Time: Jul 25 12:05:46 2013
Quant Method : S:\1\methods\S130705-B5739ALKPAH.M
Quant Title : PAHs & Alkylated PAHs by GC/MS/SIM
QLast Update : Thu Jul 11 09:13:24 2013
Response via : Initial Calibration

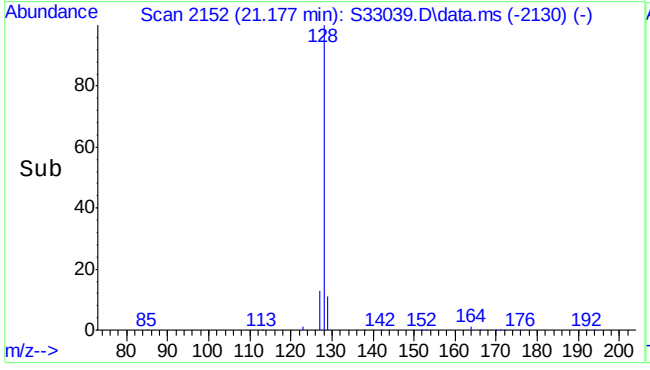


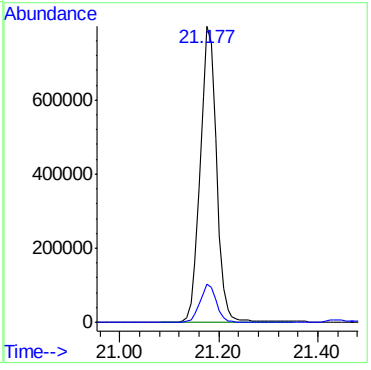


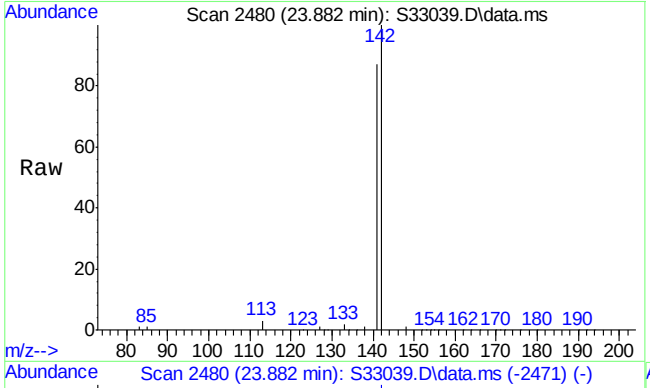
#6
Naphthalene
Concen: 6877.77 ng/mL
RT: 21.177 min Scan# 2152
Delta R.T. -0.016 min
Lab File: S33039.D
Acq: 24 Jul 2013 6:29 pm

Tgt Ion:128 Resp: 1815368

Ion	Ratio	Lower	Upper
128	100		
127	12.8	10.0	15.0



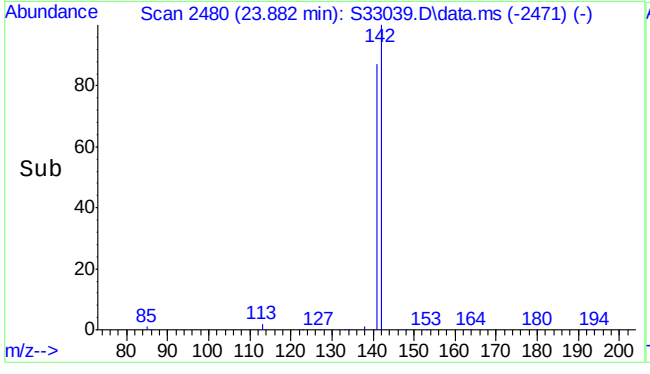


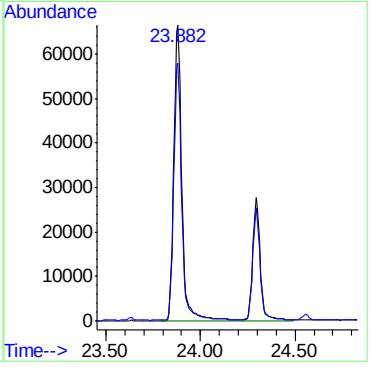


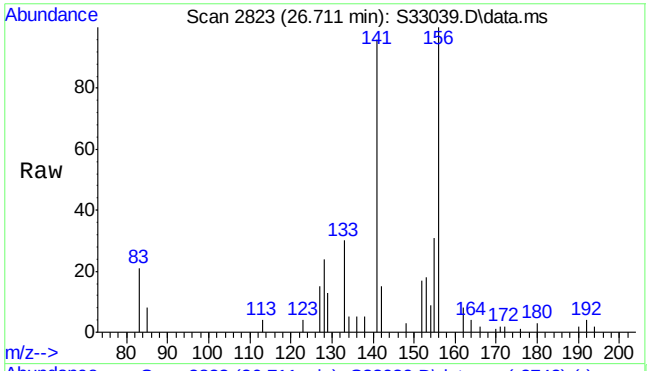
#9
C1-Naphthalenes
Concen: 1033.46 ng/mL m
RT: 23.882 min Scan# 2480
Delta R.T. 0.000 min
Lab File: S33039.D
Acq: 24 Jul 2013 6:29 pm

Tgt Ion:142 Resp: 272780

Ion	Ratio	Lower	Upper
142	100		
141	62.2	69.9	104.9#



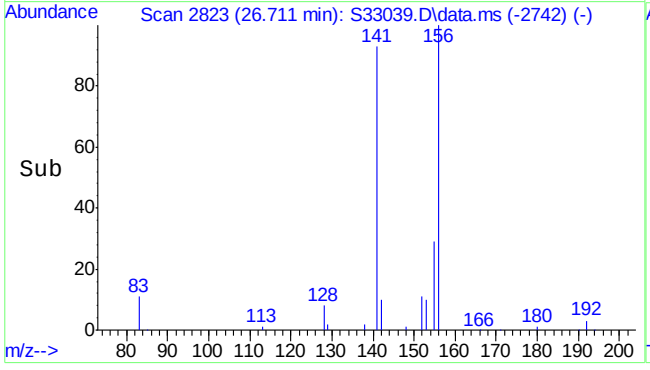


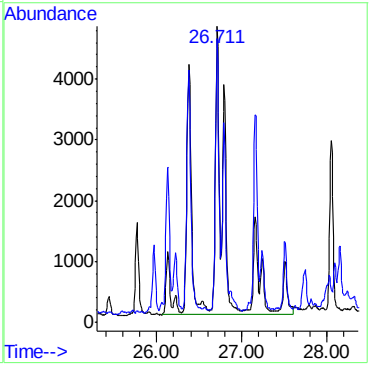


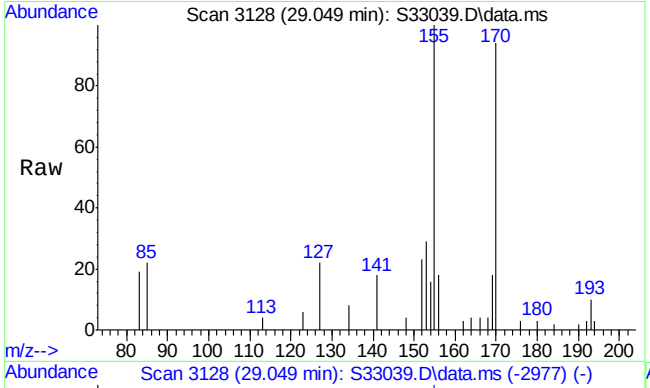
#10
C2-Naphthalenes
Concen: 217.88 ng/mL m
RT: 26.711 min Scan# 2823
Delta R.T. -0.090 min
Lab File: S33039.D
Acq: 24 Jul 2013 6:29 pm

Tgt Ion:156 Resp: 57509

Ion	Ratio	Lower	Upper
156	100		
141	12.9	64.9	97.3#



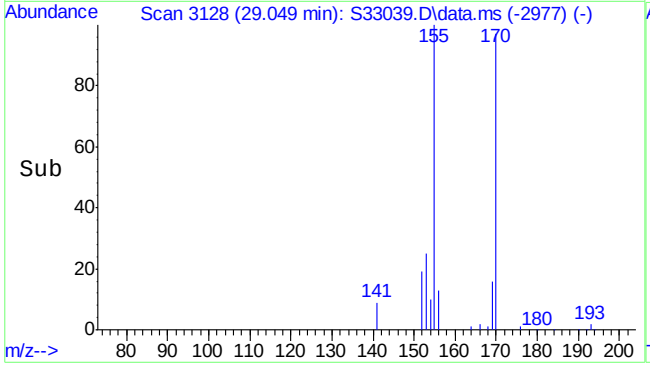


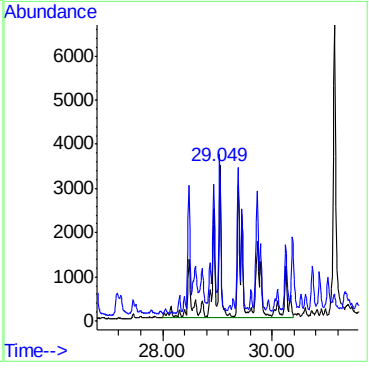


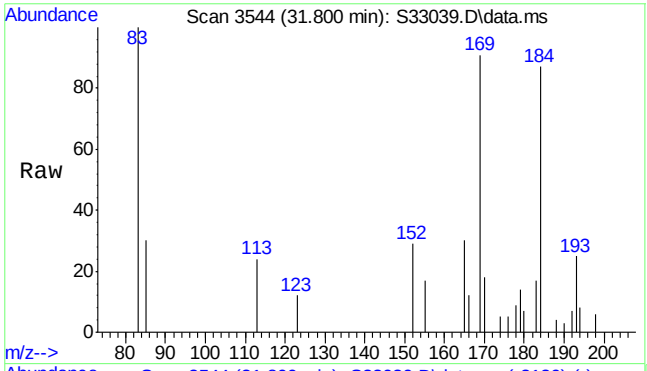
#11
C3-Naphthalenes
Concen: 215.09 ng/mL m
RT: 29.049 min Scan# 3128
Delta R.T. -0.007 min
Lab File: S33039.D
Acq: 24 Jul 2013 6:29 pm

Tgt Ion:170 Resp: 56773

Ion	Ratio	Lower	Upper
170	100		
155	16.8	85.4	128.2#



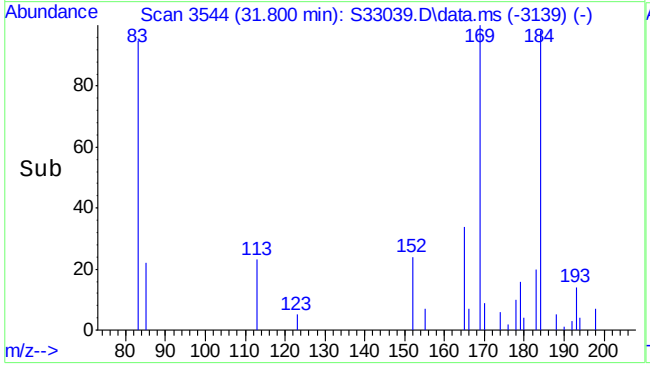


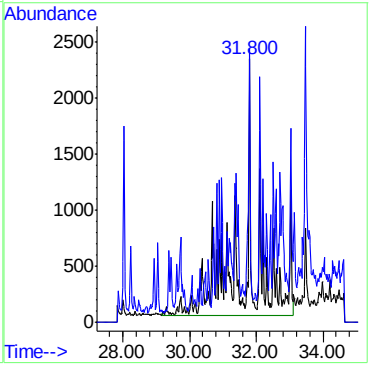


#12
C4-Naphthalenes
Concen: 216.16 ng/mL m
RT: 31.800 min Scan# 3544
Delta R.T. -0.013 min
Lab File: S33039.D
Acq: 24 Jul 2013 6:29 pm

Tgt Ion:184 Resp: 57054

Ion	Ratio	Lower	Upper
184	100		
169	3.1	81.0	121.6#





7.1.4

7

Manual Integrations APPROVED (compounds with "m" flag)
James Roush
07/31/13 10:55

Quantitation Report (QT Reviewed)

Data Path : S:\1\data\S130716\
Data File : S32996.D
Acq On : 16 Jul 2013 8:53 pm
Operator : kristinr
Sample : mc21754-2a
Misc : op33686,mss1443,5.13,,,2,10
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jul 18 14:29:51 2013
Quant Method : S:\1\methods\S130705-MAHPAHEXT.M
Quant Title : PAHs & Alkylated PAHs by GC/MS/SIM
QLast Update : Thu Jul 11 09:13:24 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Acenaphthene-d10	28.150	164	136886	1100.00 ng/mL	-0.04
System Monitoring Compounds					
2) Toluene-d8	9.224	98	2028	13.84 µg/mL	-0.08
Spiked Amount 1000.000			Recovery = 1.38%		
3) Naphthalene-d8	21.209	136	7568	31.27 ng/mL	-0.03
Spiked Amount 1000.000	Range 1 - 0		Recovery = 3.13%#		
4) Phenanthrene-d10	33.983	188	7049	35.38 ng/mL	-0.04
Spiked Amount 1000.000			Recovery = 3.54%		
5) Perylene-d12	49.794	264	6746	38.36 ng/mL	-0.04
Spiked Amount 1000.000			Recovery = 3.84%		

Target Compounds					Qvalue
7) Benzene	6.826	78	17541m	94.51 µg/mL	
8) C1-Benzene	9.332	92	4704262	25347.60 µg/mL	99
9) C2-Benzenes	13.172	106	67789645m	365265.55 µg/mL	
10) C3-Benzenes	16.017	120	9919889m	53450.55 µg/mL	
11) C4-Benzenes	19.511	134	4098644m	22084.40 µg/mL	
12) C5-Benzenes	21.481	148	586280m	3159.01 µg/mL	
13) Methylcyclohexane	8.165	83	65777	771.50 µg/mL	95
14) Toluene	9.332	91	8104608	37945.81 µg/mL	98
15) Ethylbenzene	12.091	91	2813871	11194.11 µg/mL	97
16) m,p-xylene	12.343	91	14607479	73883.99 µg/mL	97
17) Styrene	13.006	104	171186m	1263.49 µg/mL	
18) o-Xylene	13.071	91	78304069m	388310.80 µg/mL	
19) Isopropylbenzene	13.986	105	904300	3996.59 µg/mL	98
20) n-Propylbenzene	14.829	91	833342m	2890.81 µg/mL	
21) 1,3,5-Trimethylbenzene	15.261	105	2646069	12606.08 µg/mL	97
22) t-Butylbenzene	16.017	119	1266415	6217.03 µg/mL#	54
23) 1,2,4-Trimethylbenzene	16.017	105	10796002	51984.04 µg/mL	99
24) sec-Butylbenzene	16.485	105	178958	658.58 µg/mL	98
25) 1,2,3-Trimethylbenzene	16.845	105	3151158	14296.76 µg/mL	96
26) p-Isopropyltoluene	16.853	119	840842m	3589.09 µg/mL	
27) n-Butylbenzene	17.739	91	237568m	1154.24 µg/mL	
28) trans-Decalin	17.818	96	462	11.00 µg/mL	97
29) cis-Decalin	19.100	96	11458m	209.18 µg/mL	
30) C1-Decalins	19.331	152	2894m	68.91 µg/mL	
31) C2-Decalins	21.308	166	3052m	72.67 µg/mL	
32) C3-Decalins	22.884	180	5001m	119.08 µg/mL	
33) C4-Decalins	26.760	194	12298m	292.82 µg/mL	
34) Benzo(b)thiophene	21.498	134	229181	926.72 µg/mL#	79
35) C1-Benzo(b)thiophenes	23.568	148	89850m	363.32 µg/mL	
36) C2-Benzo(b)thiophenes	26.042	162	14525087m	58734.18 µg/mL	
37) C3-Benzo(b)thiophenes	27.651	176	65224m	263.74 µg/mL	
38) C4-Benzo(b)thiophenes	29.853	190	14806m	59.87 µg/mL	
44) Naphthalene	21.292	128	9422181	30632.62 ng/mL	100
45) 2-Methylnaphthalene	23.981	142	1062582	5822.03 ng/mL	100
46) 1-Methylnaphthalene	24.393	142	399033	2095.76 ng/mL	99
47) C1-Naphthalenes	23.981	142	1471839m	4785.12 ng/mL	

Quantitation Report (QT Reviewed)

Data Path : S:\1\data\S130716\
Data File : S32996.D
Acq On : 16 Jul 2013 8:53 pm
Operator : kristinr
Sample : mc21754-2a
Misc : op33686,mss1443,5.13,,,2,10
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jul 18 14:29:51 2013
Quant Method : S:\1\methods\S130705-MAHPAHEXT.M
Quant Title : PAHs & Alkylated PAHs by GC/MS/SIM
QLast Update : Thu Jul 11 09:13:24 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
48) C2-Naphthalenes	26.810	156	308120m	1001.73	ng/mL	
49) C3-Naphthalenes	29.142	170	311297m	1012.06	ng/mL	
50) C4-Naphthalenes	31.895	184	283420m	921.43	ng/mL	
51) Biphenyl	25.886	154	2784372	11625.71	µg/mL	100
52) Acenaphthylene	27.544	152	1175	4.13	ng/mL#	1
53) Acenaphthene	28.265	154	4658	26.84	ng/mL	95
54) Dibenzofuran	28.912	168	8167m	33.02	ng/mL	
55) Fluorene	30.282	166	31100m	141.29	ng/mL	
56) C1-Fluorenes	32.638	180	75819m	344.44	ng/mL	
57) C2-Fluorenes	34.834	194	167815m	762.38	ng/mL	
58) C3-Fluorenes	37.444	208	138349m	628.51	ng/mL	
59) Dibenzothiophene	33.579	184	12576	45.31	ng/mL#	1
60) C1-Dibenzothiophenes (...	35.347	198	70660m	258.30	ng/mL	
61) C1-Dibenzothiophenes (...	35.347	198	70706m	258.46	µg/mL	
62) C2-Dibenzothiophenes	37.028	212	120508m	440.51	ng/mL	
63) C3-Dibenzothiophenes	38.840	226	68093m	248.91	ng/mL	
64) C4-Dibenzothiophenes	41.010	240	52914m	193.43	ng/mL	
65) Phenanthrene	34.072	178	80779	254.57	ng/mL	96
66) Anthracene	34.245	178	5369m	18.21	ng/mL	
67) C1-Phenanthrenes/anthr...	36.136	192	157096m	495.08	ng/mL	
68) C2-Phenanthrenes/anthr...	38.297	206	150707m	474.94	ng/mL	
70) C3-Phenanthrenes/anthr...	40.904	220	135023m	425.52	ng/mL	
71) C4-Phenanthrenes/anthr...	41.057	234	113658m	358.19	ng/mL	
72) Retene	41.057	234	7142	173.74	µg/mL#	57
73) Benzo(b)naphtho(2,1-d)...	43.539	234	1837m	6.27	µg/mL	
74) C1-Benzonaphthothiophenes	45.555	248	60708m	207.33	µg/mL	
75) C2-Benzonaphthothiophenes	47.458	262	191711m	654.74	µg/mL	
76) C3-Benzonaphthothiophenes	48.826	276	261523m	893.17	µg/mL	
77) C4-Benzonaphthothiophenes	49.625	290	114891m	392.38	µg/mL	
78) Fluoranthene	38.822	202	19047	67.76	ng/mL	98
79) Pyrene	39.693	202	23504m	80.70	ng/mL	
80) C1-Fluoranthenes/pyrenes	41.122	216	173660m	596.22	ng/mL	
81) Benzo(b)fluorene	41.345	216	5737m	19.70	ng/mL	
82) Benzo(c)fluorene	41.369	216	1182m	4.06	µg/mL	
83) 2-Methylpyrene	41.486	216	2988m	10.26	ng/mL	
84) 4-Methylpyrene	41.857	216	4742	16.28	ng/mL#	72
86) C2-Fluoranthenes/pyrenes	43.933	230	25586m	87.84	ng/mL	
87) C3-Fluoranthenes/pyrenes	44.800	244	17582m	60.36	ng/mL	
88) Benz(a)anthracene	44.473	228	6069	21.57	ng/mL#	55
89) Chrysene	44.627	228	8364	31.87	ng/mL#	84
90) C1-Benz(a)anthracenes/...	46.109	242	5573m	21.24	ng/mL	
91) C2-Benz(a)anthracenes/...	47.885	256	10905m	41.56	ng/mL	
92) C3-Benz(a)anthracenes/...	48.376	270	9244m	35.23	ng/mL	
93) C4-Benz(a)anthracenes/...	48.911	284	6676m	25.44	ng/mL	
94) Benzo(b)fluoranthene	48.506	252	8064	25.04	ng/mL#	1
95) Benzo(k)fluoranthene	48.584	252	7473	23.28	ng/mL#	86
96) Benzo(e)pyrene	49.439	252	5327	18.39	ng/mL#	68
97) Benzo(a)pyrene	49.602	252	6094	21.72	ng/mL#	1
98) Perylene	49.884	252	2092	7.67	ng/mL#	53
99) Indeno(1,2,3-cd)pyrene	53.120	276	7259	22.59	ng/mL#	95

Quantitation Report (QT Reviewed)

Data Path : S:\1\data\S130716\
Data File : S32996.D
Acq On : 16 Jul 2013 8:53 pm
Operator : kristinr
Sample : mc21754-2a
Misc : op33686,mss1443,5.13,,,2,10
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jul 18 14:29:51 2013
Quant Method : S:\1\methods\S130705-MAHPAHEXT.M
Quant Title : PAHs & Alkylated PAHs by GC/MS/SIM
QLast Update : Thu Jul 11 09:13:24 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
100) Dibenz(a,h)anthracene	53.163	278	3371m	11.56	ng/mL	
101) Benzo(g,h,i)perylene	53.930	276	6805m	19.76	ng/mL	
102) Coronene	59.794	300	2035m	6.13	µg/mL	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

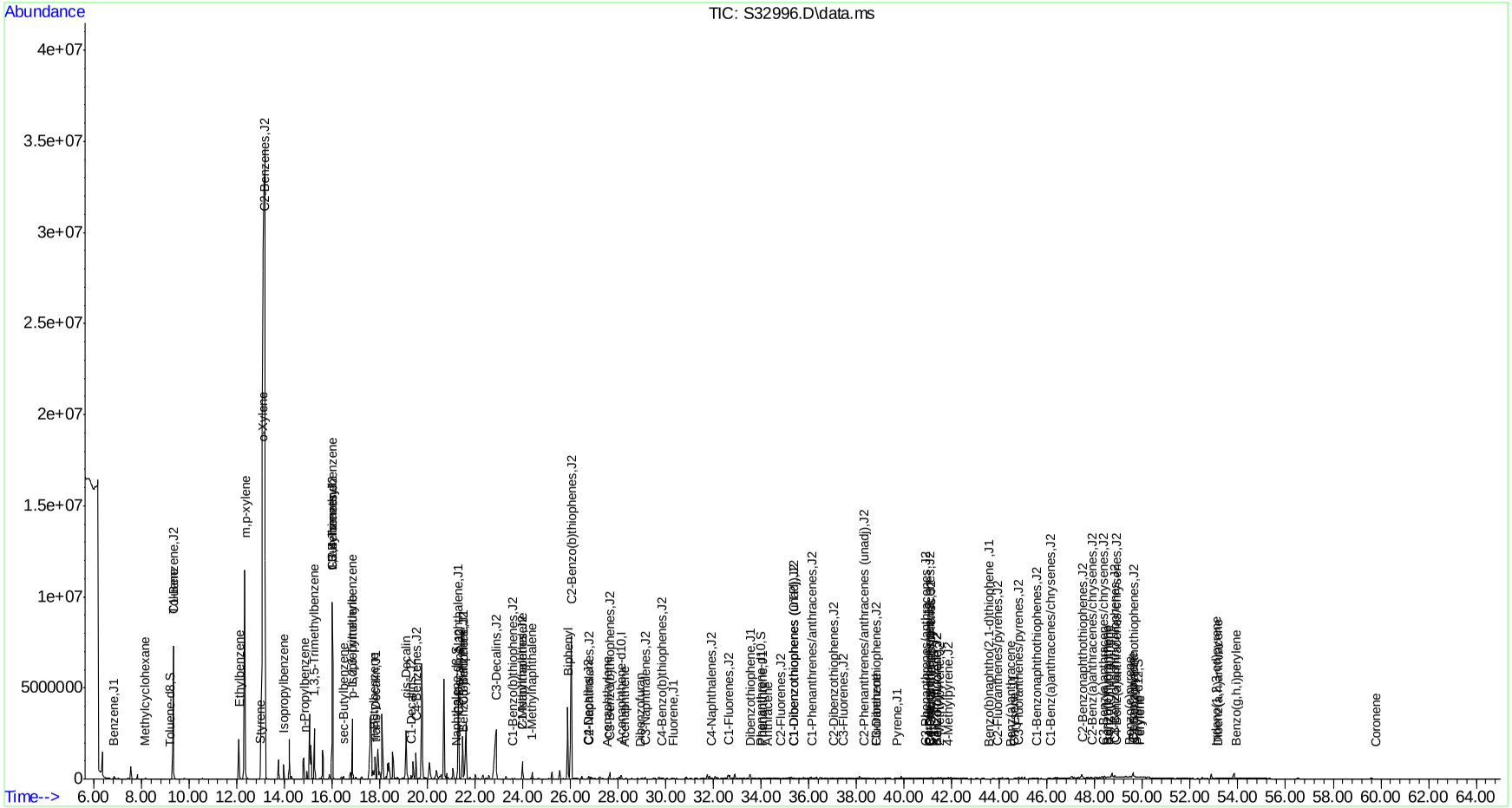
7.1.5

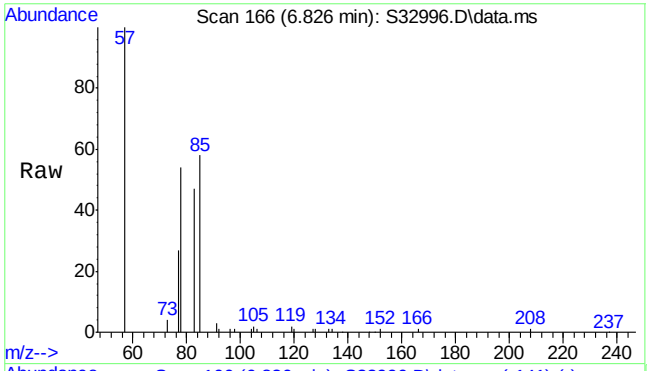
7

Quantitation Report (QT Reviewed)

Data Path : S:\1\data\S130716\
Data File : S32996.D
Acq On : 16 Jul 2013 8:53 pm
Operator : kristinr
Sample : mc21754-2a
Misc : op33686,mss1443,5.13,,,2,10
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jul 18 14:29:51 2013
Quant Method : S:\1\methods\S130705-MAHPAHEXT.M
Quant Title : PAHs & Alkylated PAHs by GC/MS/SIM
QLast Update : Thu Jul 11 09:13:24 2013
Response via : Initial Calibration

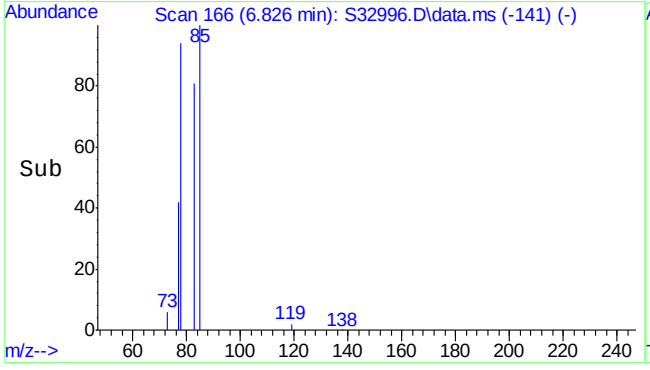


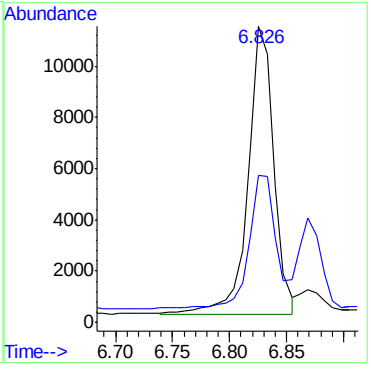


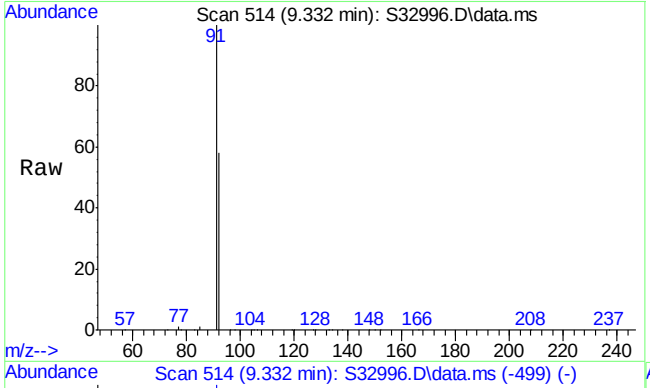
#7
Benzene
Concen: 94.51 µg/mL m
RT: 6.826 min Scan# 166
Delta R.T. -0.022 min
Lab File: S32996.D
Acq: 16 Jul 2013 8:53 pm

Tgt Ion: 78 Resp: 17541

Ion	Ratio	Lower	Upper
78	100		
77	48.3	19.2	28.8#



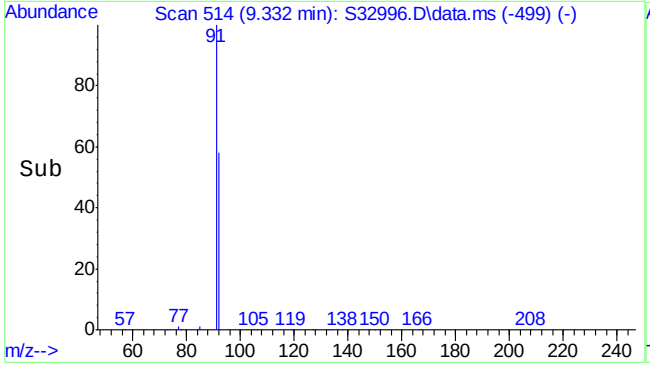


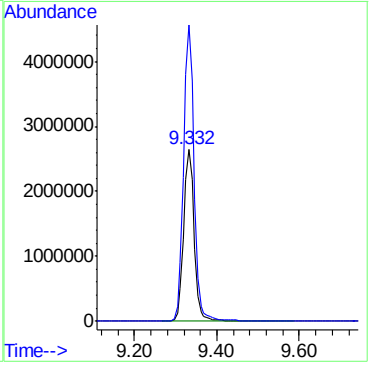


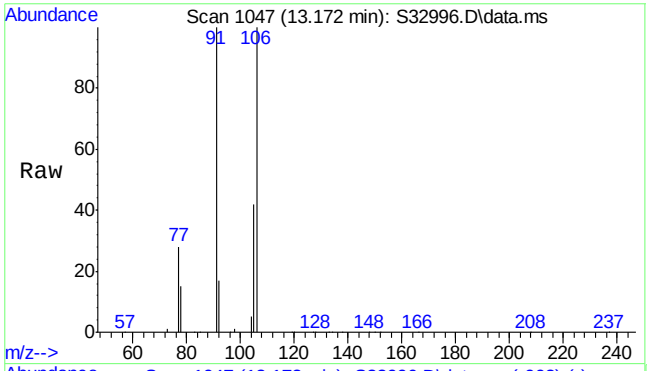
#8
C1-Benzene
Concen: 25347.60 µg/mL
RT: 9.332 min Scan# 514
Delta R.T. -0.094 min
Lab File: S32996.D
Acq: 16 Jul 2013 8:53 pm

Tgt Ion: 92 Resp: 4704262

Ion	Ratio	Lower	Upper
92	100		
91	172.3	139.3	208.9



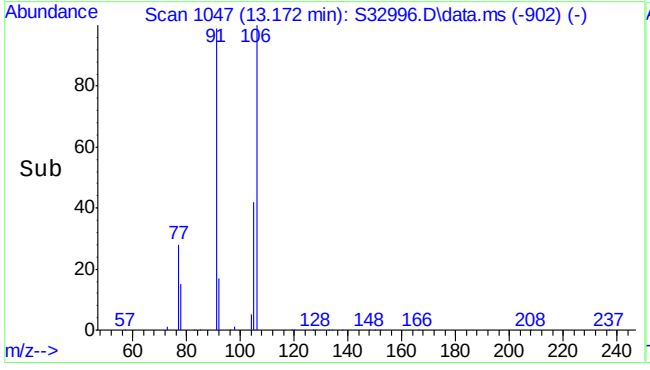


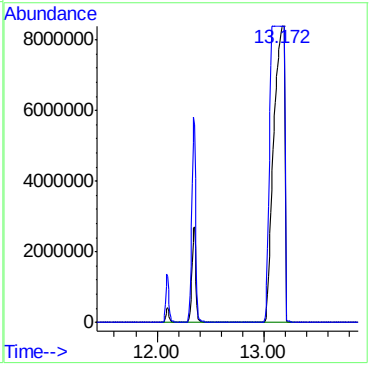


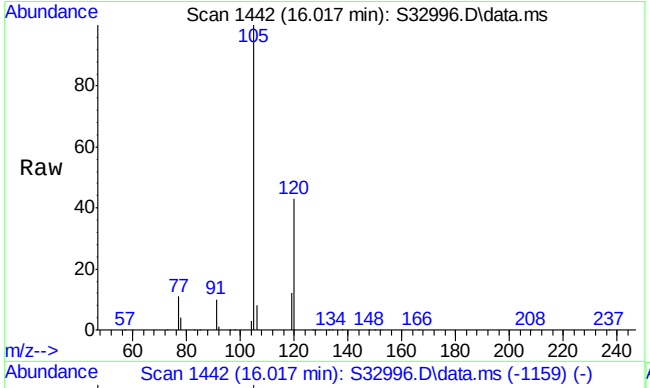
#9
C2-Benzenes
Concen: 365265.55 µg/mL m
RT: 13.172 min Scan# 1047
Delta R.T. 0.771 min
Lab File: S32996.D
Acq: 16 Jul 2013 8:53 pm

Tgt Ion:106 Resp:67789645

Ion	Ratio	Lower	Upper
106	100		
91	21.6	172.2	258.4#



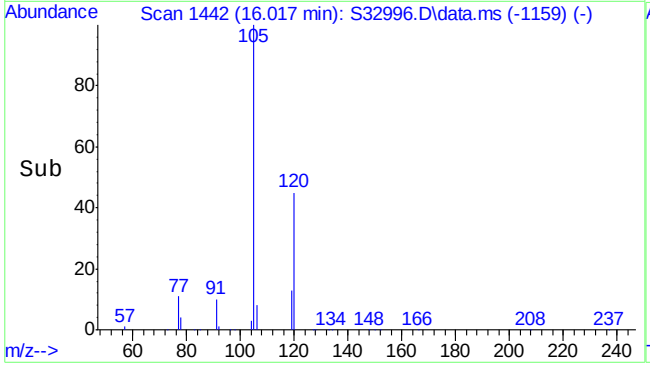


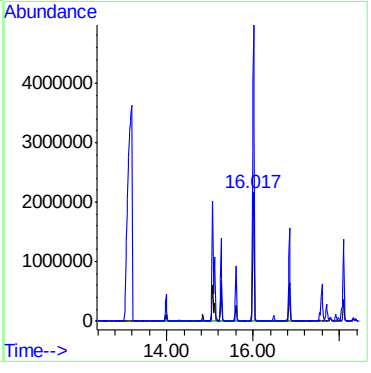


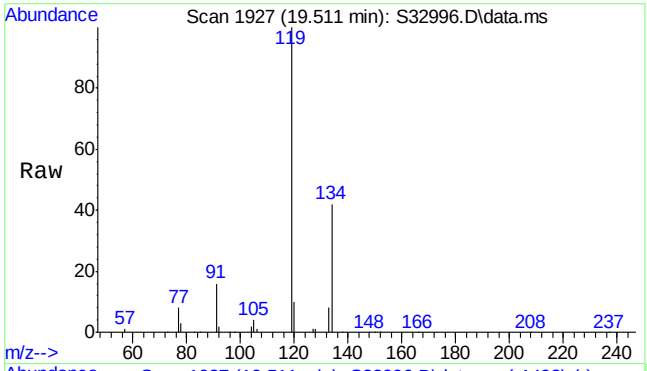
#10
C3-Benzenes
Concen: 53450.55 µg/mL m
RT: 16.017 min Scan# 1442
Delta R.T. -0.029 min
Lab File: S32996.D
Acq: 16 Jul 2013 8:53 pm

Tgt Ion:120 Resp: 9919889

Ion	Ratio	Lower	Upper
120	100		
105	108.9	194.8	292.2#



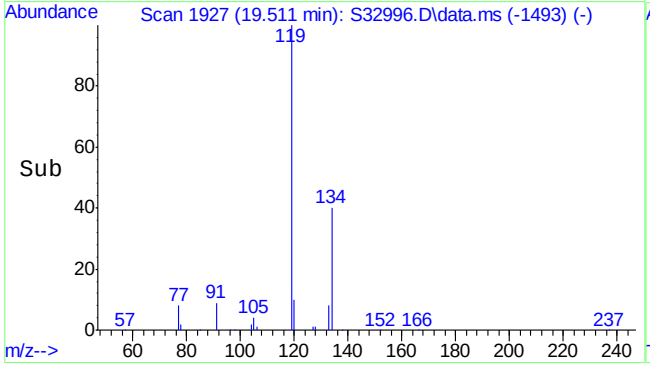


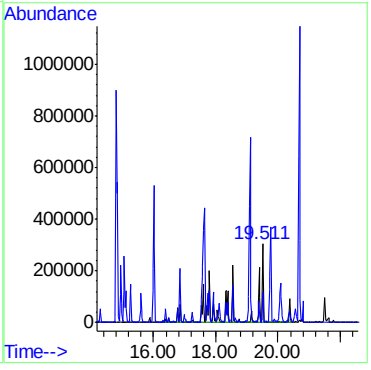


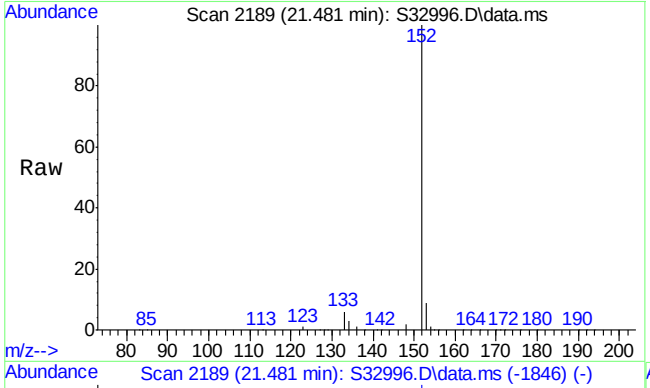
#11
C4-Benzenes
Concen: 22084.40 µg/mL m
RT: 19.511 min Scan# 1927
Delta R.T. -0.908 min
Lab File: S32996.D
Acq: 16 Jul 2013 8:53 pm

Tgt Ion:134 Resp: 4098644

Ion	Ratio	Lower	Upper
134	100		
91	2.8	36.2	54.4#



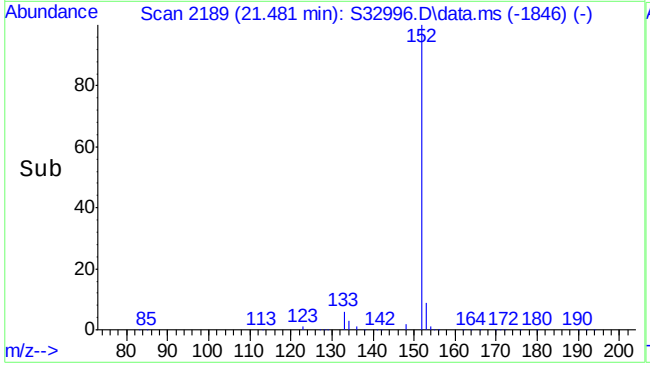


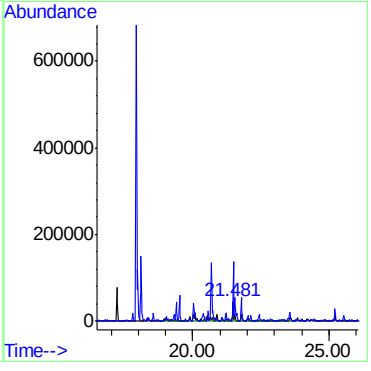


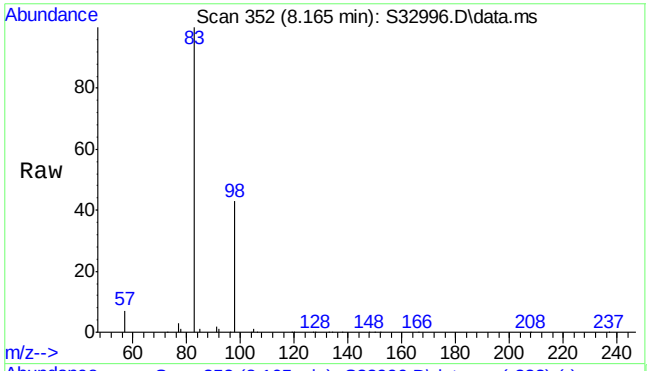
#12
C5-Benzenes
Concen: 3159.01 µg/mL m
RT: 21.481 min Scan# 2189
Delta R.T. 1.358 min
Lab File: S32996.D
Acq: 16 Jul 2013 8:53 pm

Tgt Ion:148 Resp: 586280

Ion	Ratio	Lower	Upper
148	100		
133	0.0	143.5	215.3#



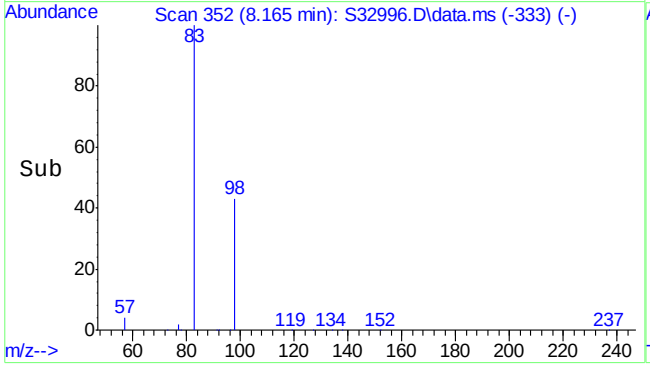


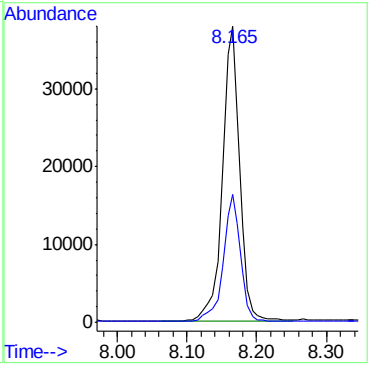


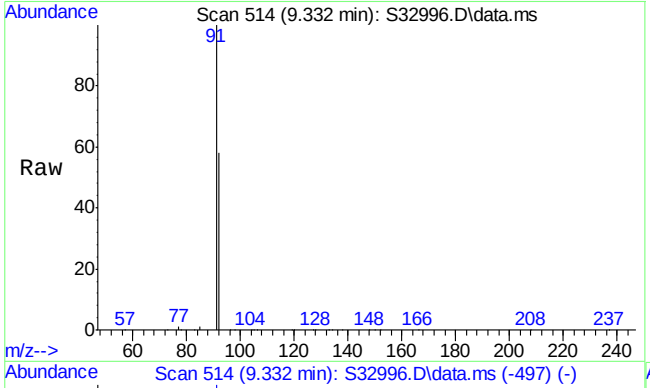
#13
Methylcyclohexane
Concen: 771.50 µg/mL
RT: 8.165 min Scan# 352
Delta R.T. -0.065 min
Lab File: S32996.D
Acq: 16 Jul 2013 8:53 pm

Tgt Ion: 83 Resp: 65777

Ion	Ratio	Lower	Upper
83	100		
98	43.6	32.3	48.5



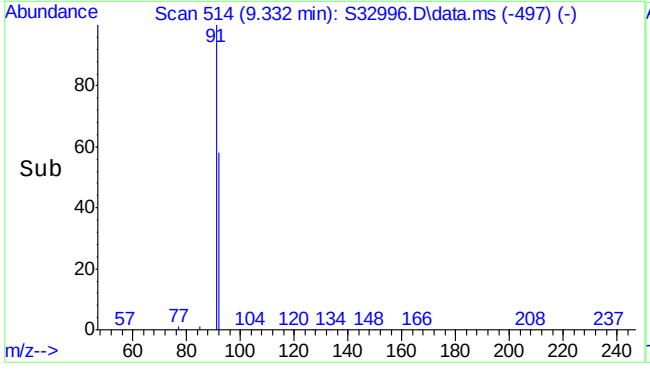


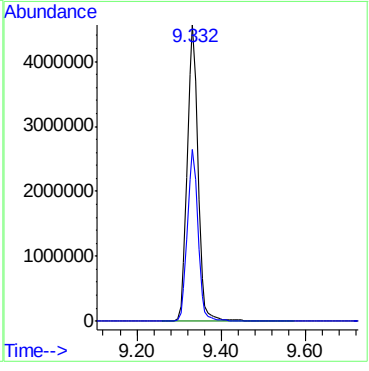


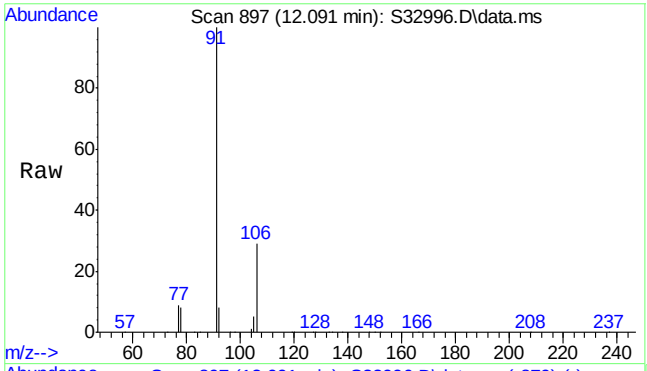
#14
Toluene
Concen: 37945.81 µg/mL
RT: 9.332 min Scan# 514
Delta R.T. -0.079 min
Lab File: S32996.D
Acq: 16 Jul 2013 8:53 pm

Tgt Ion: 91 Resp: 8104608

Ion	Ratio	Lower	Upper
91	100		
92	58.0	45.5	68.3



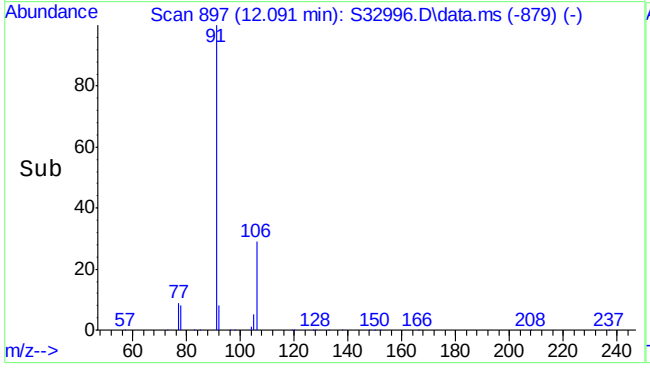


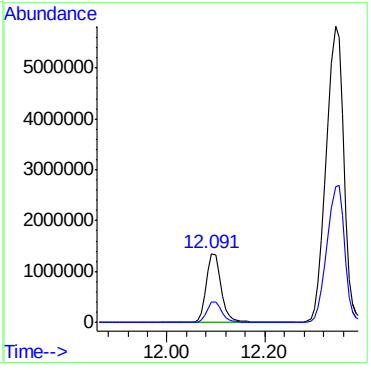


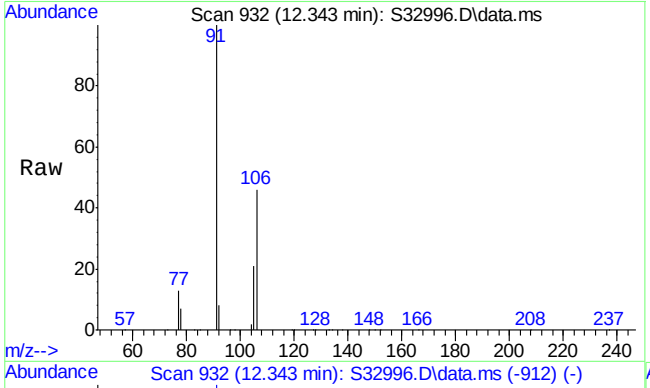
#15
Ethylbenzene
Concen: 11194.11 µg/mL
RT: 12.091 min Scan# 897
Delta R.T. -0.072 min
Lab File: S32996.D
Acq: 16 Jul 2013 8:53 pm

Tgt Ion: 91 Resp: 2813871

Ion	Ratio	Lower	Upper
91	100		
106	29.9	22.6	34.0



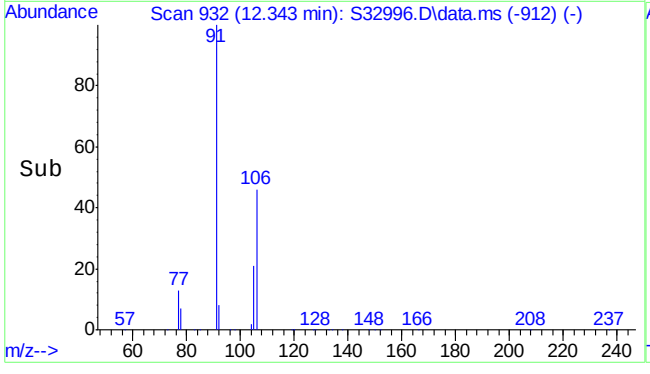


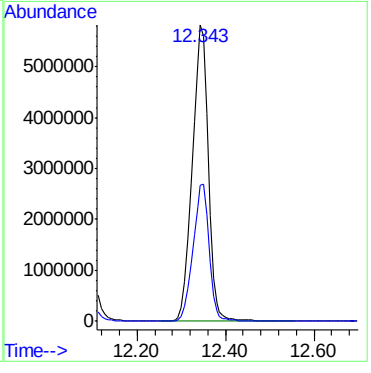


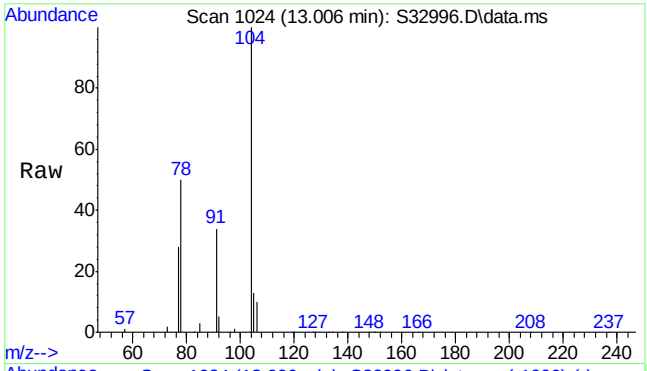
#16
m,p-xylene
Concen: 73883.99 µg/mL
RT: 12.343 min Scan# 932
Delta R.T. -0.058 min
Lab File: S32996.D
Acq: 16 Jul 2013 8:53 pm

Tgt Ion: 91 Resp:14607479

Ion	Ratio	Lower	Upper
91	100		
106	46.6	35.5	53.3



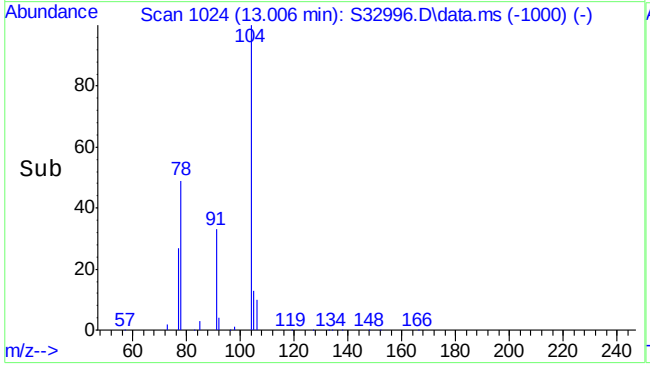


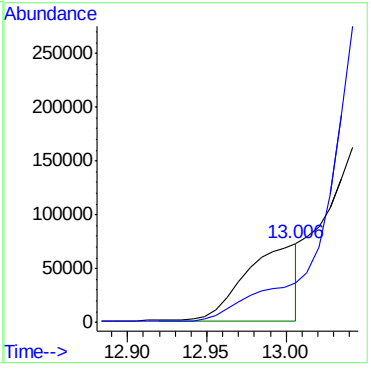


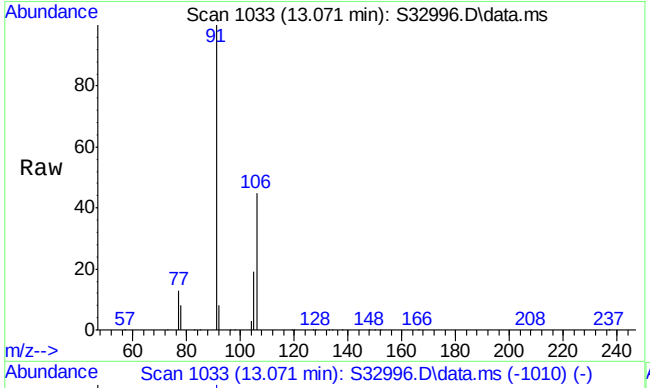
#17
Styrene
Concen: 1263.49 µg/mL m
RT: 13.006 min Scan# 1024
Delta R.T. -0.029 min
Lab File: S32996.D
Acq: 16 Jul 2013 8:53 pm

Tgt Ion:104 Resp: 171186

Ion	Ratio	Lower	Upper
104	100		
78	0.0	38.5	57.7#



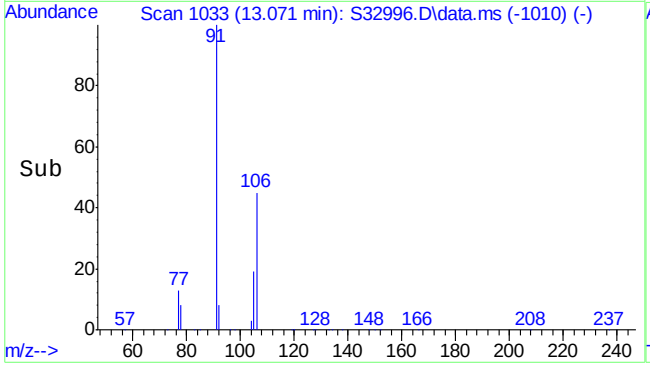


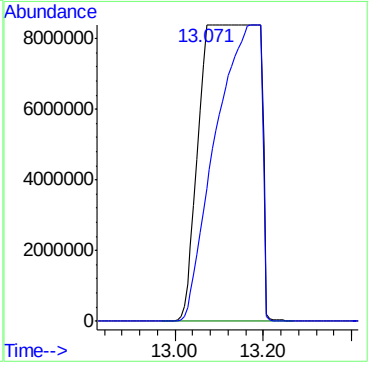


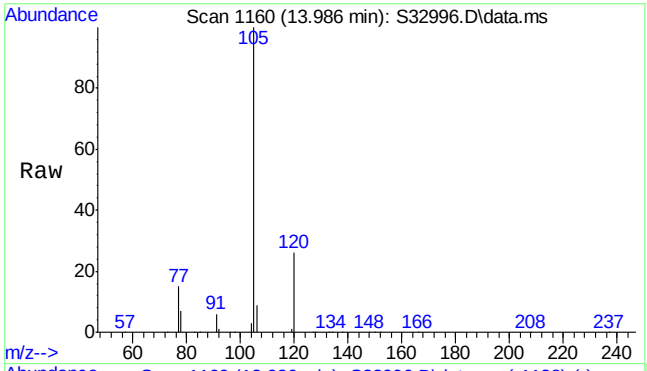
#18
o-Xylene
Concen: 388310.80 µg/mL m
RT: 13.071 min Scan# 1033
Delta R.T. -0.036 min
Lab File: S32996.D
Acq: 16 Jul 2013 8:53 pm

Tgt Ion: 91 Resp:78304069

Ion	Ratio	Lower	Upper
91	100		
106	0.0	32.8	49.2#



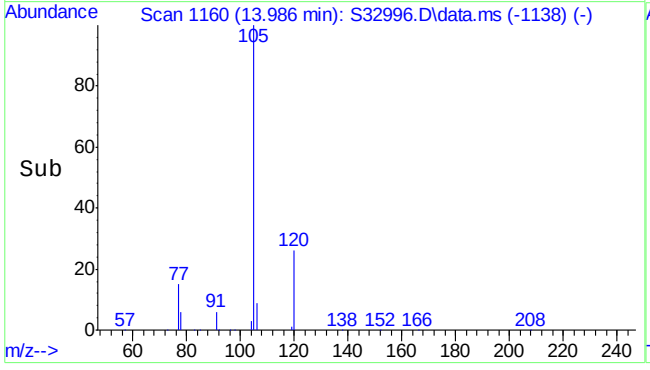


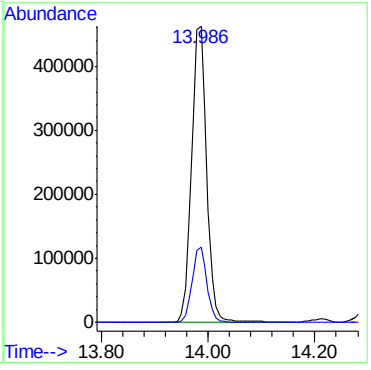


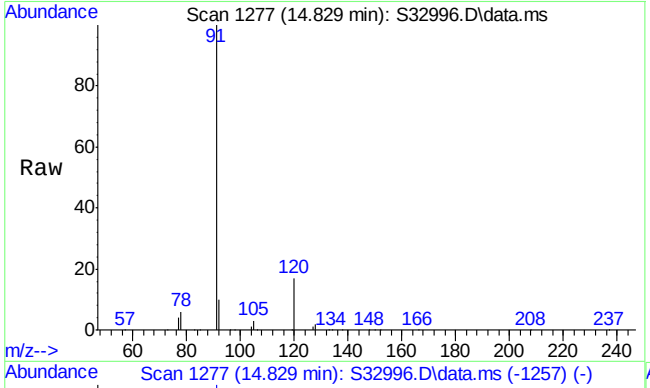
#19
Isopropylbenzene
Concen: 3996.59 µg/mL
RT: 13.986 min Scan# 1160
Delta R.T. -0.043 min
Lab File: S32996.D
Acq: 16 Jul 2013 8:53 pm

Tgt Ion:105 Resp: 904300

Ion	Ratio	Lower	Upper
105	100		
120	25.1	19.2	28.8



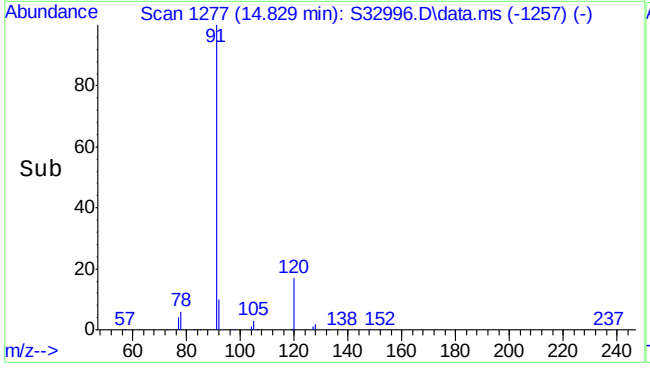


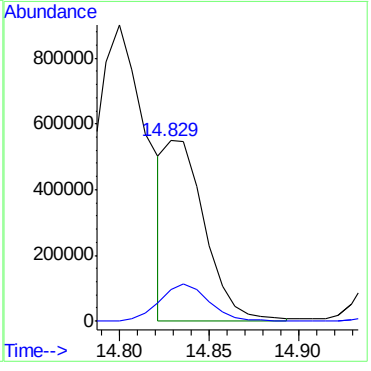


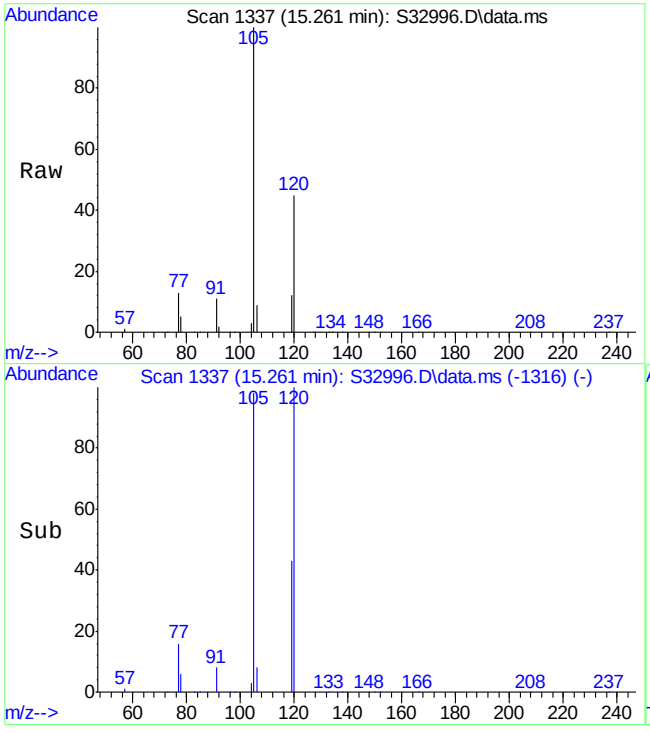
#20
n-Propylbenzene
Concen: 2890.81 µg/mL m
RT: 14.829 min Scan# 1277
Delta R.T. -0.058 min
Lab File: S32996.D
Acq: 16 Jul 2013 8:53 pm

Tgt Ion: 91 Resp: 833342

Ion	Ratio	Lower	Upper
91	100		
120	0.0	16.8	25.2#



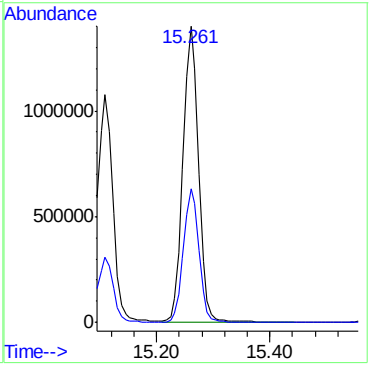


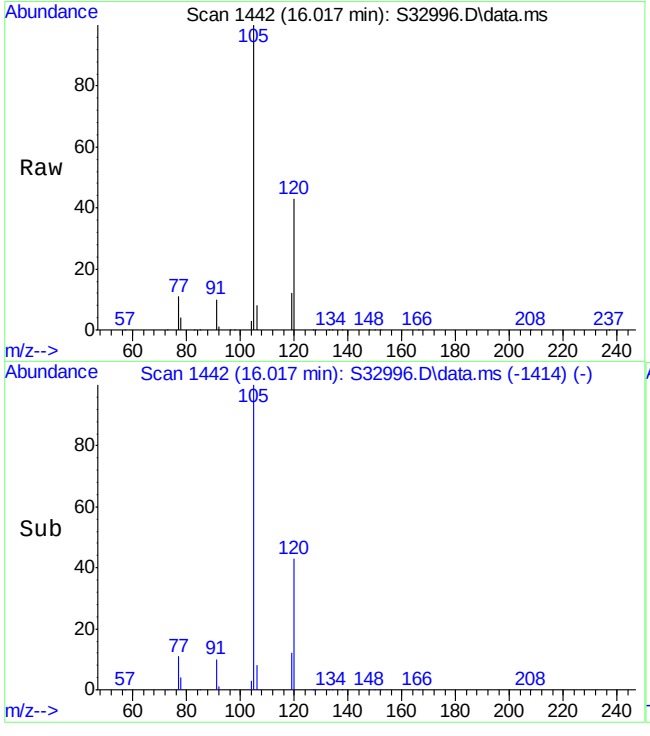


#21
1,3,5-Trimethylbenzene
Concen: 12606.08 µg/mL
RT: 15.261 min Scan# 1337
Delta R.T. -0.050 min
Lab File: S32996.D
Acq: 16 Jul 2013 8:53 pm

Tgt Ion:105 Resp: 2646069

Ion	Ratio	Lower	Upper
105	100		
120	45.3	34.8	52.2

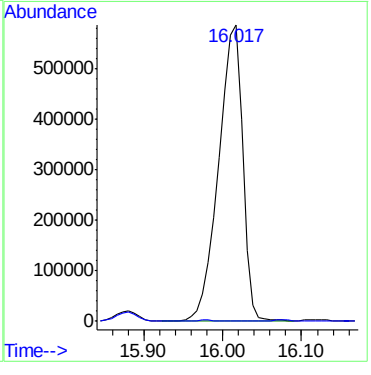


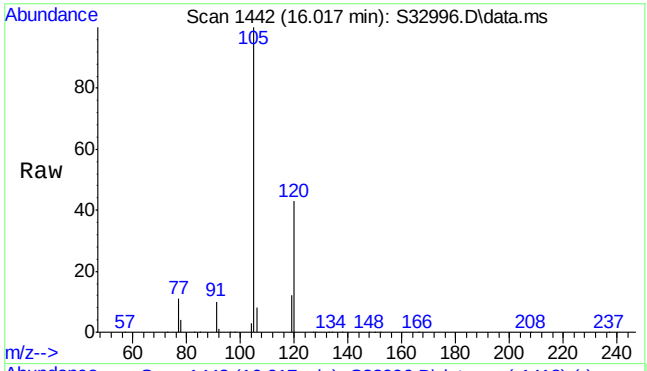


#22
t-Butylbenzene
Concen: 6217.03 µg/mL
RT: 16.017 min Scan# 1442
Delta R.T. -0.000 min
Lab File: S32996.D
Acq: 16 Jul 2013 8:53 pm

Tgt Ion:119 Resp: 1266415

Ion	Ratio	Lower	Upper
119	100		
134	0.0	17.6	26.4#

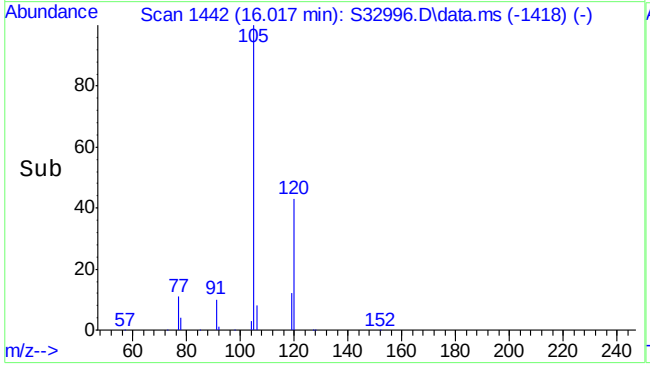


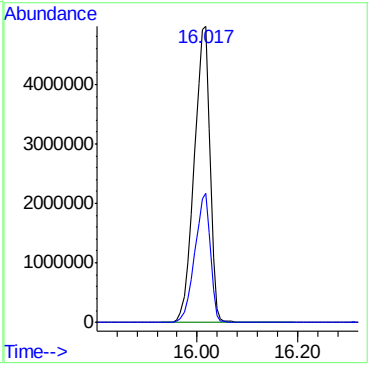


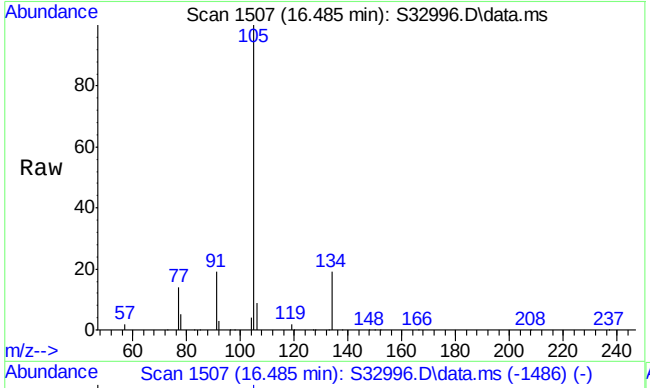
#23
1,2,4-Trimethylbenzene
Concen: 51984.04 µg/mL
RT: 16.017 min Scan# 1442
Delta R.T. -0.029 min
Lab File: S32996.D
Acq: 16 Jul 2013 8:53 pm

Tgt Ion:105 Resp:10796002

Ion	Ratio	Lower	Upper
105	100		
120	42.7	33.6	50.4



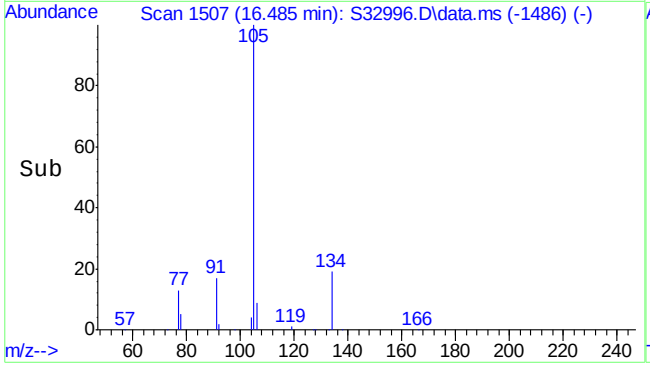


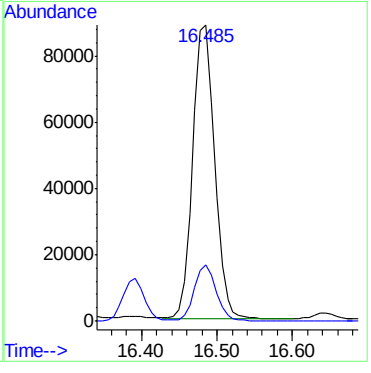


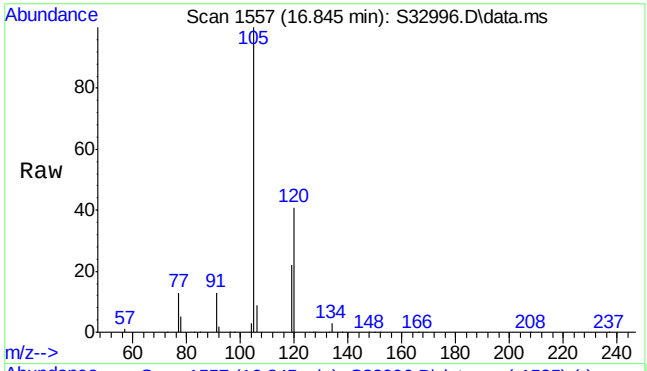
#24
sec-Butylbenzene
Concen: 658.58 µg/mL
RT: 16.485 min Scan# 1507
Delta R.T. -0.050 min
Lab File: S32996.D
Acq: 16 Jul 2013 8:53 pm

Tgt Ion:105 Resp: 178958

Ion	Ratio	Lower	Upper
105	100		
134	18.6	14.0	21.0



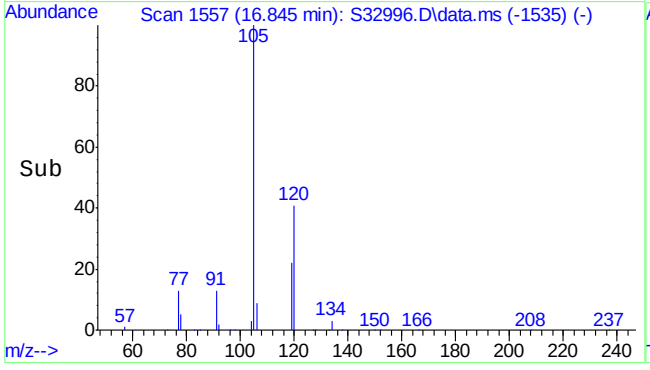


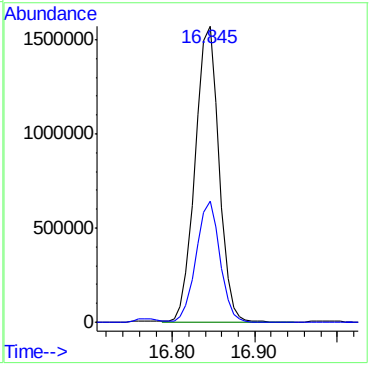


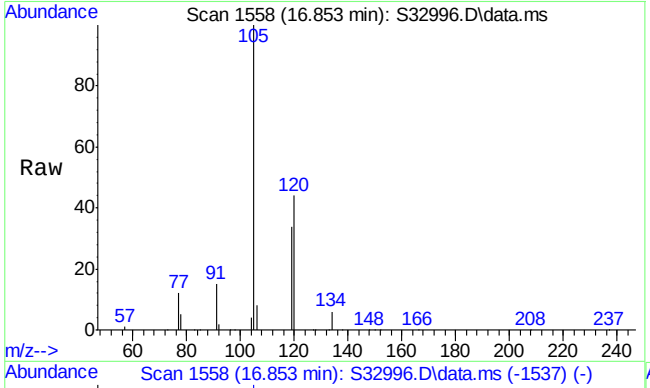
#25
1,2,3-Trimethylbenzene
Concen: 14296.76 µg/mL
RT: 16.845 min Scan# 1557
Delta R.T. -0.043 min
Lab File: S32996.D
Acq: 16 Jul 2013 8:53 pm

Tgt Ion:105 Resp: 3151158

Ion	Ratio	Lower	Upper
105	100		
120	40.8	34.6	51.8



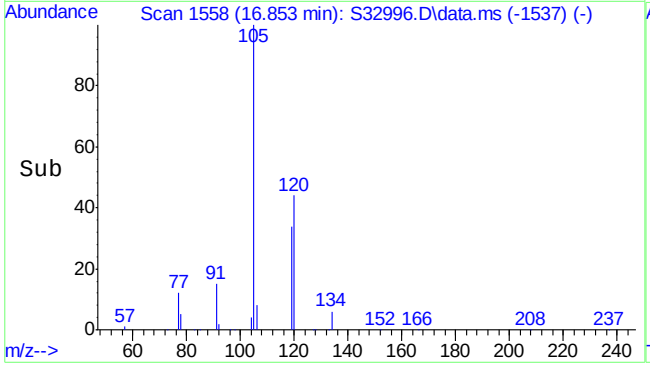


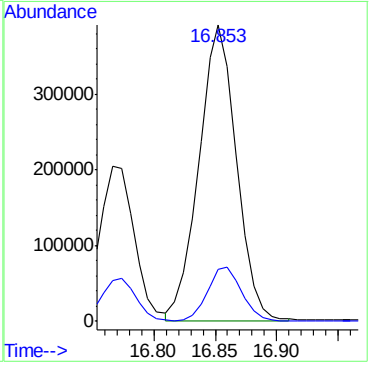


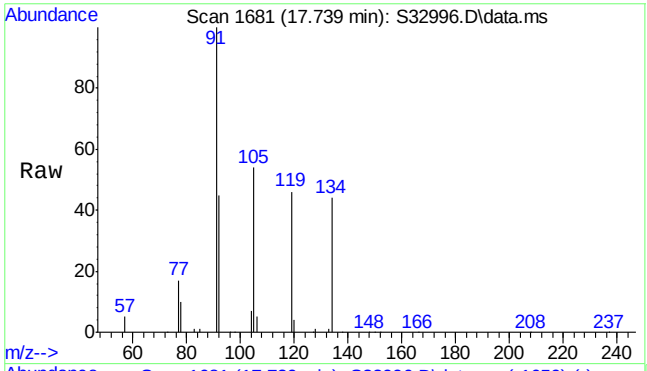
#26
p-Isopropyltoluene
Concen: 3589.09 µg/mL m
RT: 16.853 min Scan# 1558
Delta R.T. -0.050 min
Lab File: S32996.D
Acq: 16 Jul 2013 8:53 pm

Tgt Ion:119 Resp: 840842

Ion	Ratio	Lower	Upper
119	100		
134	13.0	18.6	28.0#



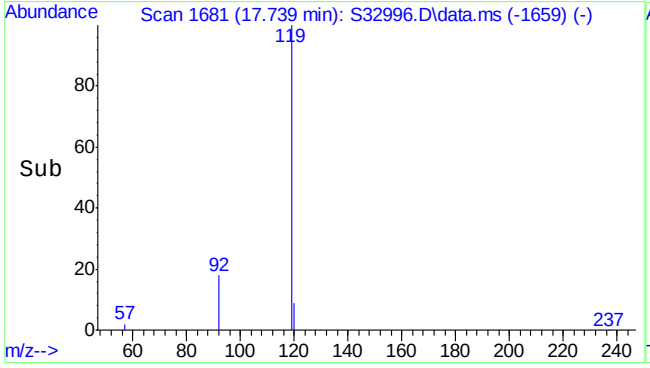


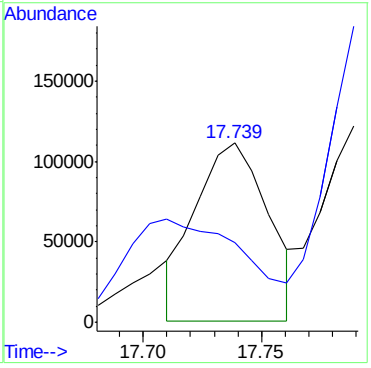


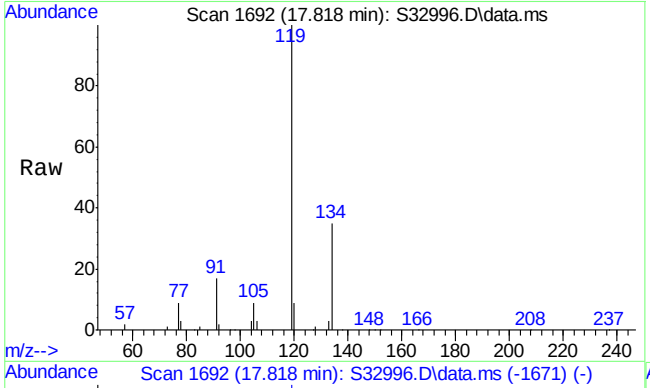
#27
n-Butylbenzene
Concen: 1154.24 µg/mL m
RT: 17.739 min Scan# 1681
Delta R.T. -0.043 min
Lab File: S32996.D
Acq: 16 Jul 2013 8:53 pm

Tgt Ion: 91 Resp: 237568

Ion	Ratio	Lower	Upper
91	100		
134	0.0	16.6	25.0#



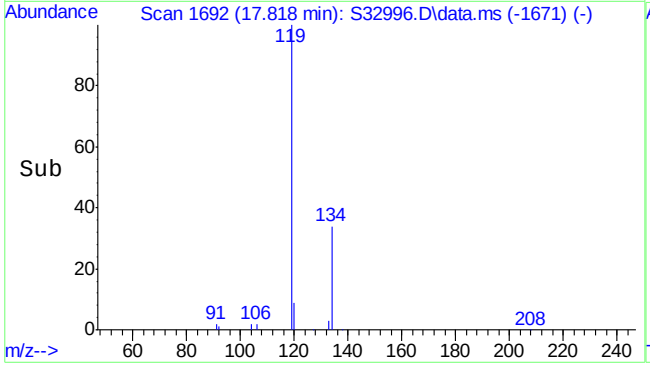


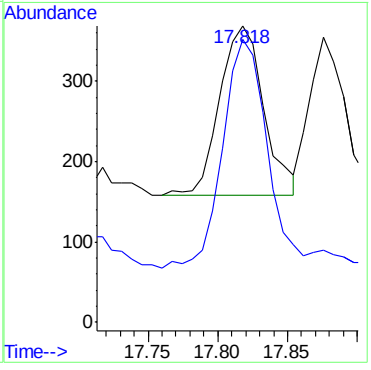


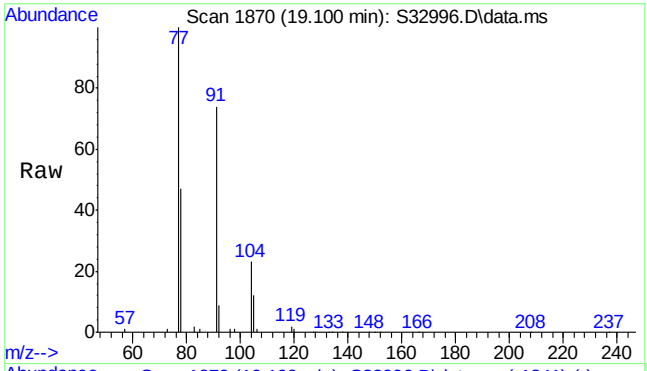
#28
trans-Decalin
Concen: 11.00 µg/mL
RT: 17.818 min Scan# 1692
Delta R.T. -0.050 min
Lab File: S32996.D
Acq: 16 Jul 2013 8:53 pm

Tgt Ion: 96 Resp: 462

Ion	Ratio	Lower	Upper
96	100		
138	138.3	107.8	161.8



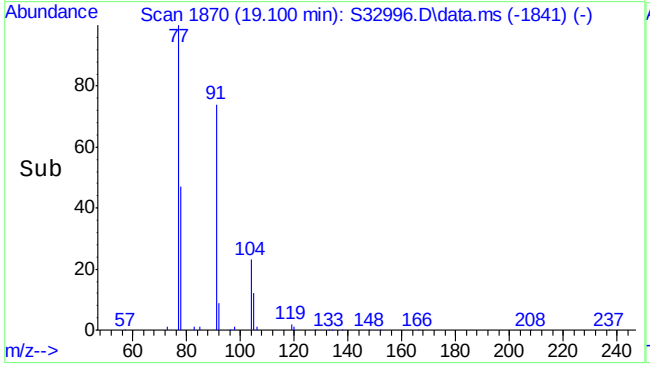


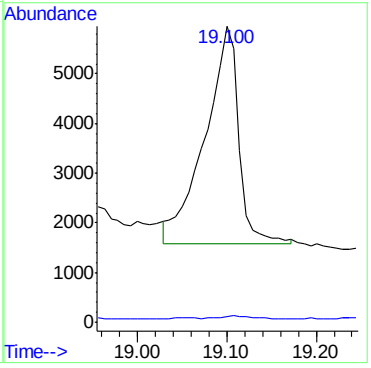


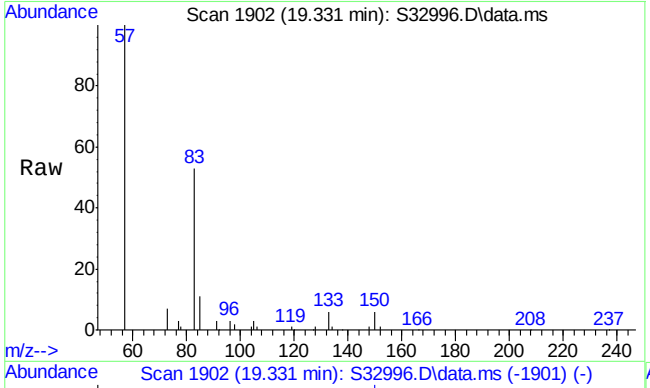
#29
cis-Decalin
Concen: 209.18 µg/mL m
RT: 19.100 min Scan# 1870
Delta R.T. 0.007 min
Lab File: S32996.D
Acq: 16 Jul 2013 8:53 pm

Tgt Ion: 96 Resp: 11458

Ion	Ratio	Lower	Upper
96	100		
138	0.0	63.5	95.3#

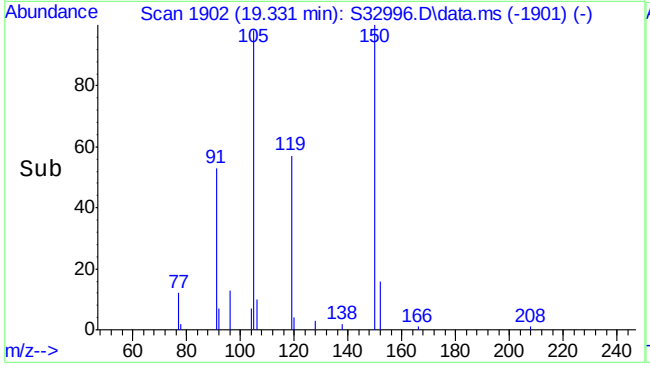


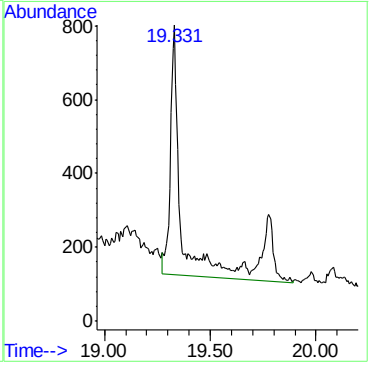


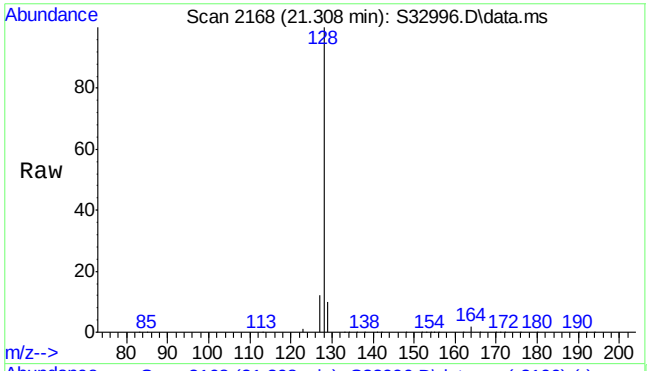


#30
C1-Decalins
Concen: 68.91 µg/mL m
RT: 19.331 min Scan# 1902
Delta R.T. -0.497 min
Lab File: S32996.D
Acq: 16 Jul 2013 8:53 pm

Tgt Ion:152 Resp: 2894

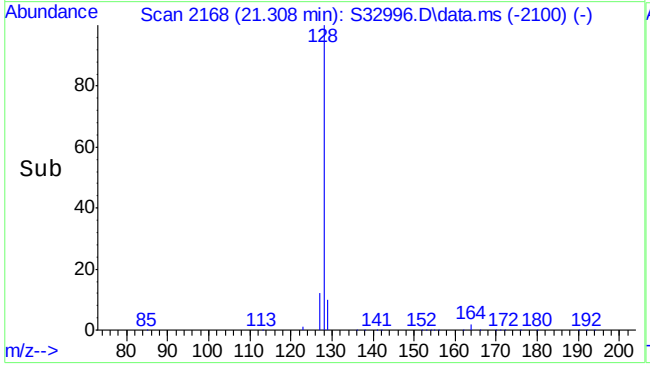


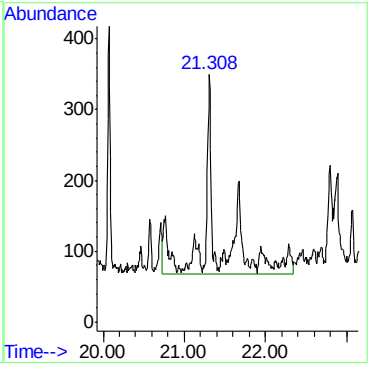


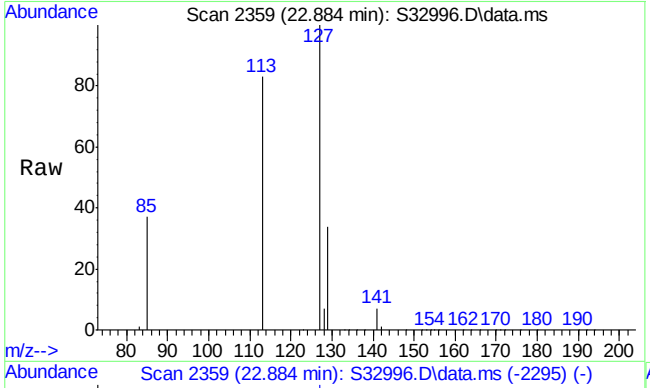


#31
C2-Decalins
Concen: 72.67 µg/mL m
RT: 21.308 min Scan# 2168
Delta R.T. 0.140 min
Lab File: S32996.D
Acq: 16 Jul 2013 8:53 pm

Tgt Ion:166 Resp: 3052

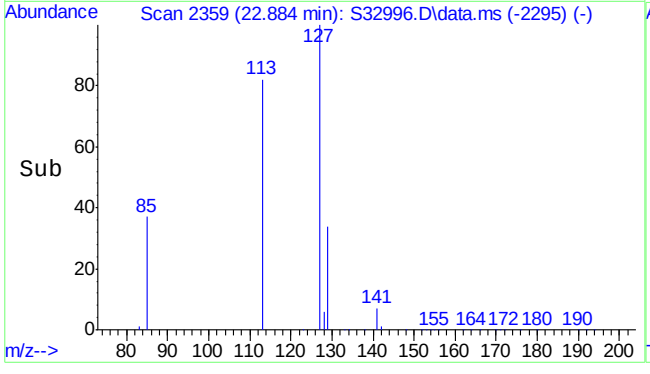


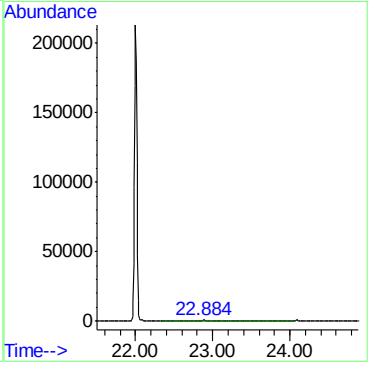


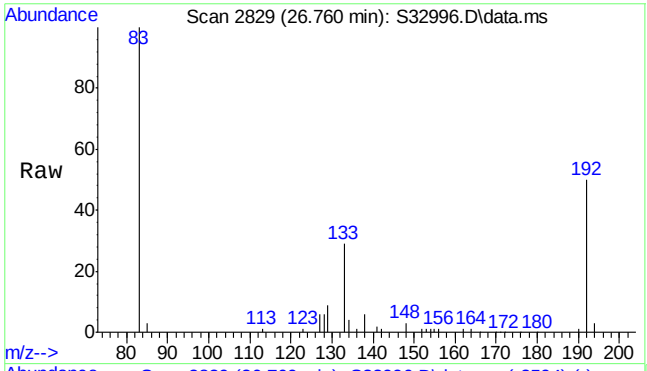


#32
C3-Decalins
Concen: 119.08 µg/mL m
RT: 22.884 min Scan# 2359
Delta R.T. -0.297 min
Lab File: S32996.D
Acq: 16 Jul 2013 8:53 pm

Tgt Ion:180 Resp: 5001

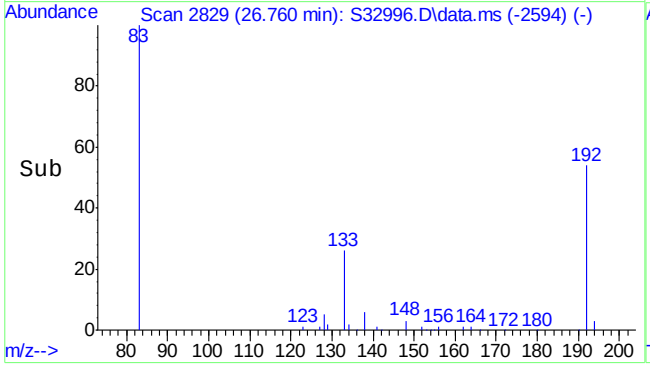


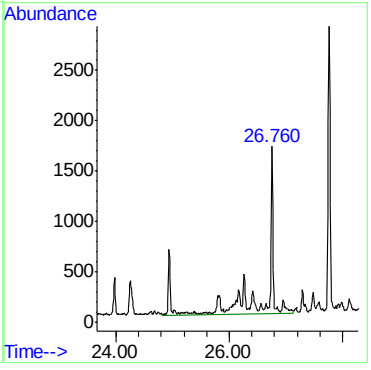


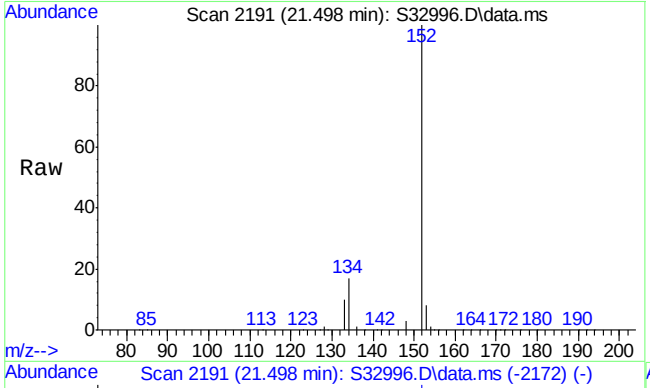


#33
C4-Decalins
Concen: 292.82 µg/mL m
RT: 26.760 min Scan# 2829
Delta R.T. -0.247 min
Lab File: S32996.D
Acq: 16 Jul 2013 8:53 pm

Tgt Ion:194 Resp: 12298



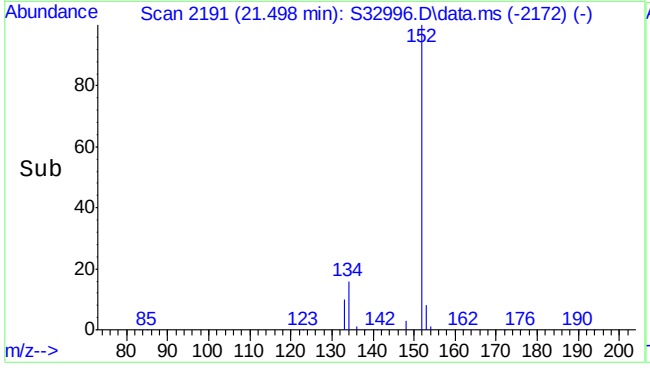


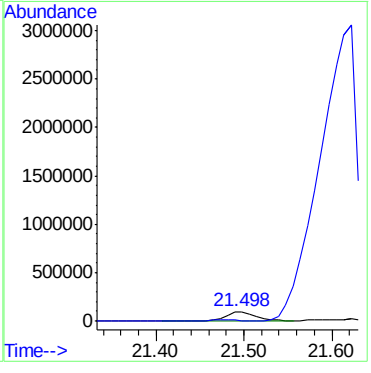


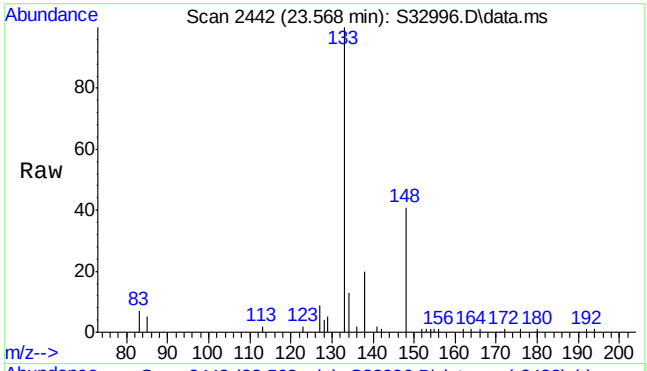
#34
Benzo(b)thiophene
Concen: 926.72 µg/mL
RT: 21.498 min Scan# 2191
Delta R.T. -0.041 min
Lab File: S32996.D
Acq: 16 Jul 2013 8:53 pm

Tgt Ion:134 Resp: 229181

Ion	Ratio	Lower	Upper
134	100		
136	12.5	4.3	6.5#

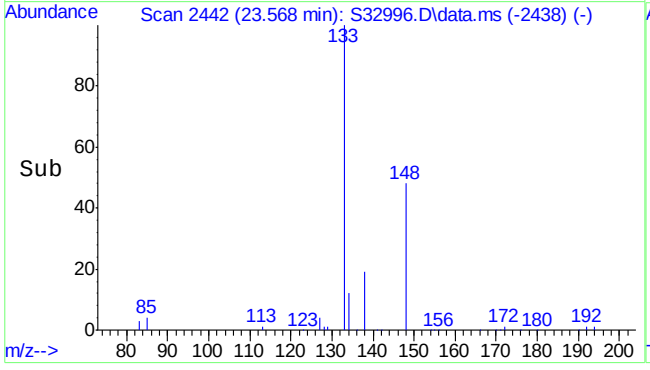


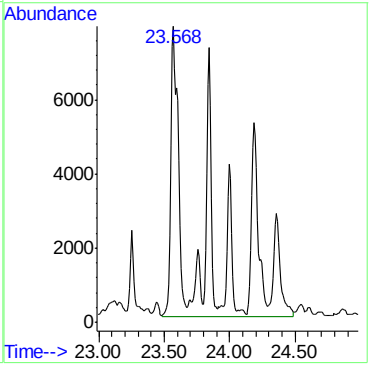


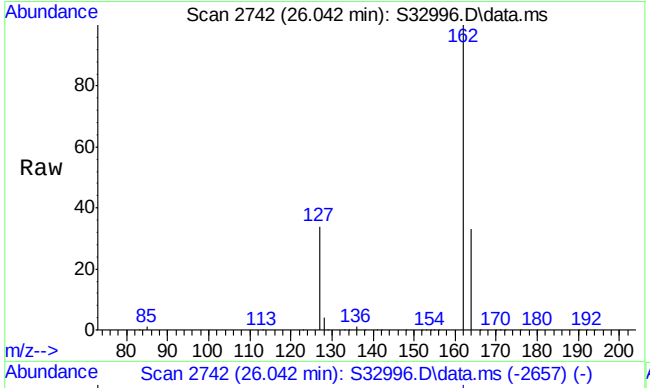


#35
C1-Benzo(b)thiophenes
Concen: 363.32 µg/mL m
RT: 23.568 min Scan# 2442
Delta R.T. -0.033 min
Lab File: S32996.D
Acq: 16 Jul 2013 8:53 pm

Tgt Ion:148 Resp: 89850

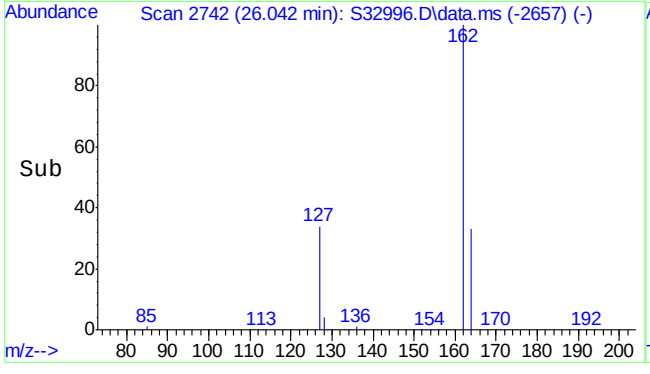


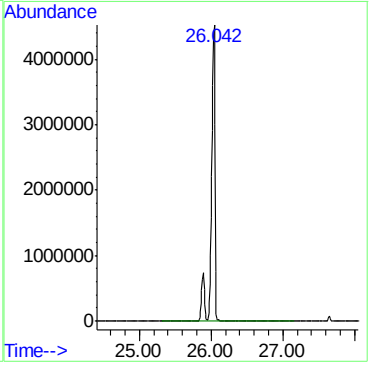


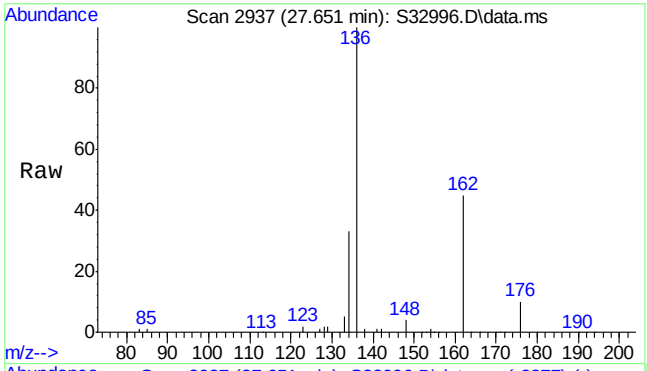


#36
C2-Benzo(b)thiophenes
Concen: 58734.18 µg/mL m
RT: 26.042 min Scan# 2742
Delta R.T. -1.015 min
Lab File: S32996.D
Acq: 16 Jul 2013 8:53 pm

Tgt Ion:162 Resp:14525087

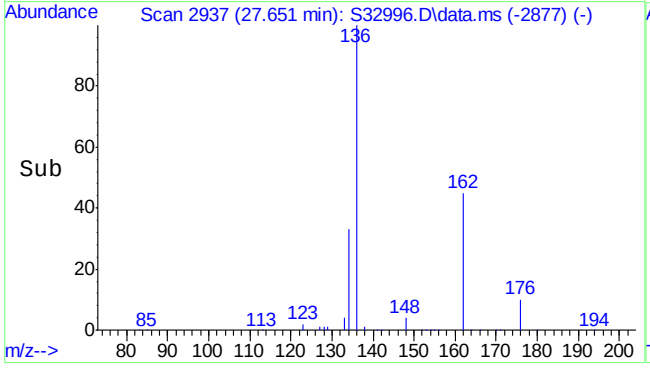


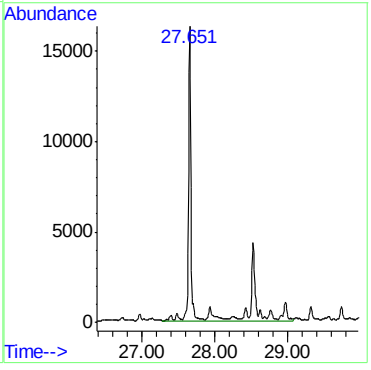


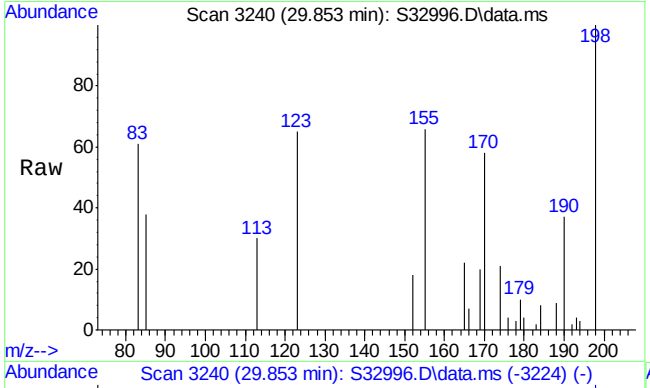


#37
C3-Benzo(b)thiophenes
Concen: 263.74 µg/mL m
RT: 27.651 min Scan# 2937
Delta R.T. -1.396 min
Lab File: S32996.D
Acq: 16 Jul 2013 8:53 pm

Tgt Ion:176 Resp: 65224

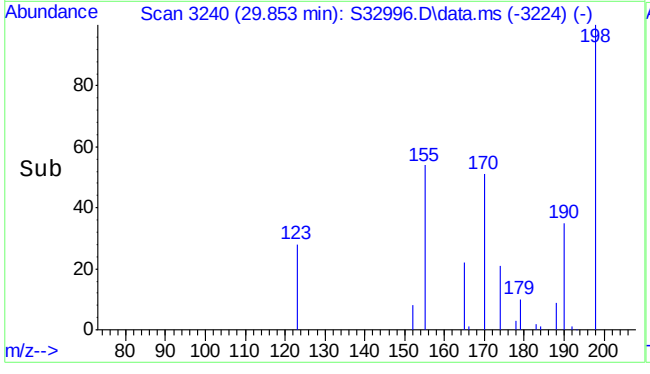


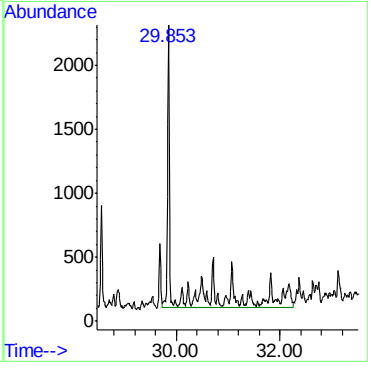


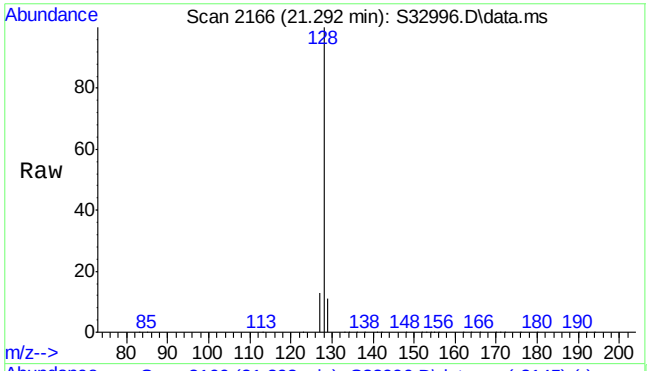


#38
C4-Benzo(b)thiophenes
Concen: 59.87 µg/mL m
RT: 29.853 min Scan# 3240
Delta R.T. -1.274 min
Lab File: S32996.D
Acq: 16 Jul 2013 8:53 pm

Tgt Ion:190 Resp: 14806



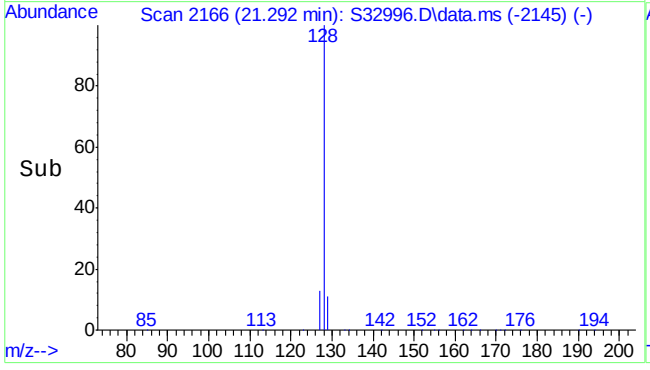


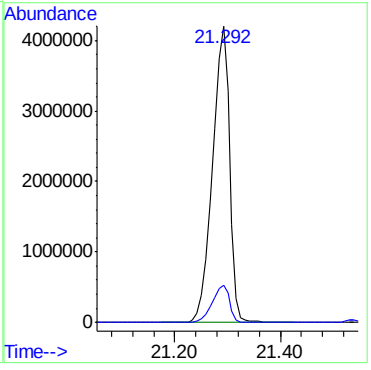


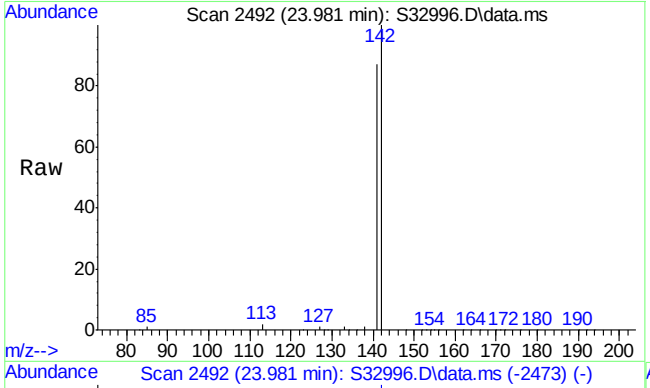
#44
Naphthalene
Concen: 30632.62 ng/mL
RT: 21.292 min Scan# 2166
Delta R.T. -0.025 min
Lab File: S32996.D
Acq: 16 Jul 2013 8:53 pm

Tgt Ion:128 Resp: 9422181

Ion	Ratio	Lower	Upper
128	100		
127	12.7	10.2	15.2



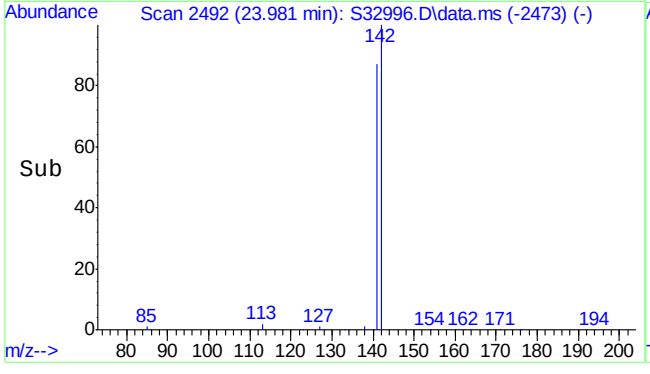


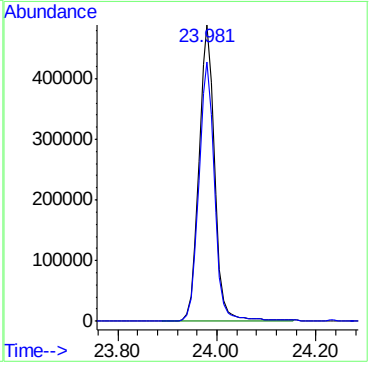


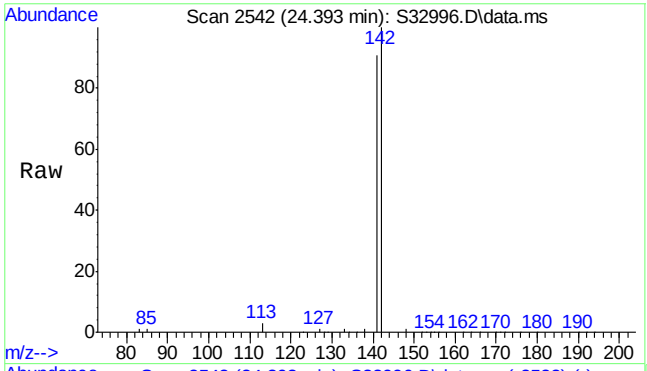
#45
2-Methylnaphthalene
Concen: 5822.03 ng/mL
RT: 23.981 min Scan# 2492
Delta R.T. -0.041 min
Lab File: S32996.D
Acq: 16 Jul 2013 8:53 pm

Tgt Ion:142 Resp: 1062582

Ion	Ratio	Lower	Upper
142	100		
141	87.4	70.2	105.2



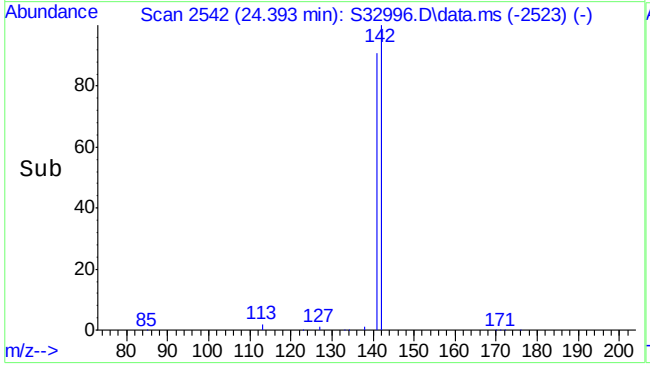


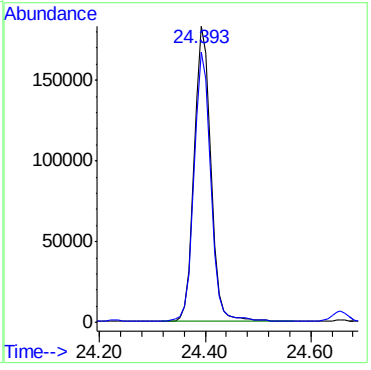


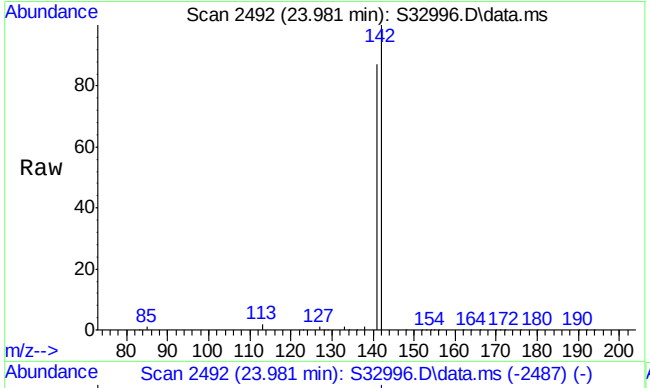
#46
1-Methylnaphthalene
Concen: 2095.76 ng/mL
RT: 24.393 min Scan# 2542
Delta R.T. -0.041 min
Lab File: S32996.D
Acq: 16 Jul 2013 8:53 pm

Tgt Ion:142 Resp: 399033

Ion	Ratio	Lower	Upper
142	100		
141	91.7	74.1	111.1



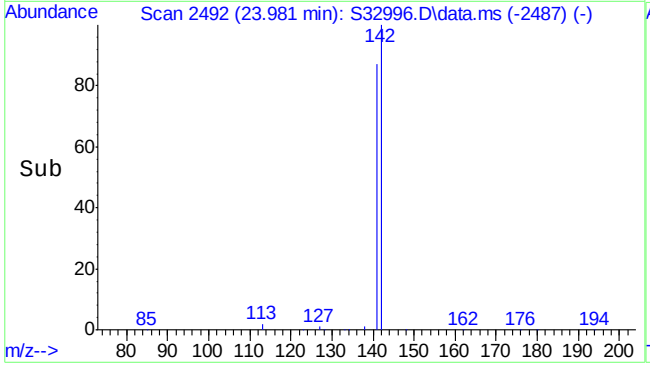


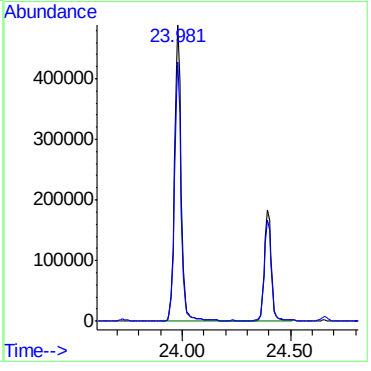


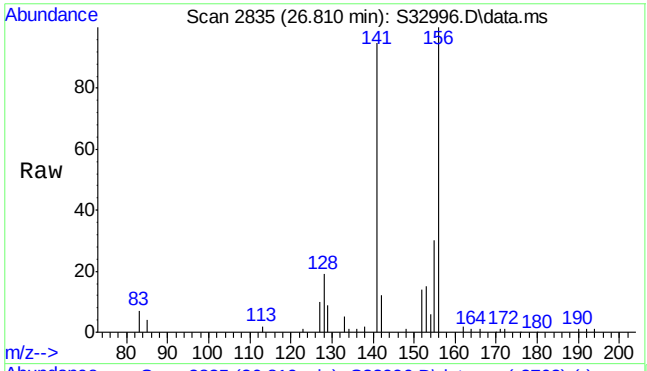
#47
C1-Naphthalenes
Concen: 4785.12 ng/mL m
RT: 23.981 min Scan# 2492
Delta R.T. -0.041 min
Lab File: S32996.D
Acq: 16 Jul 2013 8:53 pm

Tgt Ion:142 Resp: 1471839

Ion	Ratio	Lower	Upper
142	100		
141	62.7	70.5	105.7#



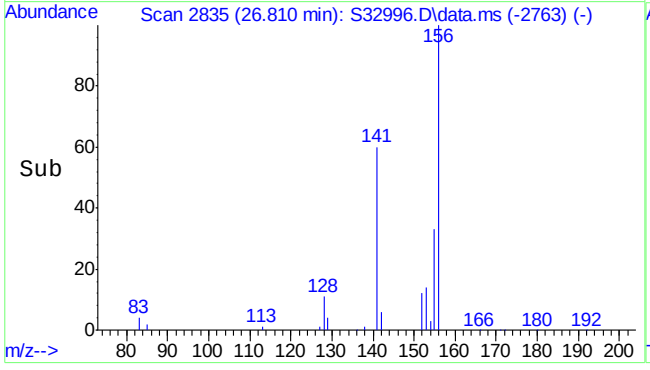


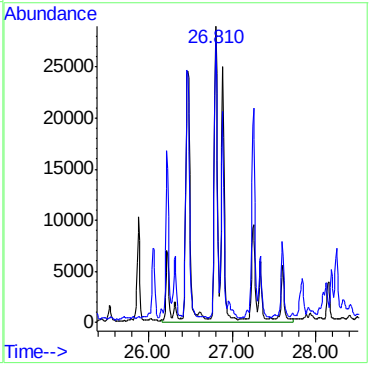


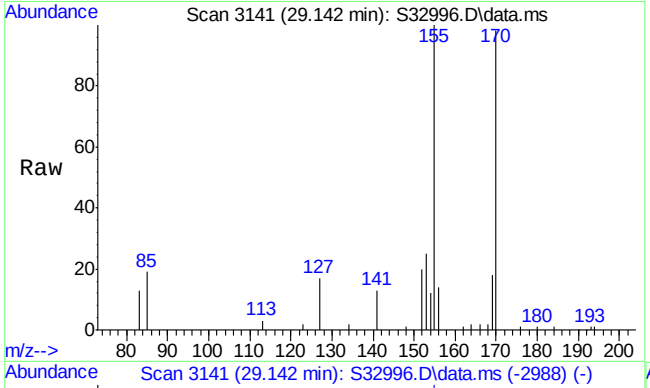
#48
C2-Naphthalenes
Concen: 1001.73 ng/mL m
RT: 26.810 min Scan# 2835
Delta R.T. -0.139 min
Lab File: S32996.D
Acq: 16 Jul 2013 8:53 pm

Tgt Ion:156 Resp: 308120

Ion	Ratio	Lower	Upper
156	100		
141	13.6	60.2	90.2#



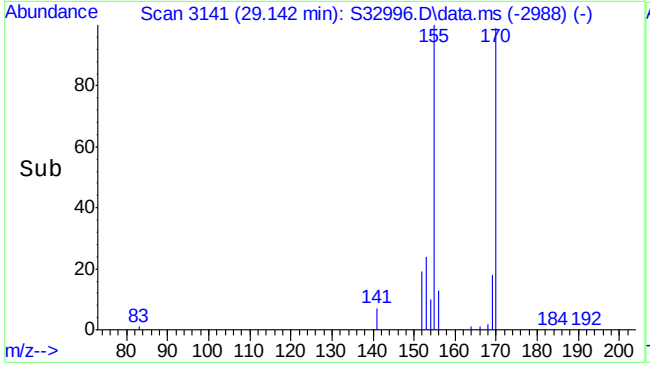


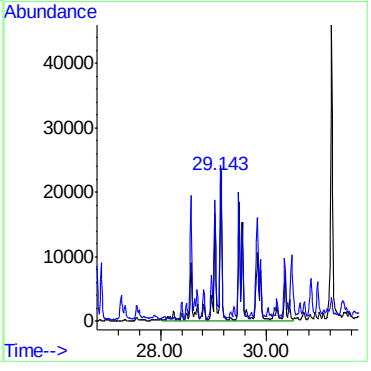


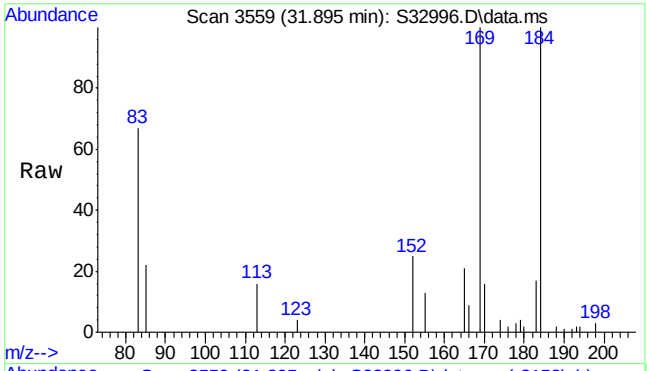
#49
C3-Naphthalenes
Concen: 1012.06 ng/mL m
RT: 29.142 min Scan# 3141
Delta R.T. -0.050 min
Lab File: S32996.D
Acq: 16 Jul 2013 8:53 pm

Tgt Ion:170 Resp: 311297

Ion	Ratio	Lower	Upper
170	100		
155	16.3	83.9	125.9#



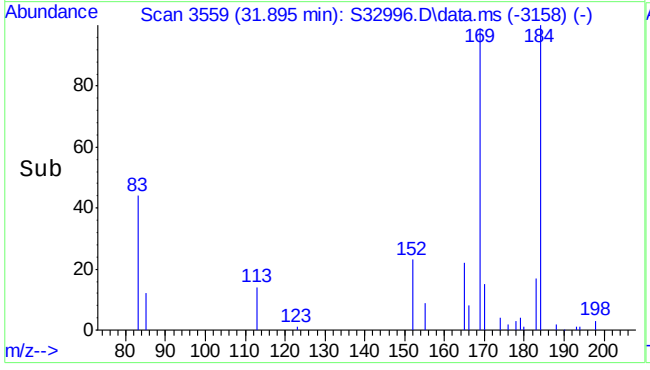


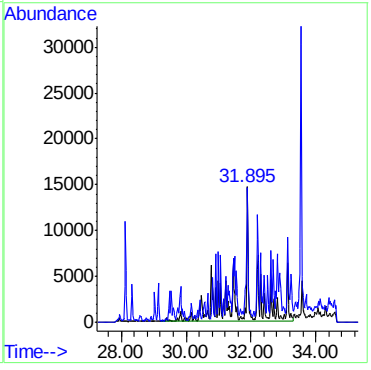


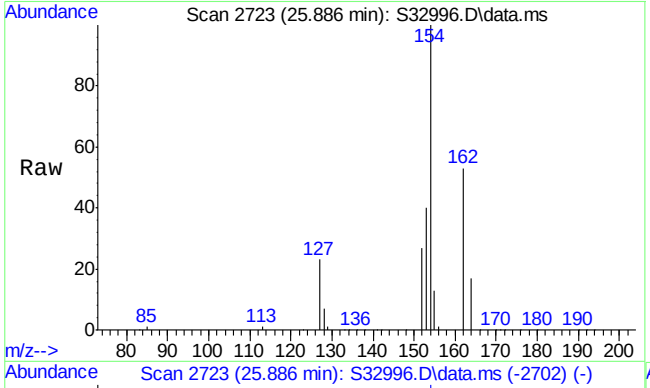
#50
C4-Naphthalenes
Concen: 921.43 ng/mL m
RT: 31.895 min Scan# 3559
Delta R.T. -0.051 min
Lab File: S32996.D
Acq: 16 Jul 2013 8:53 pm

Tgt Ion:184 Resp: 283420

Ion	Ratio	Lower	Upper
184	100		
169	0.2	83.1	124.7#



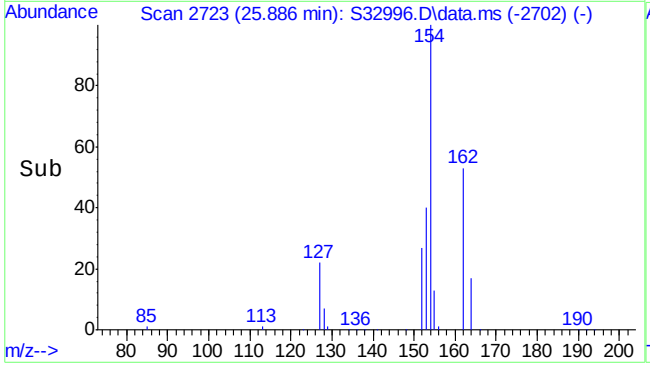


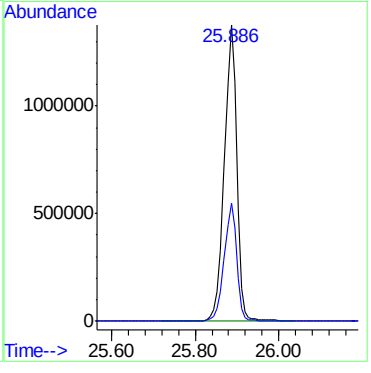


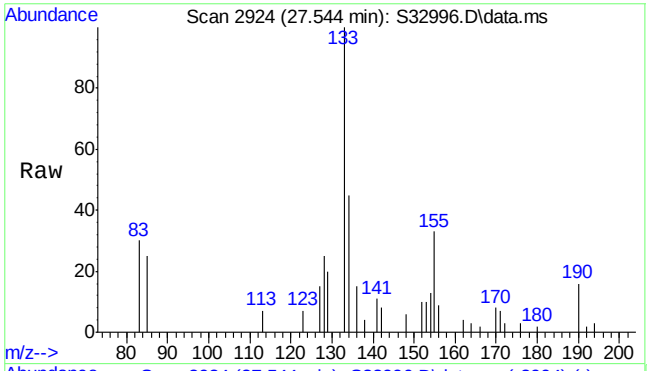
#51
Biphenyl
Concen: 11625.71 µg/mL
RT: 25.886 min Scan# 2723
Delta R.T. -0.025 min
Lab File: S32996.D
Acq: 16 Jul 2013 8:53 pm

Tgt Ion:154 Resp: 2784372

Ion	Ratio	Lower	Upper
154	100		
153	39.8	32.1	48.1



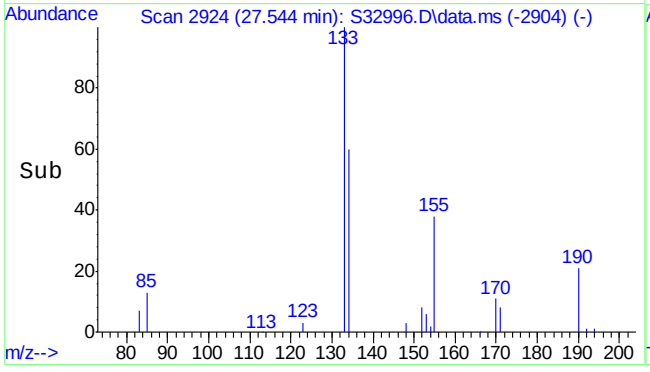


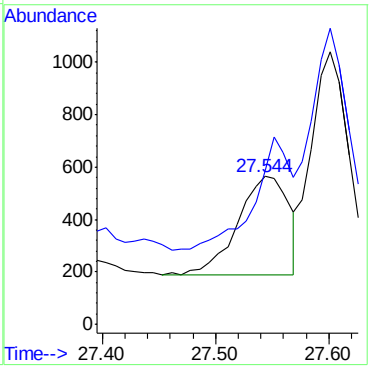


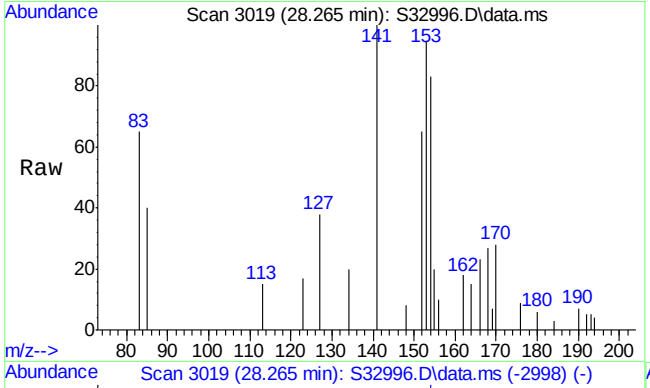
#52
Acenaphthylene
Concen: 4.13 ng/mL
RT: 27.544 min Scan# 2924
Delta R.T. -0.033 min
Lab File: S32996.D
Acq: 16 Jul 2013 8:53 pm

Tgt Ion:152 Resp: 1175

Ion	Ratio	Lower	Upper
152	100		
153	84.0	10.3	15.5#



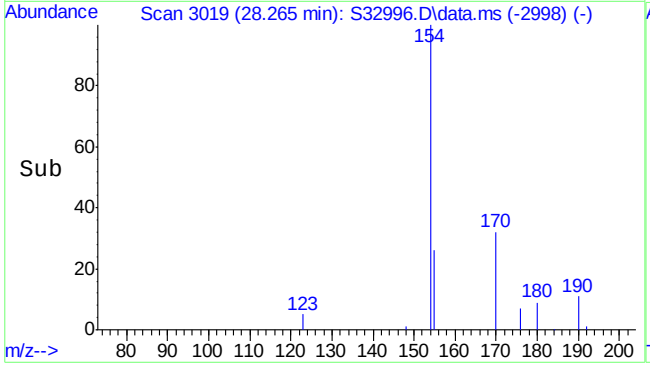


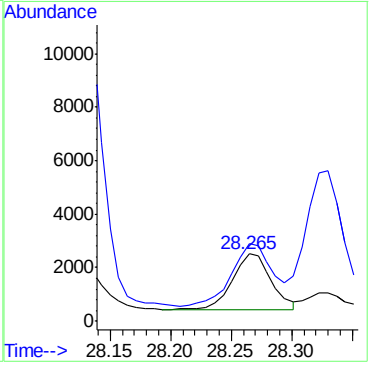


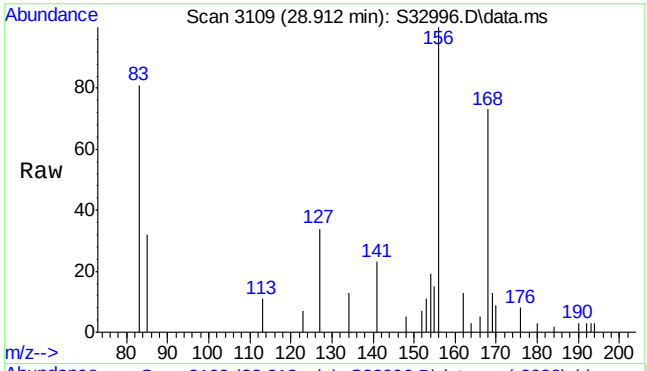
#53
Acenaphthene
Concen: 26.84 ng/mL
RT: 28.265 min Scan# 3019
Delta R.T. -0.050 min
Lab File: S32996.D
Acq: 16 Jul 2013 8:53 pm

Tgt Ion:154 Resp: 4658

Ion	Ratio	Lower	Upper
154	100		
153	116.3	88.5	132.7



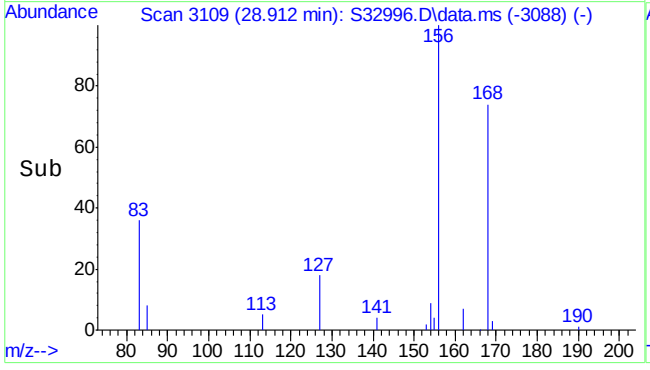


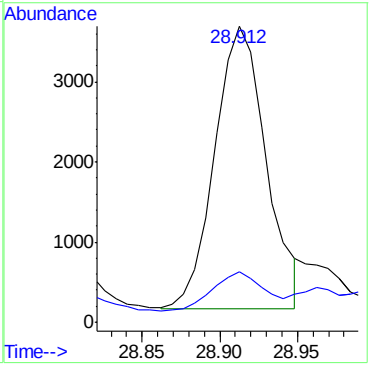


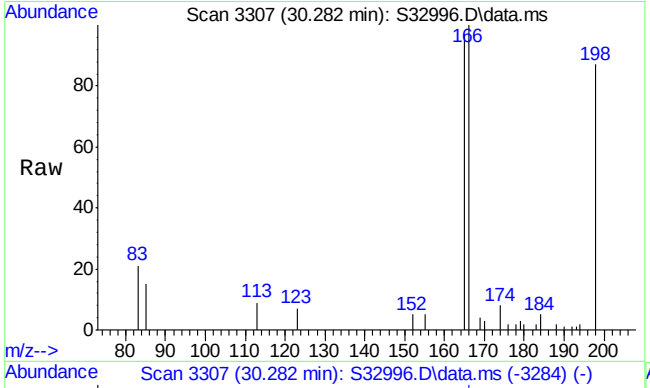
#54
Dibenzofuran
Concen: 33.02 ng/mL m
RT: 28.912 min Scan# 3109
Delta R.T. -0.050 min
Lab File: S32996.D
Acq: 16 Jul 2013 8:53 pm

Tgt Ion:168 Resp: 8167

Ion	Ratio	Lower	Upper
168	100		
169	13.5	10.5	15.7



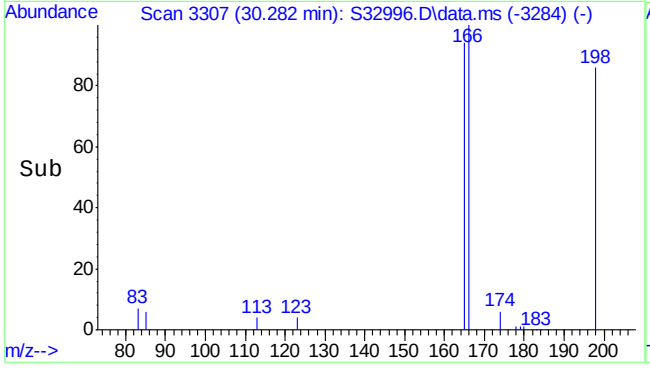


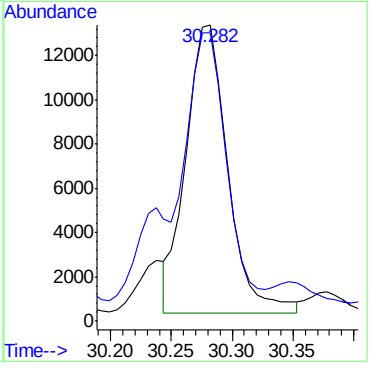


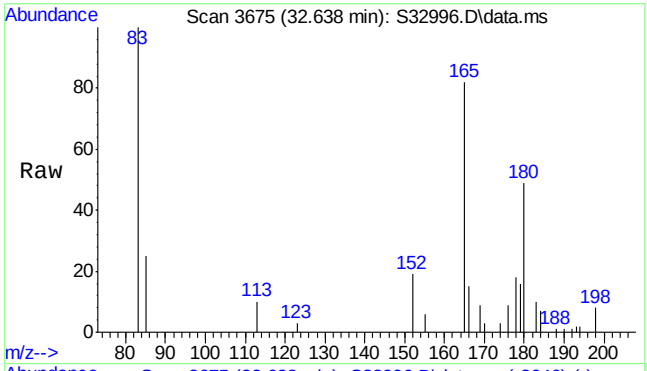
#55
Fluorene
Concen: 141.29 ng/mL m
RT: 30.282 min Scan# 3307
Delta R.T. -0.051 min
Lab File: S32996.D
Acq: 16 Jul 2013 8:53 pm

Tgt Ion:166 Resp: 31100

Ion	Ratio	Lower	Upper
166	100		
165	90.4	76.3	114.5



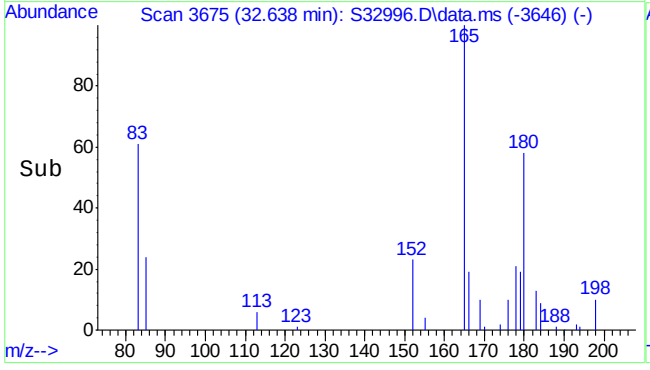


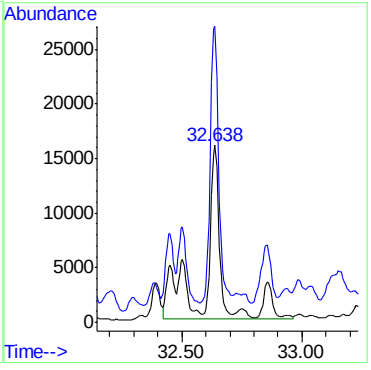


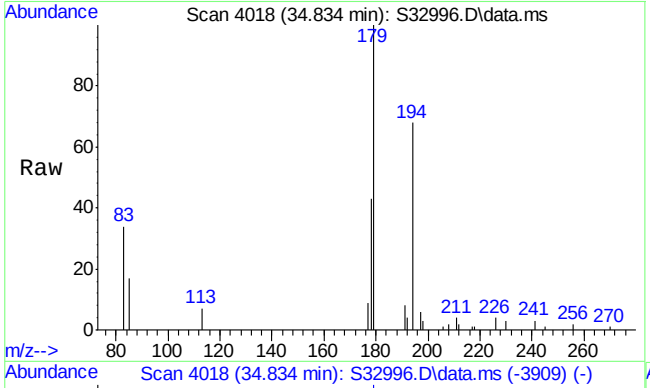
#56
C1-Fluorenes
Concen: 344.44 ng/mL m
RT: 32.638 min Scan# 3675
Delta R.T. -0.051 min
Lab File: S32996.D
Acq: 16 Jul 2013 8:53 pm

Tgt Ion:180 Resp: 75819

Ion	Ratio	Lower	Upper
180	100		
165	79.5	134.2	201.4#



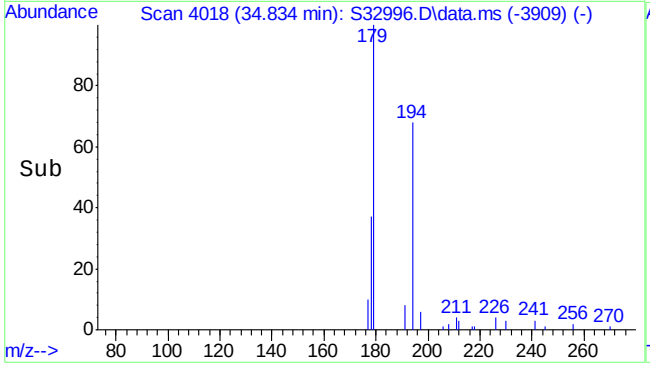


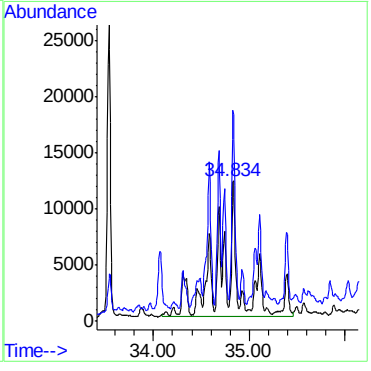


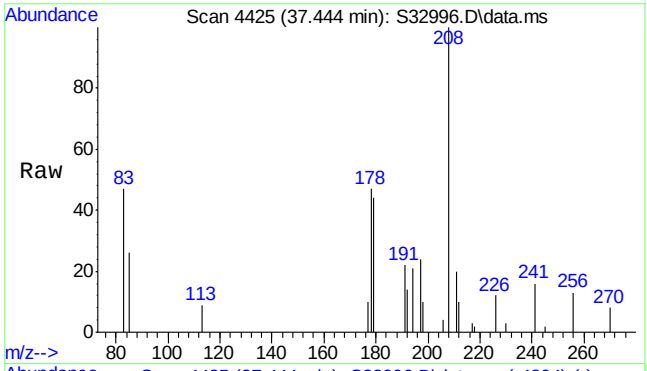
#57
C2-Fluorenes
Concen: 762.38 ng/mL m
RT: 34.834 min Scan# 4018
Delta R.T. -0.051 min
Lab File: S32996.D
Acq: 16 Jul 2013 8:53 pm

Tgt Ion:194 Resp: 167815

Ion	Ratio	Lower	Upper
194	100		
179	25.1	125.0	187.4#



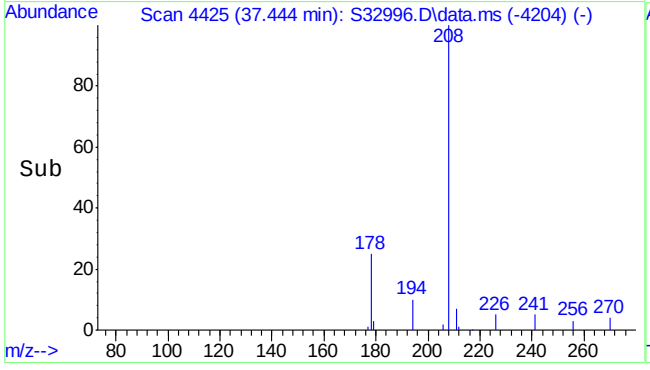


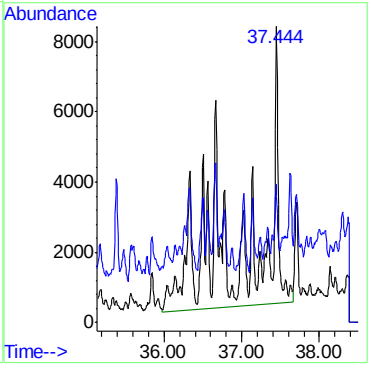


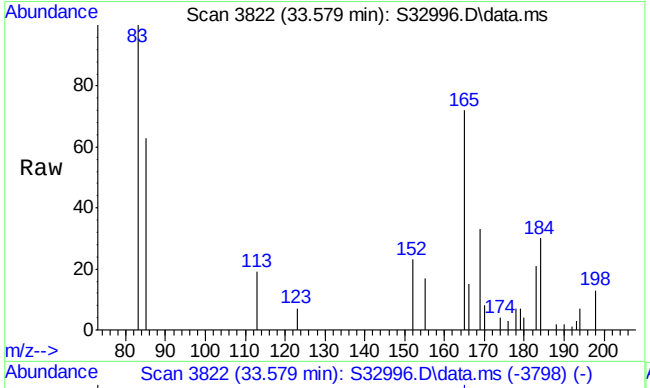
#58
C3-Fluorenes
Concen: 628.51 ng/mL m
RT: 37.444 min Scan# 4425
Delta R.T. 0.725 min
Lab File: S32996.D
Acq: 16 Jul 2013 8:53 pm

Tgt Ion:208 Resp: 138349

Ion	Ratio	Lower	Upper
208	100		
178	6.2	58.5	87.7#



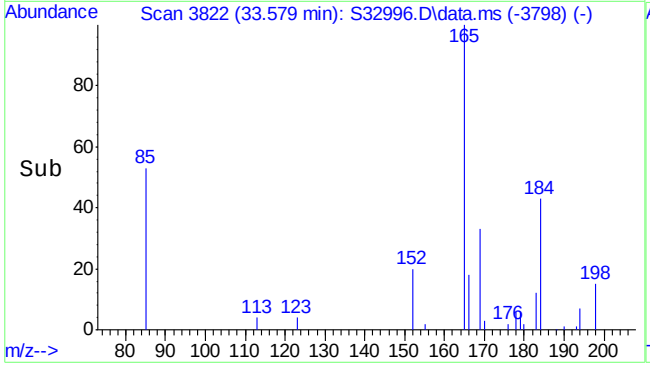


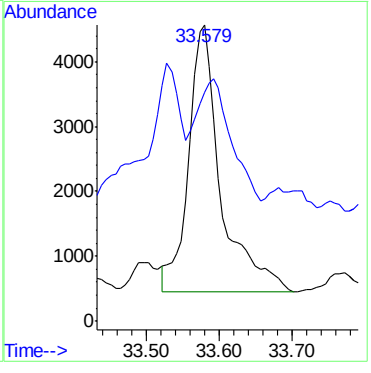


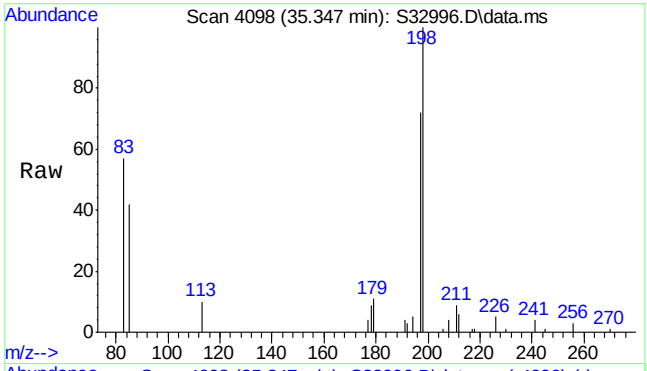
#59
Dibenzothiophene
Concen: 45.31 ng/mL
RT: 33.579 min Scan# 3822
Delta R.T. -0.045 min
Lab File: S32996.D
Acq: 16 Jul 2013 8:53 pm

Tgt Ion:184 Resp: 12576

Ion	Ratio	Lower	Upper
184	100		
152	49.4	7.3	10.9#



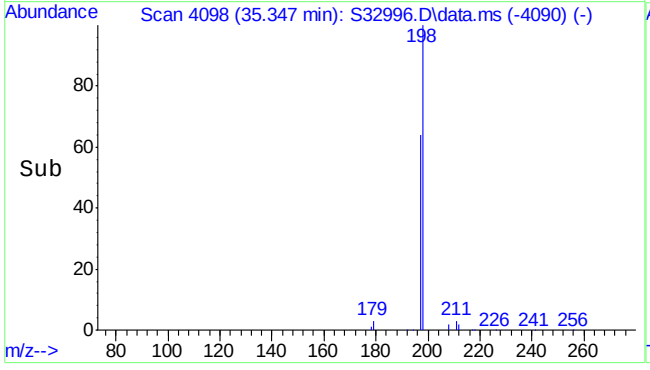


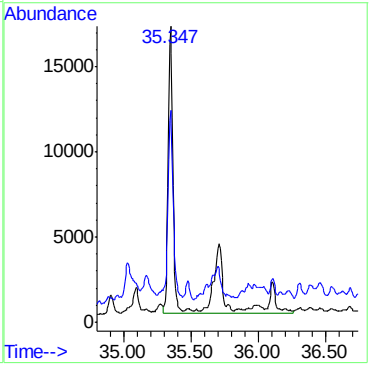


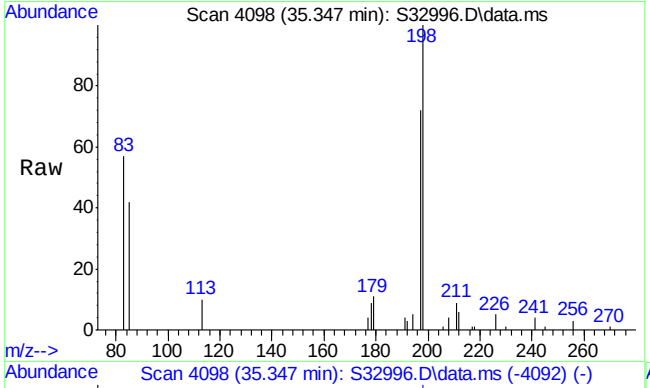
#60
C1-Dibenzothiophenes (unadj)
Concen: 258.30 ng/mL m
RT: 35.347 min Scan# 4098
Delta R.T. -0.051 min
Lab File: S32996.D
Acq: 16 Jul 2013 8:53 pm

Tgt Ion:198 Resp: 70660

Ion	Ratio	Lower	Upper
198	100		
197	41.8	52.9	79.3#



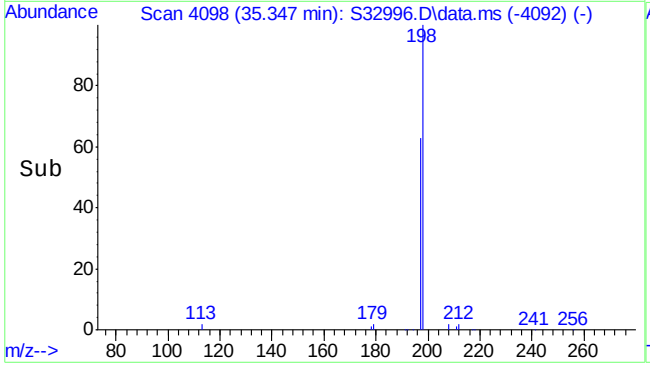


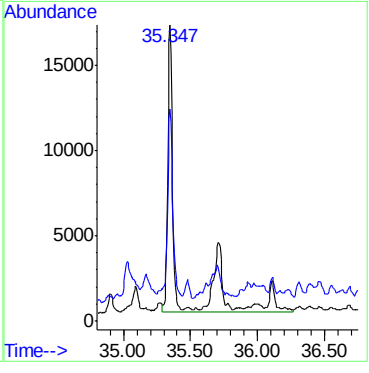


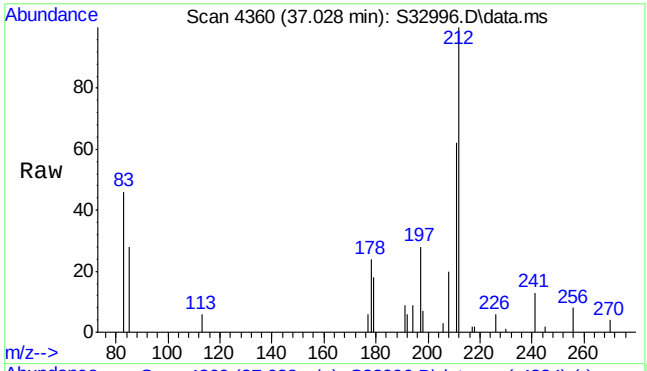
#61
C1-Dibenzothiophenes (OTP)
Concen: 258.46 µg/mL m
RT: 35.347 min Scan# 4098
Delta R.T. -0.051 min
Lab File: S32996.D
Acq: 16 Jul 2013 8:53 pm

Tgt Ion:198 Resp: 70706

Ion	Ratio	Lower	Upper
198	100		
197	41.2	52.9	79.3#



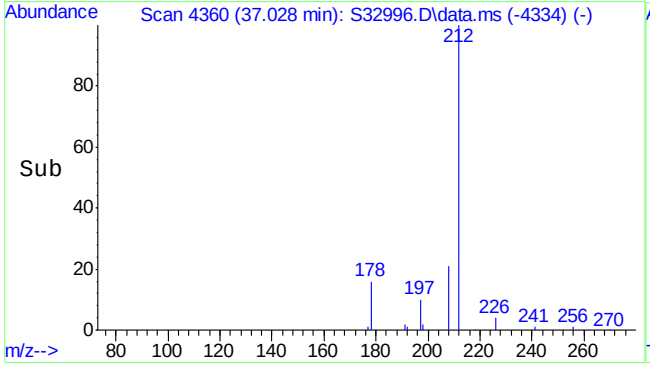


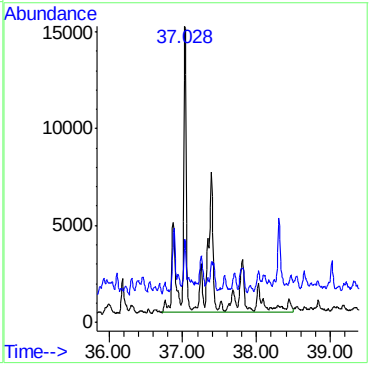


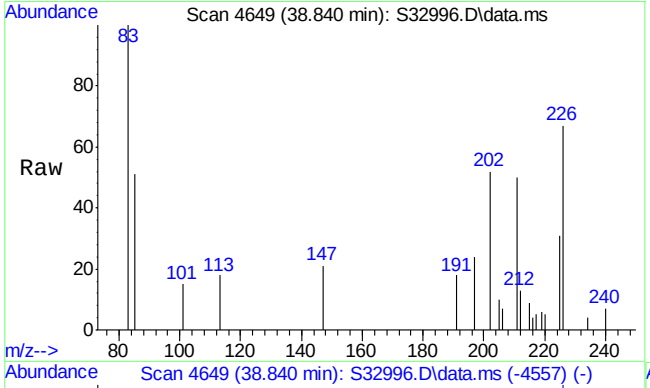
#62
C2-Dibenzothiophenes
Concen: 440.51 ng/mL m
RT: 37.028 min Scan# 4360
Delta R.T. -0.417 min
Lab File: S32996.D
Acq: 16 Jul 2013 8:53 pm

Tgt Ion:212 Resp: 120508

Ion	Ratio	Lower	Upper
212	100		
197	1.7	19.0	28.4#



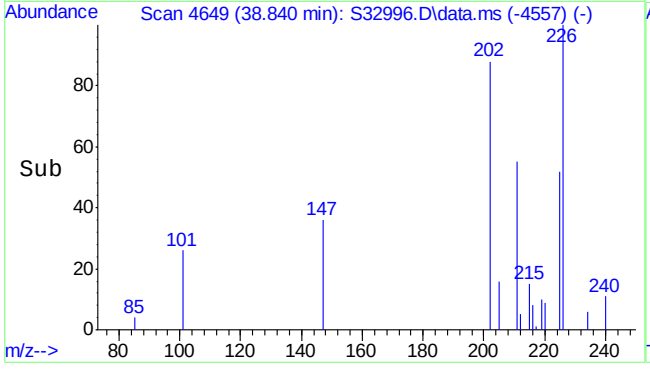


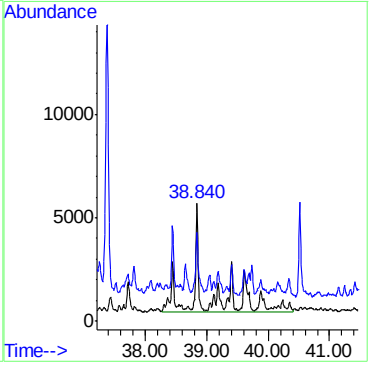


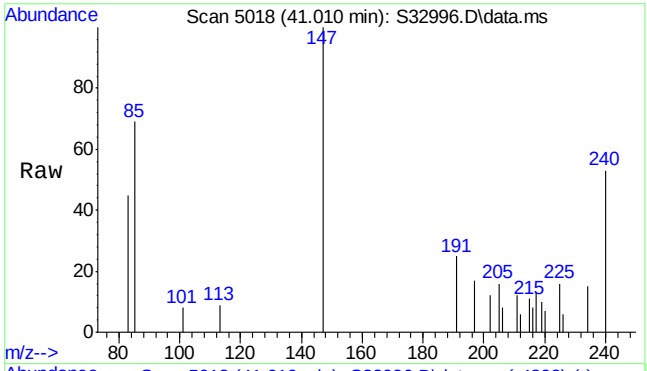
#63
C3-Dibenzothiophenes
Concen: 248.91 ng/mL m
RT: 38.840 min Scan# 4649
Delta R.T. -0.053 min
Lab File: S32996.D
Acq: 16 Jul 2013 8:53 pm

Tgt Ion:226 Resp: 68093

Ion	Ratio	Lower	Upper
226	100		
211	14.1	50.2	75.2#

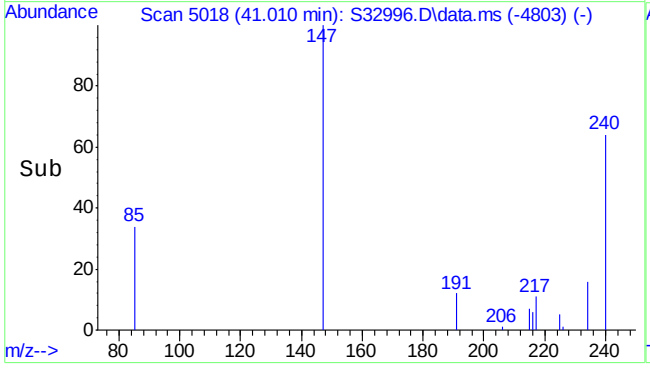


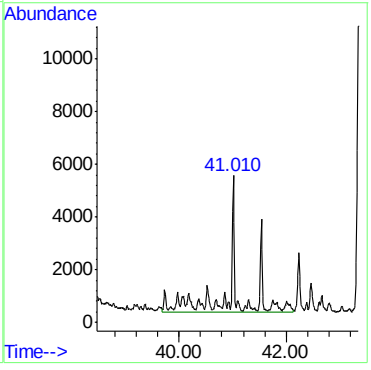


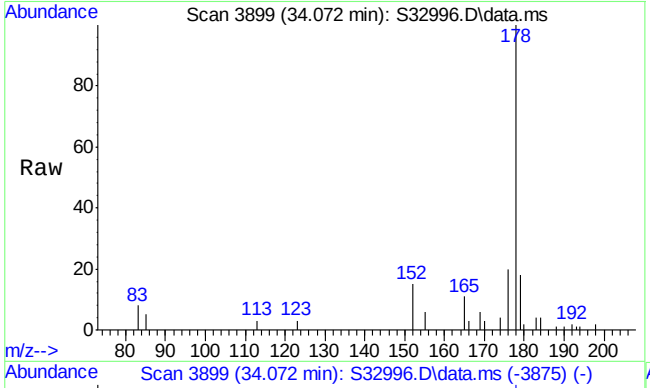


#64
C4-Dibenzothiophenes
Concen: 193.43 ng/mL m
RT: 41.010 min Scan# 5018
Delta R.T. 0.417 min
Lab File: S32996.D
Acq: 16 Jul 2013 8:53 pm

Tgt Ion:240 Resp: 52914



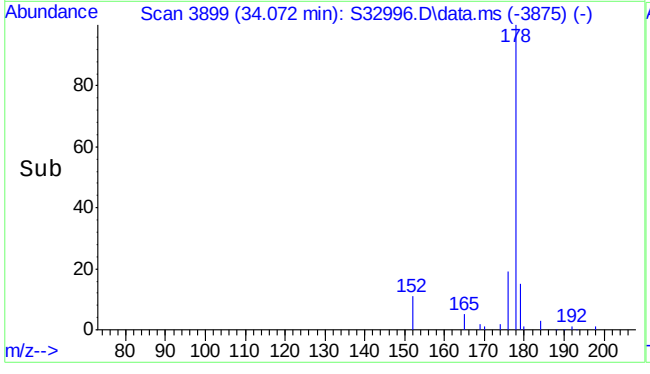


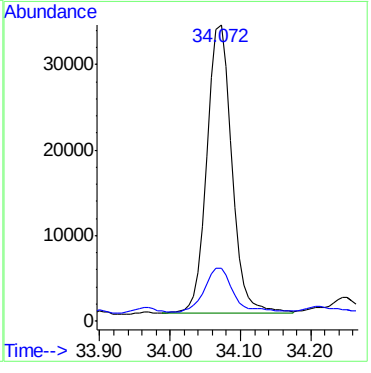


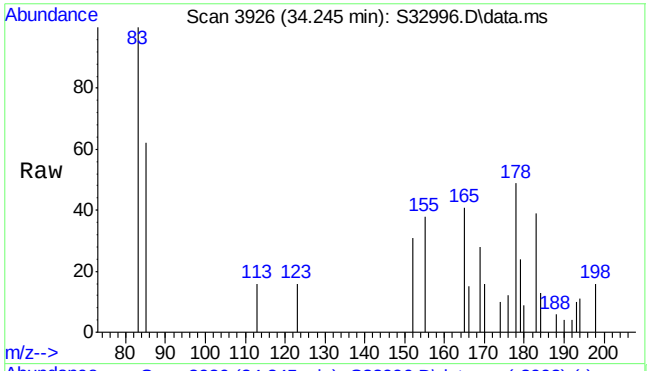
#65
Phenanthrene
Concen: 254.57 ng/mL
RT: 34.072 min Scan# 3899
Delta R.T. -0.045 min
Lab File: S32996.D
Acq: 16 Jul 2013 8:53 pm

Tgt Ion:178 Resp: 80779

Ion	Ratio	Lower	Upper
178	100		
179	17.1	12.3	18.5



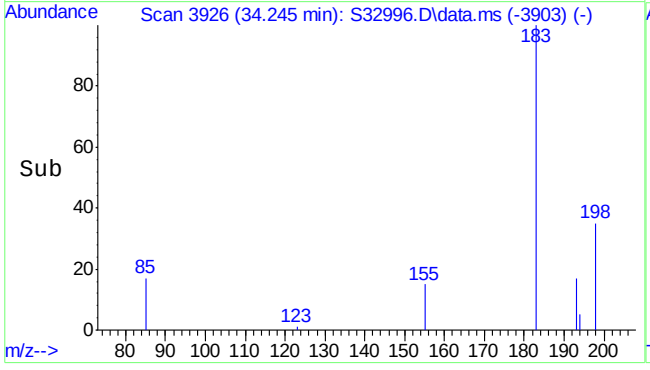


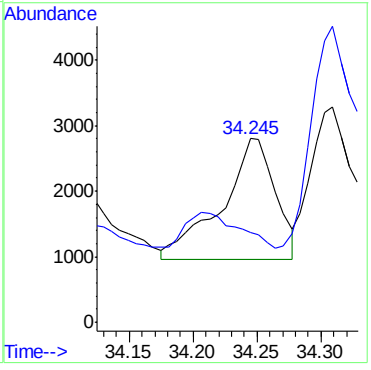


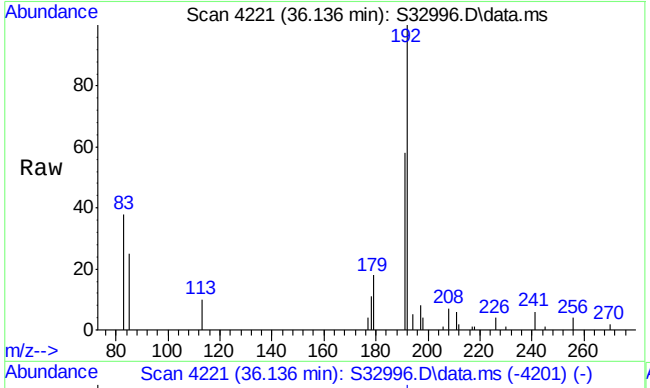
#66
Anthracene
Concen: 18.21 ng/mL m
RT: 34.245 min Scan# 3926
Delta R.T. -0.051 min
Lab File: S32996.D
Acq: 16 Jul 2013 8:53 pm

Tgt Ion:178 Resp: 5369

Ion	Ratio	Lower	Upper
178	100		
179	160.7	12.1	18.1#



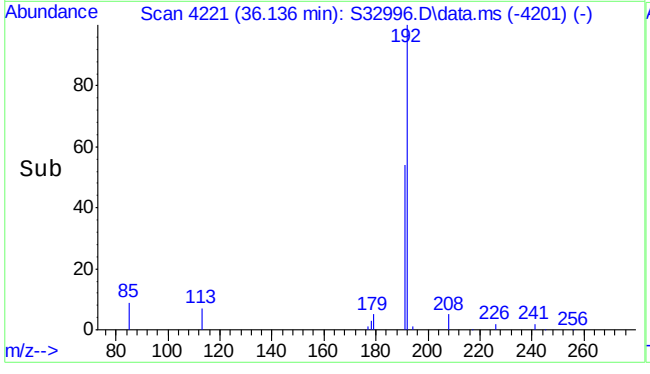


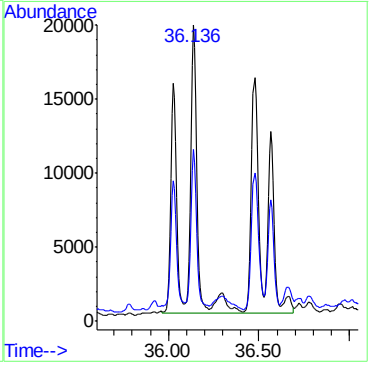


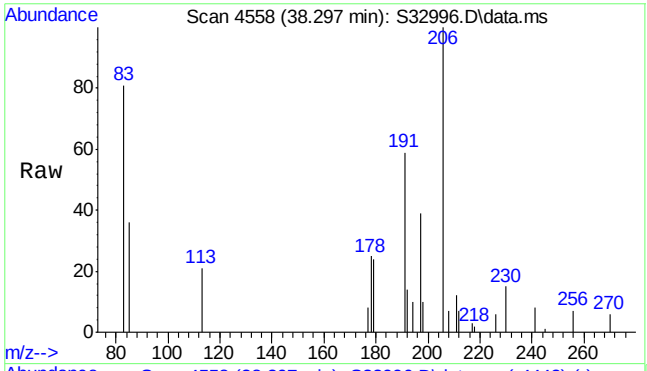
#67
C1-Phenanthrenes/anthracenes
Concen: 495.08 ng/mL m
RT: 36.136 min Scan# 4221
Delta R.T. -0.398 min
Lab File: S32996.D
Acq: 16 Jul 2013 8:53 pm

Tgt Ion:192 Resp: 157096

Ion	Ratio	Lower	Upper
192	100		
191	15.1	45.8	68.6#



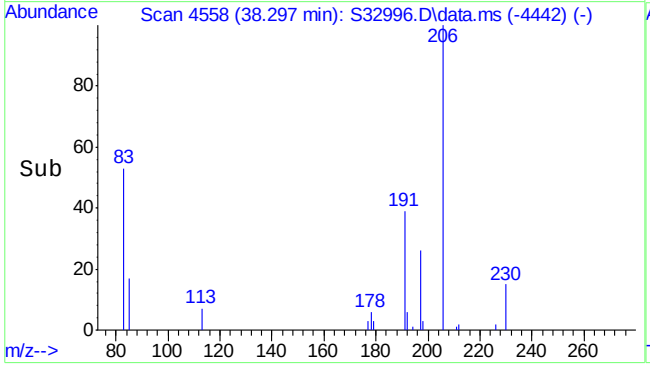


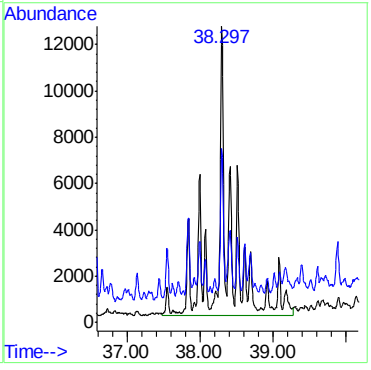


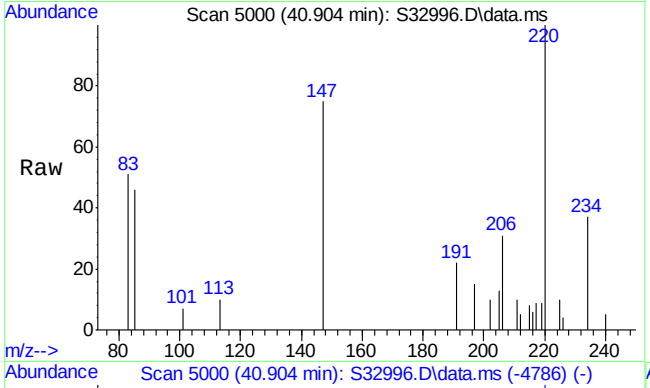
#68
C2-Phenanthrenes/anthracenes (unadj)
Concen: 474.94 ng/mL m
RT: 38.297 min Scan# 4558
Delta R.T. -0.058 min
Lab File: S32996.D
Acq: 16 Jul 2013 8:53 pm

Tgt Ion:206 Resp: 150707

Ion	Ratio	Lower	Upper
206	100		
191	11.5	46.2	69.4#



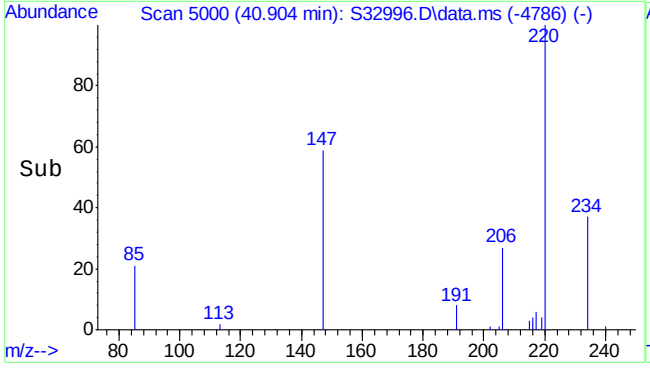


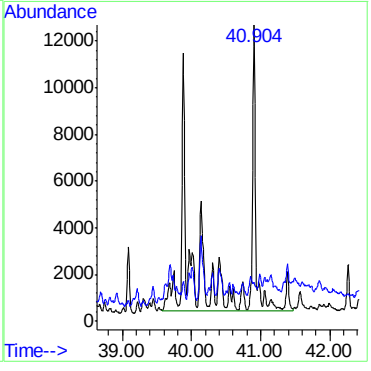


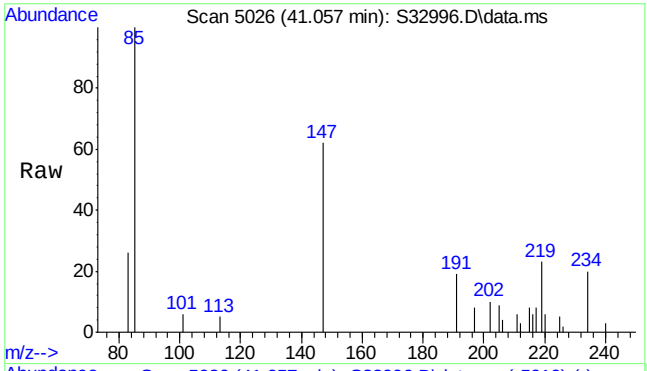
#70
C3-Phenanthrenes/anthracenes
Concen: 425.52 ng/mL m
RT: 40.904 min Scan# 5000
Delta R.T. 0.711 min
Lab File: S32996.D
Acq: 16 Jul 2013 8:53 pm

Tgt Ion:220 Resp: 135023

Ion	Ratio	Lower	Upper
220	100		
205	7.2	42.6	63.8#



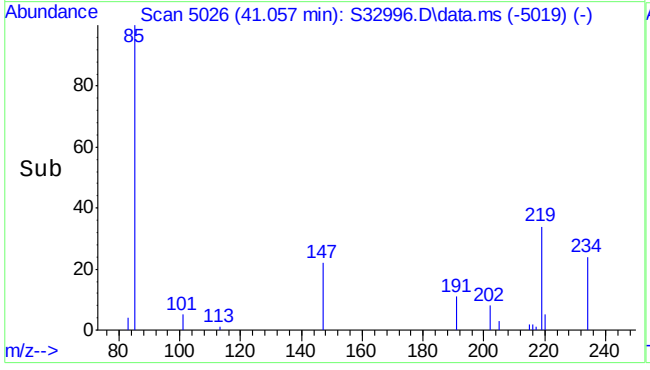


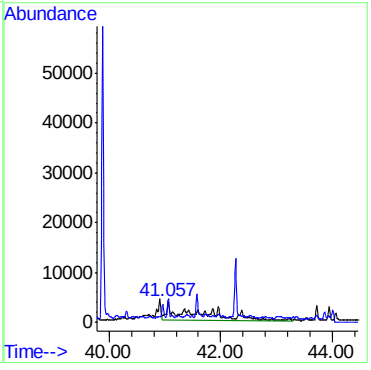


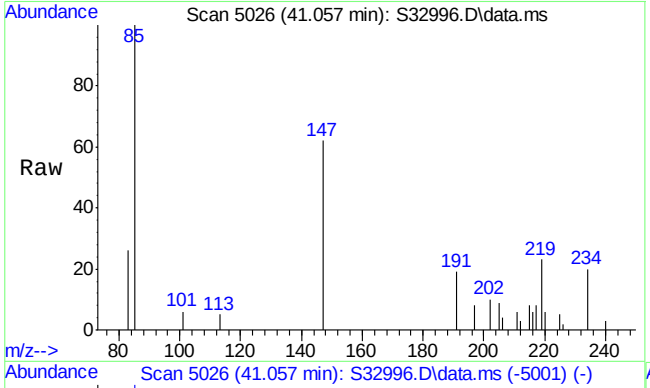
#71
C4-Phenanthrenes/anthracenes
Concen: 358.19 ng/mL m
RT: 41.057 min Scan# 5026
Delta R.T. -1.317 min
Lab File: S32996.D
Acq: 16 Jul 2013 8:53 pm

Tgt Ion:234 Resp: 113658

Ion	Ratio	Lower	Upper
234	100		
219	1.3	49.6	74.4#



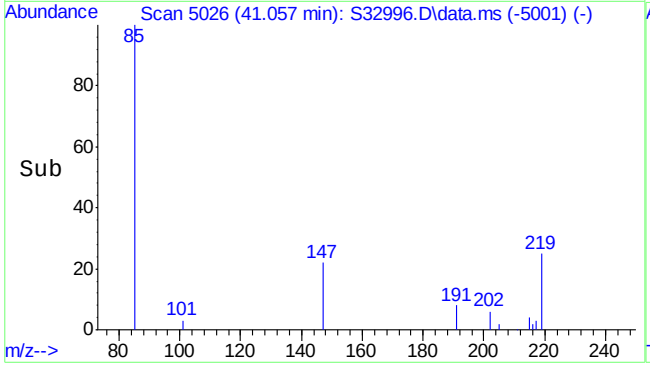


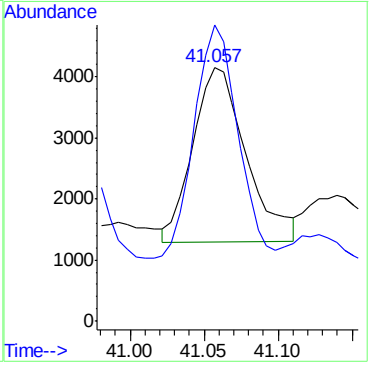


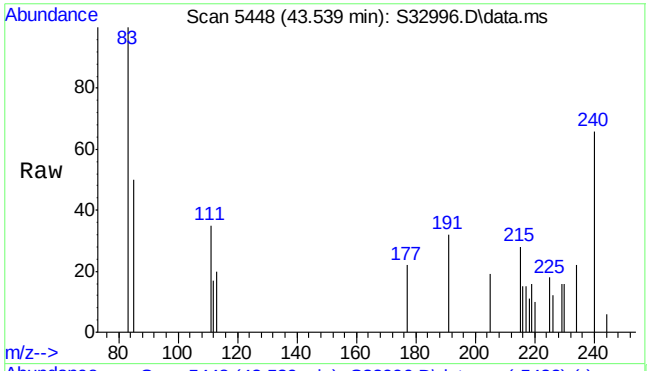
#72
Retene
Concen: 173.74 µg/mL
RT: 41.057 min Scan# 5026
Delta R.T. -0.053 min
Lab File: S32996.D
Acq: 16 Jul 2013 8:53 pm

Tgt Ion:234 Resp: 7142

Ion	Ratio	Lower	Upper
234	100		
219	109.7	134.4	201.6#

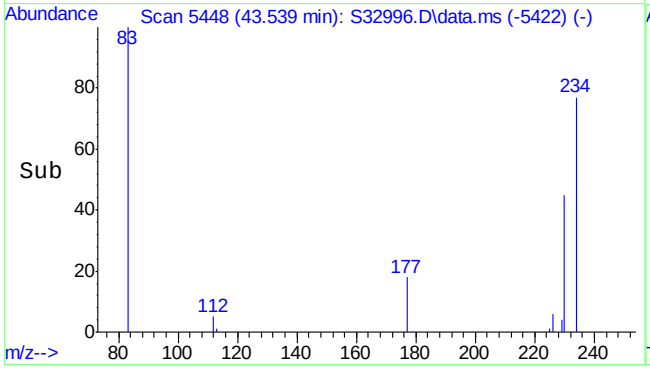


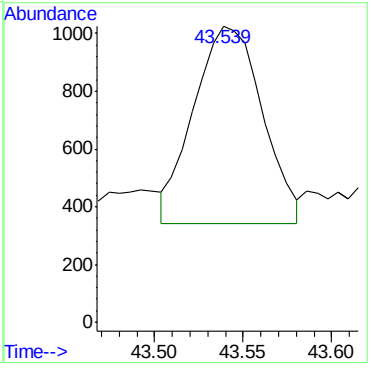


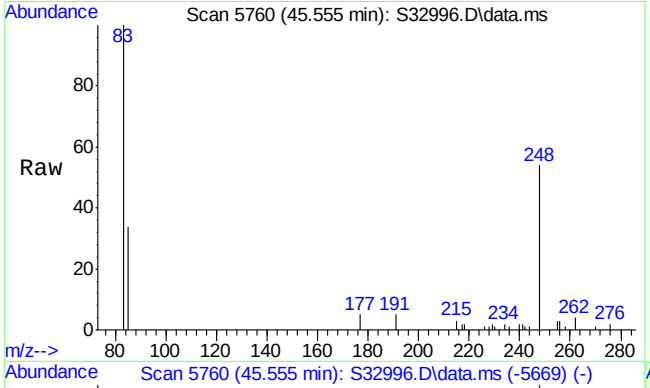


#73
Benzo(b)naphtho(2,1-d)thiophene
Concen: 6.27 µg/mL m
RT: 43.539 min Scan# 5448
Delta R.T. -0.047 min
Lab File: S32996.D
Acq: 16 Jul 2013 8:53 pm

Tgt Ion:234 Resp: 1837

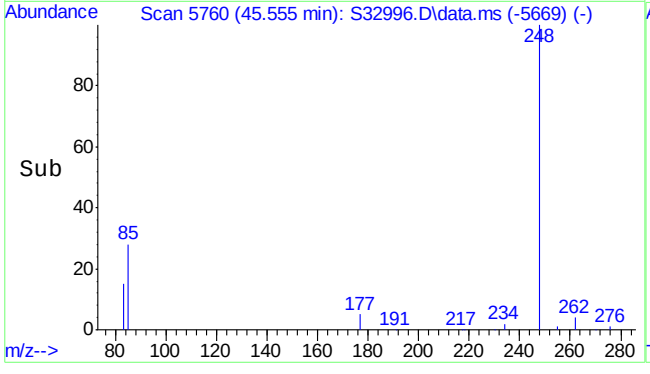


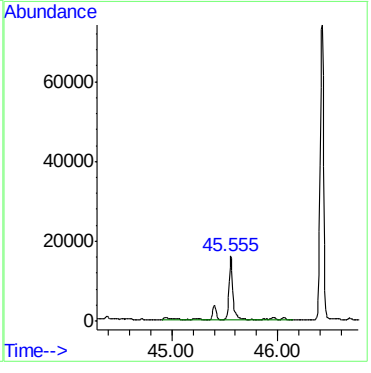


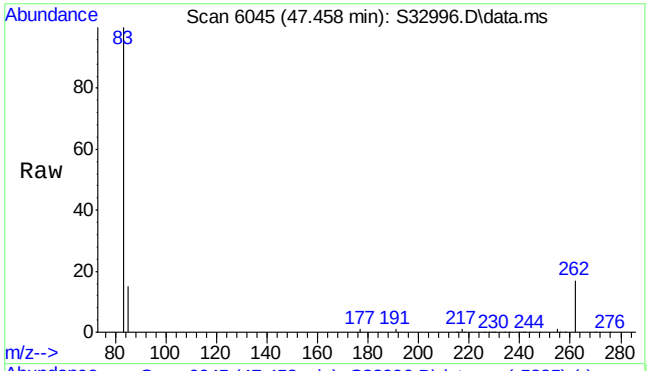


#74
C1-Benzonaphthothiophenes
Concen: 207.33 µg/mL m
RT: 45.555 min Scan# 5760
Delta R.T. 0.561 min
Lab File: S32996.D
Acq: 16 Jul 2013 8:53 pm

Tgt Ion:248 Resp: 60708

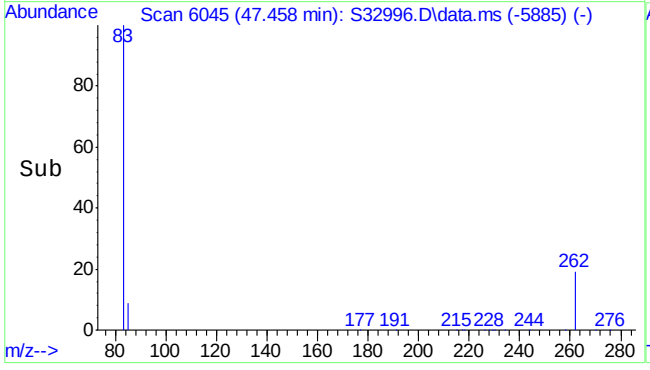


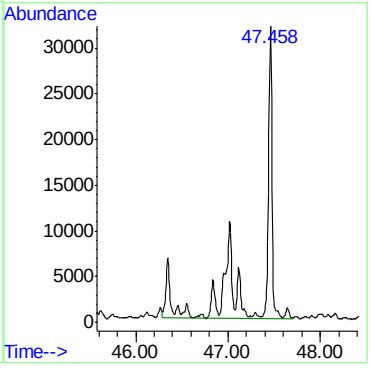


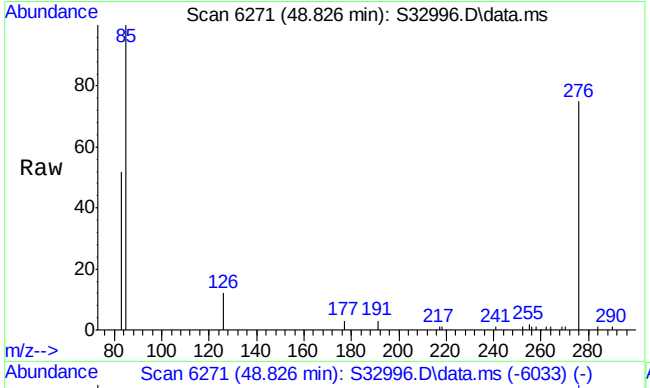


#75
C2-Benzonaphthothiophenes
Concen: 654.74 µg/mL m
RT: 47.458 min Scan# 6045
Delta R.T. 0.407 min
Lab File: S32996.D
Acq: 16 Jul 2013 8:53 pm

Tgt Ion:262 Resp: 191711

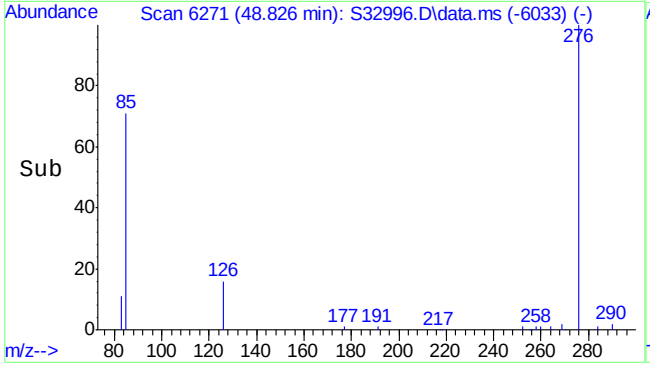


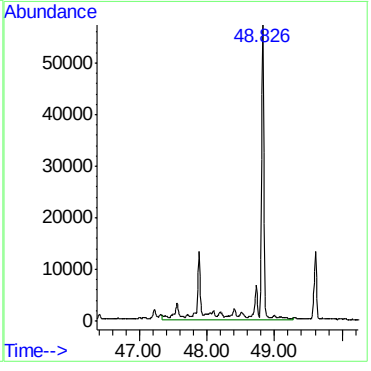




#76
C3-Benzonaphthothiophenes
Concen: 893.17 µg/mL m
RT: 48.826 min Scan# 6271
Delta R.T. 0.225 min
Lab File: S32996.D
Acq: 16 Jul 2013 8:53 pm

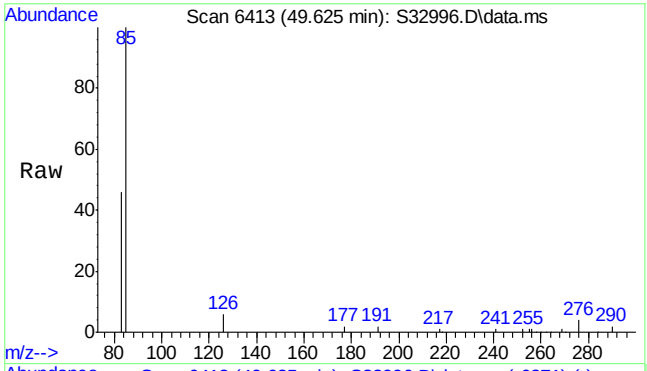
Tgt Ion:276 Resp: 261523





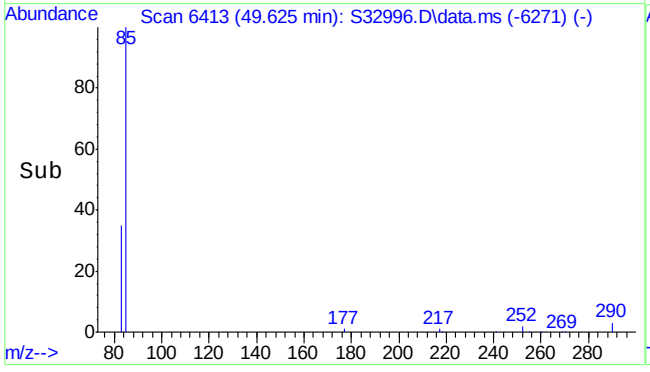
7.1.5

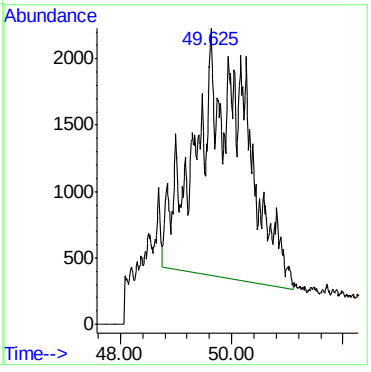
7

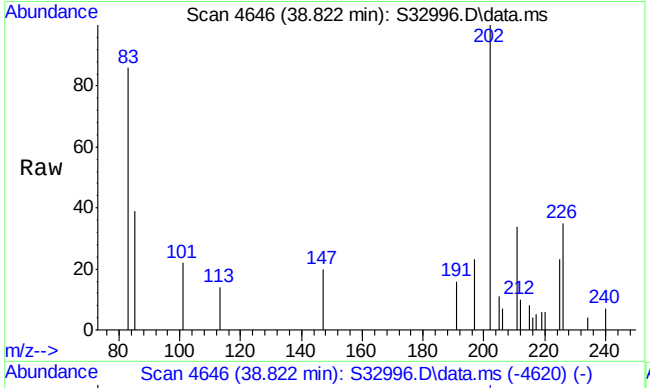


#77
C4-Benzonaphthothiophenes
Concen: 392.38 µg/mL m
RT: 49.625 min Scan# 6413
Delta R.T. 0.006 min
Lab File: S32996.D
Acq: 16 Jul 2013 8:53 pm

Tgt Ion:290 Resp: 114891



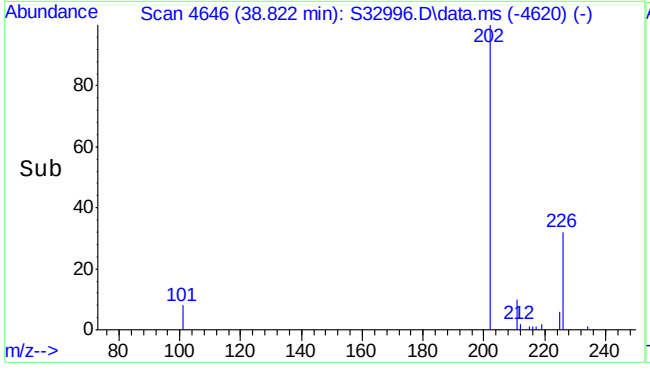


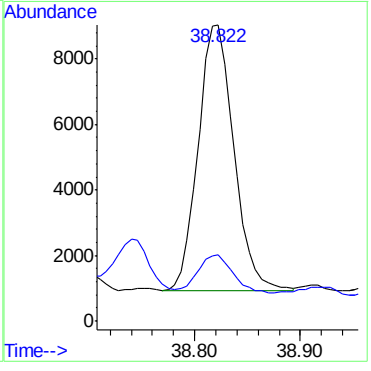


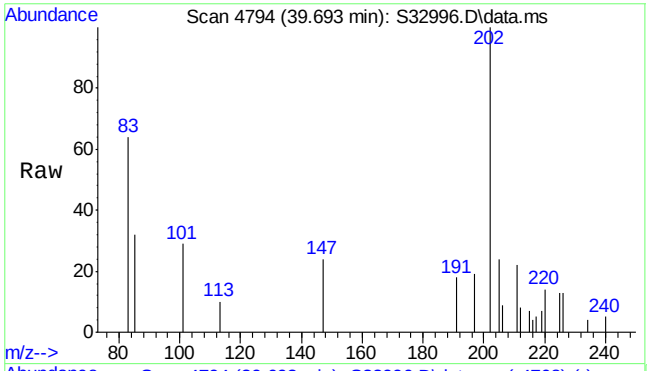
#78
Fluoranthene
Concen: 67.76 ng/mL
RT: 38.822 min Scan# 4646
Delta R.T. -0.047 min
Lab File: S32996.D
Acq: 16 Jul 2013 8:53 pm

Tgt Ion:202 Resp: 19047

Ion	Ratio	Lower	Upper
202	100		
101	14.5	10.9	16.3



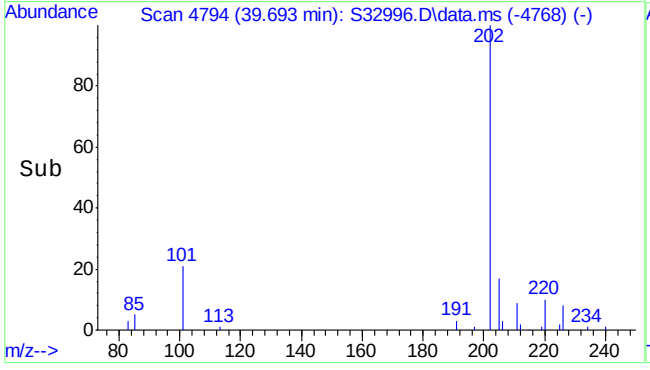


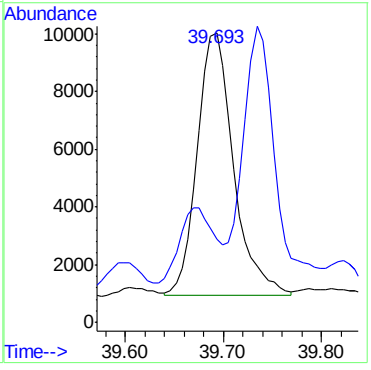


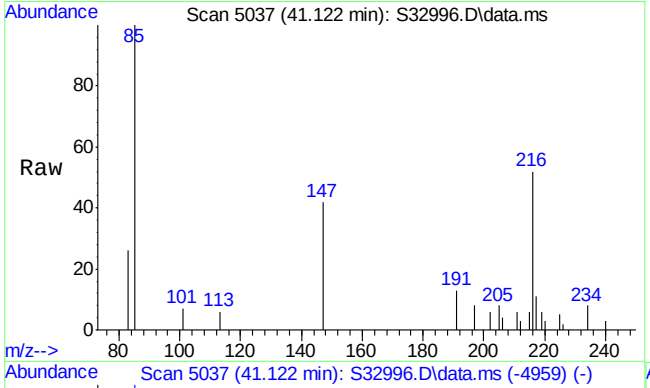
#79
Pyrene
Concen: 80.70 ng/mL m
RT: 39.693 min Scan# 4794
Delta R.T. -0.047 min
Lab File: S32996.D
Acq: 16 Jul 2013 8:53 pm

Tgt Ion:202 Resp: 23504

Ion	Ratio	Lower	Upper
202	100		
101	32.4	12.8	19.2#



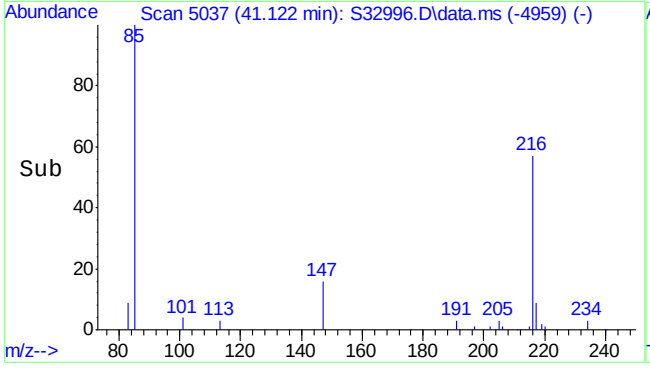


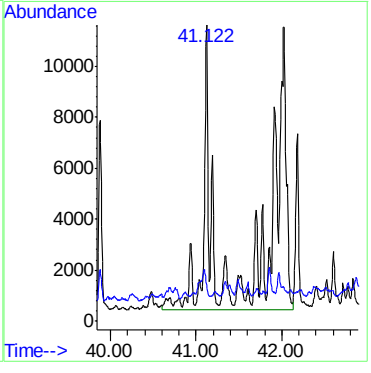


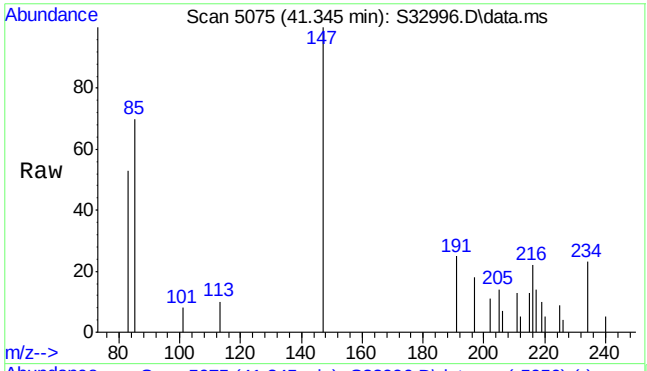
#80
C1-Fluoranthenes/pyrenes
Concen: 596.22 ng/mL m
RT: 41.122 min Scan# 5037
Delta R.T. -0.029 min
Lab File: S32996.D
Acq: 16 Jul 2013 8:53 pm

Tgt Ion:216 Resp: 173660

Ion	Ratio	Lower	Upper
216	100		
215	0.0	80.6	120.8#



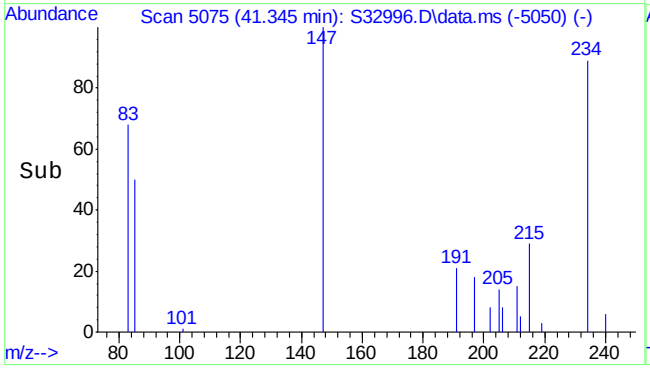


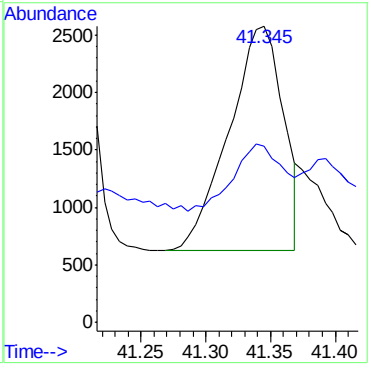


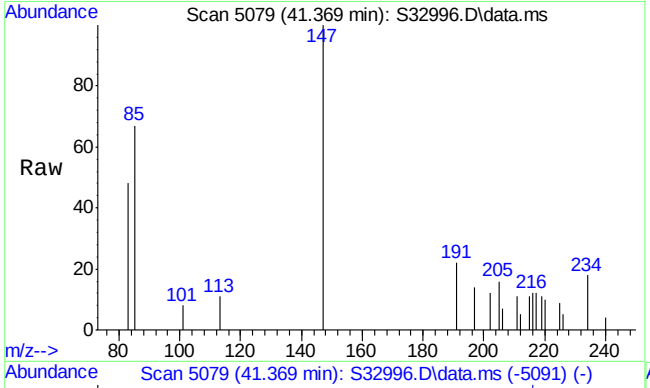
#81
Benzo(b)fluorene
Concen: 19.70 ng/mL m
RT: 41.345 min Scan# 5075
Delta R.T. -0.053 min
Lab File: S32996.D
Acq: 16 Jul 2013 8:53 pm

Tgt Ion:216 Resp: 5737

Ion	Ratio	Lower	Upper
216	100		
215	26.9	113.7	170.5#



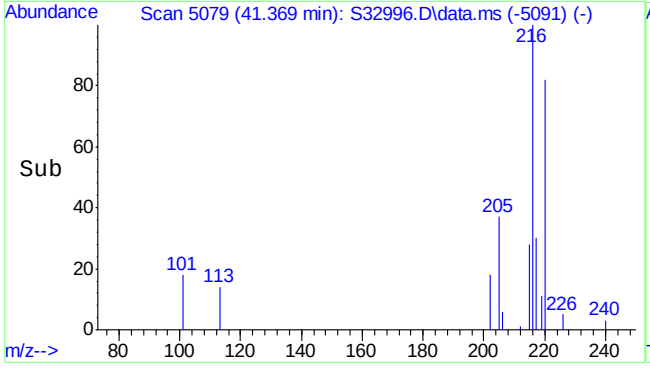


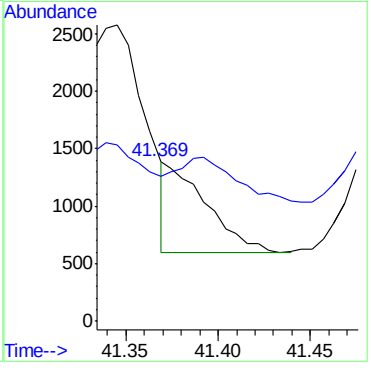


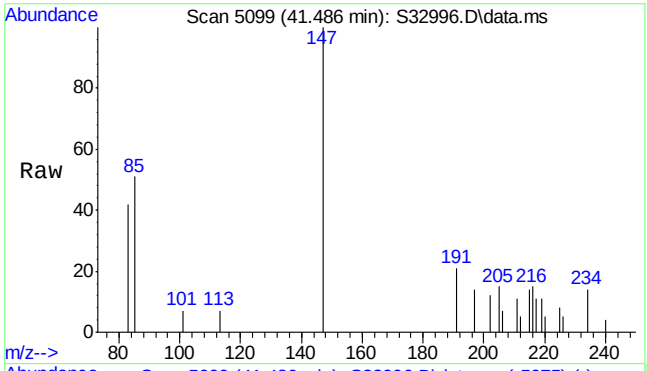
#82
Benzo(c)fluorene
Concen: 4.06 µg/mL m
RT: 41.369 min Scan# 5079
Delta R.T. -0.071 min
Lab File: S32996.D
Acq: 16 Jul 2013 8:53 pm

Tgt Ion:216 Resp: 1182

Ion	Ratio	Lower	Upper
216	100		
215	151.9	117.8	176.8



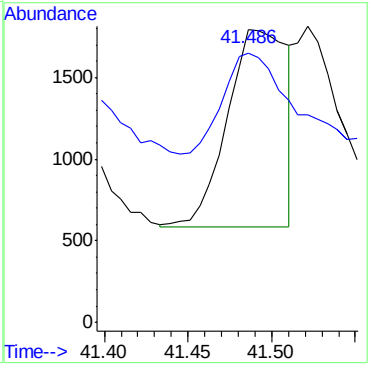


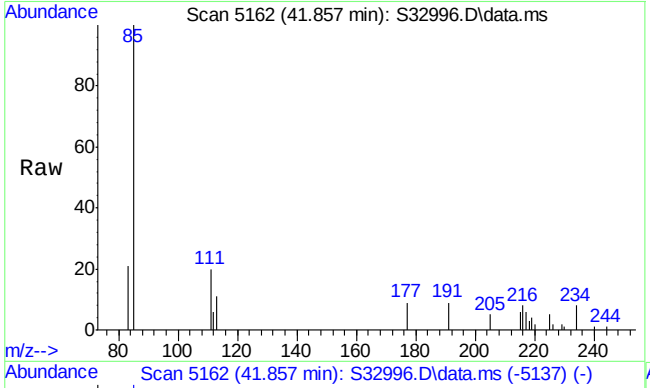


#83
2-Methylpyrene
Concen: 10.26 ng/mL m
RT: 41.486 min Scan# 5099
Delta R.T. -0.059 min
Lab File: S32996.D
Acq: 16 Jul 2013 8:53 pm

Tgt Ion:216 Resp: 2988

Ion	Ratio	Lower	Upper
216	100		
215	38.9	81.2	121.8#

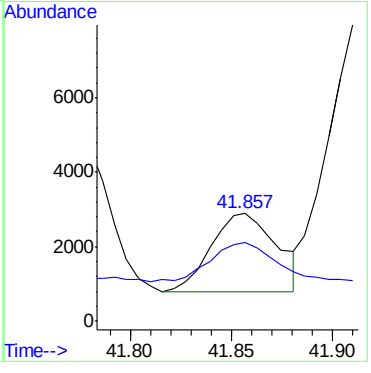


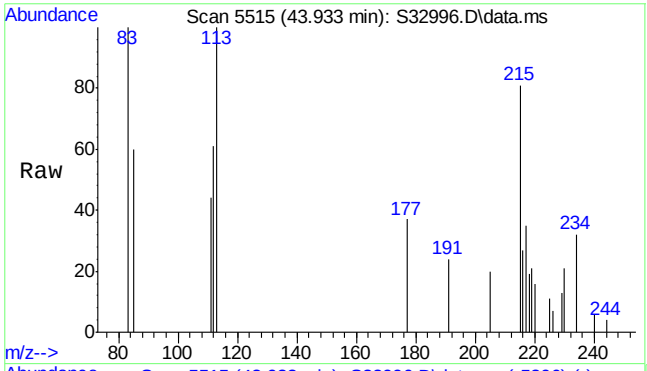


#84
4-Methylpyrene
Concen: 16.28 ng/mL
RT: 41.857 min Scan# 5162
Delta R.T. -0.053 min
Lab File: S32996.D
Acq: 16 Jul 2013 8:53 pm

Tgt Ion:216 Resp: 4742

Ion	Ratio	Lower	Upper
216	100		
215	49.4	58.7	88.1#

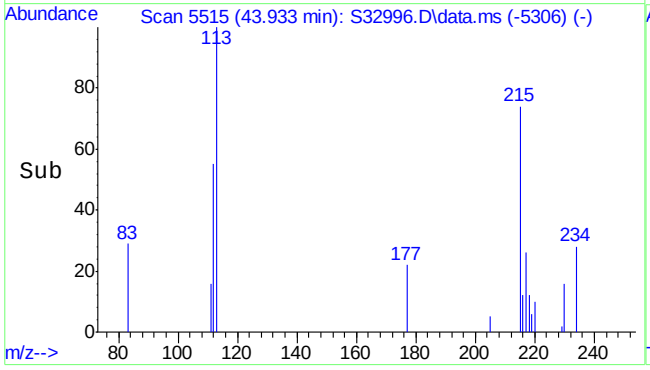


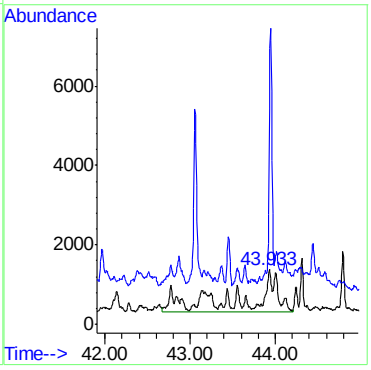


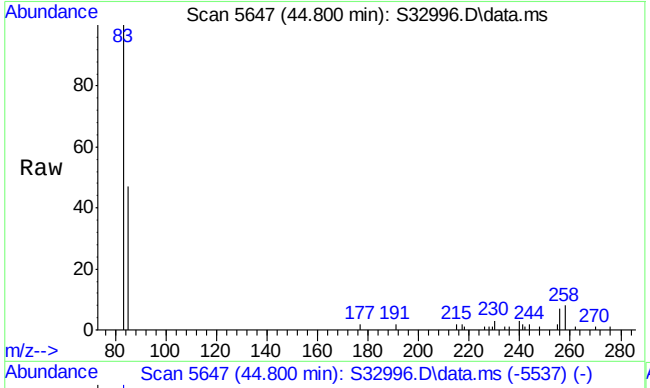
#86
C2-Fluoranthenes/pyrenes
Concen: 87.84 ng/mL m
RT: 43.933 min Scan# 5515
Delta R.T. 0.323 min
Lab File: S32996.D
Acq: 16 Jul 2013 8:53 pm

Tgt Ion:230 Resp: 25586

Ion	Ratio	Lower	Upper
230	100		
215	2.3	78.6	118.0#



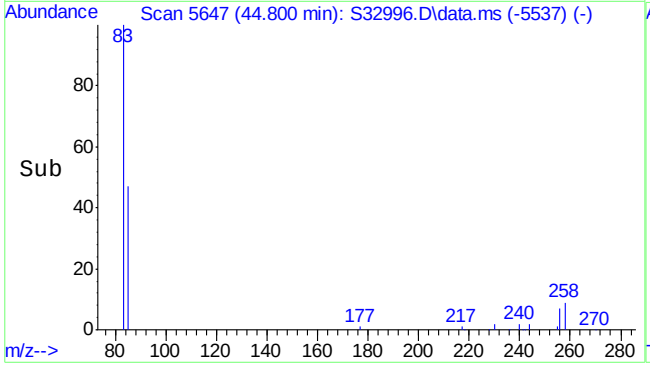


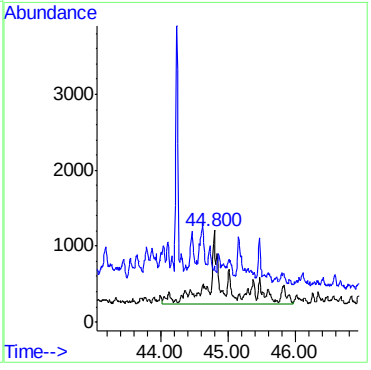


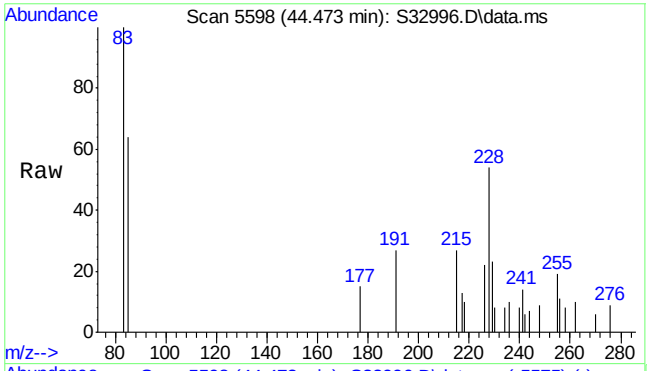
#87
C3-Fluoranthenes/pyrenes
Concen: 60.36 ng/mL m
RT: 44.800 min Scan# 5647
Delta R.T. -0.174 min
Lab File: S32996.D
Acq: 16 Jul 2013 8:53 pm

Tgt Ion:244 Resp: 17582

Ion	Ratio	Lower	Upper
244	100		
229	3.6	80.8	121.2#



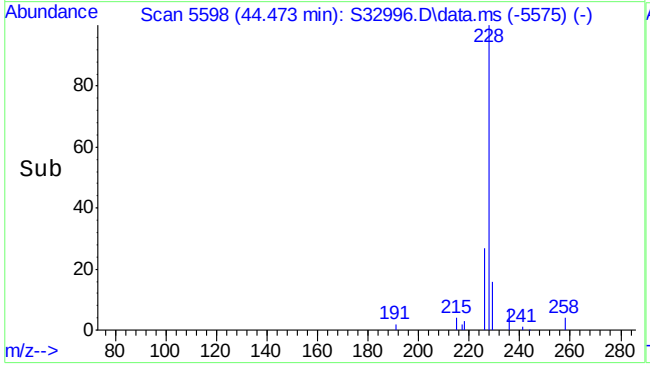


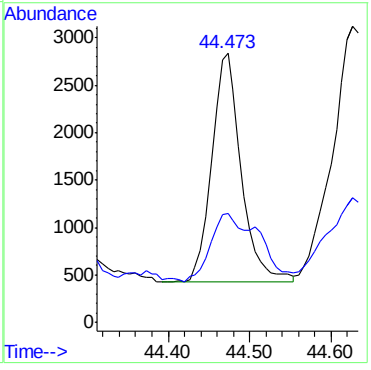


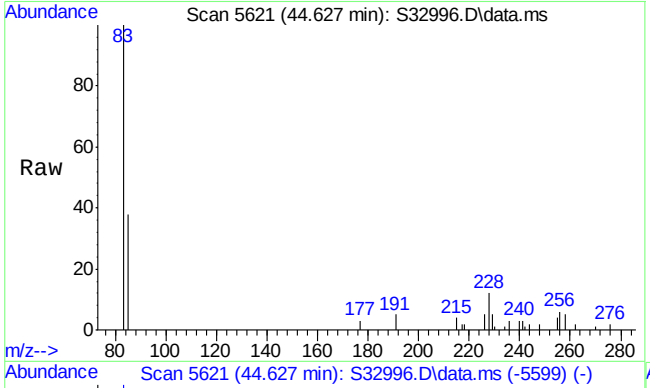
#88
Benz(a)anthracene
Concen: 21.57 ng/mL
RT: 44.473 min Scan# 5598
Delta R.T. -0.047 min
Lab File: S32996.D
Acq: 16 Jul 2013 8:53 pm

Tgt Ion:228 Resp: 6069

Ion	Ratio	Lower	Upper
228	100		
226	49.9	21.2	31.8#



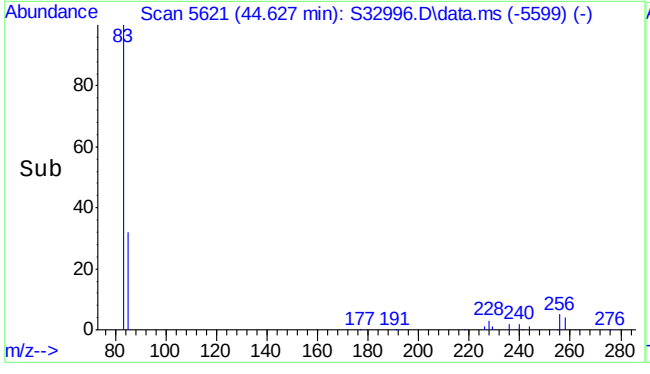


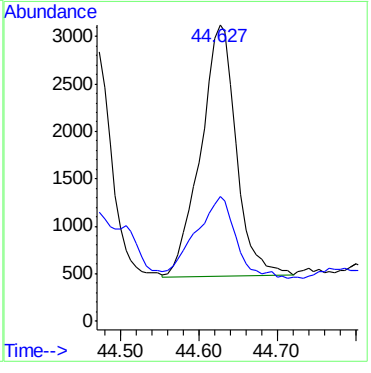


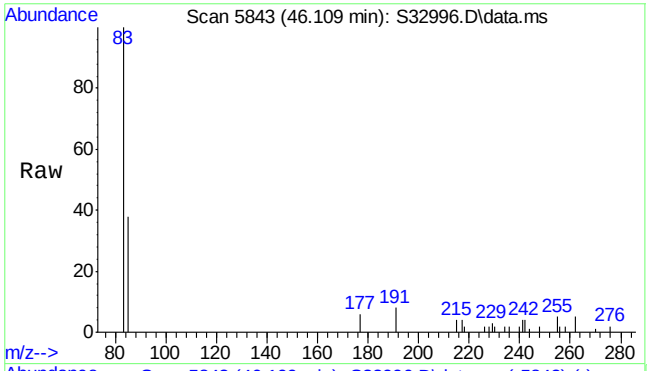
#89
Chrysene
Concen: 31.87 ng/mL
RT: 44.627 min Scan# 5621
Delta R.T. -0.053 min
Lab File: S32996.D
Acq: 16 Jul 2013 8:53 pm

Tgt Ion:228 Resp: 8364

Ion	Ratio	Lower	Upper
228	100		
226	37.7	23.4	35.2#



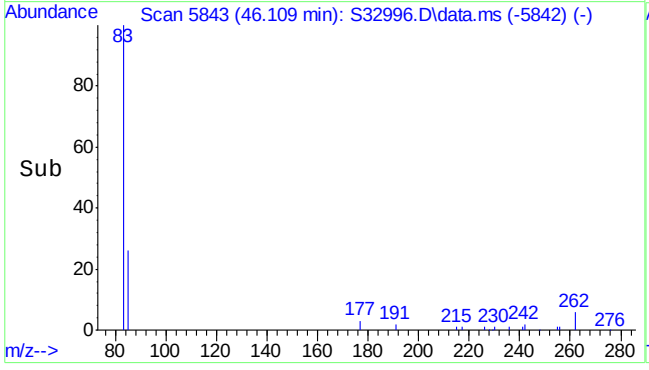


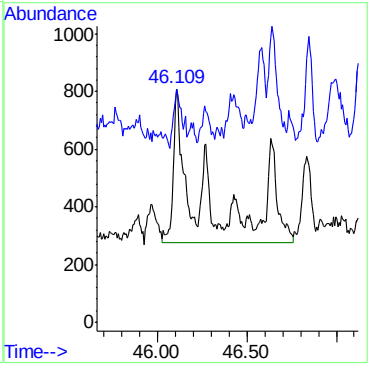


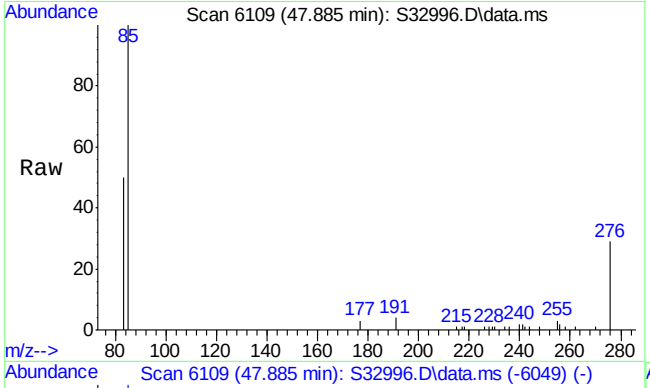
#90
C1-Benz(a)anthracenes/chrysenes
Concen: 21.24 ng/mL m
RT: 46.109 min Scan# 5843
Delta R.T. -0.054 min
Lab File: S32996.D
Acq: 16 Jul 2013 8:53 pm

Tgt Ion:242 Resp: 5573

Ion	Ratio	Lower	Upper
242	100		
241	12.2	36.3	54.5#



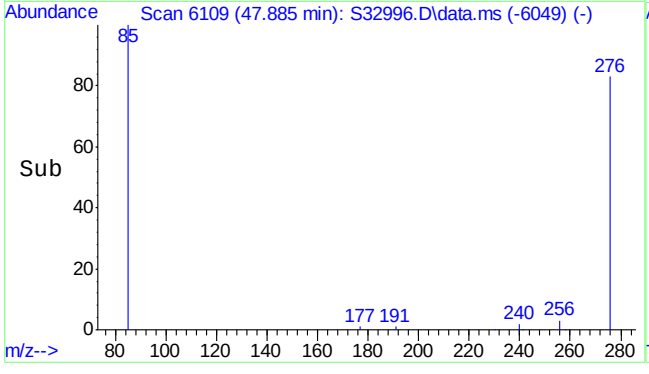


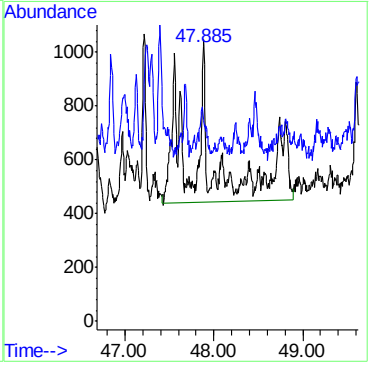


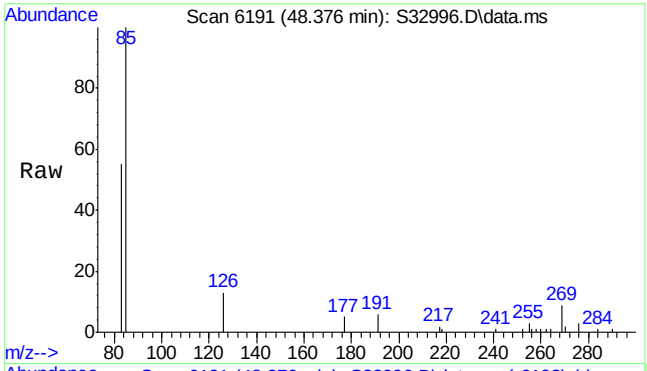
#91
C2-Benz(a)anthracenes/chrysenes
Concen: 41.56 ng/mL m
RT: 47.885 min Scan# 6109
Delta R.T. -0.356 min
Lab File: S32996.D
Acq: 16 Jul 2013 8:53 pm

Tgt Ion:256 Resp: 10905

Ion	Ratio	Lower	Upper
256	100		
241	2.0	26.4	39.6#



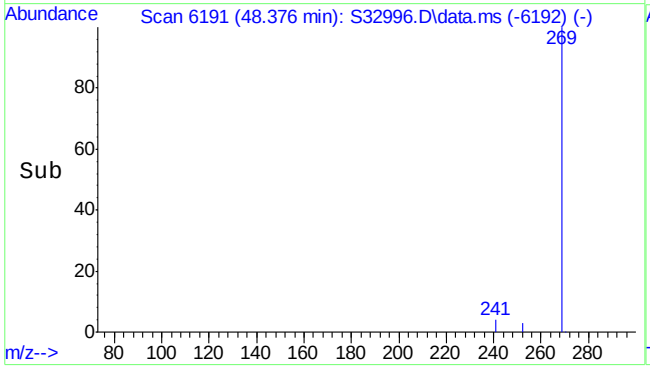


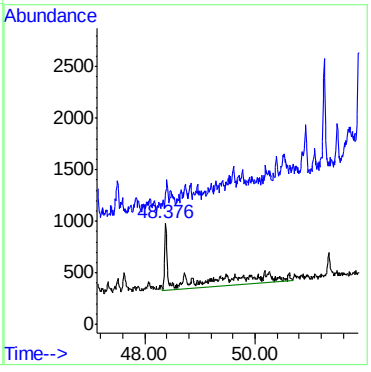


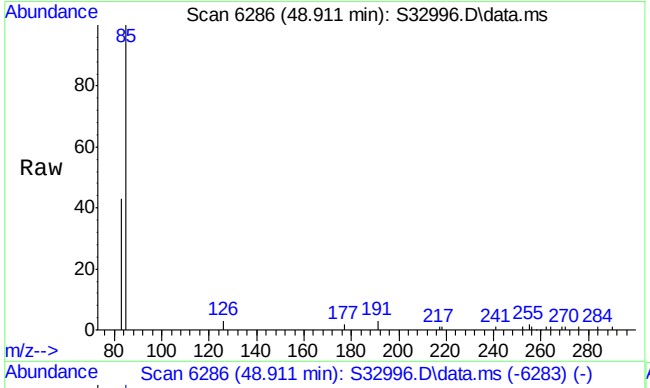
#92
C3-Benz(a)anthracenes/chrysenes
Concen: 35.23 ng/mL m
RT: 48.376 min Scan# 6191
Delta R.T. -2.290 min
Lab File: S32996.D
Acq: 16 Jul 2013 8:53 pm

Tgt Ion:270 Resp: 9244

Ion	Ratio	Lower	Upper
270	100		
255	0.0	41.9	62.9#



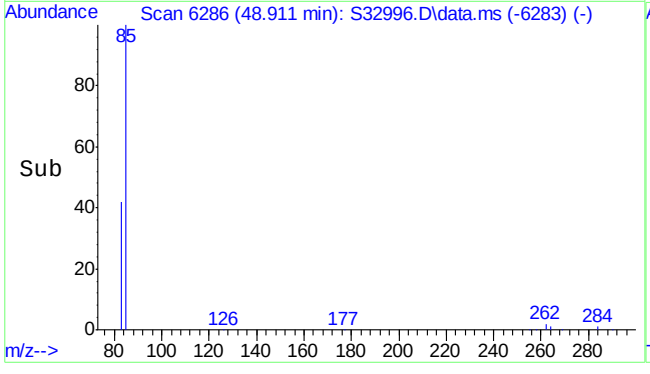


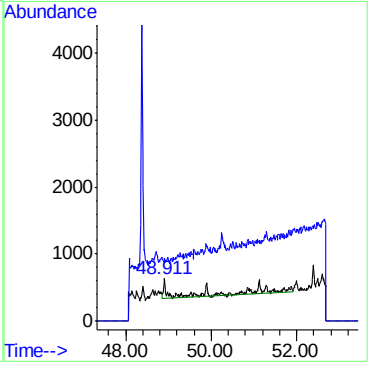


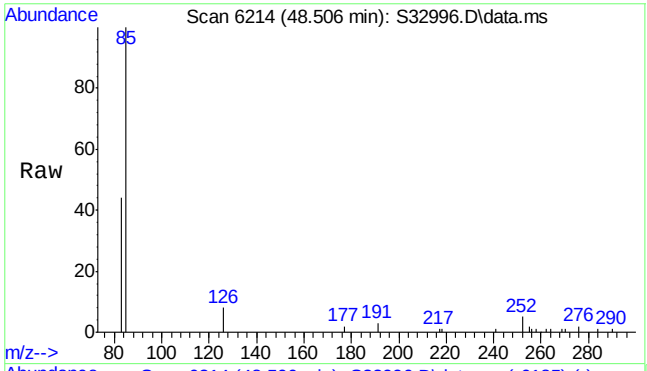
#93
C4-Benz(a)anthracenes/chrysenes
Concen: 25.44 ng/mL m
RT: 48.911 min Scan# 6286
Delta R.T. -1.440 min
Lab File: S32996.D
Acq: 16 Jul 2013 8:53 pm

Tgt Ion:284 Resp: 6676

Ion	Ratio	Lower	Upper
284	100		
269	7.2	84.0	126.0#



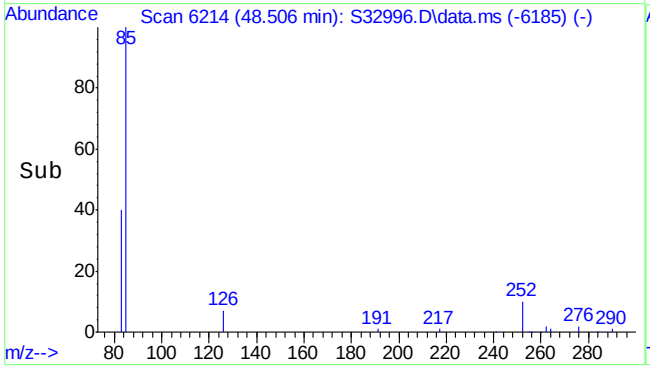


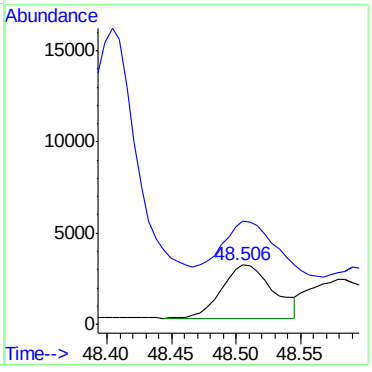


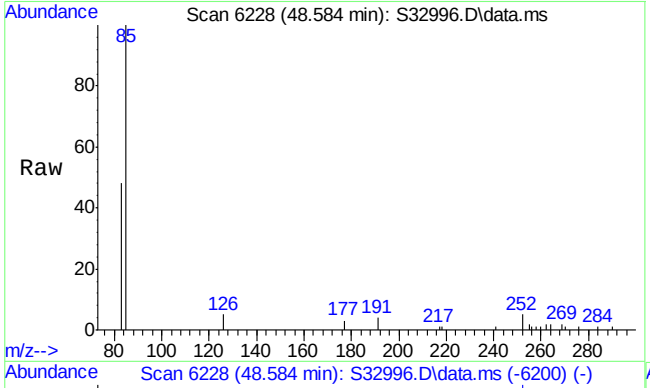
#94
Benzo(b)fluoranthene
Concen: 25.04 ng/mL
RT: 48.506 min Scan# 6214
Delta R.T. -0.039 min
Lab File: S32996.D
Acq: 16 Jul 2013 8:53 pm

Tgt Ion:252 Resp: 8064

Ion	Ratio	Lower	Upper
252	100		
126	110.4	11.4	17.2#



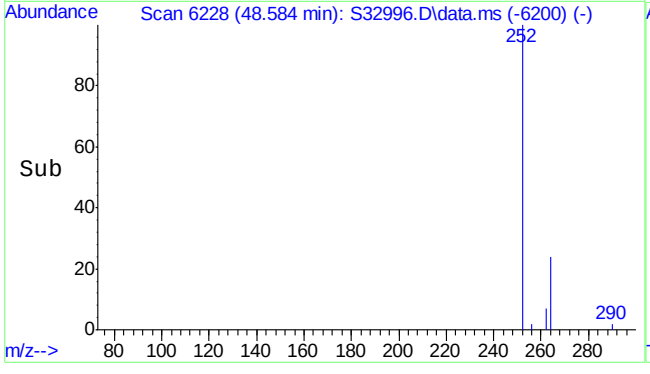


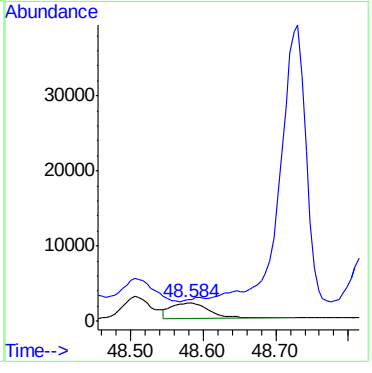


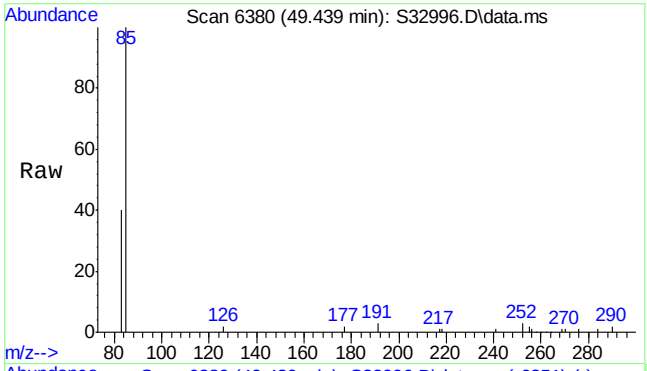
#95
Benzo(k)fluoranthene
Concen: 23.28 ng/mL
RT: 48.584 min Scan# 6228
Delta R.T. -0.045 min
Lab File: S32996.D
Acq: 16 Jul 2013 8:53 pm

Tgt Ion:252 Resp: 7473

Ion	Ratio	Lower	Upper
252	100		
126	9.8	12.4	18.6#



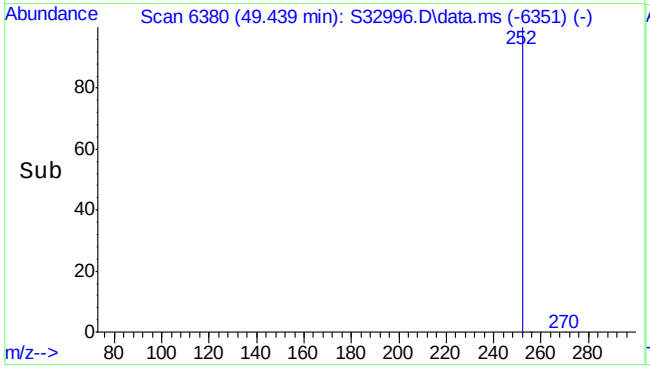


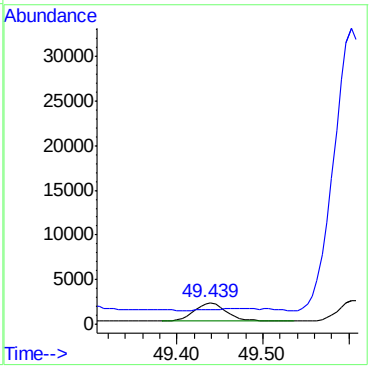


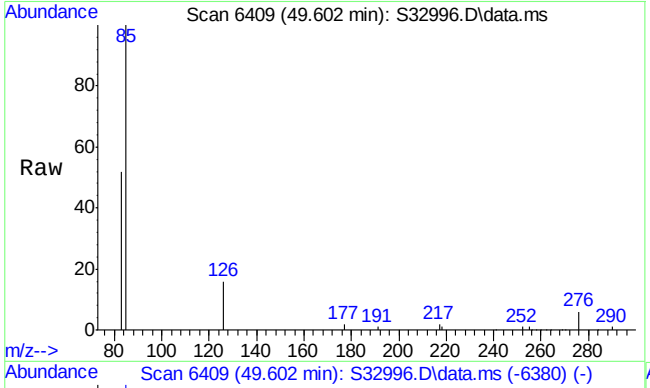
#96
Benzo(e)pyrene
Concen: 18.39 ng/mL
RT: 49.439 min Scan# 6380
Delta R.T. -0.039 min
Lab File: S32996.D
Acq: 16 Jul 2013 8:53 pm

Tgt Ion:252 Resp: 5327

Ion	Ratio	Lower	Upper
252	100		
126	0.0	10.2	15.2#



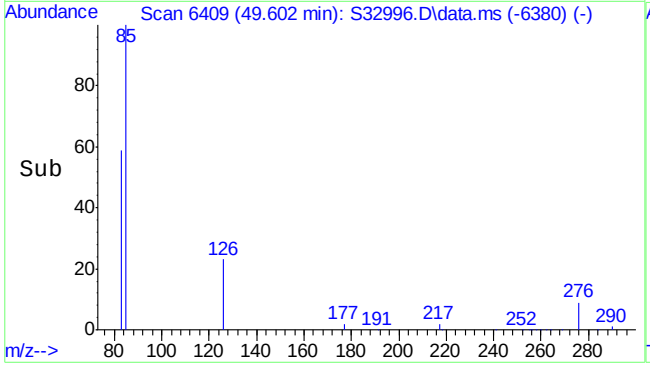


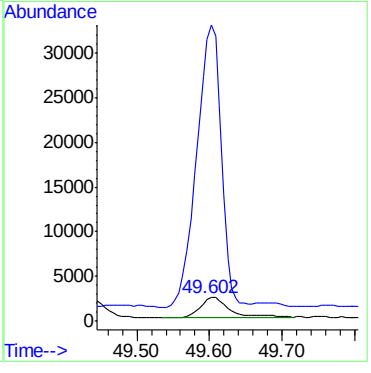


#97
Benzo(a)pyrene
Concen: 21.72 ng/mL
RT: 49.602 min Scan# 6409
Delta R.T. -0.039 min
Lab File: S32996.D
Acq: 16 Jul 2013 8:53 pm

Tgt Ion:252 Resp: 6094

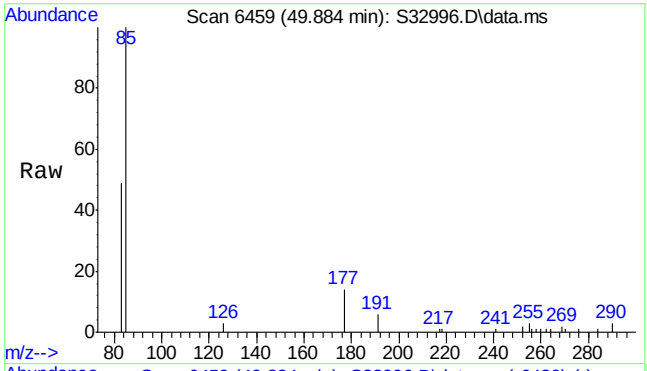
Ion	Ratio	Lower	Upper
252	100		
126	1216.9	11.8	17.6#





7.1.5

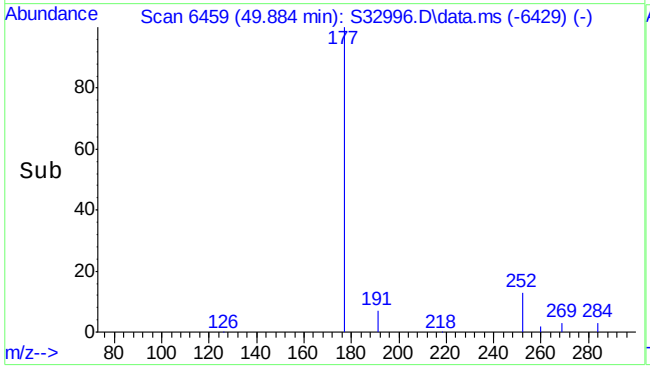
7

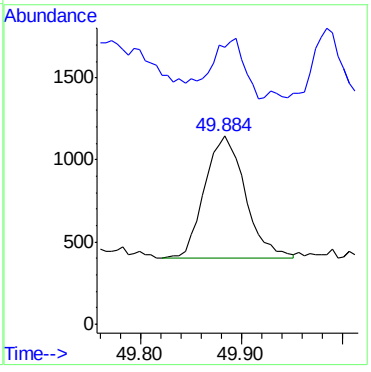


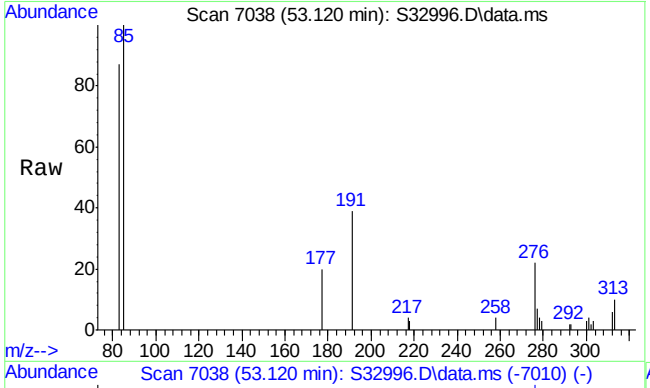
#98
Perylene
Concen: 7.67 ng/mL
RT: 49.884 min Scan# 6459
Delta R.T. -0.034 min
Lab File: S32996.D
Acq: 16 Jul 2013 8:53 pm

Tgt Ion:252 Resp: 2092

Ion	Ratio	Lower	Upper
252	100		
126	35.9	12.9	19.3#



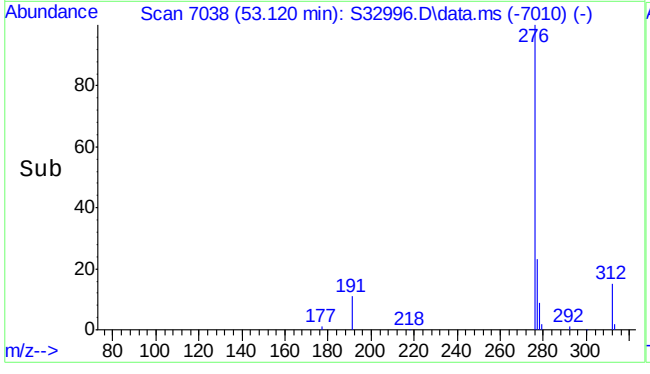


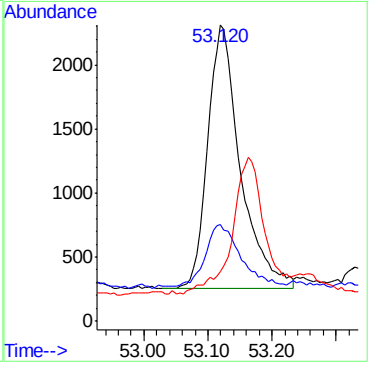


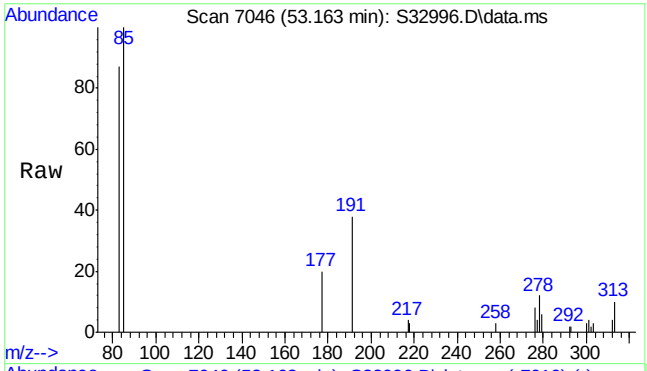
#99
Indeno(1,2,3-cd)pyrene
Concen: 22.59 ng/mL
RT: 53.120 min Scan# 7038
Delta R.T. -0.048 min
Lab File: S32996.D
Acq: 16 Jul 2013 8:53 pm

Tgt Ion:276 Resp: 7259

Ion	Ratio	Lower	Upper
276	100		
277	25.2	18.9	28.3
278	0.0	3.8	5.8#



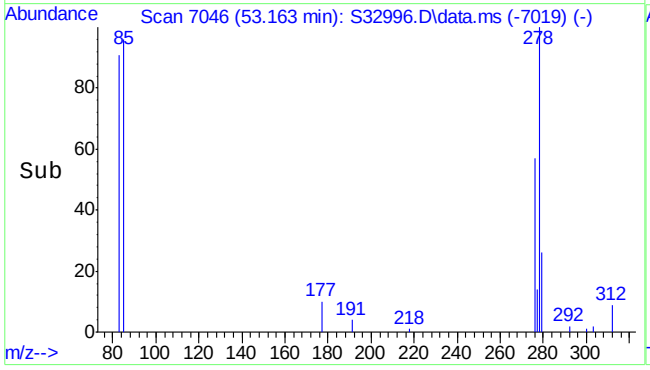


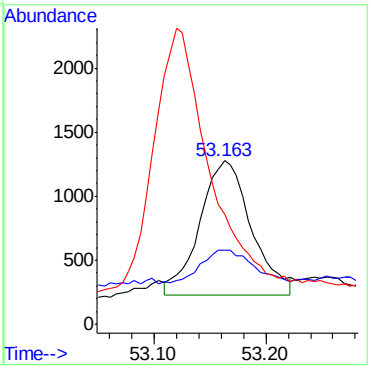


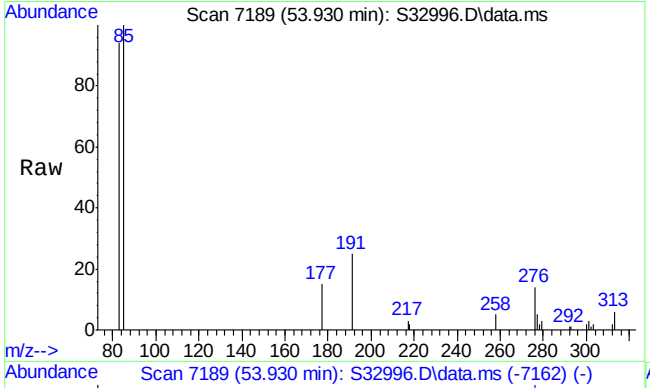
#100
Dibenz(a,h)anthracene
Concen: 11.56 ng/mL m
RT: 53.163 min Scan# 7046
Delta R.T. -0.054 min
Lab File: S32996.D
Acq: 16 Jul 2013 8:53 pm

Tgt Ion:278 Resp: 3371

Ion	Ratio	Lower	Upper
278	100		
279	23.0	19.1	28.7
276	0.0	25.2	37.8#



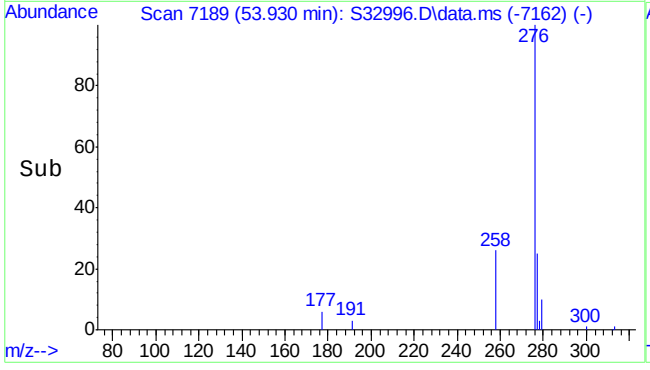


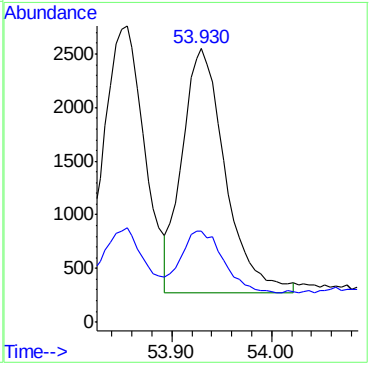


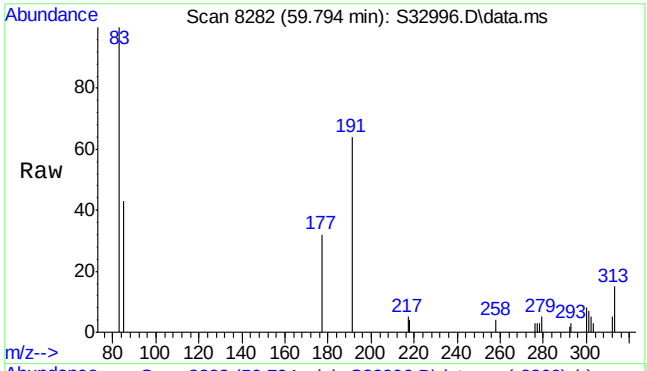
#101
Benzo(g,h,i)perylene
Concen: 19.76 ng/mL m
RT: 53.930 min Scan# 7189
Delta R.T. -0.054 min
Lab File: S32996.D
Acq: 16 Jul 2013 8:53 pm

Tgt Ion:276 Resp: 6805

Ion	Ratio	Lower	Upper
276	100		
277	25.3	19.0	28.4



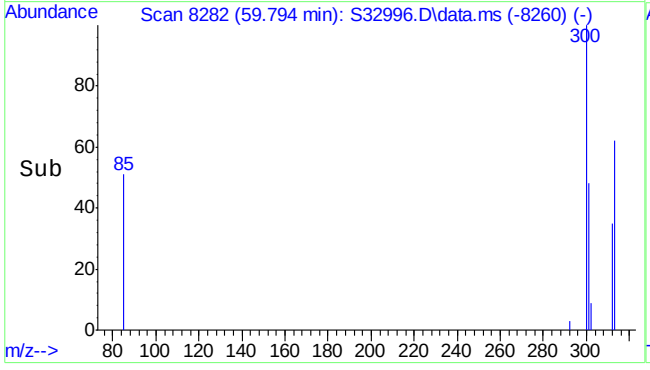


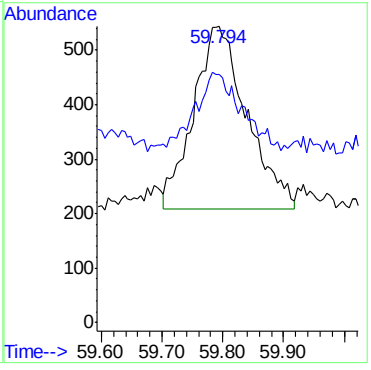


#102
Coronene
Concen: 6.13 µg/mL m
RT: 59.794 min Scan# 8282
Delta R.T. -0.081 min
Lab File: S32996.D
Acq: 16 Jul 2013 8:53 pm

Tgt Ion:300 Resp: 2035

Ion	Ratio	Lower	Upper
300	100		
301	0.0	21.4	32.0#





Manual Integrations APPROVED (compounds with "m" flag)
James Roush
07/31/13 12:43

Quantitation Report (QT Reviewed)

Data Path : S:\1\data\S130723\
Data File : S33022.D
Acq On : 23 Jul 2013 9:45 pm
Operator : kristinr
Sample : mc21754-3a
Misc : op33686,mss1444,5.18,,,2,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jul 24 14:12:55 2013
Quant Method : S:\1\methods\S130705-B5739ALKPAH.M
Quant Title : PAHs & Alkylated PAHs by GC/MS/SIM
QLast Update : Thu Jul 11 09:13:24 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Acenaphthene-d10	28.063	164	146073	1100.00	ng/mL	0.00
System Monitoring Compounds						
2) Toluene-d8	9.181	98	1449	9.27	µg/mL	0.00
Spiked Amount 1000.000			Recovery = 0.93%			
3) Naphthalene-d8	21.135	136	8859	34.31	ng/mL	0.02
Spiked Amount 1000.000 Range 1 - 0			Recovery = 3.43%#			
4) Phenanthrene-d10	33.899	188	9292m	43.71	ng/mL	0.01
Spiked Amount 1000.000			Recovery = 4.37%			
5) Perylene-d12	49.720	264	8091	43.11	ng/mL	0.04
Spiked Amount 1000.000			Recovery = 4.31%			
Target Compounds						Qvalue
6) Naphthalene	21.217	128	12062026	36748.70	ng/mL	99
7) 2-Methylnaphthalene	23.898	142	1316313	6758.66	ng/mL	99
8) 1-Methylnaphthalene	24.310	142	492593	2424.43	ng/mL	99
9) C1-Naphthalenes	23.898	142	1815334m	5530.68	ng/mL	
10) C2-Naphthalenes	26.727	156	440680m	1342.60	ng/mL	
11) C3-Naphthalenes	29.056	170	436754m	1330.63	ng/mL	
12) C4-Naphthalenes	31.812	184	379316m	1155.64	ng/mL	
13) Acenaphthylene	27.461	152	1456	4.80	ng/mL#	67
14) Acenaphthene	28.186	154	10191	55.03	ng/mL#	75
15) Dibenzofuran	28.826	168	12947m	49.05	ng/mL	
16) Fluorene	30.199	166	44193m	188.14	ng/mL	
17) C1-Fluorenes	32.555	180	101153m	430.63	ng/mL	
18) C2-Fluorenes	34.751	194	212392m	904.20	ng/mL	
19) C3-Fluorenes	37.367	208	196027m	834.53	ng/mL	
20) Dibenzothiophene	33.489	184	15977m	53.95	ng/mL	
21) C1-Dibenzothiophenes (...	35.264	198	86023m	294.68	ng/mL	
22) C1-Dibenzothiophenes (...	35.694	198	871	2.98	µg/mL	89
23) C2-Dibenzothiophenes	36.951	212	115756m	396.53	ng/mL	
24) C3-Dibenzothiophenes	38.758	226	76027m	260.44	ng/mL	
25) C4-Dibenzothiophenes	40.939	240	68027m	233.03	ng/mL	
26) Phenanthrene	33.982	178	130945	386.71	ng/mL	97
27) Anthracene	34.162	178	10932	34.75	ng/mL#	62
28) C1-Phenanthrenes/anthr...	36.053	192	216044m	638.03	ng/mL	
29) C2-Phenanthrenes/anthr...	38.214	206	227474m	671.78	ng/mL	
31) C3-Phenanthrenes/anthr...	40.857	220	239203m	706.42	ng/mL	
32) C4-Phenanthrenes/anthr...	40.980	234	255008m	753.10	ng/mL	
33) Fluoranthene	38.734	202	75352	251.19	ng/mL	94
34) Pyrene	39.604	202	73795	237.42	ng/mL#	77
35) C1-Fluoranthenes/pyrenes	41.051	216	148646m	478.25	ng/mL	
36) Benzo(b)fluorene	41.263	216	6546m	21.06	ng/mL	
37) Benzo(c)fluorene	41.286	216	3055m	9.83	µg/mL	
38) 2-Methylpyrene	41.410	216	5799m	18.66	ng/mL	
39) 4-Methylpyrene	41.774	216	8357	26.89	ng/mL#	80
40) 1-Methylpyrene	41.868	216	5655m	18.19	ng/mL	
41) C2-Fluoranthenes/pyrenes	43.856	230	32305m	103.94	ng/mL	
42) C3-Fluoranthenes/pyrenes	44.720	244	26228m	84.38	ng/mL	

Quantitation Report (QT Reviewed)

Data Path : S:\1\data\S130723\
Data File : S33022.D
Acq On : 23 Jul 2013 9:45 pm
Operator : kristinr
Sample : mc21754-3a
Misc : op33686,mss1444,5.18,,,2,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jul 24 14:12:55 2013
Quant Method : S:\1\methods\S130705-B5739ALKPAH.M
Quant Title : PAHs & Alkylated PAHs by GC/MS/SIM
QLast Update : Thu Jul 11 09:13:24 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
43) Benz(a)anthracene	44.386	228	24025m	80.03	ng/mL	
44) Chrysene	44.546	228	30294	108.19	ng/mL	94
45) C1-Benz(a)anthracenes/...	46.029	242	10771m	38.47	ng/mL	
46) C2-Benz(a)anthracenes/...	47.819	256	27527m	98.31	ng/mL	
49) Benzo(b)fluoranthene	48.427	252	30460	88.63	ng/mL#	43
50) Benzo(k)fluoranthene	48.505	252	25306	73.88	ng/mL#	70
51) Benzo(e)pyrene	49.360	252	23920	77.37	ng/mL#	87
52) Benzo(a)pyrene	49.529	252	25873m	86.40	ng/mL#	
53) Perylene	49.805	252	7680	26.39	ng/mL#	90
54) Indeno(1,2,3-cd)pyrene	53.029	276	22325	65.08	ng/mL#	91
55) Dibenz(a,h)anthracene	53.066	278	5308m	17.06	ng/mL	
56) Benzo(g,h,i)perylene	53.833	276	24227	65.94	ng/mL	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

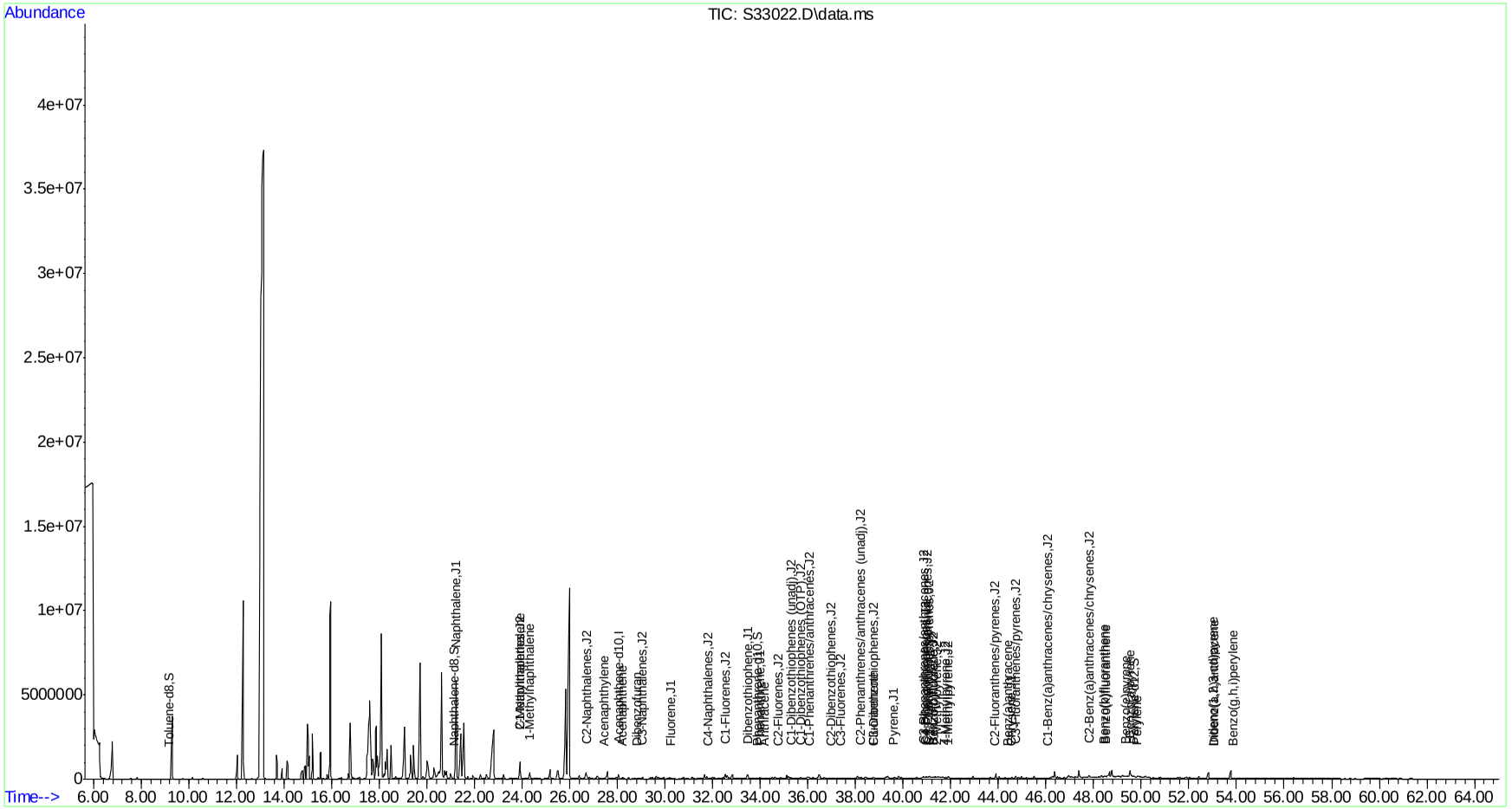
7.1.6

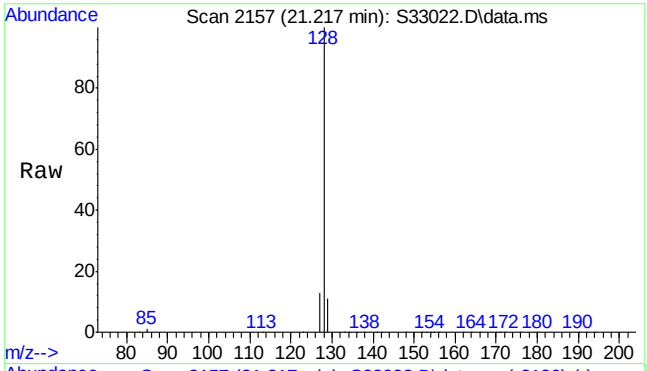
7

Quantitation Report (QT Reviewed)

Data Path : S:\1\data\S130723\
Data File : S33022.D
Acq On : 23 Jul 2013 9:45 pm
Operator : kristinr
Sample : mc21754-3a
Misc : op33686,mss1444,5.18,,,2,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jul 24 14:12:55 2013
Quant Method : S:\1\methods\S130705-B5739ALKPAH.M
Quant Title : PAHs & Alkylated PAHs by GC/MS/SIM
QLast Update : Thu Jul 11 09:13:24 2013
Response via : Initial Calibration

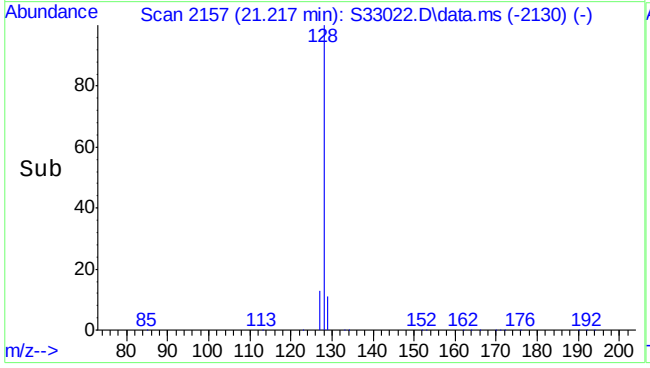


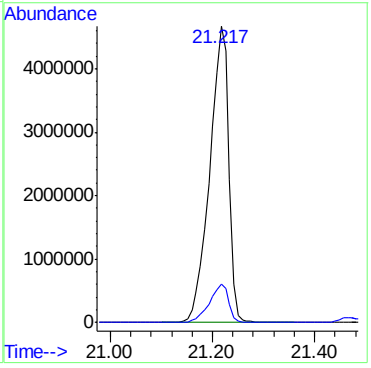


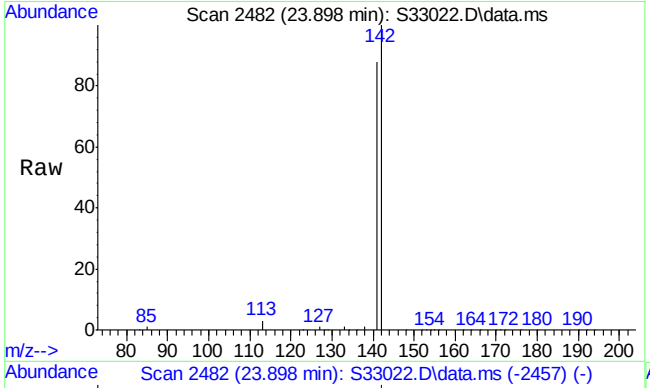
#6
Naphthalene
Concen: 36748.70 ng/mL
RT: 21.217 min Scan# 2157
Delta R.T. 0.024 min
Lab File: S33022.D
Acq: 23 Jul 2013 9:45 pm

Tgt Ion:128 Resp:12062026

Ion	Ratio	Lower	Upper
128	100		
127	12.8	10.0	15.0



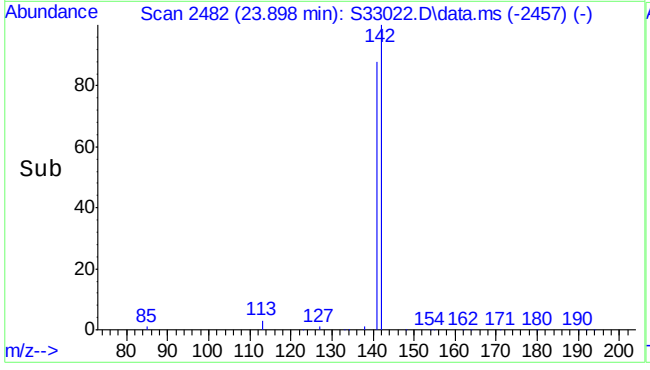


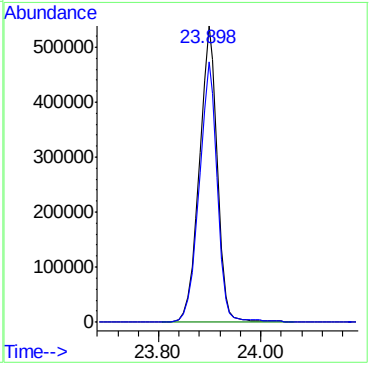


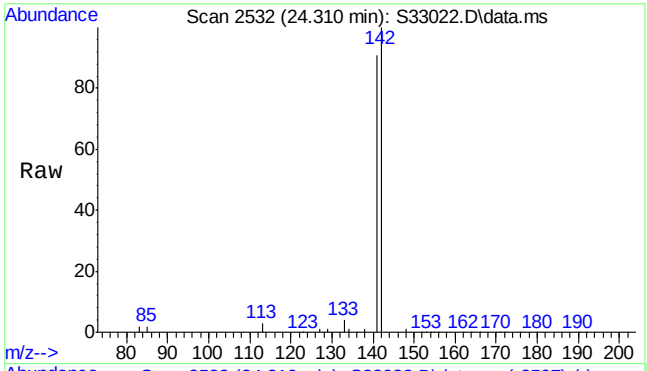
#7
2-Methylnaphthalene
Concen: 6758.66 ng/mL
RT: 23.898 min Scan# 2482
Delta R.T. 0.008 min
Lab File: S33022.D
Acq: 23 Jul 2013 9:45 pm

Tgt Ion:142 Resp: 1316313

Ion	Ratio	Lower	Upper
142	100		
141	87.7	69.7	104.5



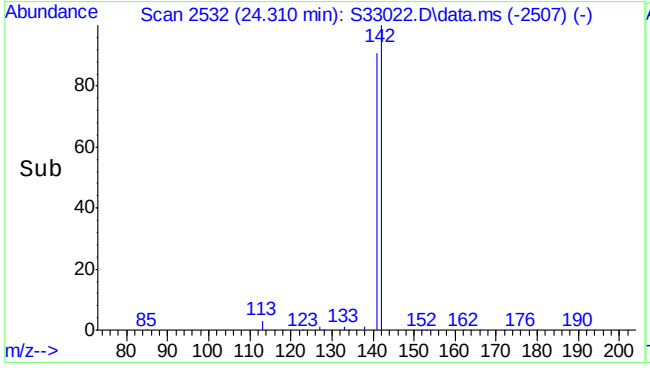


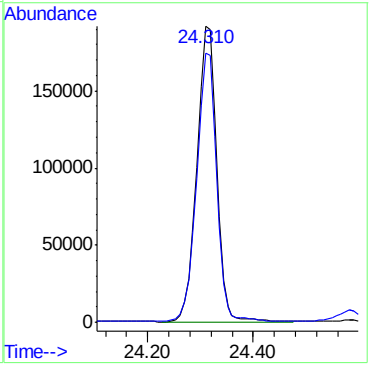


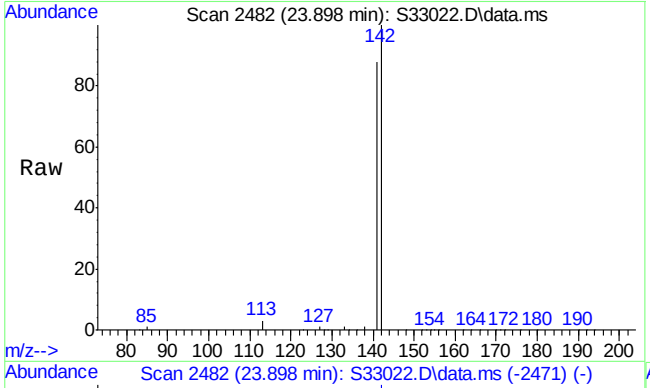
#8
1-Methylnaphthalene
Concen: 2424.43 ng/mL
RT: 24.310 min Scan# 2532
Delta R.T. 0.008 min
Lab File: S33022.D
Acq: 23 Jul 2013 9:45 pm

Tgt Ion:142 Resp: 492593

Ion	Ratio	Lower	Upper
142	100		
141	91.5	72.6	108.8



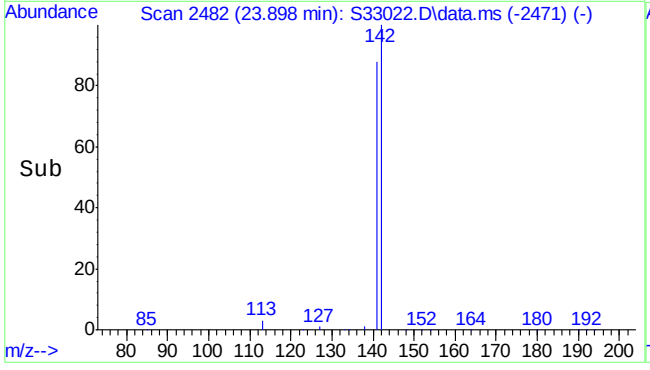


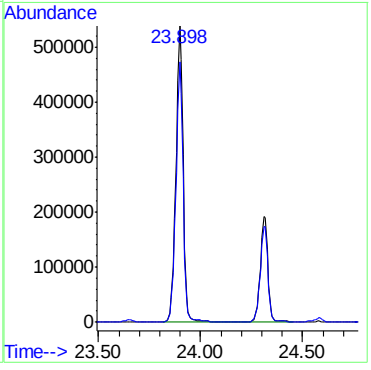


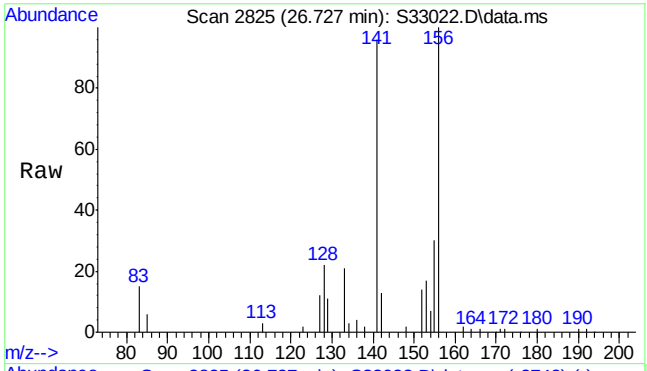
#9
C1-Naphthalenes
Concen: 5530.68 ng/mL m
RT: 23.898 min Scan# 2482
Delta R.T. 0.016 min
Lab File: S33022.D
Acq: 23 Jul 2013 9:45 pm

Tgt Ion:142 Resp: 1815334

Ion	Ratio	Lower	Upper
142	100		
141	63.3	69.9	104.9#



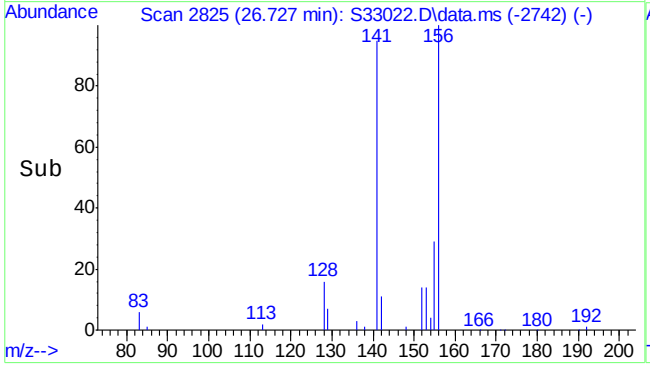


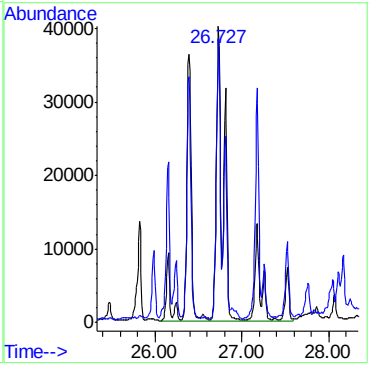


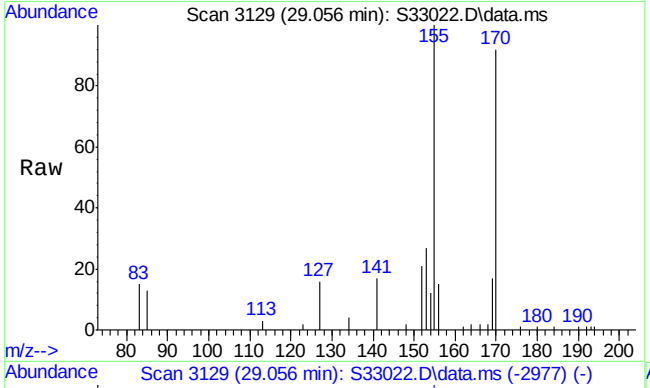
#10
C2-Naphthalenes
Concen: 1342.60 ng/mL m
RT: 26.727 min Scan# 2825
Delta R.T. -0.074 min
Lab File: S33022.D
Acq: 23 Jul 2013 9:45 pm

Tgt Ion:156 Resp: 440680

Ion	Ratio	Lower	Upper
156	100		
141	13.8	64.9	97.3#



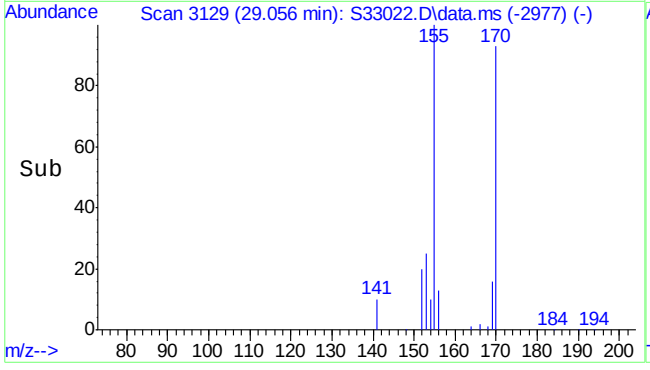


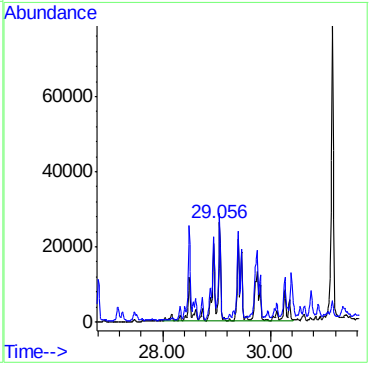


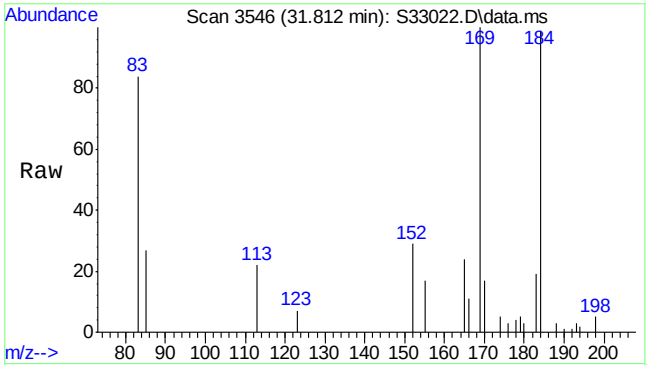
#11
C3-Naphthalenes
Concen: 1330.63 ng/mL m
RT: 29.056 min Scan# 3129
Delta R.T. -0.000 min
Lab File: S33022.D
Acq: 23 Jul 2013 9:45 pm

Tgt Ion:170 Resp: 436754

Ion	Ratio	Lower	Upper
170	100		
155	16.9	85.4	128.2#



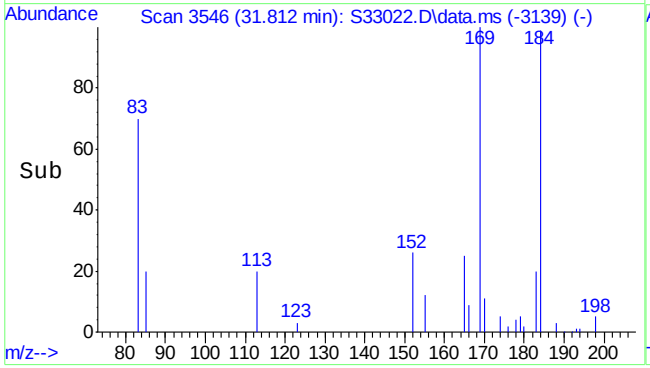


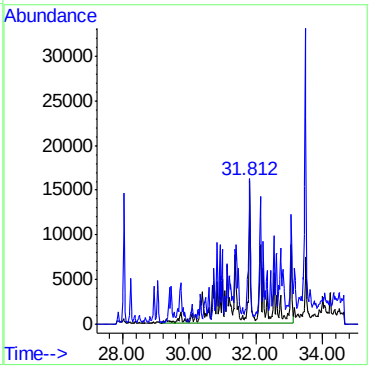


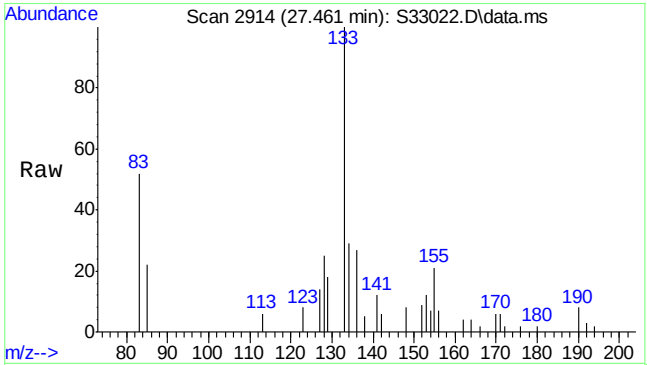
#12
C4-Naphthalenes
Concen: 1155.64 ng/mL m
RT: 31.812 min Scan# 3546
Delta R.T. -0.000 min
Lab File: S33022.D
Acq: 23 Jul 2013 9:45 pm

Tgt Ion:184 Resp: 379316

Ion	Ratio	Lower	Upper
184	100		
169	3.5	81.0	121.6#



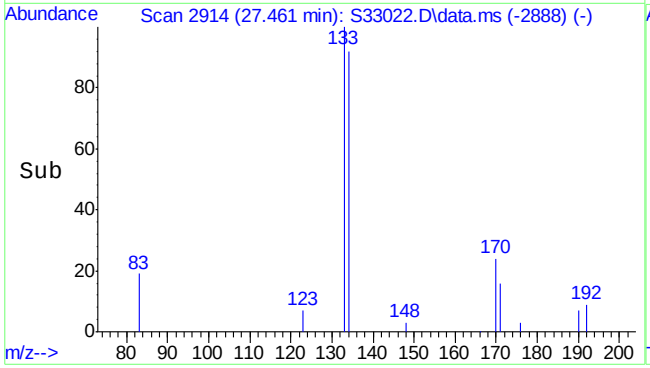


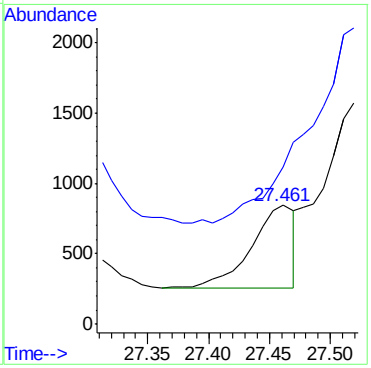


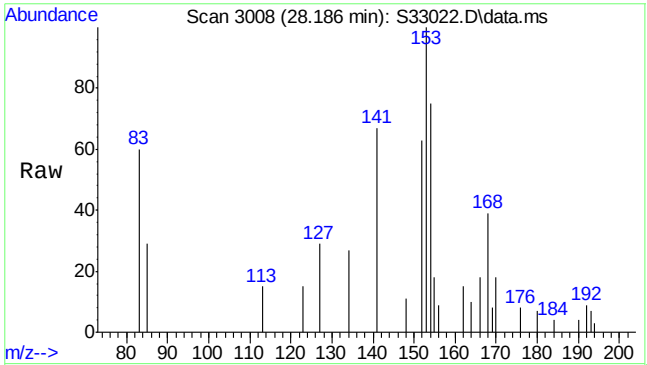
#13
Acenaphthylene
Concen: 4.80 ng/mL
RT: 27.461 min Scan# 2914
Delta R.T. 0.016 min
Lab File: S33022.D
Acq: 23 Jul 2013 9:45 pm

Tgt Ion:152 Resp: 1456

Ion	Ratio	Lower	Upper
152	100		
153	0.0	10.5	15.7#



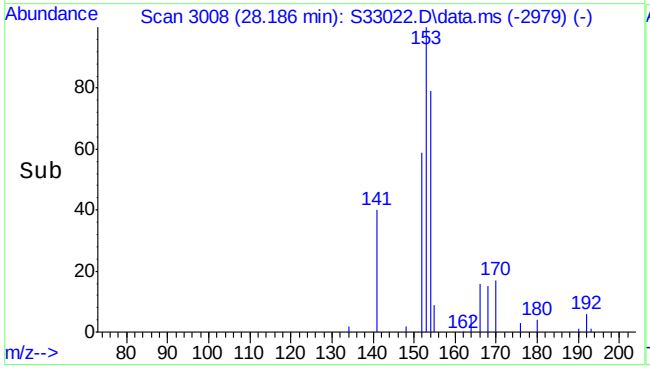


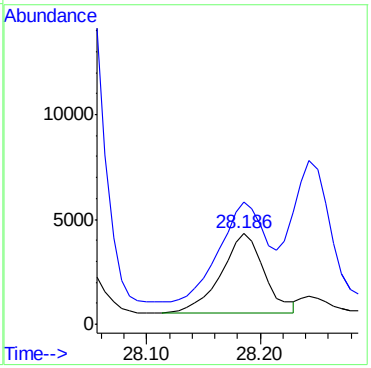


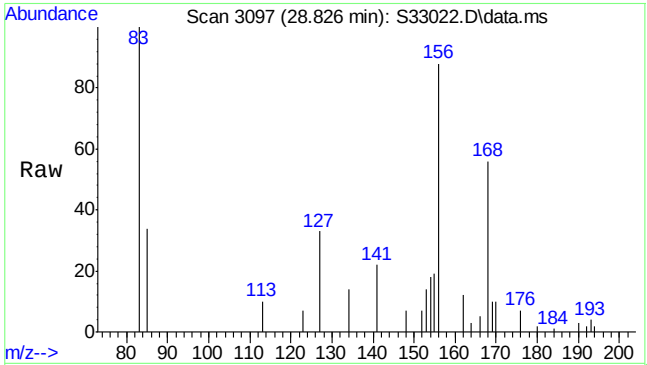
#14
Acenaphthene
Concen: 55.03 ng/mL
RT: 28.186 min Scan# 3008
Delta R.T. 0.007 min
Lab File: S33022.D
Acq: 23 Jul 2013 9:45 pm

Tgt Ion:154 Resp: 10191

Ion	Ratio	Lower	Upper
154	100		
153	137.2	88.2	132.4#



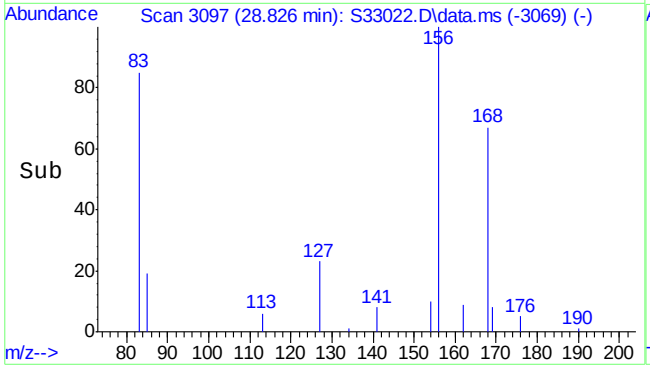


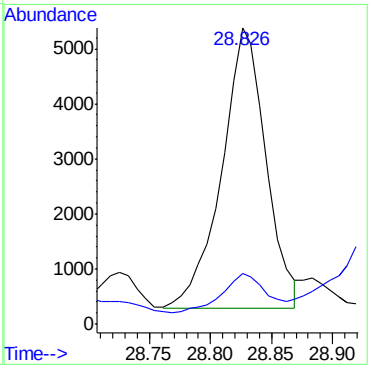


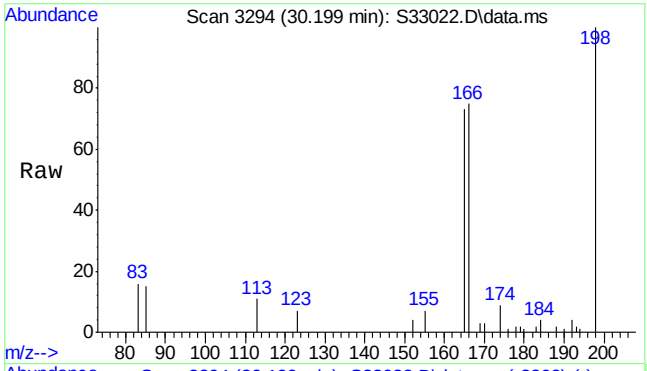
#15
Dibenzofuran
Concen: 49.05 ng/mL m
RT: 28.826 min Scan# 3097
Delta R.T. -0.000 min
Lab File: S33022.D
Acq: 23 Jul 2013 9:45 pm

Tgt Ion:168 Resp: 12947

Ion	Ratio	Lower	Upper
168	100		
169	13.5	10.7	16.1



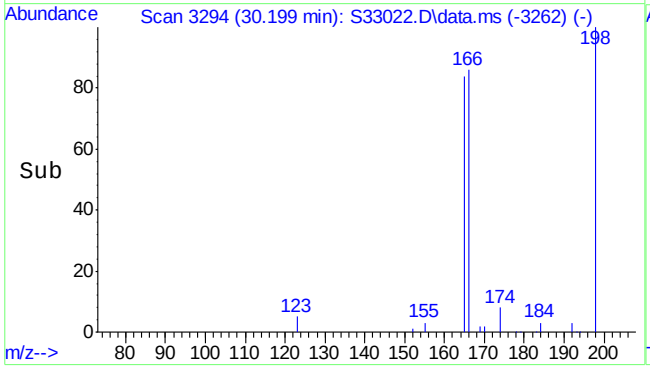


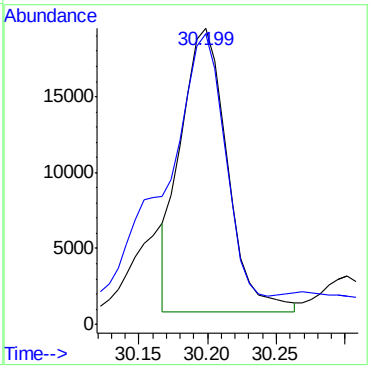


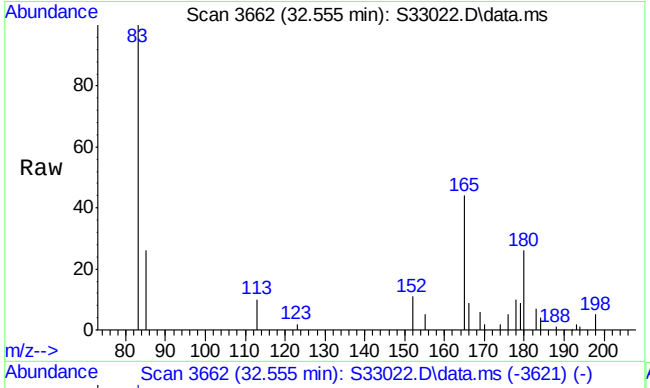
#16
Fluorene
Concen: 188.14 ng/mL m
RT: 30.199 min Scan# 3294
Delta R.T. 0.006 min
Lab File: S33022.D
Acq: 23 Jul 2013 9:45 pm

Tgt Ion:166 Resp: 44193

Ion	Ratio	Lower	Upper
166	100		
165	119.6	76.3	114.5#



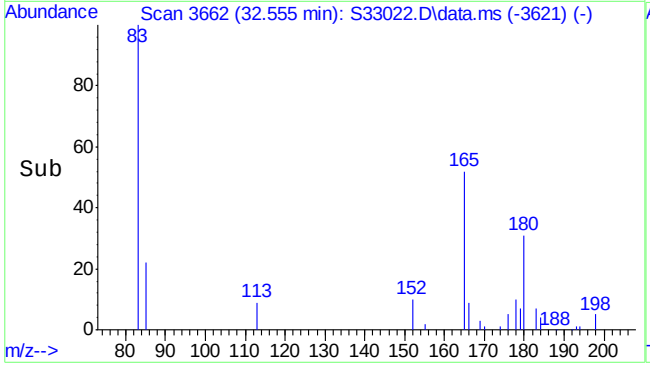


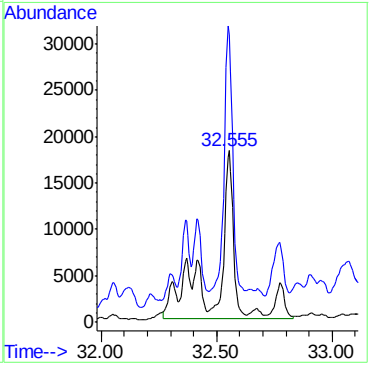


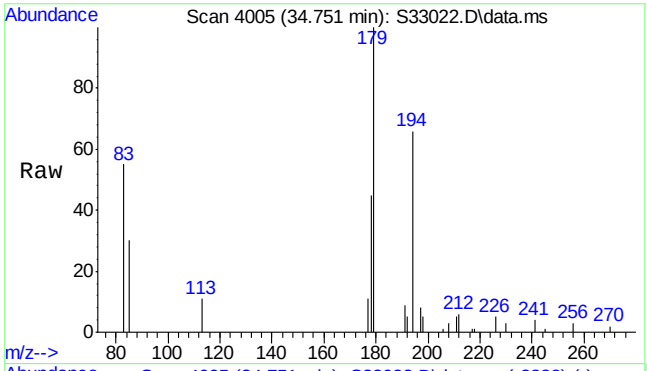
#17
C1-Fluorenes
Concen: 430.63 ng/mL m
RT: 32.555 min Scan# 3662
Delta R.T. 0.024 min
Lab File: S33022.D
Acq: 23 Jul 2013 9:45 pm

Tgt Ion:180 Resp: 101153

Ion	Ratio	Lower	Upper
180	100		
165	69.4	134.2	201.4#



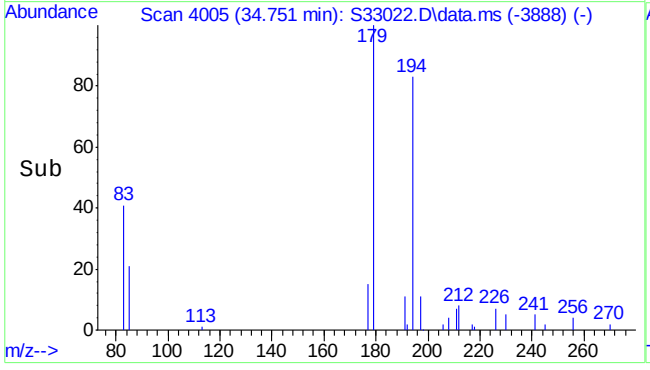


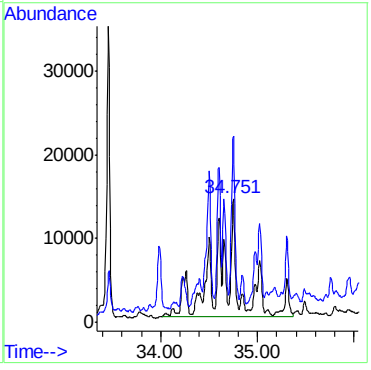


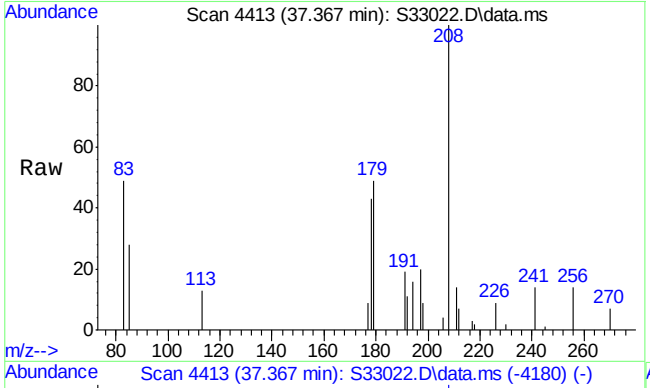
#18
C2-Fluorenes
Concen: 904.20 ng/mL m
RT: 34.751 min Scan# 4005
Delta R.T. 0.006 min
Lab File: S33022.D
Acq: 23 Jul 2013 9:45 pm

Tgt Ion:194 Resp: 212392

Ion	Ratio	Lower	Upper
194	100		
179	22.8	126.2	189.4#



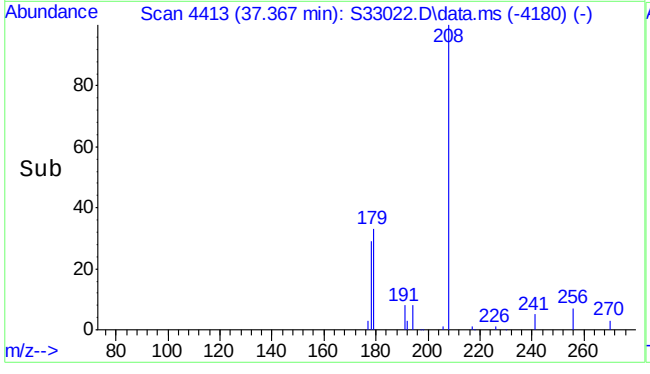


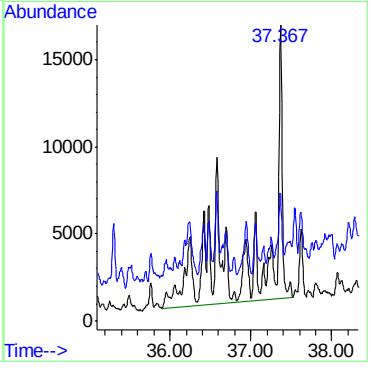


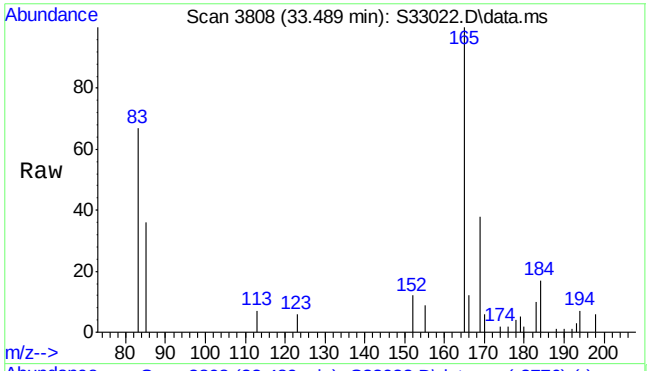
#19
C3-Fluorenes
Concen: 834.53 ng/mL m
RT: 37.367 min Scan# 4413
Delta R.T. 0.789 min
Lab File: S33022.D
Acq: 23 Jul 2013 9:45 pm

Tgt Ion:208 Resp: 196027

Ion	Ratio	Lower	Upper
208	100		
178	3.0	54.9	82.3#



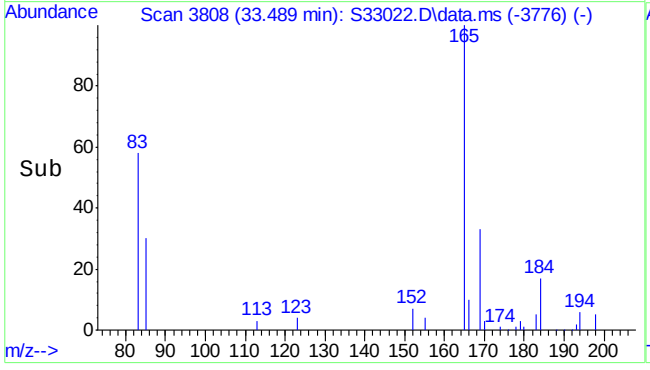


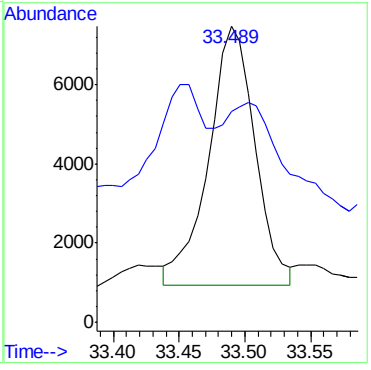


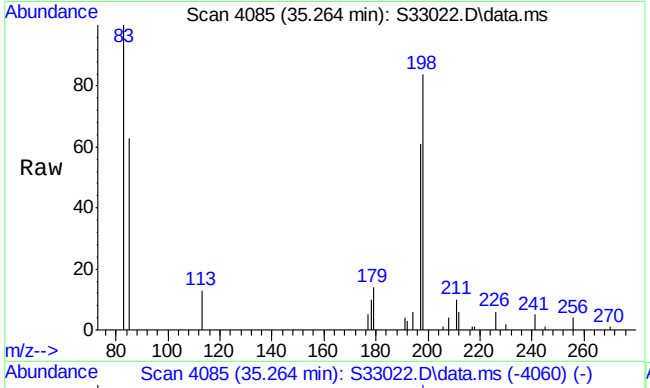
#20
Dibenzothiophene
Concen: 53.95 ng/mL m
RT: 33.489 min Scan# 3808
Delta R.T. 0.006 min
Lab File: S33022.D
Acq: 23 Jul 2013 9:45 pm

Tgt Ion:184 Resp: 15977

Ion	Ratio	Lower	Upper
184	100		
152	0.0	7.7	11.5#



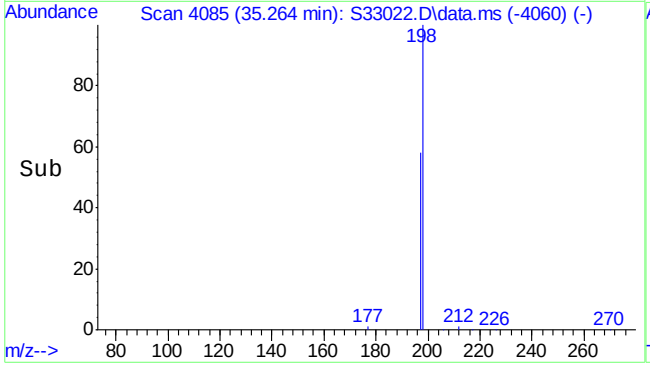


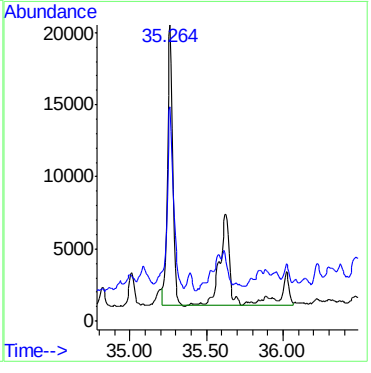


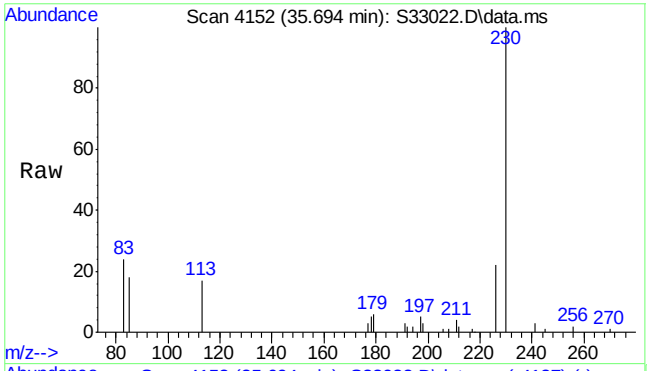
#21
C1-Dibenzothiophenes (unadj)
Concen: 294.68 ng/mL m
RT: 35.264 min Scan# 4085
Delta R.T. 0.006 min
Lab File: S33022.D
Acq: 23 Jul 2013 9:45 pm

Tgt Ion:198 Resp: 86023

Ion	Ratio	Lower	Upper
198	100		
197	44.0	53.4	80.0#



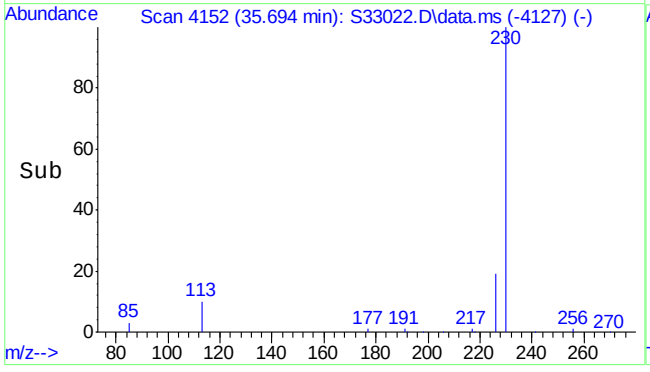


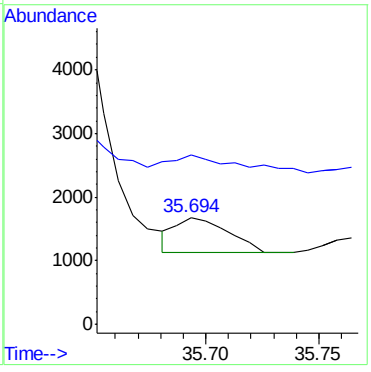


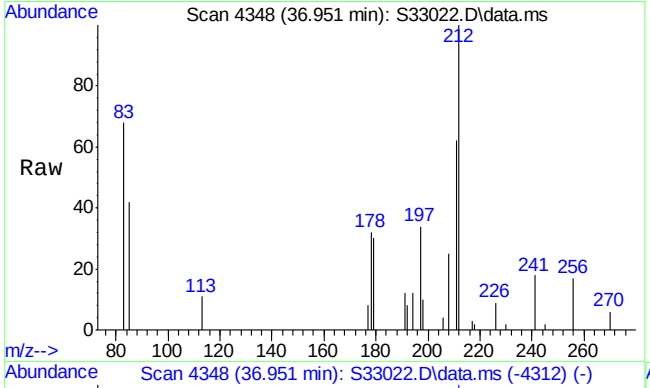
#22
C1-Dibenzothiophenes (OTP)
Concen: 2.98 µg/mL
RT: 35.694 min Scan# 4152
Delta R.T. 0.070 min
Lab File: S33022.D
Acq: 23 Jul 2013 9:45 pm

Tgt Ion:198 Resp: 871

Ion	Ratio	Lower	Upper
198	100		
197	63.1	58.2	87.2



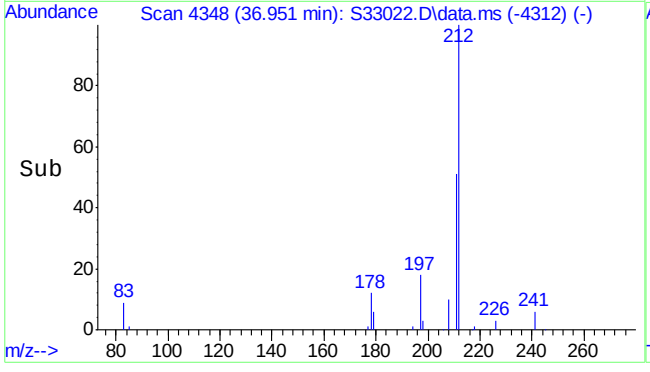


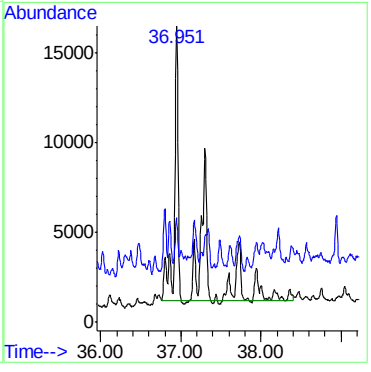


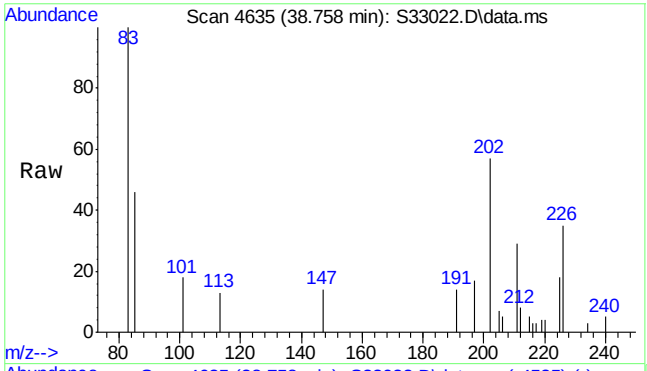
#23
C2-Dibenzothiophenes
Concen: 396.53 ng/mL m
RT: 36.951 min Scan# 4348
Delta R.T. -0.353 min
Lab File: S33022.D
Acq: 23 Jul 2013 9:45 pm

Tgt Ion:212 Resp: 115756

Ion	Ratio	Lower	Upper
212	100		
197	0.0	20.6	30.8#



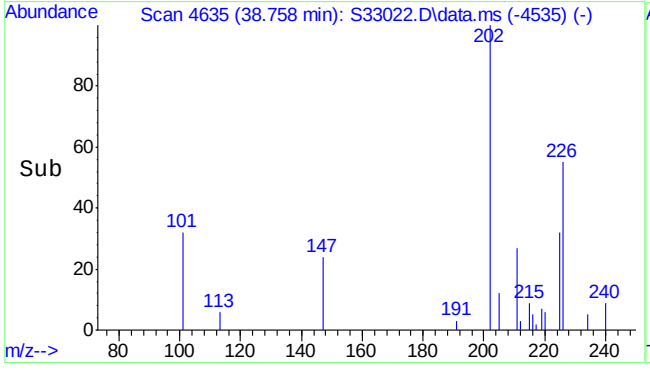


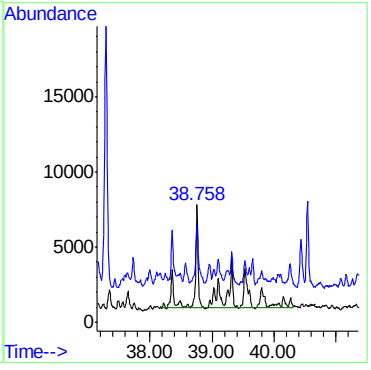


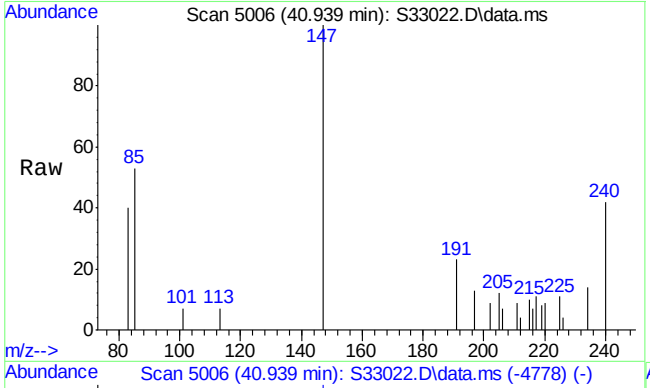
#24
C3-Dibenzothiophenes
Concen: 260.44 ng/mL m
RT: 38.758 min Scan# 4635
Delta R.T. 0.006 min
Lab File: S33022.D
Acq: 23 Jul 2013 9:45 pm

Tgt Ion:226 Resp: 76027

Ion	Ratio	Lower	Upper
226	100		
211	17.5	49.7	74.5#

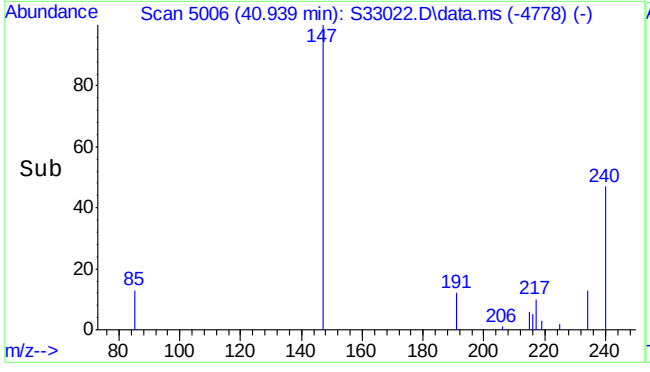


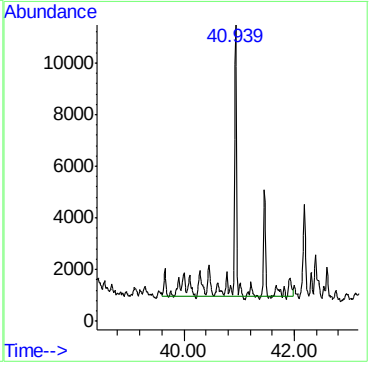


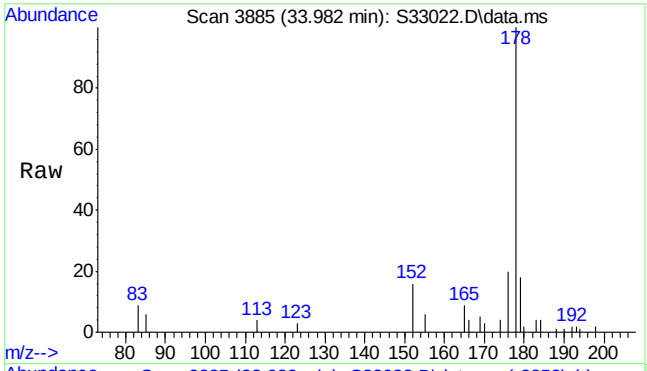


#25
C4-Dibenzothiophenes
Concen: 233.03 ng/mL m
RT: 40.939 min Scan# 5006
Delta R.T. 0.494 min
Lab File: S33022.D
Acq: 23 Jul 2013 9:45 pm

Tgt Ion:240 Resp: 68027



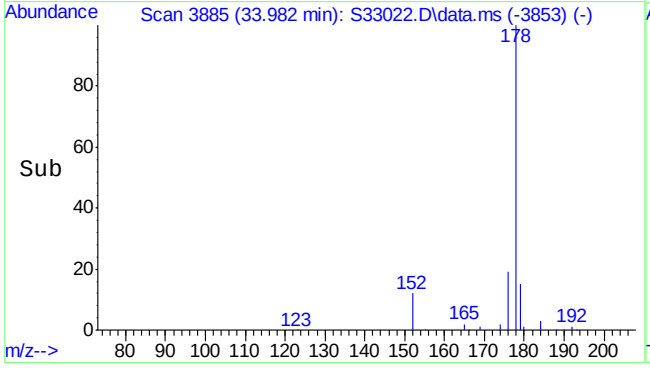


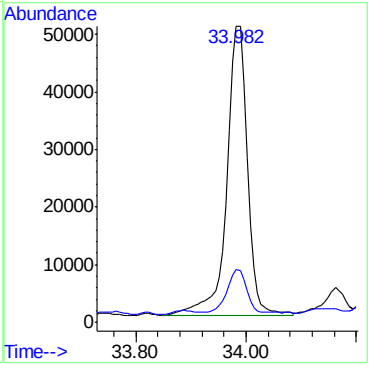


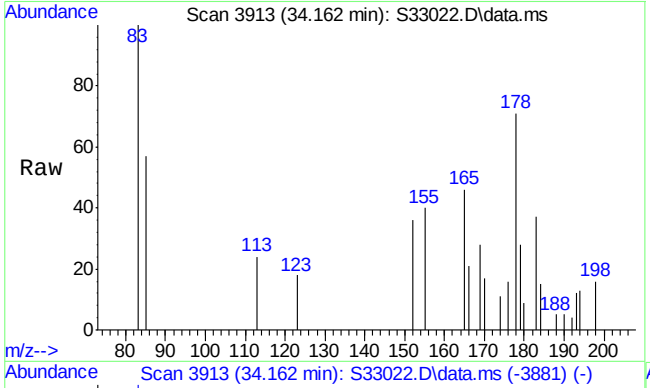
#26
Phenanthrene
Concen: 386.71 ng/mL
RT: 33.982 min Scan# 3885
Delta R.T. 0.006 min
Lab File: S33022.D
Acq: 23 Jul 2013 9:45 pm

Tgt Ion:178 Resp: 130945

Ion	Ratio	Lower	Upper
178	100		
179	14.5	12.6	18.8



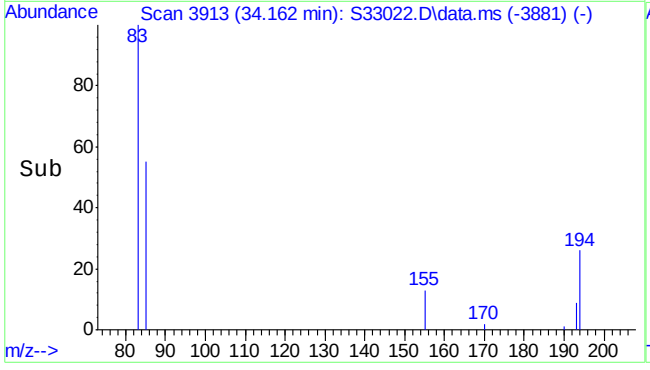


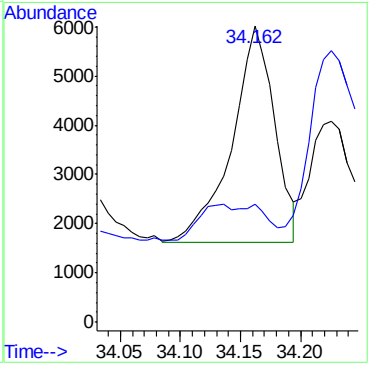


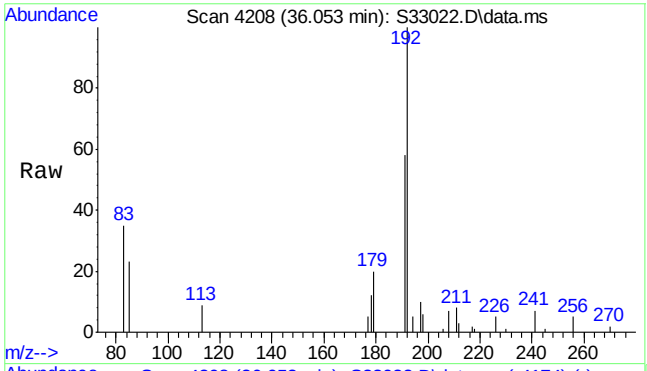
#27
Anthracene
Concen: 34.75 ng/mL
RT: 34.162 min Scan# 3913
Delta R.T. 0.006 min
Lab File: S33022.D
Acq: 23 Jul 2013 9:45 pm

Tgt Ion:178 Resp: 10932

Ion	Ratio	Lower	Upper
178	100		
179	0.0	12.9	19.3#



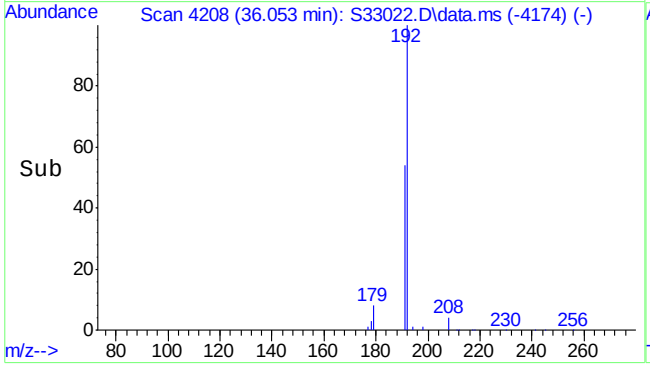


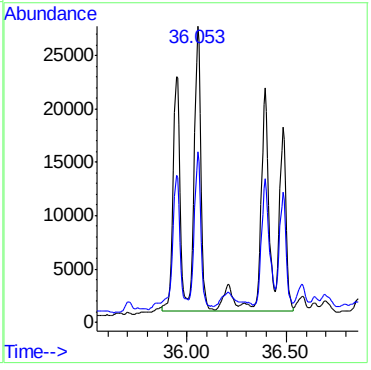


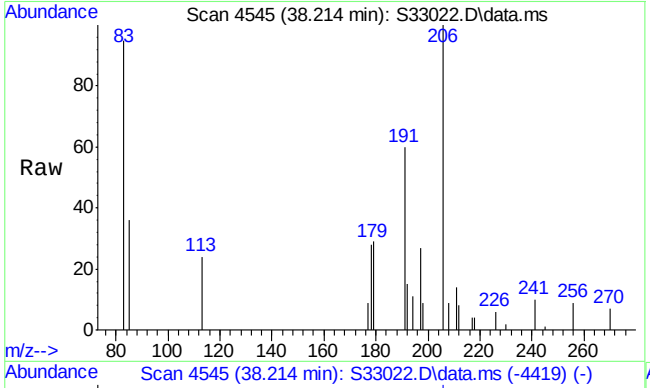
#28
C1-Phenanthrenes/anthracenes
Concen: 638.03 ng/mL m
RT: 36.053 min Scan# 4208
Delta R.T. -0.334 min
Lab File: S33022.D
Acq: 23 Jul 2013 9:45 pm

Tgt Ion:192 Resp: 216044

Ion	Ratio	Lower	Upper
192	100		
191	14.4	46.7	70.1#



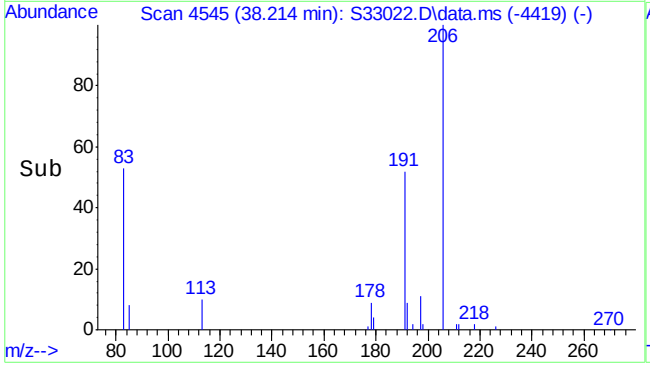


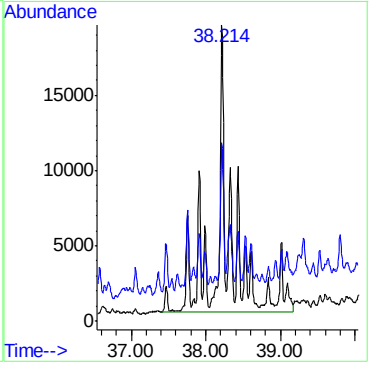


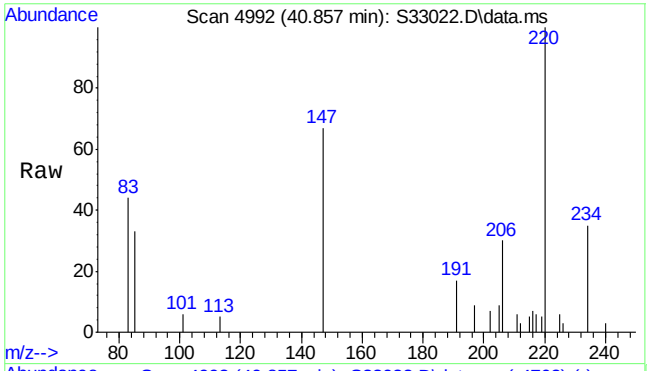
#29
C2-Phenanthrenes/anthracenes (unadj)
Concen: 671.78 ng/mL m
RT: 38.214 min Scan# 4545
Delta R.T. 0.006 min
Lab File: S33022.D
Acq: 23 Jul 2013 9:45 pm

Tgt Ion:206 Resp: 227474

Ion	Ratio	Lower	Upper
206	100		
191	3.0	49.1	73.7#



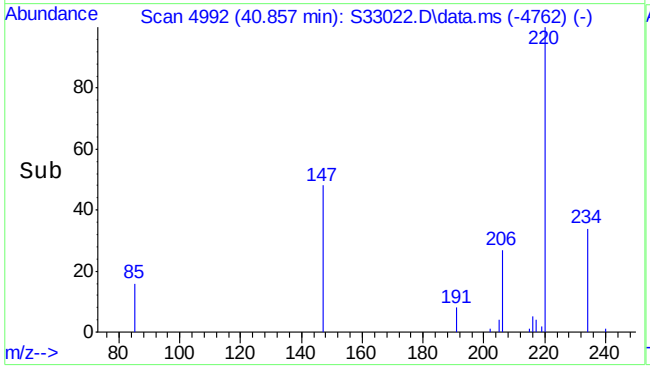


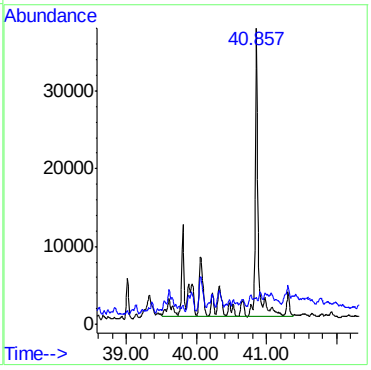


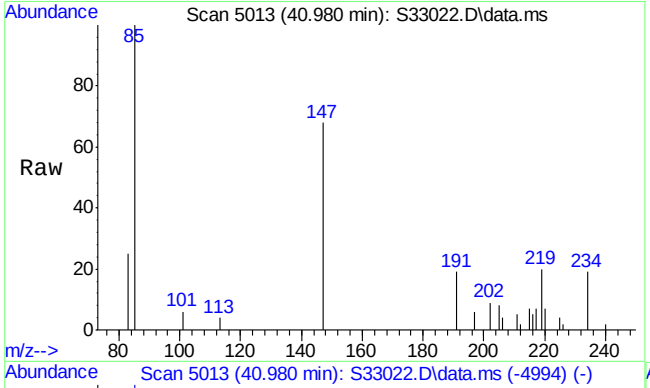
#31
C3-Phenanthrenes/anthracenes
Concen: 706.42 ng/mL m
RT: 40.857 min Scan# 4992
Delta R.T. 0.806 min
Lab File: S33022.D
Acq: 23 Jul 2013 9:45 pm

Tgt Ion:220 Resp: 239203

Ion	Ratio	Lower	Upper
220	100		
205	6.9	45.1	67.7#



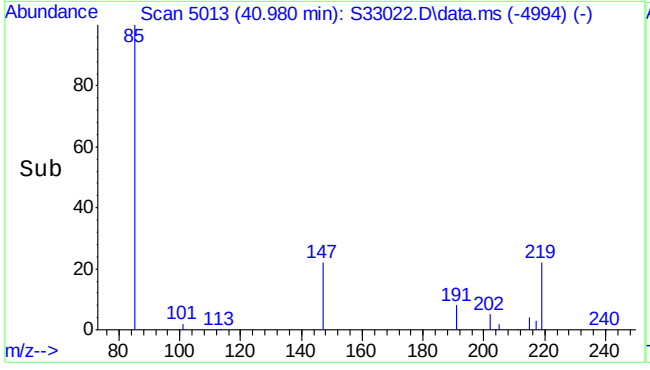


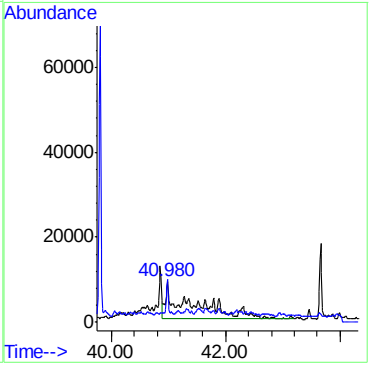


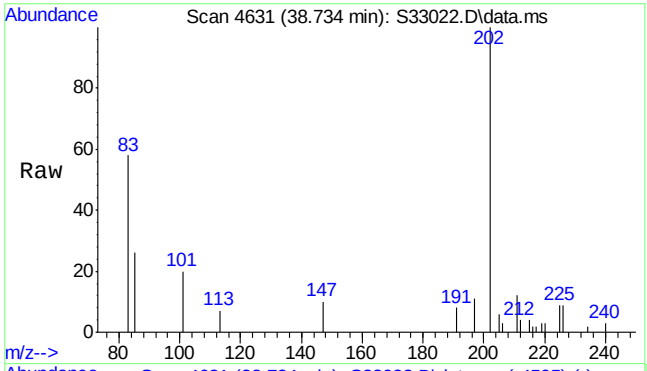
#32
C4-Phenanthrenes/anthracenes
Concen: 753.10 ng/mL m
RT: 40.980 min Scan# 5013
Delta R.T. -1.253 min
Lab File: S33022.D
Acq: 23 Jul 2013 9:45 pm

Tgt Ion:234 Resp: 255008

Ion	Ratio	Lower	Upper
234	100		
219	0.4	49.0	73.4#



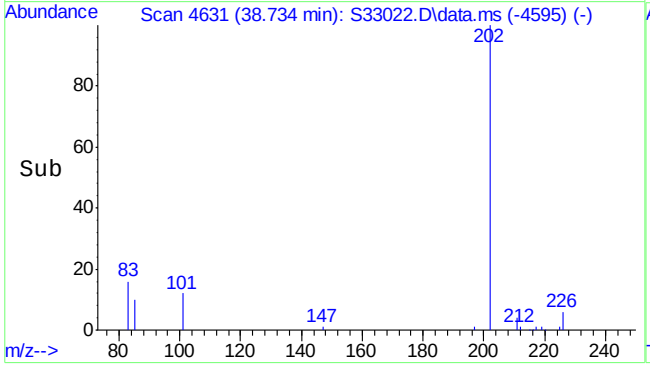


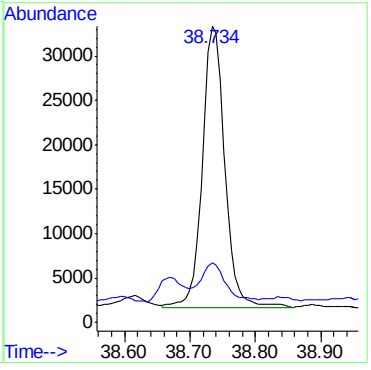


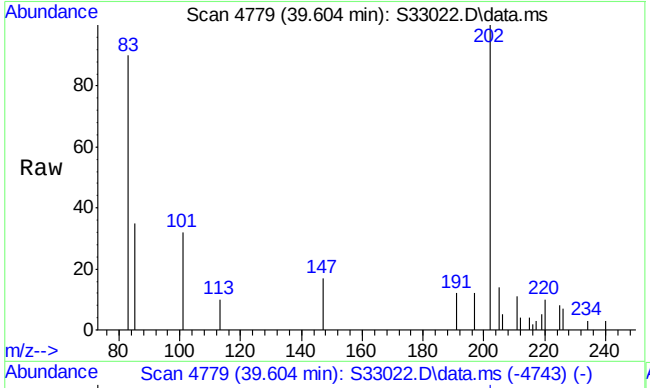
#33
Fluoranthene
Concen: 251.19 ng/mL
RT: 38.734 min Scan# 4631
Delta R.T. 0.011 min
Lab File: S33022.D
Acq: 23 Jul 2013 9:45 pm

Tgt Ion:202 Resp: 75352

Ion	Ratio	Lower	Upper
202	100		
101	14.5	9.8	14.6



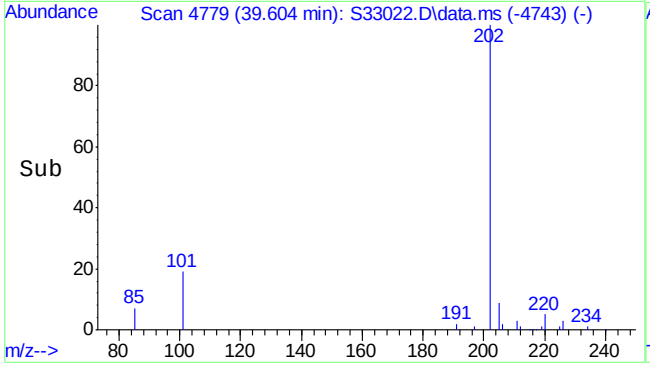


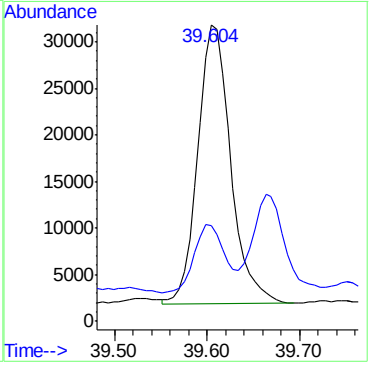


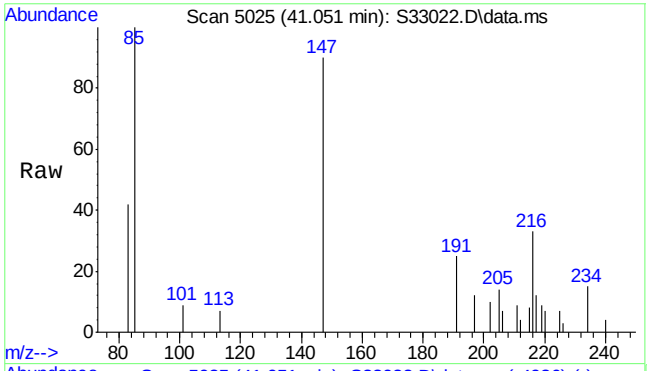
#34
Pyrene
Concen: 237.42 ng/mL
RT: 39.604 min Scan# 4779
Delta R.T. 0.011 min
Lab File: S33022.D
Acq: 23 Jul 2013 9:45 pm

Tgt Ion:202 Resp: 73795

Ion	Ratio	Lower	Upper
202	100		
101	23.5	11.4	17.0#



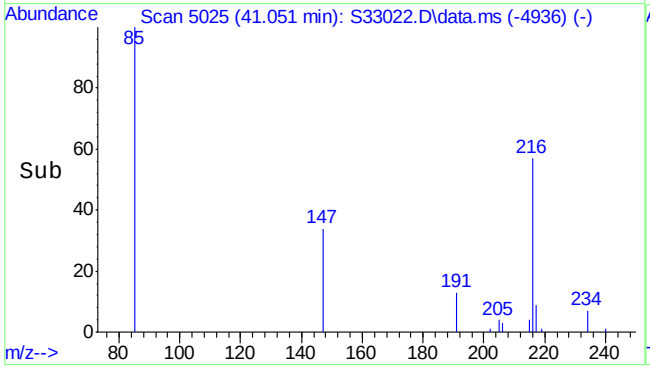


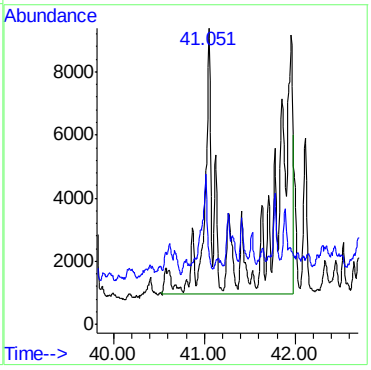


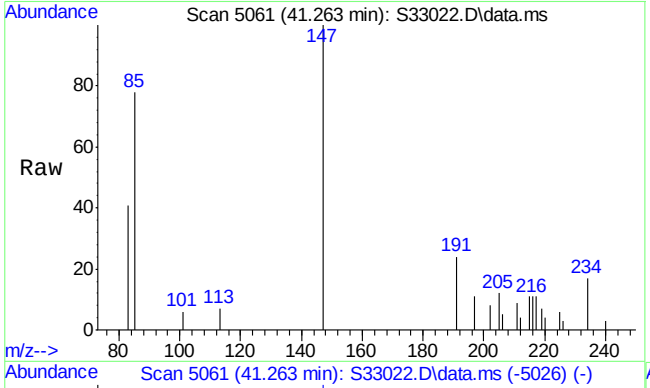
#35
C1-Fluoranthenes/pyrenes
Concen: 478.25 ng/mL m
RT: 41.051 min Scan# 5025
Delta R.T. 0.047 min
Lab File: S33022.D
Acq: 23 Jul 2013 9:45 pm

Tgt Ion:216 Resp: 148646

Ion	Ratio	Lower	Upper
216	100		
215	0.6	79.0	118.4#



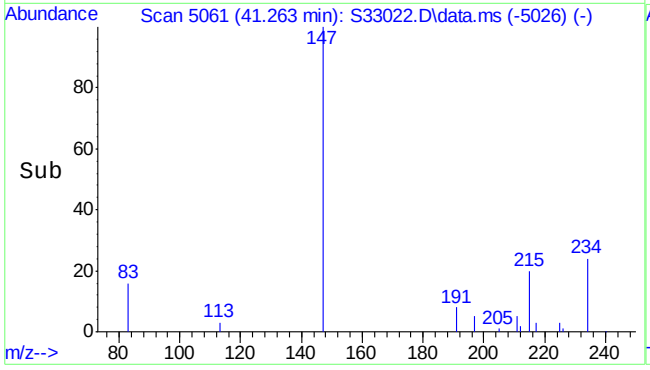


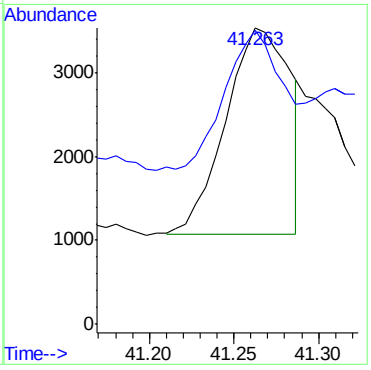


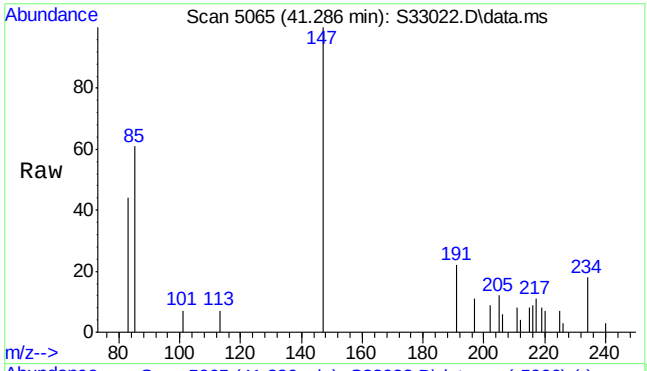
#36
Benzo(b)fluorene
Concen: 21.06 ng/mL m
RT: 41.263 min Scan# 5061
Delta R.T. 0.006 min
Lab File: S33022.D
Acq: 23 Jul 2013 9:45 pm

Tgt Ion:216 Resp: 6546

Ion	Ratio	Lower	Upper
216	100		
215	64.7	112.3	168.5#



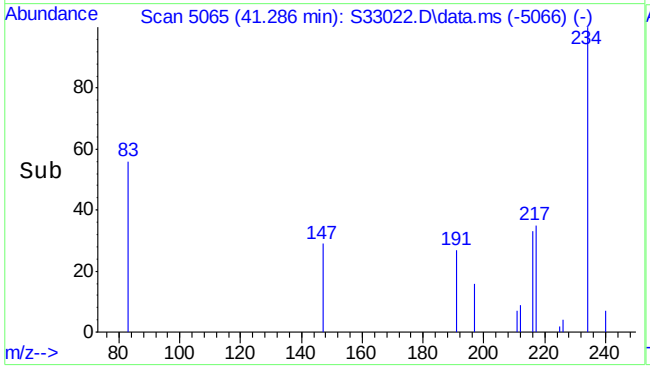


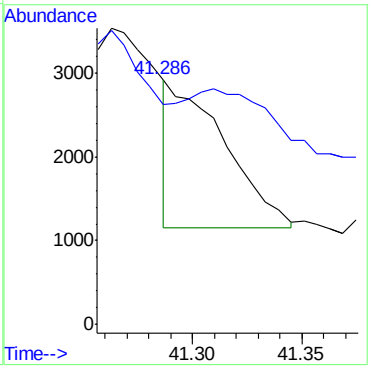


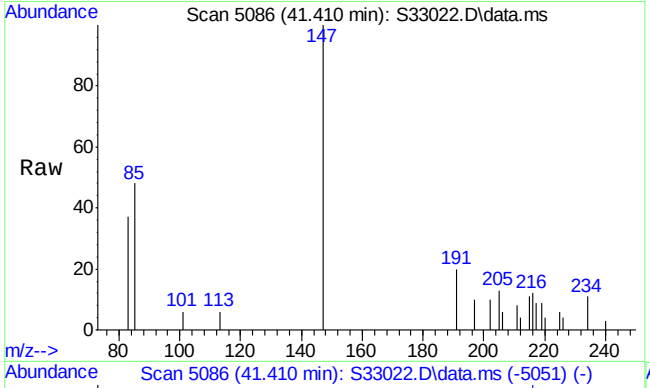
#37
Benzo(c)fluorene
Concen: 9.83 µg/mL m
RT: 41.286 min Scan# 5065
Delta R.T. -0.006 min
Lab File: S33022.D
Acq: 23 Jul 2013 9:45 pm

Tgt Ion:216 Resp: 3055

Ion	Ratio	Lower	Upper
216	100		
215	112.2	114.9	172.3#



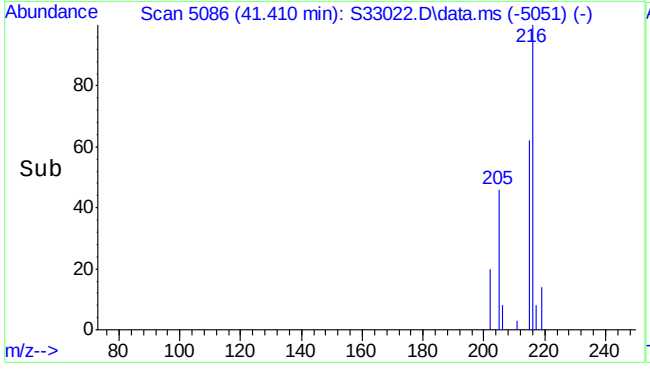


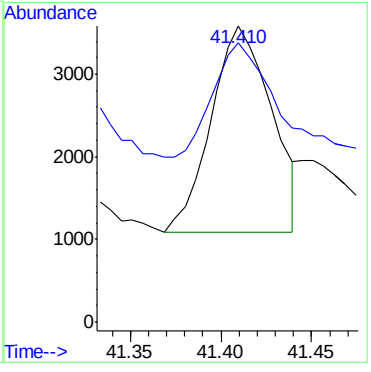


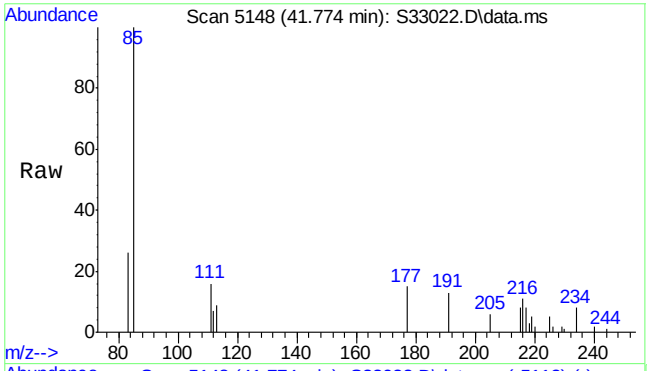
#38
2-Methylpyrene
Concen: 18.66 ng/mL m
RT: 41.410 min Scan# 5086
Delta R.T. 0.006 min
Lab File: S33022.D
Acq: 23 Jul 2013 9:45 pm

Tgt Ion:216 Resp: 5799

Ion	Ratio	Lower	Upper
216	100		
215	62.2	81.0	121.6#



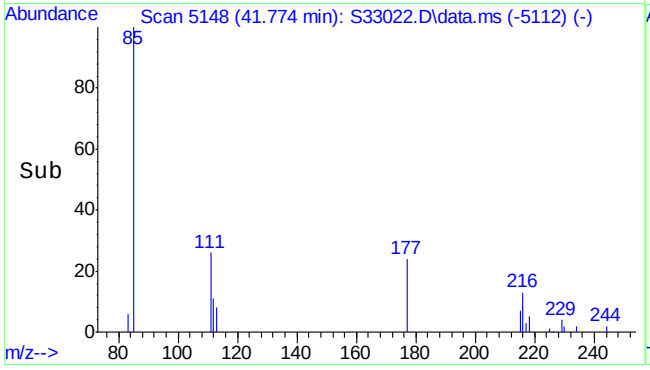


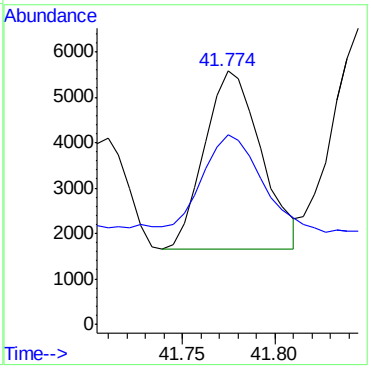


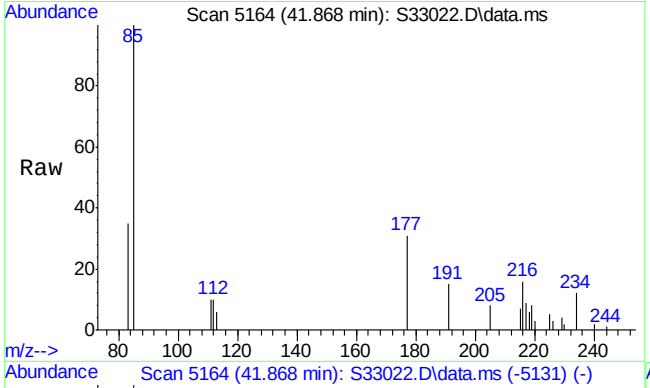
#39
4-Methylpyrene
Concen: 26.89 ng/mL
RT: 41.774 min Scan# 5148
Delta R.T. 0.012 min
Lab File: S33022.D
Acq: 23 Jul 2013 9:45 pm

Tgt Ion:216 Resp: 8357

Ion	Ratio	Lower	Upper
216	100		
215	55.8	58.1	87.1#



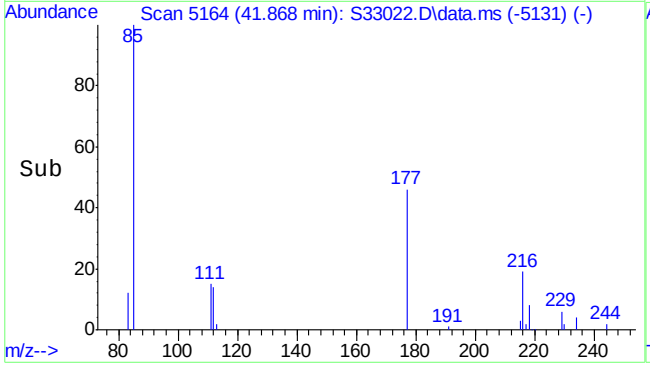


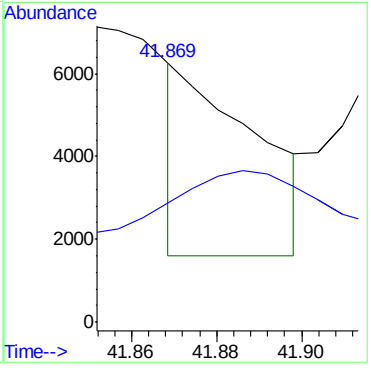


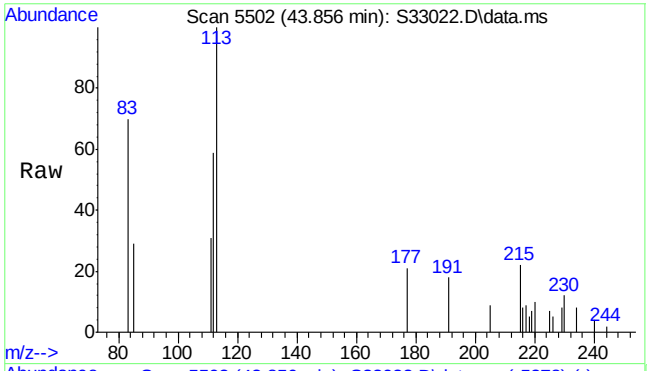
#40
1-Methylpyrene
Concen: 18.19 ng/mL m
RT: 41.868 min Scan# 5164
Delta R.T. -0.006 min
Lab File: S33022.D
Acq: 23 Jul 2013 9:45 pm

Tgt Ion:216 Resp: 5655

Ion	Ratio	Lower	Upper
216	100		
215	0.0	80.5	120.7#



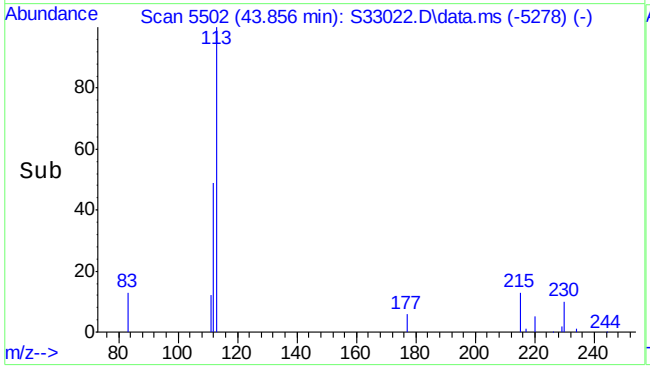


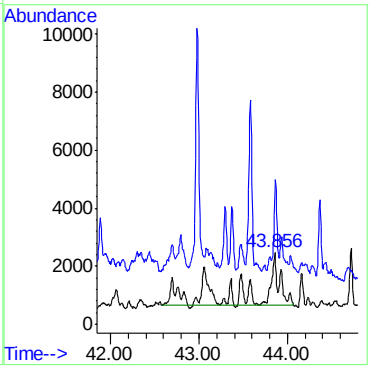


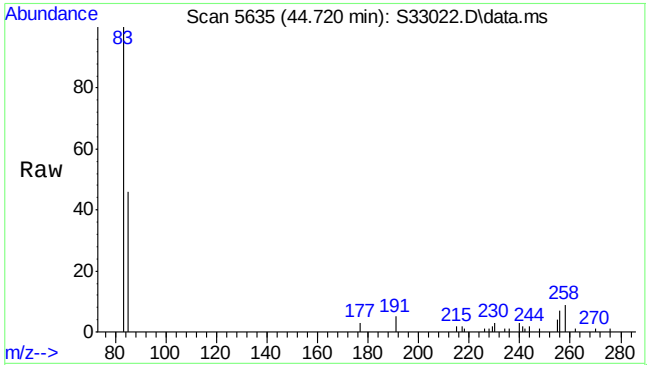
#41
C2-Fluoranthenes/pyrenes
Concen: 103.94 ng/mL m
RT: 43.856 min Scan# 5502
Delta R.T. -0.059 min
Lab File: S33022.D
Acq: 23 Jul 2013 9:45 pm

Tgt Ion:230 Resp: 32305

Ion	Ratio	Lower	Upper
230	100		
215	22.6	79.2	118.8#



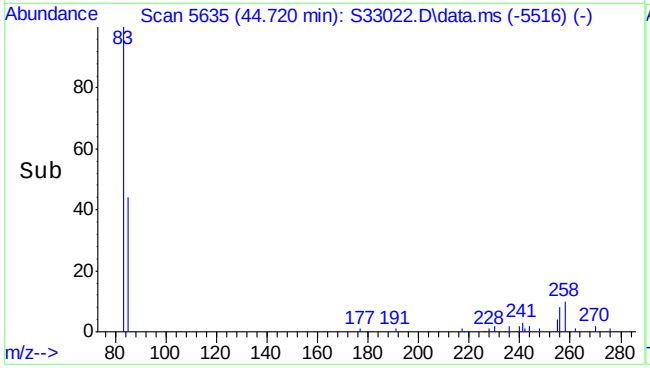


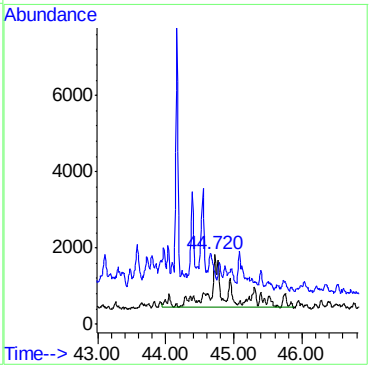


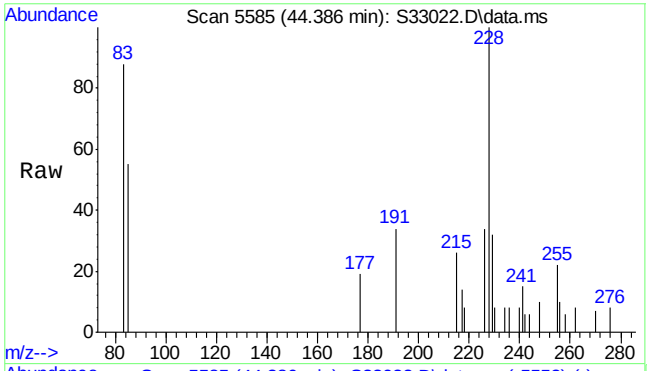
#42
C3-Fluoranthenes/pyrenes
Concen: 84.38 ng/mL m
RT: 44.720 min Scan# 5635
Delta R.T. -0.107 min
Lab File: S33022.D
Acq: 23 Jul 2013 9:45 pm

Tgt Ion:244 Resp: 26228

Ion	Ratio	Lower	Upper
244	100		
229	3.6	81.8	122.8#



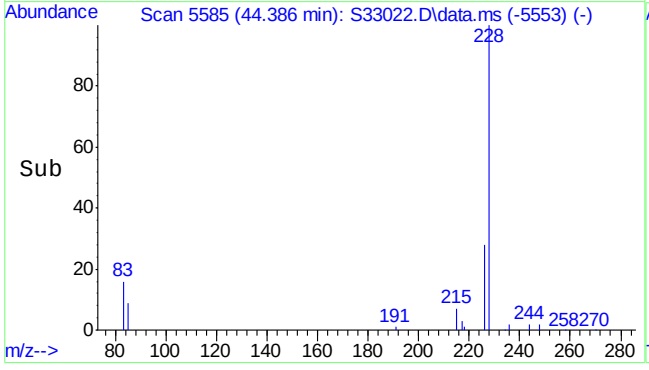


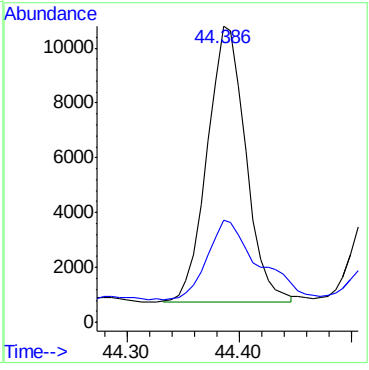


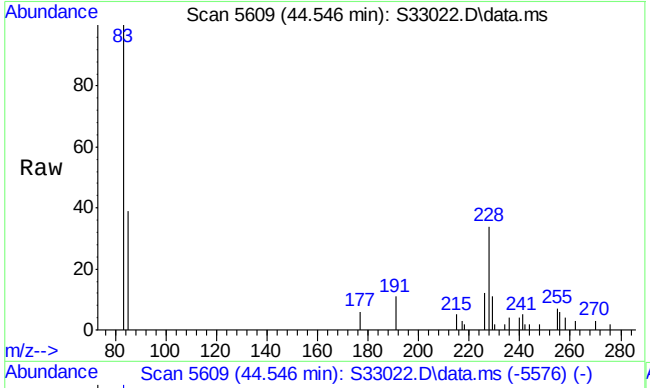
#43
Benz(a)anthracene
Concen: 80.03 ng/mL m
RT: 44.386 min Scan# 5585
Delta R.T. 0.013 min
Lab File: S33022.D
Acq: 23 Jul 2013 9:45 pm

Tgt Ion:228 Resp: 24025

Ion	Ratio	Lower	Upper
228	100		
226	34.9	21.4	32.2#



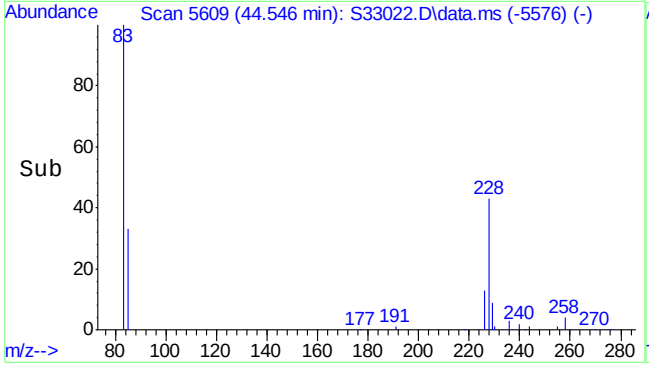


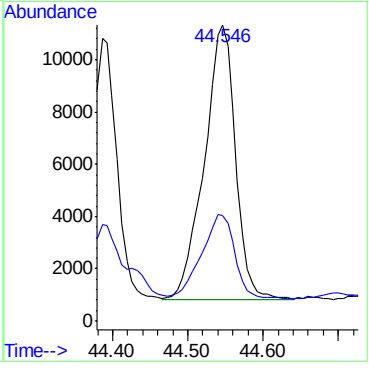


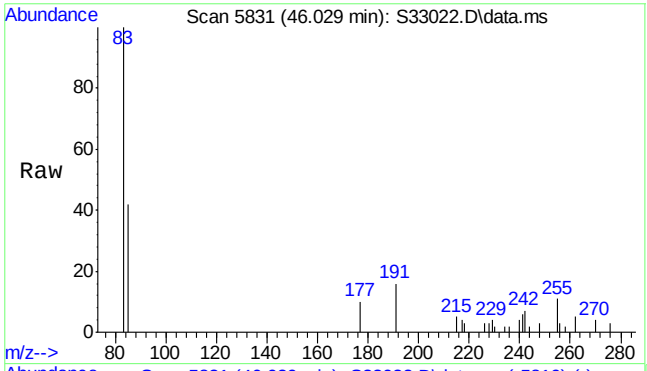
#44
Chrysene
Concen: 108.19 ng/mL
RT: 44.546 min Scan# 5609
Delta R.T. 0.020 min
Lab File: S33022.D
Acq: 23 Jul 2013 9:45 pm

Tgt Ion:228 Resp: 30294

Ion	Ratio	Lower	Upper
228	100		
226	32.8	23.8	35.6



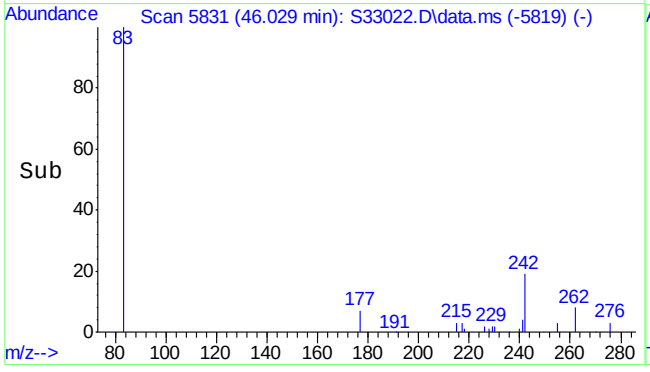


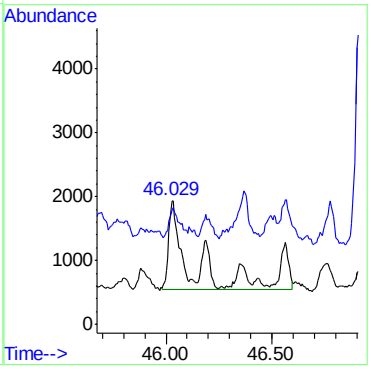


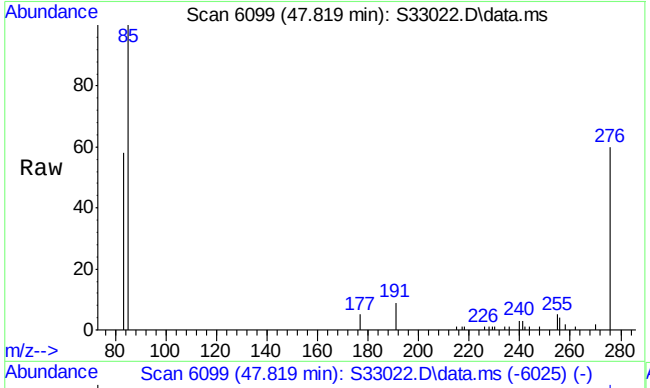
#45
C1-Benz(a)anthracenes/chrysenes
Concen: 38.47 ng/mL m
RT: 46.029 min Scan# 5831
Delta R.T. 0.013 min
Lab File: S33022.D
Acq: 23 Jul 2013 9:45 pm

Tgt Ion:242 Resp: 10771

Ion	Ratio	Lower	Upper
242	100		
241	10.5	39.4	59.0#



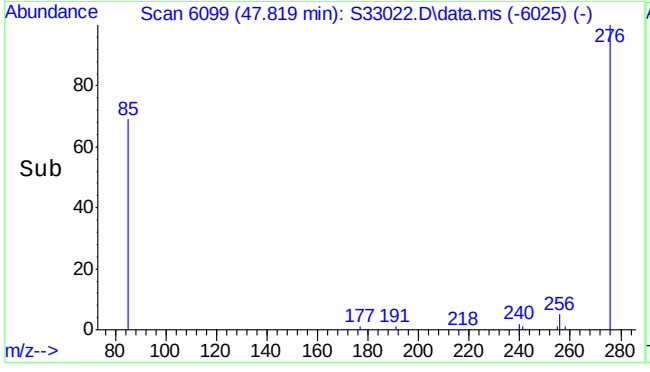


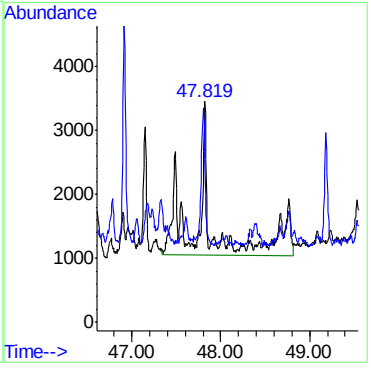


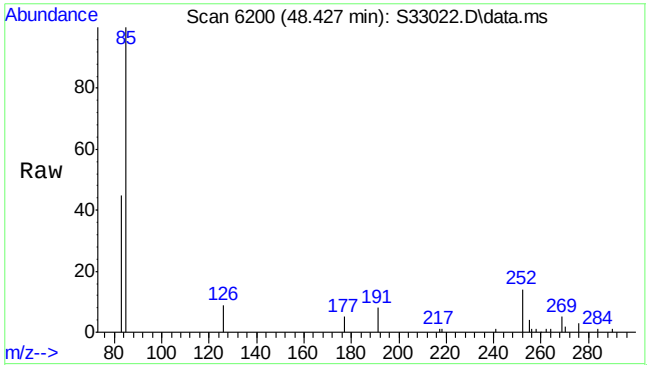
#46
C2-Benz(a)anthracenes/chrysenes
Concen: 98.31 ng/mL m
RT: 47.819 min Scan# 6099
Delta R.T. -0.276 min
Lab File: S33022.D
Acq: 23 Jul 2013 9:45 pm

Tgt Ion:256 Resp: 27527

Ion	Ratio	Lower	Upper
256	100		
241	1.0	29.9	44.9#



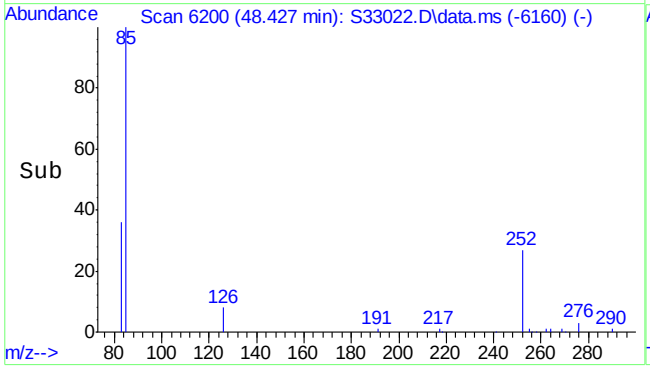


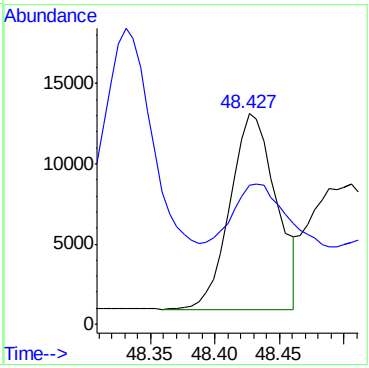


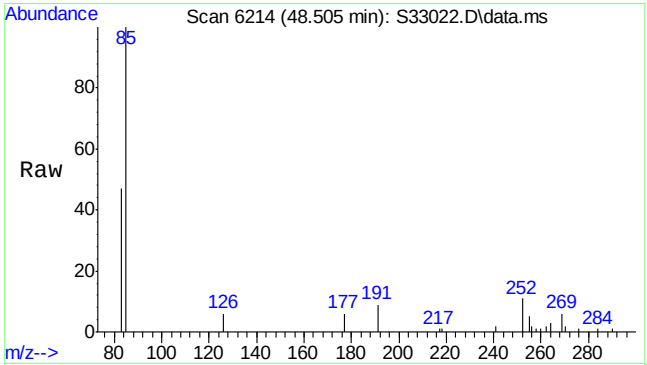
#49
Benzo(b)fluoranthene
Concen: 88.63 ng/mL
RT: 48.427 min Scan# 6200
Delta R.T. 0.028 min
Lab File: S33022.D
Acq: 23 Jul 2013 9:45 pm

Tgt Ion:252 Resp: 30460

Ion	Ratio	Lower	Upper
252	100		
126	36.1	10.6	15.8#



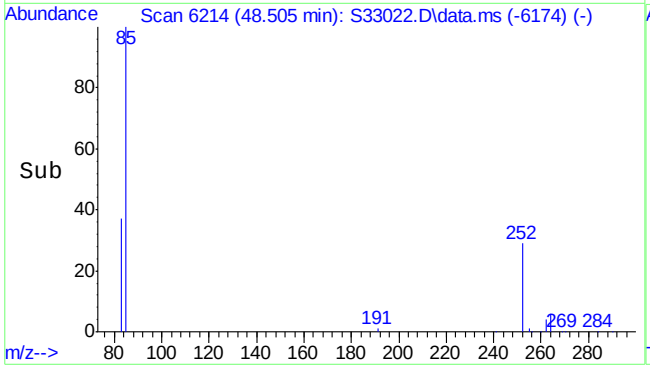


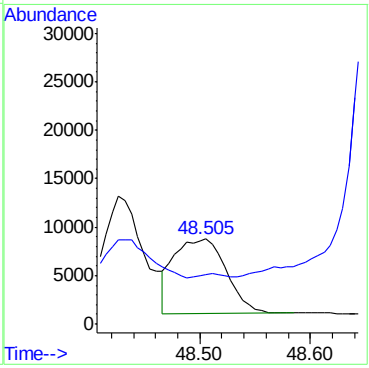


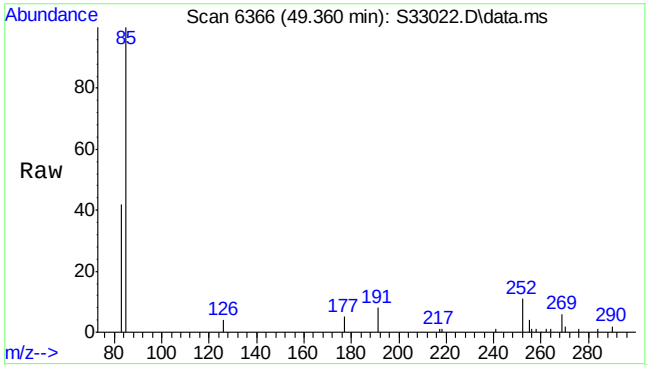
#50
Benzo(k)fluoranthene
Concen: 73.88 ng/mL
RT: 48.505 min Scan# 6214
Delta R.T. 0.028 min
Lab File: S33022.D
Acq: 23 Jul 2013 9:45 pm

Tgt Ion:252 Resp: 25306

Ion	Ratio	Lower	Upper
252	100		
126	2.3	11.9	17.9#



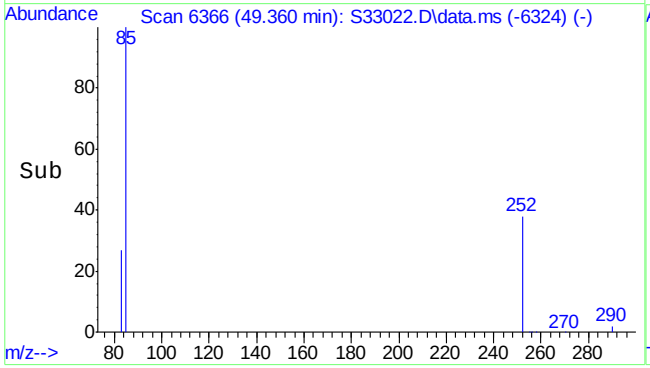


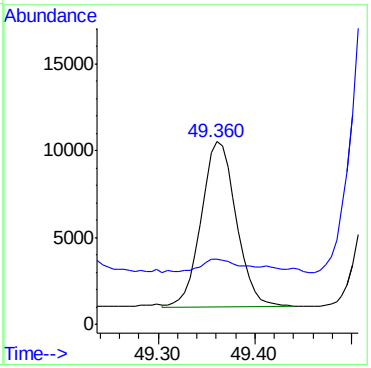


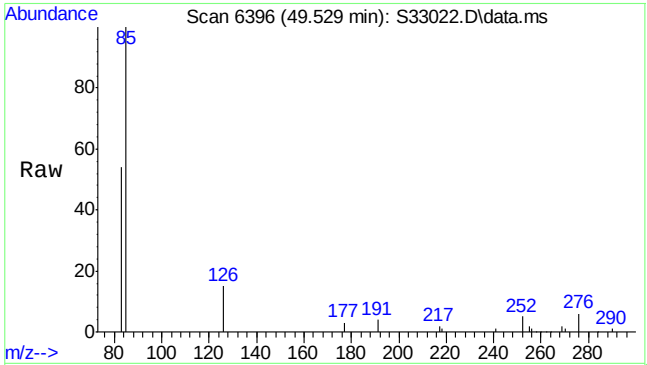
#51
Benzo(e)pyrene
Concen: 77.37 ng/mL
RT: 49.360 min Scan# 6366
Delta R.T. 0.039 min
Lab File: S33022.D
Acq: 23 Jul 2013 9:45 pm

Tgt Ion:252 Resp: 23920

Ion	Ratio	Lower	Upper
252	100		
126	7.4	9.9	14.9#



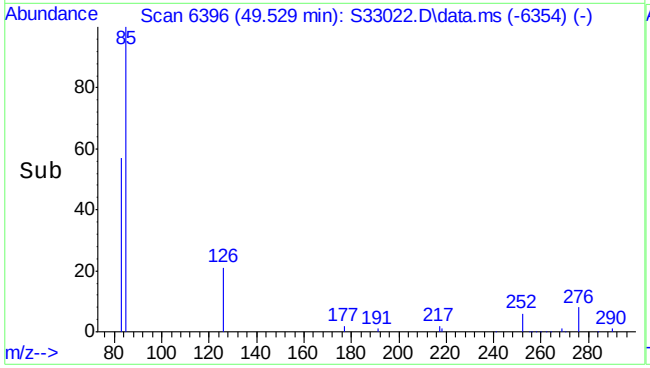


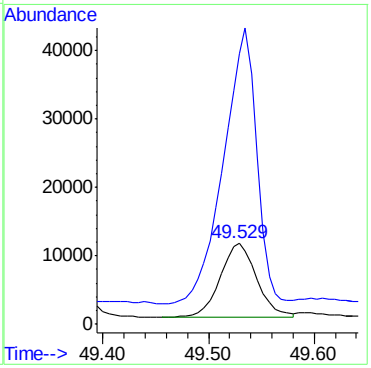


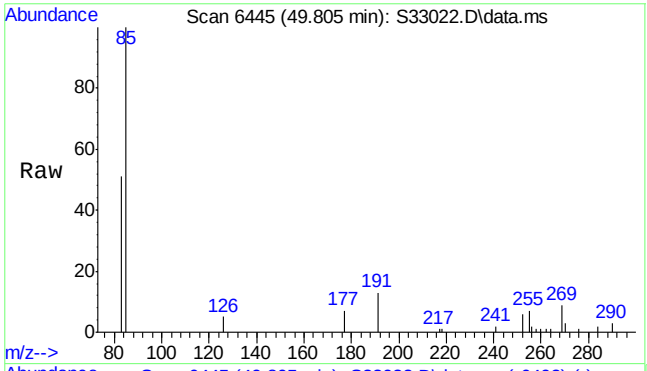
#52
Benzo(a)pyrene
Concen: 86.40 ng/mL m
RT: 49.529 min Scan# 6396
Delta R.T. 0.039 min
Lab File: S33022.D
Acq: 23 Jul 2013 9:45 pm

Tgt Ion:252 Resp: 25873

Ion	Ratio	Lower	Upper
252	100		
126	341.1	11.6	17.4#



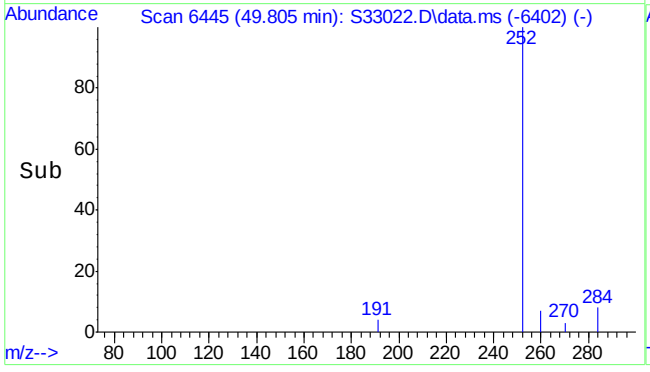


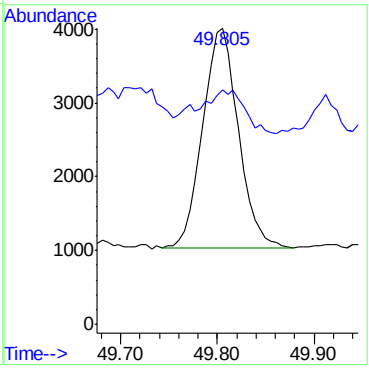


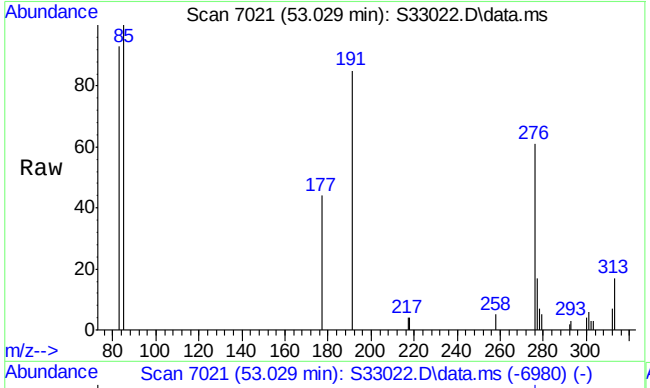
#53
Perylene
Concen: 26.39 ng/mL
RT: 49.805 min Scan# 6445
Delta R.T. 0.045 min
Lab File: S33022.D
Acq: 23 Jul 2013 9:45 pm

Tgt Ion:252 Resp: 7680

Ion	Ratio	Lower	Upper
252	100		
126	19.7	12.5	18.7#



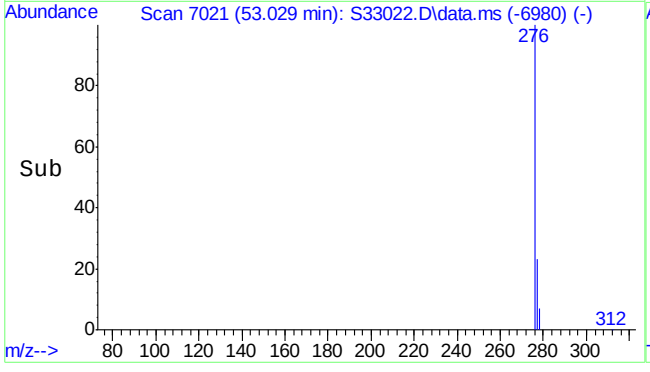


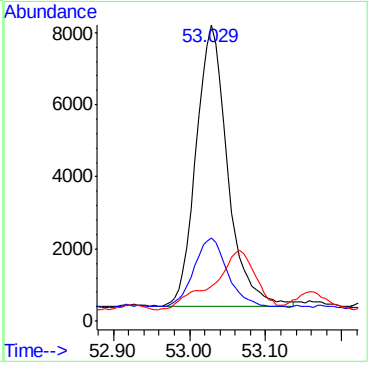


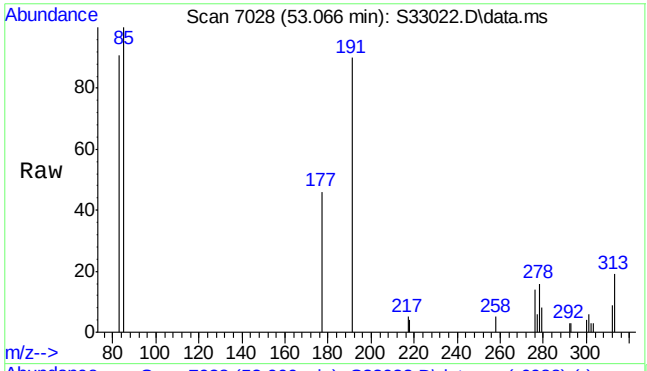
#54
Indeno(1,2,3-cd)pyrene
Concen: 65.08 ng/mL
RT: 53.029 min Scan# 7021
Delta R.T. 0.021 min
Lab File: S33022.D
Acq: 23 Jul 2013 9:45 pm

Tgt Ion:276 Resp: 22325

Ion	Ratio	Lower	Upper
276	100		
277	26.1	19.0	28.4
278	0.0	5.7	8.5#



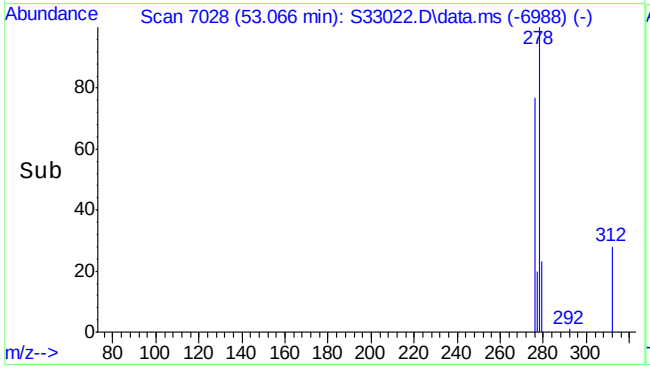


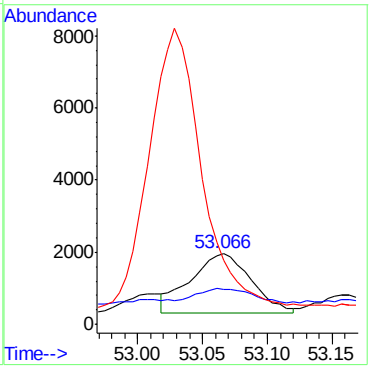


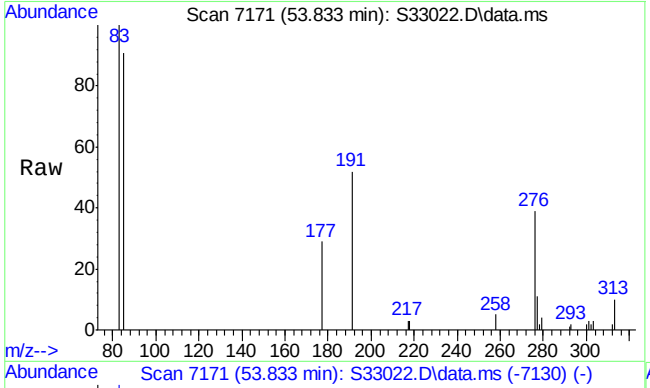
#55
Dibenz(a,h)anthracene
Concen: 17.06 ng/mL m
RT: 53.066 min Scan# 7028
Delta R.T. 0.016 min
Lab File: S33022.D
Acq: 23 Jul 2013 9:45 pm

Tgt Ion:278 Resp: 5308

Ion	Ratio	Lower	Upper
278	100		
279	34.2	19.2	28.8#
276	0.0	29.6	44.4#



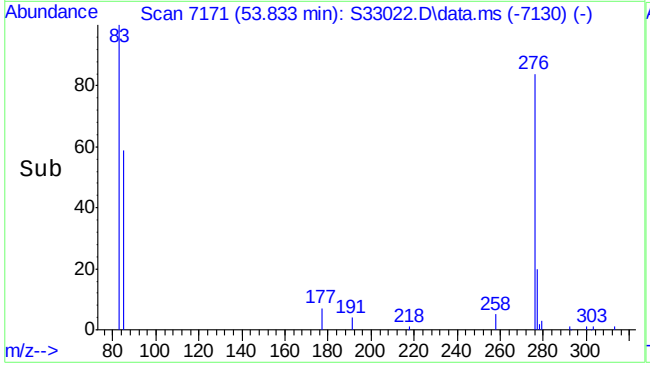


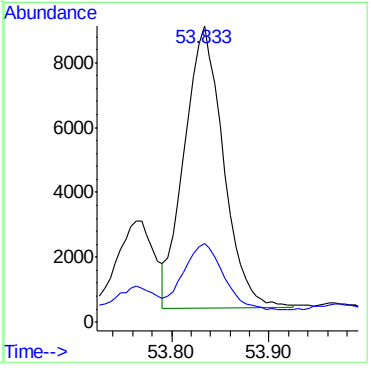


#56
Benzo(g,h,i)perylene
Concen: 65.94 ng/mL
RT: 53.833 min Scan# 7171
Delta R.T. 0.021 min
Lab File: S33022.D
Acq: 23 Jul 2013 9:45 pm

Tgt Ion:276 Resp: 24227

Ion	Ratio	Lower	Upper
276	100		
277	24.3	18.9	28.3





Manual Integrations APPROVED (compounds with "m" flag)
James Roush
07/31/13 12:43

Quantitation Report (QT Reviewed)

Data Path : S:\1\data\S130723\
Data File : S33041.D
Acq On : 24 Jul 2013 8:54 pm
Operator : kristinr
Sample : mc21754-3a
Misc : op33686,mss1444,5.18,,,2,5
ALS Vial : 88 Sample Multiplier: 1

Quant Time: Jul 25 12:11:21 2013
Quant Method : S:\1\methods\S130705-B5739ALKPAH.M
Quant Title : PAHs & Alkylated PAHs by GC/MS/SIM
QLast Update : Thu Jul 11 09:13:24 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Acenaphthene-d10	28.049	164	121687	1100.00	ng/mL	0.00
System Monitoring Compounds						
2) Toluene-d8	9.203	98	232	1.78	µg/mL	0.01
Spiked Amount 1000.000			Recovery = 0.18%			
3) Naphthalene-d8	21.102	136	1827	8.49	ng/mL	-0.02
Spiked Amount 1000.000	Range 1 - 0		Recovery = 0.85%#			
4) Phenanthrene-d10	33.880	188	1624	9.17	ng/mL	0.00
Spiked Amount 1000.000			Recovery = 0.92%			
5) Perylene-d12	49.687	264	1496	9.57	ng/mL	0.00
Spiked Amount 1000.000			Recovery = 0.96%			
Target Compounds						Qvalue
6) Naphthalene	21.176	128	1921381m	7026.86	ng/mL	
9) C1-Naphthalenes	23.873	142	316255m	1156.60	ng/mL	
10) C2-Naphthalenes	26.711	156	77593m	283.77	ng/mL	
11) C3-Naphthalenes	29.042	170	77582m	283.73	ng/mL	
12) C4-Naphthalenes	31.799	184	67439m	246.64	ng/mL	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

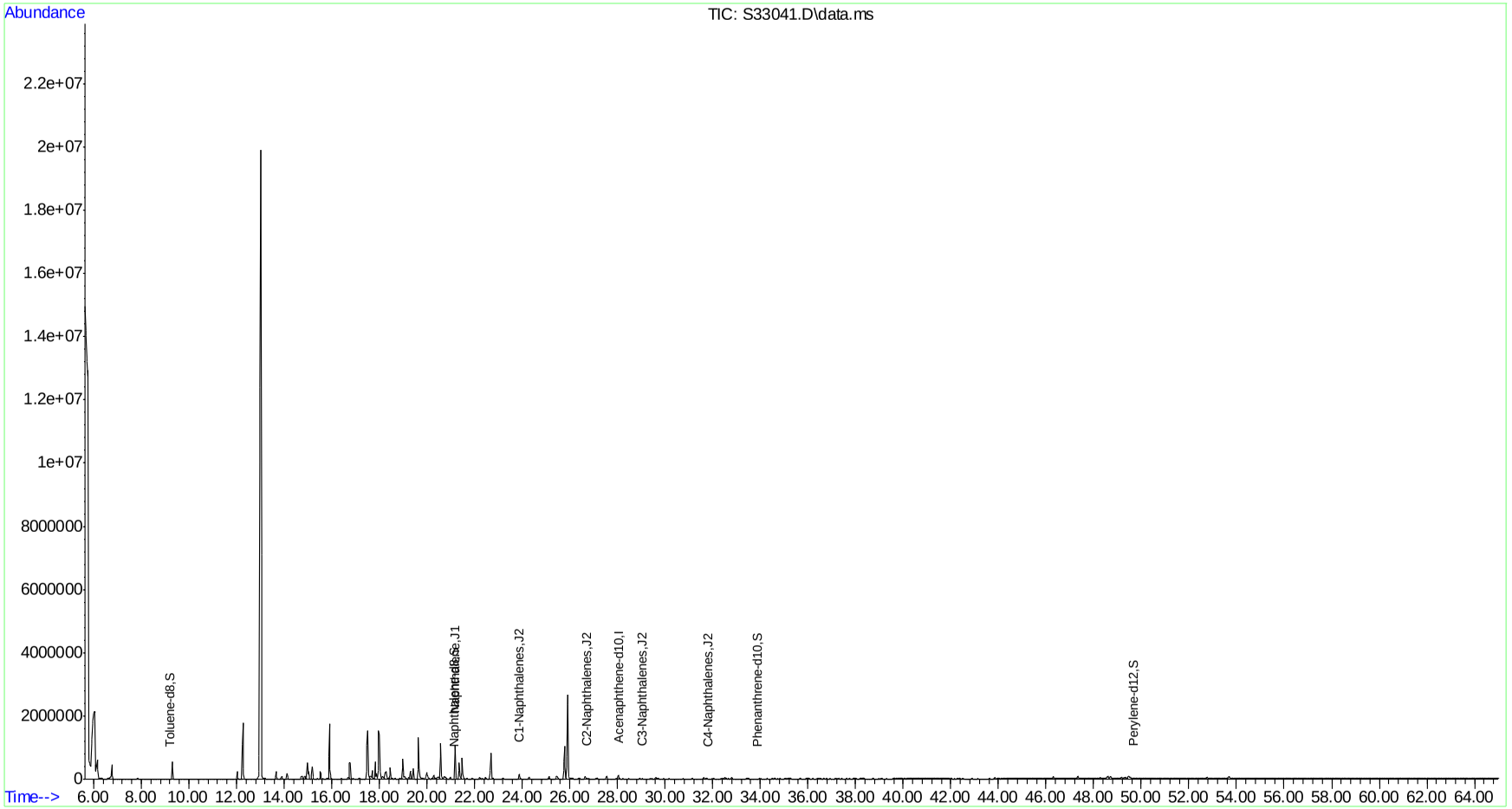
7.1.7

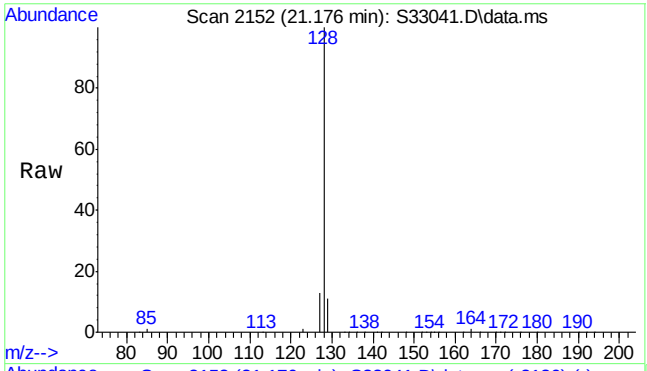
7

Quantitation Report (QT Reviewed)

Data Path : S:\1\data\S130723\
Data File : S33041.D
Acq On : 24 Jul 2013 8:54 pm
Operator : kristinr
Sample : mc21754-3a
Misc : op33686,mss1444,5.18,,,2,5
ALS Vial : 88 Sample Multiplier: 1

Quant Time: Jul 25 12:11:21 2013
Quant Method : S:\1\methods\S130705-B5739ALKPAH.M
Quant Title : PAHs & Alkylated PAHs by GC/MS/SIM
QLast Update : Thu Jul 11 09:13:24 2013
Response via : Initial Calibration

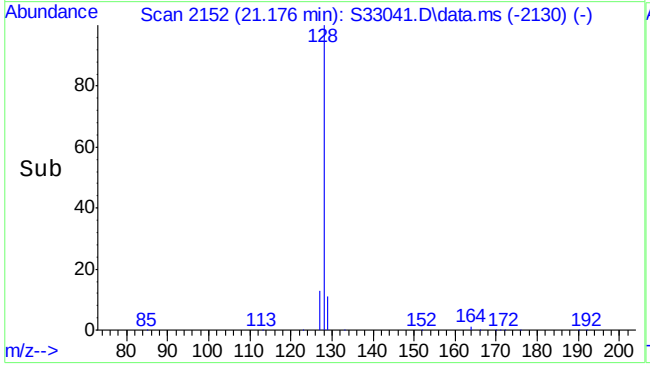


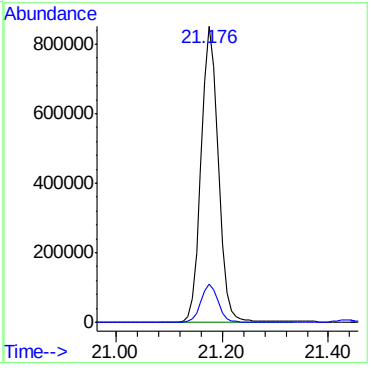


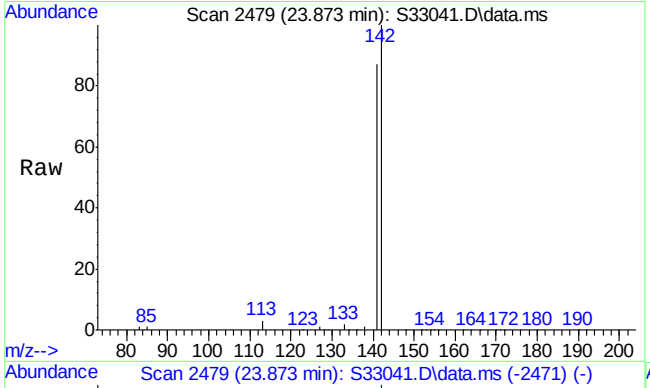
#6
Naphthalene
Concen: 7026.86 ng/mL m
RT: 21.176 min Scan# 2152
Delta R.T. -0.017 min
Lab File: S33041.D
Acq: 24 Jul 2013 8:54 pm

Tgt Ion:128 Resp: 1921381

Ion	Ratio	Lower	Upper
128	100		
127	12.8	10.0	15.0



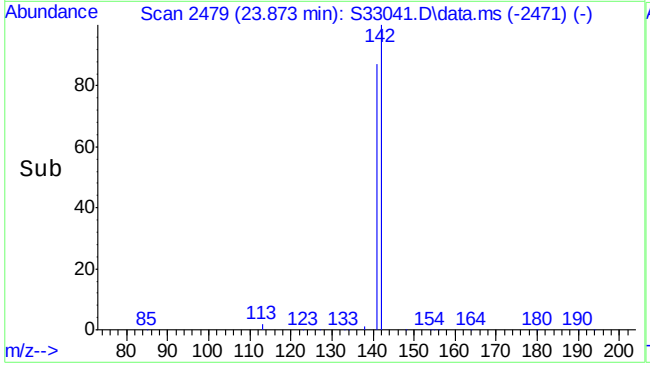


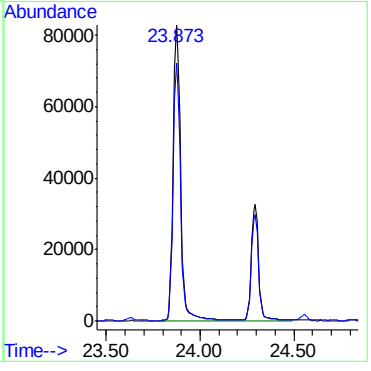


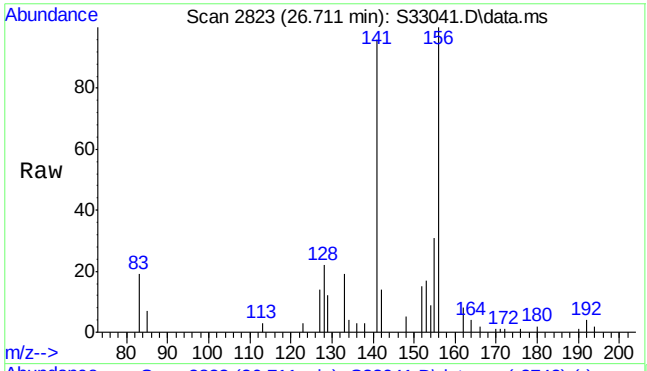
#9
C1-Naphthalenes
Concen: 1156.60 ng/mL m
RT: 23.873 min Scan# 2479
Delta R.T. -0.008 min
Lab File: S33041.D
Acq: 24 Jul 2013 8:54 pm

Tgt Ion:142 Resp: 316255

Ion	Ratio	Lower	Upper
142	100		
141	62.1	69.9	104.9#



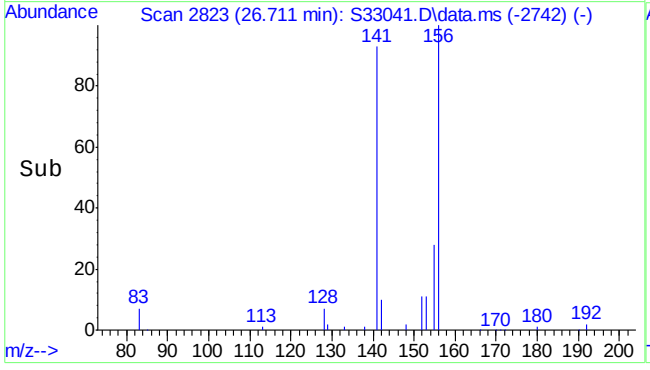


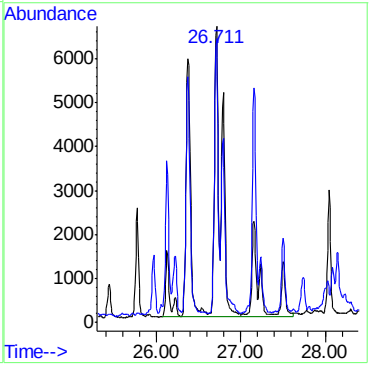


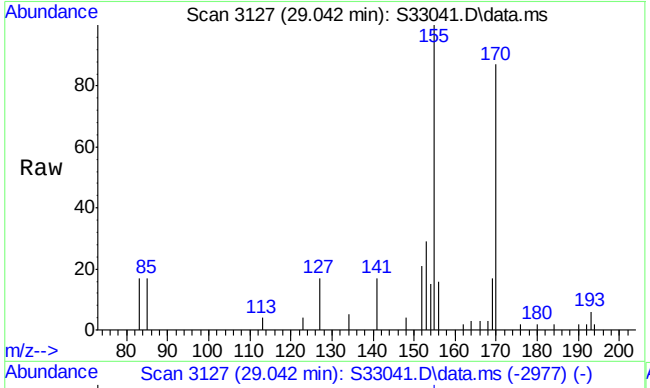
#10
C2-Naphthalenes
Concen: 283.77 ng/mL m
RT: 26.711 min Scan# 2823
Delta R.T. -0.091 min
Lab File: S33041.D
Acq: 24 Jul 2013 8:54 pm

Tgt Ion:156 Resp: 77593

Ion	Ratio	Lower	Upper
156	100		
141	16.5	64.9	97.3#



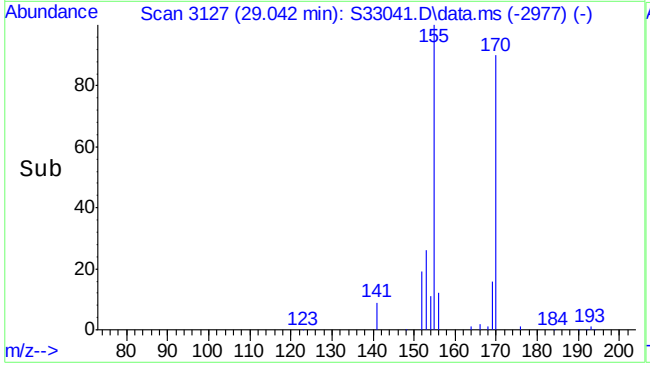


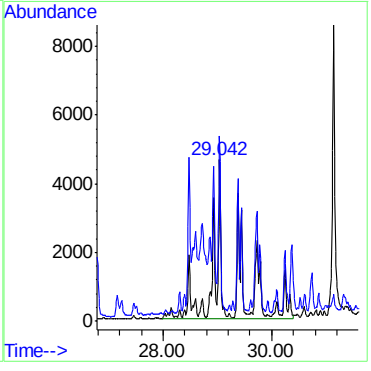


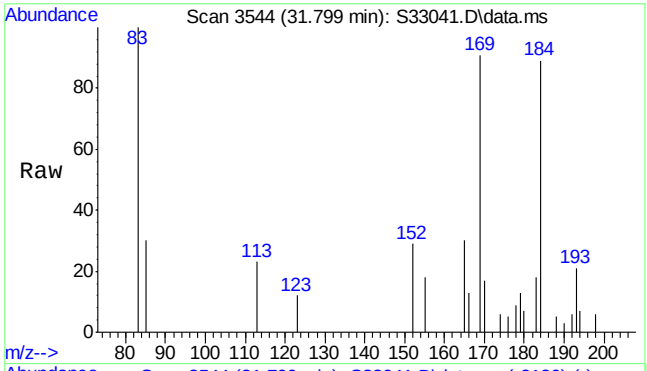
#11
C3-Naphthalenes
Concen: 283.73 ng/mL m
RT: 29.042 min Scan# 3127
Delta R.T. -0.014 min
Lab File: S33041.D
Acq: 24 Jul 2013 8:54 pm

Tgt Ion:170 Resp: 77582

Ion	Ratio	Lower	Upper
170	100		
155	12.4	85.4	128.2#



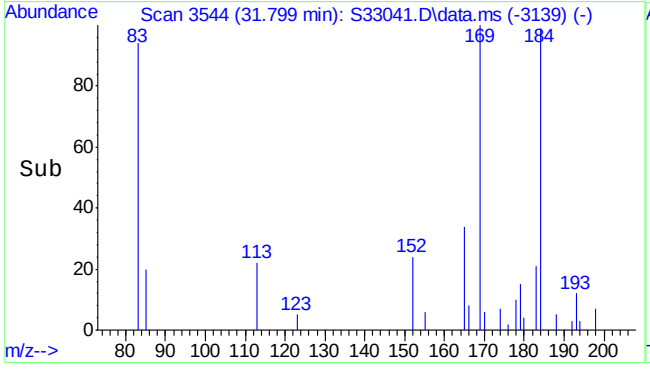


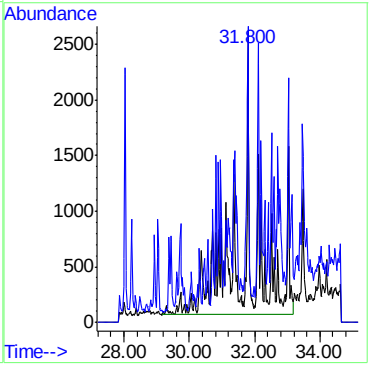


#12
C4-Naphthalenes
Concen: 246.64 ng/mL m
RT: 31.799 min Scan# 3544
Delta R.T. -0.013 min
Lab File: S33041.D
Acq: 24 Jul 2013 8:54 pm

Tgt Ion:184 Resp: 67439

Ion	Ratio	Lower	Upper
184	100		
169	3.6	81.0	121.6#





7.1.7

7

Manual Integrations APPROVED (compounds with "m" flag)
James Roush
07/31/13 10:55

Quantitation Report (QT Reviewed)

Data Path : S:\1\data\S130723\
Data File : S33017.D
Acq On : 23 Jul 2013 3:37 pm
Operator : kristinr
Sample : mc21754-3a
Misc : op33686,mss1444,5.18,,,2,10
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jul 30 14:18:44 2013
Quant Method : S:\1\methods\S130705-B5739ALKPAH.M
Quant Title : PAHs & Alkylated PAHs by GC/MS/SIM
QLast Update : Tue Jul 30 12:25:24 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Acenaphthene-d10	28.064	164	140066m	1100.00	ng/mL	0.00
System Monitoring Compounds						
2) Toluene-d8	9.181	98	3001m	20.01	µg/mL	0.00
Spiked Amount 1000.000			Recovery = 2.00%			
3) Naphthalene-d8	21.020	136	172305	695.88	ng/mL	0.00
Spiked Amount 1000.000	Range 1 - 0		Recovery = 69.59%#			
4) Phenanthrene-d10	33.899	188	8990m	44.10	ng/mL	0.00
Spiked Amount 1000.000			Recovery = 4.41%			
5) Perylene-d12	49.715	264	7352m	40.86	ng/mL	0.00
Spiked Amount 1000.000			Recovery = 4.09%			
Target Compounds						Qvalue
6) Naphthalene	21.218	128	13351774	42422.66	ng/mL	100
7) 2-Methylnaphthalene	23.898	142	1395196	7470.91	ng/mL	100
8) 1-Methylnaphthalene	24.311	142	522132	2680.02	ng/mL	100
9) C1-Naphthalenes	23.898	142	1924205m	6113.79	ng/mL	
10) C2-Naphthalenes	26.727	156	448306m	1424.41	ng/mL	
11) C3-Naphthalenes	29.064	170	435871m	1384.90	ng/mL	
12) C4-Naphthalenes	31.812	184	367673m	1168.21	ng/mL	
13) Acenaphthylene	27.461	152	1151	3.95	ng/mL#	1
14) Acenaphthene	28.186	154	9700	54.62	ng/mL	100
15) Dibenzofuran	28.826	168	12765m	50.44	ng/mL	
16) Fluorene	30.199	166	44707m	198.49	ng/mL	
17) C1-Fluorenes	32.555	180	81895m	363.60	ng/mL	
18) C2-Fluorenes	34.751	194	196769m	873.62	ng/mL	
19) C3-Fluorenes	37.368	208	168748m	749.21	ng/mL	
20) Dibenzothiophene	33.496	184	15921m	56.07	ng/mL	
21) C1-Dibenzothiophenes (...	35.264	198	84053m	300.28	ng/mL	
22) C1-Dibenzothiophenes (...	35.700	198	910	3.25	µg/mL	92
23) C2-Dibenzothiophenes	36.951	212	104970m	375.00	ng/mL	
24) C3-Dibenzothiophenes	38.758	226	68997m	246.49	ng/mL	
25) C4-Dibenzothiophenes	40.934	240	57414m	205.11	ng/mL	
26) Phenanthrene	33.983	178	122999	378.82	ng/mL	98
27) Anthracene	34.162	178	10424	34.56	ng/mL#	34
28) C1-Phenanthrenes/anthr...	36.053	192	198855m	612.45	ng/mL	
29) C2-Phenanthrenes/anthr...	38.221	206	203607m	627.09	ng/mL	
31) C3-Phenanthrenes/anthr...	40.845	220	195496m	602.11	ng/mL	
32) C4-Phenanthrenes/anthr...	40.845	234	250609m	771.85	ng/mL	
33) Fluoranthene	38.734	202	66021m	229.52	ng/mL	
34) Pyrene	39.605	202	66158m	221.98	ng/mL	
35) C1-Fluoranthenes/pyrenes	41.051	216	101545m	340.72	ng/mL	
36) Benzo(b)fluorene	41.263	216	5915m	19.85	ng/mL	
37) Benzo(c)fluorene	41.287	216	2457m	8.24	µg/mL	
38) 2-Methylpyrene	41.410	216	5486m	18.41	ng/mL	
39) 4-Methylpyrene	41.704	216	5389m	18.08	ng/mL	
40) 1-Methylpyrene	41.775	216	7298m	24.49	ng/mL	
41) C2-Fluoranthenes/pyrenes	43.851	230	31804m	106.71	ng/mL	
42) C3-Fluoranthenes/pyrenes	44.767	244	21425m	71.89	ng/mL	

Quantitation Report (QT Reviewed)

Data Path : S:\1\data\S130723\
Data File : S33017.D
Acq On : 23 Jul 2013 3:37 pm
Operator : kristinr
Sample : mc21754-3a
Misc : op33686,mss1444,5.18,,,2,10
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jul 30 14:18:44 2013
Quant Method : S:\1\methods\S130705-B5739ALKPAH.M
Quant Title : PAHs & Alkylated PAHs by GC/MS/SIM
QLast Update : Tue Jul 30 12:25:24 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
43) Benz(a)anthracene	44.386	228	21344m	74.15	ng/mL	
44) Chrysene	44.547	228	26354	98.15	ng/mL	96
45) C1-Benz(a)anthracenes/...	46.029	242	9800m	36.50	ng/mL	
46) C2-Benz(a)anthracenes/...	47.812	256	14607m	54.40	ng/mL	
49) Benzo(b)fluoranthene	48.421	252	26140	79.32	ng/mL#	57
50) Benzo(k)fluoranthene	48.494	252	23217	70.69	ng/mL#	70
51) Benzo(e)pyrene	49.355	252	20227	68.23	ng/mL#	93
52) Benzo(a)pyrene	49.518	252	21267	74.06	ng/mL#	1
53) Perylene	49.794	252	6528	23.40	ng/mL#	78
54) Indeno(1,2,3-cd)pyrene	53.024	276	18297m	55.63	ng/mL	
55) Dibenz(a,h)anthracene	53.066	278	4008m	13.44	ng/mL	
56) Benzo(g,h,i)perylene	53.828	276	20952m	59.47	ng/mL	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

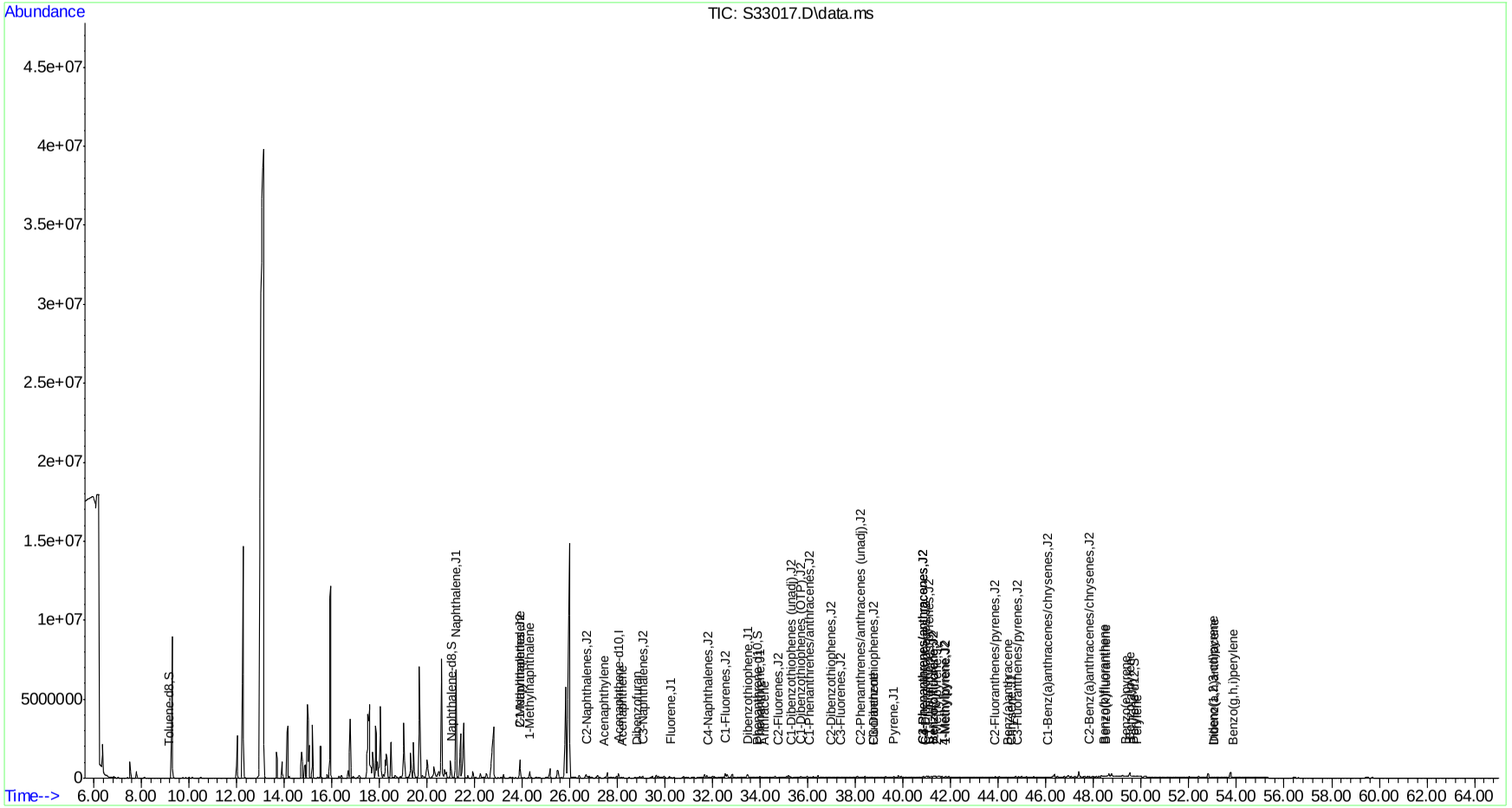
7.1.8

7

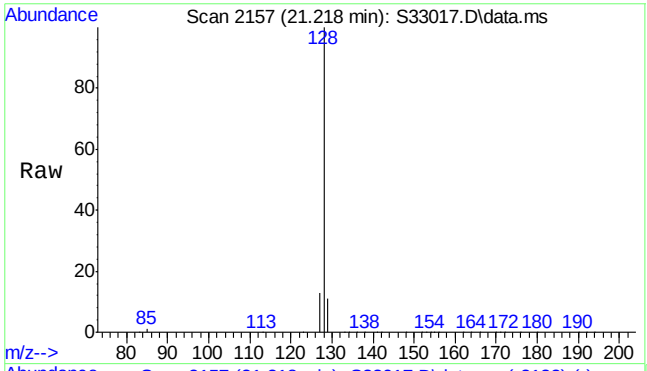
Quantitation Report (QT Reviewed)

Data Path : S:\1\data\S130723\
Data File : S33017.D
Acq On : 23 Jul 2013 3:37 pm
Operator : kristinr
Sample : mc21754-3a
Misc : op33686,mss1444,5.18,,,2,10
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jul 30 14:18:44 2013
Quant Method : S:\1\methods\S130705-B5739ALKPAH.M
Quant Title : PAHs & Alkylated PAHs by GC/MS/SIM
QLast Update : Tue Jul 30 12:25:24 2013
Response via : Initial Calibration



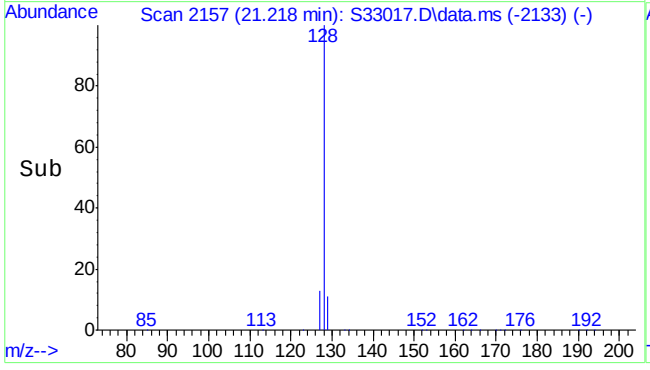
130705-B5739ALKPAH.M Tue Jul 30 15:32:13 2013 Page: 3

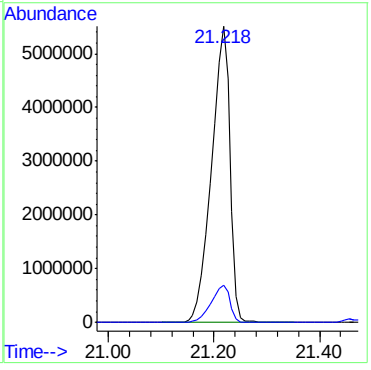


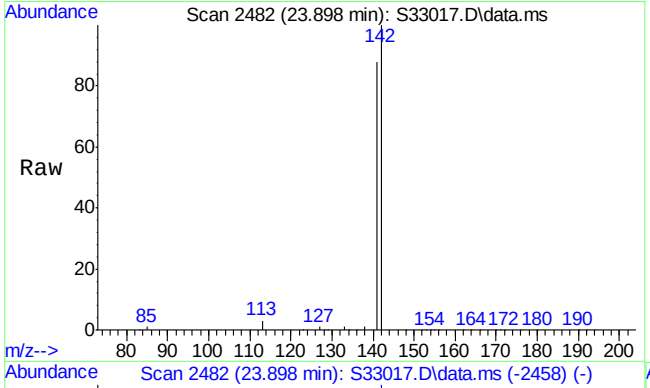
#6
Naphthalene
Concen: 42422.66 ng/mL
RT: 21.218 min Scan# 2157
Delta R.T. 0.000 min
Lab File: S33017.D
Acq: 23 Jul 2013 3:37 pm

Tgt Ion:128 Resp:13351774

Ion	Ratio	Lower	Upper
128	100		
127	12.8	10.2	15.2



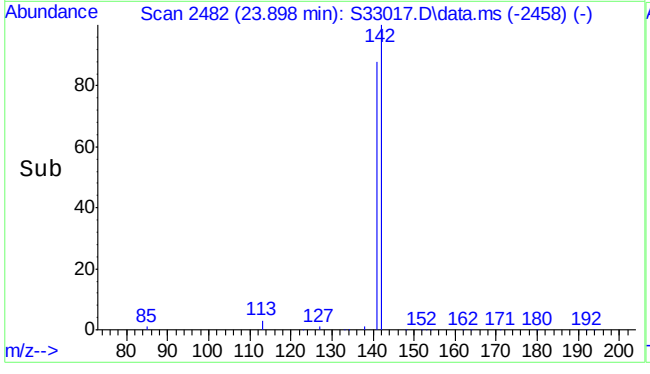


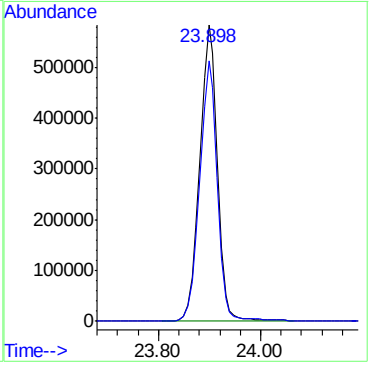


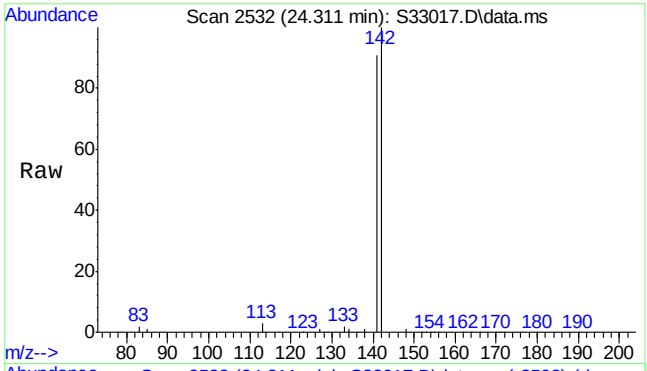
#7
2-Methylnaphthalene
Concen: 7470.91 ng/mL
RT: 23.898 min Scan# 2482
Delta R.T. 0.000 min
Lab File: S33017.D
Acq: 23 Jul 2013 3:37 pm

Tgt Ion:142 Resp: 1395196

Ion	Ratio	Lower	Upper
142	100		
141	87.8	70.4	105.6



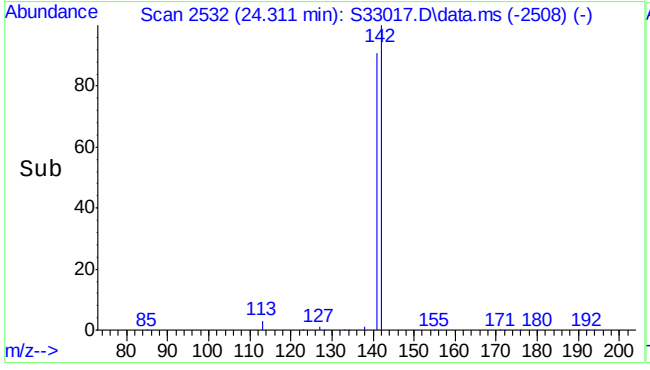


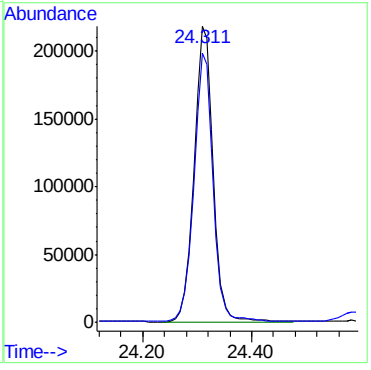


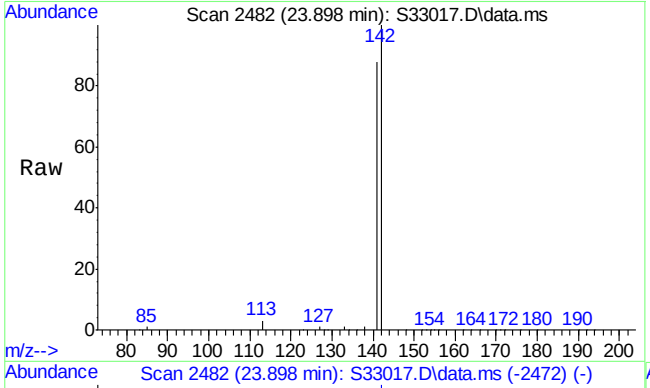
#8
1-Methylnaphthalene
Concen: 2680.02 ng/mL
RT: 24.311 min Scan# 2532
Delta R.T. 0.000 min
Lab File: S33017.D
Acq: 23 Jul 2013 3:37 pm

Tgt Ion:142 Resp: 522132

Ion	Ratio	Lower	Upper
142	100		
141	91.2	72.8	109.2



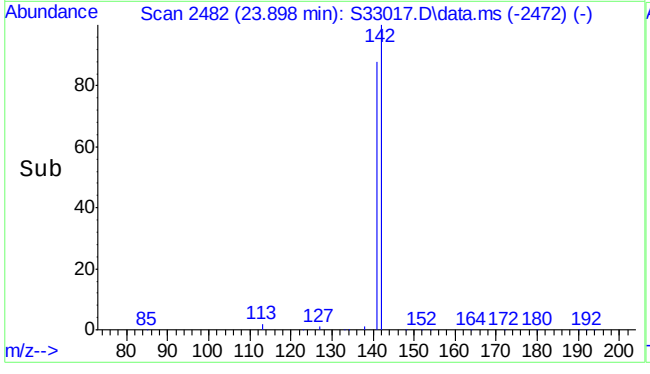


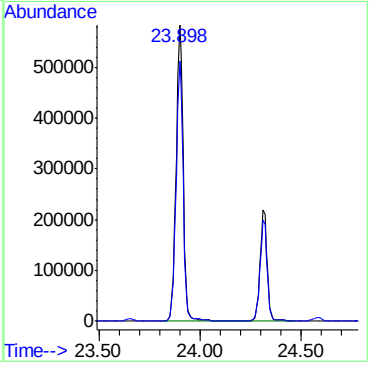


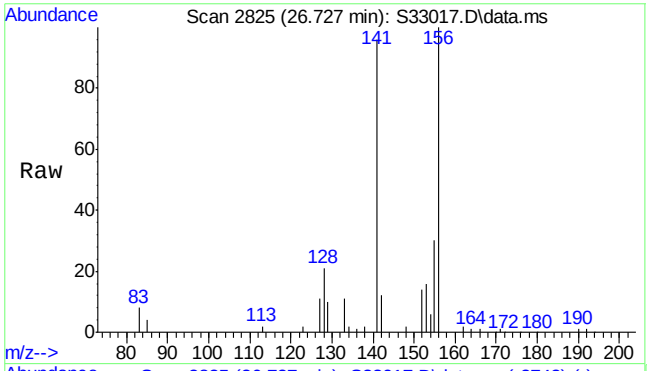
#9
C1-Naphthalenes
Concen: 6113.79 ng/mL m
RT: 23.898 min Scan# 2482
Delta R.T. 0.011 min
Lab File: S33017.D
Acq: 23 Jul 2013 3:37 pm

Tgt Ion:142 Resp: 1924205

Ion	Ratio	Lower	Upper
142	100		
141	63.4	69.9	104.9#



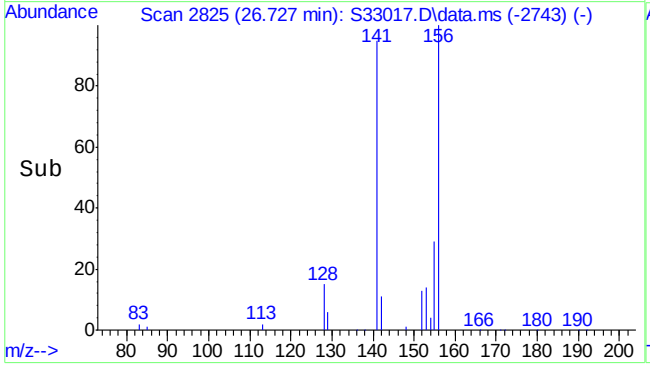


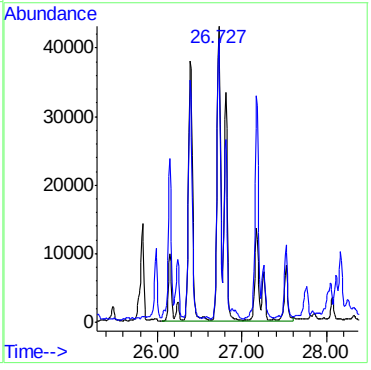


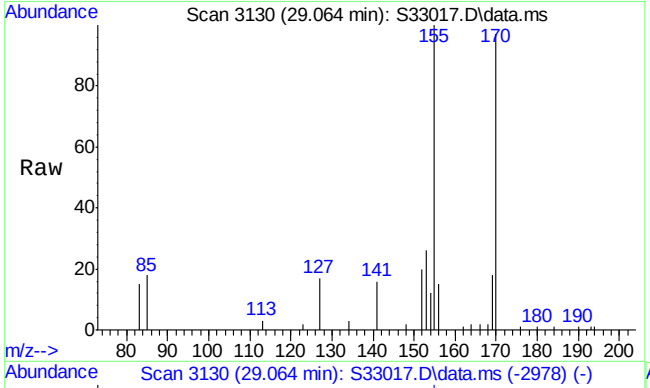
#10
C2-Naphthalenes
Concen: 1424.41 ng/mL m
RT: 26.727 min Scan# 2825
Delta R.T. -0.080 min
Lab File: S33017.D
Acq: 23 Jul 2013 3:37 pm

Tgt Ion:156 Resp: 448306

Ion	Ratio	Lower	Upper
156	100		
141	13.3	64.9	97.3#



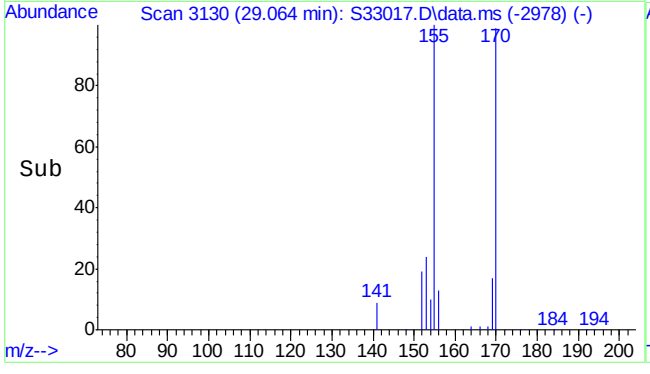


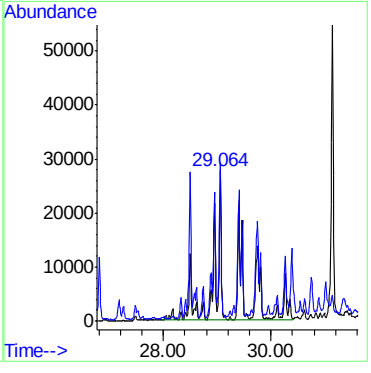


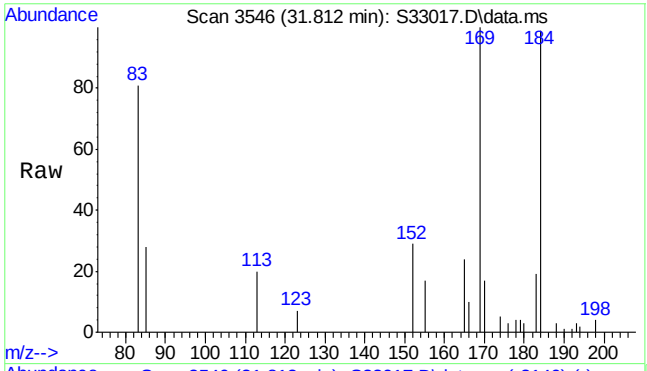
#11
C3-Naphthalenes
Concen: 1384.90 ng/mL m
RT: 29.064 min Scan# 3130
Delta R.T. 0.001 min
Lab File: S33017.D
Acq: 23 Jul 2013 3:37 pm

Tgt Ion:170 Resp: 435871

Ion	Ratio	Lower	Upper
170	100		
155	17.1	85.4	128.2#



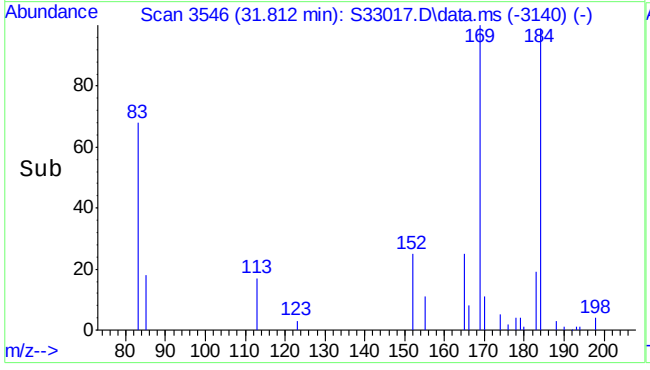


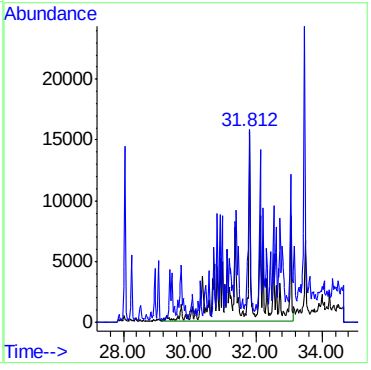


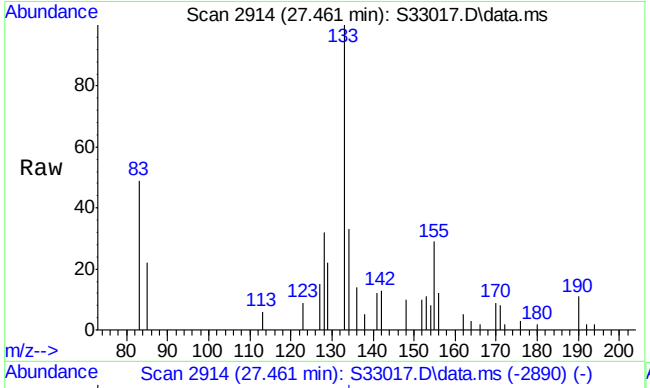
#12
C4-Naphthalenes
Concen: 1168.21 ng/mL m
RT: 31.812 min Scan# 3546
Delta R.T. -0.007 min
Lab File: S33017.D
Acq: 23 Jul 2013 3:37 pm

Tgt Ion:184 Resp: 367673

Ion	Ratio	Lower	Upper
184	100		
169	3.8	81.0	121.6#



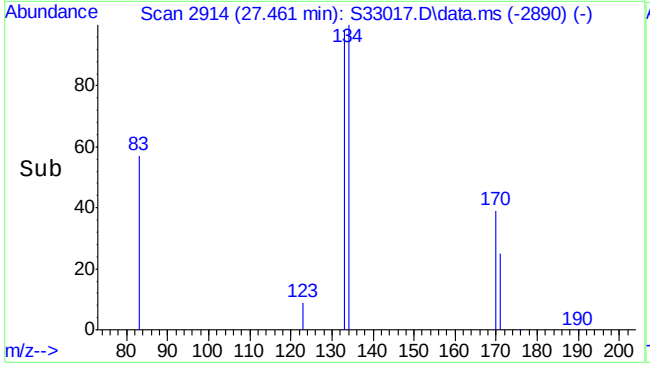


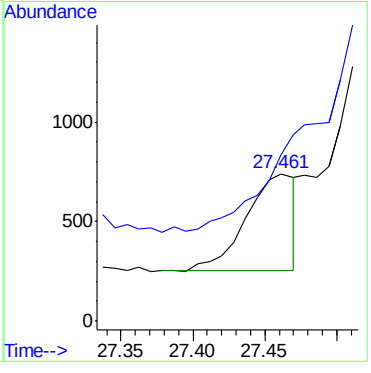


#13
Acenaphthylene
Concen: 3.95 ng/mL
RT: 27.461 min Scan# 2914
Delta R.T. 0.000 min
Lab File: S33017.D
Acq: 23 Jul 2013 3:37 pm

Tgt Ion:152 Resp: 1151

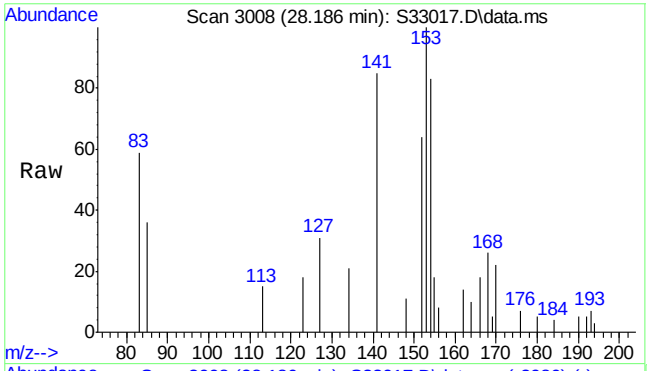
Ion	Ratio	Lower	Upper
152	100		
153	0.0	90.1	135.1#





7.1.8

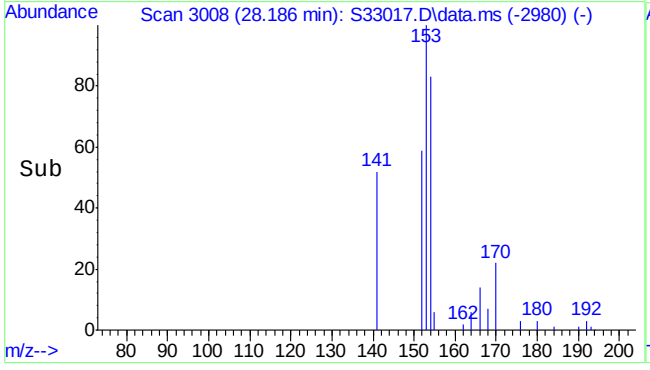
7

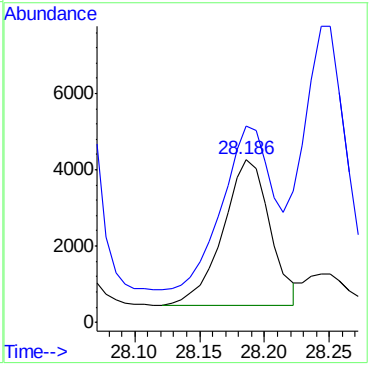


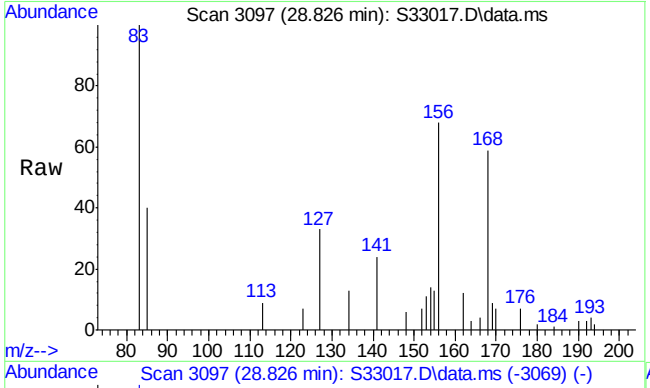
#14
Acenaphthene
Concen: 54.62 ng/mL
RT: 28.186 min Scan# 3008
Delta R.T. 0.000 min
Lab File: S33017.D
Acq: 23 Jul 2013 3:37 pm

Tgt Ion:154 Resp: 9700

Ion	Ratio	Lower	Upper
154	100		
153	120.6	96.4	144.6



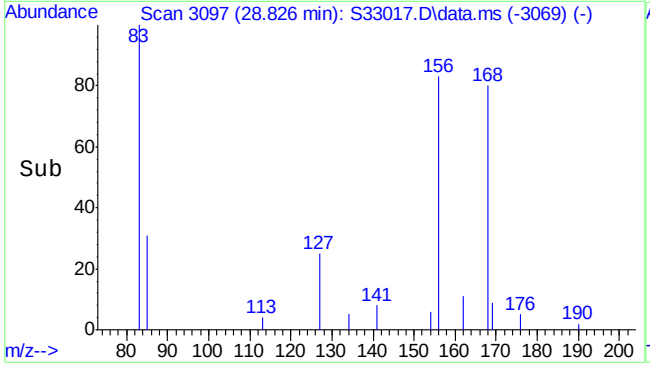


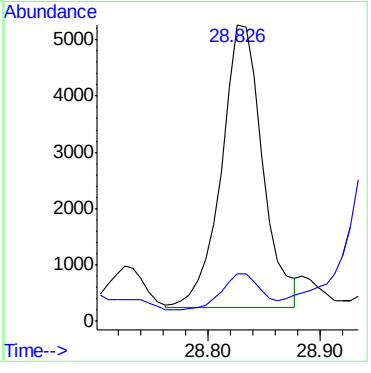


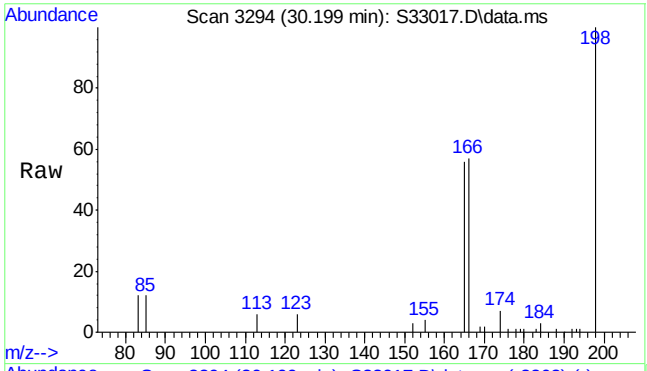
#15
Dibenzofuran
Concen: 50.44 ng/mL m
RT: 28.826 min Scan# 3097
Delta R.T. 0.000 min
Lab File: S33017.D
Acq: 23 Jul 2013 3:37 pm

Tgt Ion:168 Resp: 12765

Ion	Ratio	Lower	Upper
168	100		
169	12.0	12.8	19.2#



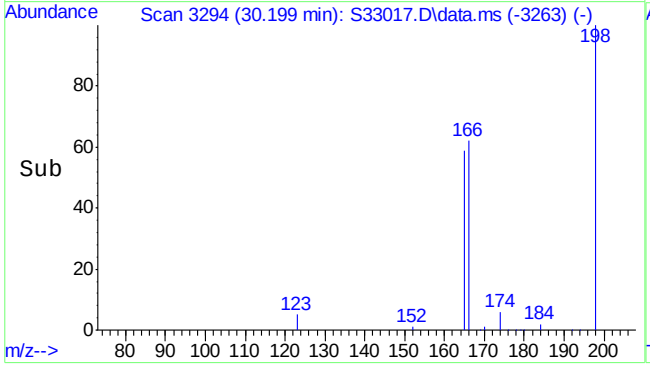


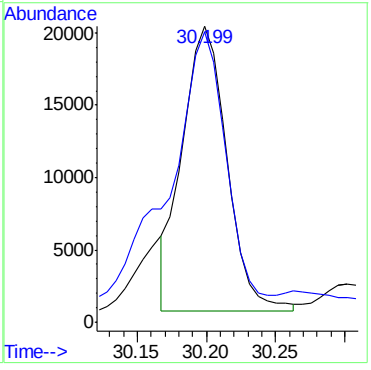


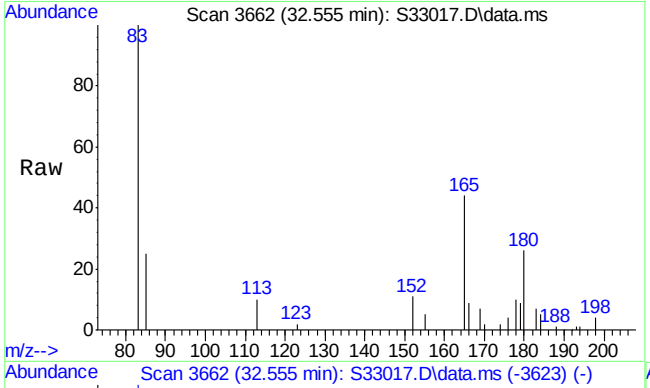
#16
Fluorene
Concen: 198.49 ng/mL m
RT: 30.199 min Scan# 3294
Delta R.T. 0.000 min
Lab File: S33017.D
Acq: 23 Jul 2013 3:37 pm

Tgt Ion:166 Resp: 44707

Ion	Ratio	Lower	Upper
166	100		
165	115.6	78.4	117.6



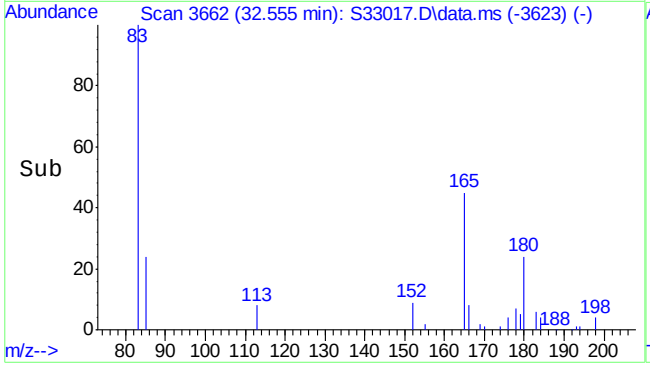


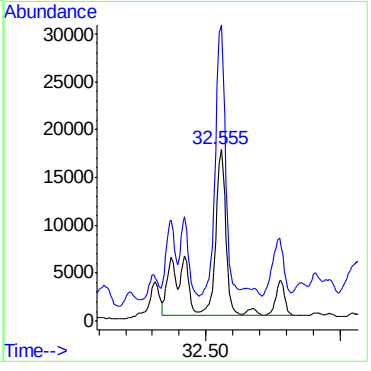


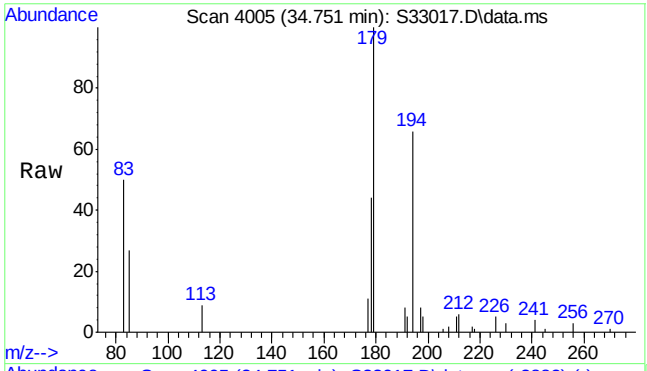
#17
C1-Fluorenes
Concen: 363.60 ng/mL m
RT: 32.555 min Scan# 3662
Delta R.T. 0.016 min
Lab File: S33017.D
Acq: 23 Jul 2013 3:37 pm

Tgt Ion:180 Resp: 81895

Ion	Ratio	Lower	Upper
180	100		
165	88.9	134.2	201.4#



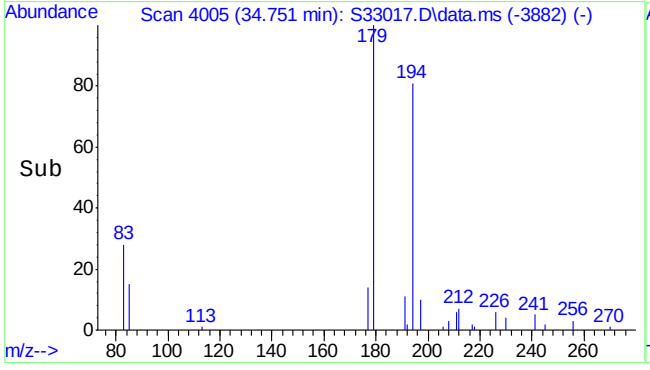


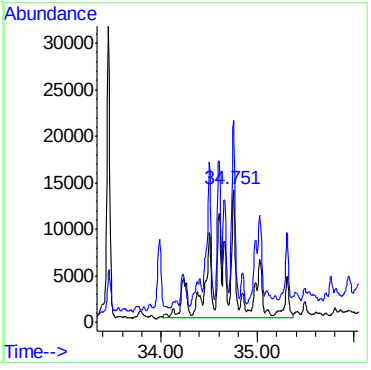


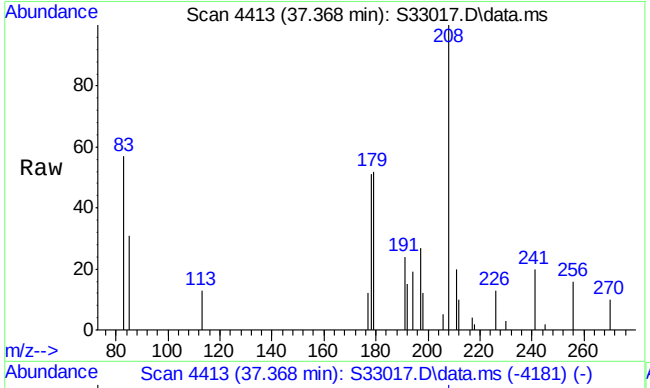
#18
C2-Fluorenes
Concen: 873.62 ng/mL m
RT: 34.751 min Scan# 4005
Delta R.T. 0.021 min
Lab File: S33017.D
Acq: 23 Jul 2013 3:37 pm

Tgt Ion:194 Resp: 196769

Ion	Ratio	Lower	Upper
194	100		
179	23.4	125.0	187.4#



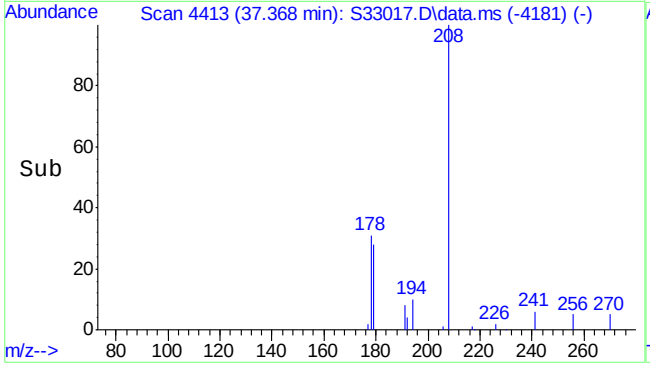


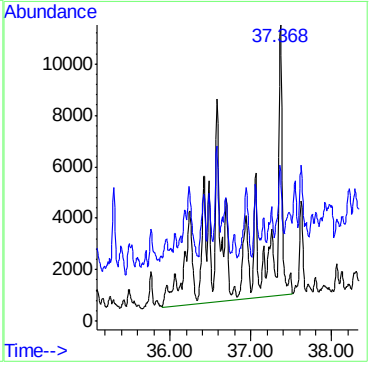


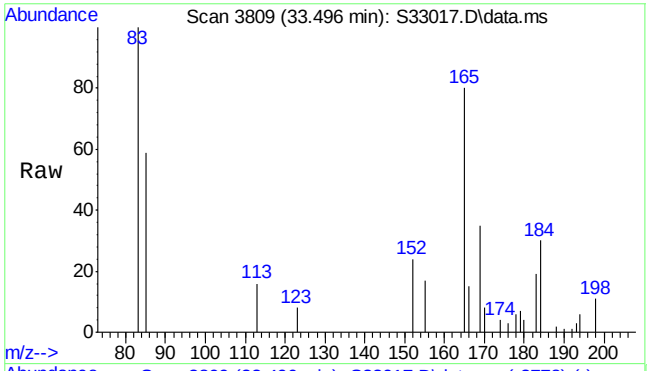
#19
C3-Fluorenes
Concen: 749.21 ng/mL m
RT: 37.368 min Scan# 4413
Delta R.T. 0.780 min
Lab File: S33017.D
Acq: 23 Jul 2013 3:37 pm

Tgt Ion:208 Resp: 168748

Ion	Ratio	Lower	Upper
208	100		
178	3.3	54.9	82.3#



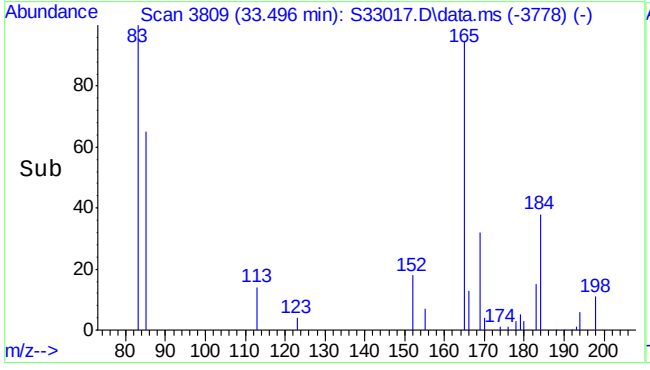


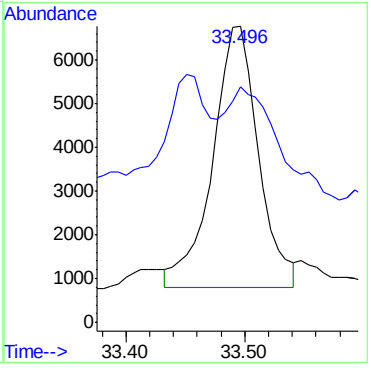


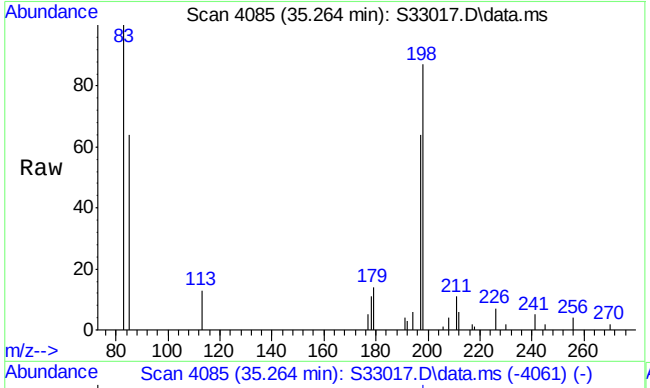
#20
Dibenzothiophene
Concen: 56.07 ng/mL m
RT: 33.496 min Scan# 3809
Delta R.T. 0.000 min
Lab File: S33017.D
Acq: 23 Jul 2013 3:37 pm

Tgt Ion:184 Resp: 15921

Ion	Ratio	Lower	Upper
184	100		
152	54.6	63.6	95.4#



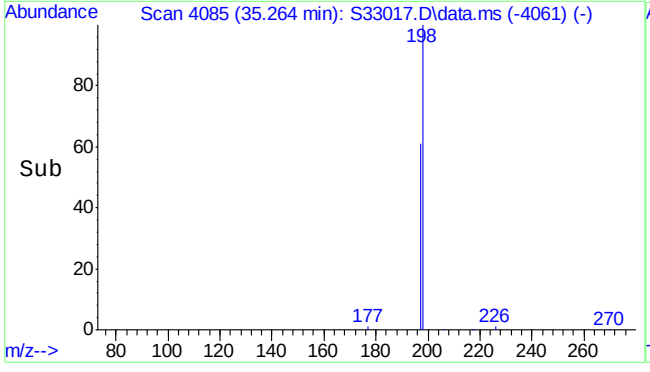


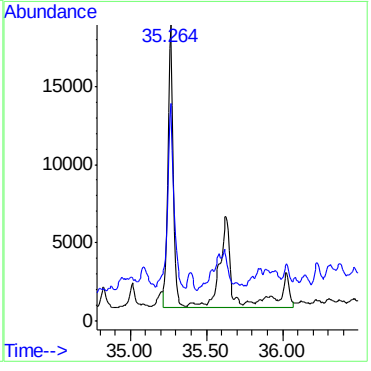


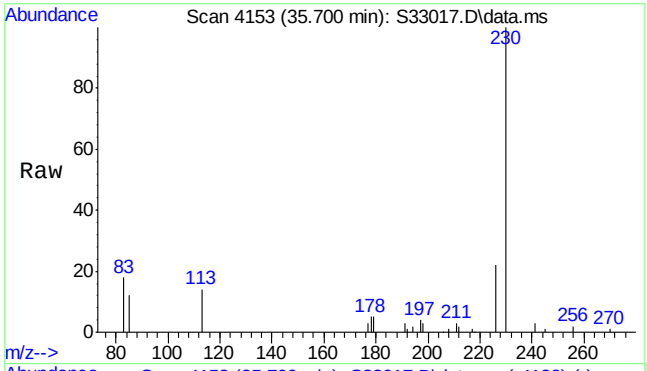
#21
C1-Dibenzothiophenes (unadj)
Concen: 300.28 ng/mL m
RT: 35.264 min Scan# 4085
Delta R.T. -0.002 min
Lab File: S33017.D
Acq: 23 Jul 2013 3:37 pm

Tgt Ion:198 Resp: 84053

Ion	Ratio	Lower	Upper
198	100		
197	40.9	53.4	80.0#



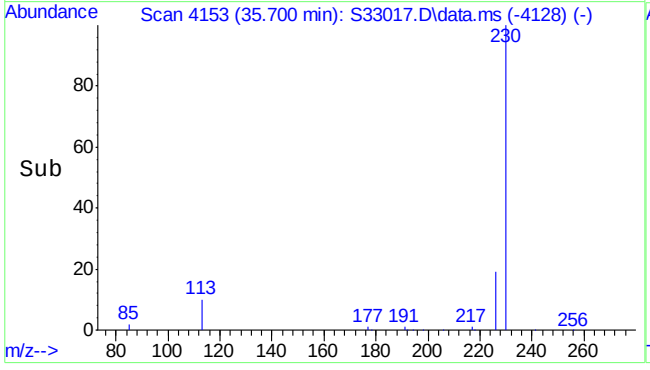


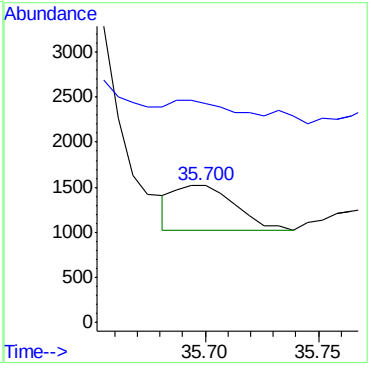


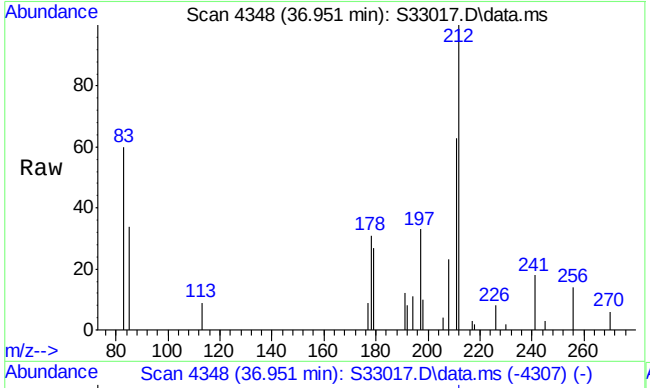
#22
C1-Dibenzothiophenes (OTP)
Concen: 3.25 µg/mL
RT: 35.700 min Scan# 4153
Delta R.T. 0.069 min
Lab File: S33017.D
Acq: 23 Jul 2013 3:37 pm

Tgt Ion:198 Resp: 910

Ion	Ratio	Lower	Upper
198	100		
197	65.9	58.2	87.2



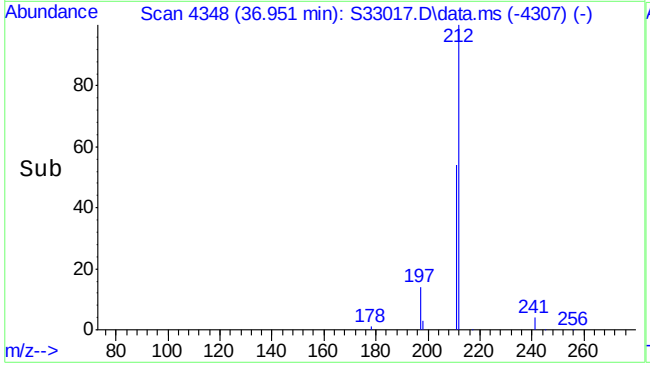


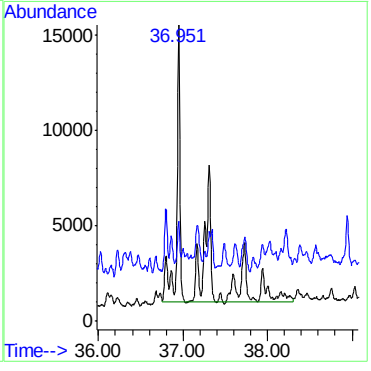


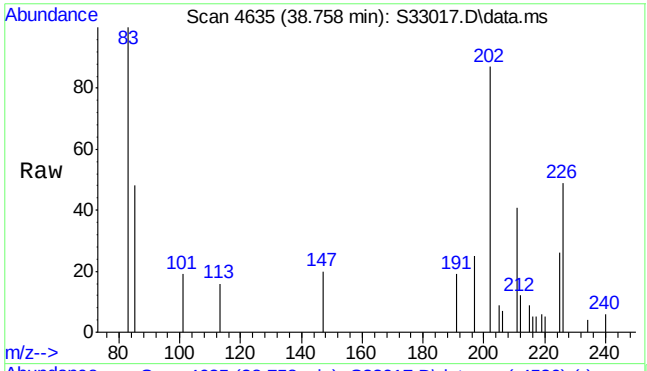
#23
C2-Dibenzothiophenes
Concen: 375.00 ng/mL m
RT: 36.951 min Scan# 4348
Delta R.T. -0.331 min
Lab File: S33017.D
Acq: 23 Jul 2013 3:37 pm

Tgt Ion:212 Resp: 104970

Ion	Ratio	Lower	Upper
212	100		
197	0.8	18.8	28.2#



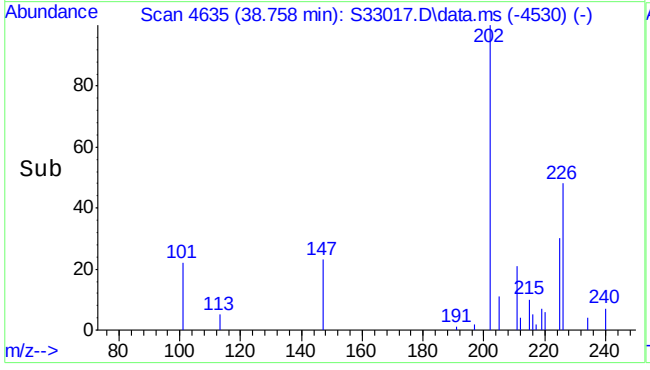


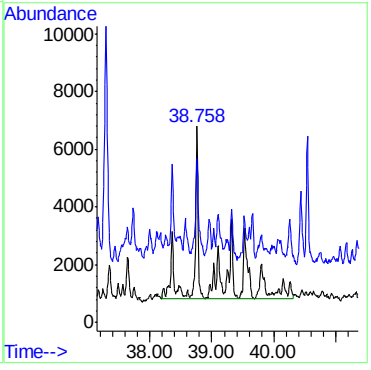


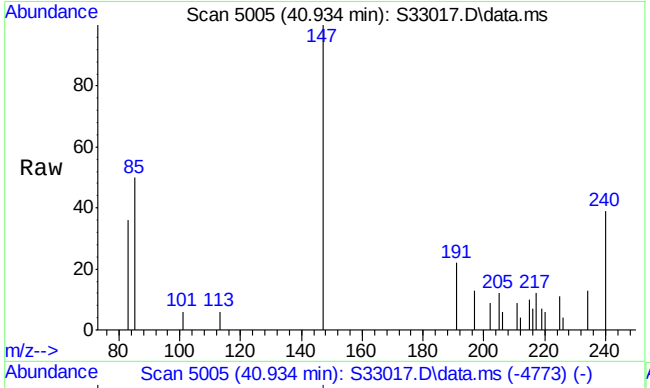
#24
C3-Dibenzothiophenes
Concen: 246.49 ng/mL m
RT: 38.758 min Scan# 4635
Delta R.T. 0.033 min
Lab File: S33017.D
Acq: 23 Jul 2013 3:37 pm

Tgt Ion:226 Resp: 68997

Ion	Ratio	Lower	Upper
226	100		
211	7.1	50.0	75.0#

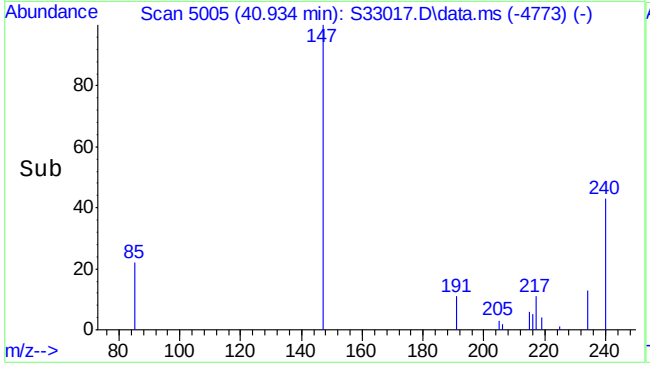


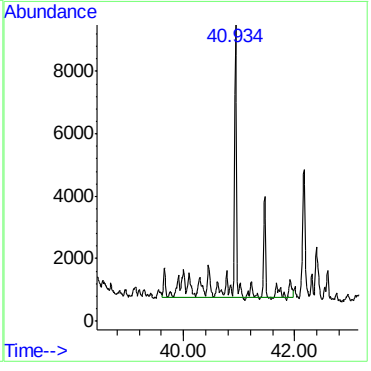


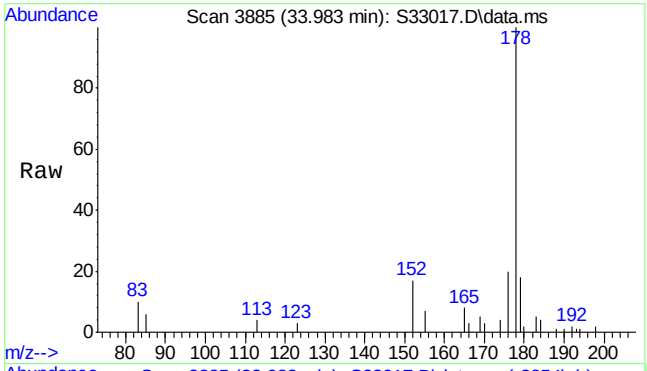


#25
C4-Dibenzothiophenes
Concen: 205.11 ng/mL m
RT: 40.934 min Scan# 5005
Delta R.T. 0.514 min
Lab File: S33017.D
Acq: 23 Jul 2013 3:37 pm

Tgt Ion:240 Resp: 57414



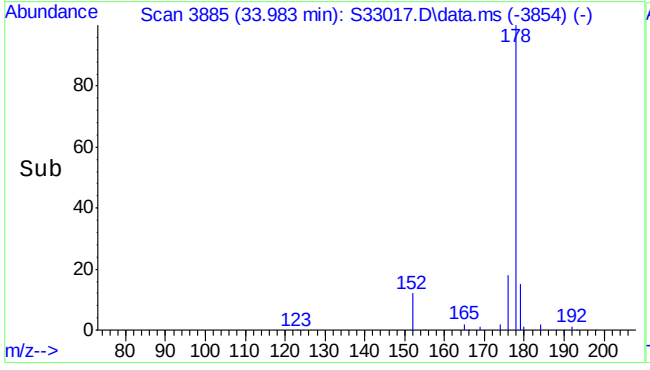


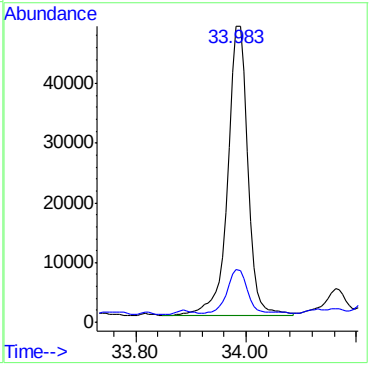


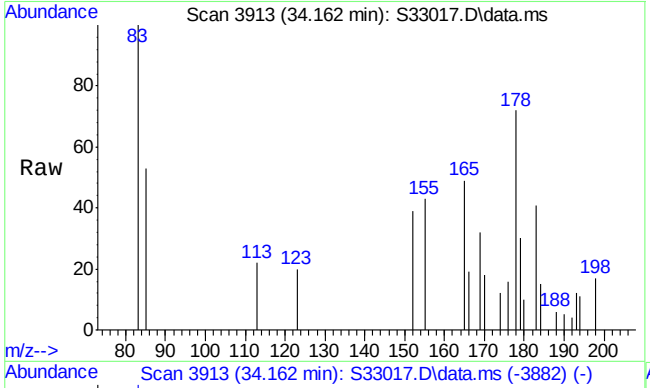
#26
Phenanthrene
Concen: 378.82 ng/mL
RT: 33.983 min Scan# 3885
Delta R.T. -0.002 min
Lab File: S33017.D
Acq: 23 Jul 2013 3:37 pm

Tgt Ion:178 Resp: 122999

Ion	Ratio	Lower	Upper
178	100		
179	14.9	12.6	18.8



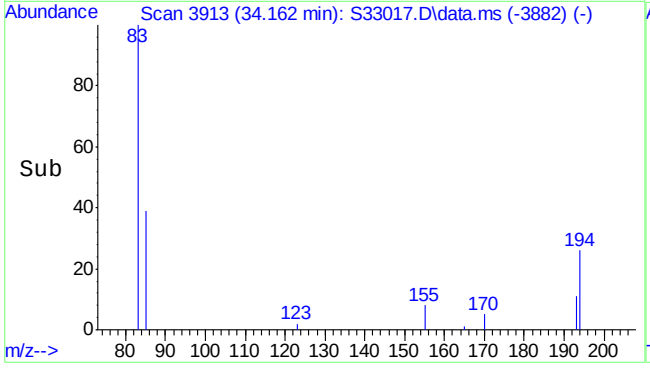


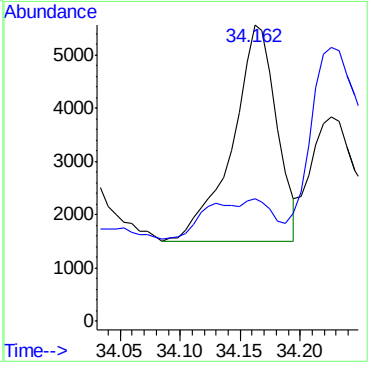


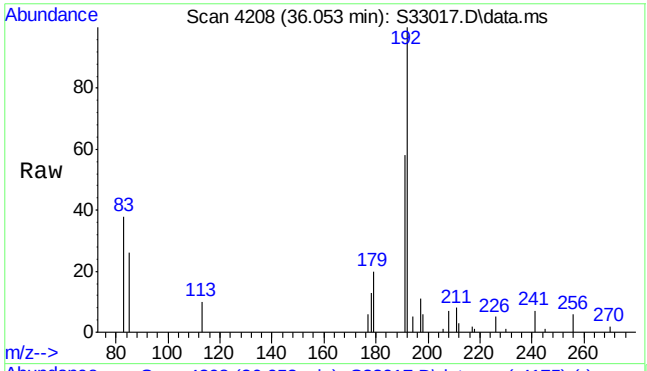
#27
Anthracene
Concen: 34.56 ng/mL
RT: 34.162 min Scan# 3913
Delta R.T. 0.000 min
Lab File: S33017.D
Acq: 23 Jul 2013 3:37 pm

Tgt Ion:178 Resp: 10424

Ion	Ratio	Lower	Upper
178	100		
179	0.0	33.0	49.4#



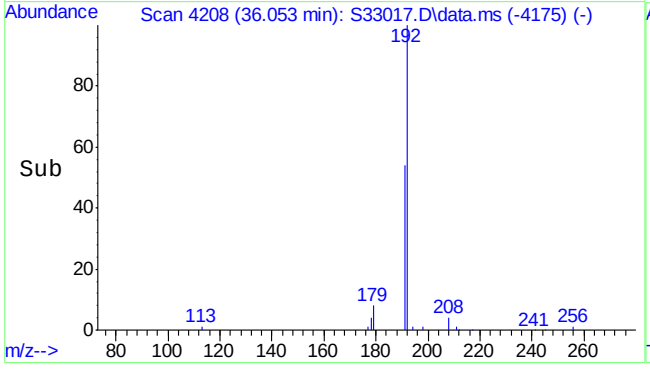


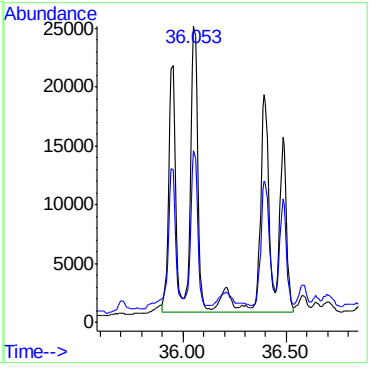


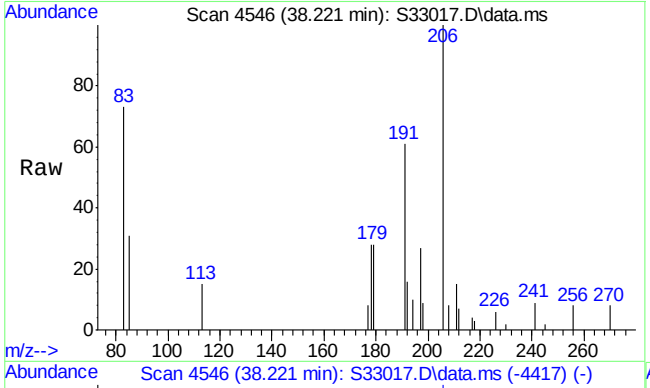
#28
C1-Phenanthrenes/anthracenes
Concen: 612.45 ng/mL m
RT: 36.053 min Scan# 4208
Delta R.T. -0.342 min
Lab File: S33017.D
Acq: 23 Jul 2013 3:37 pm

Tgt Ion:192 Resp: 198855

Ion	Ratio	Lower	Upper
192	100		
191	14.9	46.7	70.1#



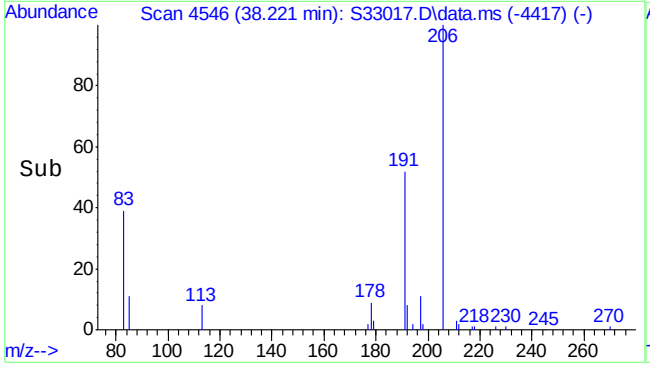


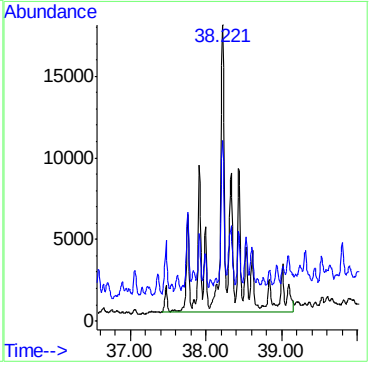


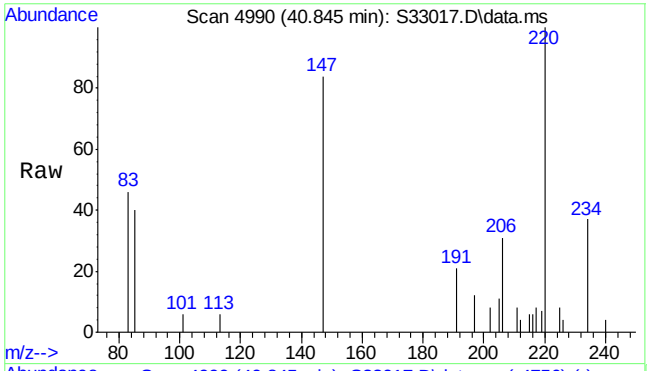
#29
C2-Phenanthrenes/anthracenes (unadj)
Concen: 627.09 ng/mL m
RT: 38.221 min Scan# 4546
Delta R.T. 0.031 min
Lab File: S33017.D
Acq: 23 Jul 2013 3:37 pm

Tgt Ion:206 Resp: 203607

Ion	Ratio	Lower	Upper
206	100		
191	12.0	45.5	68.3#



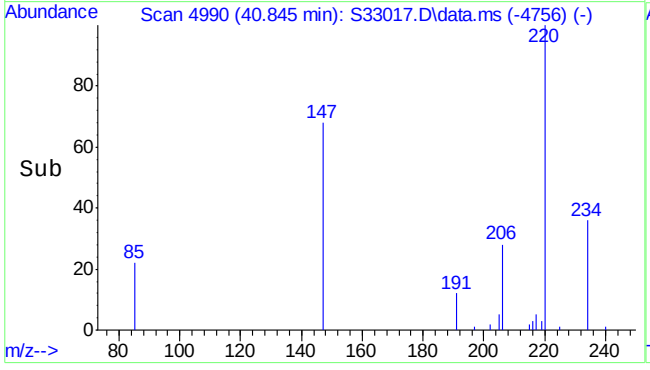


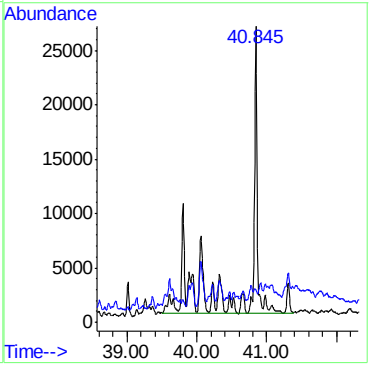


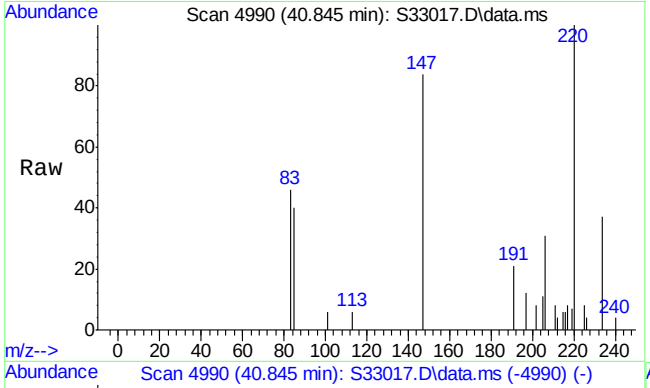
#31
C3-Phenanthrenes/anthracenes
Concen: 602.11 ng/mL m
RT: 40.845 min Scan# 4990
Delta R.T. 0.824 min
Lab File: S33017.D
Acq: 23 Jul 2013 3:37 pm

Tgt Ion:220 Resp: 195496

Ion	Ratio	Lower	Upper
220	100		
205	8.0	44.9	67.3#



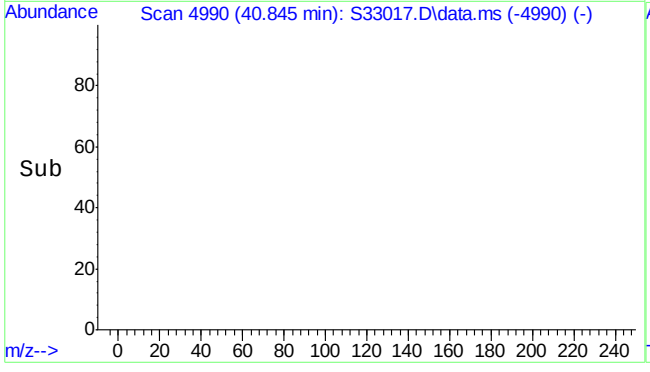


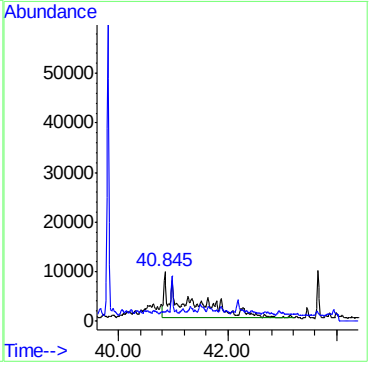


#32
C4-Phenanthrenes/anthracenes
Concen: 771.85 ng/mL m
RT: 40.845 min Scan# 4990
Delta R.T. -1.345 min
Lab File: S33017.D
Acq: 23 Jul 2013 3:37 pm

Tgt Ion:234 Resp: 250609

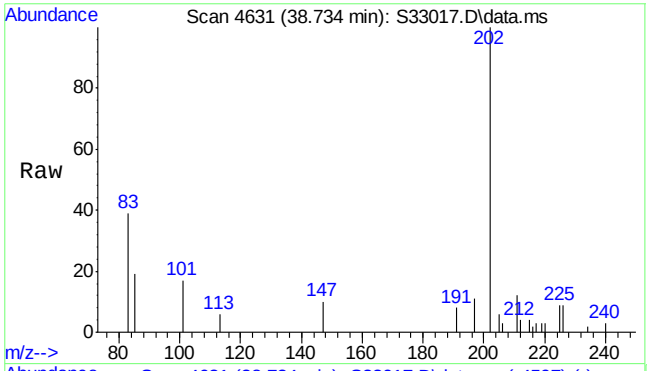
Ion	Ratio	Lower	Upper
234	100		
219	0.0	51.0	76.6#





7.1.8

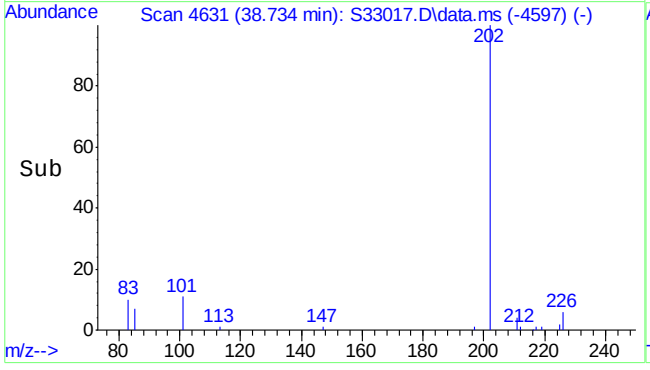
7

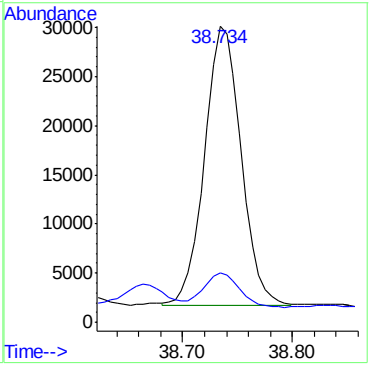


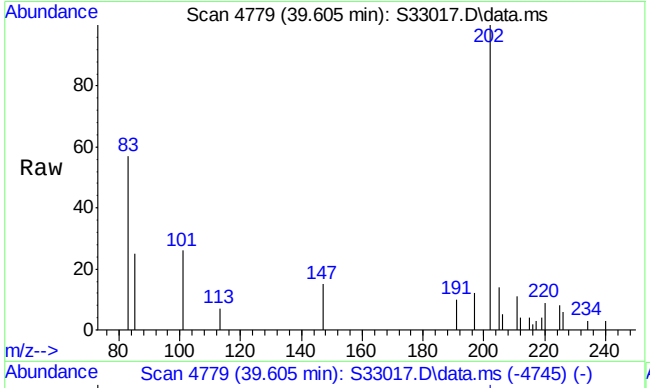
#33
Fluoranthene
Concen: 229.52 ng/mL m
RT: 38.734 min Scan# 4631
Delta R.T. 0.003 min
Lab File: S33017.D
Acq: 23 Jul 2013 3:37 pm

Tgt Ion:202 Resp: 66021

Ion	Ratio	Lower	Upper
202	100		
101	12.3	9.8	14.6



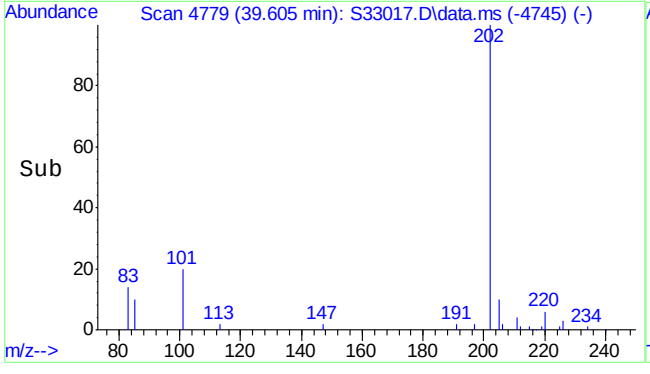


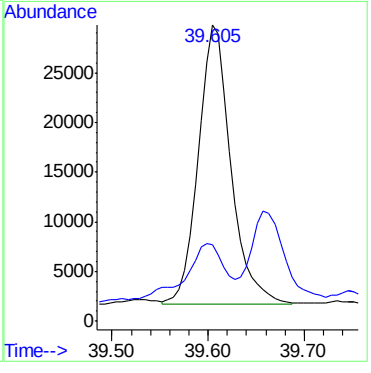


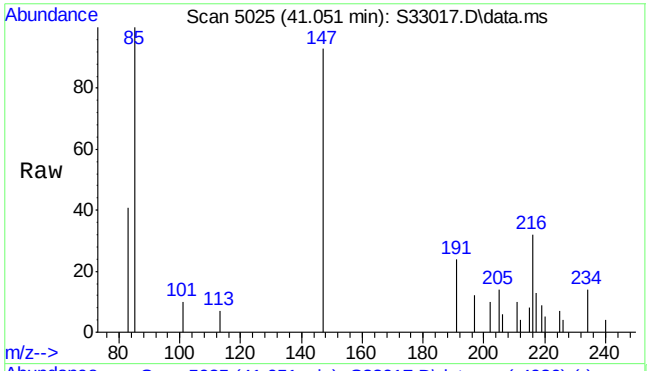
#34
Pyrene
Concen: 221.98 ng/mL m
RT: 39.605 min Scan# 4779
Delta R.T. 0.002 min
Lab File: S33017.D
Acq: 23 Jul 2013 3:37 pm

Tgt Ion:202 Resp: 66158

Ion	Ratio	Lower	Upper
202	100		
101	27.6	11.4	17.0#



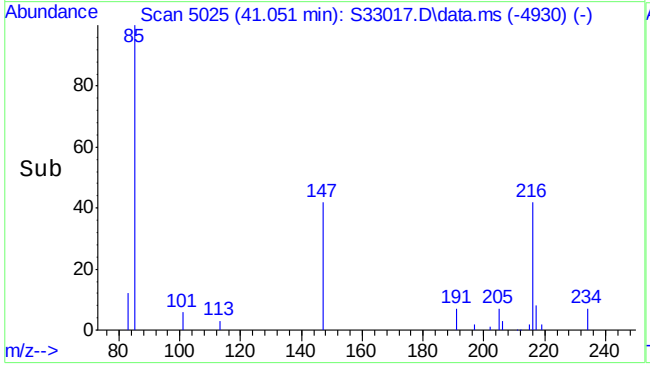


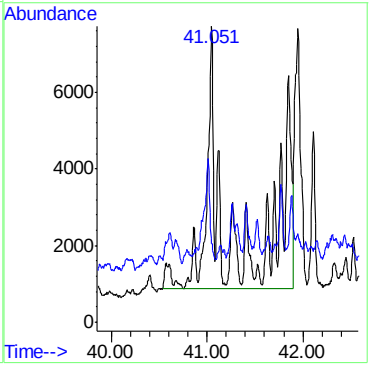


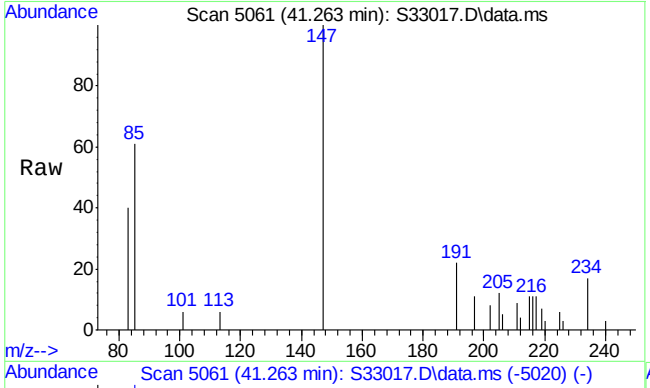
#35
C1-Fluoranthenes/pyrenes
Concen: 340.72 ng/mL m
RT: 41.051 min Scan# 5025
Delta R.T. -0.682 min
Lab File: S33017.D
Acq: 23 Jul 2013 3:37 pm

Tgt Ion:216 Resp: 101545

Ion	Ratio	Lower	Upper
216	100		
215	0.3	57.5	86.3#



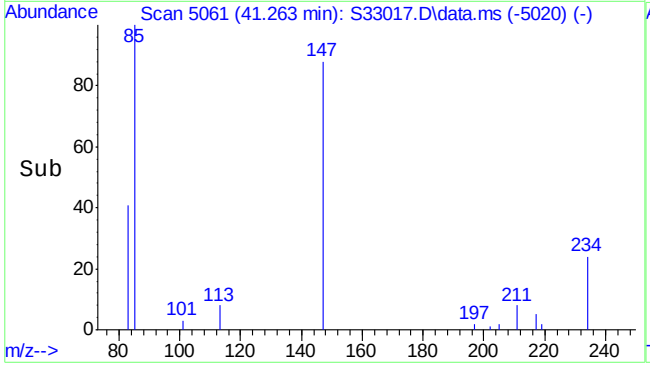


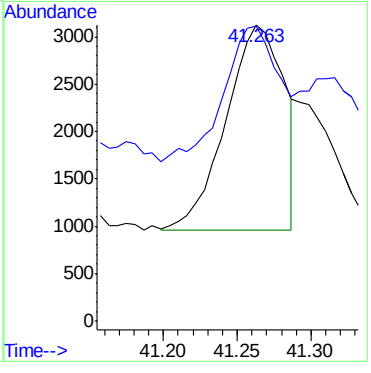


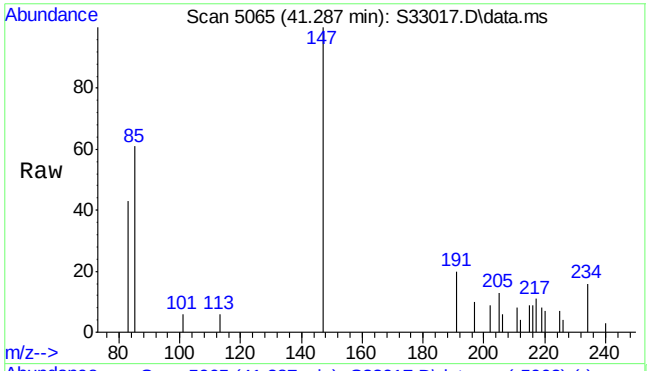
#36
Benzo(b)fluorene
Concen: 19.85 ng/mL m
RT: 41.263 min Scan# 5061
Delta R.T. 0.040 min
Lab File: S33017.D
Acq: 23 Jul 2013 3:37 pm

Tgt Ion:216 Resp: 5915

Ion	Ratio	Lower	Upper
216	100		
215	63.3	115.9	173.9#



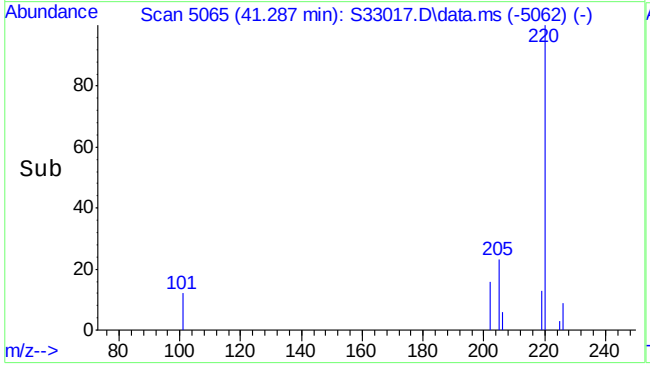


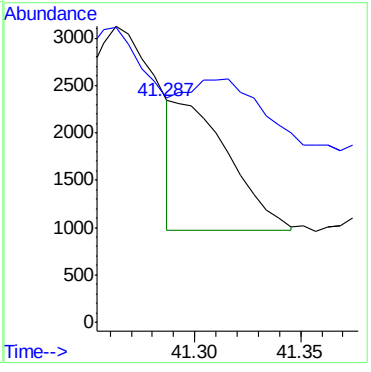


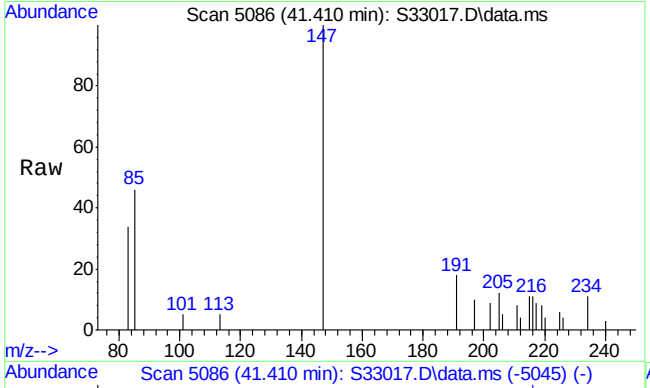
#37
Benzo(c)fluorene
Concen: 8.24 µg/mL m
RT: 41.287 min Scan# 5065
Delta R.T. 0.016 min
Lab File: S33017.D
Acq: 23 Jul 2013 3:37 pm

Tgt Ion:216 Resp: 2457

Ion	Ratio	Lower	Upper
216	100		
215	124.9	125.0	187.6#



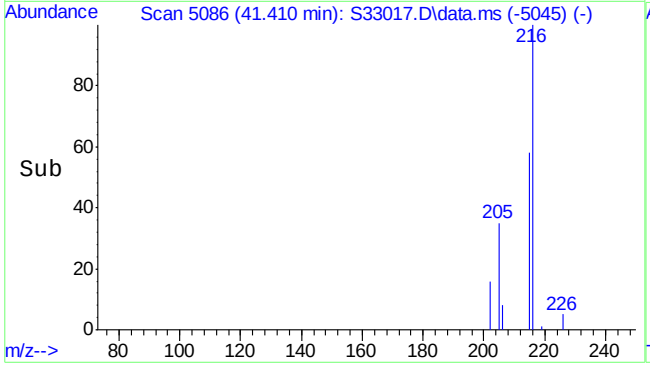


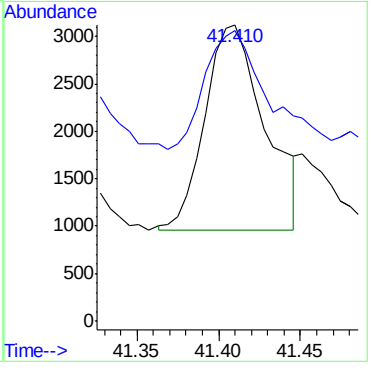


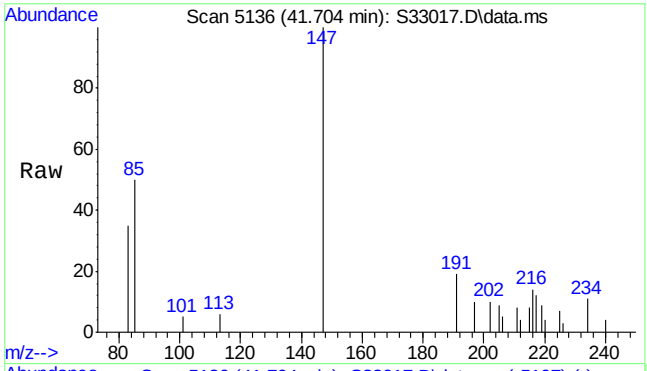
#38
2-Methylpyrene
Concen: 18.41 ng/mL m
RT: 41.410 min Scan# 5086
Delta R.T. 0.040 min
Lab File: S33017.D
Acq: 23 Jul 2013 3:37 pm

Tgt Ion:216 Resp: 5486

Ion	Ratio	Lower	Upper
216	100		
215	61.3	78.2	117.4#



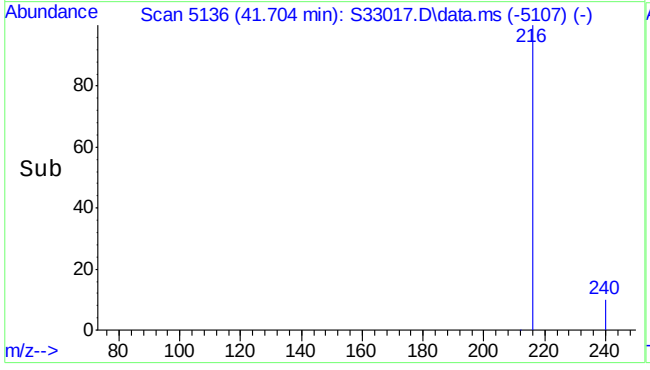


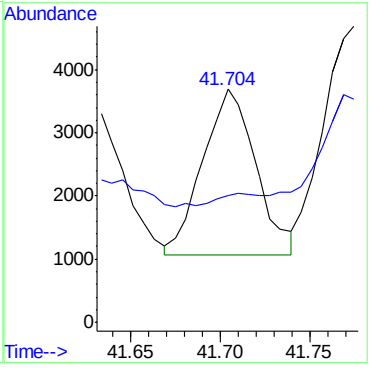


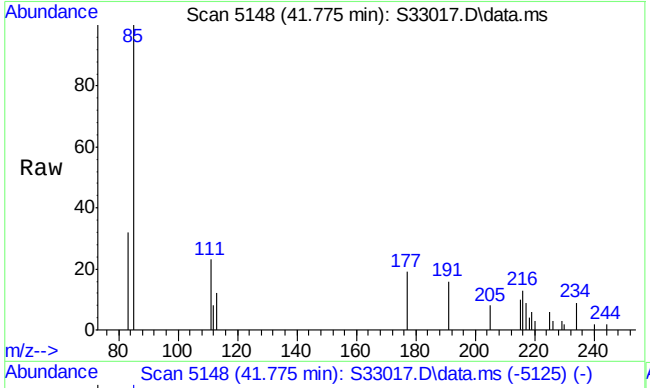
#39
4-Methylpyrene
Concen: 18.08 ng/mL m
RT: 41.704 min Scan# 5136
Delta R.T. -0.029 min
Lab File: S33017.D
Acq: 23 Jul 2013 3:37 pm

Tgt Ion:216 Resp: 5389

Ion	Ratio	Lower	Upper
216	100		
215	6.9	57.5	86.3#



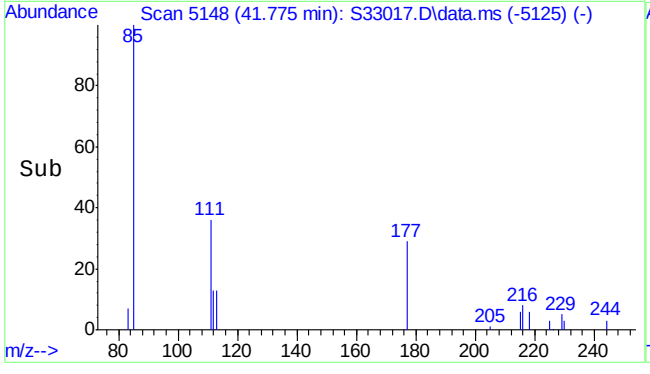


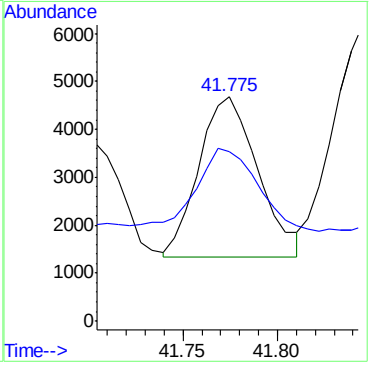


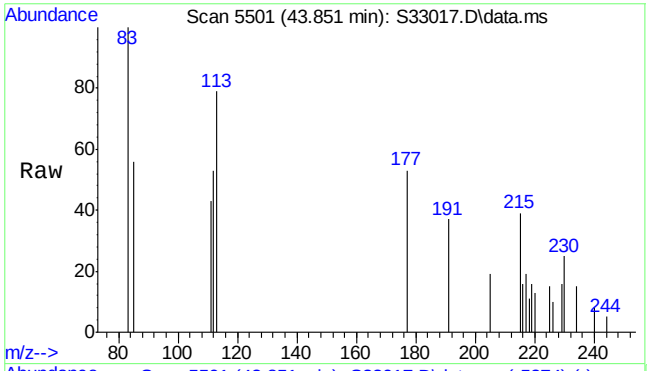
#40
1-Methylpyrene
Concen: 24.49 ng/mL m
RT: 41.775 min Scan# 5148
Delta R.T. -0.064 min
Lab File: S33017.D
Acq: 23 Jul 2013 3:37 pm

Tgt Ion:216 Resp: 7298

Ion	Ratio	Lower	Upper
216	100		
215	0.0	80.2	120.2#



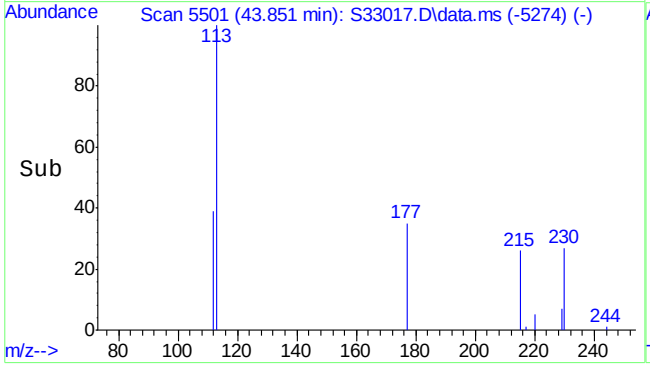


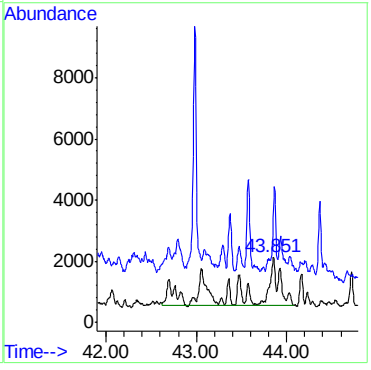


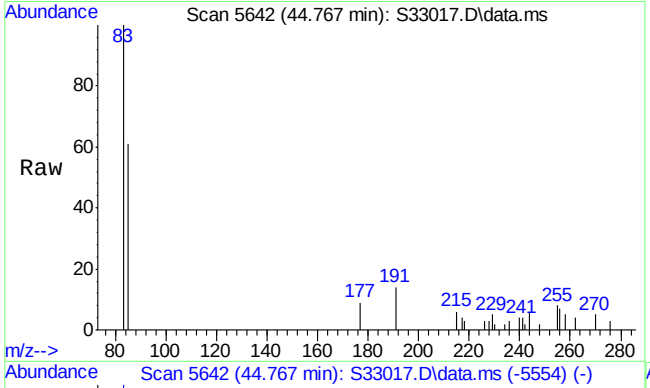
#41
C2-Fluoranthenes/pyrenes
Concen: 106.71 ng/mL m
RT: 43.851 min Scan# 5501
Delta R.T. 1.068 min
Lab File: S33017.D
Acq: 23 Jul 2013 3:37 pm

Tgt Ion:230 Resp: 31804

Ion	Ratio	Lower	Upper
230	100		
215	0.0	108.6	163.0#



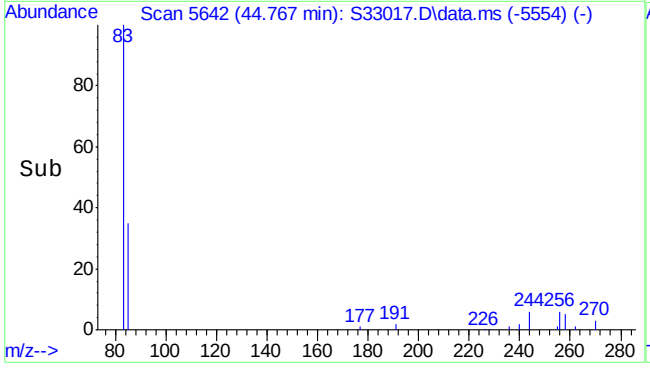


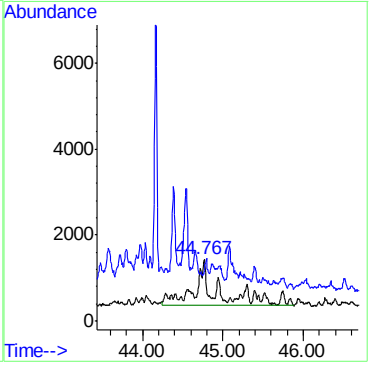


#42
C3-Fluoranthenes/pyrenes
Concen: 71.89 ng/mL m
RT: 44.767 min Scan# 5642
Delta R.T. -0.014 min
Lab File: S33017.D
Acq: 23 Jul 2013 3:37 pm

Tgt Ion:244 Resp: 21425

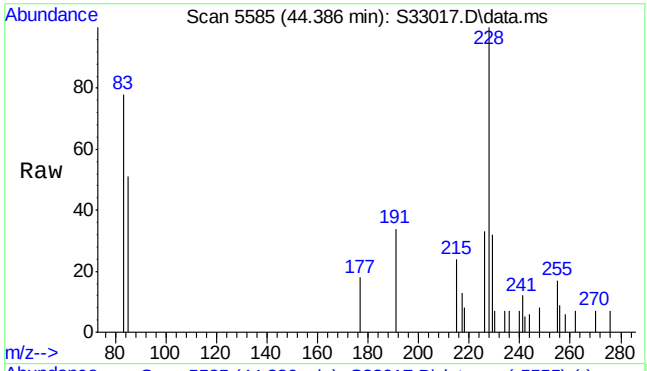
Ion	Ratio	Lower	Upper
244	100		
229	4.2	83.0	124.4#





7.1.8

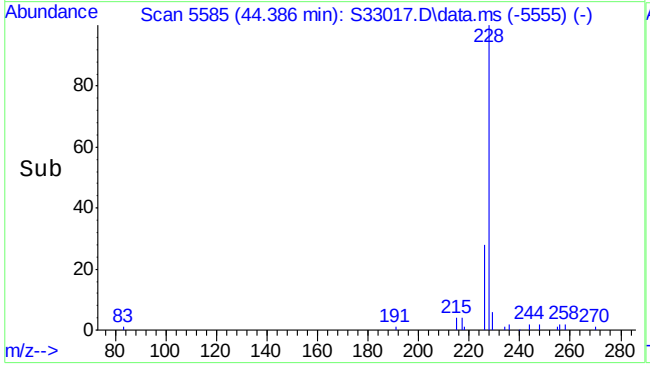
7

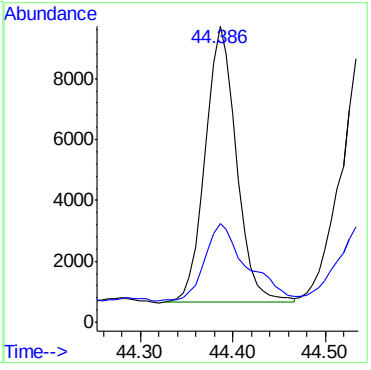


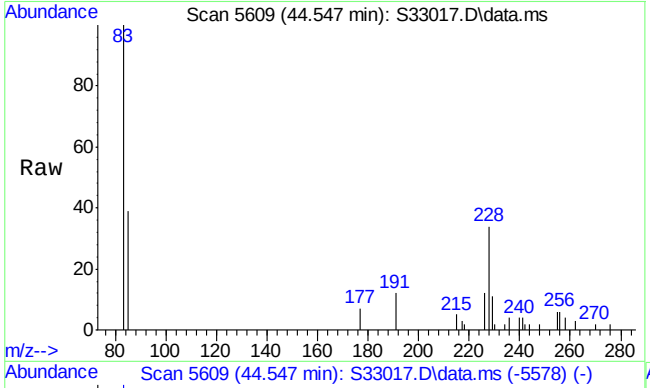
#43
Benz(a)anthracene
Concen: 74.15 ng/mL m
RT: 44.386 min Scan# 5585
Delta R.T. 0.003 min
Lab File: S33017.D
Acq: 23 Jul 2013 3:37 pm

Tgt Ion:228 Resp: 21344

Ion	Ratio	Lower	Upper
228	100		
226	32.9	21.4	32.2#



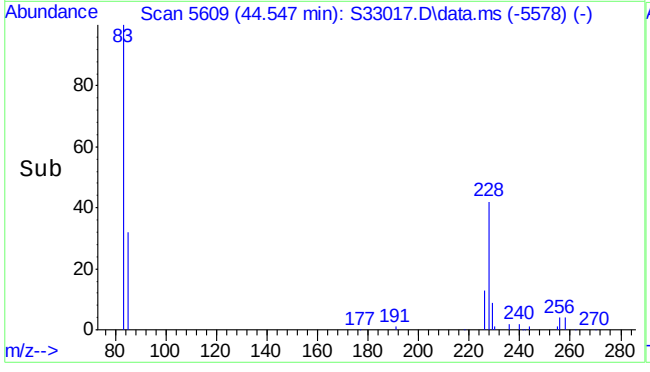


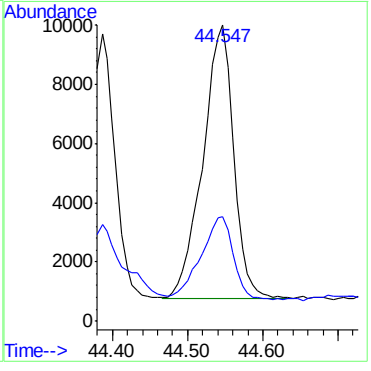


#44
Chrysene
Concen: 98.15 ng/mL
RT: 44.547 min Scan# 5609
Delta R.T. 0.009 min
Lab File: S33017.D
Acq: 23 Jul 2013 3:37 pm

Tgt Ion:228 Resp: 26354

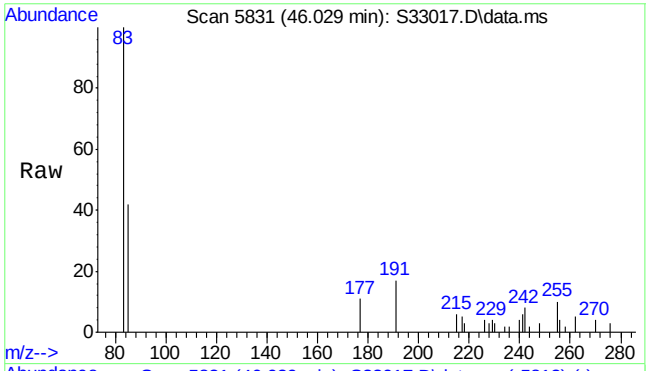
Ion	Ratio	Lower	Upper
228	100		
226	32.1	23.8	35.6





7.1.8

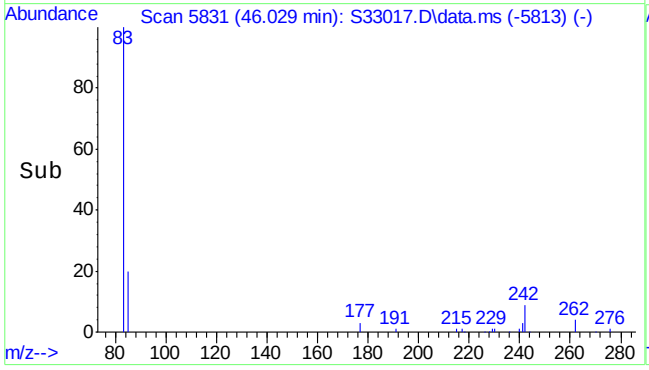
7

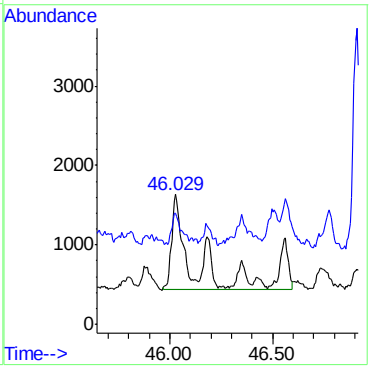


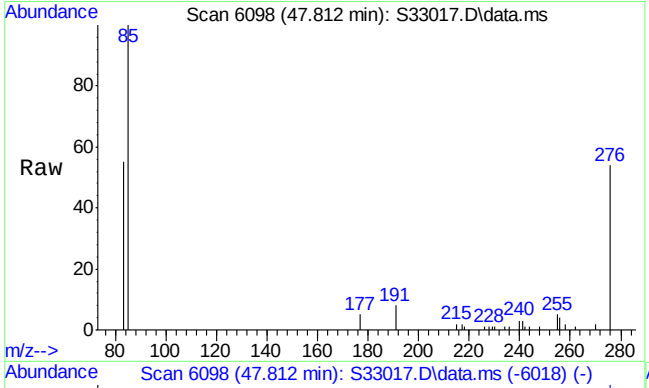
#45
C1-Benz(a)anthracenes/chrysenes
Concen: 36.50 ng/mL m
RT: 46.029 min Scan# 5831
Delta R.T. 0.056 min
Lab File: S33017.D
Acq: 23 Jul 2013 3:37 pm

Tgt Ion:242 Resp: 9800

Ion	Ratio	Lower	Upper
242	100		
241	8.1	35.3	52.9#



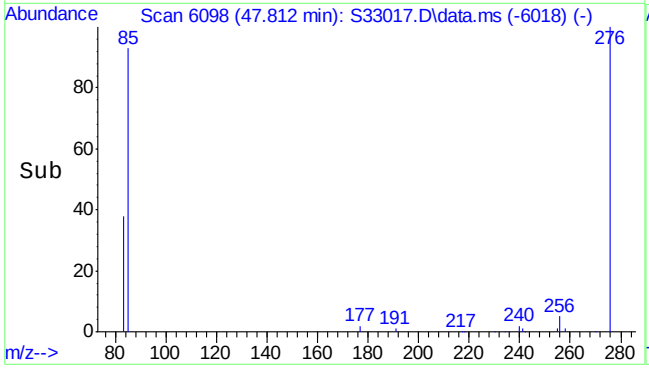


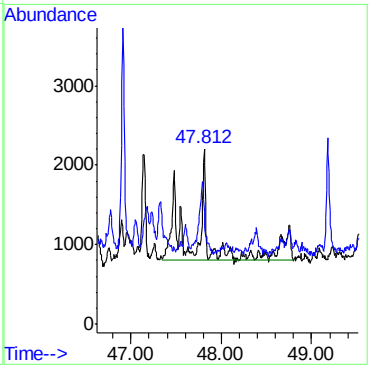


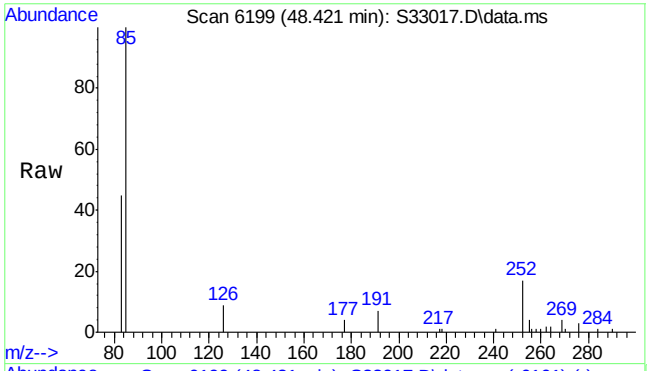
#46
C2-Benz(a)anthracenes/chrysenes
Concen: 54.40 ng/mL m
RT: 47.812 min Scan# 6098
Delta R.T. -0.232 min
Lab File: S33017.D
Acq: 23 Jul 2013 3:37 pm

Tgt Ion:256 Resp: 14607

Ion	Ratio	Lower	Upper
256	100		
241	0.0	27.6	41.4#



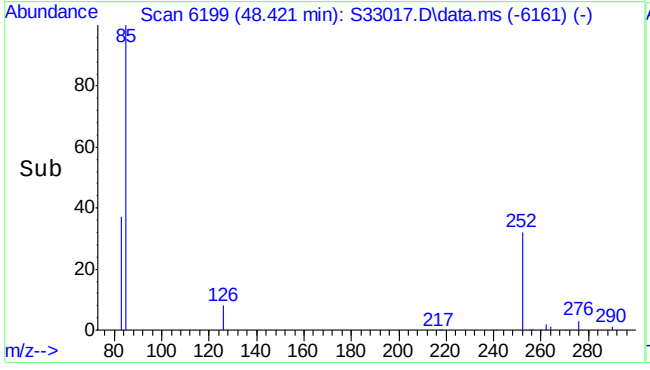


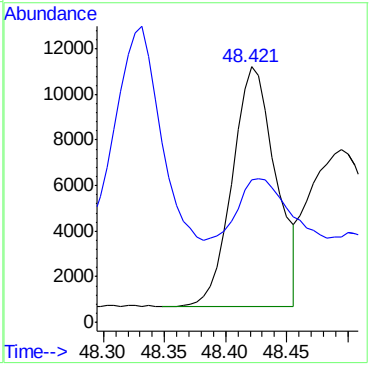


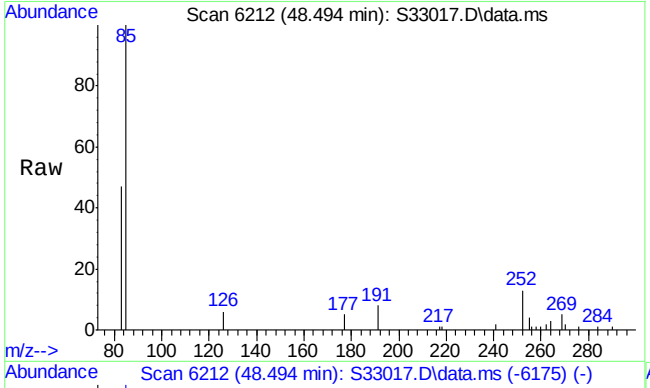
#49
Benzo(b)fluoranthene
Concen: 79.32 ng/mL
RT: 48.421 min Scan# 6199
Delta R.T. 0.011 min
Lab File: S33017.D
Acq: 23 Jul 2013 3:37 pm

Tgt Ion:252 Resp: 26140

Ion	Ratio	Lower	Upper
252	100		
126	30.5	10.6	15.8#



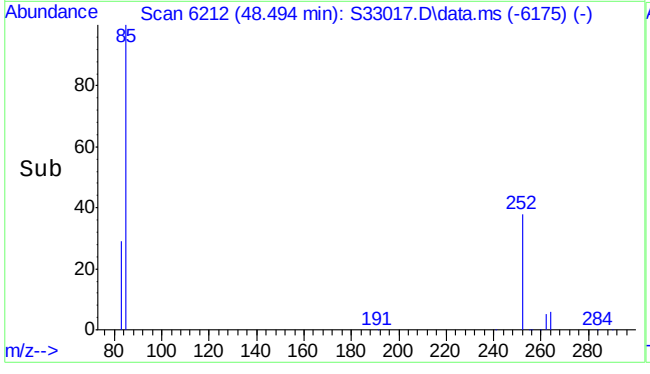


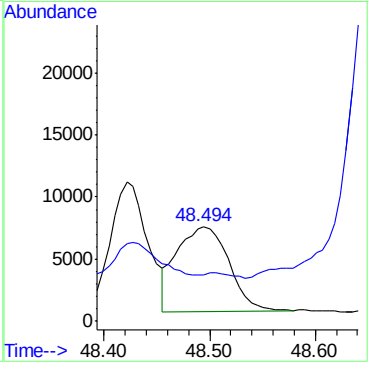


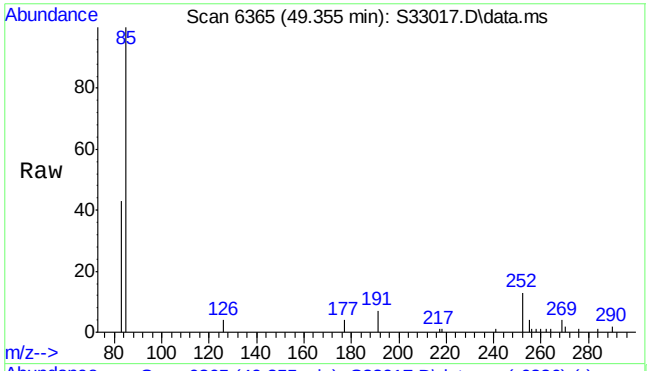
#50
Benzo(k)fluoranthene
Concen: 70.69 ng/mL
RT: 48.494 min Scan# 6212
Delta R.T. 0.005 min
Lab File: S33017.D
Acq: 23 Jul 2013 3:37 pm

Tgt Ion:252 Resp: 23217

Ion	Ratio	Lower	Upper
252	100		
126	2.4	11.9	17.9#



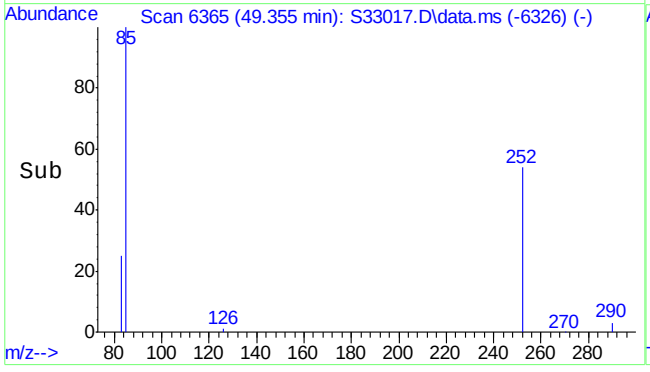


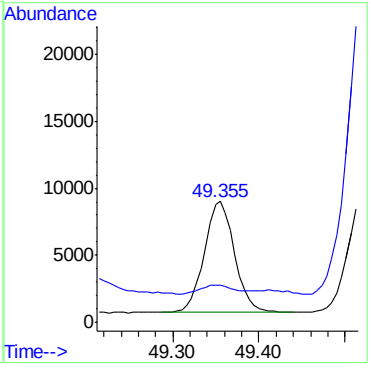


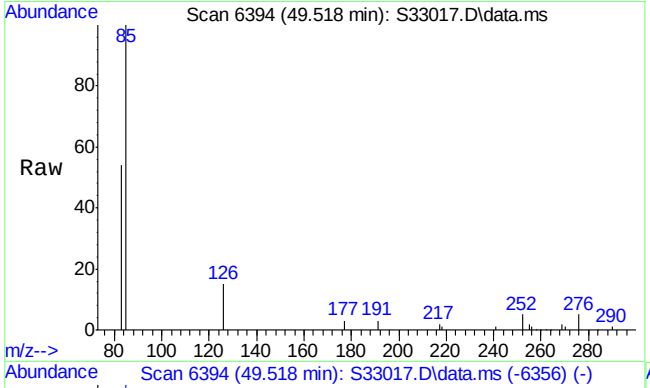
#51
Benzo(e)pyrene
Concen: 68.23 ng/mL
RT: 49.355 min Scan# 6365
Delta R.T. 0.022 min
Lab File: S33017.D
Acq: 23 Jul 2013 3:37 pm

Tgt Ion:252 Resp: 20227

Ion	Ratio	Lower	Upper
252	100		
126	9.6	9.9	14.9#



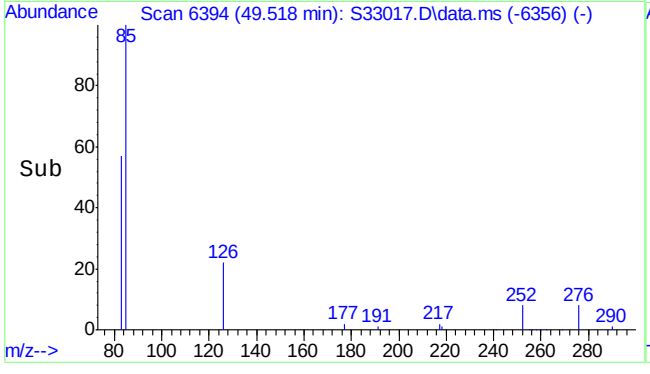


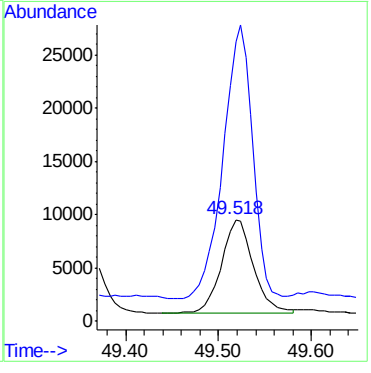


#52
Benzo(a)pyrene
Concen: 74.06 ng/mL
RT: 49.518 min Scan# 6394
Delta R.T. 0.016 min
Lab File: S33017.D
Acq: 23 Jul 2013 3:37 pm

Tgt Ion:252 Resp: 21267

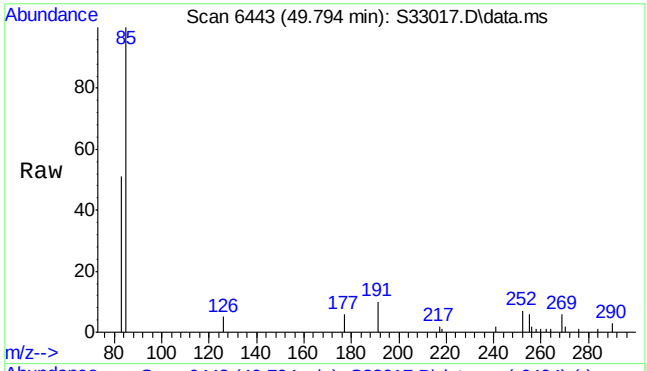
Ion	Ratio	Lower	Upper
252	100		
126	270.2	11.6	17.4#





7.1.8

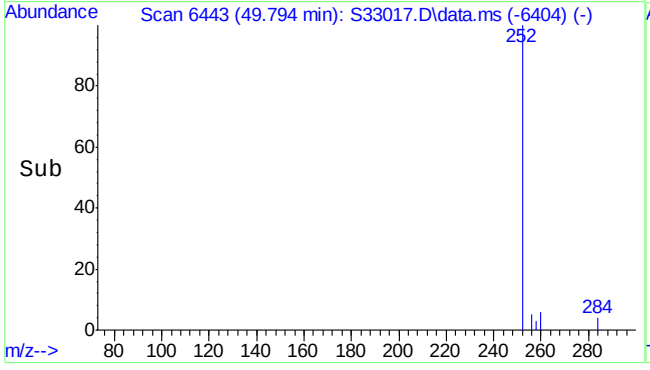
7

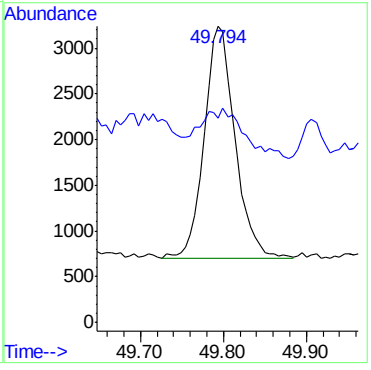


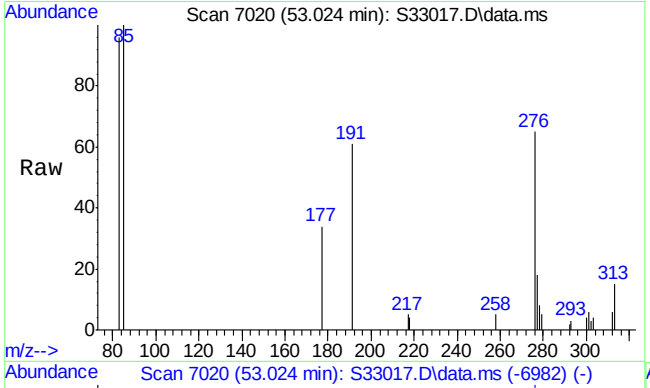
#53
Perylene
Concen: 23.40 ng/mL
RT: 49.794 min Scan# 6443
Delta R.T. 0.022 min
Lab File: S33017.D
Acq: 23 Jul 2013 3:37 pm

Tgt Ion:252 Resp: 6528

Ion	Ratio	Lower	Upper
252	100		
126	6.1	12.5	18.7#



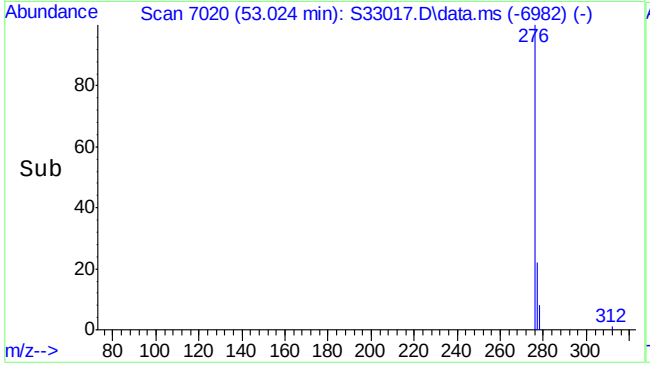


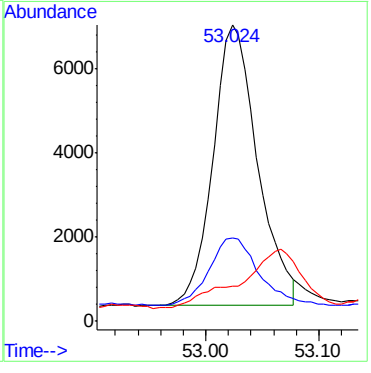


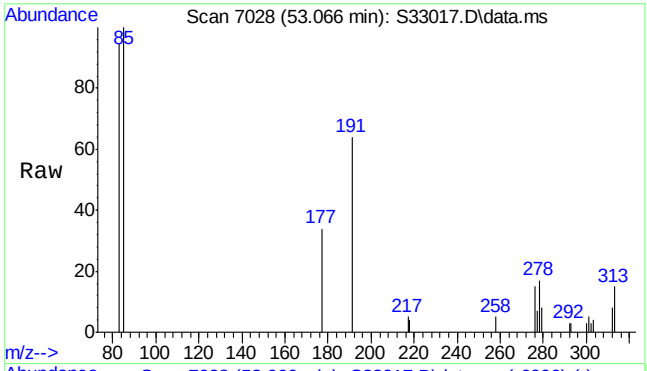
#54
Indeno(1,2,3-cd)pyrene
Concen: 55.63 ng/mL m
RT: 53.024 min Scan# 7020
Delta R.T. 0.004 min
Lab File: S33017.D
Acq: 23 Jul 2013 3:37 pm

Tgt Ion:276 Resp: 18297

Ion	Ratio	Lower	Upper
276	100		
277	27.1	19.0	28.4
278	0.0	5.7	8.5#



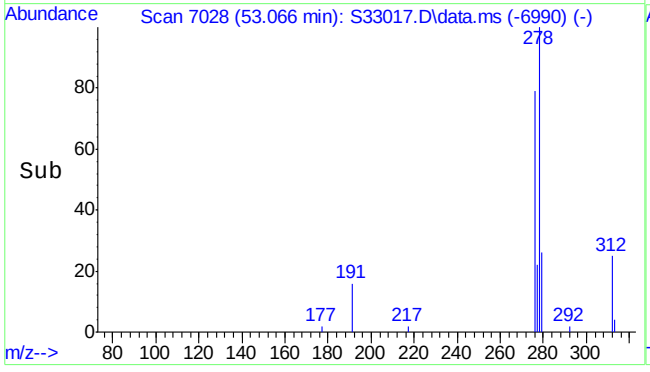


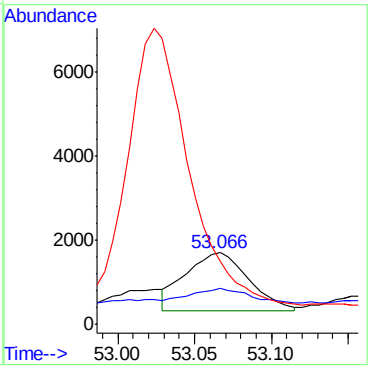


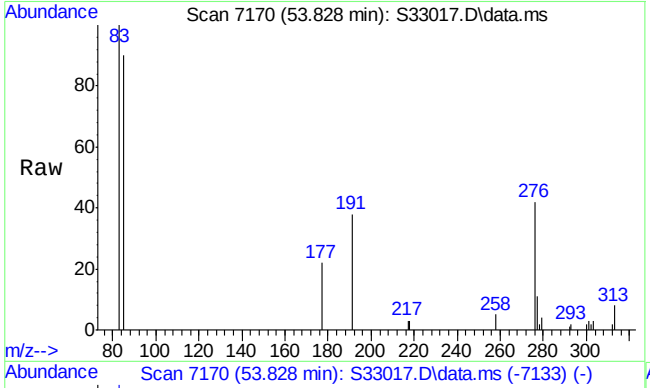
#55
Dibenz(a,h)anthracene
Concen: 13.44 ng/mL m
RT: 53.066 min Scan# 7028
Delta R.T. 0.004 min
Lab File: S33017.D
Acq: 23 Jul 2013 3:37 pm

Tgt Ion:278 Resp: 4008

Ion	Ratio	Lower	Upper
278	100		
279	27.2	19.2	28.8
276	0.0	29.6	44.4#



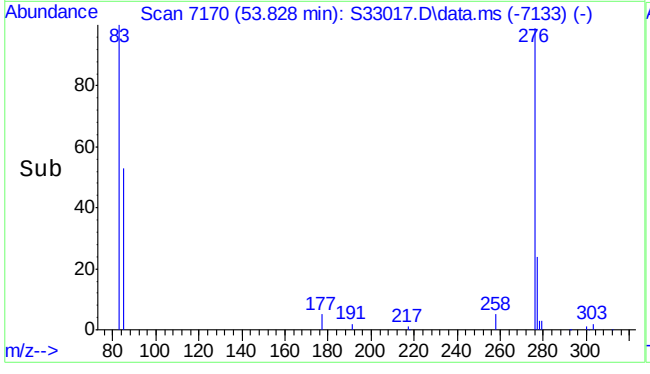


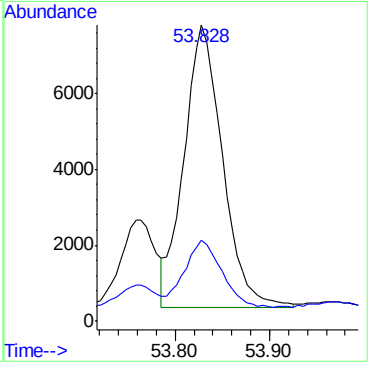


#56
Benzo(g,h,i)perylene
Concen: 59.47 ng/mL m
RT: 53.828 min Scan# 7170
Delta R.T. 0.000 min
Lab File: S33017.D
Acq: 23 Jul 2013 3:37 pm

Tgt Ion:276 Resp: 20952

Ion	Ratio	Lower	Upper
276	100		
277	23.7	21.8	32.6





Manual Integrations APPROVED (compounds with "m" flag)
James Roush
07/29/13 14:06

Quantitation Report (QT Reviewed)

Data Path : S:\1\data\S130723\
Data File : S33026.D
Acq On : 24 Jul 2013 2:40 am
Operator : kristinr
Sample : mc21754-4a
Misc : op33686,mss1444,5.05,,,2,10
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Jul 24 14:11:08 2013
Quant Method : S:\1\methods\S130705-B5739ALKPAH.M
Quant Title : PAHs & Alkylated PAHs by GC/MS/SIM
QLast Update : Thu Jul 11 09:13:24 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Acenaphthene-d10	28.071	164	160325	1100.00	ng/mL	0.01
System Monitoring Compounds						
2) Toluene-d8	9.181	98	1171m	6.82	µg/mL	0.00
Spiked Amount 1000.000			Recovery = 0.68%			
3) Naphthalene-d8	21.135	136	5594	19.74	ng/mL	0.02
Spiked Amount 1000.000	Range 1 - 0		Recovery = 1.97%#			
4) Phenanthrene-d10	33.893	188	5080m	21.77	ng/mL	0.00
Spiked Amount 1000.000			Recovery = 2.18%			
5) Perylene-d12	49.704	264	4726	22.94	ng/mL	0.02
Spiked Amount 1000.000			Recovery = 2.29%			
Target Compounds						Qvalue
6) Naphthalene	21.218	128	5457529	15149.09	ng/mL	99
7) 2-Methylnaphthalene	23.915	142	562924	2633.42	ng/mL	99
8) 1-Methylnaphthalene	24.327	142	246350	1104.70	ng/mL	99
9) C1-Naphthalenes	23.915	142	810064m	2248.59	ng/mL	
10) C2-Naphthalenes	26.735	156	514550m	1428.30	ng/mL	
11) C3-Naphthalenes	29.063	170	426069m	1182.69	ng/mL	
12) C4-Naphthalenes	31.812	184	282407m	783.91	ng/mL	
13) Acenaphthylene	27.486	152	2285	6.86	ng/mL#	67
14) Acenaphthene	28.193	154	7683	37.80	ng/mL#	54
15) Dibenzofuran	28.833	168	8192	28.28	ng/mL	98
16) Fluorene	30.199	166	62234m	241.39	ng/mL	
17) C1-Fluorenes	32.555	180	71083m	275.72	ng/mL	
18) C2-Fluorenes	34.745	194	114513m	444.17	ng/mL	
19) C3-Fluorenes	37.361	208	134619m	522.16	ng/mL	
20) Dibenzothiophene	33.490	184	11123m	34.22	ng/mL	
21) C1-Dibenzothiophenes (...	35.264	198	67539m	210.79	ng/mL	
22) C1-Dibenzothiophenes (...	35.687	198	660m	2.06	µg/mL	
23) C2-Dibenzothiophenes	36.944	212	72875m	227.45	ng/mL	
24) C3-Dibenzothiophenes	38.752	226	45492m	141.98	ng/mL	
25) C4-Dibenzothiophenes	40.928	240	52490m	163.82	ng/mL	
26) Phenanthrene	33.983	178	62475m	168.10	ng/mL	
27) Anthracene	34.162	178	1822m	5.28	ng/mL	
28) C1-Phenanthrenes/anthr...	36.053	192	139420m	375.14	ng/mL	
29) C2-Phenanthrenes/anthr...	38.214	206	143691m	386.63	ng/mL	
31) C3-Phenanthrenes/anthr...	40.051	220	88613m	238.43	ng/mL	
32) C4-Phenanthrenes/anthr...	40.969	234	101576m	273.31	ng/mL	
33) Fluoranthene	38.728	202	4331	13.15	ng/mL#	49
34) Pyrene	39.604	202	11795	34.58	ng/mL#	55
35) C1-Fluoranthenes/pyrenes	41.769	216	30756m	90.16	ng/mL	
36) Benzo(b)fluorene	41.257	216	966m	2.83	ng/mL	
37) Benzo(c)fluorene	41.292	216	2185m	6.40	µg/mL	
38) 2-Methylpyrene	41.398	216	3804	11.15	ng/mL#	62
39) 4-Methylpyrene	41.769	216	4431m	12.99	ng/mL	
40) 1-Methylpyrene	41.874	216	3487m	10.22	ng/mL	
41) C2-Fluoranthenes/pyrenes	42.686	230	23095m	67.70	ng/mL	
42) C3-Fluoranthenes/pyrenes	44.760	244	17011m	49.87	ng/mL	

Quantitation Report (QT Reviewed)

Data Path : S:\1\data\S130723\
Data File : S33026.D
Acq On : 24 Jul 2013 2:40 am
Operator : kristinr
Sample : mc21754-4a
Misc : op33686,mss1444,5.05,,,2,10
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Jul 24 14:11:08 2013
Quant Method : S:\1\methods\S130705-B5739ALKPAH.M
Quant Title : PAHs & Alkylated PAHs by GC/MS/SIM
QLast Update : Thu Jul 11 09:13:24 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
43) Benz(a)anthracene	44.379	228	1296m	3.93	ng/mL	
44) Chrysene	44.533	228	2120m	6.90	ng/mL	
45) C1-Benz(a)anthracenes/...	46.016	242	2922m	9.51	ng/mL	
46) C2-Benz(a)anthracenes/...	47.799	256	8641m	28.12	ng/mL	
49) Benzo(b)fluoranthene	48.416	252	1252	3.32	ng/mL#	1
50) Benzo(k)fluoranthene	48.489	252	1015m	2.70	ng/mL	
51) Benzo(e)pyrene	49.344	252	939	2.77	ng/mL#	68
52) Benzo(a)pyrene	49.507	252	956	2.91	ng/mL#	1
53) Perylene	49.788	252	576	1.80	ng/mL#	63
54) Indeno(1,2,3-cd)pyrene	53.023	276	839m	2.23	ng/mL	
55) Dibenz(a,h)anthracene	53.066	278	213m	0.62	ng/mL	
56) Benzo(g,h,i)perylene	53.817	276	1056m	2.62	ng/mL	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

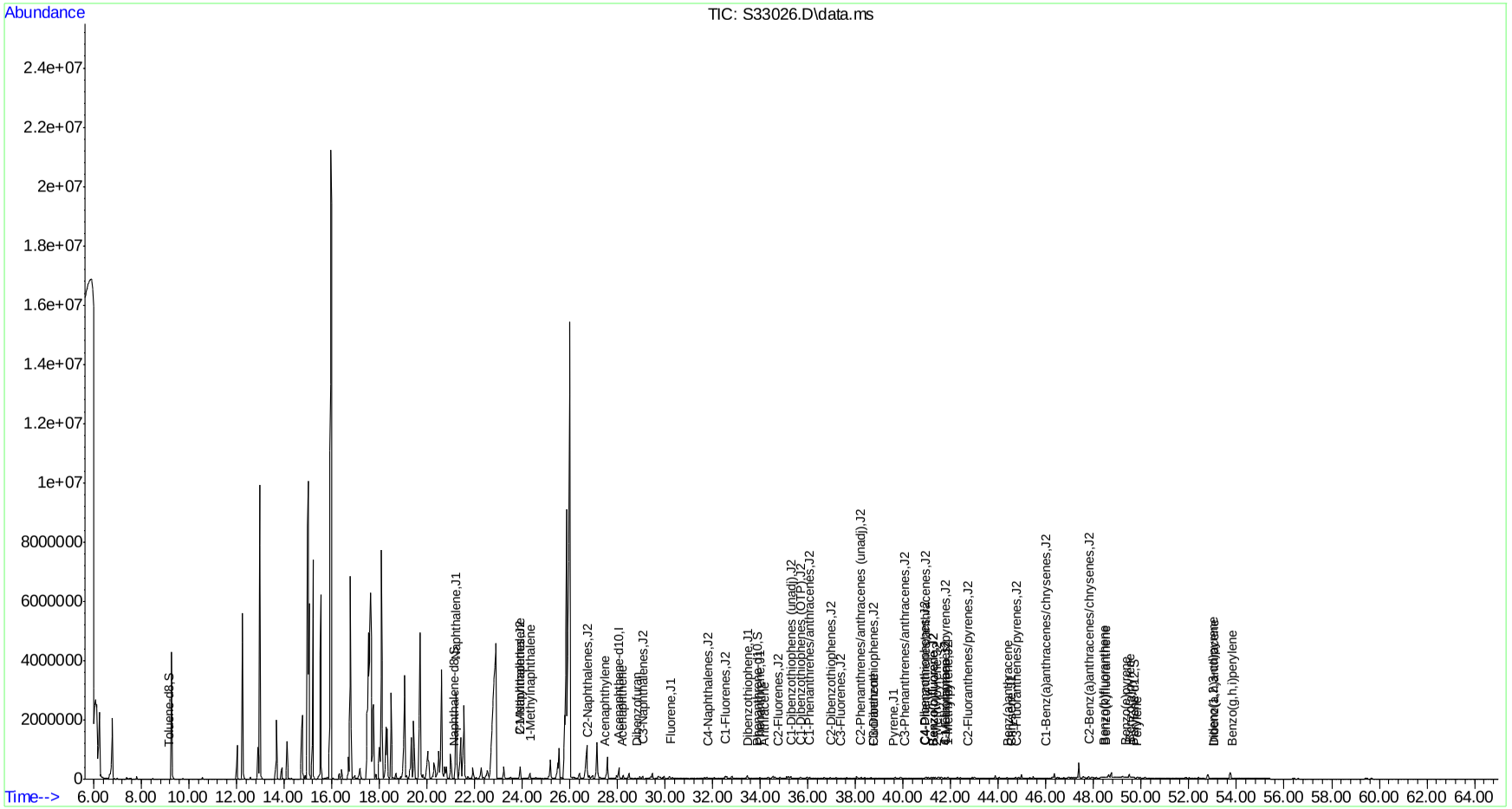
7.1.9

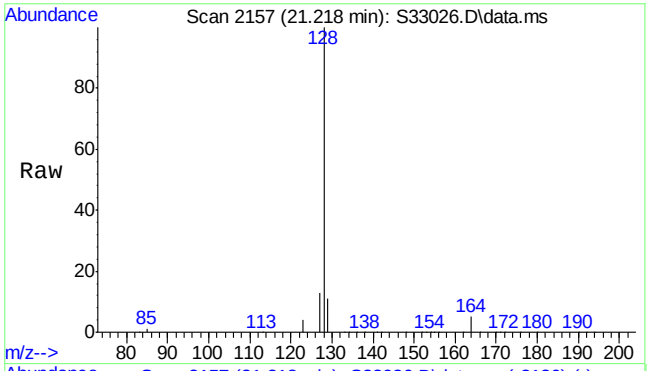
7

Quantitation Report (QT Reviewed)

Data Path : S:\1\data\S130723\
Data File : S33026.D
Acq On : 24 Jul 2013 2:40 am
Operator : kristinr
Sample : mc21754-4a
Misc : op33686,mss1444,5.05,,,2,10
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Jul 24 14:11:08 2013
Quant Method : S:\1\methods\S130705-B5739ALKPAH.M
Quant Title : PAHs & Alkylated PAHs by GC/MS/SIM
QLast Update : Thu Jul 11 09:13:24 2013
Response via : Initial Calibration

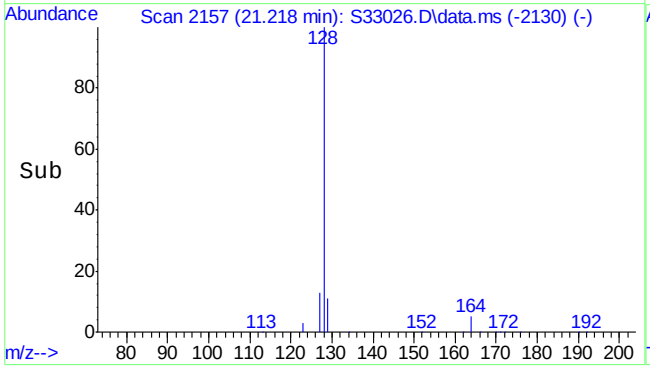


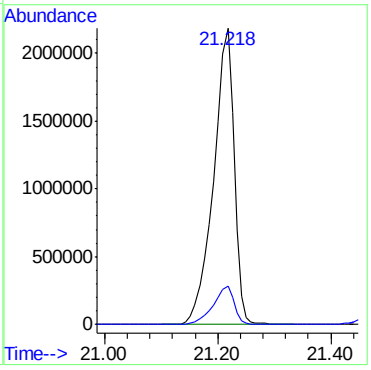


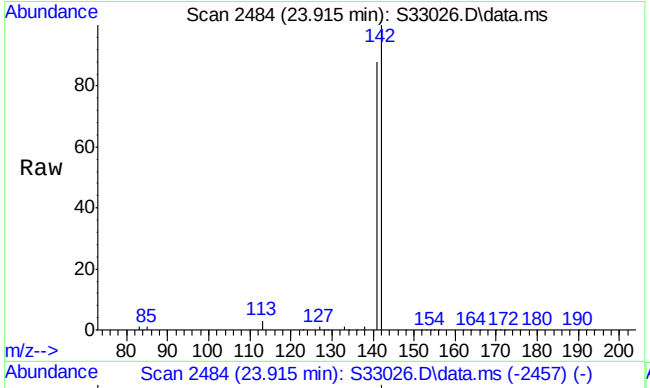
#6
Naphthalene
Concen: 15149.09 ng/mL
RT: 21.218 min Scan# 2157
Delta R.T. 0.025 min
Lab File: S33026.D
Acq: 24 Jul 2013 2:40 am

Tgt Ion:128 Resp: 5457529

Ion	Ratio	Lower	Upper
128	100		
127	13.0	10.0	15.0



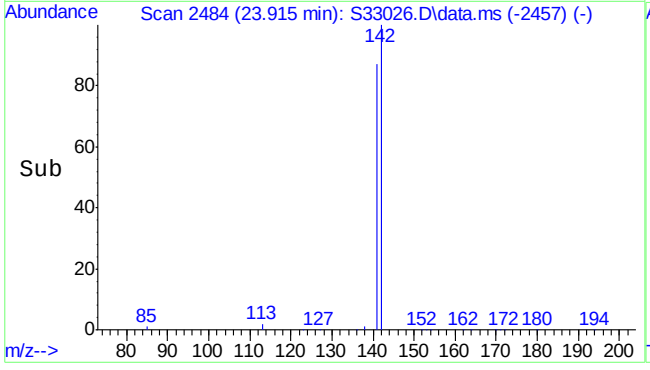


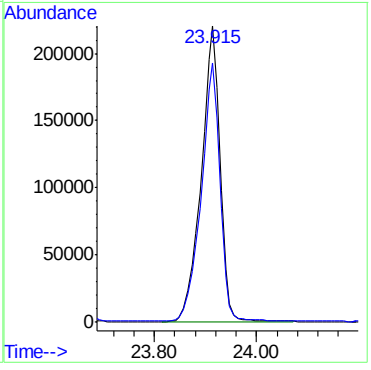


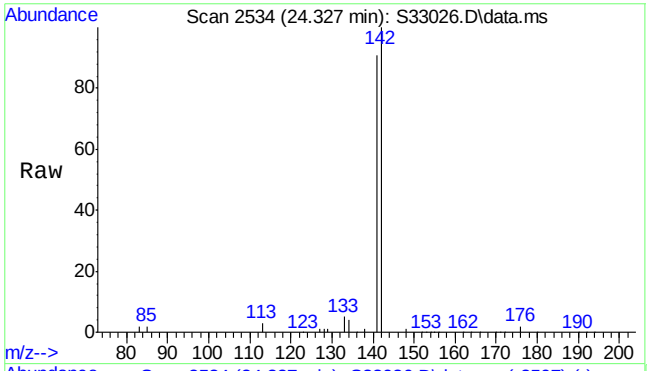
#7
2-Methylnaphthalene
Concen: 2633.42 ng/mL
RT: 23.915 min Scan# 2484
Delta R.T. 0.025 min
Lab File: S33026.D
Acq: 24 Jul 2013 2:40 am

Tgt Ion:142 Resp: 562924

Ion	Ratio	Lower	Upper
142	100		
141	87.8	69.7	104.5



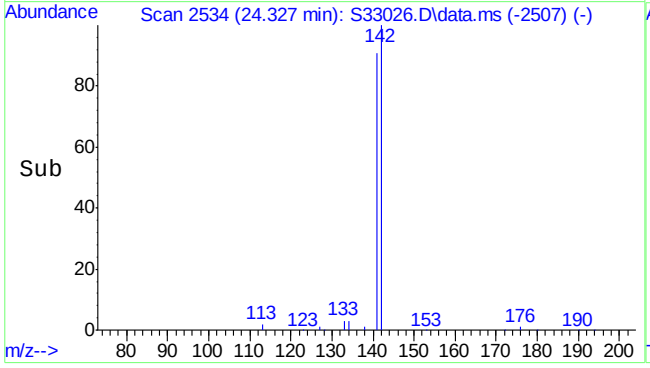


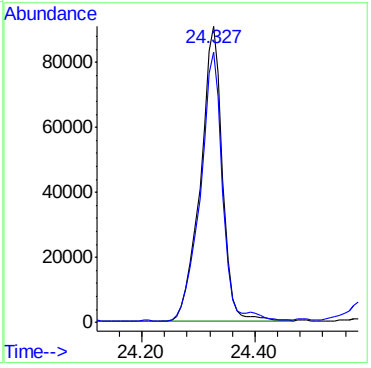


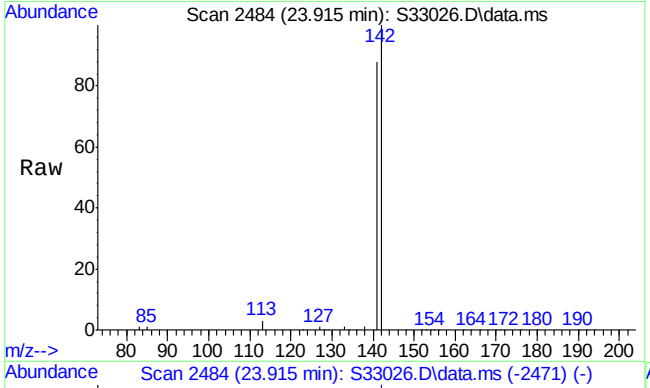
#8
1-Methylnaphthalene
Concen: 1104.70 ng/mL
RT: 24.327 min Scan# 2534
Delta R.T. 0.025 min
Lab File: S33026.D
Acq: 24 Jul 2013 2:40 am

Tgt Ion:142 Resp: 246350

Ion	Ratio	Lower	Upper
142	100		
141	92.1	72.6	108.8



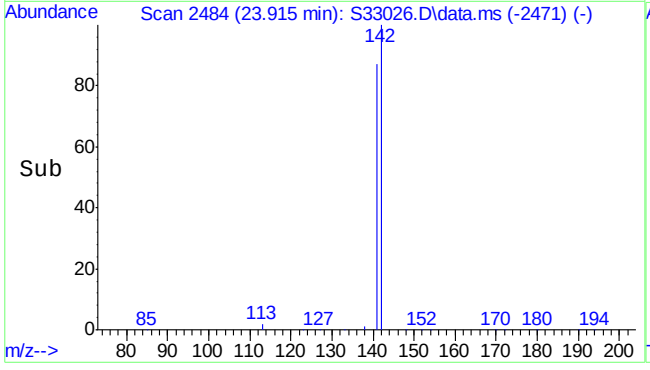


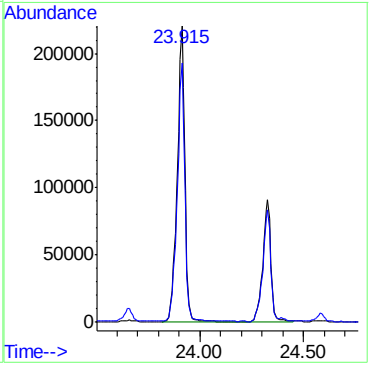


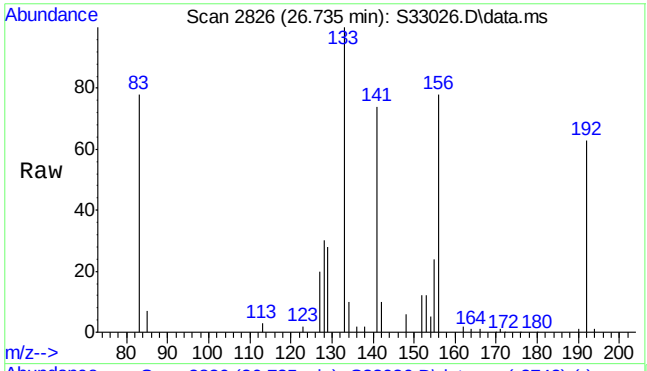
#9
C1-Naphthalenes
Concen: 2248.59 ng/mL m
RT: 23.915 min Scan# 2484
Delta R.T. 0.033 min
Lab File: S33026.D
Acq: 24 Jul 2013 2:40 am

Tgt Ion:142 Resp: 810064

Ion	Ratio	Lower	Upper
142	100		
141	60.9	69.9	104.9#



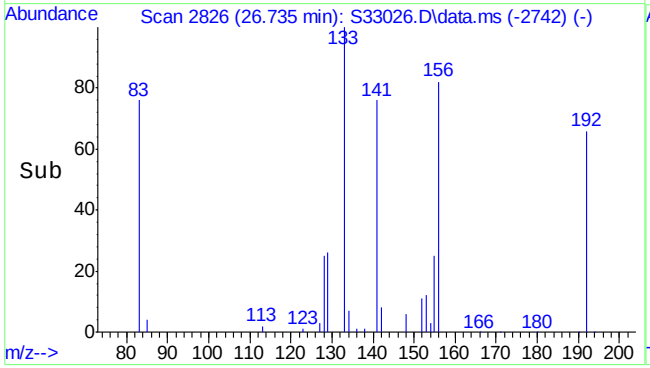


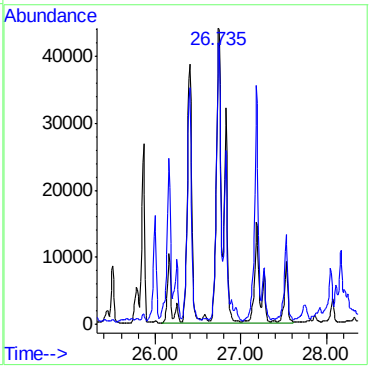


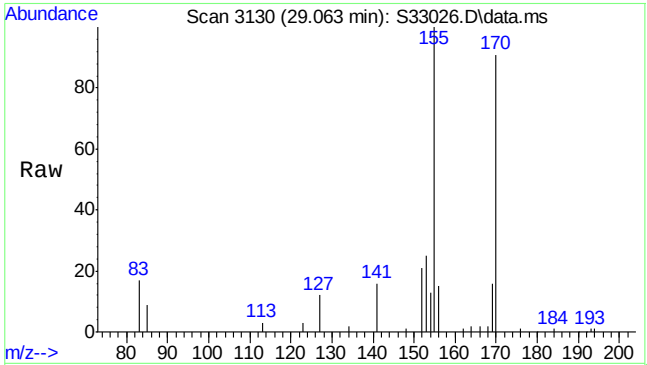
#10
C2-Naphthalenes
Concen: 1428.30 ng/mL m
RT: 26.735 min Scan# 2826
Delta R.T. -0.066 min
Lab File: S33026.D
Acq: 24 Jul 2013 2:40 am

Tgt Ion:156 Resp: 514550

Ion	Ratio	Lower	Upper
156	100		
141	10.3	64.9	97.3#



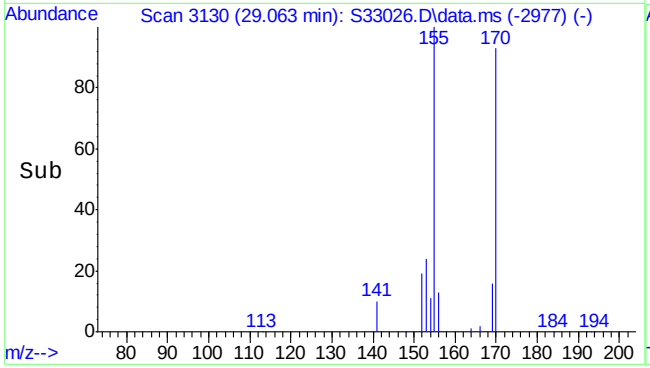


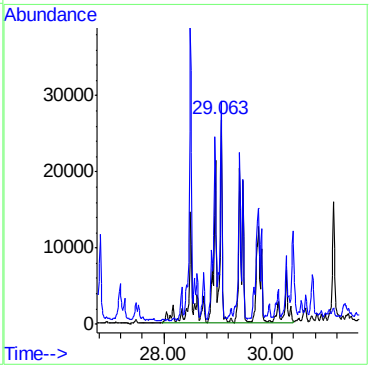


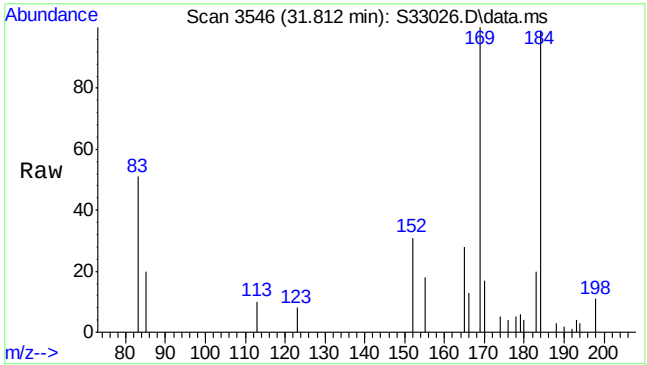
#11
C3-Naphthalenes
Concen: 1182.69 ng/mL m
RT: 29.063 min Scan# 3130
Delta R.T. 0.007 min
Lab File: S33026.D
Acq: 24 Jul 2013 2:40 am

Tgt Ion:170 Resp: 426069

Ion	Ratio	Lower	Upper
170	100		
155	17.6	85.4	128.2#



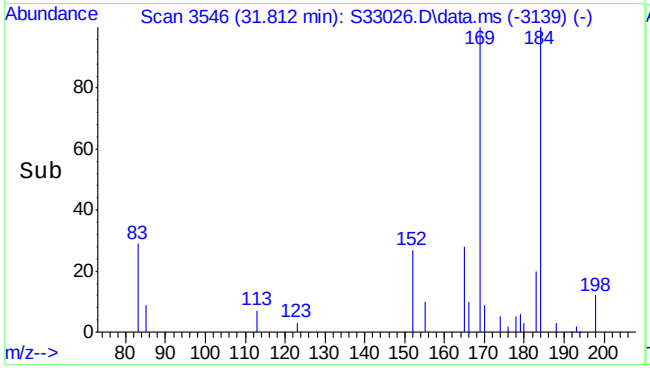


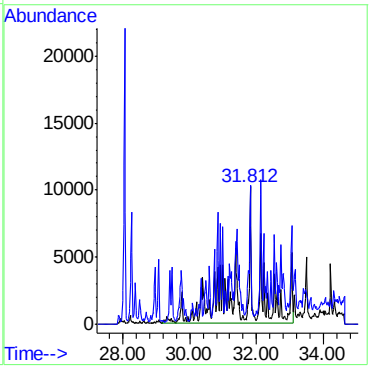


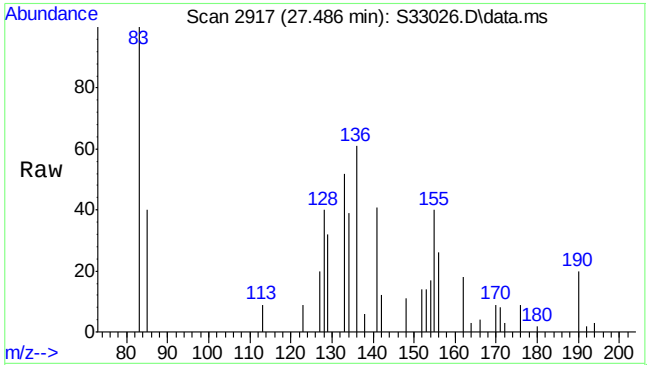
#12
C4-Naphthalenes
Concen: 783.91 ng/mL m
RT: 31.812 min Scan# 3546
Delta R.T. 0.000 min
Lab File: S33026.D
Acq: 24 Jul 2013 2:40 am

Tgt Ion:184 Resp: 282407

Ion	Ratio	Lower	Upper
184	100		
169	3.6	81.0	121.6#



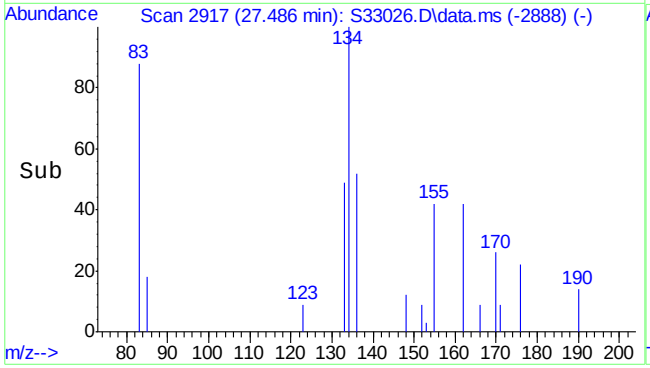


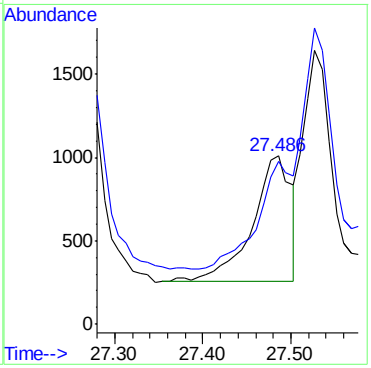


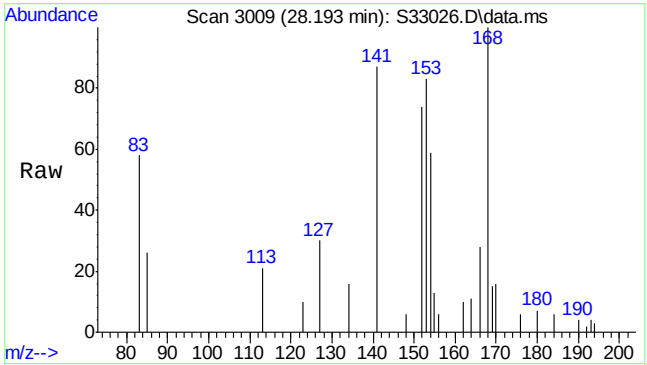
#13
Acenaphthylene
Concen: 6.86 ng/mL
RT: 27.486 min Scan# 2917
Delta R.T. 0.041 min
Lab File: S33026.D
Acq: 24 Jul 2013 2:40 am

Tgt Ion:152 Resp: 2285

Ion	Ratio	Lower	Upper
152	100		
153	0.0	10.5	15.7#



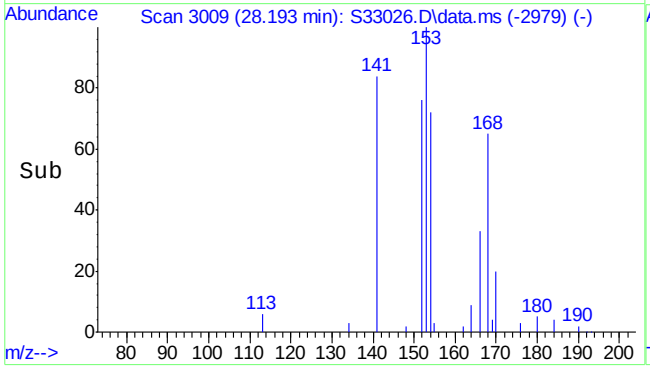


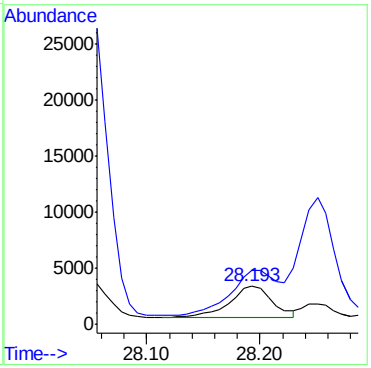


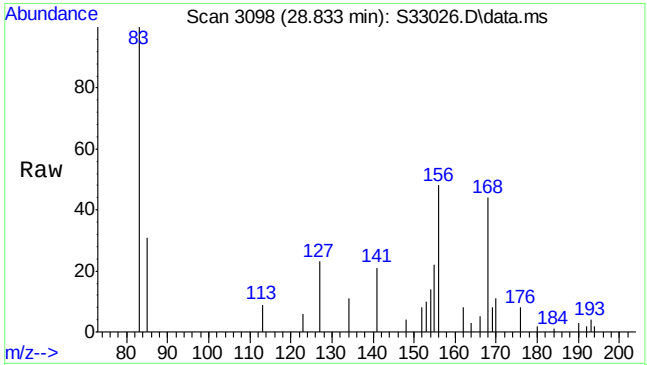
#14
Acenaphthene
Concen: 37.80 ng/mL
RT: 28.193 min Scan# 3009
Delta R.T. 0.014 min
Lab File: S33026.D
Acq: 24 Jul 2013 2:40 am

Tgt Ion:154 Resp: 7683

Ion	Ratio	Lower	Upper
154	100		
153	158.7	88.2	132.4#



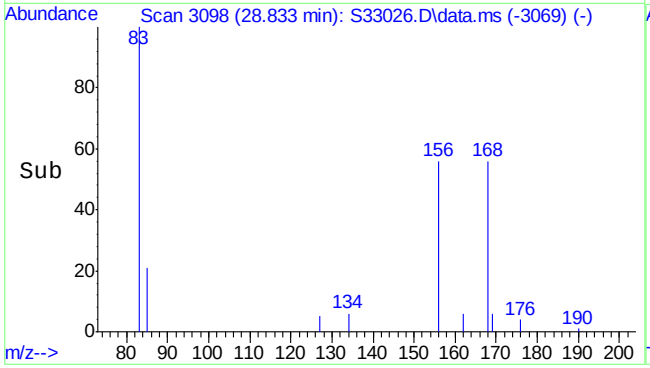


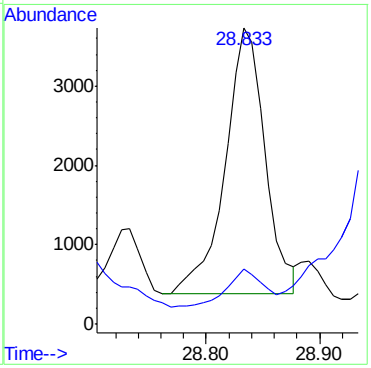


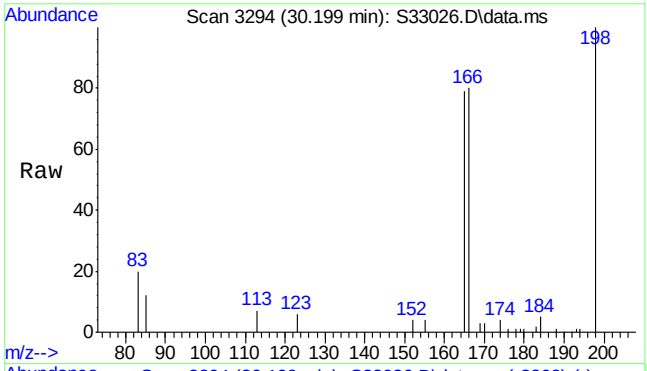
#15
Dibenzofuran
Concen: 28.28 ng/mL
RT: 28.833 min Scan# 3098
Delta R.T. 0.007 min
Lab File: S33026.D
Acq: 24 Jul 2013 2:40 am

Tgt Ion:168 Resp: 8192

Ion	Ratio	Lower	Upper
168	100		
169	12.7	10.7	16.1



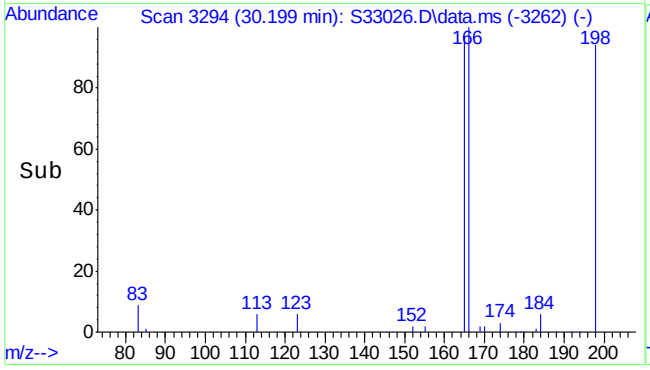


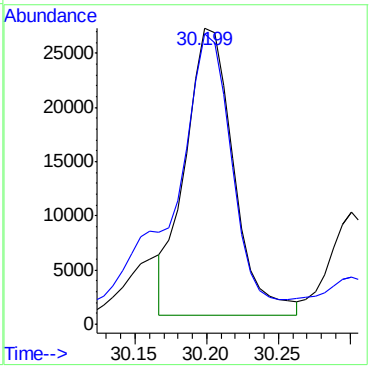


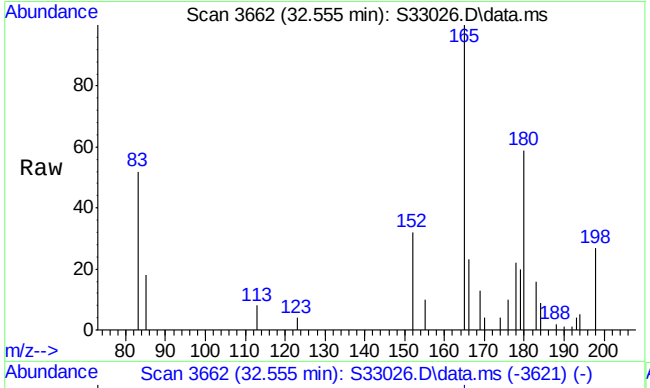
#16
Fluorene
Concen: 241.39 ng/mL m
RT: 30.199 min Scan# 3294
Delta R.T. 0.006 min
Lab File: S33026.D
Acq: 24 Jul 2013 2:40 am

Tgt Ion:166 Resp: 62234

Ion	Ratio	Lower	Upper
166	100		
165	106.0	76.3	114.5



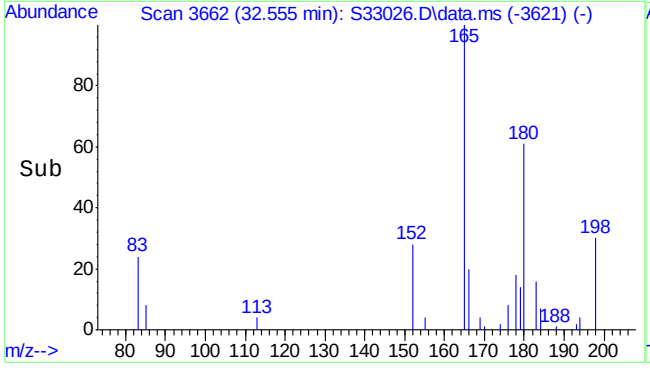


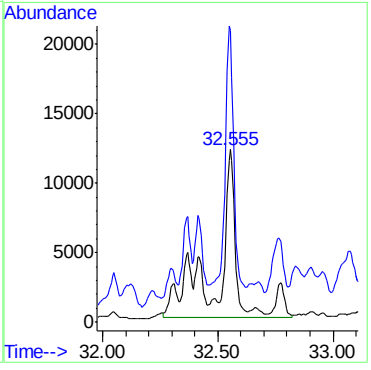


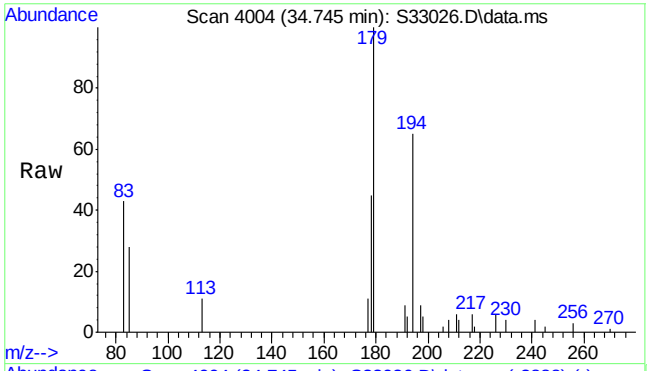
#17
C1-Fluorenes
Concen: 275.72 ng/mL m
RT: 32.555 min Scan# 3662
Delta R.T. 0.024 min
Lab File: S33026.D
Acq: 24 Jul 2013 2:40 am

Tgt Ion:180 Resp: 71083

Ion	Ratio	Lower	Upper
180	100		
165	64.4	134.2	201.4#



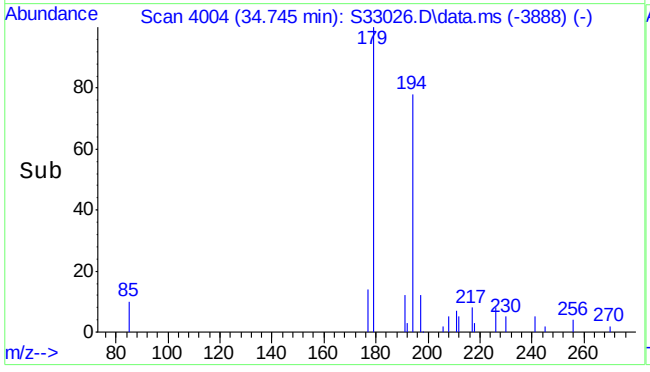


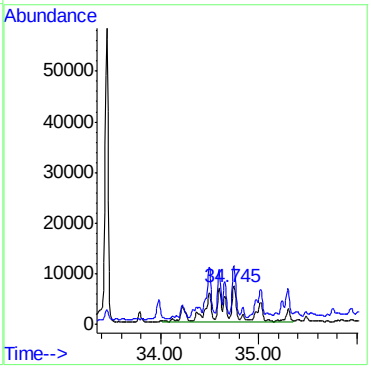


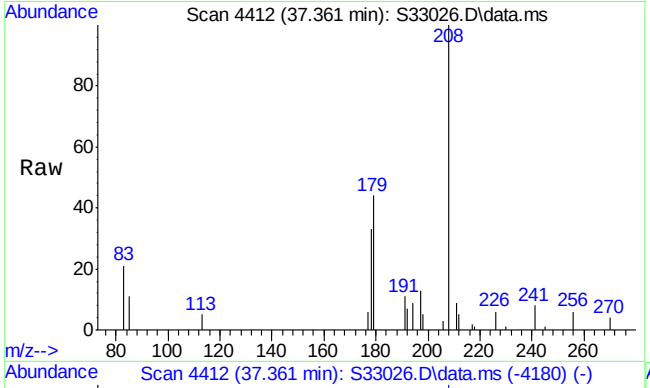
#18
C2-Fluorenes
Concen: 444.17 ng/mL m
RT: 34.745 min Scan# 4004
Delta R.T. 0.000 min
Lab File: S33026.D
Acq: 24 Jul 2013 2:40 am

Tgt Ion:194 Resp: 114513

Ion	Ratio	Lower	Upper
194	100		
179	21.3	126.2	189.4#



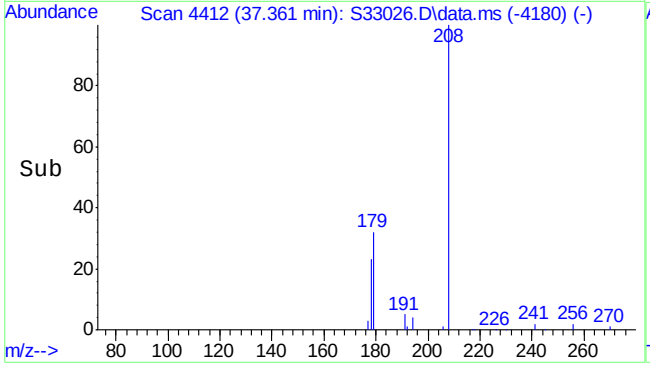


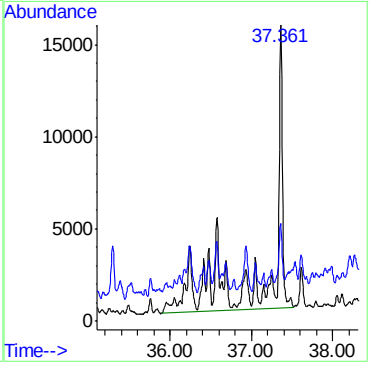


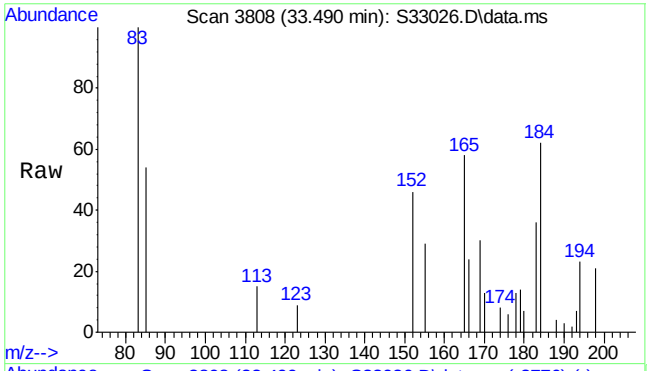
#19
C3-Fluorenes
Concen: 522.16 ng/mL m
RT: 37.361 min Scan# 4412
Delta R.T. 0.782 min
Lab File: S33026.D
Acq: 24 Jul 2013 2:40 am

Tgt Ion:208 Resp: 134619

Ion	Ratio	Lower	Upper
208	100		
178	2.8	54.9	82.3#



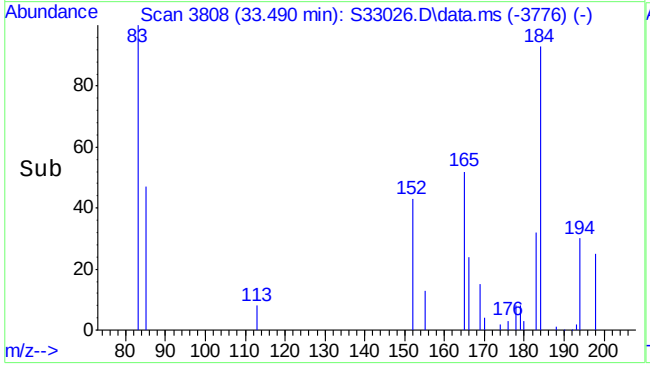


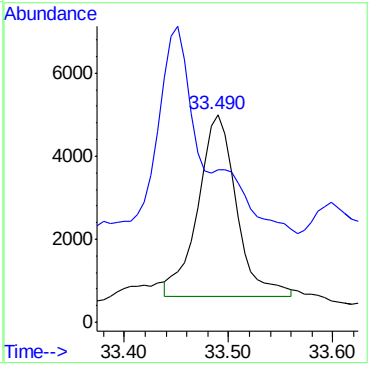


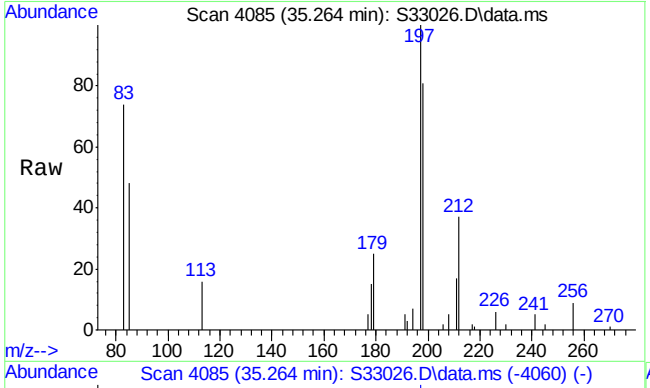
#20
Dibenzothiophene
Concen: 34.22 ng/mL m
RT: 33.490 min Scan# 3808
Delta R.T. 0.006 min
Lab File: S33026.D
Acq: 24 Jul 2013 2:40 am

Tgt Ion:184 Resp: 11123

Ion	Ratio	Lower	Upper
184	100		
152	0.0	7.7	11.5#



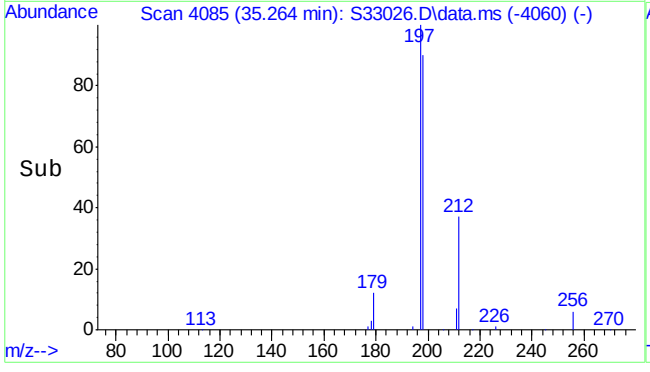


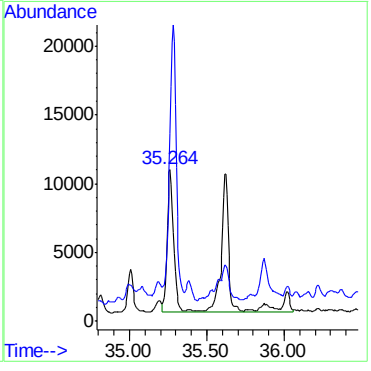


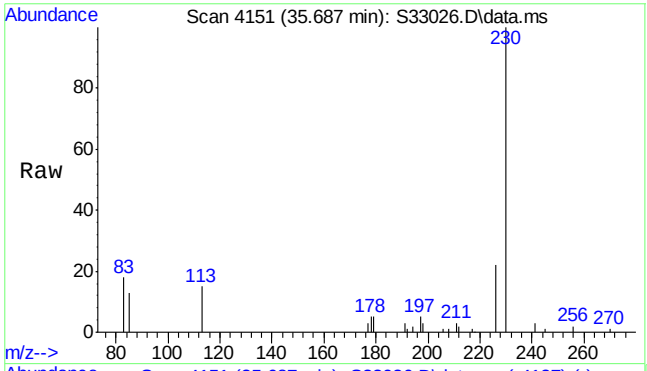
#21
C1-Dibenzothiophenes (unadj)
Concen: 210.79 ng/mL m
RT: 35.264 min Scan# 4085
Delta R.T. 0.006 min
Lab File: S33026.D
Acq: 24 Jul 2013 2:40 am

Tgt Ion:198 Resp: 67539

Ion	Ratio	Lower	Upper
198	100		
197	83.7	53.4	80.0#



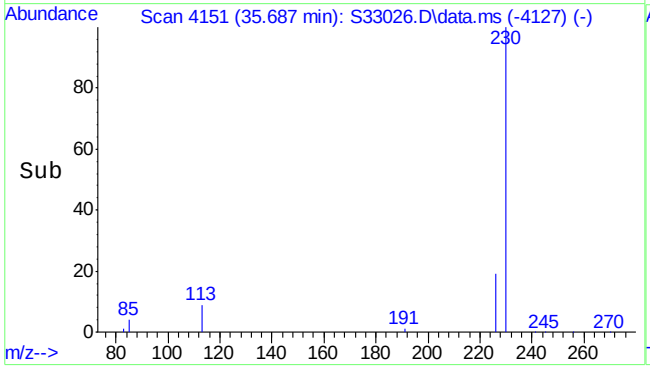


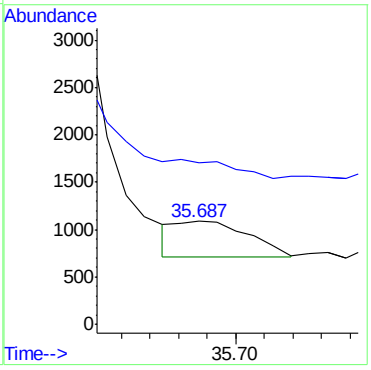


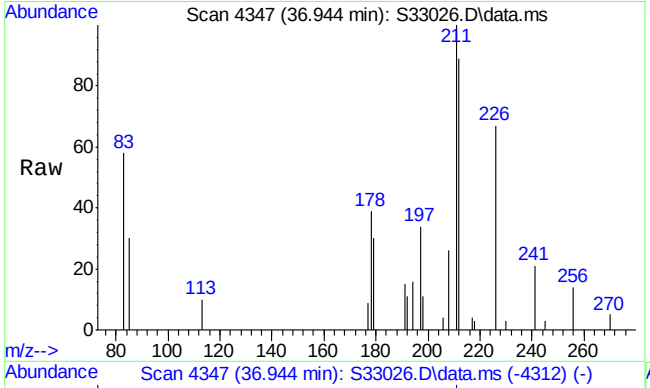
#22
C1-Dibenzothiophenes (OTP)
Concen: 2.06 µg/mL m
RT: 35.687 min Scan# 4151
Delta R.T. 0.064 min
Lab File: S33026.D
Acq: 24 Jul 2013 2:40 am

Tgt Ion:198 Resp: 660

Ion	Ratio	Lower	Upper
198	100		
197	1042.4	58.2	87.2#



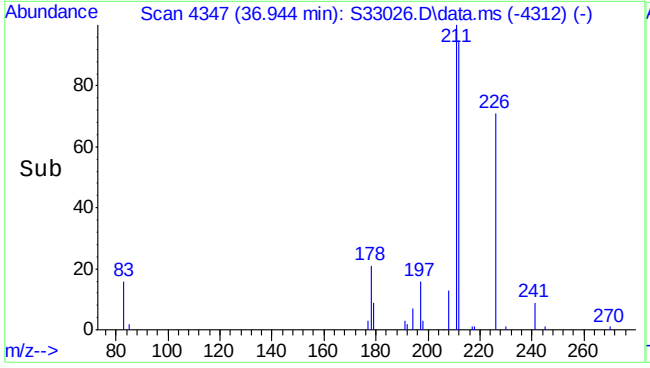


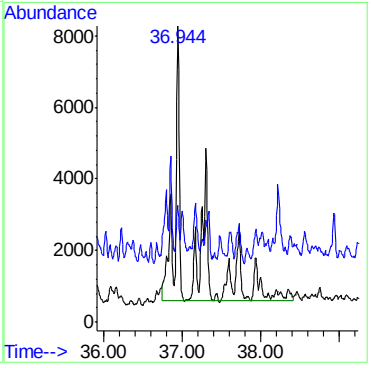


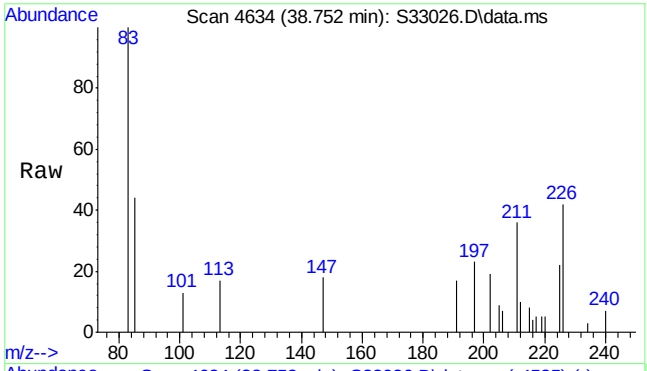
#23
C2-Dibenzothiophenes
Concen: 227.45 ng/mL m
RT: 36.944 min Scan# 4347
Delta R.T. -0.359 min
Lab File: S33026.D
Acq: 24 Jul 2013 2:40 am

Tgt Ion:212 Resp: 72875

Ion	Ratio	Lower	Upper
212	100		
197	2.2	20.6	30.8#



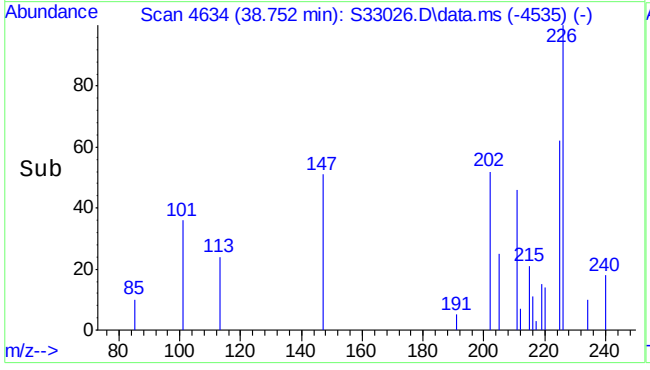


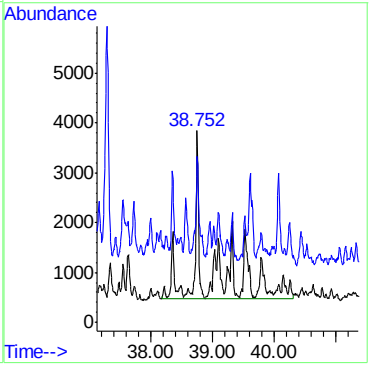


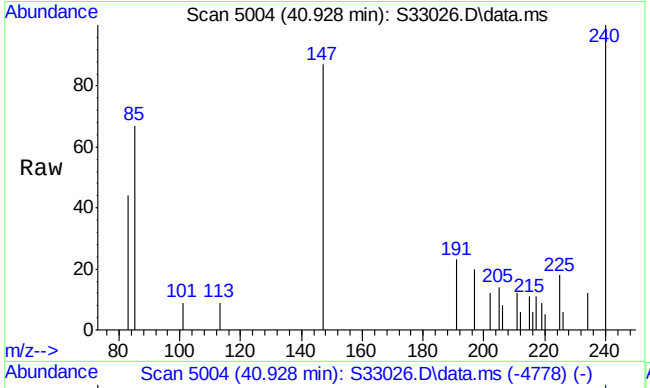
#24
C3-Dibenzothiophenes
Concen: 141.98 ng/mL m
RT: 38.752 min Scan# 4634
Delta R.T. 0.000 min
Lab File: S33026.D
Acq: 24 Jul 2013 2:40 am

Tgt Ion:226 Resp: 45492

Ion	Ratio	Lower	Upper
226	100		
211	2.2	49.7	74.5#

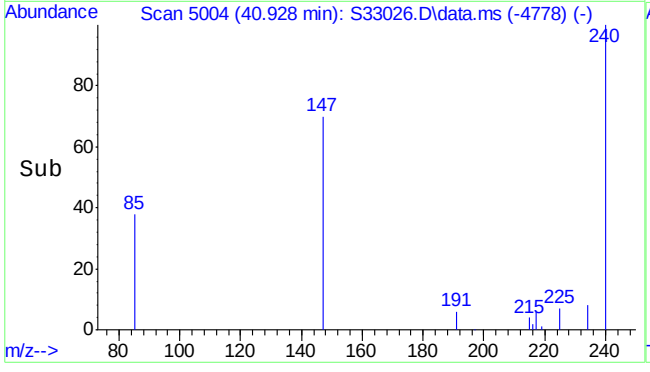


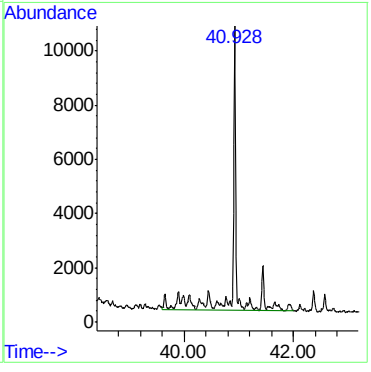


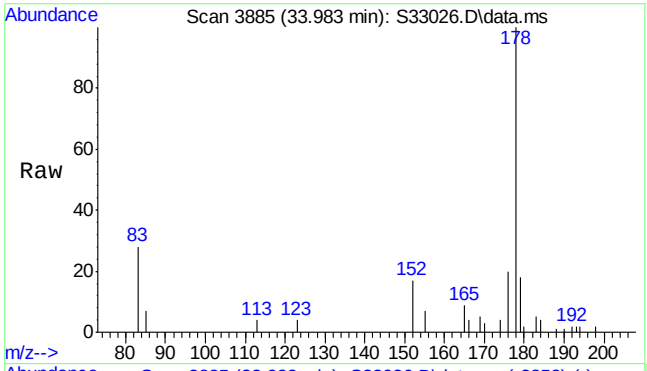


#25
C4-Dibenzothiophenes
Concen: 163.82 ng/mL m
RT: 40.928 min Scan# 5004
Delta R.T. 0.482 min
Lab File: S33026.D
Acq: 24 Jul 2013 2:40 am

Tgt Ion:240 Resp: 52490



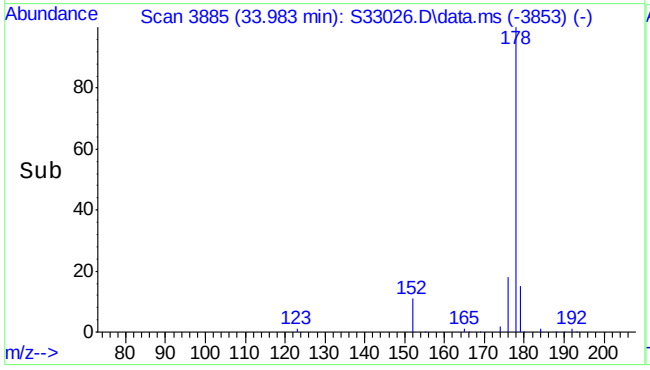


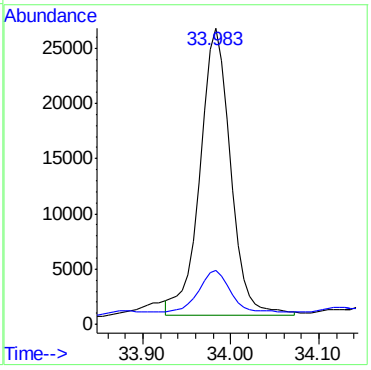


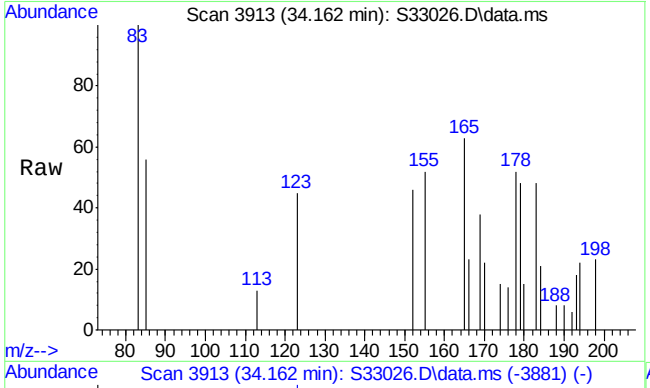
#26
Phenanthrene
Concen: 168.10 ng/mL m
RT: 33.983 min Scan# 3885
Delta R.T. 0.006 min
Lab File: S33026.D
Acq: 24 Jul 2013 2:40 am

Tgt Ion:178 Resp: 62475

Ion	Ratio	Lower	Upper
178	100		
179	14.9	12.6	18.8



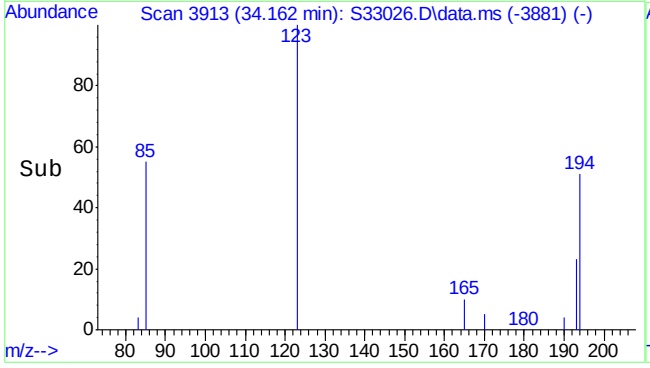


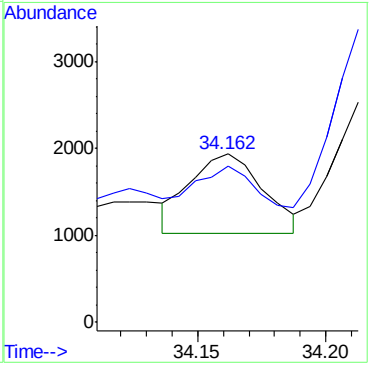


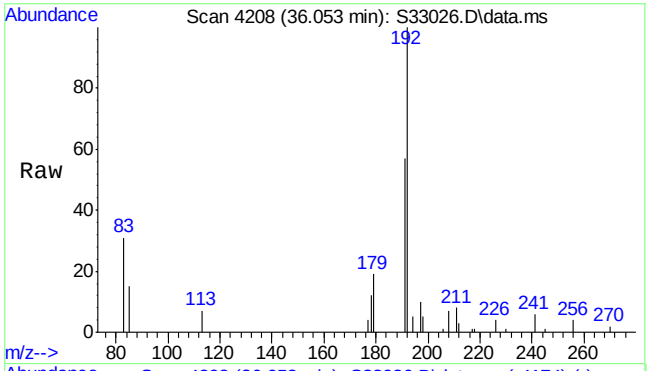
#27
Anthracene
Concen: 5.28 ng/mL m
RT: 34.162 min Scan# 3913
Delta R.T. 0.006 min
Lab File: S33026.D
Acq: 24 Jul 2013 2:40 am

Tgt Ion:178 Resp: 1822

Ion	Ratio	Lower	Upper
178	100		
179	38.2	12.9	19.3#



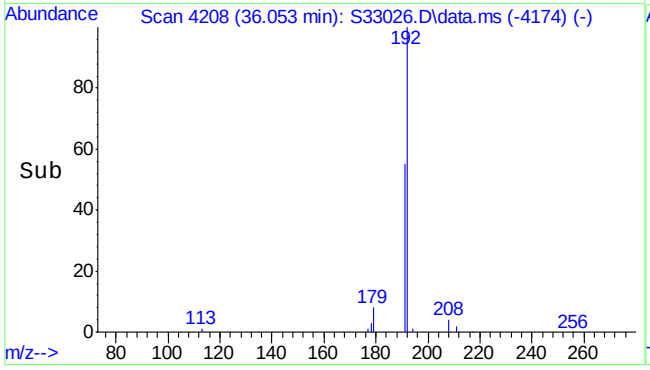


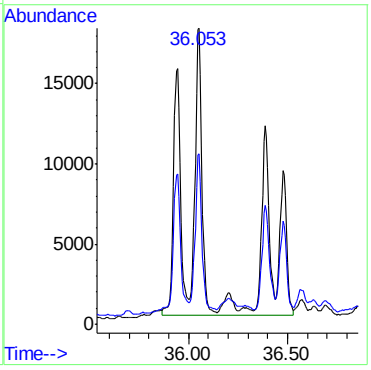


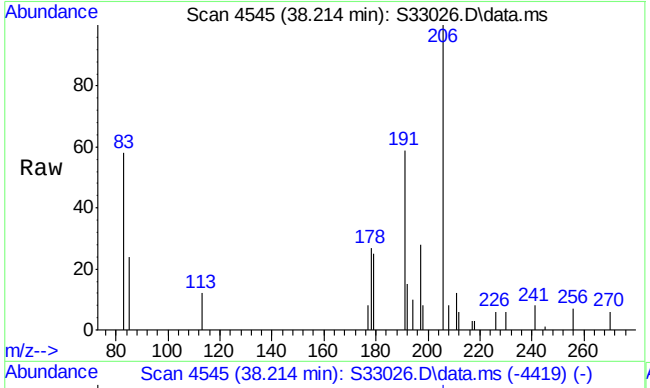
#28
C1-Phenanthrenes/anthracenes
Concen: 375.14 ng/mL m
RT: 36.053 min Scan# 4208
Delta R.T. -0.333 min
Lab File: S33026.D
Acq: 24 Jul 2013 2:40 am

Tgt Ion:192 Resp: 139420

Ion	Ratio	Lower	Upper
192	100		
191	12.4	46.7	70.1#



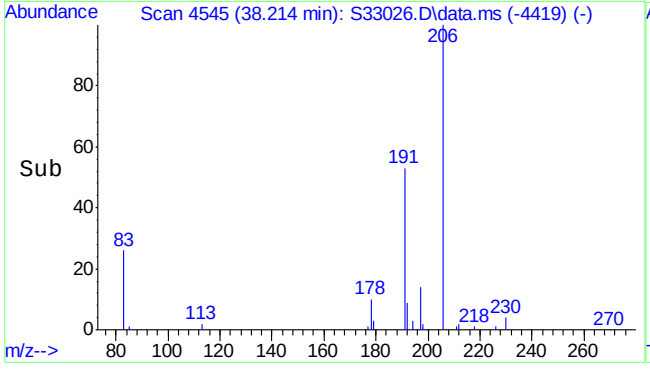


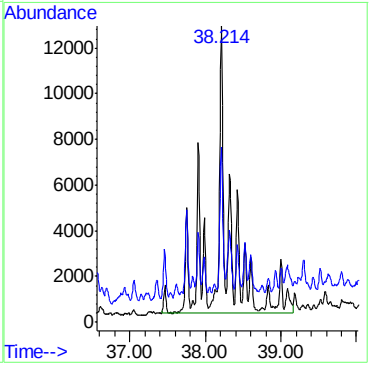


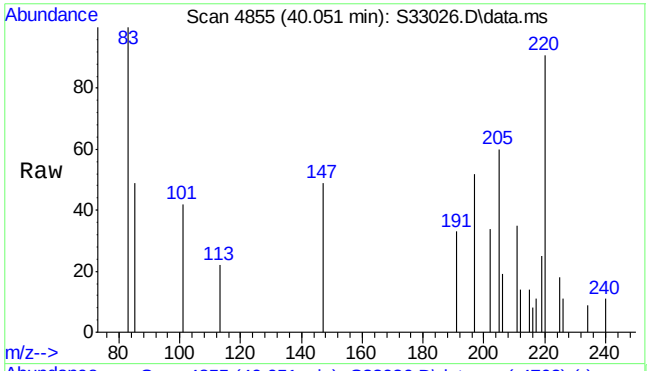
#29
C2-Phenanthrenes/anthracenes (unadj)
Concen: 386.63 ng/mL m
RT: 38.214 min Scan# 4545
Delta R.T. 0.006 min
Lab File: S33026.D
Acq: 24 Jul 2013 2:40 am

Tgt Ion:206 Resp: 143691

Ion	Ratio	Lower	Upper
206	100		
191	12.5	49.1	73.7#



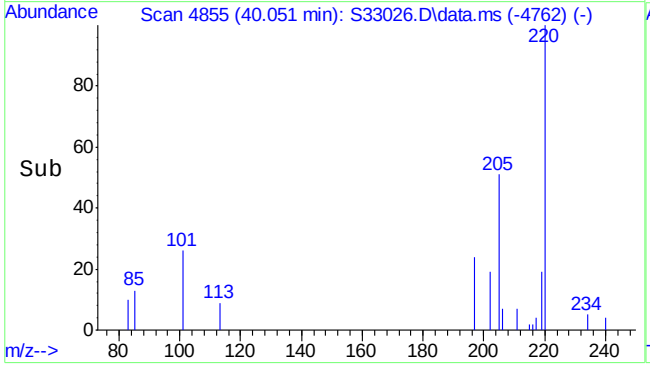


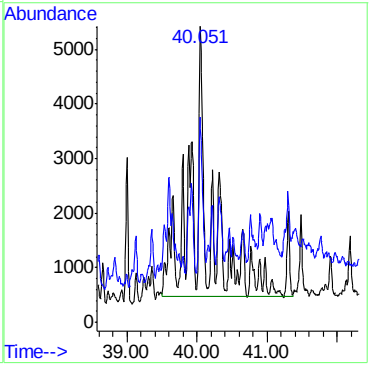


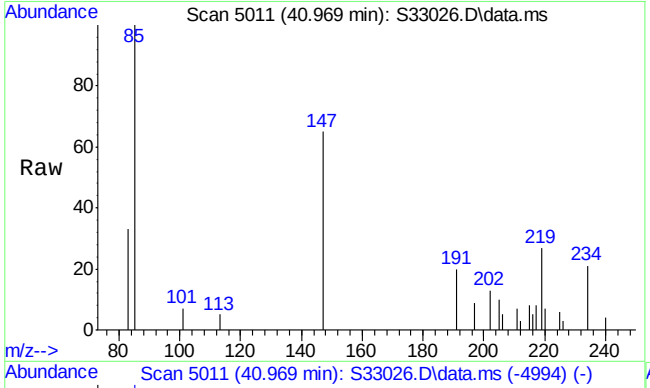
#31
C3-Phenanthrenes/anthracenes
Concen: 238.43 ng/mL m
RT: 40.051 min Scan# 4855
Delta R.T. 0.000 min
Lab File: S33026.D
Acq: 24 Jul 2013 2:40 am

Tgt Ion:220 Resp: 88613

Ion	Ratio	Lower	Upper
220	100		
205	11.2	45.1	67.7#



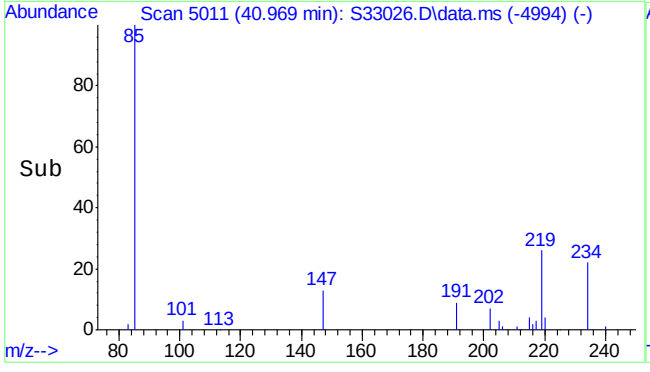


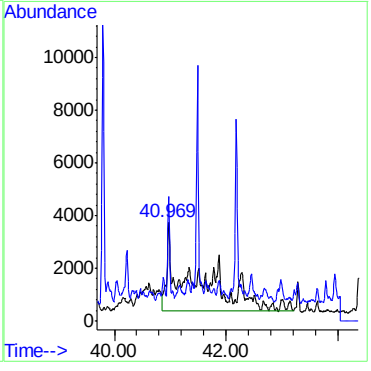


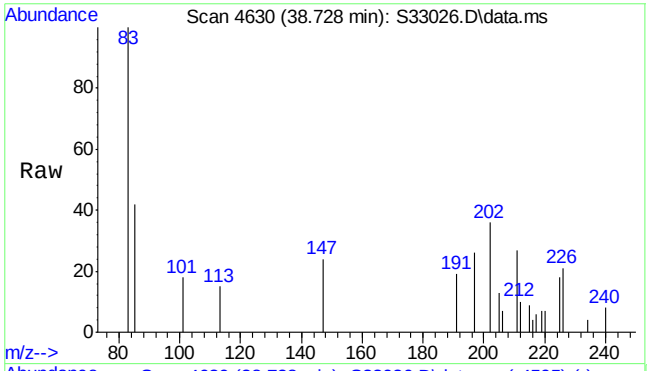
#32
C4-Phenanthrenes/anthracenes
Concen: 273.31 ng/mL m
RT: 40.969 min Scan# 5011
Delta R.T. -1.264 min
Lab File: S33026.D
Acq: 24 Jul 2013 2:40 am

Tgt Ion:234 Resp: 101576

Ion	Ratio	Lower	Upper
234	100		
219	0.0	49.0	73.4#



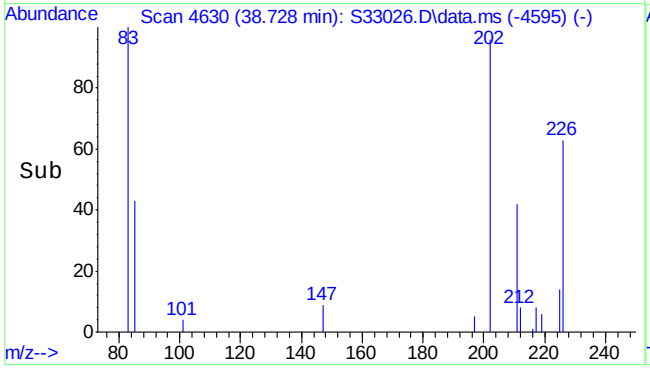


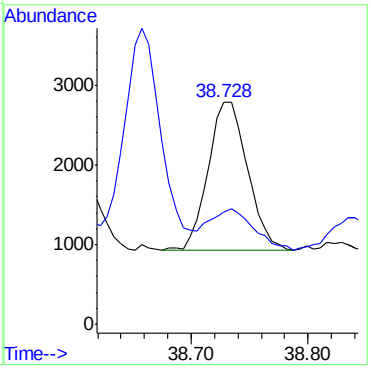


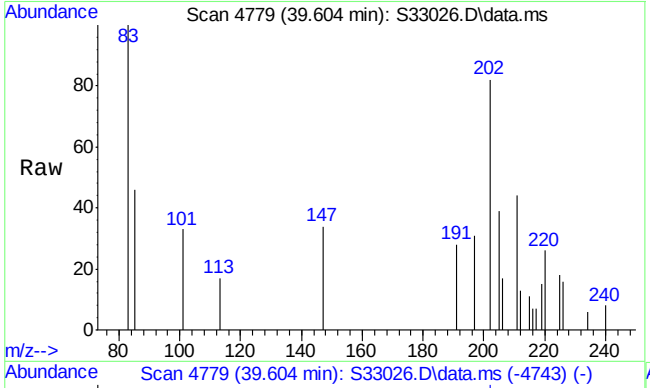
#33
Fluoranthene
Concen: 13.15 ng/mL
RT: 38.728 min Scan# 4630
Delta R.T. 0.006 min
Lab File: S33026.D
Acq: 24 Jul 2013 2:40 am

Tgt Ion:202 Resp: 4331

Ion	Ratio	Lower	Upper
202	100		
101	32.1	9.8	14.6#



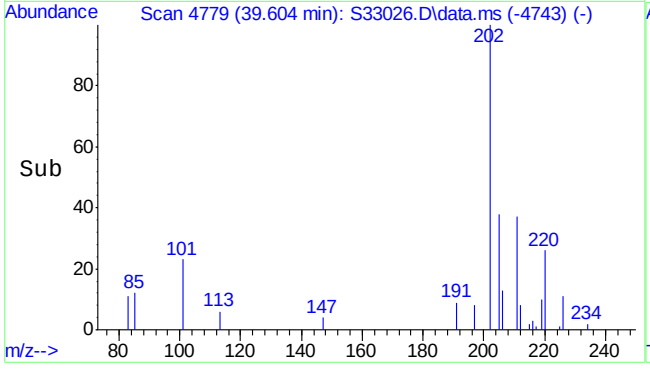


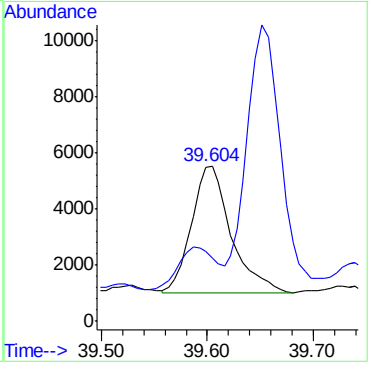


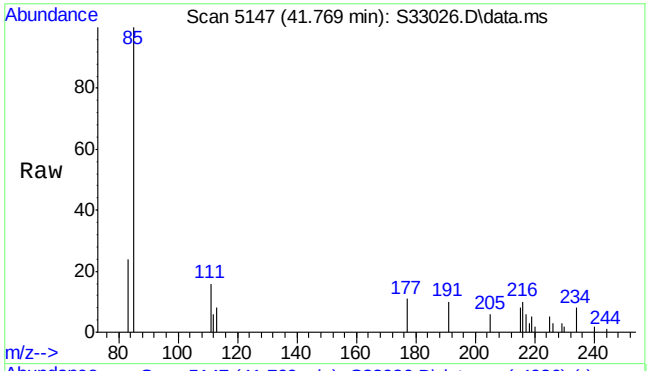
#34
Pyrene
Concen: 34.58 ng/mL
RT: 39.604 min Scan# 4779
Delta R.T. 0.012 min
Lab File: S33026.D
Acq: 24 Jul 2013 2:40 am

Tgt Ion:202 Resp: 11795

Ion	Ratio	Lower	Upper
202	100		
101	32.5	11.4	17.0#



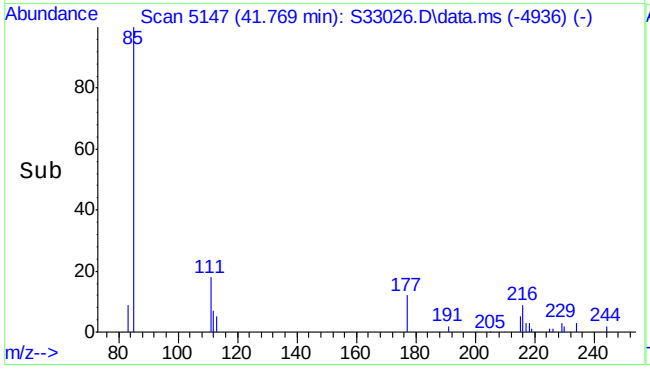


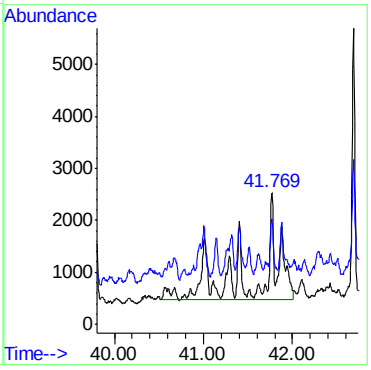


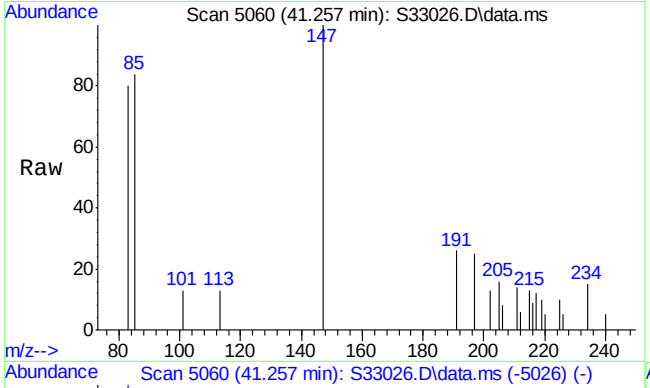
#35
C1-Fluoranthenes/pyrenes
Concen: 90.16 ng/mL m
RT: 41.769 min Scan# 5147
Delta R.T. 0.765 min
Lab File: S33026.D
Acq: 24 Jul 2013 2:40 am

Tgt Ion:216 Resp: 30756

Ion	Ratio	Lower	Upper
216	100		
215	1.3	79.0	118.4#



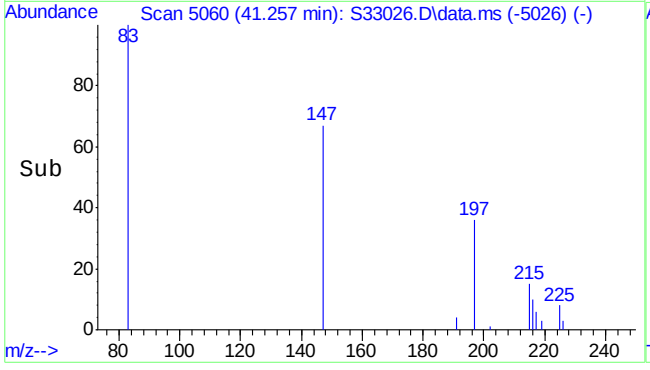


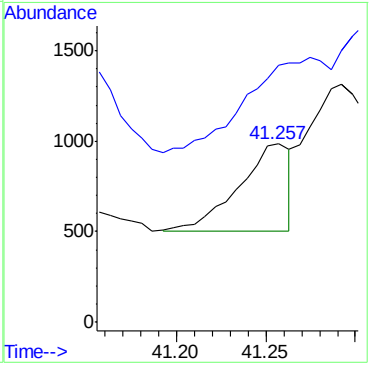


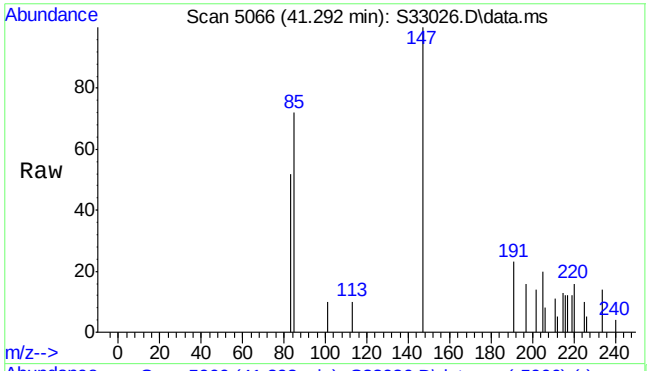
#36
Benzo(b)fluorene
Concen: 2.83 ng/mL m
RT: 41.257 min Scan# 5060
Delta R.T. 0.000 min
Lab File: S33026.D
Acq: 24 Jul 2013 2:40 am

Tgt Ion:216 Resp: 966

Ion	Ratio	Lower	Upper
216	100		
215	173.7	112.3	168.5#



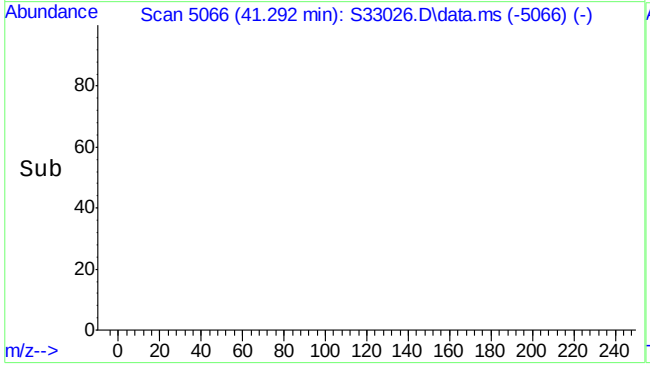


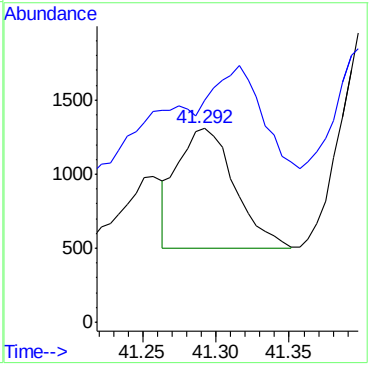


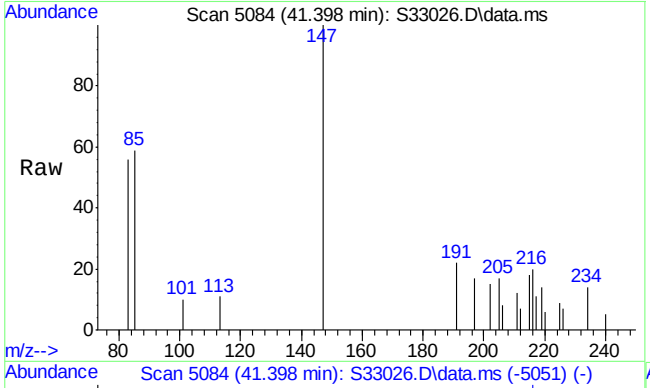
#37
Benzo(c)fluorene
Concen: 6.40 µg/mL m
RT: 41.292 min Scan# 5066
Delta R.T. 0.000 min
Lab File: S33026.D
Acq: 24 Jul 2013 2:40 am

Tgt Ion:216 Resp: 2185

Ion	Ratio	Lower	Upper
216	100		
215	106.5	114.9	172.3#



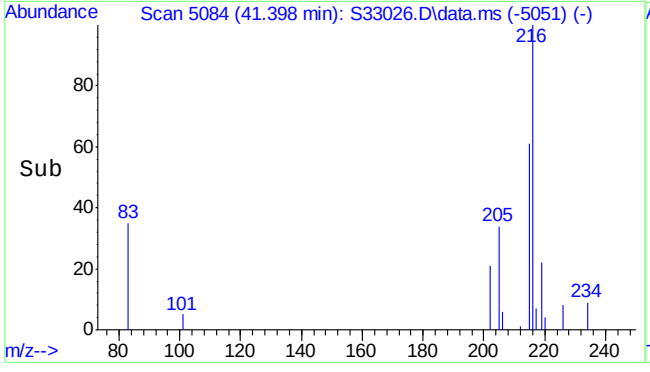


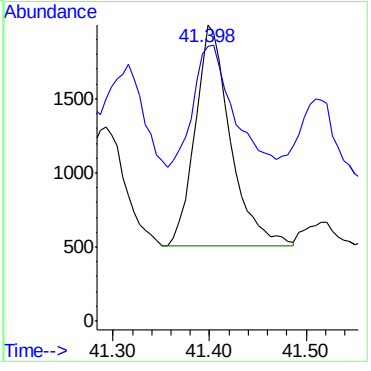


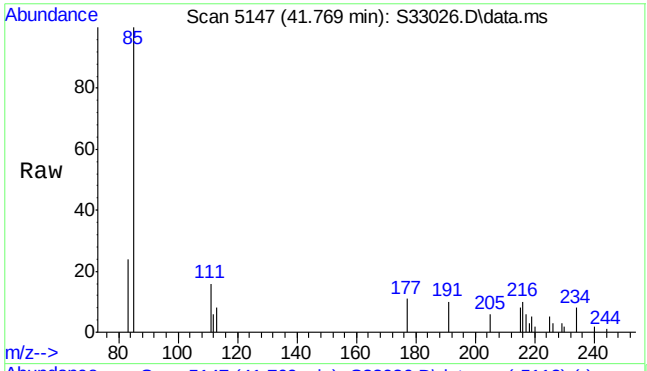
#38
2-Methylpyrene
Concen: 11.15 ng/mL
RT: 41.398 min Scan# 5084
Delta R.T. -0.006 min
Lab File: S33026.D
Acq: 24 Jul 2013 2:40 am

Tgt Ion:216 Resp: 3804

Ion	Ratio	Lower	Upper
216	100		
215	63.1	81.0	121.6#



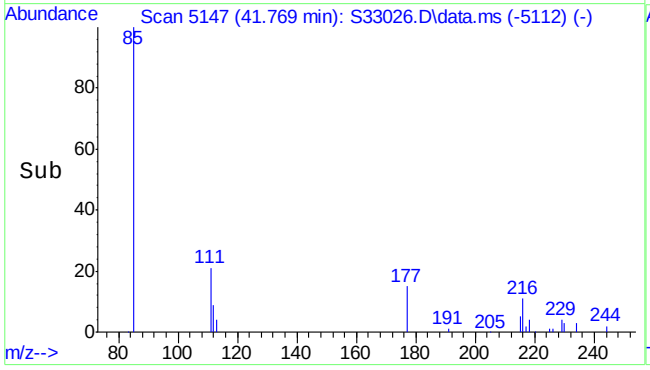


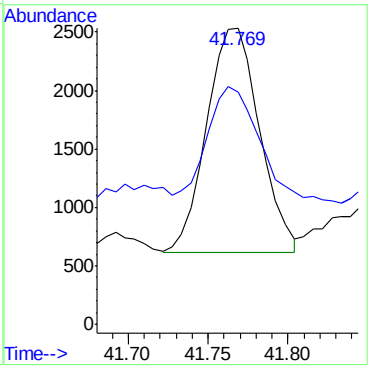


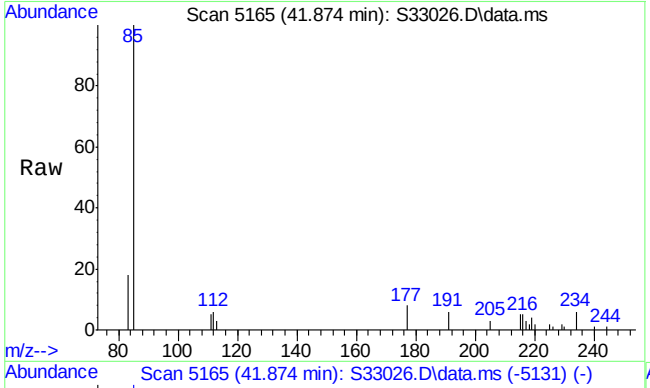
#39
4-Methylpyrene
Concen: 12.99 ng/mL m
RT: 41.769 min Scan# 5147
Delta R.T. 0.006 min
Lab File: S33026.D
Acq: 24 Jul 2013 2:40 am

Tgt Ion:216 Resp: 4431

Ion	Ratio	Lower	Upper
216	100		
215	54.7	58.1	87.1#



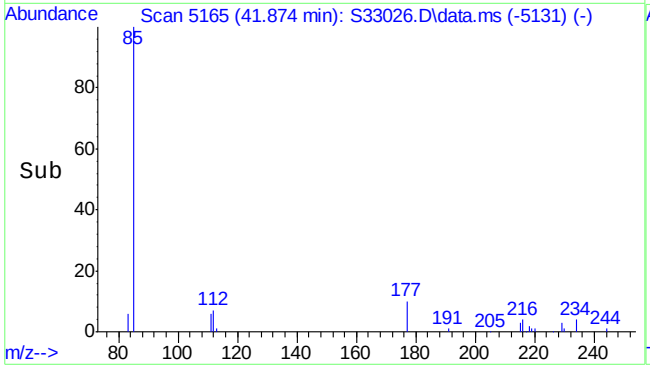


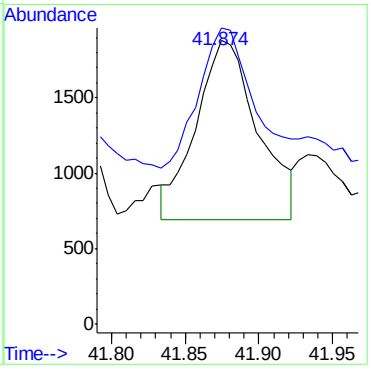


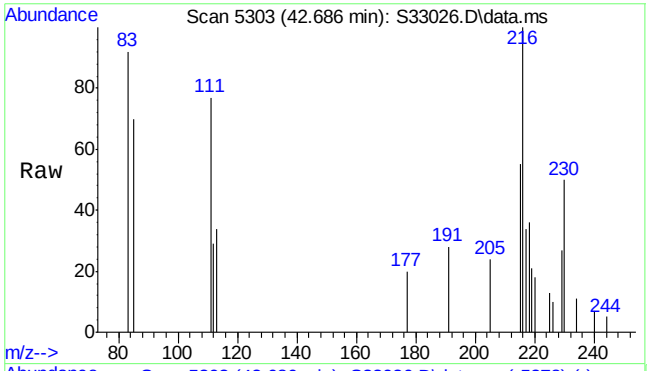
#40
1-Methylpyrene
Concen: 10.22 ng/mL m
RT: 41.874 min Scan# 5165
Delta R.T. 0.000 min
Lab File: S33026.D
Acq: 24 Jul 2013 2:40 am

Tgt Ion:216 Resp: 3487

Ion	Ratio	Lower	Upper
216	100		
215	69.5	80.5	120.7#



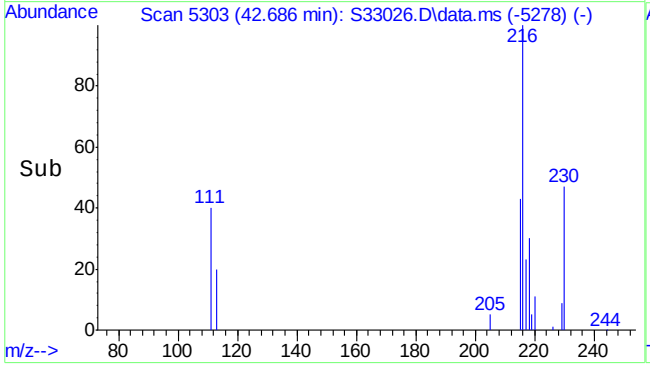


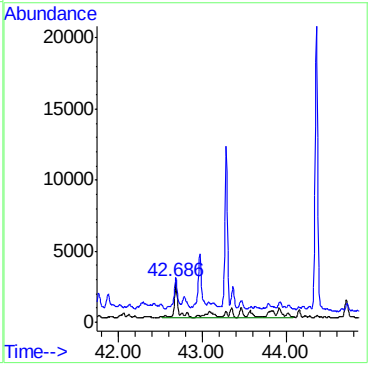


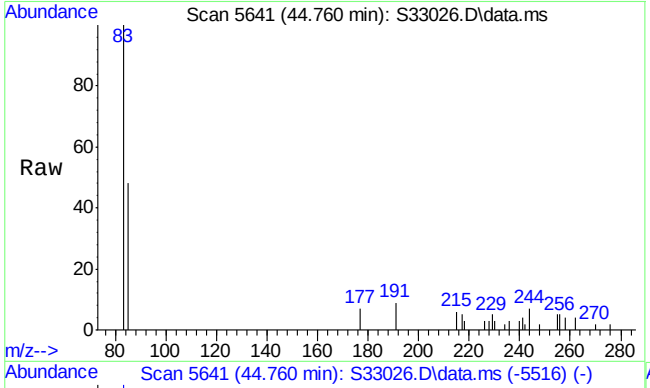
#41
C2-Fluoranthenes/pyrenes
Concen: 67.70 ng/mL m
RT: 42.686 min Scan# 5303
Delta R.T. -1.229 min
Lab File: S33026.D
Acq: 24 Jul 2013 2:40 am

Tgt Ion:230 Resp: 23095

Ion	Ratio	Lower	Upper
230	100		
215	2.7	79.2	118.8#



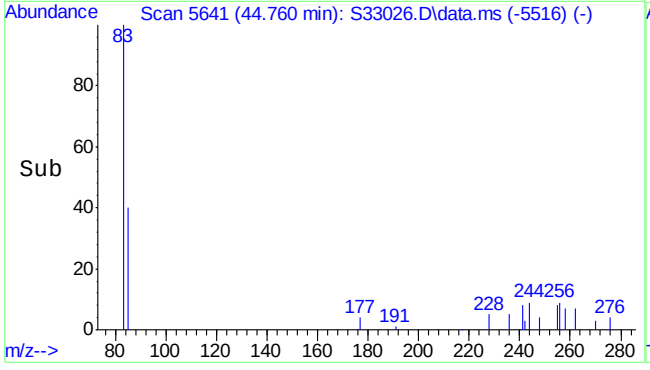


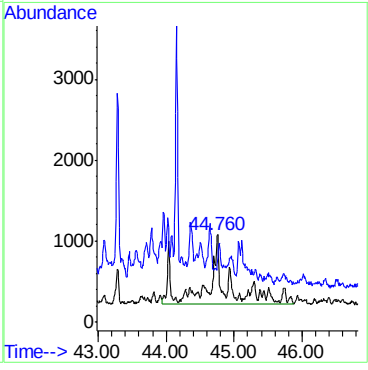


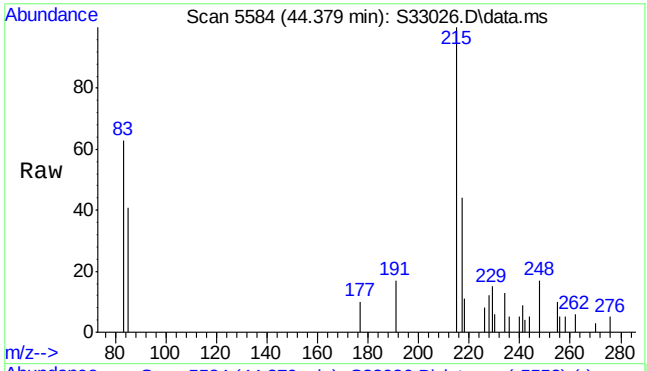
#42
C3-Fluoranthenes/pyrenes
Concen: 49.87 ng/mL m
RT: 44.760 min Scan# 5641
Delta R.T. -0.067 min
Lab File: S33026.D
Acq: 24 Jul 2013 2:40 am

Tgt Ion:244 Resp: 17011

Ion	Ratio	Lower	Upper
244	100		
229	1.4	81.8	122.8#



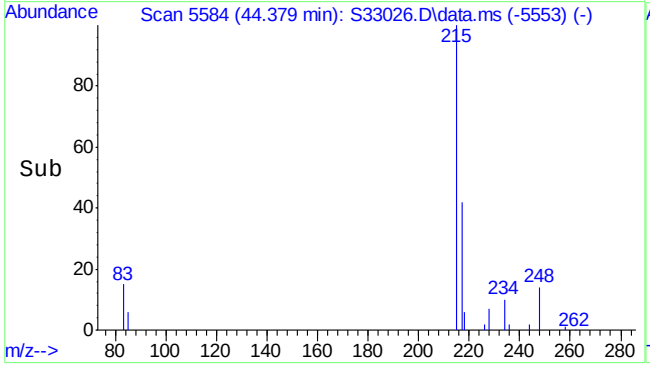


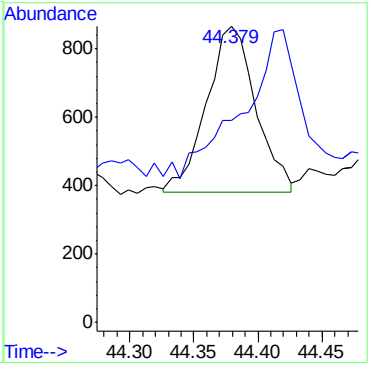


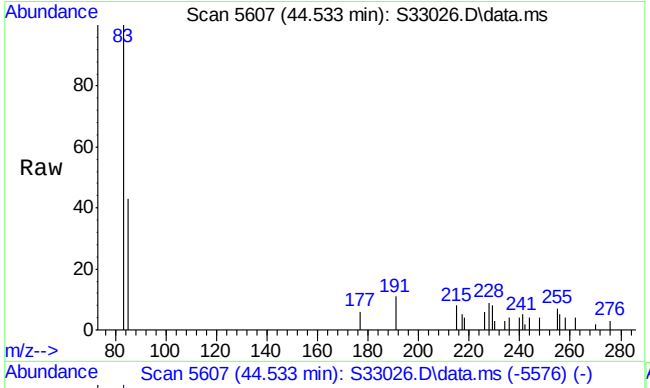
#43
Benz(a)anthracene
Concen: 3.93 ng/mL m
RT: 44.379 min Scan# 5584
Delta R.T. 0.006 min
Lab File: S33026.D
Acq: 24 Jul 2013 2:40 am

Tgt Ion:228 Resp: 1296

Ion	Ratio	Lower	Upper
228	100		
226	45.1	21.4	32.2#



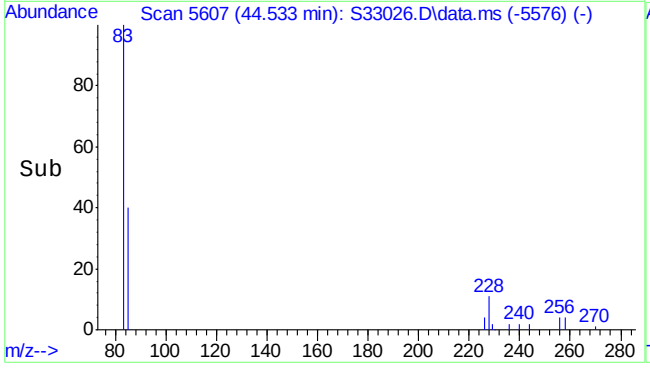


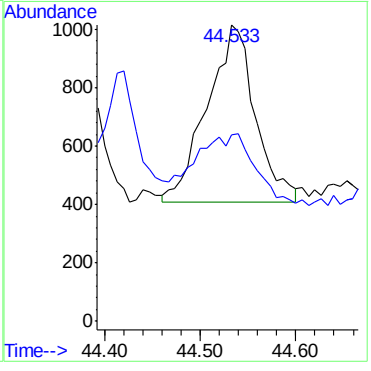


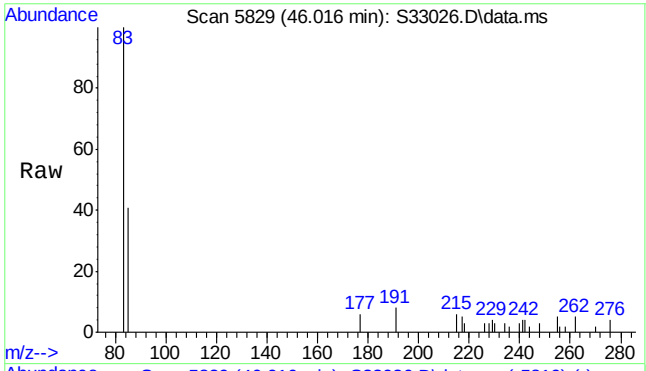
#44
Chrysene
Concen: 6.90 ng/mL m
RT: 44.533 min Scan# 5607
Delta R.T. 0.006 min
Lab File: S33026.D
Acq: 24 Jul 2013 2:40 am

Tgt Ion:228 Resp: 2120

Ion	Ratio	Lower	Upper
228	100		
226	51.1	23.8	35.6#



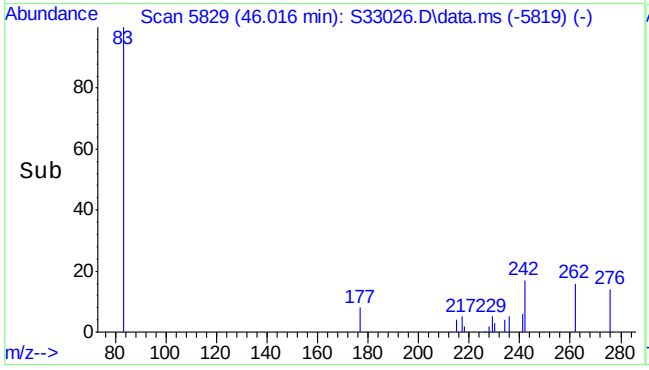


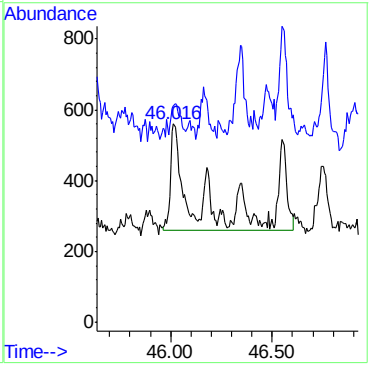


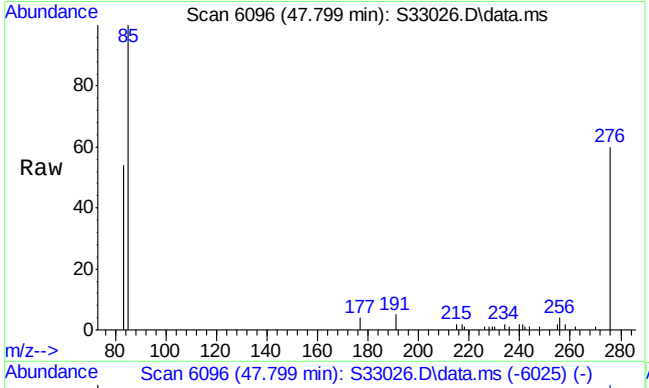
#45
C1-Benz(a)anthracenes/chrysenes
Concen: 9.51 ng/mL m
RT: 46.016 min Scan# 5829
Delta R.T. 0.000 min
Lab File: S33026.D
Acq: 24 Jul 2013 2:40 am

Tgt Ion:242 Resp: 2922

Ion	Ratio	Lower	Upper
242	100		
241	8.9	39.4	59.0#



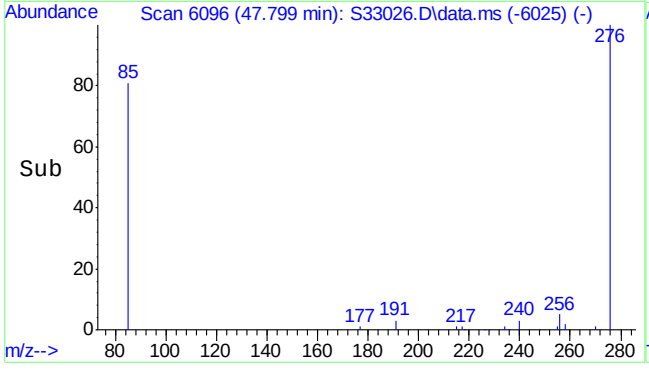


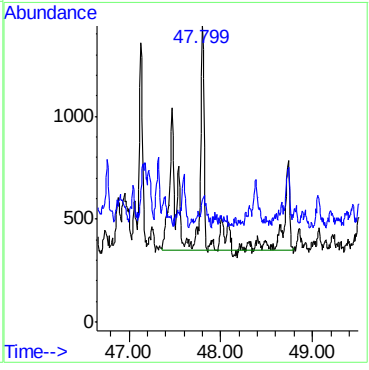


#46
C2-Benz(a)anthracenes/chrysenes
Concen: 28.12 ng/mL m
RT: 47.799 min Scan# 6096
Delta R.T. -0.296 min
Lab File: S33026.D
Acq: 24 Jul 2013 2:40 am

Tgt Ion:256 Resp: 8641

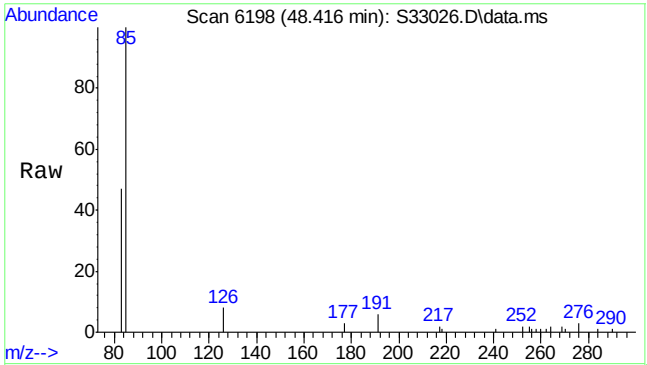
Ion	Ratio	Lower	Upper
256	100		
241	0.0	29.9	44.9#





7.1.9

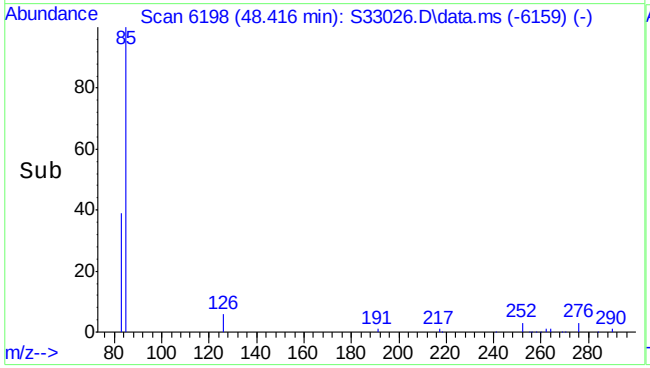
7

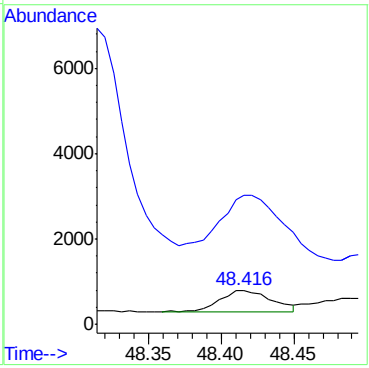


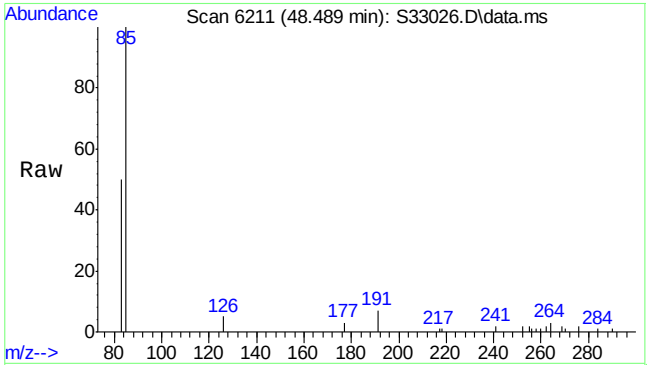
#49
Benzo(b)fluoranthene
Concen: 3.32 ng/mL
RT: 48.416 min Scan# 6198
Delta R.T. 0.017 min
Lab File: S33026.D
Acq: 24 Jul 2013 2:40 am

Tgt Ion:252 Resp: 1252

Ion	Ratio	Lower	Upper
252	100		
126	380.6	10.6	15.8#



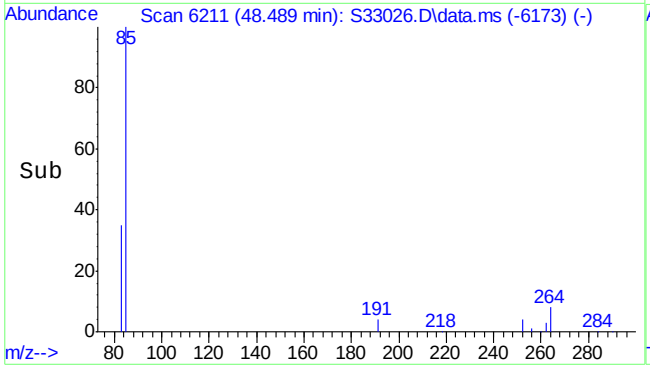


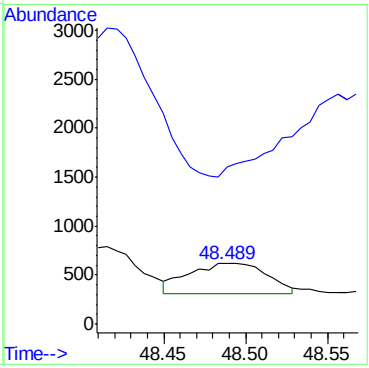


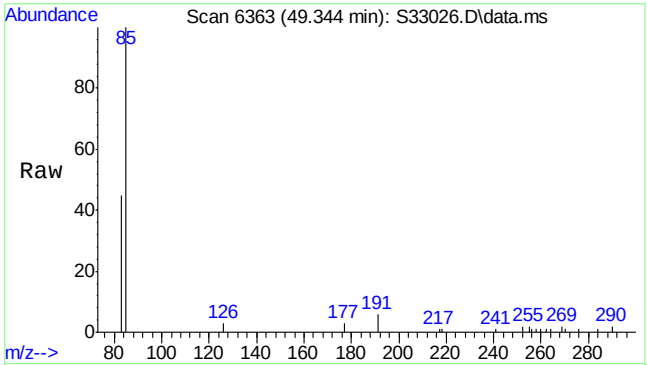
#50
Benzo(k)fluoranthene
Concen: 2.70 ng/mL m
RT: 48.489 min Scan# 6211
Delta R.T. 0.011 min
Lab File: S33026.D
Acq: 24 Jul 2013 2:40 am

Tgt Ion:252 Resp: 1015

Ion	Ratio	Lower	Upper
252	100		
126	0.0	11.9	17.9#



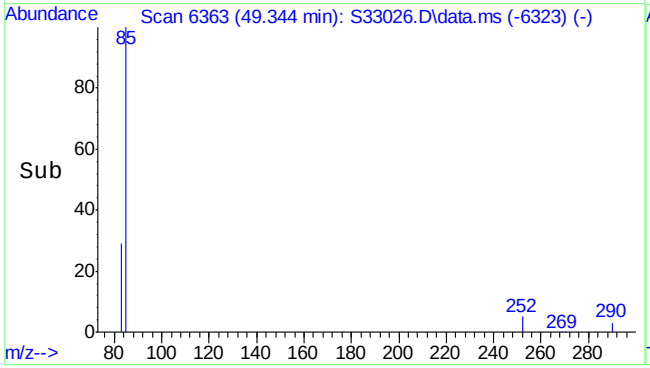


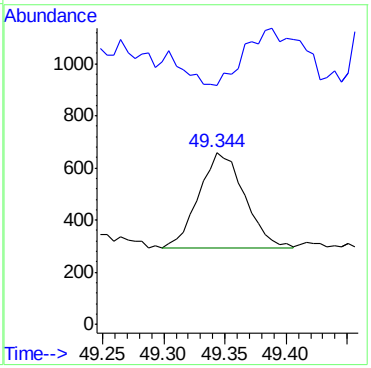


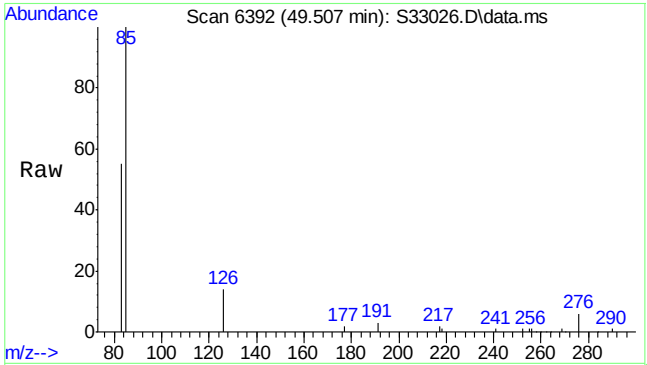
#51
Benzo(e)pyrene
Concen: 2.77 ng/mL
RT: 49.344 min Scan# 6363
Delta R.T. 0.022 min
Lab File: S33026.D
Acq: 24 Jul 2013 2:40 am

Tgt Ion:252 Resp: 939

Ion	Ratio	Lower	Upper
252	100		
126	0.0	9.9	14.9#



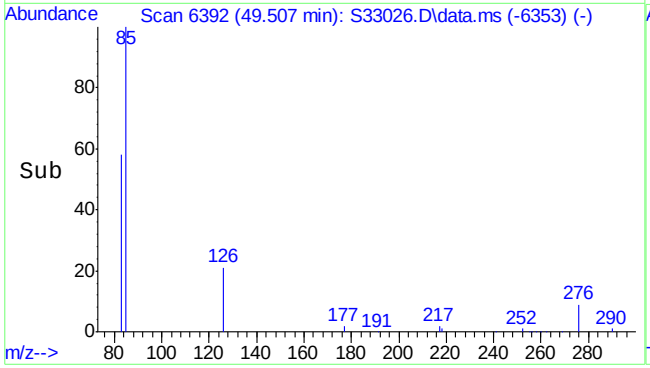


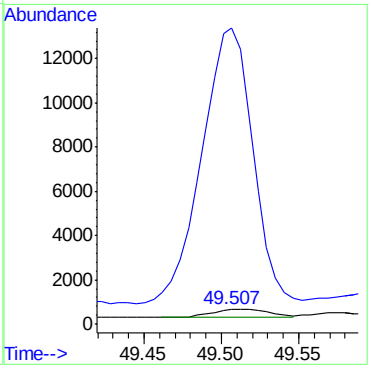


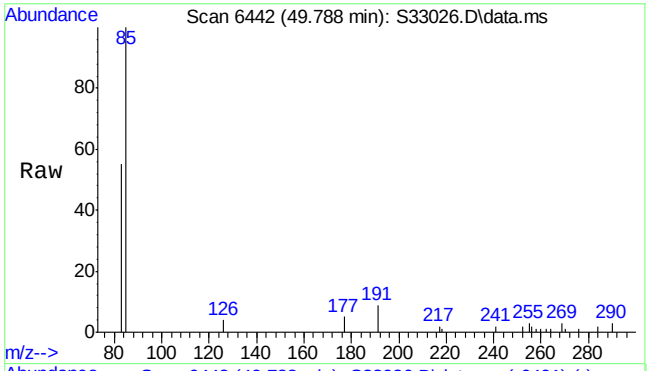
#52
Benzo(a)pyrene
Concen: 2.91 ng/mL
RT: 49.507 min Scan# 6392
Delta R.T. 0.017 min
Lab File: S33026.D
Acq: 24 Jul 2013 2:40 am

Tgt Ion:252 Resp: 956

Ion	Ratio	Lower	Upper
252	100		
126	2990.3	11.6	17.4#



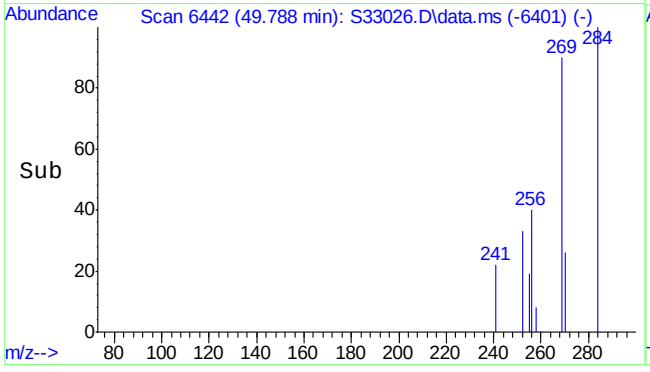


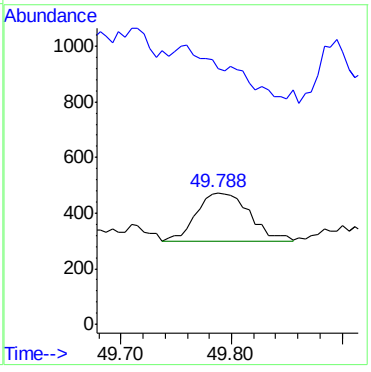


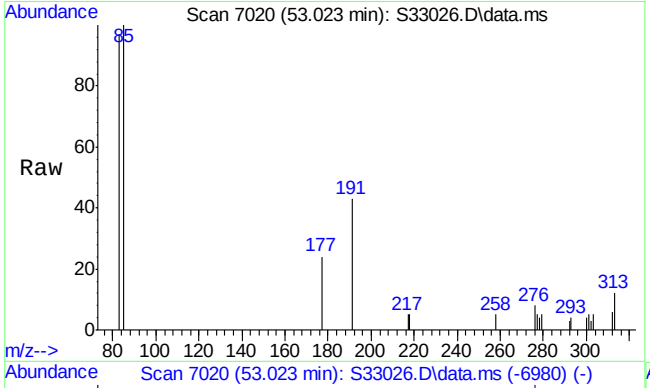
#53
Perylene
Concen: 1.80 ng/mL
RT: 49.788 min Scan# 6442
Delta R.T. 0.028 min
Lab File: S33026.D
Acq: 24 Jul 2013 2:40 am

Tgt Ion:252 Resp: 576

Ion	Ratio	Lower	Upper
252	100		
126	0.0	12.5	18.7#



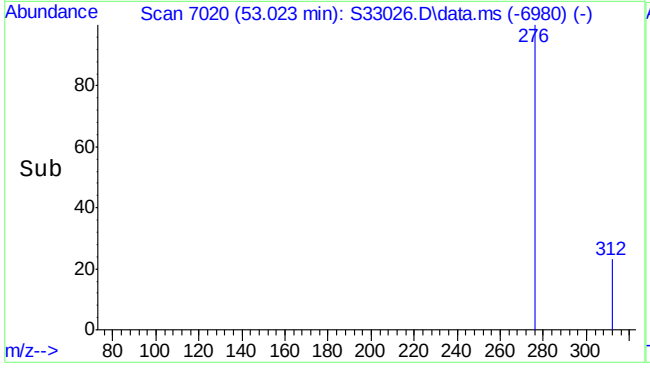


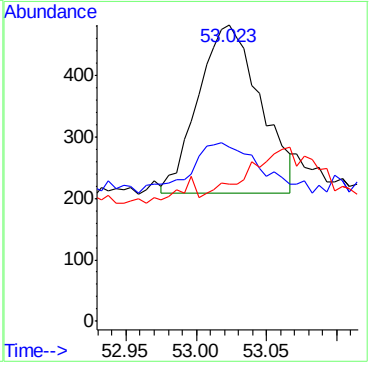


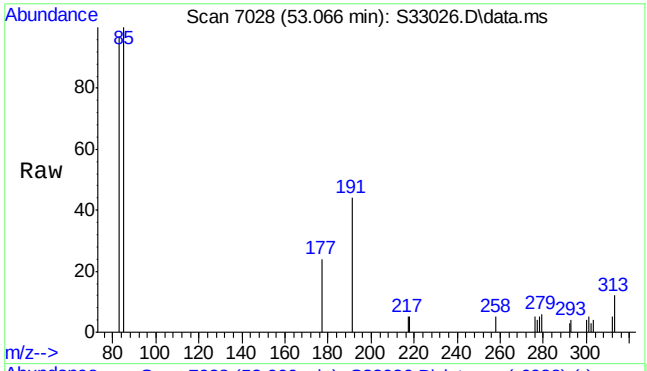
#54
Indeno(1,2,3-cd)pyrene
Concen: 2.23 ng/mL m
RT: 53.023 min Scan# 7020
Delta R.T. 0.016 min
Lab File: S33026.D
Acq: 24 Jul 2013 2:40 am

Tgt Ion:276 Resp: 839

Ion	Ratio	Lower	Upper
276	100		
277	33.4	19.0	28.4#
278	0.0	5.7	8.5#



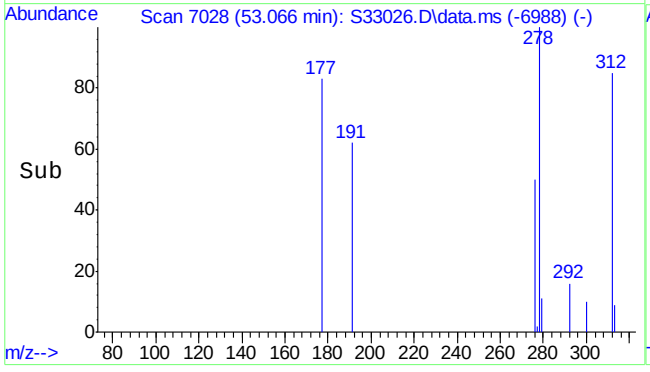


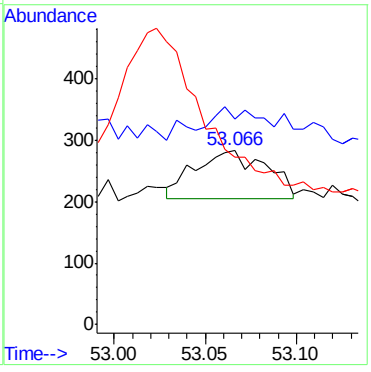


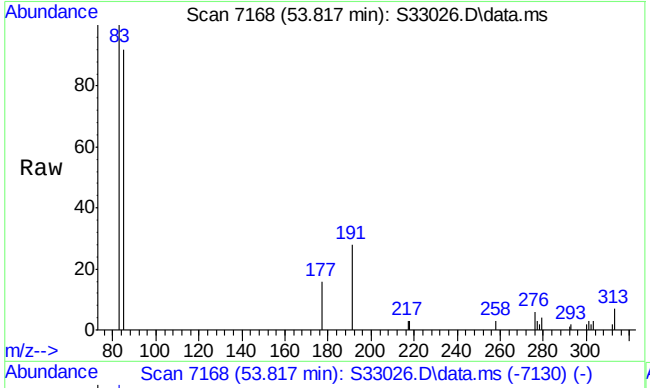
#55
Dibenz(a,h)anthracene
Concen: 0.62 ng/mL m
RT: 53.066 min Scan# 7028
Delta R.T. 0.016 min
Lab File: S33026.D
Acq: 24 Jul 2013 2:40 am

Tgt Ion:278 Resp: 213

Ion	Ratio	Lower	Upper
278	100		
279	0.0	19.2	28.8#
276	0.0	29.6	44.4#



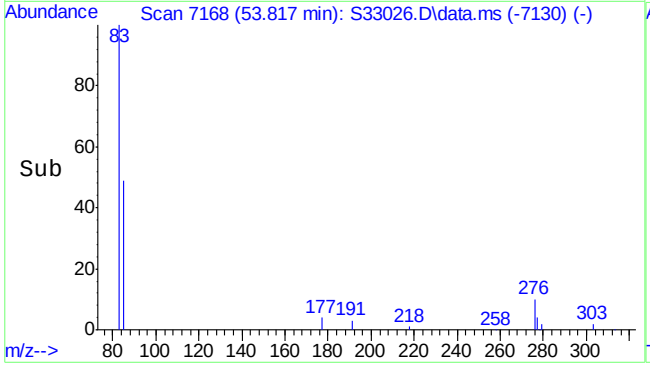


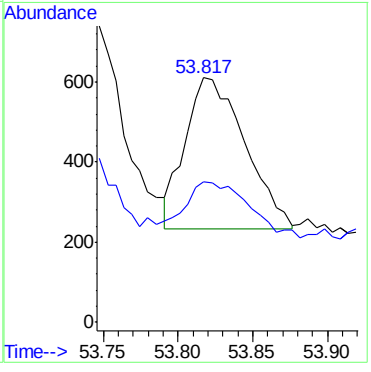


#56
Benzo(g,h,i)perylene
Concen: 2.62 ng/mL m
RT: 53.817 min Scan# 7168
Delta R.T. 0.005 min
Lab File: S33026.D
Acq: 24 Jul 2013 2:40 am

Tgt Ion:276 Resp: 1056

Ion	Ratio	Lower	Upper
276	100		
277	38.4	18.9	28.3#





Manual Integrations APPROVED (compounds with "m" flag)
James Roush
07/31/13 10:55

Quantitation Report (QT Reviewed)

Data Path : S:\1\data\S130716\
Data File : S32999.D
Acq On : 17 Jul 2013 12:30 am
Operator : kristinr
Sample : mc21754-4a
Misc : op33686,mss1443,5.05,,,2,10
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jul 30 10:49:26 2013
Quant Method : S:\1\methods\S130705-B5739ALKPAH.M
Quant Title : PAHs & Alkylated PAHs by GC/MS/SIM
QLast Update : Thu Jul 11 09:13:24 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Acenaphthene-d10	28.150	164	147988m	1100.00	ng/mL	0.00
System Monitoring Compounds						
2) Toluene-d8	9.224	98	1486m	9.38	µg/mL	-0.02
Spiked Amount 1000.000			Recovery = 0.94%			
3) Naphthalene-d8	21.209	136	6314m	24.14	ng/mL	0.03
Spiked Amount 1000.000	Range 1 - 0		Recovery = 2.41%#			
4) Phenanthrene-d10	33.976	188	5027	23.34	ng/mL	-0.01
Spiked Amount 1000.000			Recovery = 2.33%			
5) Perylene-d12	49.788	264	3896m	20.49	ng/mL	-0.05
Spiked Amount 1000.000			Recovery = 2.05%			
Target Compounds						Qvalue
6) Naphthalene	21.292	128	5122436	15404.29	ng/mL	99
7) 2-Methylnaphthalene	23.997	142	535260	2712.75	ng/mL	100
8) 1-Methylnaphthalene	24.401	142	235964	1146.33	ng/mL	98
9) C1-Naphthalenes	23.997	142	769506m	2314.07	ng/mL	
10) C2-Naphthalenes	26.818	156	465736m	1400.57	ng/mL	
11) C3-Naphthalenes	29.143	170	392637m	1180.75	ng/mL	
12) C4-Naphthalenes	31.895	184	267330m	803.92	ng/mL	
13) Acenaphthylene	27.560	152	1691	5.50	ng/mL#	1
14) Acenaphthene	28.272	154	7117	37.93	ng/mL	93
15) Dibenzofuran	28.912	168	8382m	31.35	ng/mL	
16) Fluorene	30.282	166	64330m	270.32	ng/mL	
17) C1-Fluorenes	32.638	180	58083m	244.07	ng/mL	
18) C2-Fluorenes	34.828	194	117001m	491.66	ng/mL	
19) C3-Fluorenes	37.445	208	124139m	521.65	ng/mL	
20) Dibenzothiophene	33.573	184	11241m	37.47	ng/mL	
21) C1-Dibenzothiophenes (...	35.347	198	66075m	223.42	ng/mL	
22) C1-Dibenzothiophenes (...	35.771	198	651m	2.20	µg/mL	
23) C2-Dibenzothiophenes	37.028	212	73530m	248.62	ng/mL	
24) C3-Dibenzothiophenes	38.834	226	46087m	155.83	ng/mL	
25) C4-Dibenzothiophenes	41.010	240	47161m	159.46	ng/mL	
26) Phenanthrene	34.066	178	62907m	183.37	ng/mL	
27) Anthracene	34.245	178	2133m	6.69	ng/mL	
28) C1-Phenanthrenes/anthr...	36.136	192	135089m	393.79	ng/mL	
29) C2-Phenanthrenes/anthr...	38.297	206	145316m	423.60	ng/mL	
31) C3-Phenanthrenes/anthr...	40.134	220	87760m	255.82	ng/mL	
32) C4-Phenanthrenes/anthr...	41.057	234	64344m	187.56	ng/mL	
33) Fluoranthene	38.817	202	4812	15.83	ng/mL#	54
34) Pyrene	39.687	202	12525m	39.78	ng/mL	
35) C1-Fluoranthenes/pyrenes	41.851	216	29896m	94.94	ng/mL	
36) Benzo(b)fluorene	41.339	216	785m	2.49	ng/mL	
37) Benzo(c)fluorene	41.375	216	1449m	4.60	µg/mL	
38) 2-Methylpyrene	41.486	216	3747	11.90	ng/mL#	67
39) 4-Methylpyrene	41.851	216	4595m	14.59	ng/mL	
40) 1-Methylpyrene	41.963	216	3680m	11.69	ng/mL	
41) C2-Fluoranthenes/pyrenes	42.769	230	23735m	75.38	ng/mL	
42) C3-Fluoranthenes/pyrenes	44.840	244	12457m	39.56	ng/mL	

Quantitation Report (QT Reviewed)

Data Path : S:\1\data\S130716\
Data File : S32999.D
Acq On : 17 Jul 2013 12:30 am
Operator : kristinr
Sample : mc21754-4a
Misc : op33686,mss1443,5.05,,,2,10
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jul 30 10:49:26 2013
Quant Method : S:\1\methods\S130705-B5739ALKPAH.M
Quant Title : PAHs & Alkylated PAHs by GC/MS/SIM
QLast Update : Thu Jul 11 09:13:24 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
43) Benz(a)anthracene	44.466	228	1483	4.88	ng/mL#	48
44) Chrysene	44.627	228	2460m	8.67	ng/mL	
45) C1-Benz(a)anthracenes/...	46.109	242	2712m	9.56	ng/mL	
46) C2-Benz(a)anthracenes/...	47.885	256	9539m	33.63	ng/mL	
49) Benzo(b)fluoranthene	48.506	252	1501m	4.31	ng/mL	
50) Benzo(k)fluoranthene	48.573	252	1399m	4.03	ng/mL	
51) Benzo(e)pyrene	49.434	252	1064m	3.40	ng/mL	
52) Benzo(a)pyrene	49.659	252	587m	1.93	ng/mL	
53) Perylene	49.878	252	754	2.56	ng/mL#	63
54) Indeno(1,2,3-cd)pyrene	53.125	276	1025m	2.95	ng/mL	
55) Dibenz(a,h)anthracene	53.168	278	746	2.37	ng/mL#	43
56) Benzo(g,h,i)perylene	53.930	276	1372m	3.69	ng/mL	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

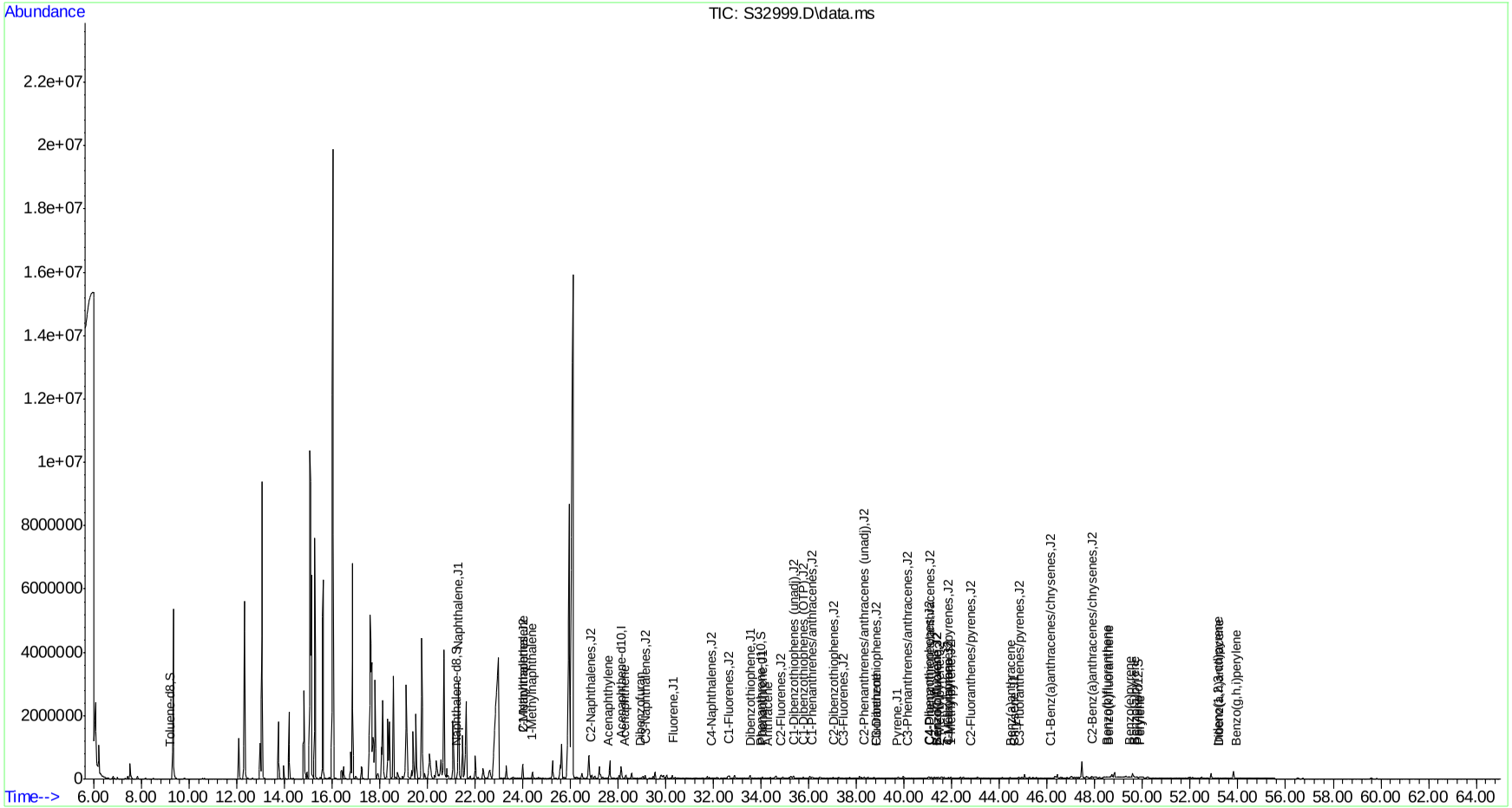
7.1.10

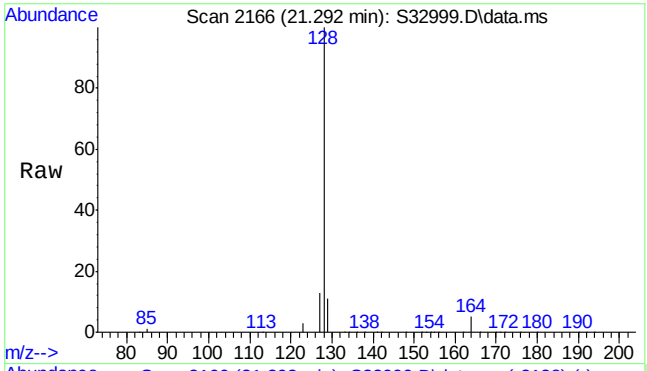
7

Quantitation Report (QT Reviewed)

Data Path : S:\1\data\S130716\
Data File : S32999.D
Acq On : 17 Jul 2013 12:30 am
Operator : kristinr
Sample : mc21754-4a
Misc : op33686,mss1443,5.05,,,2,10
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jul 30 10:49:26 2013
Quant Method : S:\1\methods\S130705-B5739ALKPAH.M
Quant Title : PAHs & Alkylated PAHs by GC/MS/SIM
QLast Update : Thu Jul 11 09:13:24 2013
Response via : Initial Calibration

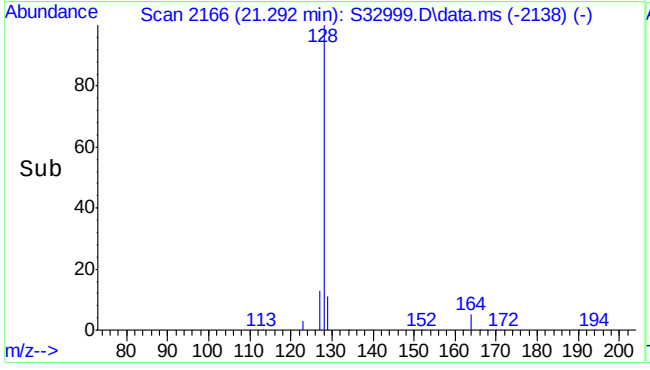


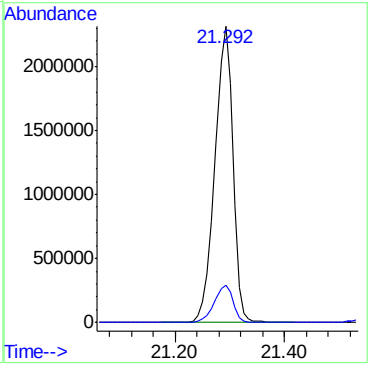


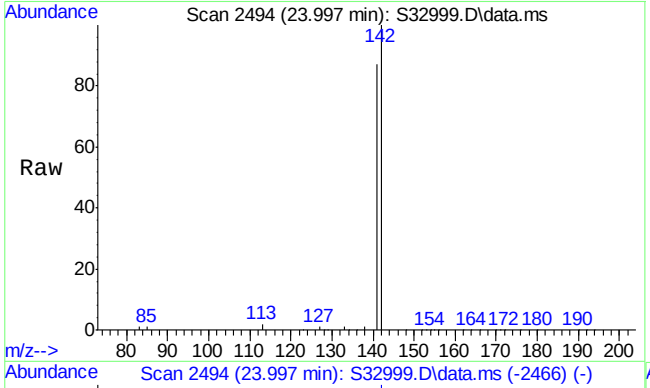
#6
Naphthalene
Concen: 15404.29 ng/mL
RT: 21.292 min Scan# 2166
Delta R.T. 0.034 min
Lab File: S32999.D
Acq: 17 Jul 2013 12:30 am

Tgt Ion:128 Resp: 5122436

Ion	Ratio	Lower	Upper
128	100		
127	12.9	10.0	15.0



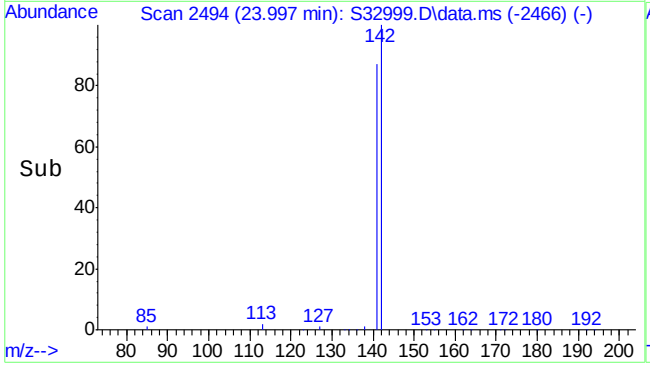


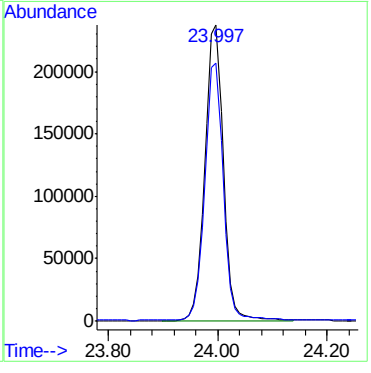


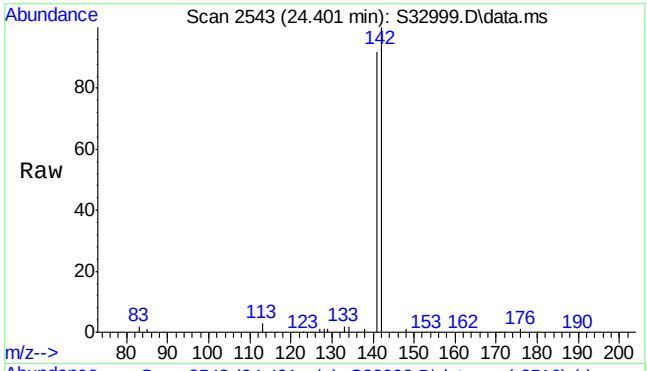
#7
2-Methylnaphthalene
Concen: 2712.75 ng/mL
RT: 23.997 min Scan# 2494
Delta R.T. 0.034 min
Lab File: S32999.D
Acq: 17 Jul 2013 12:30 am

Tgt Ion:142 Resp: 535260

Ion	Ratio	Lower	Upper
142	100		
141	87.3	69.7	104.5



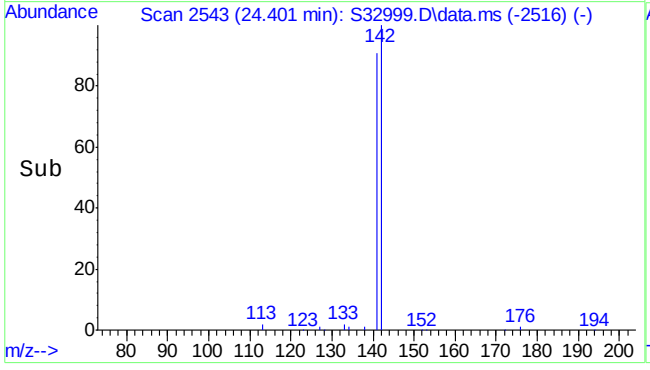


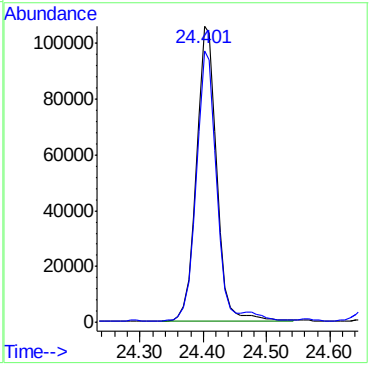


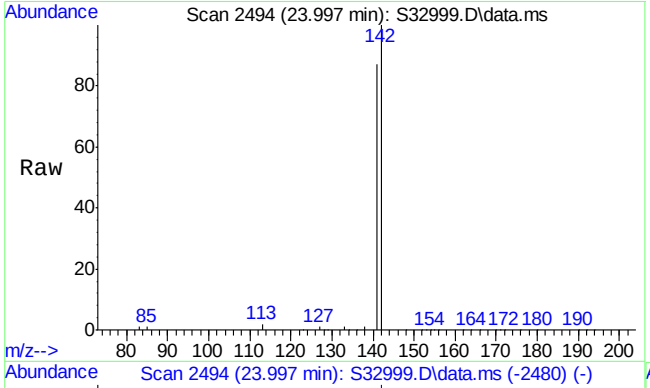
#8
1-Methylnaphthalene
Concen: 1146.33 ng/mL
RT: 24.401 min Scan# 2543
Delta R.T. 0.025 min
Lab File: S32999.D
Acq: 17 Jul 2013 12:30 am

Tgt Ion:142 Resp: 235964

Ion	Ratio	Lower	Upper
142	100		
141	89.2	72.6	108.8



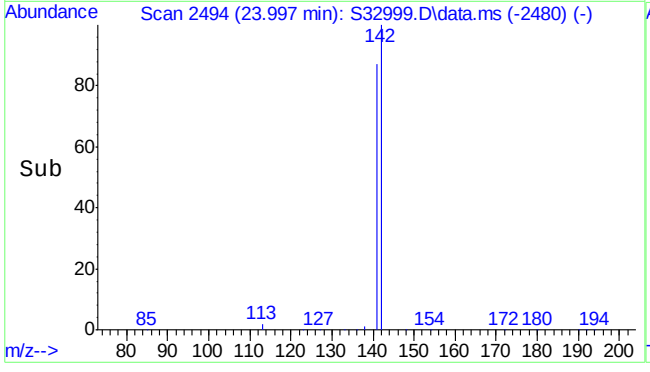


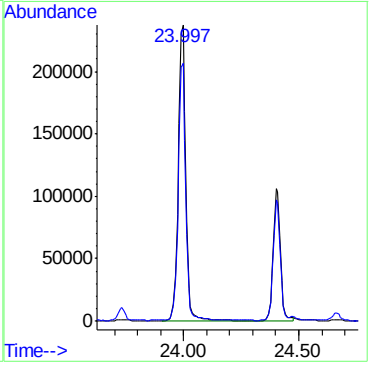


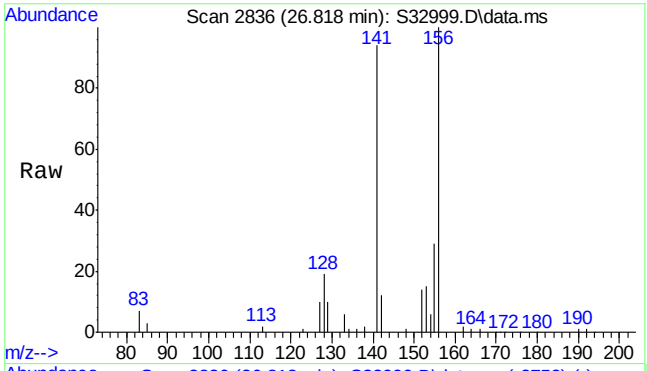
#9
C1-Naphthalenes
Concen: 2314.07 ng/mL m
RT: 23.997 min Scan# 2494
Delta R.T. 0.043 min
Lab File: S32999.D
Acq: 17 Jul 2013 12:30 am

Tgt Ion:142 Resp: 769506

Ion	Ratio	Lower	Upper
142	100		
141	60.9	69.9	104.9#



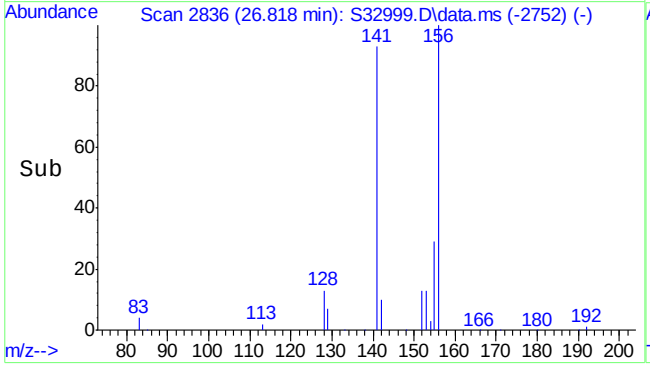


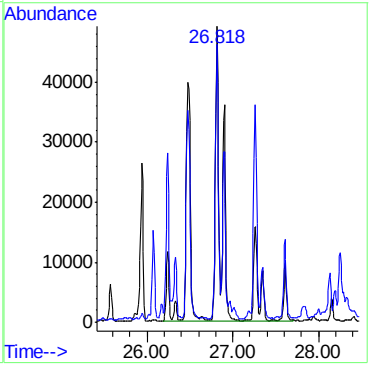


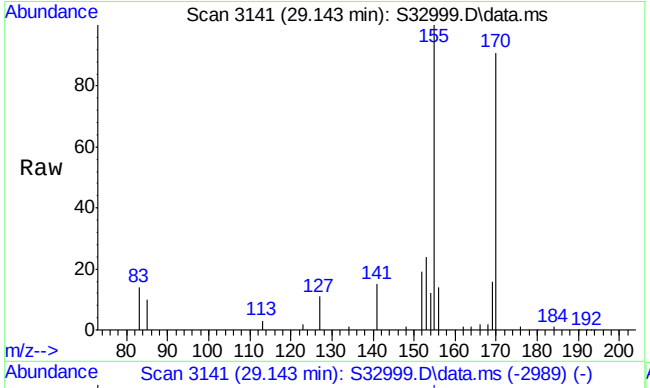
#10
C2-Naphthalenes
Concen: 1400.57 ng/mL m
RT: 26.818 min Scan# 2836
Delta R.T. -0.065 min
Lab File: S32999.D
Acq: 17 Jul 2013 12:30 am

Tgt Ion:156 Resp: 465736

Ion	Ratio	Lower	Upper
156	100		
141	13.6	64.9	97.3#



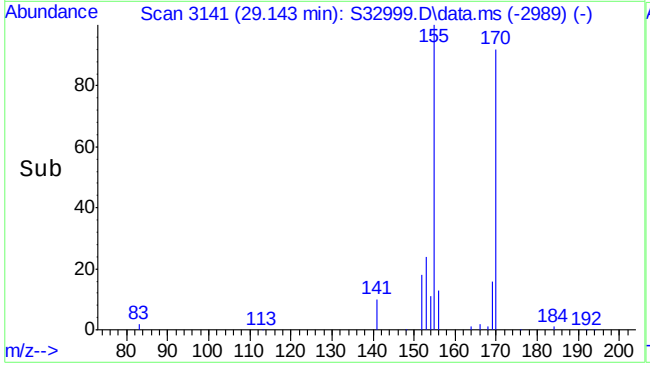


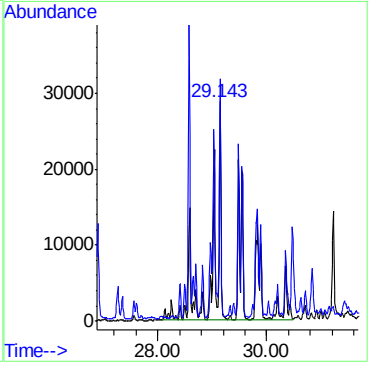


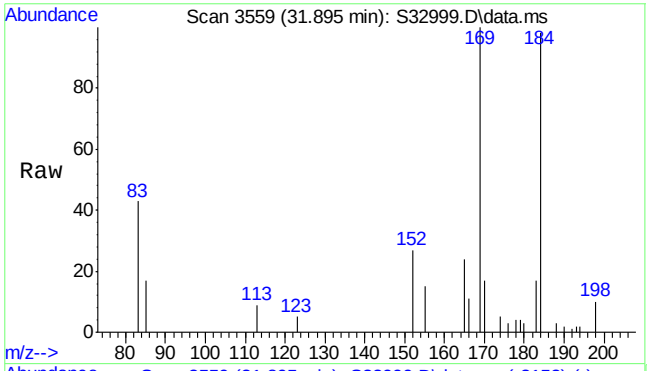
#11
C3-Naphthalenes
Concen: 1180.75 ng/mL m
RT: 29.143 min Scan# 3141
Delta R.T. -0.002 min
Lab File: S32999.D
Acq: 17 Jul 2013 12:30 am

Tgt Ion:170 Resp: 392637

Ion	Ratio	Lower	Upper
170	100		
155	16.9	85.4	128.2#



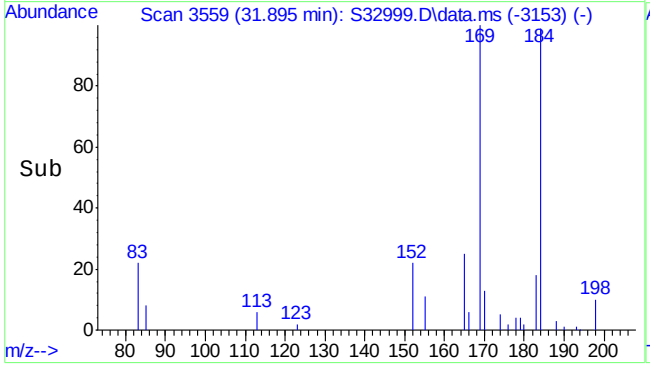


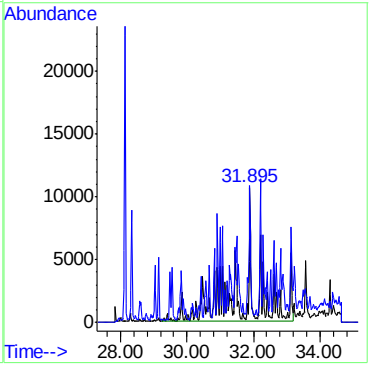


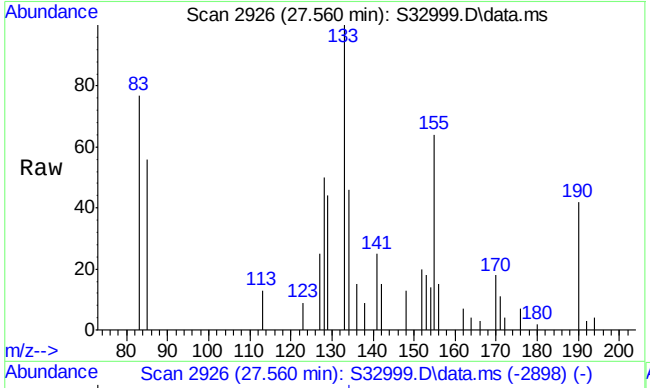
#12
C4-Naphthalenes
Concen: 803.92 ng/mL m
RT: 31.895 min Scan# 3559
Delta R.T. -0.014 min
Lab File: S32999.D
Acq: 17 Jul 2013 12:30 am

Tgt Ion:184 Resp: 267330

Ion	Ratio	Lower	Upper
184	100		
169	4.0	81.0	121.6#



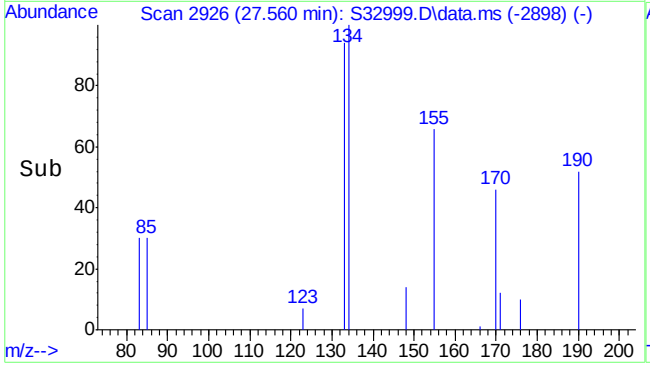


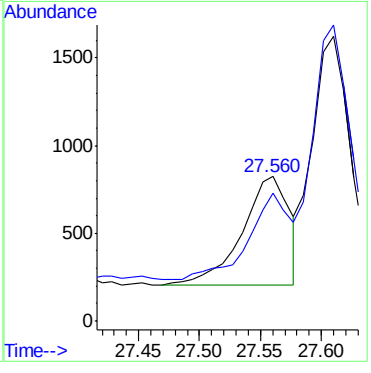


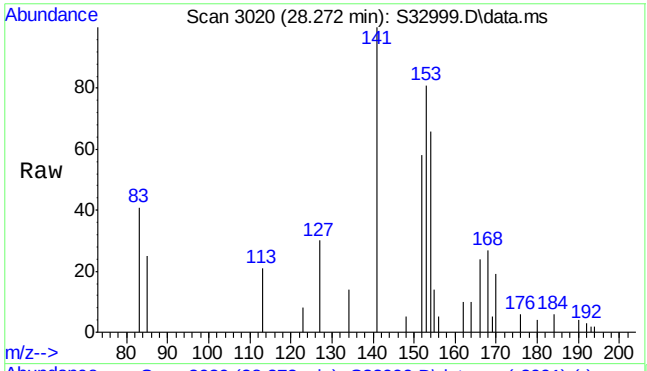
#13
Acenaphthylene
Concen: 5.50 ng/mL
RT: 27.560 min Scan# 2926
Delta R.T. 0.031 min
Lab File: S32999.D
Acq: 17 Jul 2013 12:30 am

Tgt Ion:152 Resp: 1691

Ion	Ratio	Lower	Upper
152	100		
153	68.9	10.5	15.7#



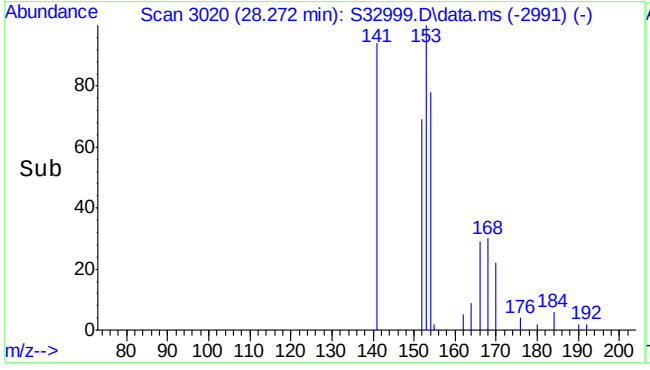


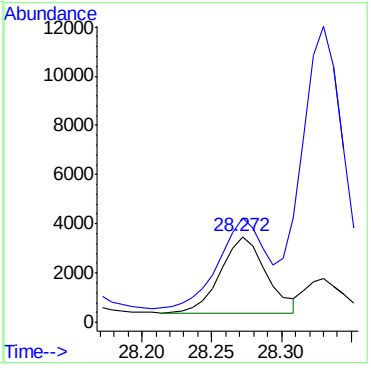


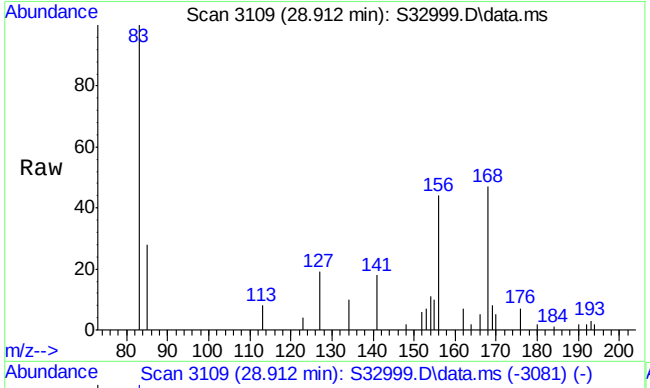
#14
Acenaphthene
Concen: 37.93 ng/mL
RT: 28.272 min Scan# 3020
Delta R.T. 0.007 min
Lab File: S32999.D
Acq: 17 Jul 2013 12:30 am

Tgt Ion:154 Resp: 7117

Ion	Ratio	Lower	Upper
154	100		
153	117.5	88.2	132.4



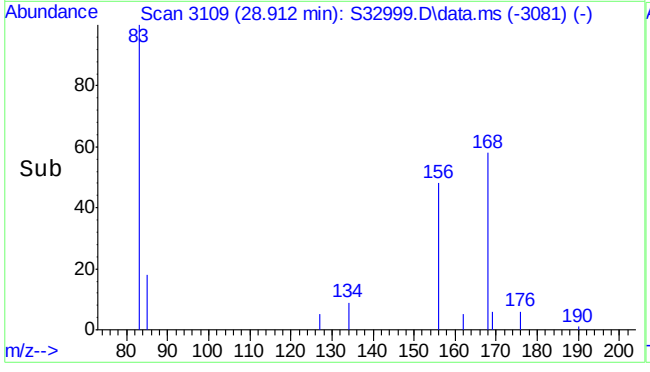


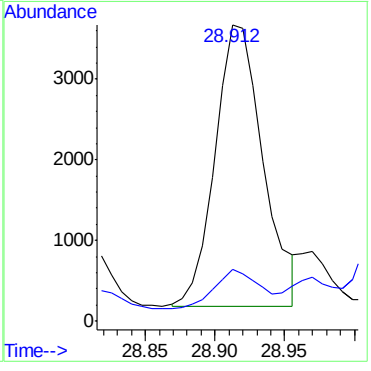


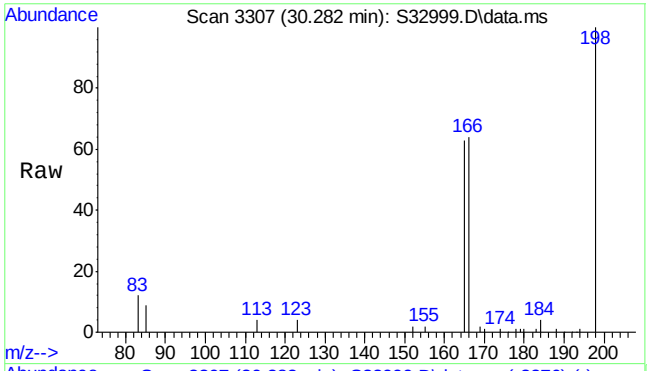
#15
Dibenzofuran
Concen: 31.35 ng/mL m
RT: 28.912 min Scan# 3109
Delta R.T. -0.002 min
Lab File: S32999.D
Acq: 17 Jul 2013 12:30 am

Tgt Ion:168 Resp: 8382

Ion	Ratio	Lower	Upper
168	100		
169	13.0	10.7	16.1



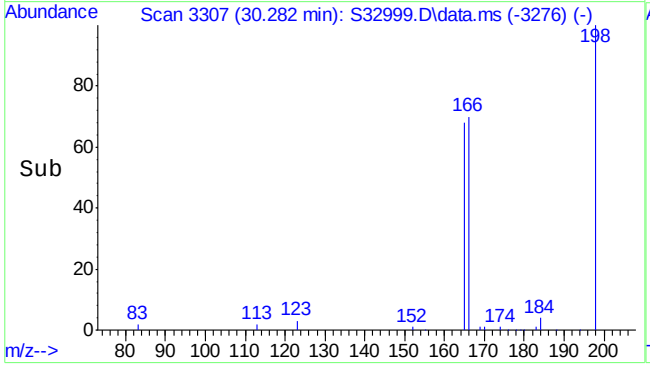


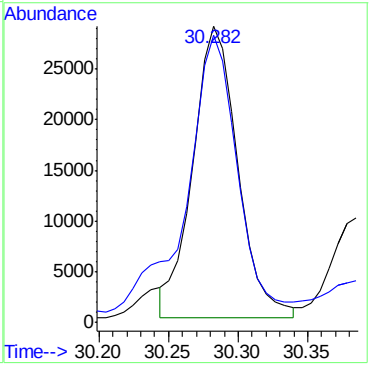


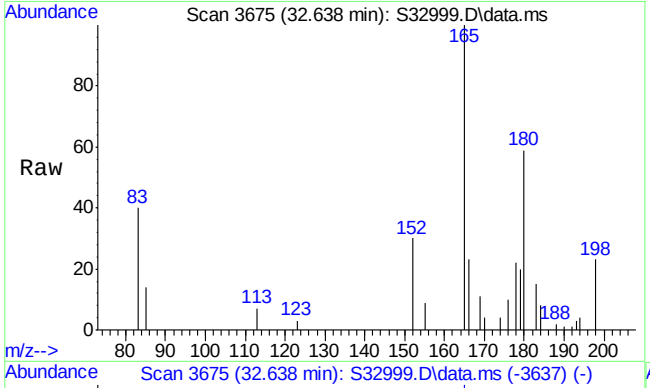
#16
Fluorene
Concen: 270.32 ng/mL m
RT: 30.282 min Scan# 3307
Delta R.T. -0.003 min
Lab File: S32999.D
Acq: 17 Jul 2013 12:30 am

Tgt Ion:166 Resp: 64330

Ion	Ratio	Lower	Upper
166	100		
165	105.6	76.3	114.5



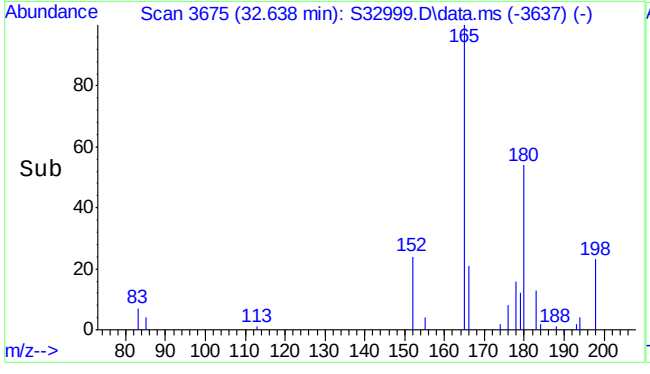


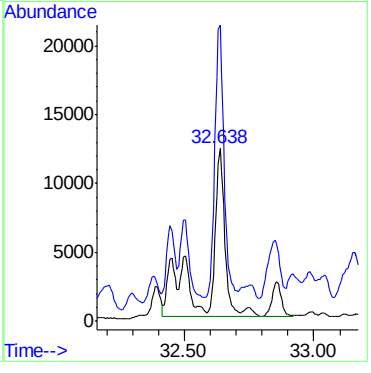


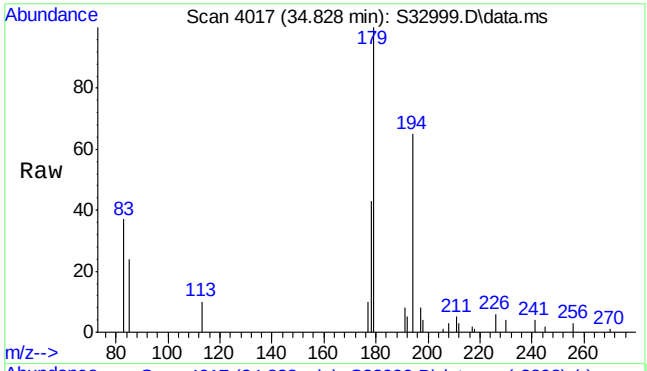
#17
C1-Fluorenes
Concen: 244.07 ng/mL m
RT: 32.638 min Scan# 3675
Delta R.T. 0.008 min
Lab File: S32999.D
Acq: 17 Jul 2013 12:30 am

Tgt Ion:180 Resp: 58083

Ion	Ratio	Lower	Upper
180	100		
165	82.3	134.2	201.4#



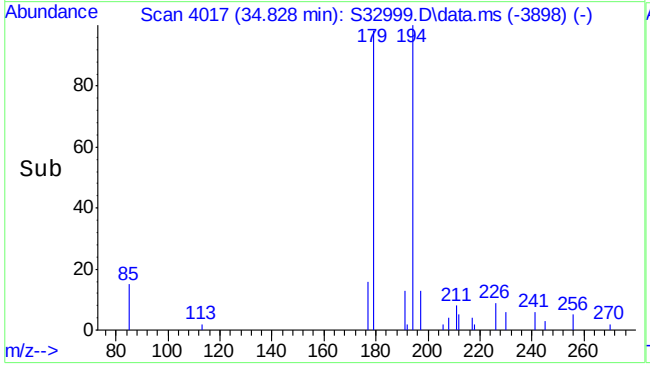


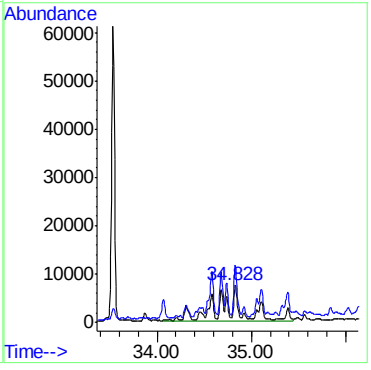


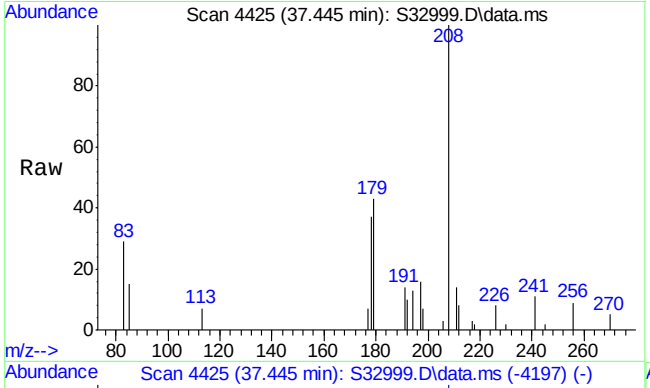
#18
C2-Fluorenes
Concen: 491.66 ng/mL m
RT: 34.828 min Scan# 4017
Delta R.T. -0.000 min
Lab File: S32999.D
Acq: 17 Jul 2013 12:30 am

Tgt Ion:194 Resp: 117001

Ion	Ratio	Lower	Upper
194	100		
179	22.3	125.0	187.4#



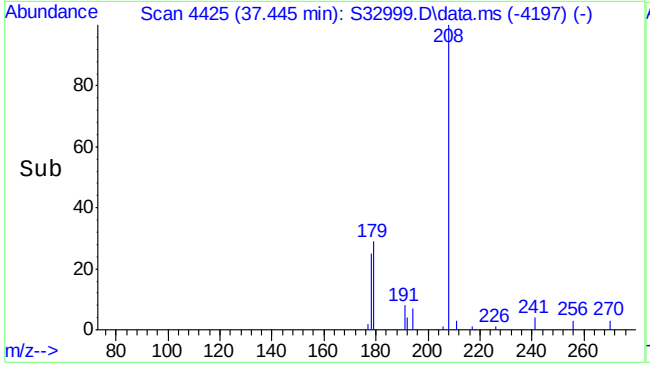


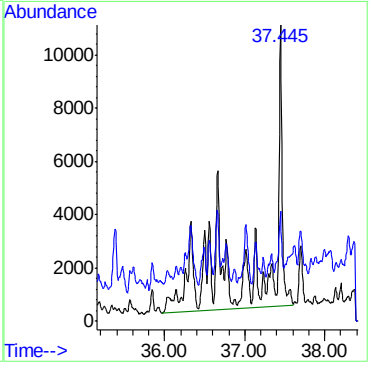


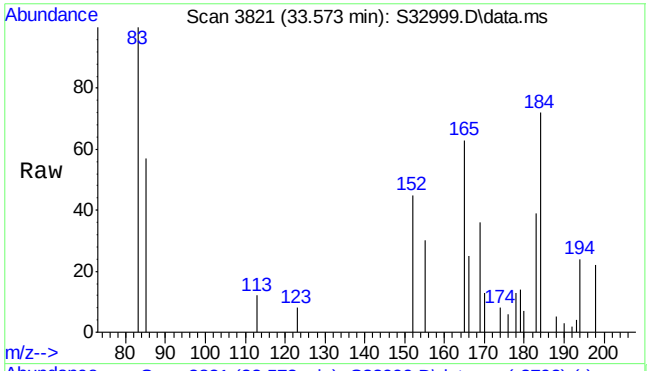
#19
C3-Fluorenes
Concen: 521.65 ng/mL m
RT: 37.445 min Scan# 4425
Delta R.T. 0.754 min
Lab File: S32999.D
Acq: 17 Jul 2013 12:30 am

Tgt Ion:208 Resp: 124139

Ion	Ratio	Lower	Upper
208	100		
178	3.3	54.9	82.3#



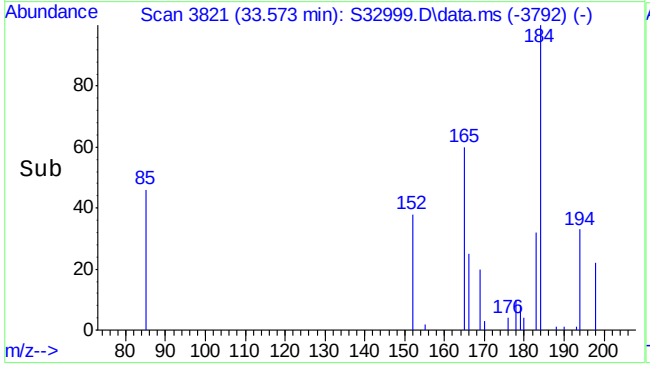


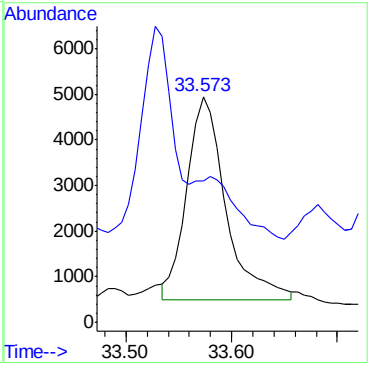


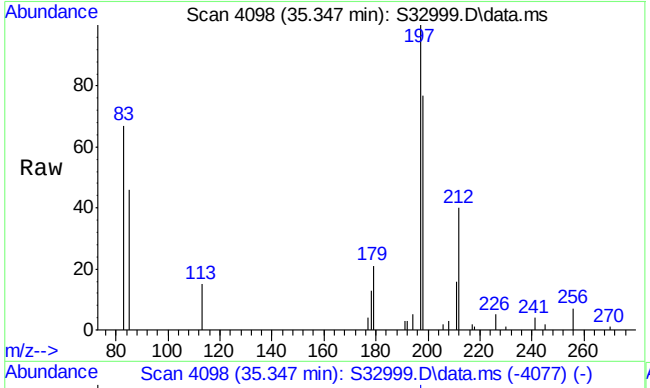
#20
Dibenzothiophene
Concen: 37.47 ng/mL m
RT: 33.573 min Scan# 3821
Delta R.T. -0.013 min
Lab File: S32999.D
Acq: 17 Jul 2013 12:30 am

Tgt Ion:184 Resp: 11241

Ion	Ratio	Lower	Upper
184	100		
152	0.0	7.7	11.5#



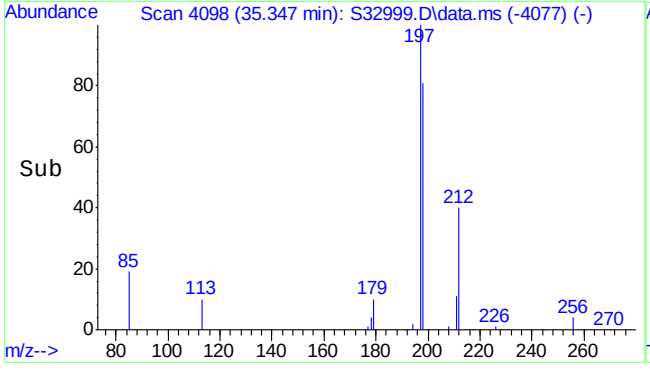


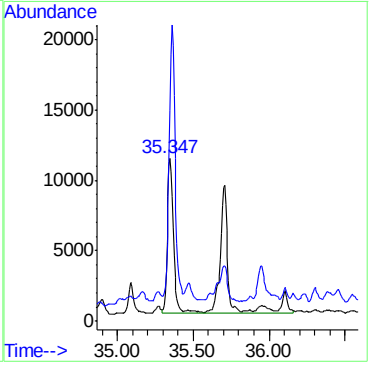


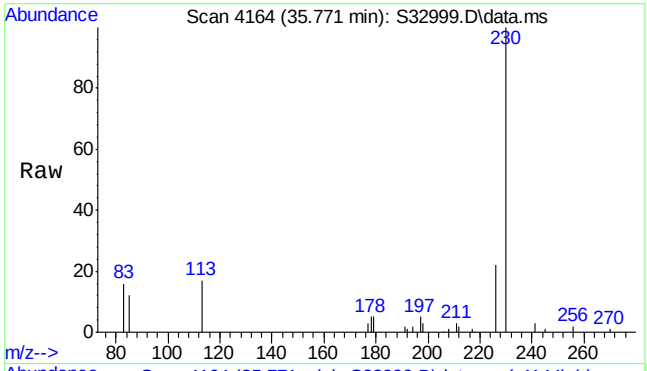
#21
C1-Dibenzothiophenes (unadj)
Concen: 223.42 ng/mL m
RT: 35.347 min Scan# 4098
Delta R.T. -0.018 min
Lab File: S32999.D
Acq: 17 Jul 2013 12:30 am

Tgt Ion:198 Resp: 66075

Ion	Ratio	Lower	Upper
198	100		
197	79.5	53.4	80.0



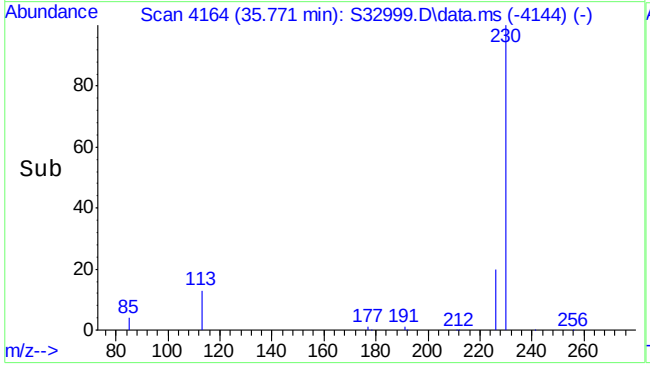


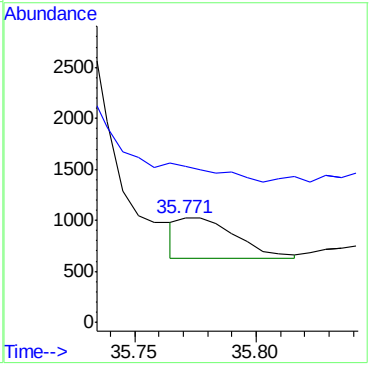


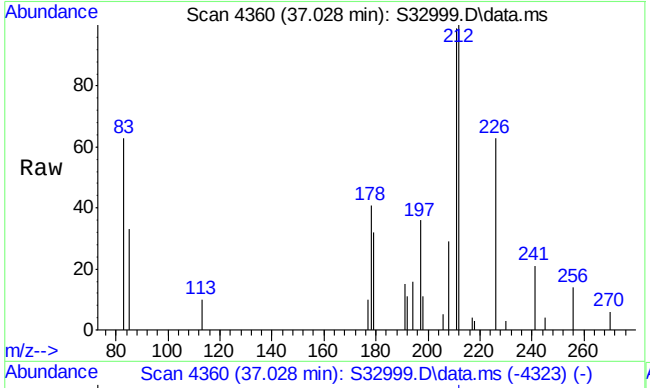
#22
C1-Dibenzothiophenes (OTP)
Concen: 2.20 µg/mL m
RT: 35.771 min Scan# 4164
Delta R.T. 0.039 min
Lab File: S32999.D
Acq: 17 Jul 2013 12:30 am

Tgt Ion:198 Resp: 651

Ion	Ratio	Lower	Upper
198	100		
197	1128.1	58.2	87.2#



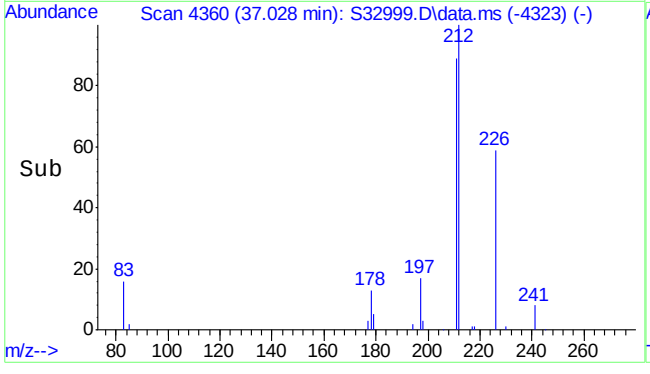


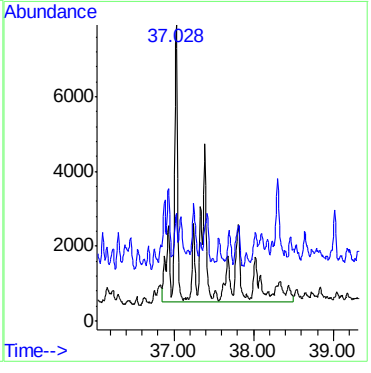


#23
C2-Dibenzothiophenes
Concen: 248.62 ng/mL m
RT: 37.028 min Scan# 4360
Delta R.T. -0.359 min
Lab File: S32999.D
Acq: 17 Jul 2013 12:30 am

Tgt Ion:212 Resp: 73530

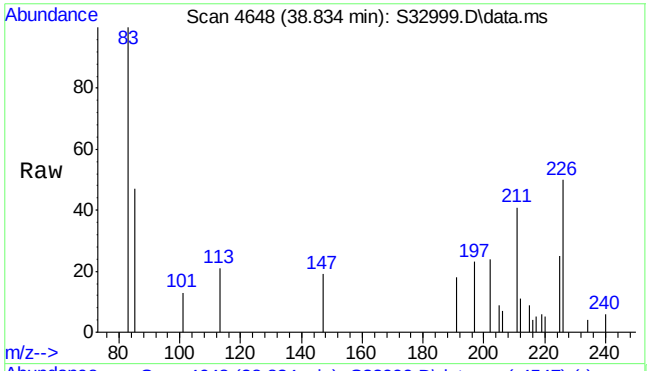
Ion	Ratio	Lower	Upper
212	100		
197	1.4	18.8	28.2#





7.1.10

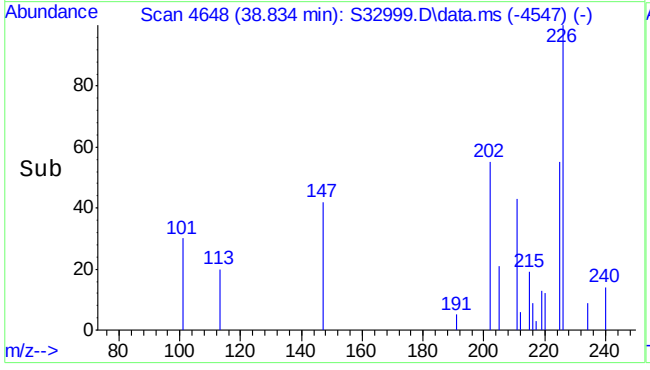
7

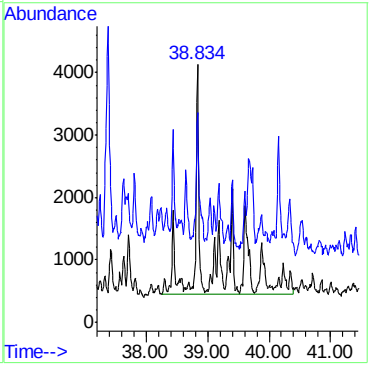


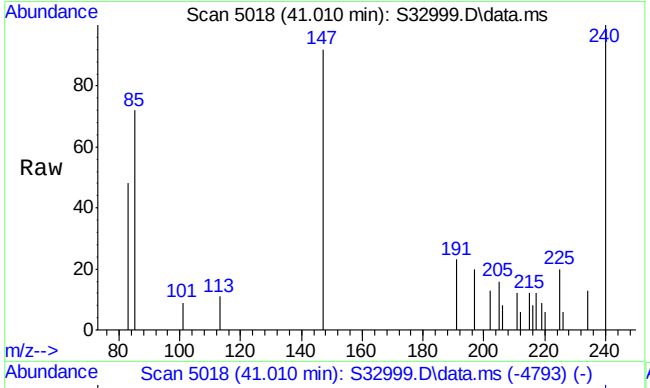
#24
C3-Dibenzothiophenes
Concen: 155.83 ng/mL m
RT: 38.834 min Scan# 4648
Delta R.T. -0.000 min
Lab File: S32999.D
Acq: 17 Jul 2013 12:30 am

Tgt Ion:226 Resp: 46087

Ion	Ratio	Lower	Upper
226	100		
211	2.9	50.0	75.0#

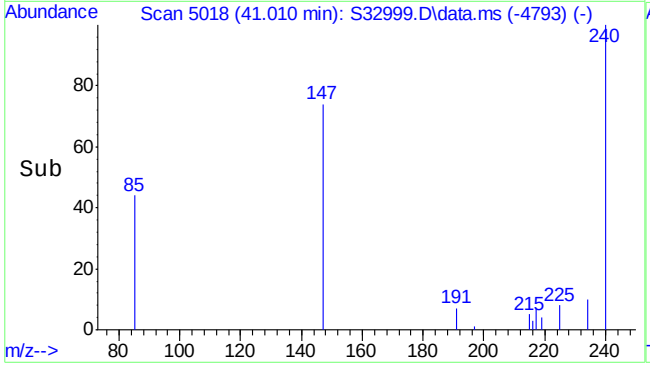


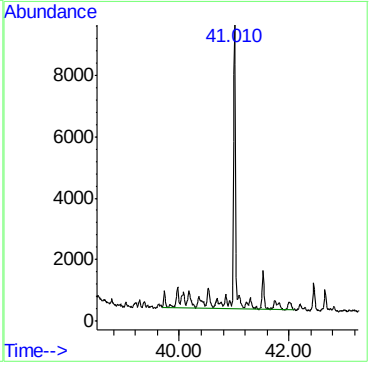


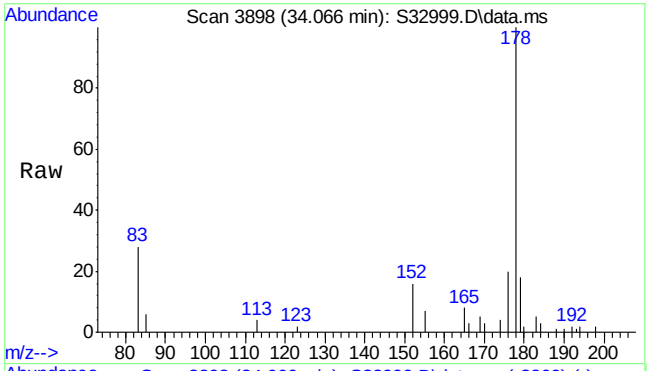


#25
C4-Dibenzothiophenes
Concen: 159.46 ng/mL m
RT: 41.010 min Scan# 5018
Delta R.T. 0.476 min
Lab File: S32999.D
Acq: 17 Jul 2013 12:30 am

Tgt Ion:240 Resp: 47161



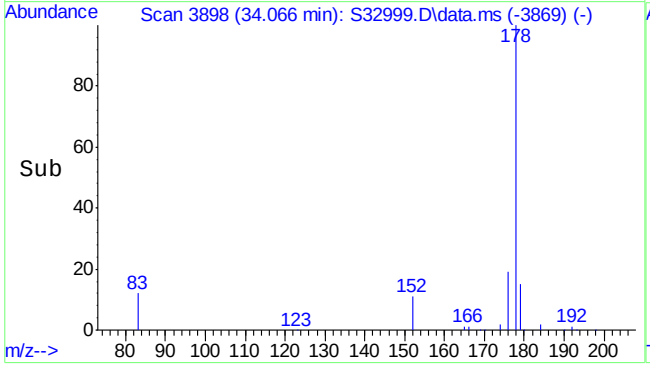


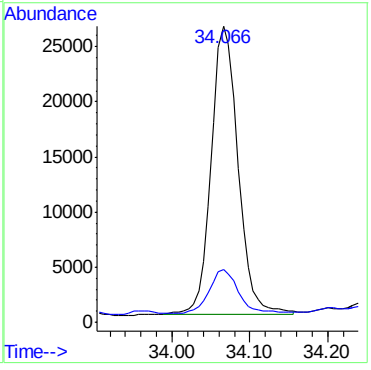


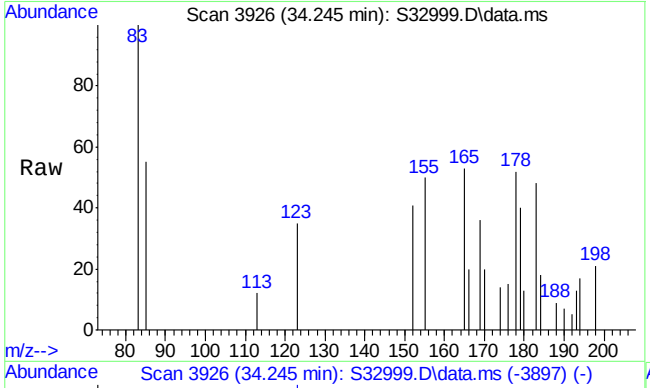
#26
Phenanthrene
Concen: 183.37 ng/mL m
RT: 34.066 min Scan# 3898
Delta R.T. -0.014 min
Lab File: S32999.D
Acq: 17 Jul 2013 12:30 am

Tgt Ion:178 Resp: 62907

Ion	Ratio	Lower	Upper
178	100		
179	16.6	12.6	18.8



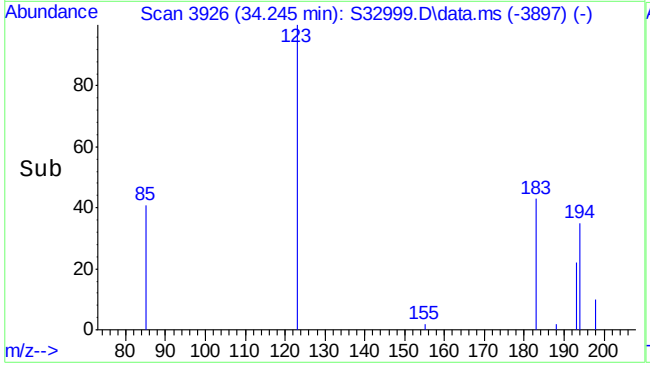


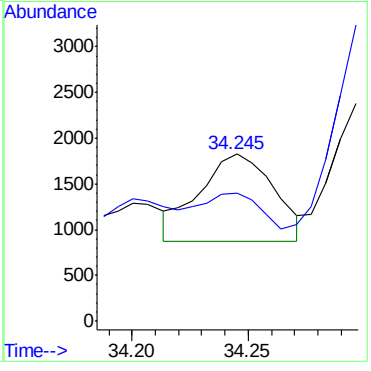


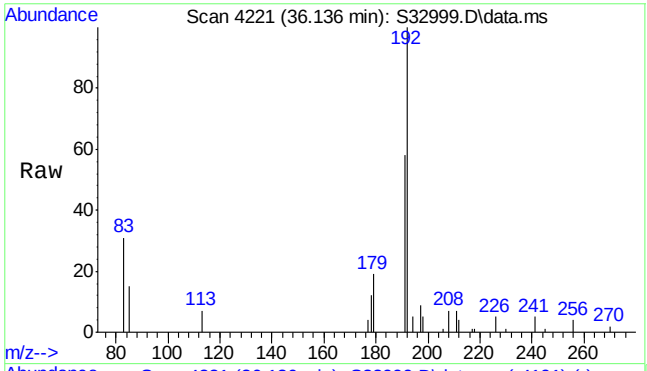
#27
Anthracene
Concen: 6.69 ng/mL m
RT: 34.245 min Scan# 3926
Delta R.T. -0.015 min
Lab File: S32999.D
Acq: 17 Jul 2013 12:30 am

Tgt Ion:178 Resp: 2133

Ion	Ratio	Lower	Upper
178	100		
179	32.6	12.9	19.3#



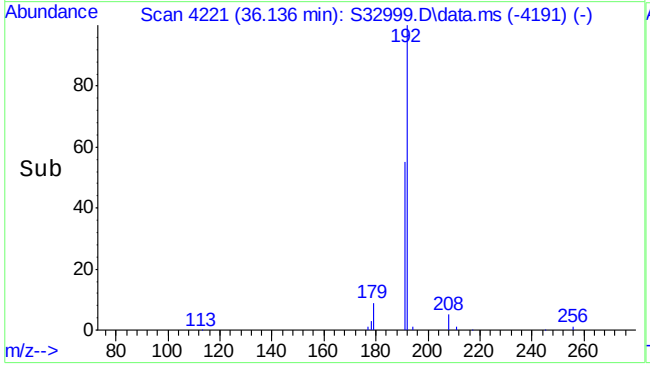


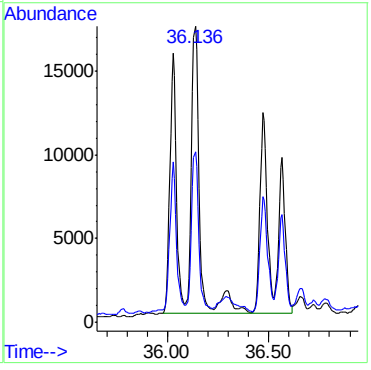


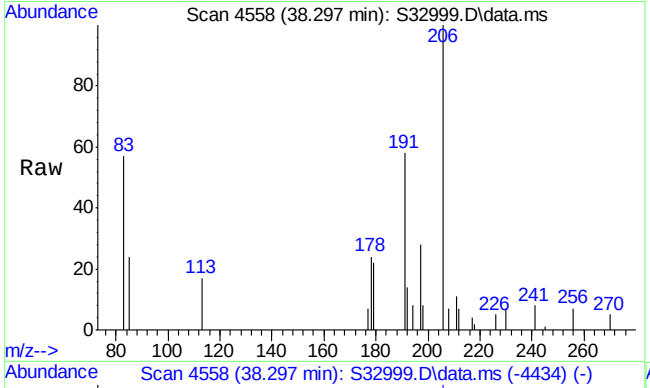
#28
C1-Phenanthrenes/anthracenes
Concen: 393.79 ng/mL m
RT: 36.136 min Scan# 4221
Delta R.T. -0.361 min
Lab File: S32999.D
Acq: 17 Jul 2013 12:30 am

Tgt Ion:192 Resp: 135089

Ion	Ratio	Lower	Upper
192	100		
191	13.4	46.7	70.1#



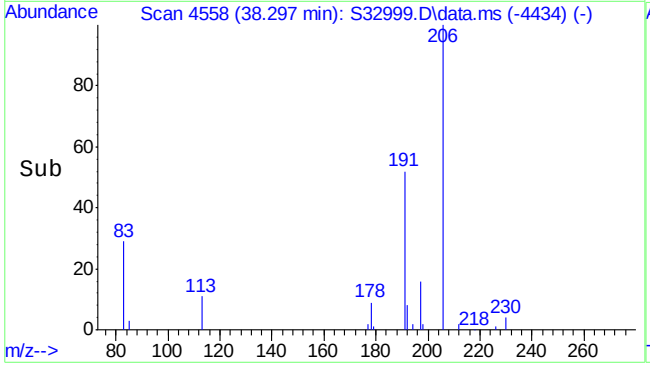


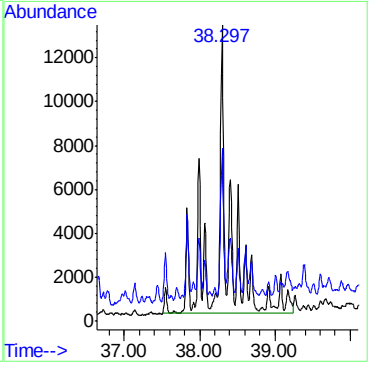


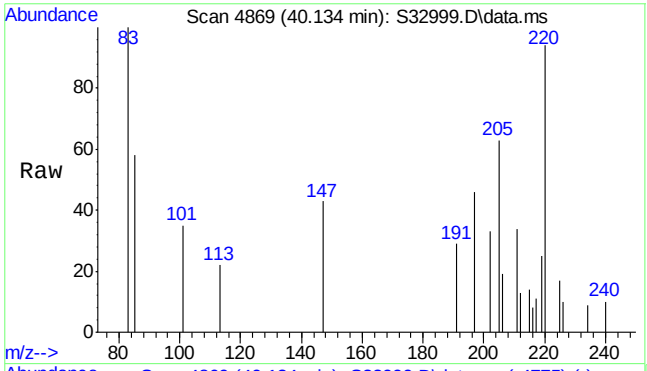
#29
C2-Phenanthrenes/anthracenes (unadj)
Concen: 423.60 ng/mL m
RT: 38.297 min Scan# 4558
Delta R.T. -0.000 min
Lab File: S32999.D
Acq: 17 Jul 2013 12:30 am

Tgt Ion:206 Resp: 145316

Ion	Ratio	Lower	Upper
206	100		
191	12.7	45.5	68.3#



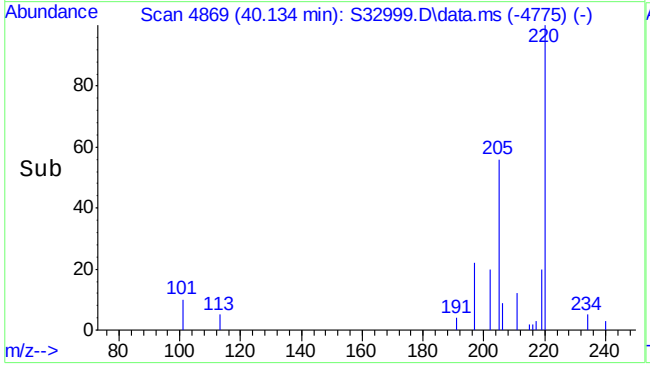


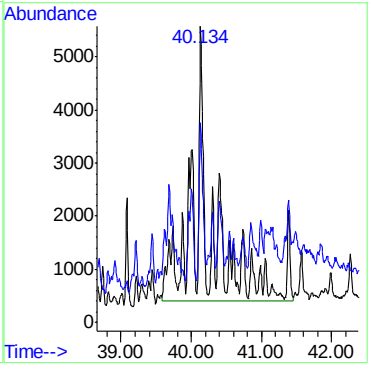


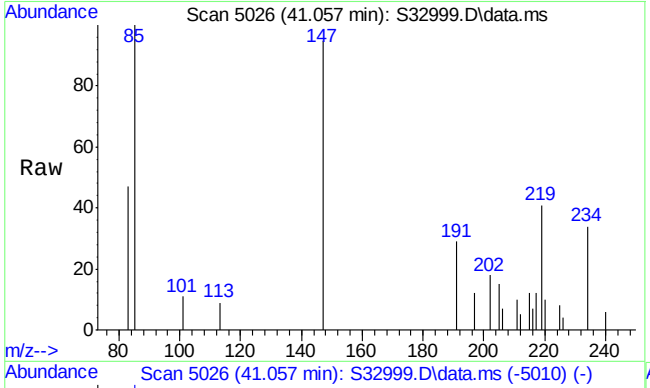
#31
C3-Phenanthrenes/anthracenes
Concen: 255.82 ng/mL m
RT: 40.134 min Scan# 4869
Delta R.T. -0.000 min
Lab File: S32999.D
Acq: 17 Jul 2013 12:30 am

Tgt Ion:220 Resp: 87760

Ion	Ratio	Lower	Upper
220	100		
205	12.5	44.9	67.3#



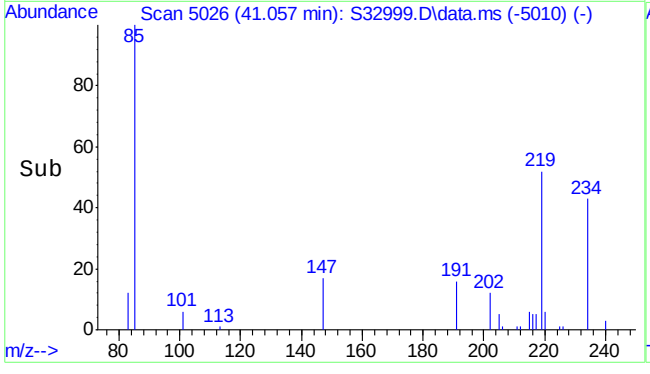


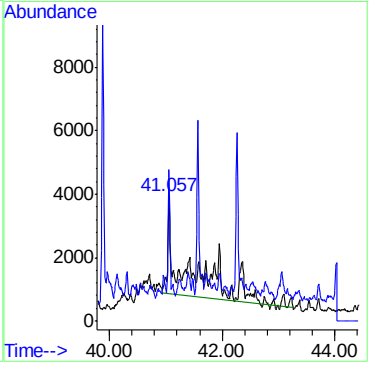


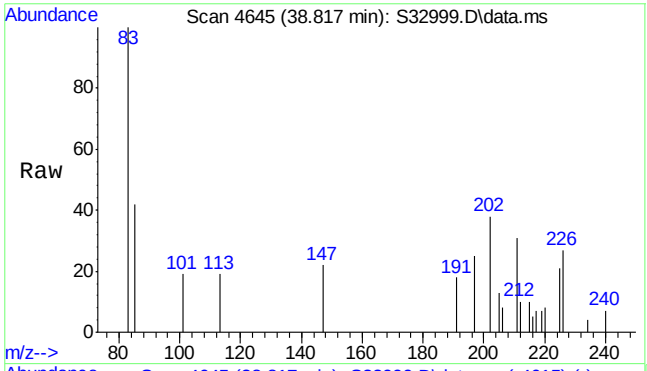
#32
C4-Phenanthrenes/anthracenes
Concen: 187.56 ng/mL m
RT: 41.057 min Scan# 5026
Delta R.T. -1.253 min
Lab File: S32999.D
Acq: 17 Jul 2013 12:30 am

Tgt Ion:234 Resp: 64344

Ion	Ratio	Lower	Upper
234	100		
219	0.0	51.0	76.6#



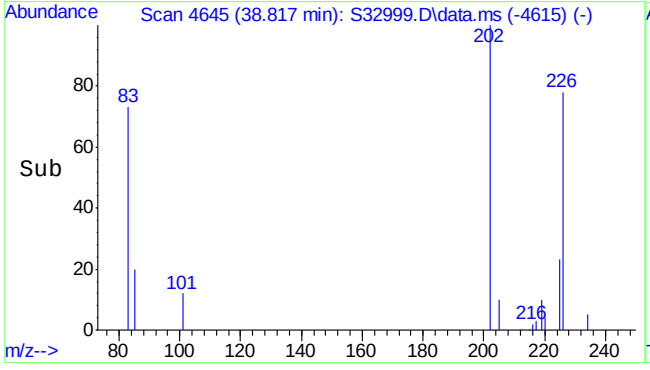


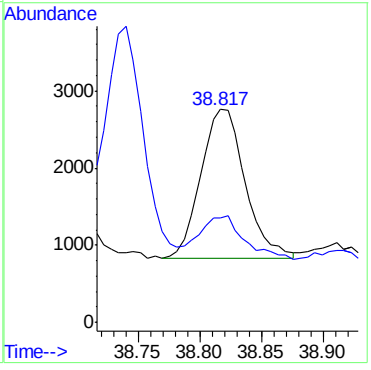


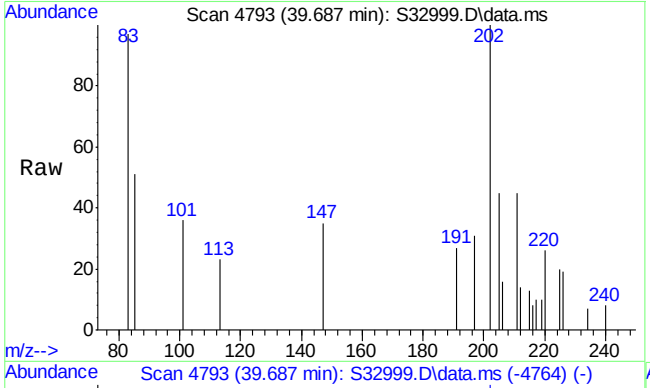
#33
Fluoranthene
Concen: 15.83 ng/mL
RT: 38.817 min Scan# 4645
Delta R.T. -0.024 min
Lab File: S32999.D
Acq: 17 Jul 2013 12:30 am

Tgt Ion:202 Resp: 4812

Ion	Ratio	Lower	Upper
202	100		
101	30.1	9.8	14.6#



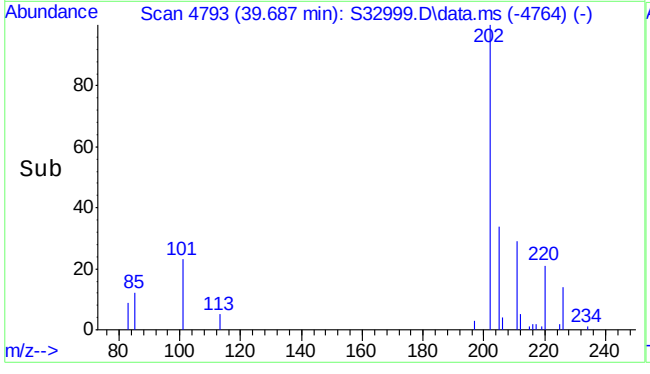


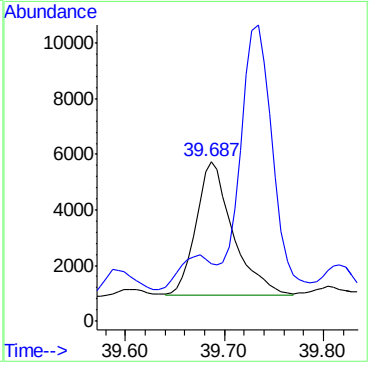


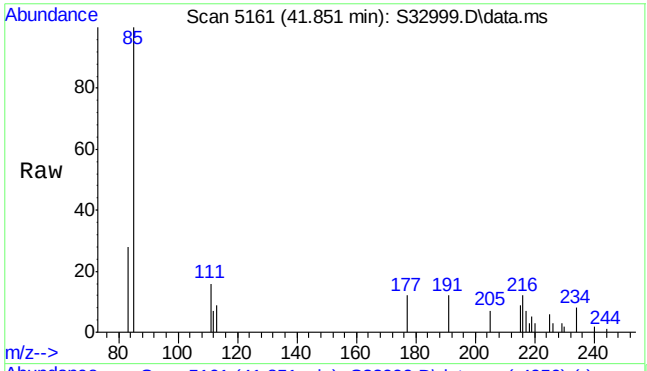
#34
Pyrene
Concen: 39.78 ng/mL m
RT: 39.687 min Scan# 4793
Delta R.T. -0.027 min
Lab File: S32999.D
Acq: 17 Jul 2013 12:30 am

Tgt Ion:202 Resp: 12525

Ion	Ratio	Lower	Upper
202	100		
101	32.2	11.4	17.0#



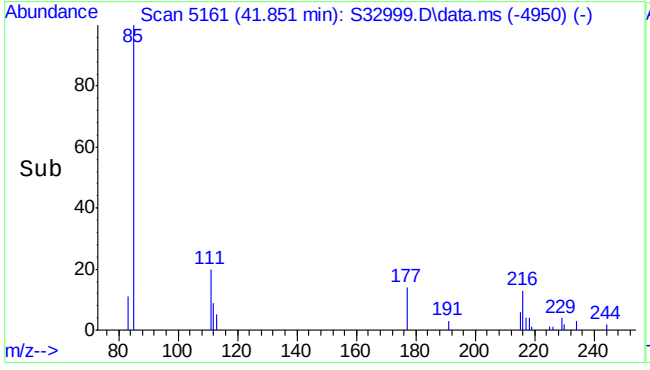


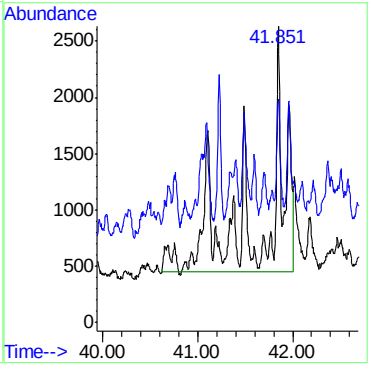


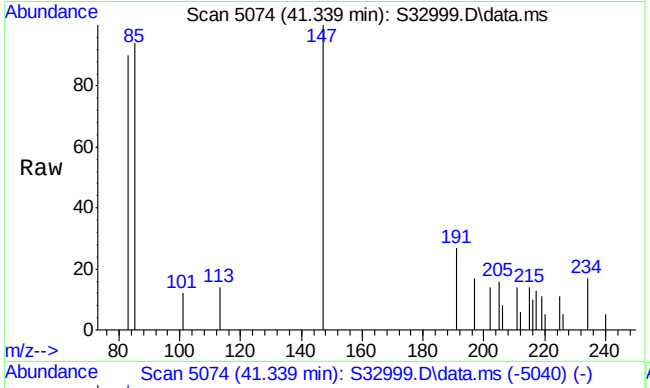
#35
C1-Fluoranthenes/pyrenes
Concen: 94.94 ng/mL m
RT: 41.851 min Scan# 5161
Delta R.T. -0.000 min
Lab File: S32999.D
Acq: 17 Jul 2013 12:30 am

Tgt Ion:216 Resp: 29896

Ion	Ratio	Lower	Upper
216	100		
215	1.3	57.5	86.3#



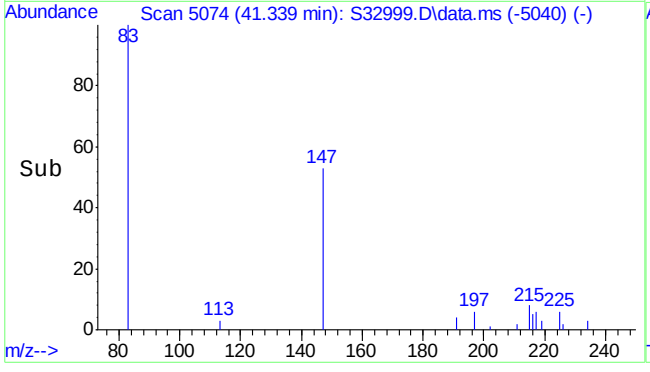


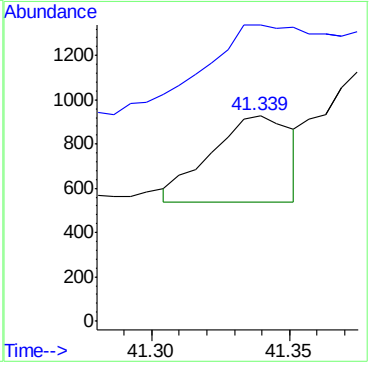


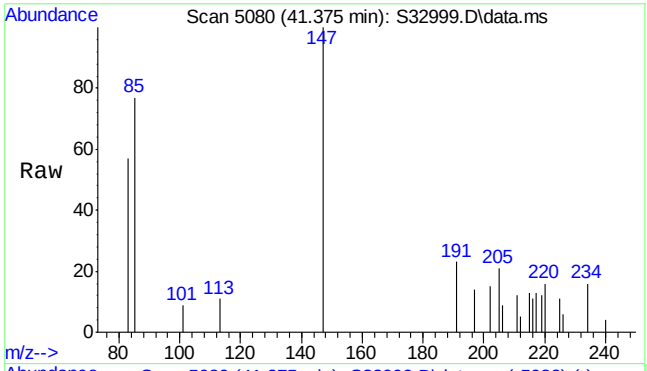
#36
Benzo(b)fluorene
Concen: 2.49 ng/mL m
RT: 41.339 min Scan# 5074
Delta R.T. -0.000 min
Lab File: S32999.D
Acq: 17 Jul 2013 12:30 am

Tgt Ion:216 Resp: 785

Ion	Ratio	Lower	Upper
216	100		
215	185.5	115.9	173.9#



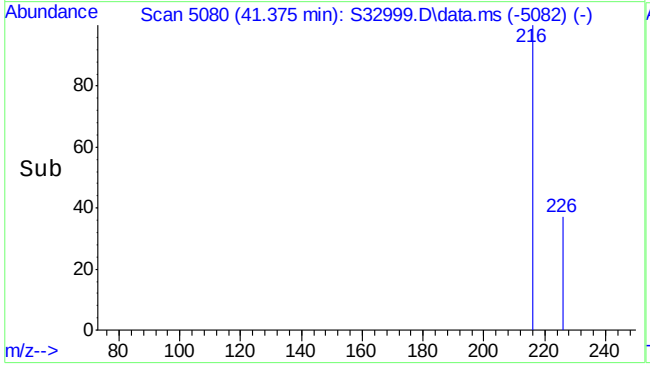


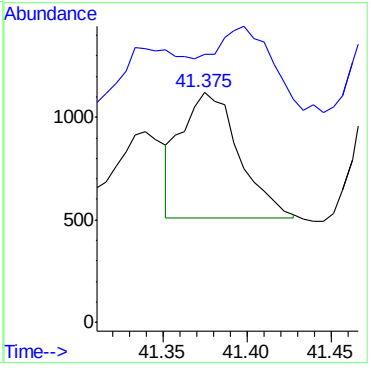


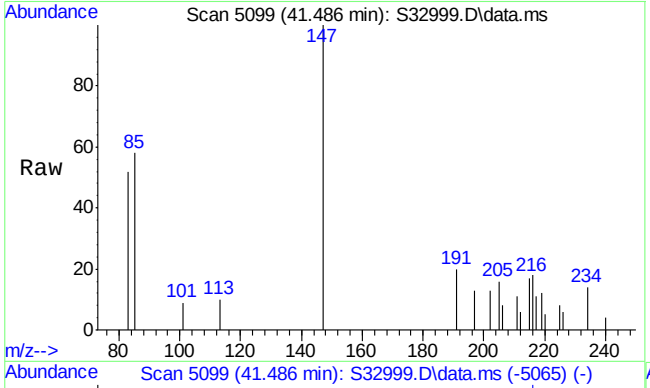
#37
Benzo(c)fluorene
Concen: 4.60 µg/mL m
RT: 41.375 min Scan# 5080
Delta R.T. -0.012 min
Lab File: S32999.D
Acq: 17 Jul 2013 12:30 am

Tgt Ion:216 Resp: 1449

Ion	Ratio	Lower	Upper
216	100		
215	157.8	125.0	187.6



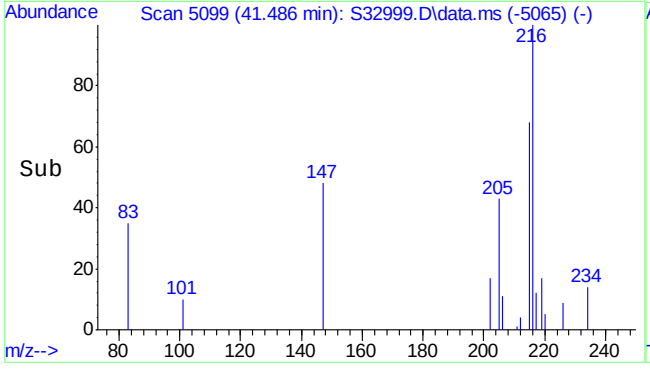


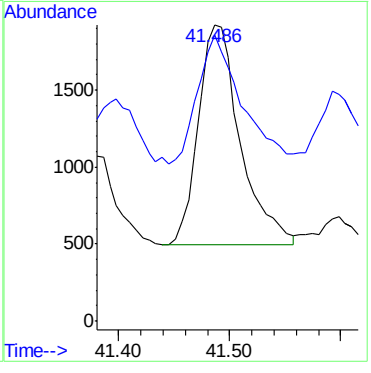


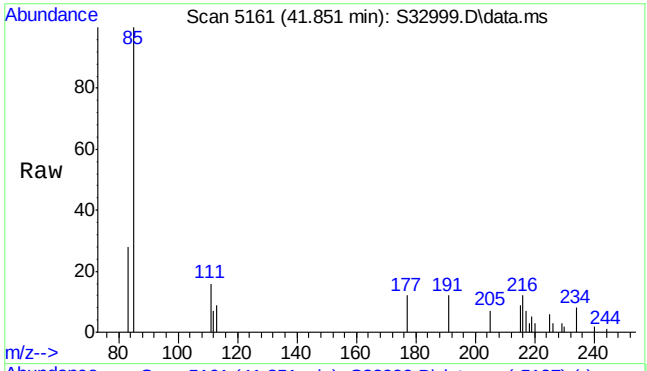
#38
2-Methylpyrene
Concen: 11.90 ng/mL
RT: 41.486 min Scan# 5099
Delta R.T. -0.000 min
Lab File: S32999.D
Acq: 17 Jul 2013 12:30 am

Tgt Ion:216 Resp: 3747

Ion	Ratio	Lower	Upper
216	100		
215	65.3	78.2	117.4#



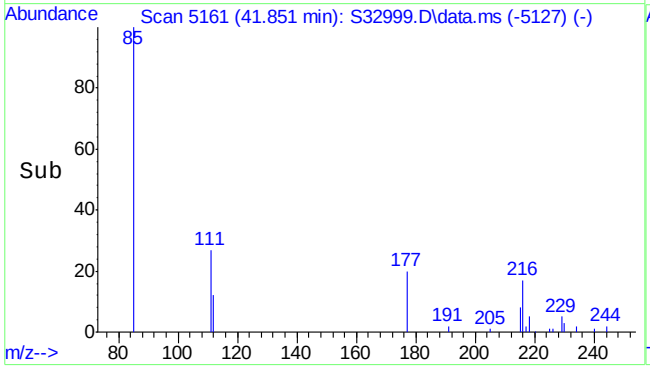


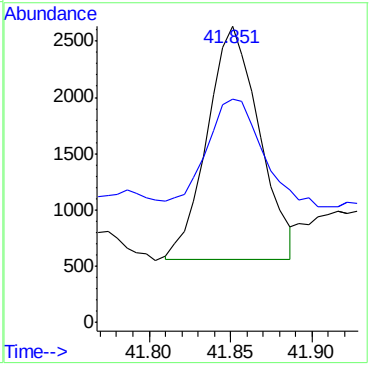


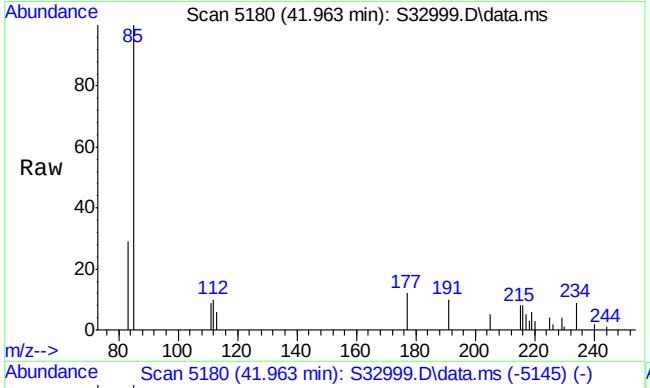
#39
4-Methylpyrene
Concen: 14.59 ng/mL m
RT: 41.851 min Scan# 5161
Delta R.T. -0.000 min
Lab File: S32999.D
Acq: 17 Jul 2013 12:30 am

Tgt Ion:216 Resp: 4595

Ion	Ratio	Lower	Upper
216	100		
215	8.8	57.5	86.3#



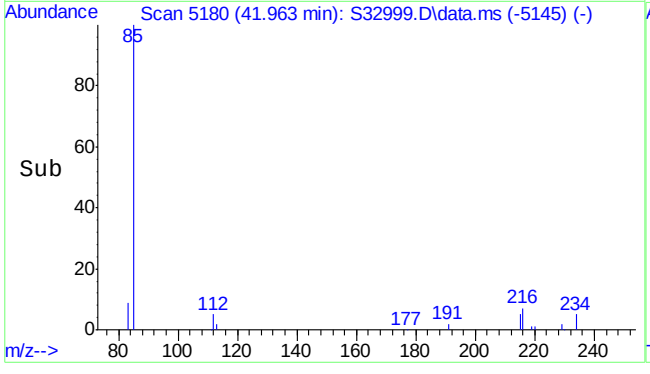


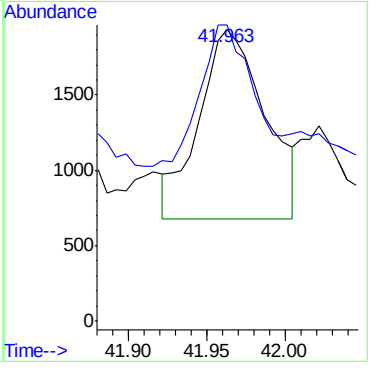


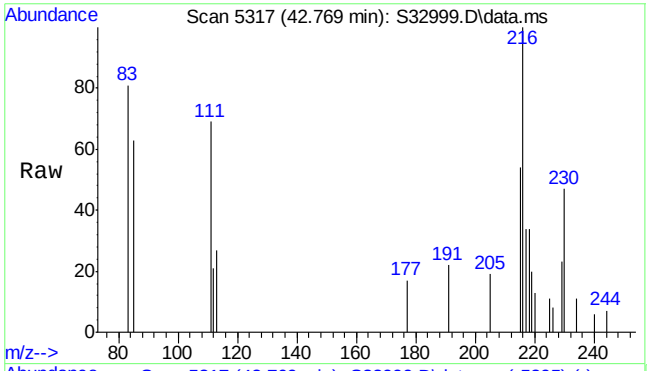
#40
1-Methylpyrene
Concen: 11.69 ng/mL m
RT: 41.963 min Scan# 5180
Delta R.T. 0.006 min
Lab File: S32999.D
Acq: 17 Jul 2013 12:30 am

Tgt Ion:216 Resp: 3680

Ion	Ratio	Lower	Upper
216	100		
215	60.0	80.2	120.2#



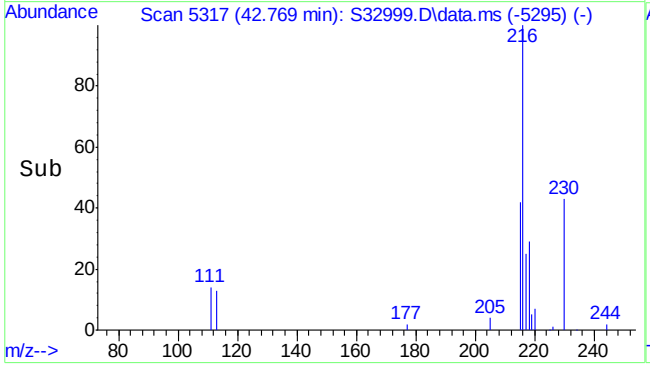


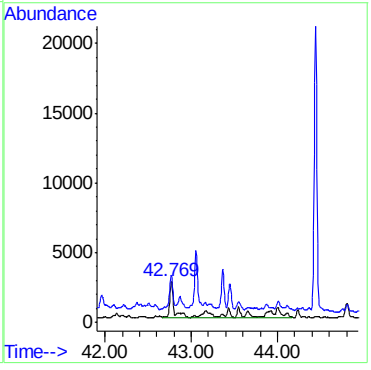


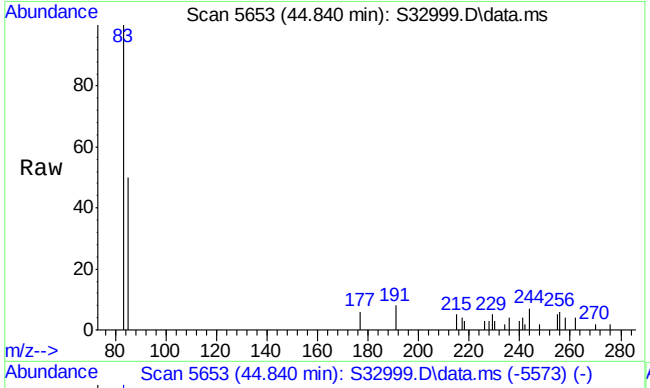
#41
C2-Fluoranthenes/pyrenes
Concen: 75.38 ng/mL m
RT: 42.769 min Scan# 5317
Delta R.T. -0.135 min
Lab File: S32999.D
Acq: 17 Jul 2013 12:30 am

Tgt Ion:230 Resp: 23735

Ion	Ratio	Lower	Upper
230	100		
215	12.3	108.6	163.0#



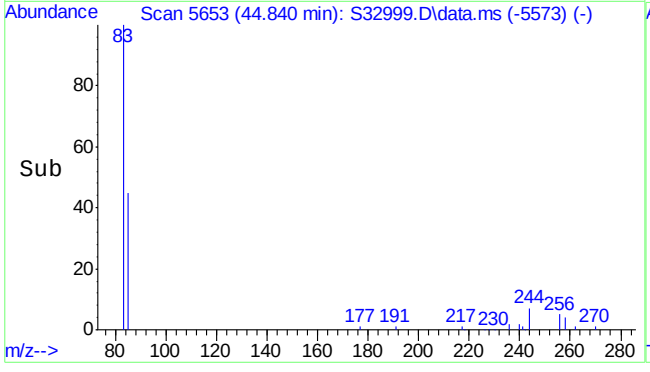


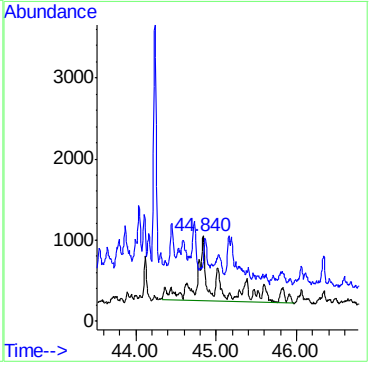


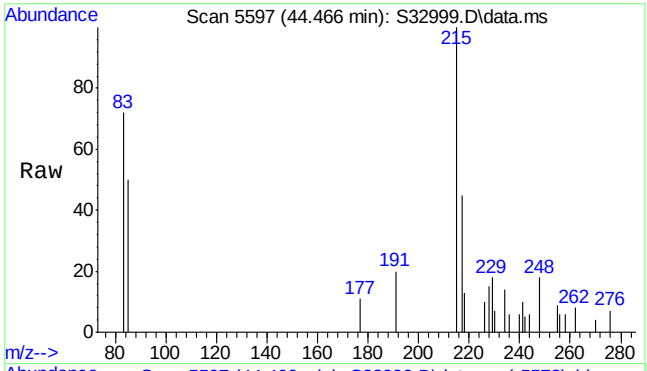
#42
C3-Fluoranthenes/pyrenes
Concen: 39.56 ng/mL m
RT: 44.840 min Scan# 5653
Delta R.T. -0.067 min
Lab File: S32999.D
Acq: 17 Jul 2013 12:30 am

Tgt Ion:244 Resp: 12457

Ion	Ratio	Lower	Upper
244	100		
229	4.7	83.0	124.4#



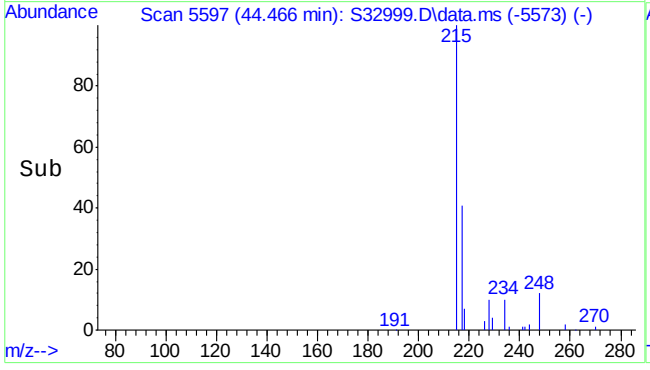


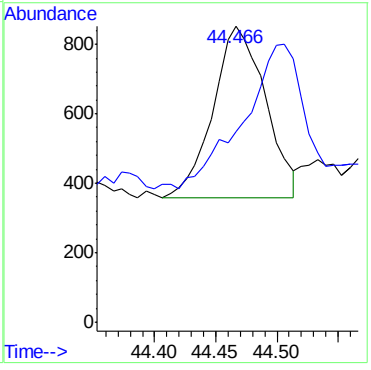


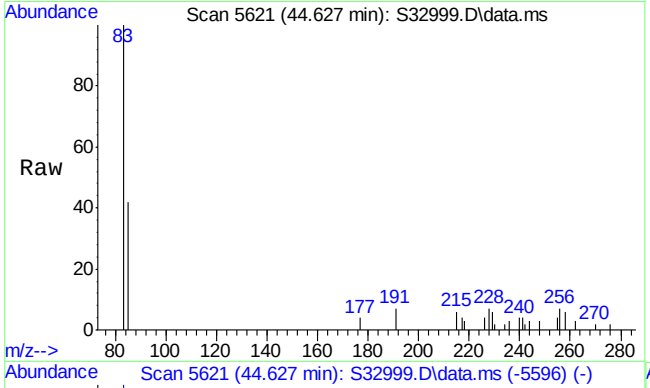
#43
Benz(a)anthracene
Concen: 4.88 ng/mL
RT: 44.466 min Scan# 5597
Delta R.T. -0.042 min
Lab File: S32999.D
Acq: 17 Jul 2013 12:30 am

Tgt Ion:228 Resp: 1483

Ion	Ratio	Lower	Upper
228	100		
226	0.0	21.4	32.2#



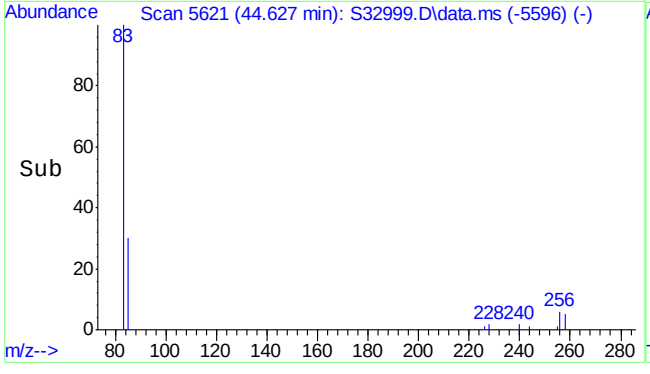


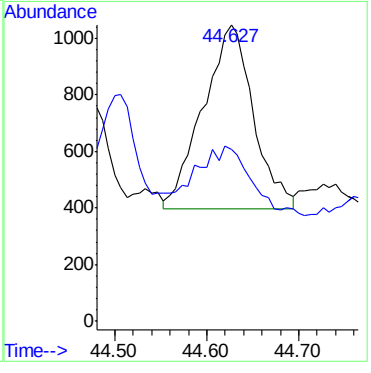


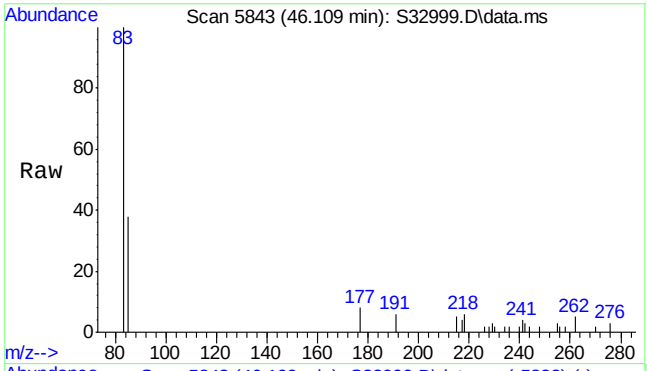
#44
Chrysene
Concen: 8.67 ng/mL m
RT: 44.627 min Scan# 5621
Delta R.T. -0.036 min
Lab File: S32999.D
Acq: 17 Jul 2013 12:30 am

Tgt Ion:228 Resp: 2460

Ion	Ratio	Lower	Upper
228	100		
226	42.0	23.8	35.6#



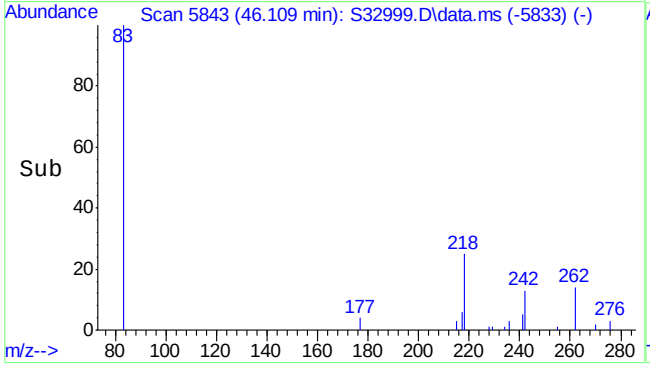


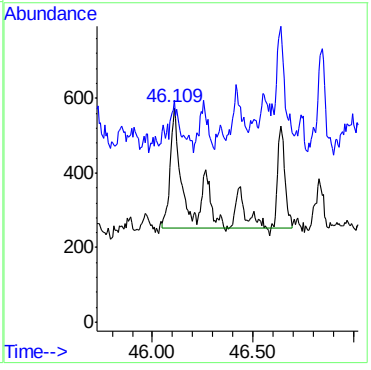


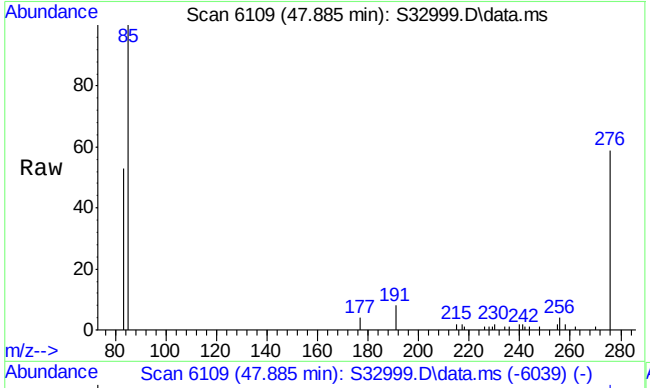
#45
C1-Benz(a)anthracenes/chrysenes
Concen: 9.56 ng/mL m
RT: 46.109 min Scan# 5843
Delta R.T. 0.007 min
Lab File: S32999.D
Acq: 17 Jul 2013 12:30 am

Tgt Ion:242 Resp: 2712

Ion	Ratio	Lower	Upper
242	100		
241	8.4	35.3	52.9#



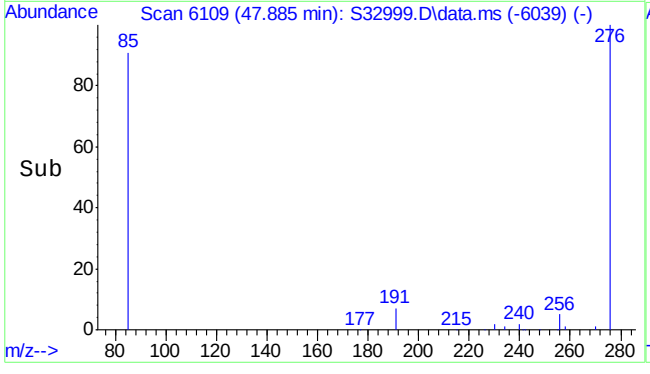


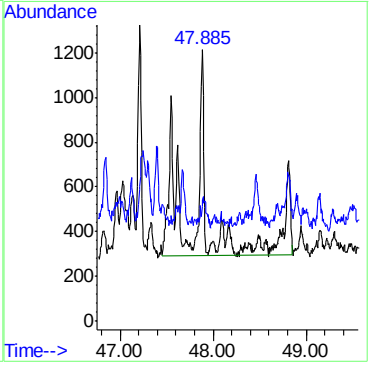


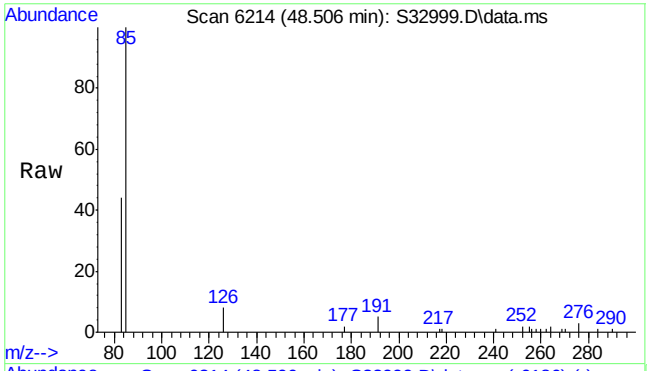
#46
C2-Benz(a)anthracenes/chrysenes
Concen: 33.63 ng/mL m
RT: 47.885 min Scan# 6109
Delta R.T. -0.294 min
Lab File: S32999.D
Acq: 17 Jul 2013 12:30 am

Tgt Ion:256 Resp: 9539

Ion	Ratio	Lower	Upper
256	100		
241	0.0	27.6	41.4#



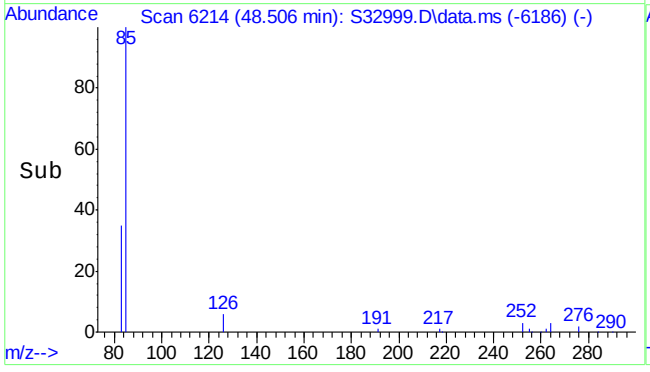


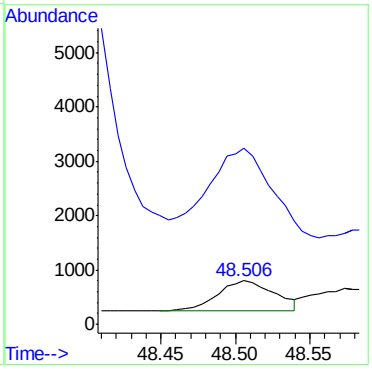


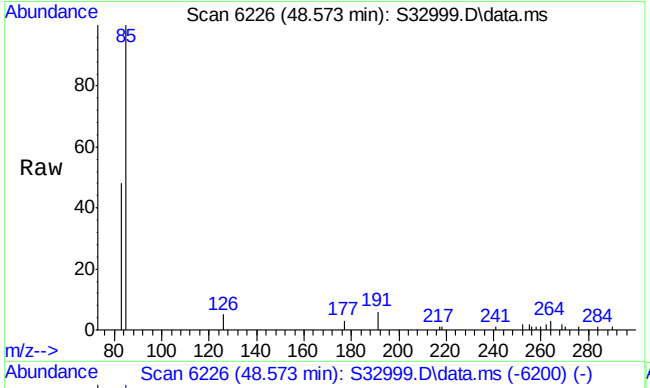
#49
Benzo(b)fluoranthene
Concen: 4.31 ng/mL m
RT: 48.506 min Scan# 6214
Delta R.T. -0.041 min
Lab File: S32999.D
Acq: 17 Jul 2013 12:30 am

Tgt Ion:252 Resp: 1501

Ion	Ratio	Lower	Upper
252	100		
126	0.0	10.6	15.8#



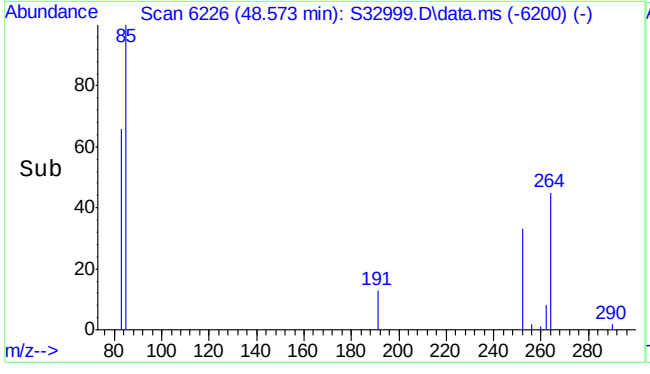


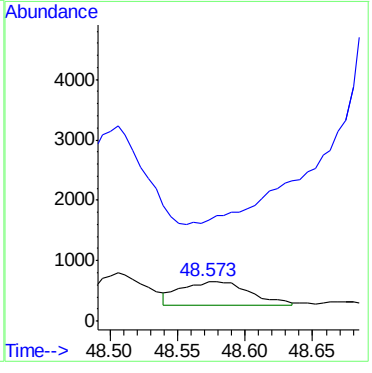


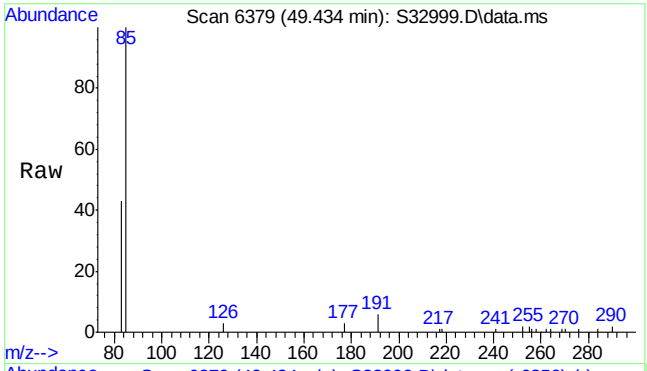
#50
Benzo(k)fluoranthene
Concen: 4.03 ng/mL m
RT: 48.573 min Scan# 6226
Delta R.T. -0.053 min
Lab File: S32999.D
Acq: 17 Jul 2013 12:30 am

Tgt Ion:252 Resp: 1399

Ion	Ratio	Lower	Upper
252	100		
126	0.0	11.9	17.9#



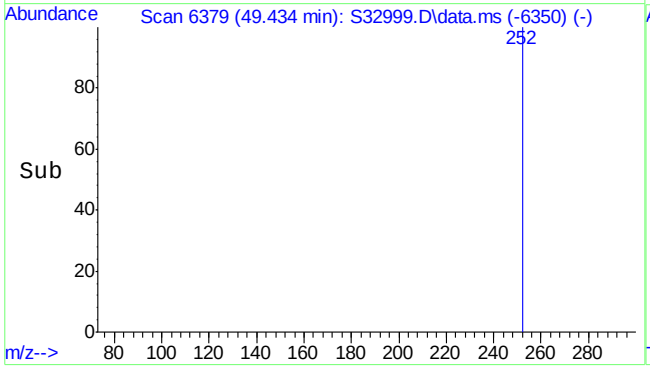


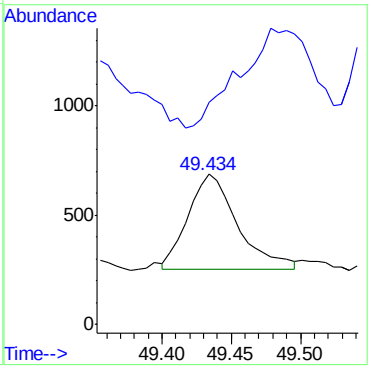


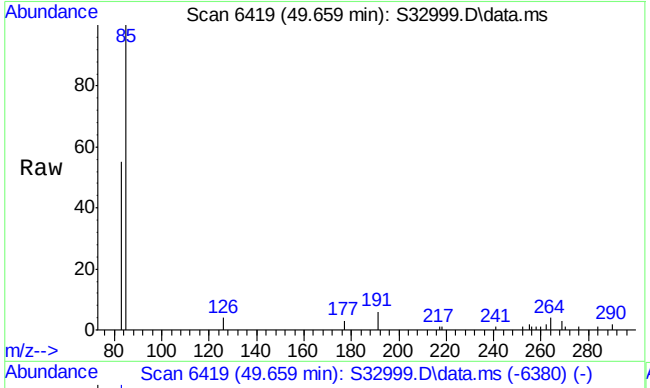
#51
Benzo(e)pyrene
Concen: 3.40 ng/mL m
RT: 49.434 min Scan# 6379
Delta R.T. -0.038 min
Lab File: S32999.D
Acq: 17 Jul 2013 12:30 am

Tgt Ion:252 Resp: 1064

Ion	Ratio	Lower	Upper
252	100		
126	0.0	9.9	14.9#



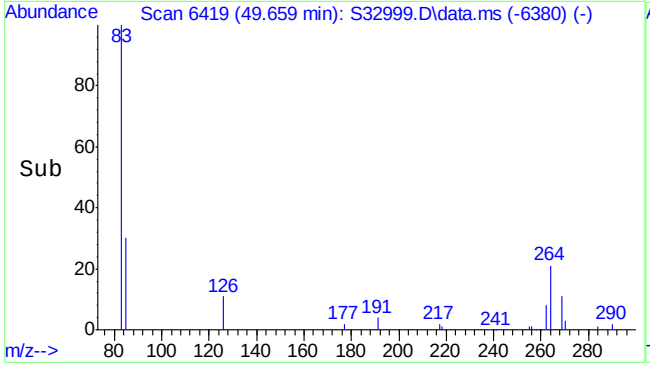


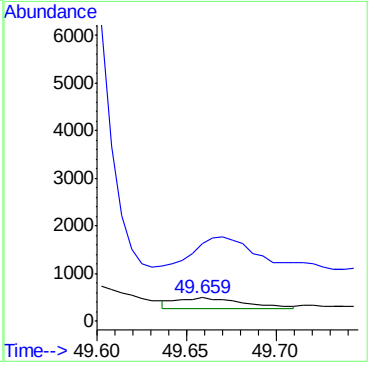


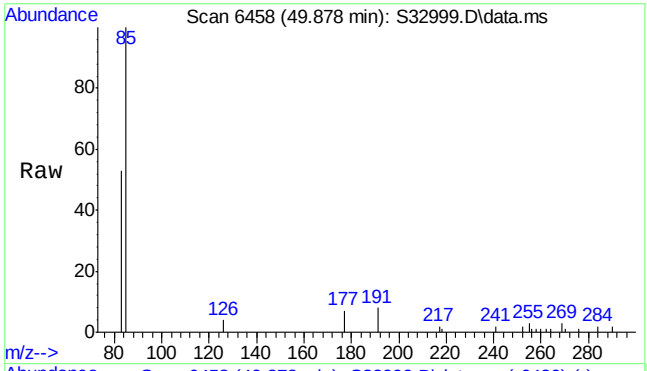
#52
Benzo(a)pyrene
Concen: 1.93 ng/mL m
RT: 49.659 min Scan# 6419
Delta R.T. 0.017 min
Lab File: S32999.D
Acq: 17 Jul 2013 12:30 am

Tgt Ion:252 Resp: 587

Ion	Ratio	Lower	Upper
252	100		
126	0.0	11.6	17.4#



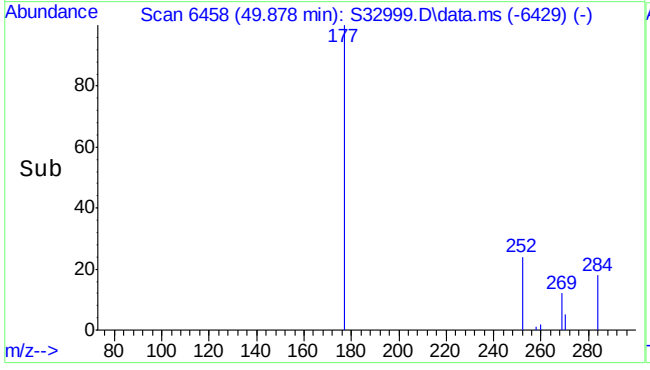


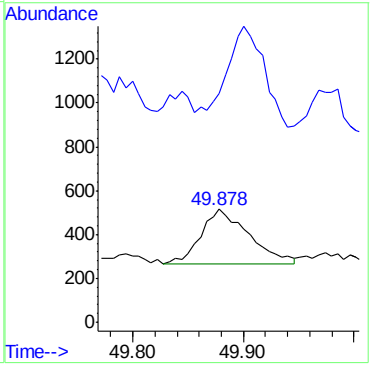


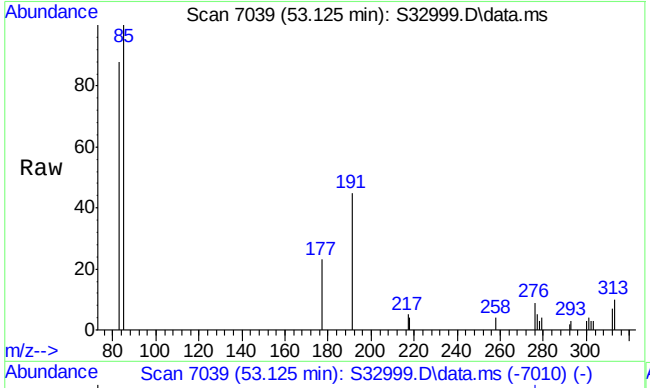
#53
Perylene
Concen: 2.56 ng/mL
RT: 49.878 min Scan# 6458
Delta R.T. -0.034 min
Lab File: S32999.D
Acq: 17 Jul 2013 12:30 am

Tgt Ion:252 Resp: 754

Ion	Ratio	Lower	Upper
252	100		
126	0.0	12.5	18.7#



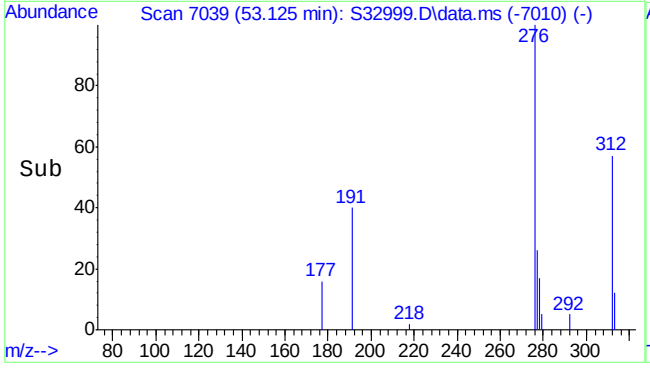


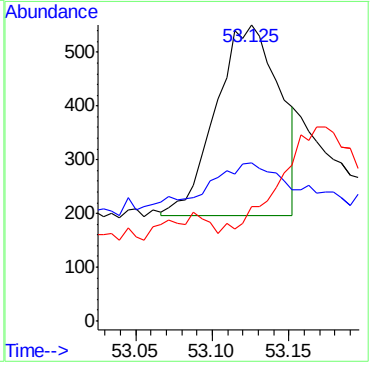


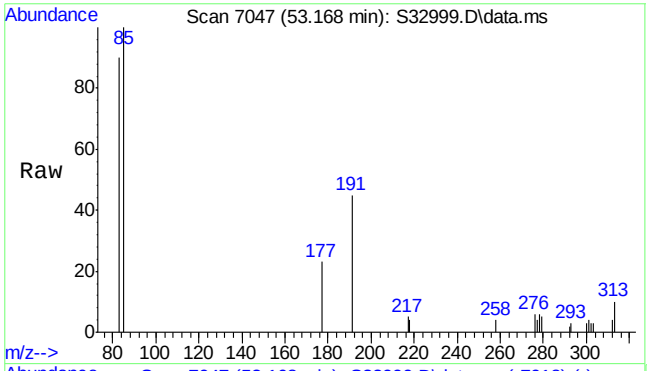
#54
Indeno(1,2,3-cd)pyrene
Concen: 2.95 ng/mL m
RT: 53.125 min Scan# 7039
Delta R.T. -0.044 min
Lab File: S32999.D
Acq: 17 Jul 2013 12:30 am

Tgt Ion:276 Resp: 1025

Ion	Ratio	Lower	Upper
276	100		
277	26.0	19.0	28.4
278	0.0	5.7	8.5#



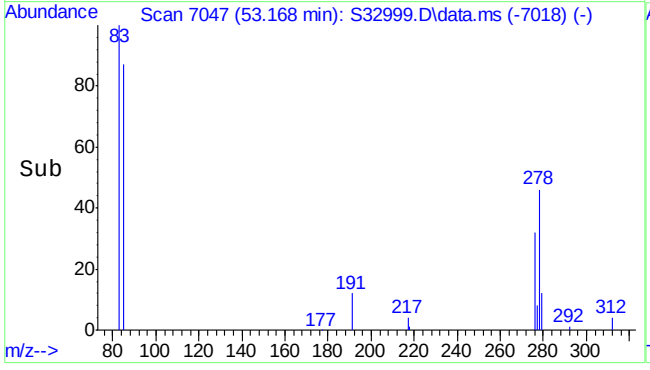


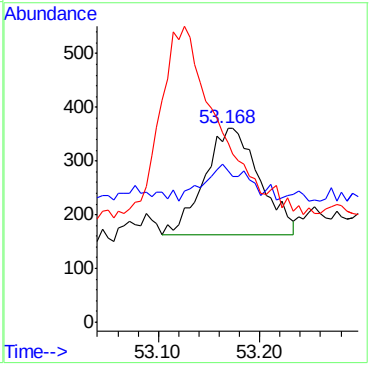


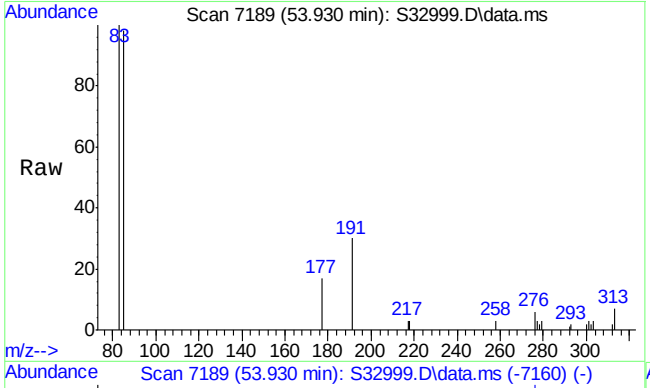
#55
Dibenz(a,h)anthracene
Concen: 2.37 ng/mL
RT: 53.168 min Scan# 7047
Delta R.T. -0.044 min
Lab File: S32999.D
Acq: 17 Jul 2013 12:30 am

Tgt Ion:278 Resp: 746

Ion	Ratio	Lower	Upper
278	100		
279	0.0	19.2	28.8#
276	0.0	29.6	44.4#



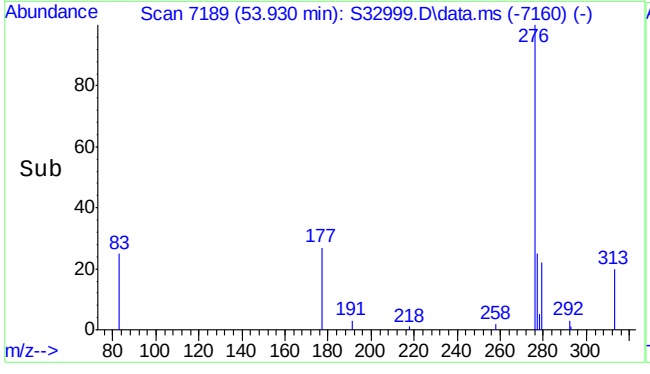


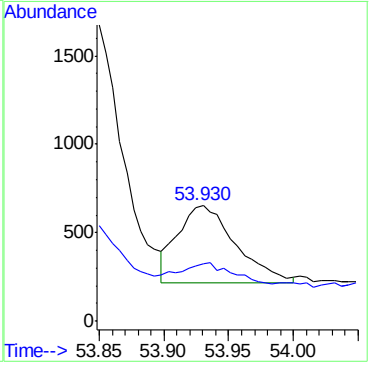


#56
Benzo(g,h,i)perylene
Concen: 3.69 ng/mL m
RT: 53.930 min Scan# 7189
Delta R.T. -0.047 min
Lab File: S32999.D
Acq: 17 Jul 2013 12:30 am

Tgt Ion:276 Resp: 1372

Ion	Ratio	Lower	Upper
276	100		
277	20.1	18.9	28.3





Manual Integrations APPROVED (compounds with "m" flag)
James Roush
07/29/13 14:06

Quantitation Report (QT Reviewed)

Data Path : S:\1\data\S130723\
Data File : S33037.D
Acq On : 24 Jul 2013 4:03 pm
Operator : kristinr
Sample : mc21754-5a
Misc : op33686,mss1444,5.47,,,2,10
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Jul 25 12:00:18 2013
Quant Method : S:\1\methods\S130705-B5739ALKPAH.M
Quant Title : PAHs & Alkylated PAHs by GC/MS/SIM
QLast Update : Thu Jul 11 09:13:24 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Acenaphthene-d10	28.056	164	163053	1100.00	ng/mL	0.00
System Monitoring Compounds						
2) Toluene-d8	9.188	98	1461	8.37	µg/mL	0.00
Spiked Amount 1000.000			Recovery = 0.84%			
3) Naphthalene-d8	21.110	136	8127	28.19	ng/mL	0.00
Spiked Amount 1000.000 Range 1 - 0			Recovery = 2.82%#			
4) Phenanthrene-d10	33.887	188	7737	32.60	ng/mL	0.00
Spiked Amount 1000.000			Recovery = 3.26%			
5) Perylene-d12	49.709	264	7224m	34.49	ng/mL	0.03
Spiked Amount 1000.000			Recovery = 3.45%			
Target Compounds						Qvalue
6) Naphthalene	21.185	128	984104	2685.99	ng/mL	97
7) 2-Methylnaphthalene	23.890	142	1072839	4934.88	ng/mL	100
8) 1-Methylnaphthalene	24.311	142	474260	2091.12	ng/mL	98
9) C1-Naphthalenes	23.890	142	1555677m	4246.02	ng/mL	
10) C2-Naphthalenes	26.719	156	2078495m	5672.99	ng/mL	
11) C3-Naphthalenes	29.049	170	1651932m	4508.74	ng/mL	
12) C4-Naphthalenes	31.812	184	979969m	2674.70	ng/mL	
13) Acenaphthylene	27.469	152	4587m	13.54	ng/mL	
14) Acenaphthene	28.179	154	20591	99.61	ng/mL#	73
15) Dibenzofuran	28.826	168	42346m	143.73	ng/mL	
16) Fluorene	30.186	166	137428m	524.14	ng/mL	
17) C1-Fluorenes	32.548	180	274625m	1047.39	ng/mL	
18) C2-Fluorenes	34.738	194	423179m	1613.96	ng/mL	
19) C3-Fluorenes	37.355	208	291240m	1110.76	ng/mL	
20) Dibenzothiophene	33.483	184	38622m	116.83	ng/mL	
21) C1-Dibenzothiophenes (...	35.251	198	203360m	624.08	ng/mL	
22) C1-Dibenzothiophenes (...	35.681	198	1239m	3.80	µg/mL	
23) C2-Dibenzothiophenes	36.931	212	294085m	902.50	ng/mL	
24) C3-Dibenzothiophenes	38.740	226	165274m	507.20	ng/mL	
25) C4-Dibenzothiophenes	40.051	240	367391m	1127.46	ng/mL	
26) Phenanthrene	33.976	178	284954m	753.90	ng/mL	
28) C1-Phenanthrenes/anthr...	36.040	192	607702m	1607.79	ng/mL	
29) C2-Phenanthrenes/anthr...	38.201	206	413555m	1094.14	ng/mL	
31) C3-Phenanthrenes/anthr...	40.040	220	132308m	350.05	ng/mL	
32) C4-Phenanthrenes/anthr...	40.863	234	54862m	145.15	ng/mL	
33) Fluoranthene	38.722	202	19435	58.04	ng/mL#	1
34) Pyrene	39.593	202	28267m	81.47	ng/mL	
35) C1-Fluoranthenes/pyrenes	41.733	216	84974m	244.92	ng/mL	
36) Benzo(b)fluorene	41.251	216	1279m	3.69	ng/mL	
37) Benzo(c)fluorene	41.275	216	1025m	2.95	µg/mL	
38) 2-Methylpyrene	41.392	216	3266m	9.41	ng/mL	
39) 4-Methylpyrene	41.733	216	66528	191.75	ng/mL	99
40) 1-Methylpyrene	41.875	216	2225	6.41	ng/mL#	80
41) C2-Fluoranthenes/pyrenes	43.910	230	17346m	50.00	ng/mL	
43) Benz(a)anthracene	44.373	228	4888	14.59	ng/mL	96
44) Chrysene	44.533	228	7638	24.44	ng/mL	93

Quantitation Report (QT Reviewed)

Data Path : S:\1\data\S130723\
Data File : S33037.D
Acq On : 24 Jul 2013 4:03 pm
Operator : kristinr
Sample : mc21754-5a
Misc : op33686,mss1444,5.47,,,2,10
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Jul 25 12:00:18 2013
Quant Method : S:\1\methods\S130705-B5739ALKPAH.M
Quant Title : PAHs & Alkylated PAHs by GC/MS/SIM
QLast Update : Thu Jul 11 09:13:24 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
45) C1-Benz(a)anthracenes/...	46.036	242	7637m	24.43	ng/mL	
49) Benzo(b)fluoranthene	48.432	252	6067	15.81	ng/mL#	1
50) Benzo(k)fluoranthene	48.494	252	4804m	12.56	ng/mL	
51) Benzo(e)pyrene	49.355	252	4703	13.63	ng/mL#	68
52) Benzo(a)pyrene	49.524	252	8820	26.39	ng/mL#	1
53) Perylene	49.788	252	3225	9.93	ng/mL#	1
54) Indeno(1,2,3-cd)pyrene	53.040	276	7889	20.61	ng/mL#	81
55) Dibenz(a,h)anthracene	53.050	278	2333	6.72	ng/mL#	1
56) Benzo(g,h,i)perylene	53.844	276	4956	12.08	ng/mL#	88

(#) = qualifier out of range (m) = manual integration (+) = signals summed

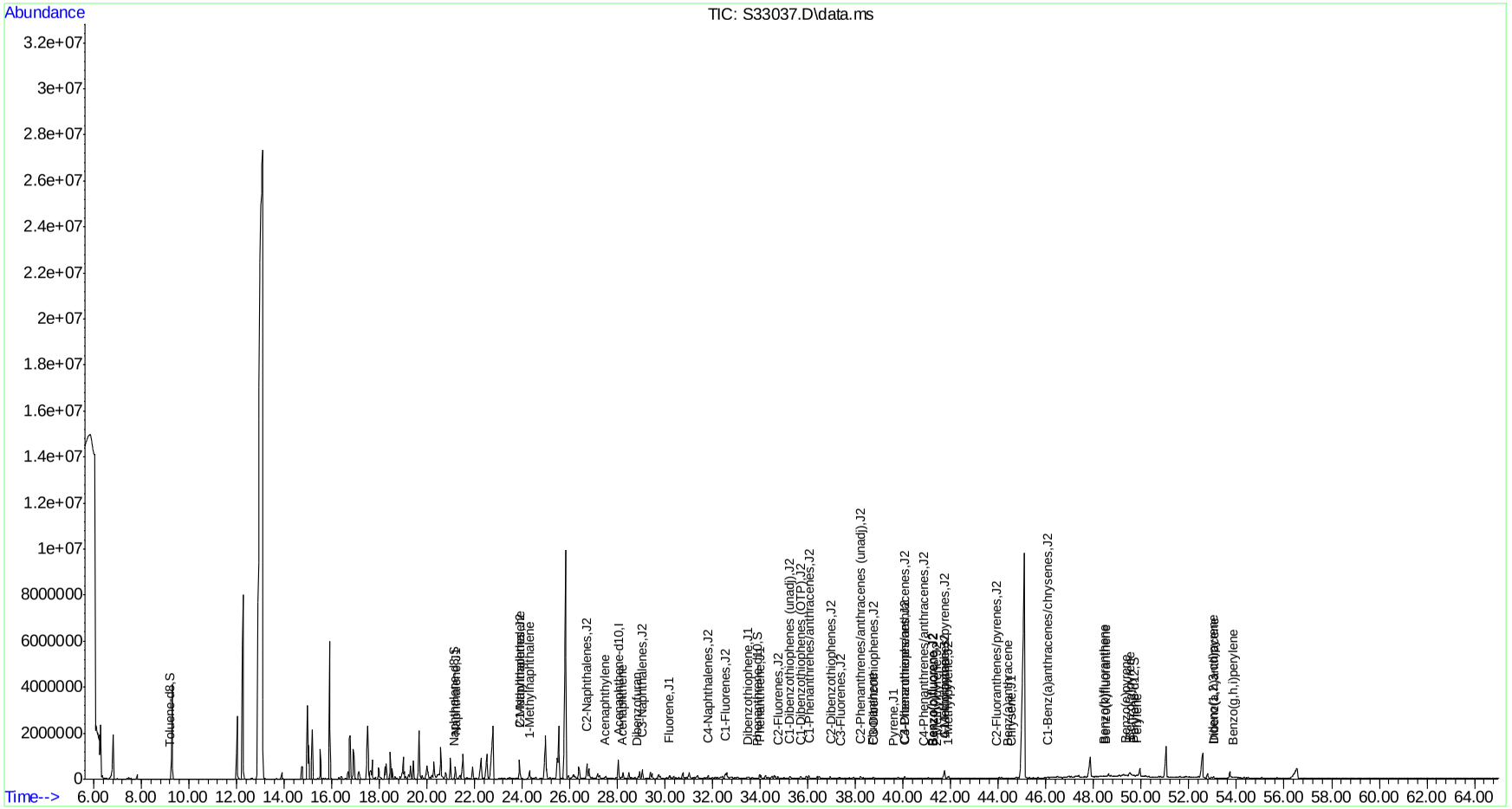
7.1.11

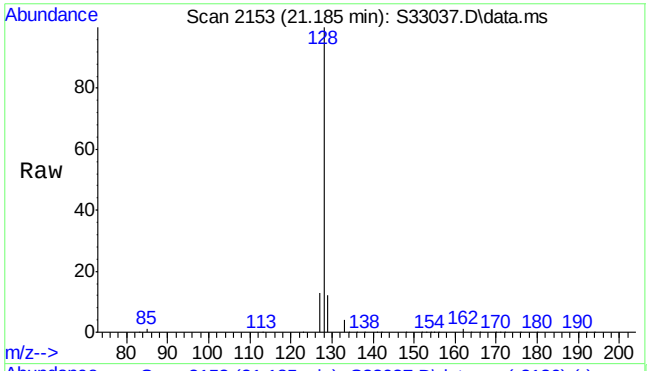
7

Quantitation Report (QT Reviewed)

Data Path : S:\1\data\S130723\
Data File : S33037.D
Acq On : 24 Jul 2013 4:03 pm
Operator : kristinr
Sample : mc21754-5a
Misc : op33686,mss1444,5.47,,,2,10
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Jul 25 12:00:18 2013
Quant Method : S:\1\methods\S130705-B5739ALKPAH.M
Quant Title : PAHs & Alkylated PAHs by GC/MS/SIM
QLast Update : Thu Jul 11 09:13:24 2013
Response via : Initial Calibration

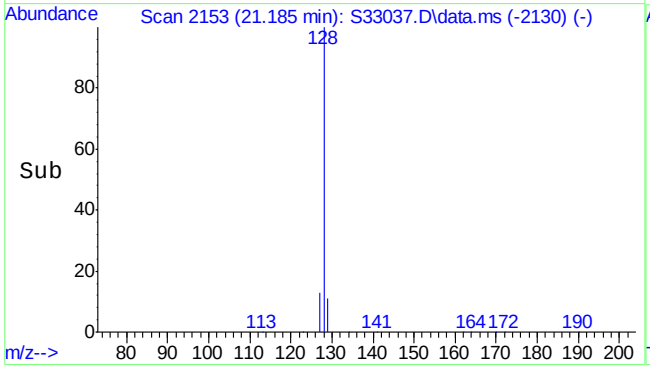


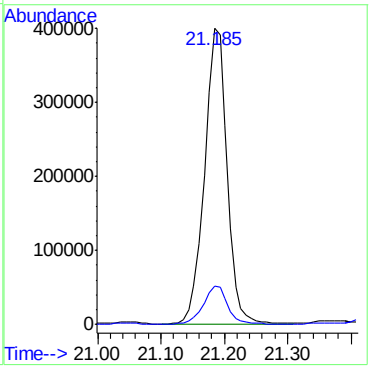


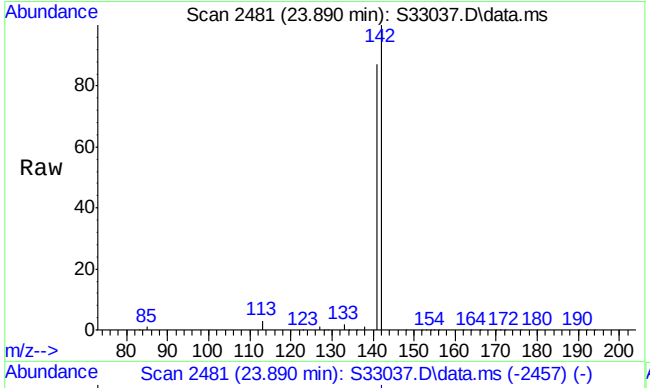
#6
Naphthalene
Concen: 2685.99 ng/mL
RT: 21.185 min Scan# 2153
Delta R.T. -0.008 min
Lab File: S33037.D
Acq: 24 Jul 2013 4:03 pm

Tgt Ion:128 Resp: 984104

Ion	Ratio	Lower	Upper
128	100		
127	13.6	10.0	15.0



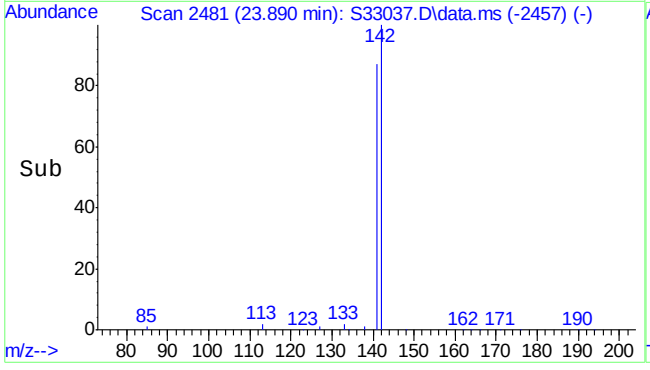


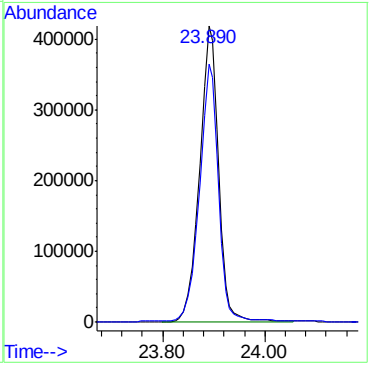


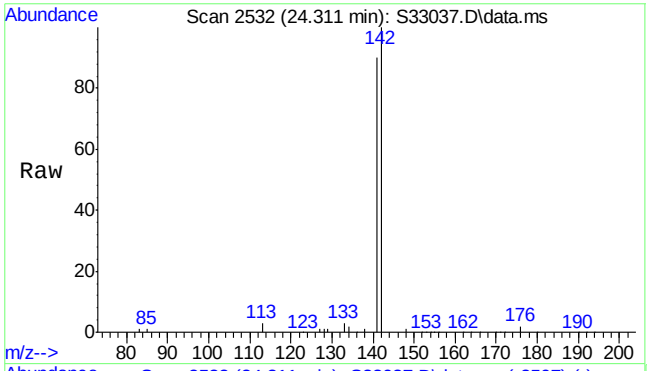
#7
2-Methylnaphthalene
Concen: 4934.88 ng/mL
RT: 23.890 min Scan# 2481
Delta R.T. -0.000 min
Lab File: S33037.D
Acq: 24 Jul 2013 4:03 pm

Tgt Ion:142 Resp: 1072839

Ion	Ratio	Lower	Upper
142	100		
141	87.1	69.7	104.5



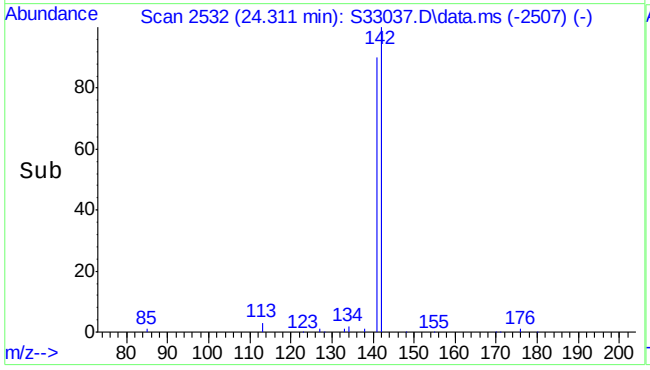


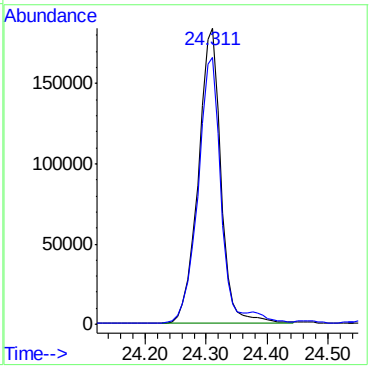


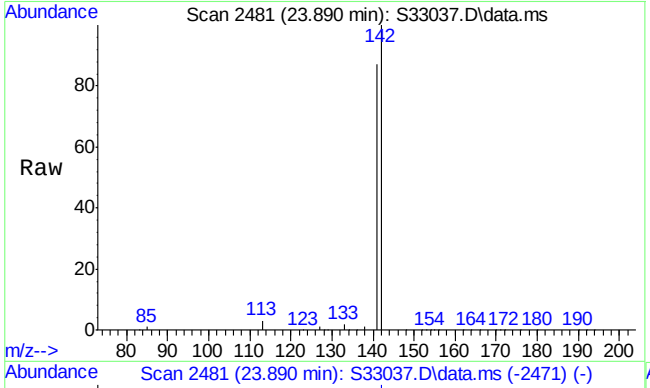
#8
1-Methylnaphthalene
Concen: 2091.12 ng/mL
RT: 24.311 min Scan# 2532
Delta R.T. 0.008 min
Lab File: S33037.D
Acq: 24 Jul 2013 4:03 pm

Tgt Ion:142 Resp: 474260

Ion	Ratio	Lower	Upper
142	100		
141	88.7	72.6	108.8



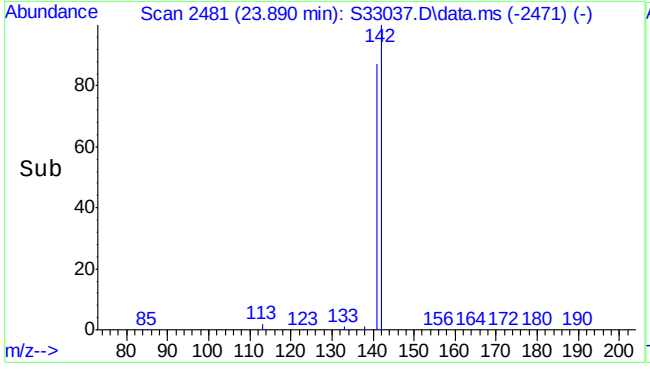


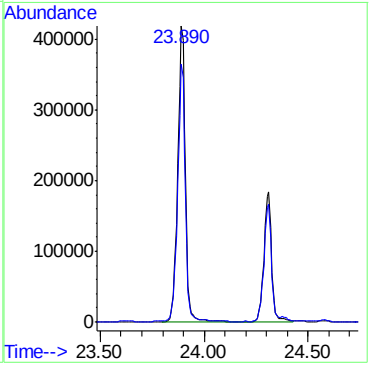


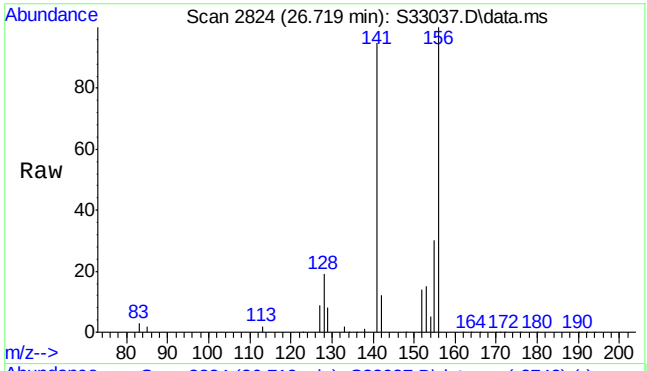
#9
C1-Naphthalenes
Concen: 4246.02 ng/mL m
RT: 23.890 min Scan# 2481
Delta R.T. 0.008 min
Lab File: S33037.D
Acq: 24 Jul 2013 4:03 pm

Tgt Ion:142 Resp: 1555677

Ion	Ratio	Lower	Upper
142	100		
141	60.3	69.9	104.9#



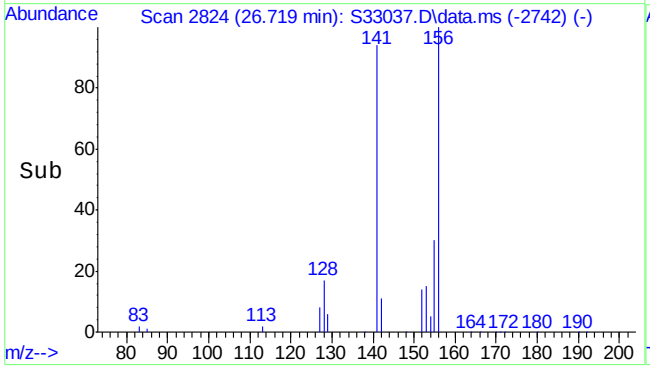


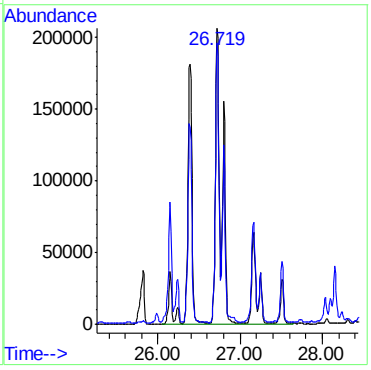


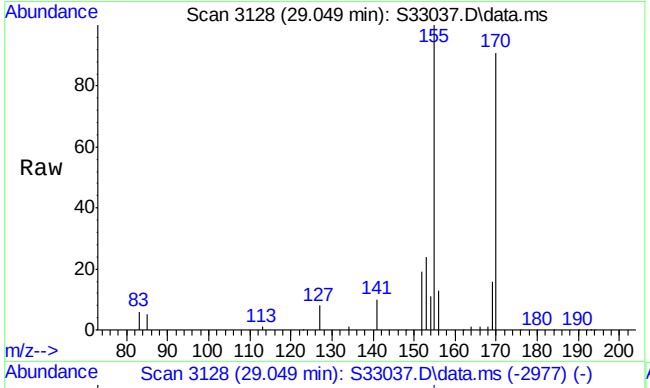
#10
C2-Naphthalenes
Concen: 5672.99 ng/mL m
RT: 26.719 min Scan# 2824
Delta R.T. -0.082 min
Lab File: S33037.D
Acq: 24 Jul 2013 4:03 pm

Tgt Ion:156 Resp: 2078495

Ion	Ratio	Lower	Upper
156	100		
141	13.7	64.9	97.3#



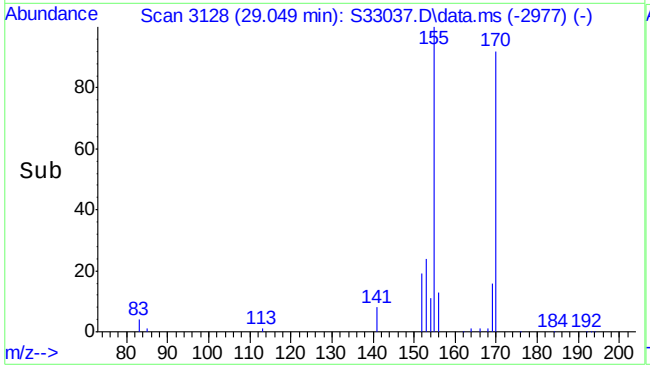


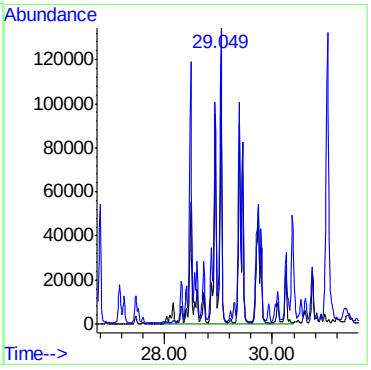


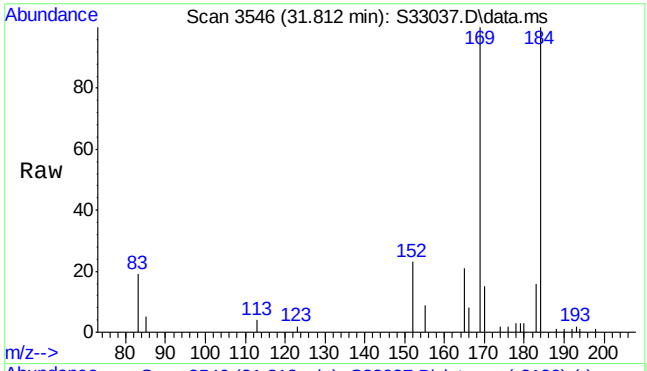
#11
C3-Naphthalenes
Concen: 4508.74 ng/mL m
RT: 29.049 min Scan# 3128
Delta R.T. -0.007 min
Lab File: S33037.D
Acq: 24 Jul 2013 4:03 pm

Tgt Ion:170 Resp: 1651932

Ion	Ratio	Lower	Upper
170	100		
155	19.4	85.4	128.2#



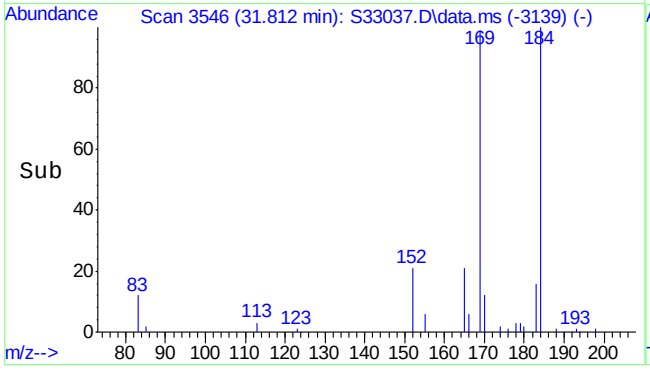


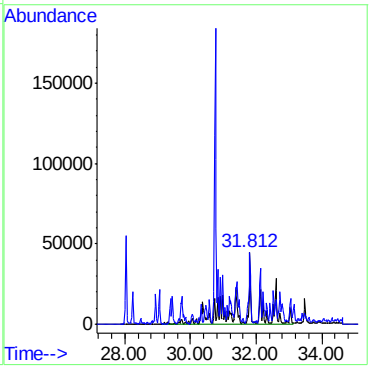


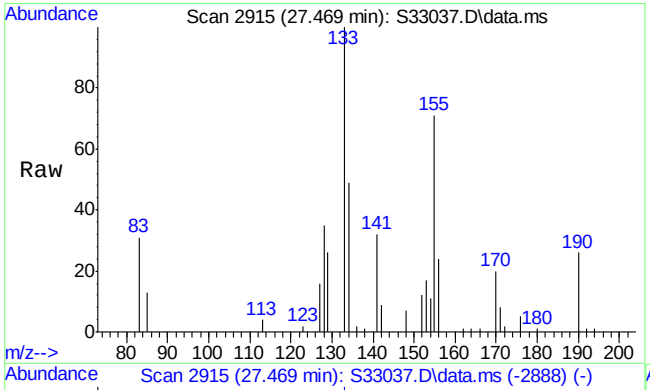
#12
C4-Naphthalenes
Concen: 2674.70 ng/mL m
RT: 31.812 min Scan# 3546
Delta R.T. 0.000 min
Lab File: S33037.D
Acq: 24 Jul 2013 4:03 pm

Tgt Ion:184 Resp: 979969

Ion	Ratio	Lower	Upper
184	100		
169	11.2	81.0	121.6#



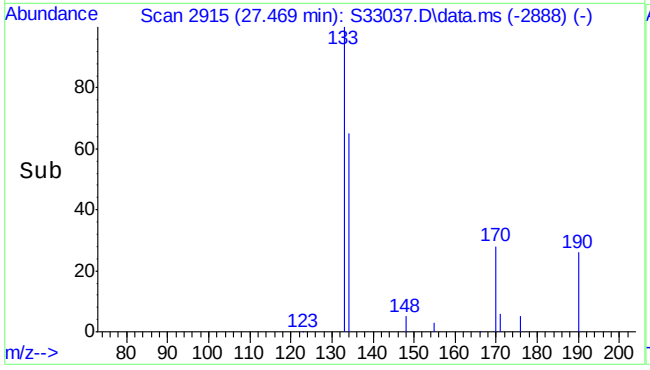


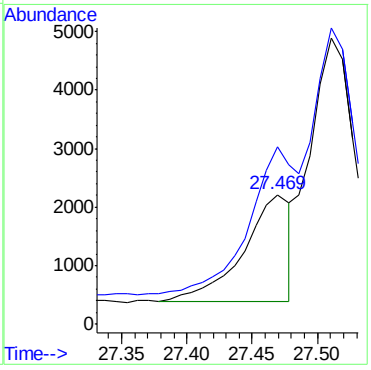


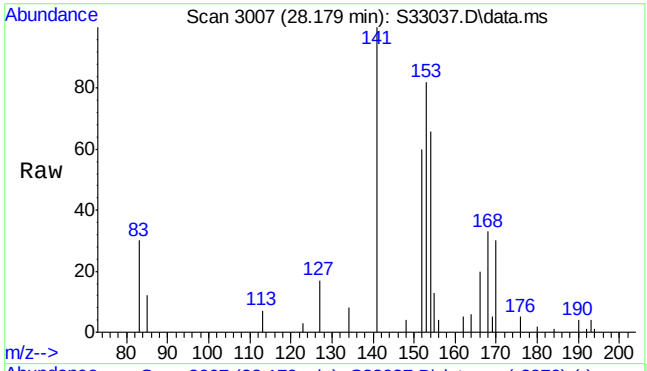
#13
Acenaphthylene
Concen: 13.54 ng/mL m
RT: 27.469 min Scan# 2915
Delta R.T. 0.025 min
Lab File: S33037.D
Acq: 24 Jul 2013 4:03 pm

Tgt Ion:152 Resp: 4587

Ion	Ratio	Lower	Upper
152	100		
153	201.4	10.5	15.7#



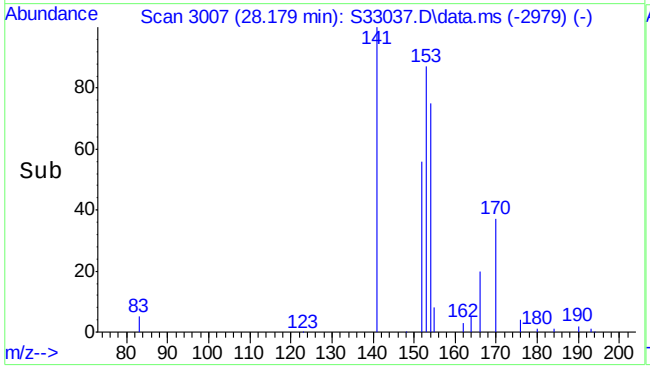


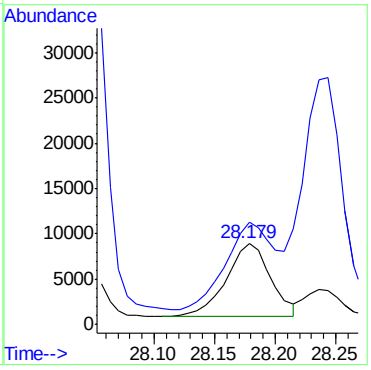


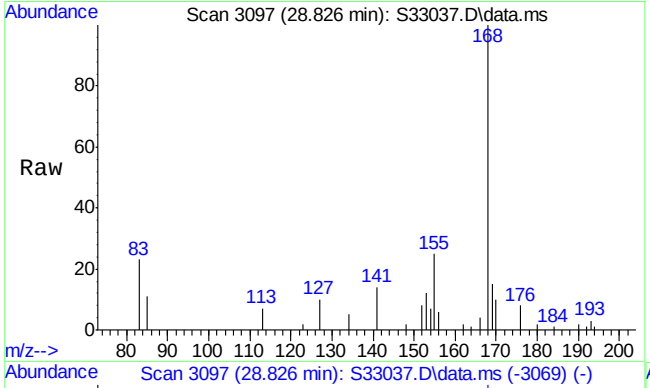
#14
Acenaphthene
Concen: 99.61 ng/mL
RT: 28.179 min Scan# 3007
Delta R.T. -0.000 min
Lab File: S33037.D
Acq: 24 Jul 2013 4:03 pm

Tgt Ion:154 Resp: 20591

Ion	Ratio	Lower	Upper
154	100		
153	139.1	88.2	132.4#



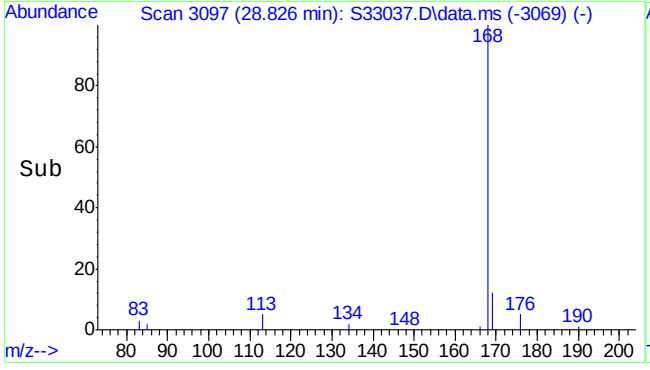


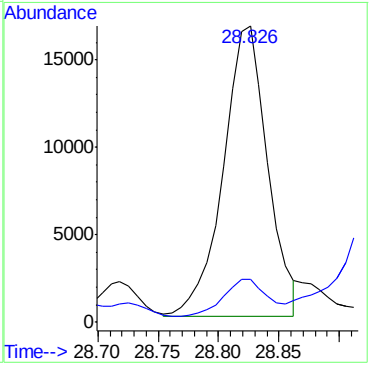


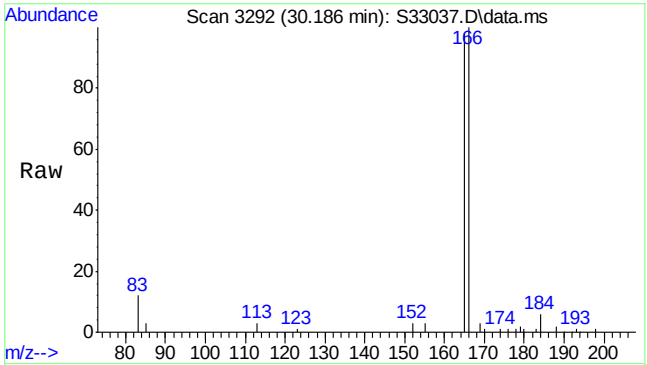
#15
Dibenzofuran
Concen: 143.73 ng/mL m
RT: 28.826 min Scan# 3097
Delta R.T. -0.000 min
Lab File: S33037.D
Acq: 24 Jul 2013 4:03 pm

Tgt Ion:168 Resp: 42346

Ion	Ratio	Lower	Upper
168	100		
169	12.8	10.7	16.1



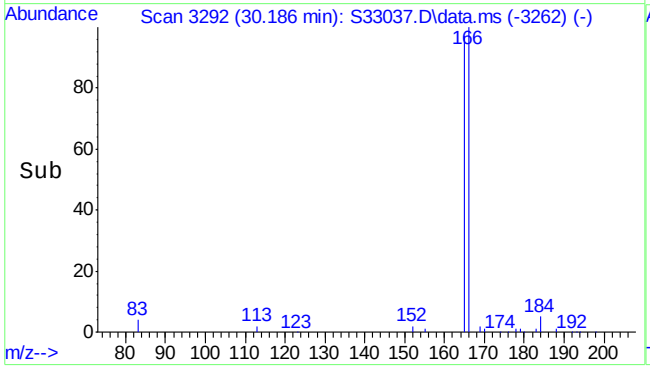


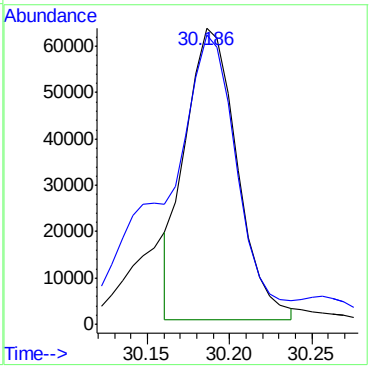


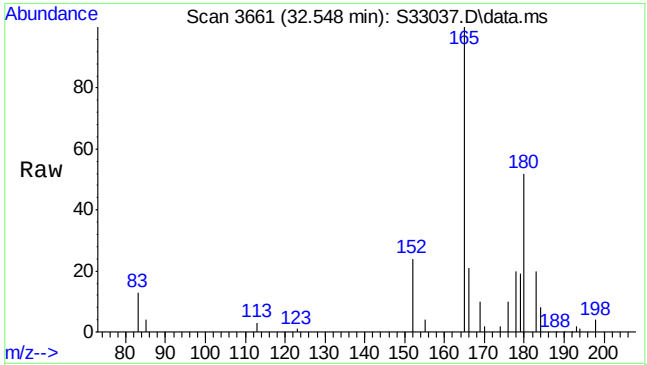
#16
Fluorene
Concen: 524.14 ng/mL m
RT: 30.186 min Scan# 3292
Delta R.T. -0.007 min
Lab File: S33037.D
Acq: 24 Jul 2013 4:03 pm

Tgt Ion:166 Resp: 137428

Ion	Ratio	Lower	Upper
166	100		
165	125.3	76.3	114.5#



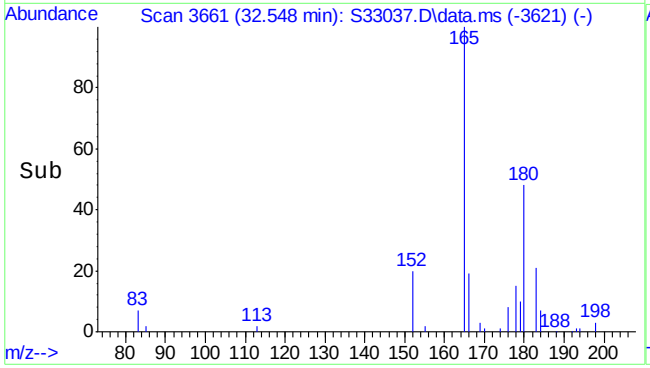


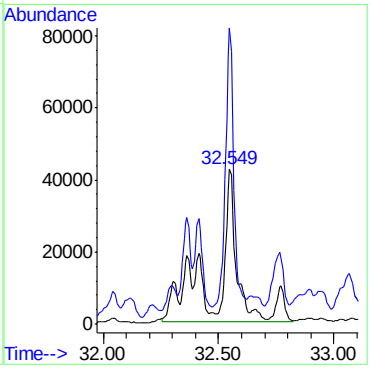


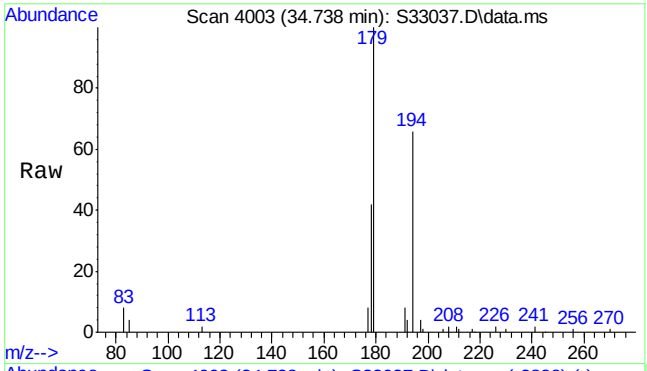
#17
C1-Fluorenes
Concen: 1047.39 ng/mL m
RT: 32.548 min Scan# 3661
Delta R.T. 0.017 min
Lab File: S33037.D
Acq: 24 Jul 2013 4:03 pm

Tgt Ion:180 Resp: 274625

Ion	Ratio	Lower	Upper
180	100		
165	68.3	134.2	201.4#



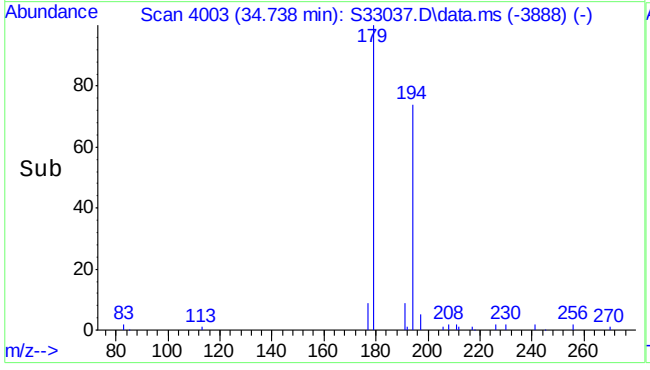


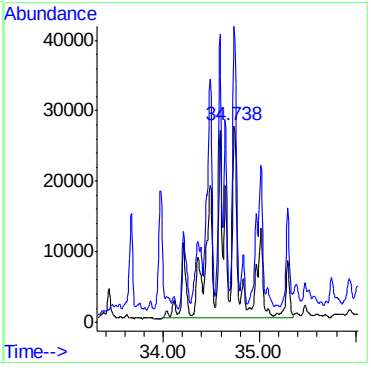


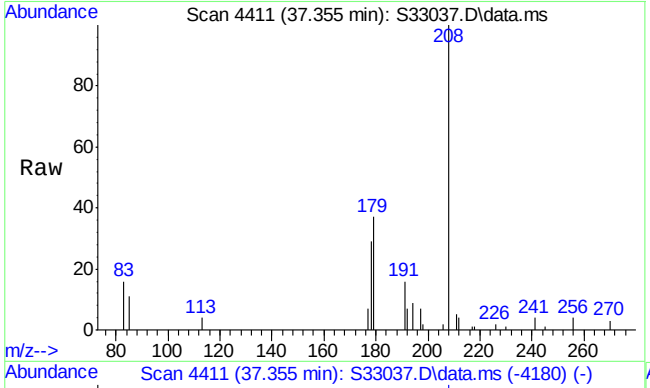
#18
C2-Fluorenes
Concen: 1613.96 ng/mL m
RT: 34.738 min Scan# 4003
Delta R.T. -0.006 min
Lab File: S33037.D
Acq: 24 Jul 2013 4:03 pm

Tgt Ion:194 Resp: 423179

Ion	Ratio	Lower	Upper
194	100		
179	22.8	126.2	189.4#



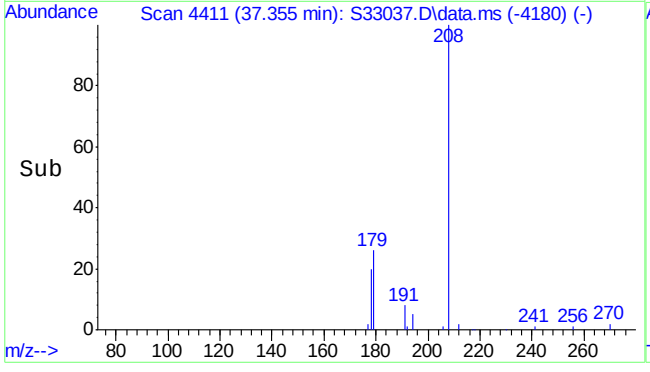


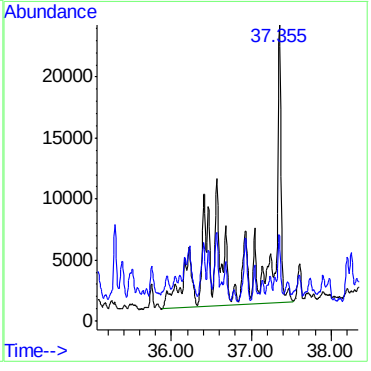


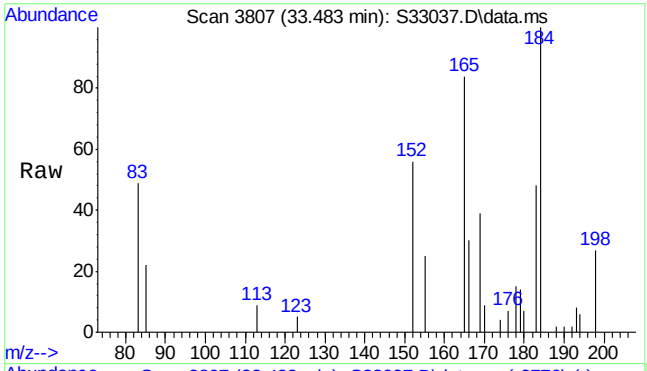
#19
C3-Fluorenes
Concen: 1110.76 ng/mL m
RT: 37.355 min Scan# 4411
Delta R.T. 0.776 min
Lab File: S33037.D
Acq: 24 Jul 2013 4:03 pm

Tgt Ion:208 Resp: 291240

Ion	Ratio	Lower	Upper
208	100		
178	0.7	54.9	82.3#



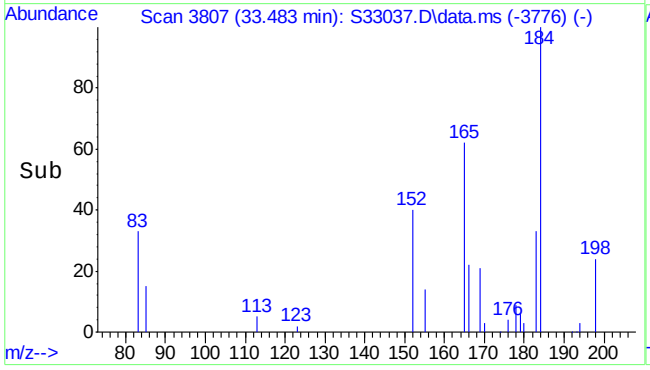


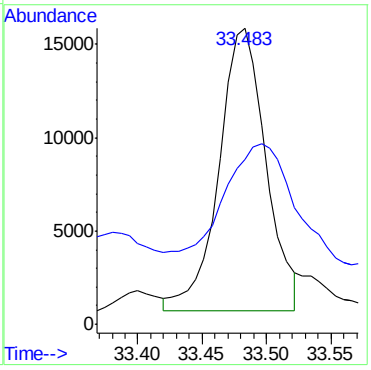


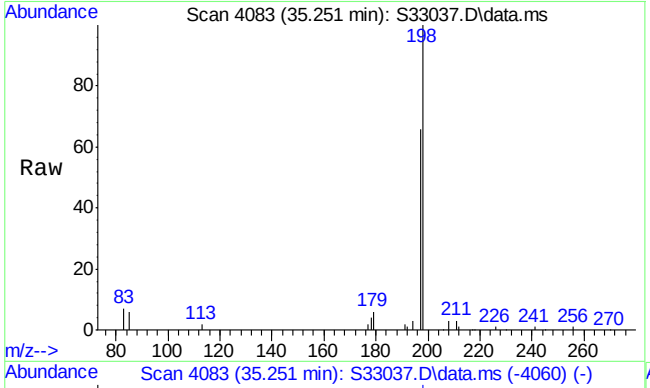
#20
Dibenzothiophene
Concen: 116.83 ng/mL m
RT: 33.483 min Scan# 3807
Delta R.T. -0.000 min
Lab File: S33037.D
Acq: 24 Jul 2013 4:03 pm

Tgt Ion:184 Resp: 38622

Ion	Ratio	Lower	Upper
184	100		
152	67.7	7.7	11.5#



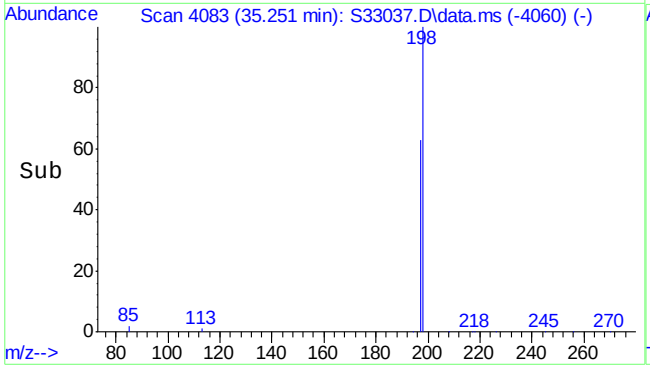


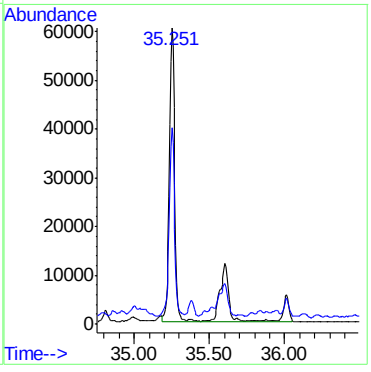


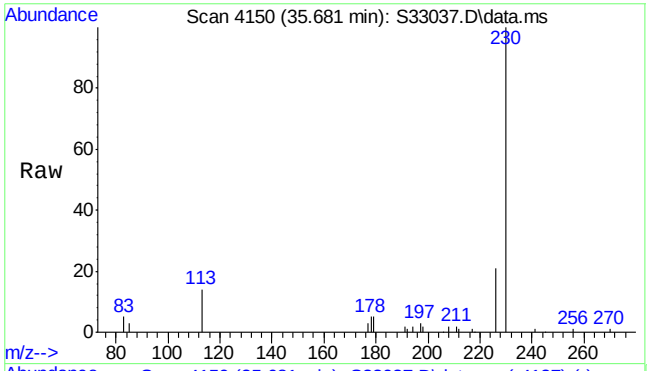
#21
C1-Dibenzothiophenes (unadj)
Concen: 624.08 ng/mL m
RT: 35.251 min Scan# 4083
Delta R.T. -0.006 min
Lab File: S33037.D
Acq: 24 Jul 2013 4:03 pm

Tgt Ion:198 Resp: 203360

Ion	Ratio	Lower	Upper
198	100		
197	46.5	53.4	80.0#



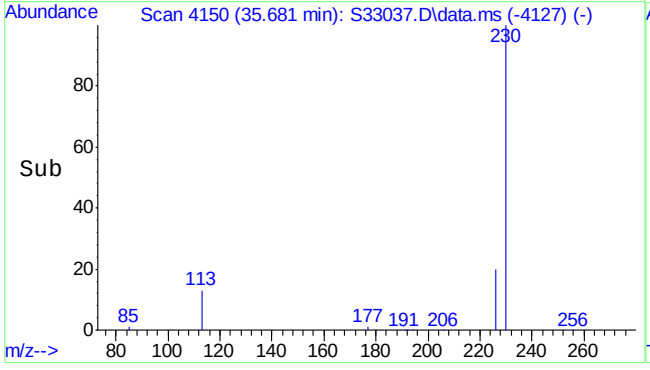


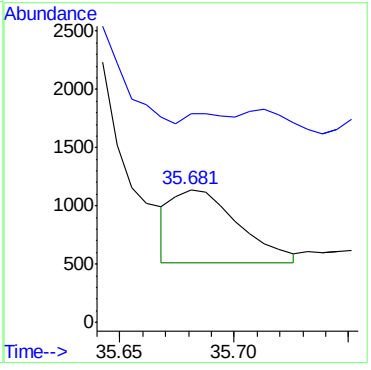


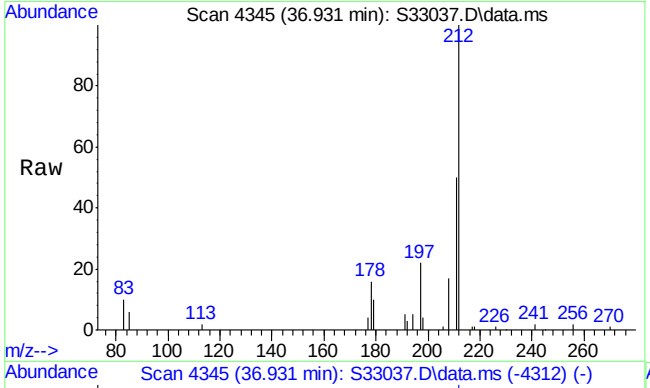
#22
C1-Dibenzothiophenes (OTP)
Concen: 3.80 µg/mL m
RT: 35.681 min Scan# 4150
Delta R.T. 0.058 min
Lab File: S33037.D
Acq: 24 Jul 2013 4:03 pm

Tgt Ion:198 Resp: 1239

Ion	Ratio	Lower	Upper
198	100		
197	1922.7	58.2	87.2#



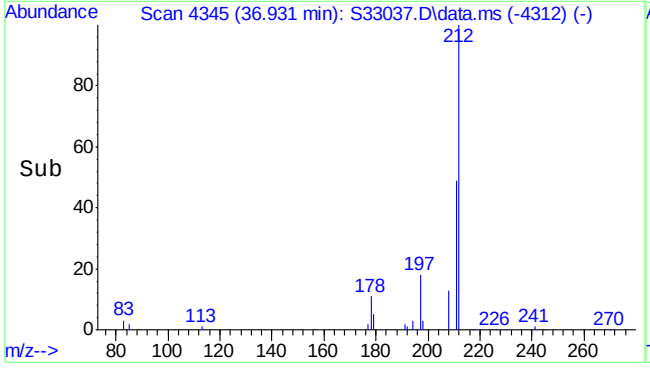


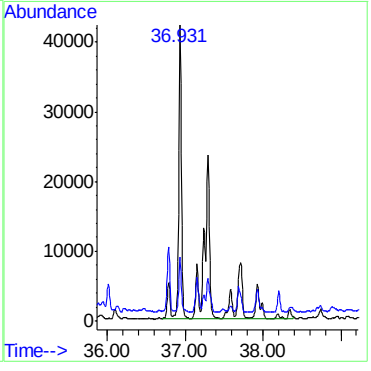


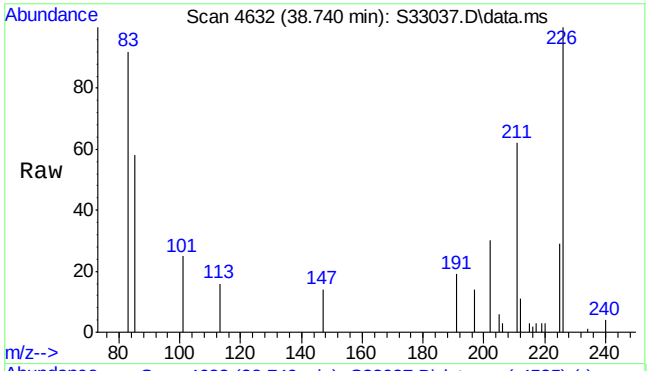
#23
C2-Dibenzothiophenes
Concen: 902.50 ng/mL m
RT: 36.931 min Scan# 4345
Delta R.T. -0.372 min
Lab File: S33037.D
Acq: 24 Jul 2013 4:03 pm

Tgt Ion:212 Resp: 294085

Ion	Ratio	Lower	Upper
212	100		
197	5.2	20.6	30.8#



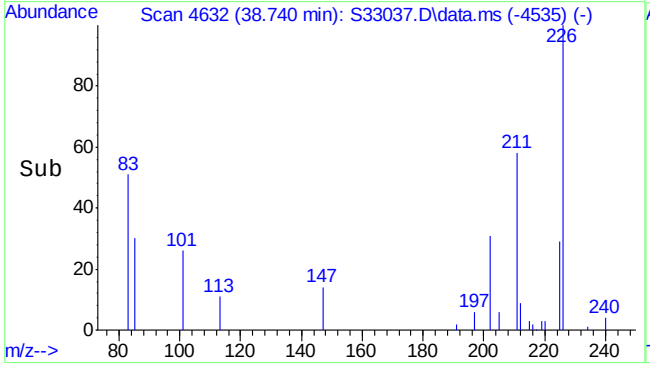


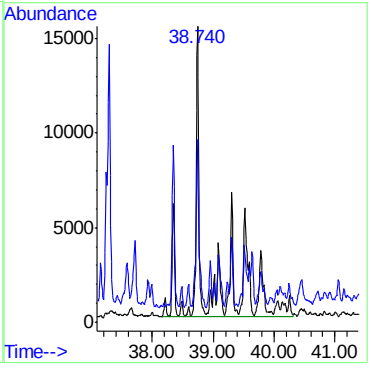


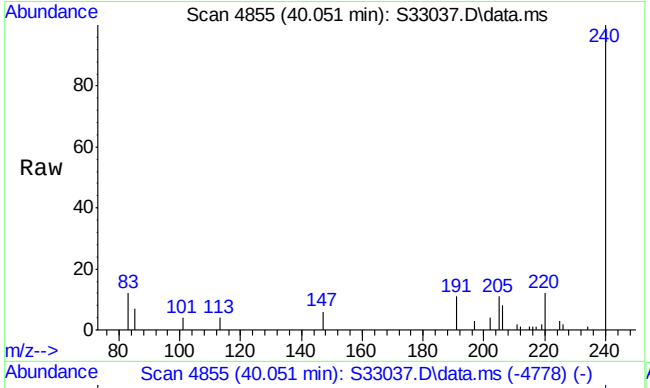
#24
C3-Dibenzothiophenes
Concen: 507.20 ng/mL m
RT: 38.740 min Scan# 4632
Delta R.T. -0.012 min
Lab File: S33037.D
Acq: 24 Jul 2013 4:03 pm

Tgt Ion:226 Resp: 165274

Ion	Ratio	Lower	Upper
226	100		
211	19.1	49.7	74.5#

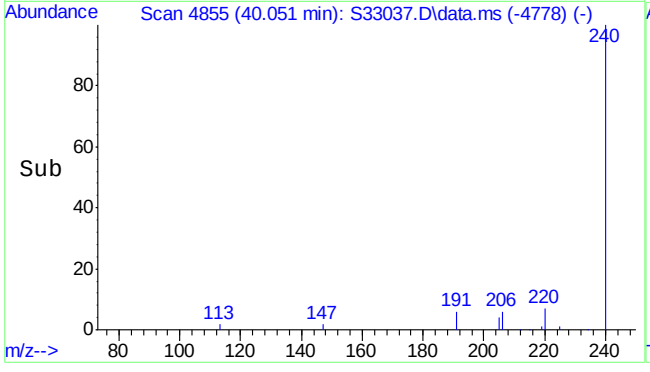


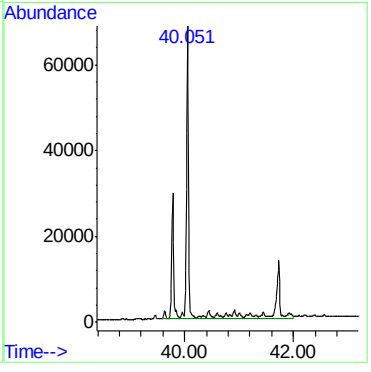


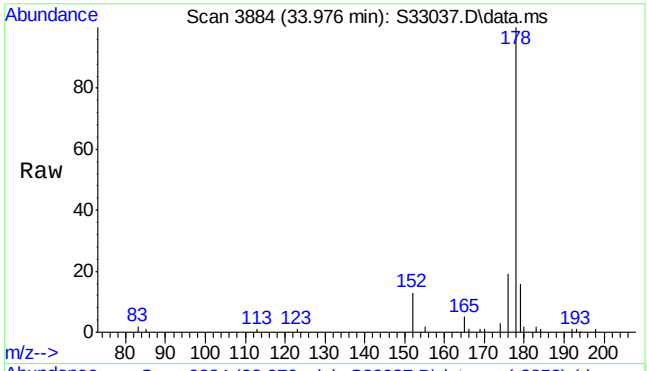


#25
C4-Dibenzothiophenes
Concen: 1127.46 ng/mL m
RT: 40.051 min Scan# 4855
Delta R.T. -0.394 min
Lab File: S33037.D
Acq: 24 Jul 2013 4:03 pm

Tgt Ion:240 Resp: 367391



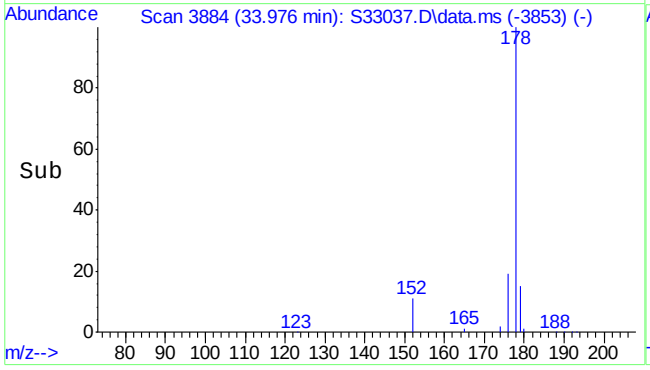


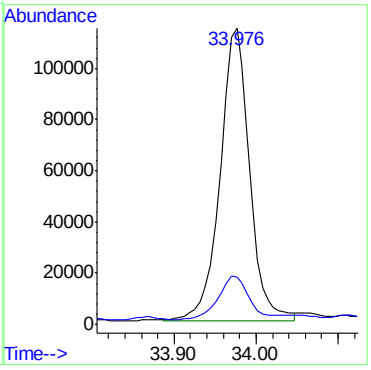


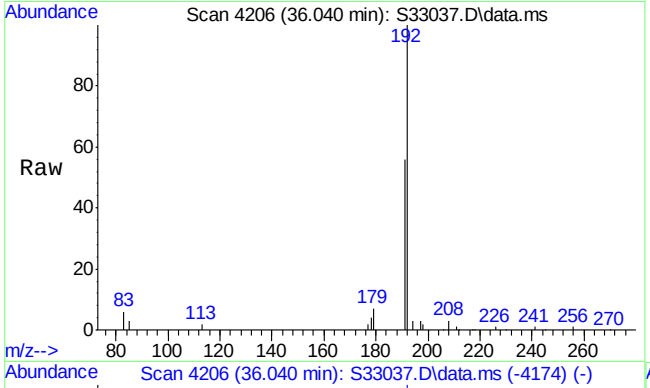
#26
Phenanthrene
Concen: 753.90 ng/mL m
RT: 33.976 min Scan# 3884
Delta R.T. -0.000 min
Lab File: S33037.D
Acq: 24 Jul 2013 4:03 pm

Tgt Ion:178 Resp: 284954

Ion	Ratio	Lower	Upper
178	100		
179	15.3	12.6	18.8



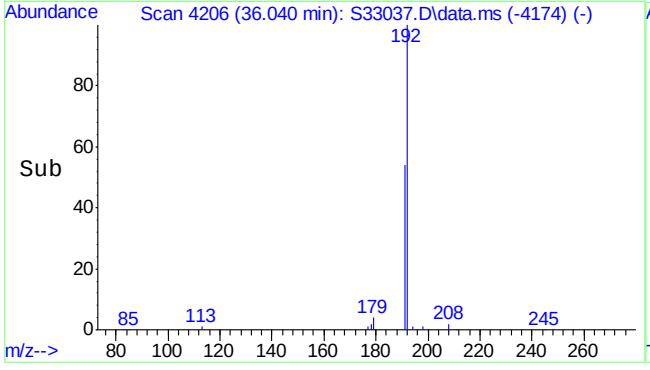


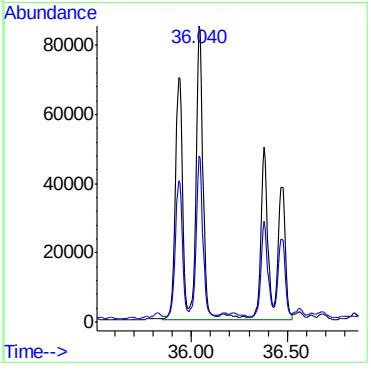


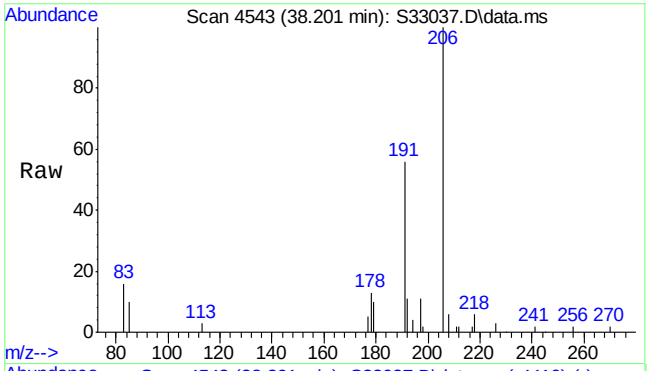
#28
C1-Phenanthrenes/anthracenes
Concen: 1607.79 ng/mL m
RT: 36.040 min Scan# 4206
Delta R.T. -0.346 min
Lab File: S33037.D
Acq: 24 Jul 2013 4:03 pm

Tgt Ion:192 Resp: 607702

Ion	Ratio	Lower	Upper
192	100		
191	11.3	46.7	70.1#



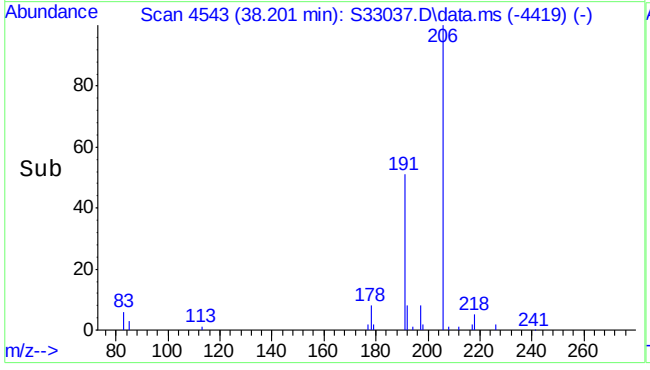


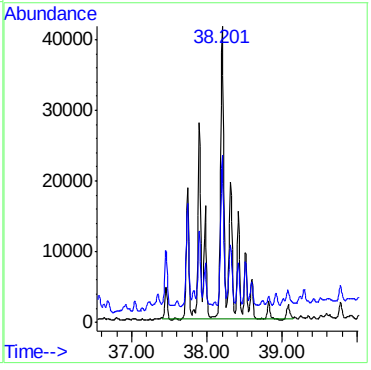


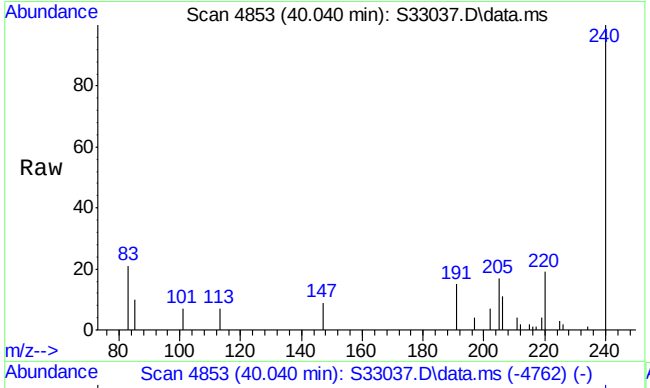
#29
C2-Phenanthrenes/anthracenes (unadj)
Concen: 1094.14 ng/mL m
RT: 38.201 min Scan# 4543
Delta R.T. -0.006 min
Lab File: S33037.D
Acq: 24 Jul 2013 4:03 pm

Tgt Ion:206 Resp: 413555

Ion	Ratio	Lower	Upper
206	100		
191	14.3	49.1	73.7#



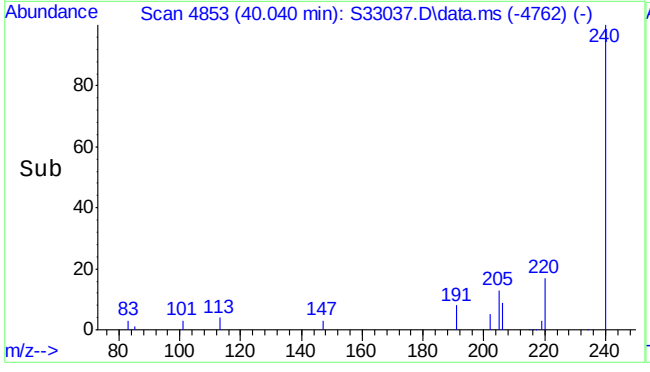


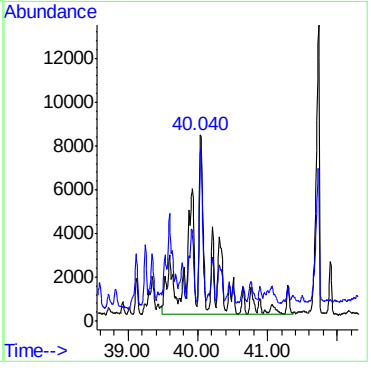


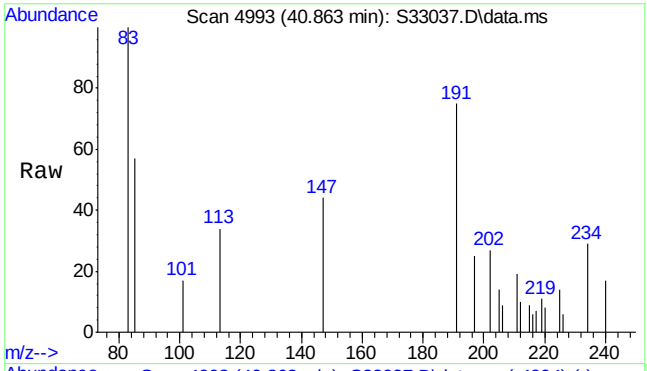
#31
C3-Phenanthrenes/anthracenes
Concen: 350.05 ng/mL m
RT: 40.040 min Scan# 4853
Delta R.T. -0.012 min
Lab File: S33037.D
Acq: 24 Jul 2013 4:03 pm

Tgt Ion:220 Resp: 132308

Ion	Ratio	Lower	Upper
220	100		
205	3.7	45.1	67.7#



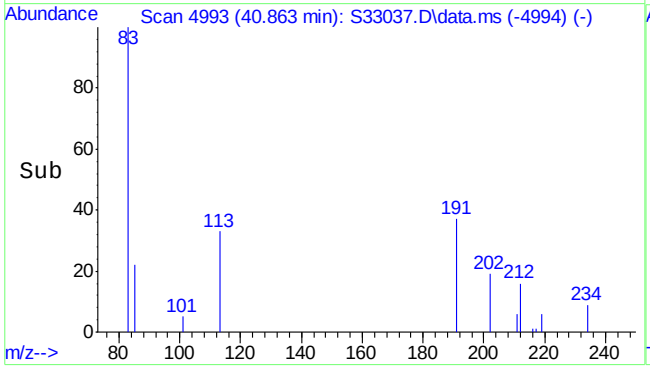


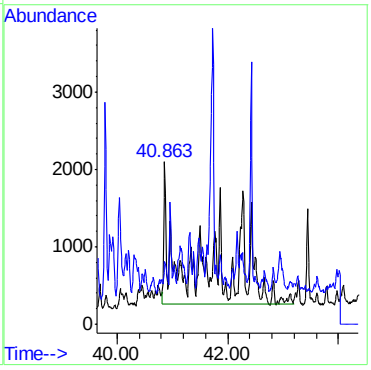


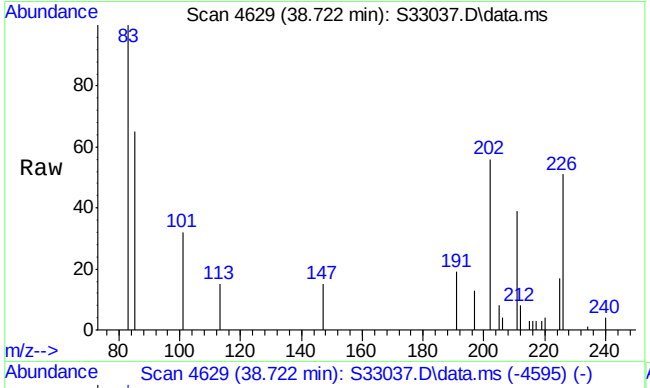
#32
C4-Phenanthrenes/anthracenes
Concen: 145.15 ng/mL m
RT: 40.863 min Scan# 4993
Delta R.T. -1.370 min
Lab File: S33037.D
Acq: 24 Jul 2013 4:03 pm

Tgt Ion:234 Resp: 54862

Ion	Ratio	Lower	Upper
234	100		
219	1.3	49.0	73.4#



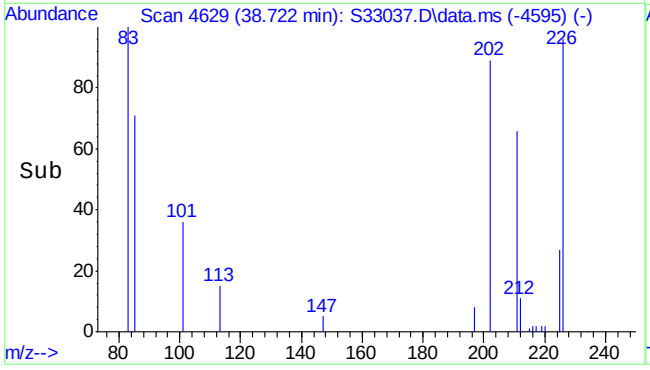


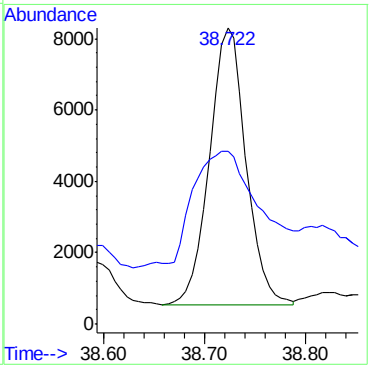


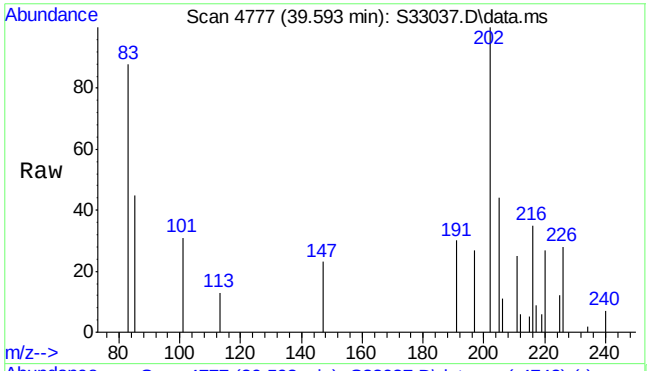
#33
Fluoranthene
Concen: 58.04 ng/mL
RT: 38.722 min Scan# 4629
Delta R.T. -0.000 min
Lab File: S33037.D
Acq: 24 Jul 2013 4:03 pm

Tgt Ion:202 Resp: 19435

Ion	Ratio	Lower	Upper
202	100		
101	71.3	9.8	14.6#



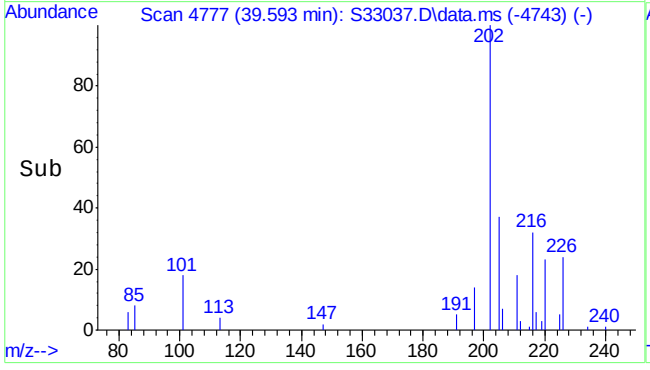


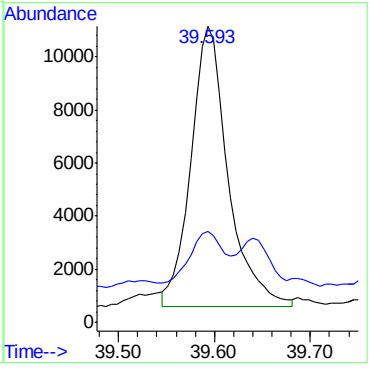


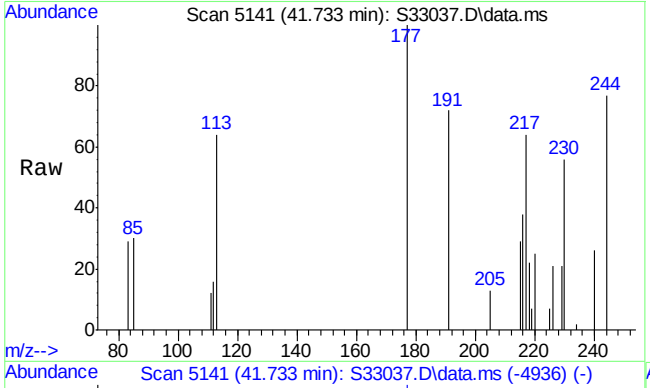
#34
Pyrene
Concen: 81.47 ng/mL m
RT: 39.593 min Scan# 4777
Delta R.T. -0.000 min
Lab File: S33037.D
Acq: 24 Jul 2013 4:03 pm

Tgt Ion:202 Resp: 28267

Ion	Ratio	Lower	Upper
202	100		
101	16.6	11.4	17.0



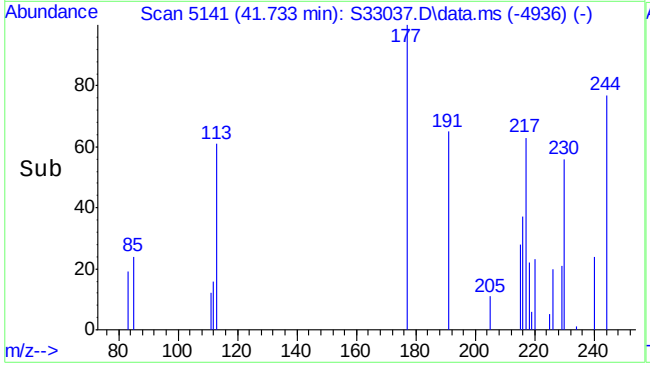


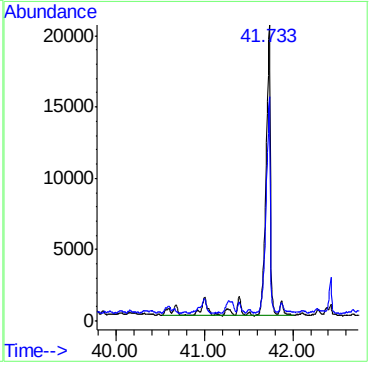


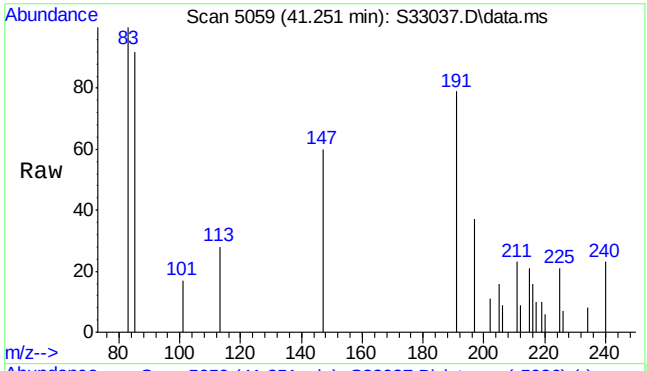
#35
C1-Fluoranthenes/pyrenes
Concen: 244.92 ng/mL m
RT: 41.733 min Scan# 5141
Delta R.T. 0.729 min
Lab File: S33037.D
Acq: 24 Jul 2013 4:03 pm

Tgt Ion:216 Resp: 84974

Ion	Ratio	Lower	Upper
216	100		
215	3.2	79.0	118.4#



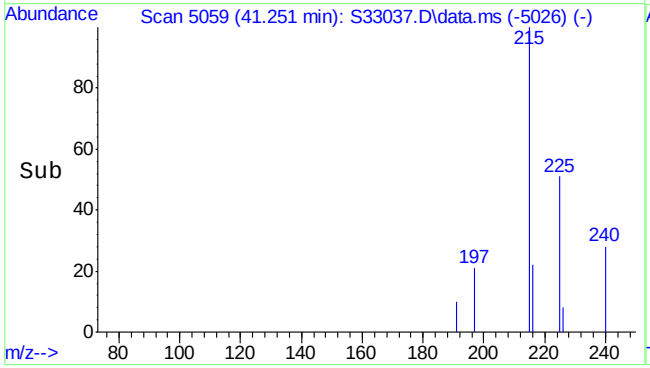


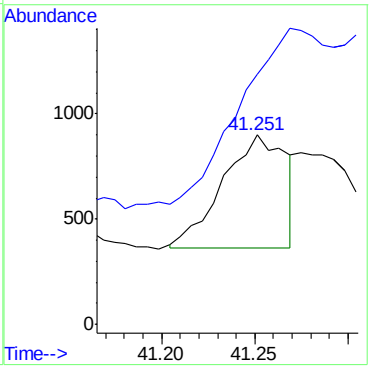


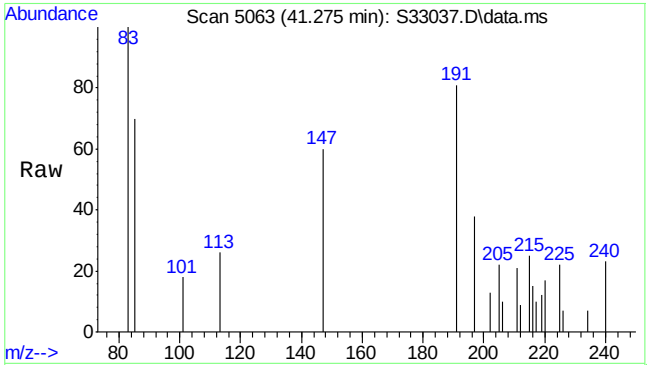
#36
Benzo(b)fluorene
Concen: 3.69 ng/mL m
RT: 41.251 min Scan# 5059
Delta R.T. -0.006 min
Lab File: S33037.D
Acq: 24 Jul 2013 4:03 pm

Tgt Ion:216 Resp: 1279

Ion	Ratio	Lower	Upper
216	100		
215	215.6	112.3	168.5#



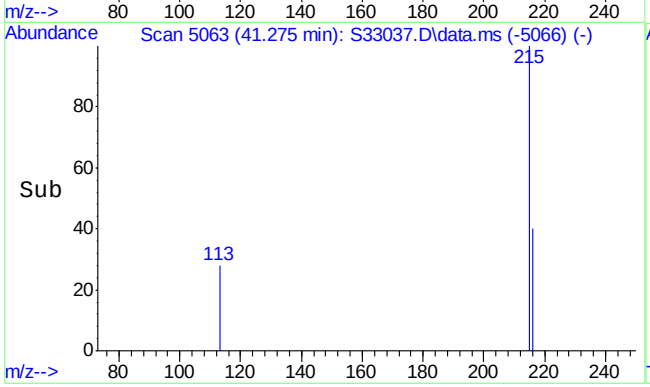


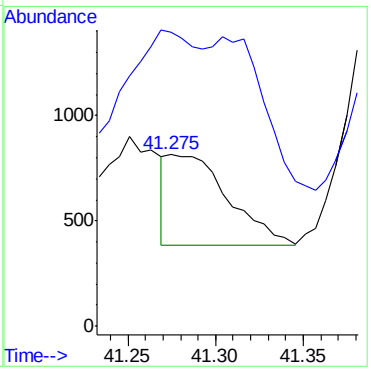


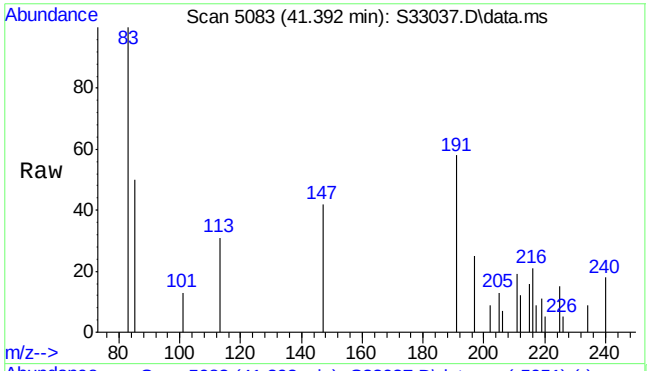
#37
Benzo(c)fluorene
Concen: 2.95 µg/mL m
RT: 41.275 min Scan# 5063
Delta R.T. -0.018 min
Lab File: S33037.D
Acq: 24 Jul 2013 4:03 pm

Tgt Ion:216 Resp: 1025

Ion	Ratio	Lower	Upper
216	100		
215	180.8	114.9	172.3#



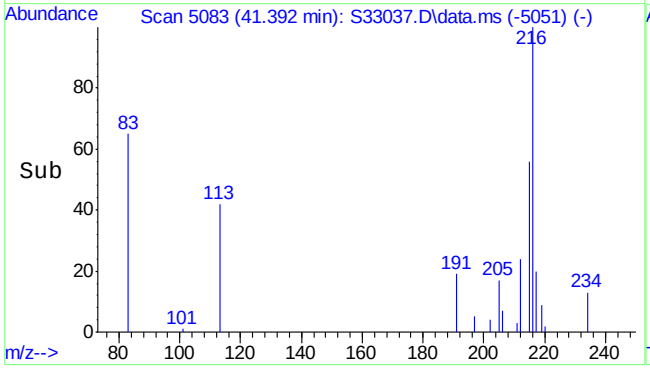


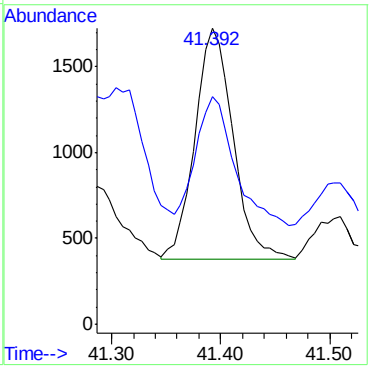


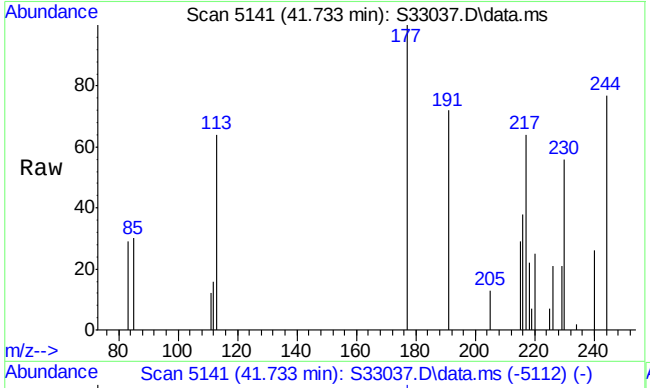
#38
2-Methylpyrene
Concen: 9.41 ng/mL m
RT: 41.392 min Scan# 5083
Delta R.T. -0.012 min
Lab File: S33037.D
Acq: 24 Jul 2013 4:03 pm

Tgt Ion:216 Resp: 3266

Ion	Ratio	Lower	Upper
216	100		
215	18.4	81.0	121.6#



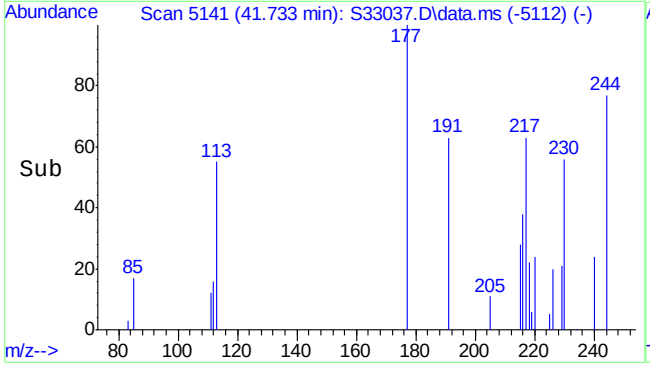


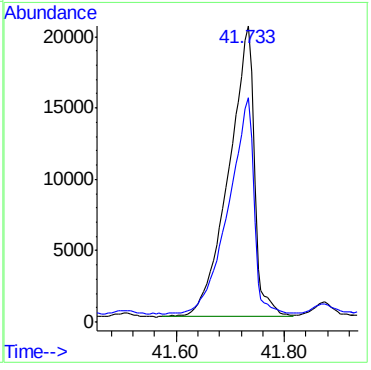


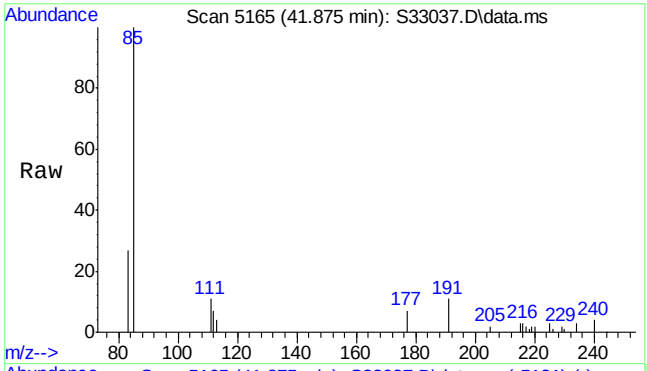
#39
4-Methylpyrene
Concen: 191.75 ng/mL
RT: 41.733 min Scan# 5141
Delta R.T. -0.029 min
Lab File: S33037.D
Acq: 24 Jul 2013 4:03 pm

Tgt Ion:216 Resp: 66528

Ion	Ratio	Lower	Upper
216	100		
215	73.5	58.1	87.1



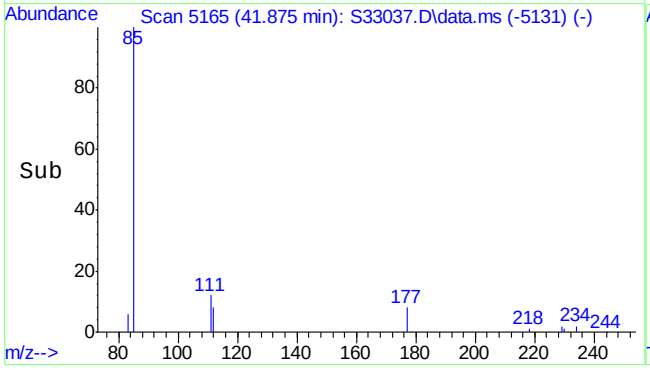


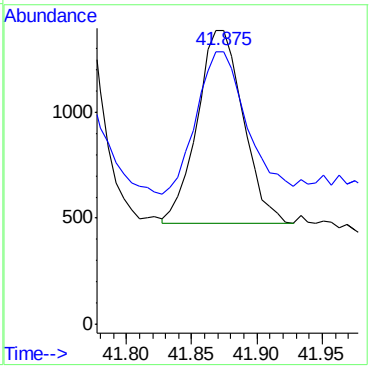


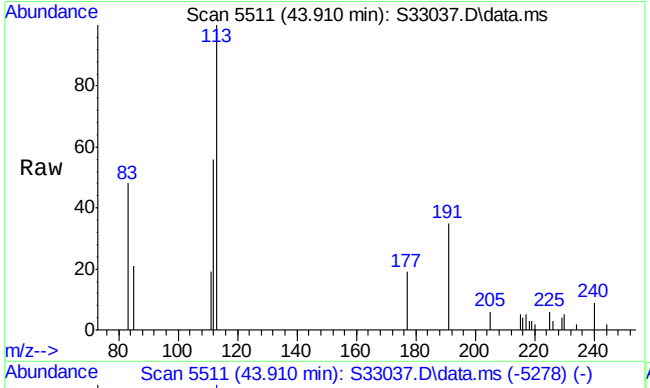
#40
1-Methylpyrene
Concen: 6.41 ng/mL
RT: 41.875 min Scan# 5165
Delta R.T. 0.000 min
Lab File: S33037.D
Acq: 24 Jul 2013 4:03 pm

Tgt Ion:216 Resp: 2225

Ion	Ratio	Lower	Upper
216	100		
215	80.2	80.5	120.7#



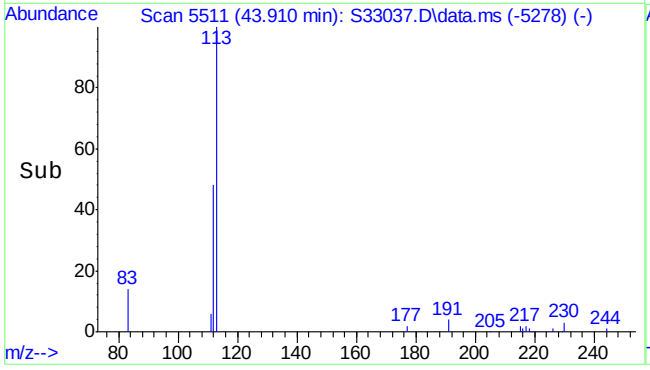


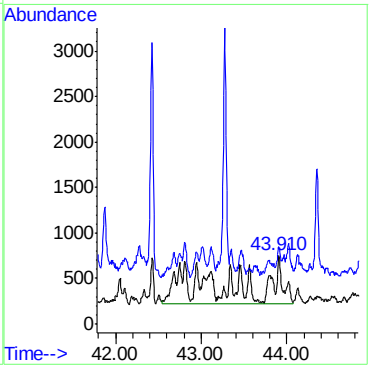


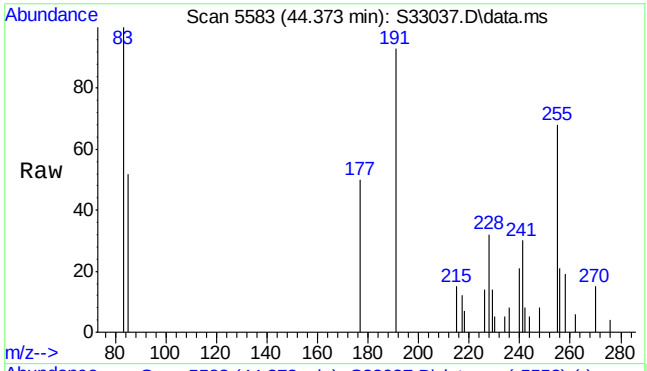
#41
C2-Fluoranthenes/pyrenes
Concen: 50.00 ng/mL m
RT: 43.910 min Scan# 5511
Delta R.T. -0.006 min
Lab File: S33037.D
Acq: 24 Jul 2013 4:03 pm

Tgt Ion:230 Resp: 17346

Ion	Ratio	Lower	Upper
230	100		
215	4.6	79.2	118.8#



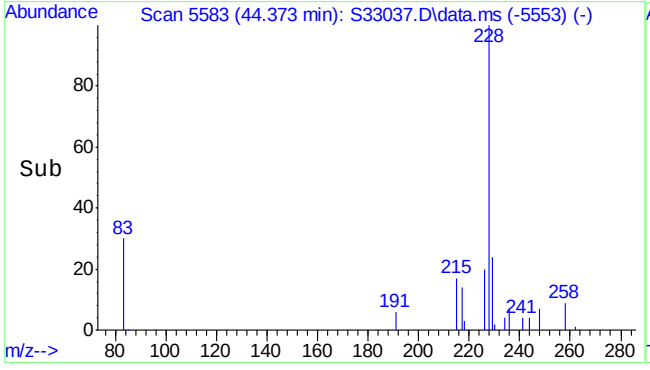


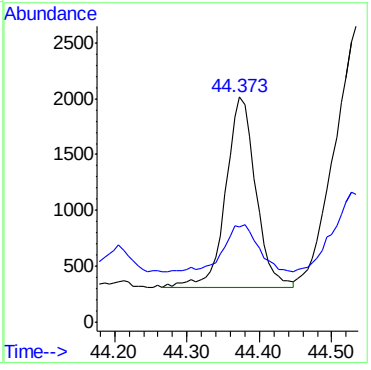


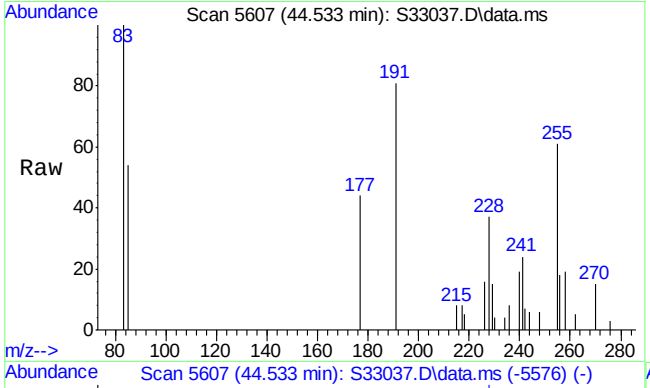
#43
Benz(a)anthracene
Concen: 14.59 ng/mL
RT: 44.373 min Scan# 5583
Delta R.T. -0.000 min
Lab File: S33037.D
Acq: 24 Jul 2013 4:03 pm

Tgt Ion:228 Resp: 4888

Ion	Ratio	Lower	Upper
228	100		
226	28.9	21.4	32.2



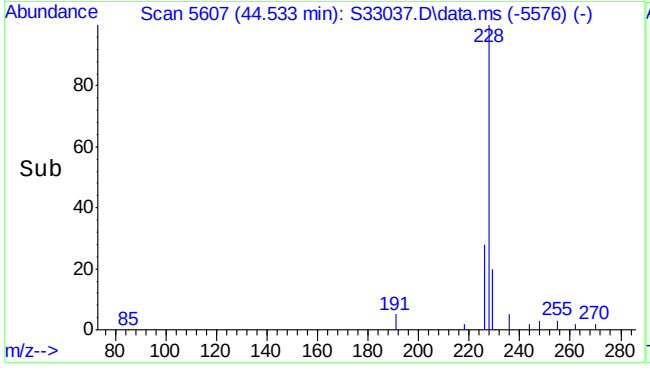


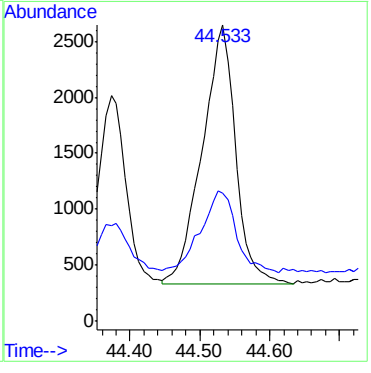


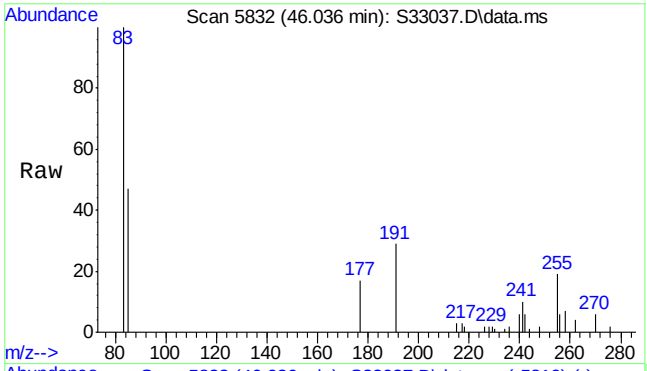
#44
Chrysene
Concen: 24.44 ng/mL
RT: 44.533 min Scan# 5607
Delta R.T. 0.007 min
Lab File: S33037.D
Acq: 24 Jul 2013 4:03 pm

Tgt Ion:228 Resp: 7638

Ion	Ratio	Lower	Upper
228	100		
226	33.5	23.8	35.6



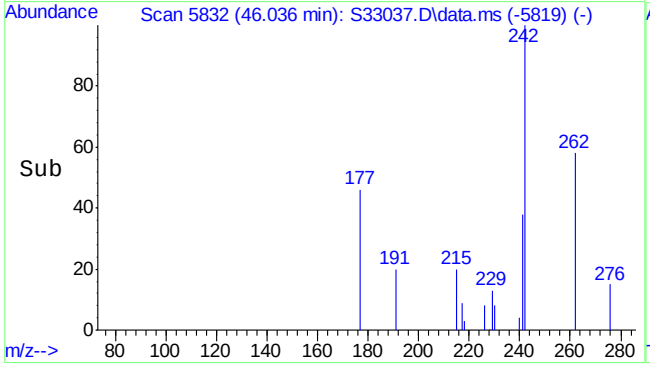


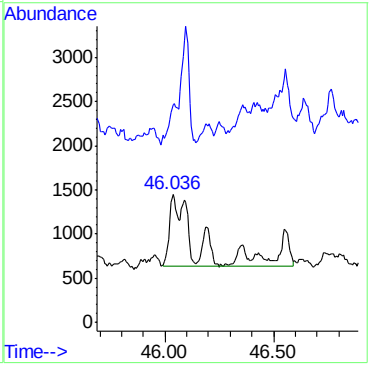


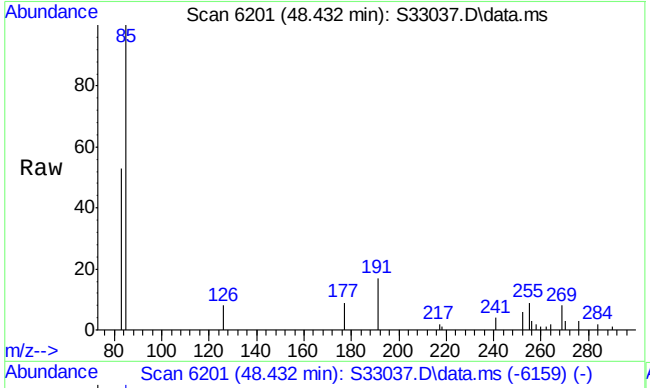
#45
C1-Benz(a)anthracenes/chrysenes
Concen: 24.43 ng/mL m
RT: 46.036 min Scan# 5832
Delta R.T. 0.020 min
Lab File: S33037.D
Acq: 24 Jul 2013 4:03 pm

Tgt Ion:242 Resp: 7637

Ion	Ratio	Lower	Upper
242	100		
241	16.0	39.4	59.0#



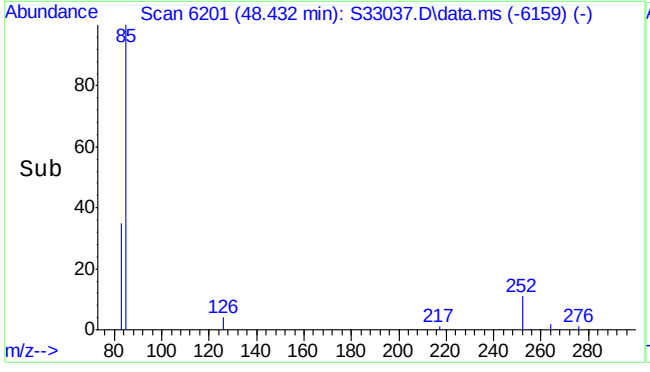


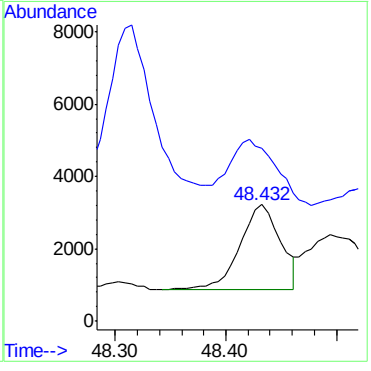


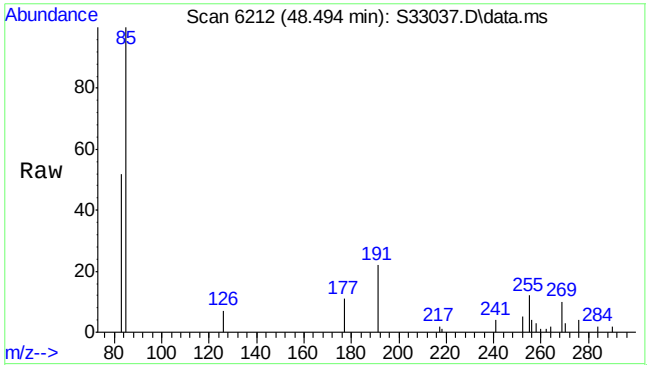
#49
Benzo(b)fluoranthene
Concen: 15.81 ng/mL
RT: 48.432 min Scan# 6201
Delta R.T. 0.034 min
Lab File: S33037.D
Acq: 24 Jul 2013 4:03 pm

Tgt Ion:252 Resp: 6067

Ion	Ratio	Lower	Upper
252	100		
126	91.8	10.6	15.8#



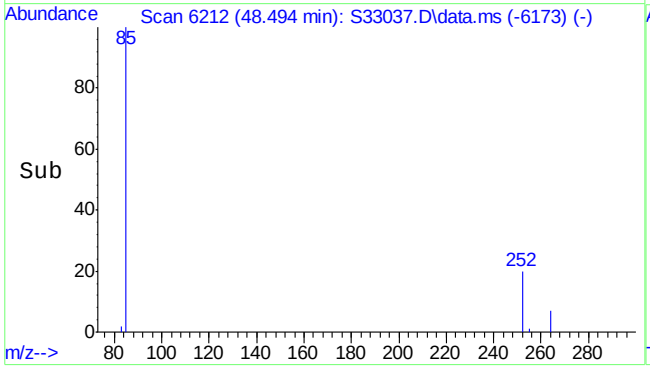


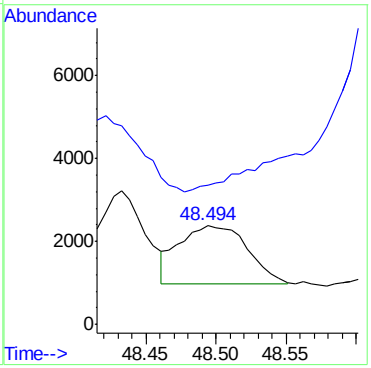


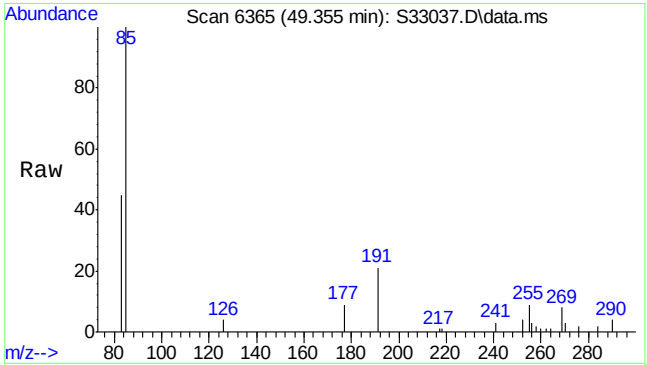
#50
Benzo(k)fluoranthene
Concen: 12.56 ng/mL m
RT: 48.494 min Scan# 6212
Delta R.T. 0.017 min
Lab File: S33037.D
Acq: 24 Jul 2013 4:03 pm

Tgt Ion:252 Resp: 4804

Ion	Ratio	Lower	Upper
252	100		
126	0.0	11.9	17.9#



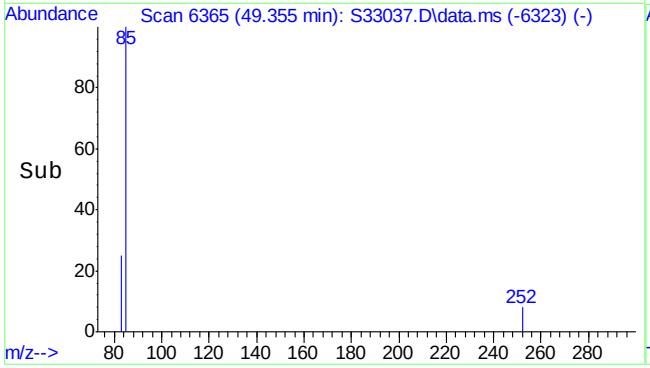


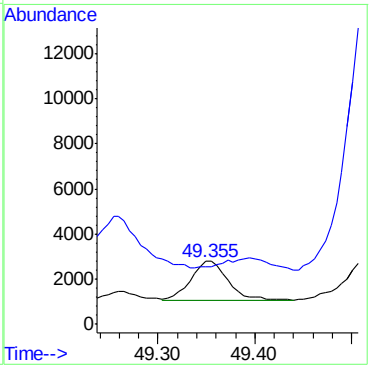


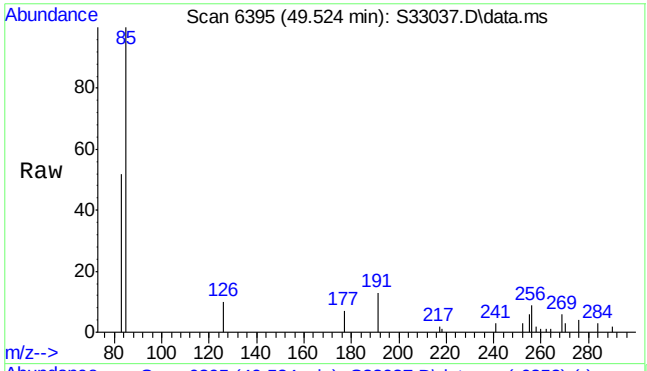
#51
Benzo(e)pyrene
Concen: 13.63 ng/mL
RT: 49.355 min Scan# 6365
Delta R.T. 0.034 min
Lab File: S33037.D
Acq: 24 Jul 2013 4:03 pm

Tgt Ion:252 Resp: 4703

Ion	Ratio	Lower	Upper
252	100		
126	0.0	9.9	14.9#



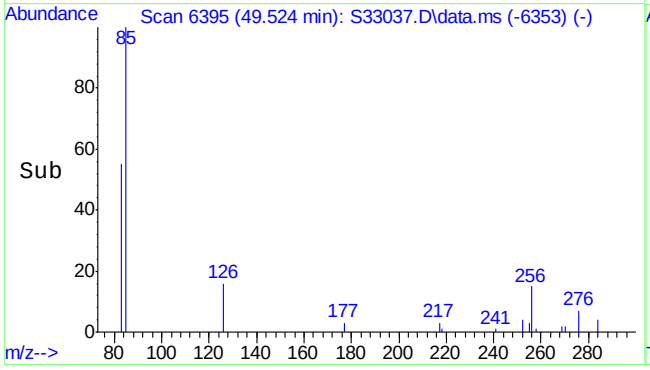


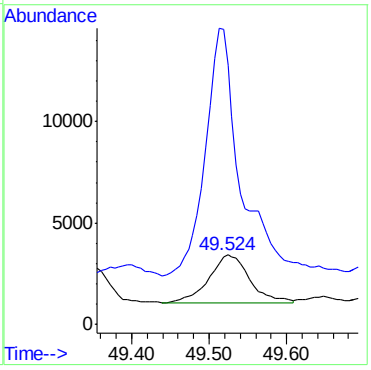


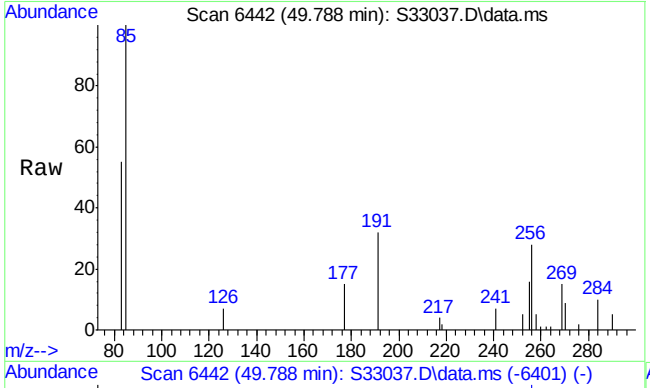
#52
Benzo(a)pyrene
Concen: 26.39 ng/mL
RT: 49.524 min Scan# 6395
Delta R.T. 0.034 min
Lab File: S33037.D
Acq: 24 Jul 2013 4:03 pm

Tgt Ion:252 Resp: 8820

Ion	Ratio	Lower	Upper
252	100		
126	448.7	11.6	17.4#



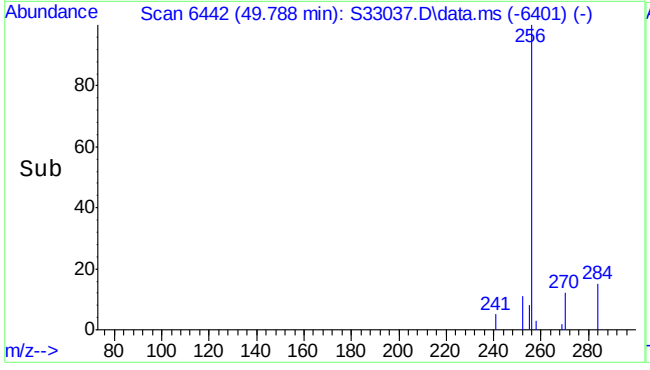


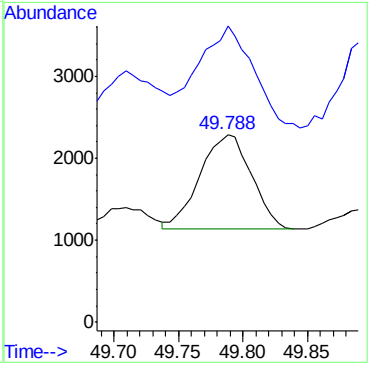


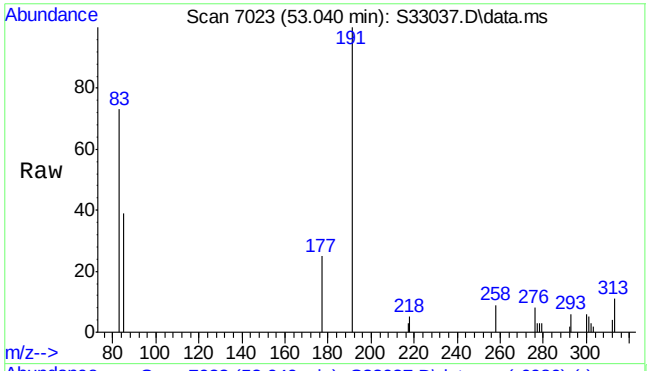
#53
Perylene
Concen: 9.93 ng/mL
RT: 49.788 min Scan# 6442
Delta R.T. 0.028 min
Lab File: S33037.D
Acq: 24 Jul 2013 4:03 pm

Tgt Ion:252 Resp: 3225

Ion	Ratio	Lower	Upper
252	100		
126	116.1	12.5	18.7#



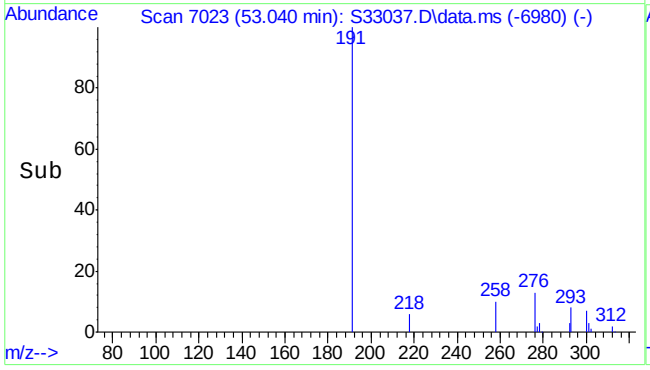


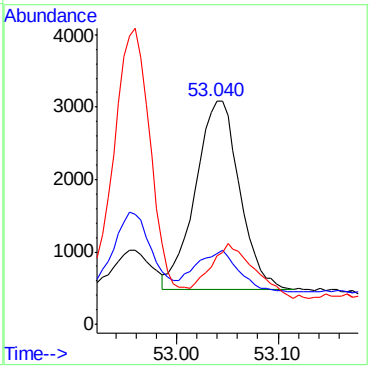


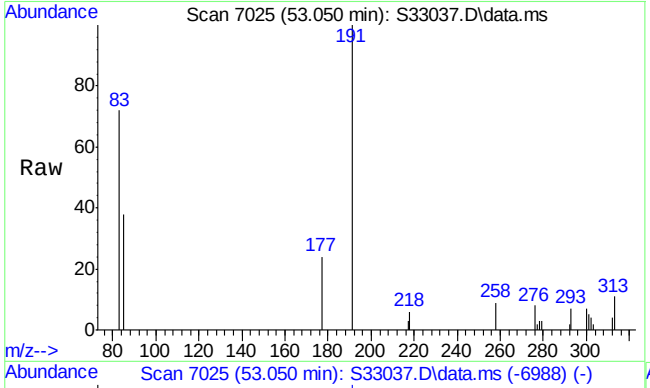
#54
Indeno(1,2,3-cd)pyrene
Concen: 20.61 ng/mL
RT: 53.040 min Scan# 7023
Delta R.T. 0.032 min
Lab File: S33037.D
Acq: 24 Jul 2013 4:03 pm

Tgt Ion:276 Resp: 7889

Ion	Ratio	Lower	Upper
276	100		
277	21.1	19.0	28.4
278	29.6	5.7	8.5#



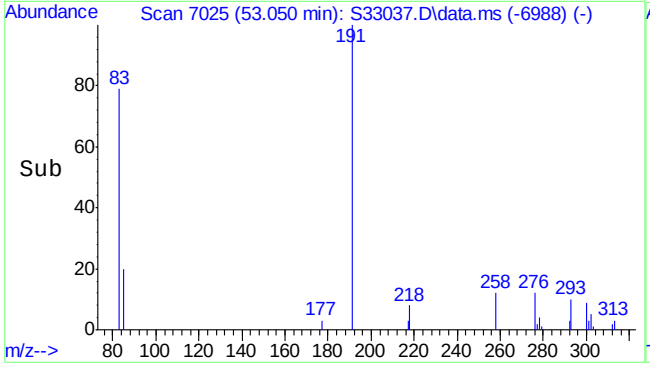


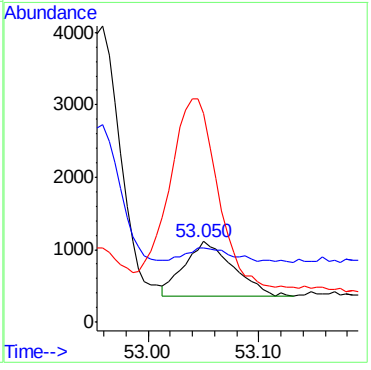


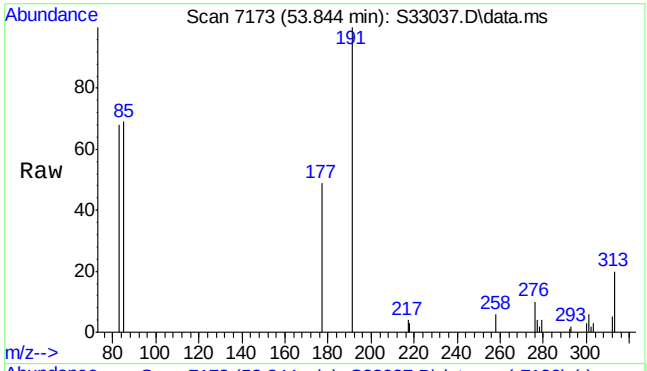
#55
Dibenz(a,h)anthracene
Concen: 6.72 ng/mL
RT: 53.050 min Scan# 7025
Delta R.T. -0.000 min
Lab File: S33037.D
Acq: 24 Jul 2013 4:03 pm

Tgt Ion:278 Resp: 2333

Ion	Ratio	Lower	Upper
278	100		
279	20.9	19.2	28.8
276	338.1	29.6	44.4#



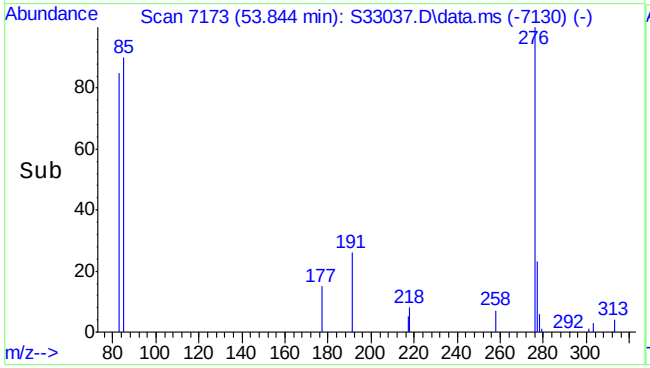


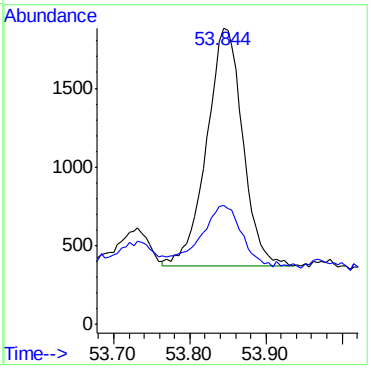


#56
Benzo(g,h,i)perylene
Concen: 12.08 ng/mL
RT: 53.844 min Scan# 7173
Delta R.T. 0.032 min
Lab File: S33037.D
Acq: 24 Jul 2013 4:03 pm

Tgt Ion:276 Resp: 4956

Ion	Ratio	Lower	Upper
276	100		
277	29.4	18.9	28.3#





7.1.11

Manual Integrations APPROVED (compounds with "m" flag)
James Roush
07/31/13 10:55

Quantitation Report (QT Reviewed)

Data Path : S:\1\data\S130716\
Data File : S33000.D
Acq On : 17 Jul 2013 1:43 am
Operator : kristinr
Sample : mc21754-5a
Misc : op33686,mss1443,5.47,,,2,10
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Jul 30 11:36:21 2013
Quant Method : S:\1\methods\S130705-B5739ALKPAH.M
Quant Title : PAHs & Alkylated PAHs by GC/MS/SIM
QLast Update : Thu Jul 11 09:13:24 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Acenaphthene-d10	28.142	164	167895	1100.00	ng/mL	0.00
System Monitoring Compounds						
2) Toluene-d8	9.238	98	2580m	14.35	µg/mL	0.00
Spiked Amount 1000.000			Recovery =	1.44%		
3) Naphthalene-d8	21.201	136	10031m	33.80	ng/mL	0.02
Spiked Amount 1000.000	Range 1 - 0		Recovery =	3.38%#		
4) Phenanthrene-d10	33.976	188	8313	34.02	ng/mL	-0.01
Spiked Amount 1000.000			Recovery =	3.40%		
5) Perylene-d12	49.799	264	7744	35.90	ng/mL	-0.03
Spiked Amount 1000.000			Recovery =	3.59%		
Target Compounds						Qvalue
6) Naphthalene	21.275	128	1260877	3342.16	ng/mL	97
7) 2-Methylnaphthalene	23.980	142	1260062	5628.92	ng/mL	100
8) 1-Methylnaphthalene	24.393	142	544112m	2329.92	ng/mL	
9) C1-Naphthalenes	23.980	142	1813492m	4806.95	ng/mL	
10) C2-Naphthalenes	26.809	156	2333816m	6186.15	ng/mL	
11) C3-Naphthalenes	29.142	170	1820445m	4825.38	ng/mL	
12) C4-Naphthalenes	31.902	184	1040763m	2758.71	ng/mL	
13) Acenaphthylene	27.552	152	5142	14.74	ng/mL#	1
14) Acenaphthene	28.265	154	22551	105.94	ng/mL	86
15) Dibenzofuran	28.912	168	45521m	150.05	ng/mL	
16) Fluorene	30.275	166	161991m	600.00	ng/mL	
17) C1-Fluorenes	32.638	180	254252m	941.73	ng/mL	
18) C2-Fluorenes	34.828	194	448854m	1662.51	ng/mL	
19) C3-Fluorenes	37.444	208	296338m	1097.61	ng/mL	
20) Dibenzothiophene	33.573	184	38800m	113.99	ng/mL	
21) C1-Dibenzothiophenes (...	35.347	198	207718m	619.07	ng/mL	
22) C1-Dibenzothiophenes (...	35.777	198	1128m	3.36	µg/mL	
23) C2-Dibenzothiophenes	37.027	212	292150m	870.70	ng/mL	
24) C3-Dibenzothiophenes	38.834	226	164121m	489.13	ng/mL	
25) C4-Dibenzothiophenes	40.139	240	233967m	697.30	ng/mL	
26) Phenanthrene	34.065	178	294126	755.72	ng/mL	99
28) C1-Phenanthrenes/anthr...	36.136	192	627107m	1611.28	ng/mL	
29) C2-Phenanthrenes/anthr...	38.297	206	428929m	1102.09	ng/mL	
31) C3-Phenanthrenes/anthr...	40.133	220	127036m	326.40	ng/mL	
32) C4-Phenanthrenes/anthr...	42.656	234	57885m	148.73	ng/mL	
33) Fluoranthene	38.816	202	19407	56.29	ng/mL#	74
34) Pyrene	39.687	202	28206m	78.95	ng/mL	
35) C1-Fluoranthenes/pyrenes	41.827	216	92157m	257.96	ng/mL	
36) Benzo(b)fluorene	41.345	216	1285m	3.60	ng/mL	
37) Benzo(c)fluorene	41.363	216	834m	2.33	µg/mL	
38) 2-Methylpyrene	41.486	216	3355m	9.39	ng/mL	
40) 1-Methylpyrene	41.968	216	2248m	6.29	ng/mL	
41) C2-Fluoranthenes/pyrenes	43.997	230	17213m	48.18	ng/mL	
42) C3-Fluoranthenes/pyrenes	45.181	244	109684m	307.02	ng/mL	
43) Benz(a)anthracene	44.466	228	4369	12.66	ng/mL	93
44) Chrysene	44.626	228	7303	22.69	ng/mL	98

Quantitation Report (QT Reviewed)

Data Path : S:\1\data\S130716\
Data File : S33000.D
Acq On : 17 Jul 2013 1:43 am
Operator : kristinr
Sample : mc21754-5a
Misc : op33686,mss1443,5.47,,,2,10
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Jul 30 11:36:21 2013
Quant Method : S:\1\methods\S130705-B5739ALKPAH.M
Quant Title : PAHs & Alkylated PAHs by GC/MS/SIM
QLast Update : Thu Jul 11 09:13:24 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
45) C1-Benz(a)anthracenes/...	46.129	242	7662m	23.81	ng/mL	
46) C2-Benz(a)anthracenes/...	47.945	256	106931m	332.24	ng/mL	
47) C3-Benz(a)anthracenes/...	50.030	270	66086m	205.33	ng/mL	
49) Benzo(b)fluoranthene	48.522	252	5368	13.59	ng/mL#	1
50) Benzo(k)fluoranthene	48.595	252	4740	12.04	ng/mL#	64
51) Benzo(e)pyrene	49.439	252	4358	12.26	ng/mL#	68
52) Benzo(a)pyrene	49.613	252	7526	21.87	ng/mL#	1
53) Perylene	49.872	252	3248	9.71	ng/mL#	1
54) Indeno(1,2,3-cd)pyrene	53.141	276	7937	20.14	ng/mL#	80
55) Dibenz(a,h)anthracene	53.157	278	2254	6.30	ng/mL#	1
56) Benzo(g,h,i)perylene	53.940	276	4530	10.73	ng/mL#	86

(#) = qualifier out of range (m) = manual integration (+) = signals summed

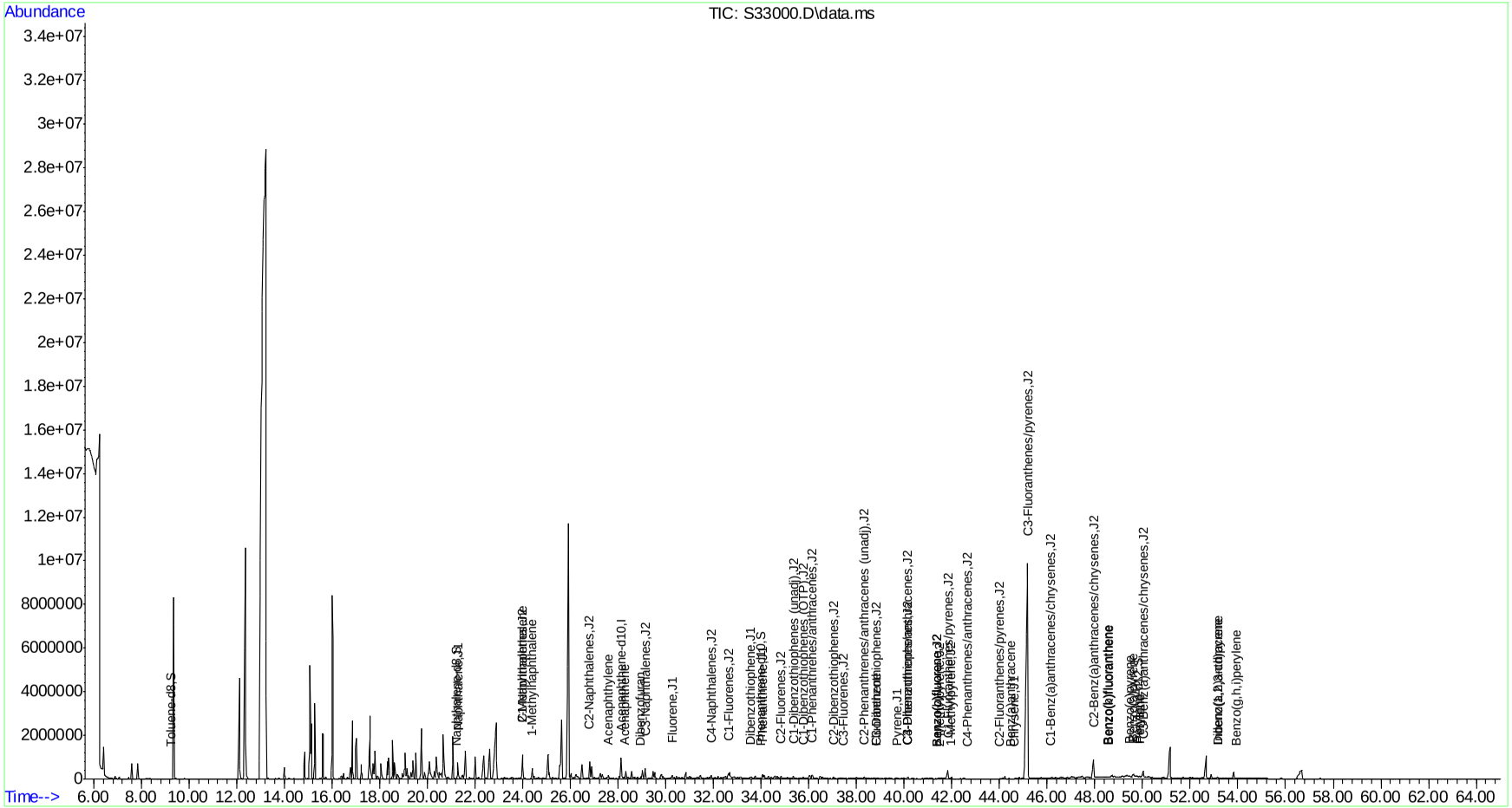
7.1.12

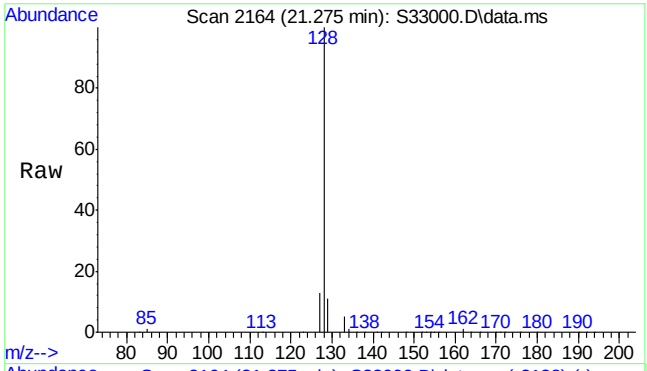
7

Quantitation Report (QT Reviewed)

Data Path : S:\1\data\S130716\
Data File : S33000.D
Acq On : 17 Jul 2013 1:43 am
Operator : kristinr
Sample : mc21754-5a
Misc : op33686,mss1443,5.47,,,2,10
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Jul 30 11:36:21 2013
Quant Method : S:\1\methods\S130705-B5739ALKPAH.M
Quant Title : PAHs & Alkylated PAHs by GC/MS/SIM
QLast Update : Thu Jul 11 09:13:24 2013
Response via : Initial Calibration

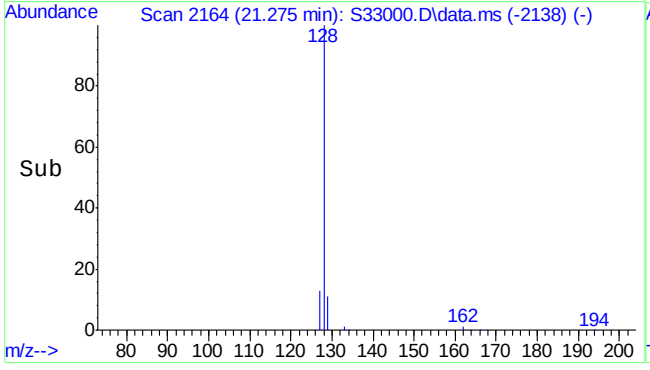


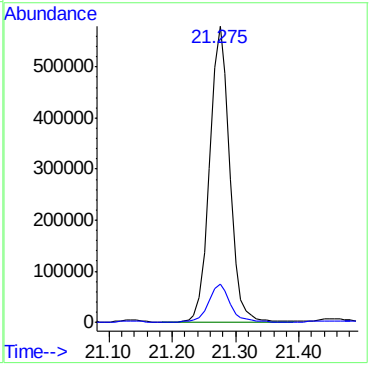


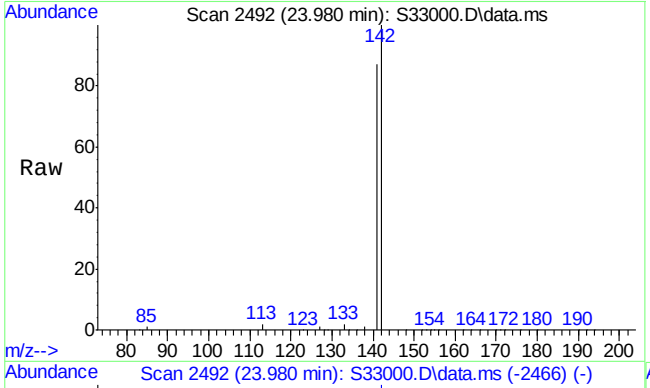
#6
Naphthalene
Concen: 3342.16 ng/mL
RT: 21.275 min Scan# 2164
Delta R.T. 0.017 min
Lab File: S33000.D
Acq: 17 Jul 2013 1:43 am

Tgt Ion:128 Resp: 1260877

Ion	Ratio	Lower	Upper
128	100		
127	13.7	10.0	15.0



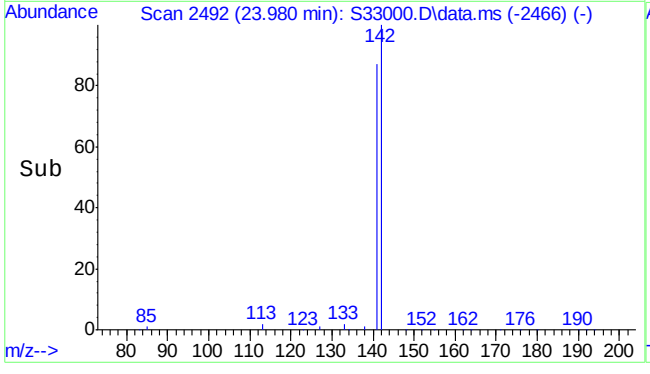


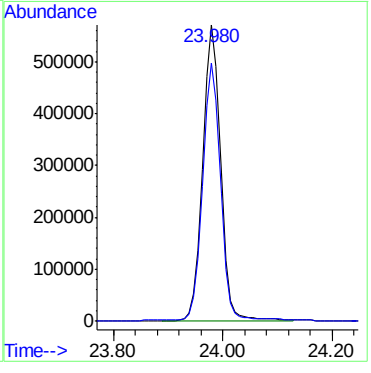


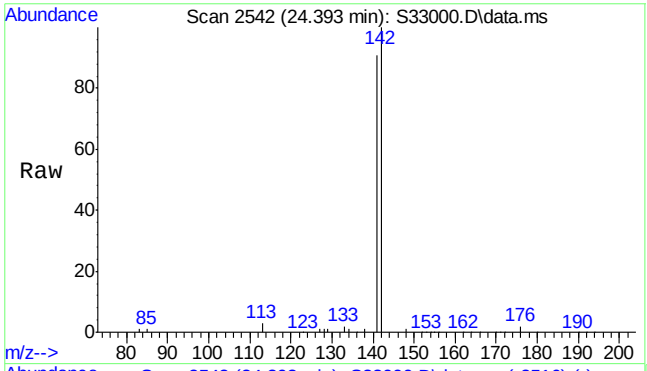
#7
2-Methylnaphthalene
Concen: 5628.92 ng/mL
RT: 23.980 min Scan# 2492
Delta R.T. 0.017 min
Lab File: S33000.D
Acq: 17 Jul 2013 1:43 am

Tgt Ion:142 Resp: 1260062

Ion	Ratio	Lower	Upper
142	100		
141	87.3	69.7	104.5



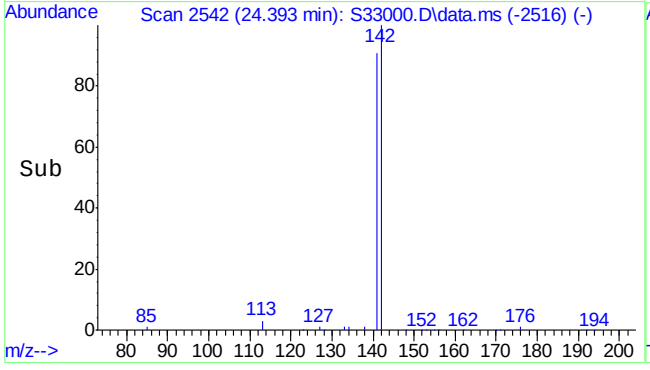


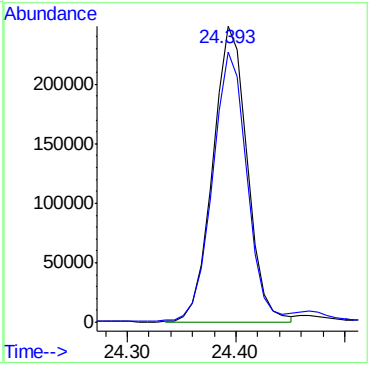


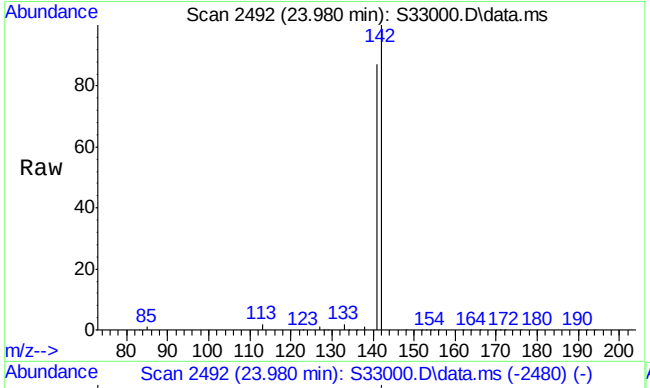
#8
1-Methylnaphthalene
Concen: 2329.92 ng/mL m
RT: 24.393 min Scan# 2542
Delta R.T. 0.016 min
Lab File: S33000.D
Acq: 17 Jul 2013 1:43 am

Tgt Ion:142 Resp: 544112

Ion	Ratio	Lower	Upper
142	100		
141	90.8	72.6	108.8



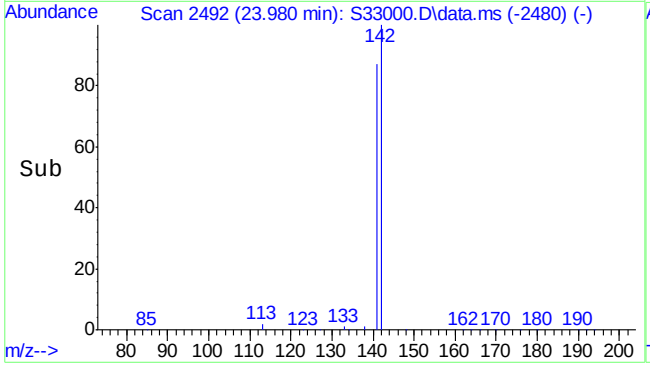


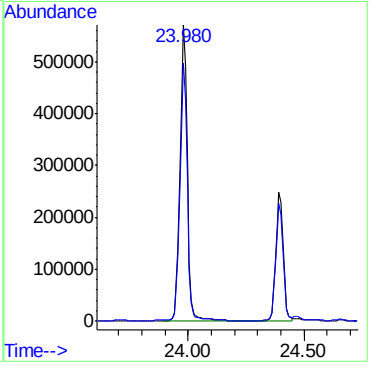


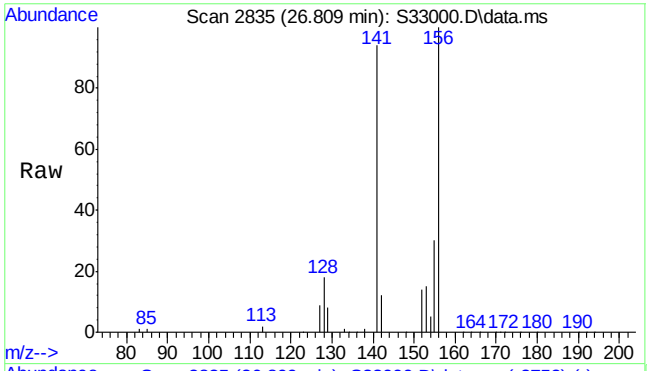
#9
C1-Naphthalenes
Concen: 4806.95 ng/mL m
RT: 23.980 min Scan# 2492
Delta R.T. 0.026 min
Lab File: S33000.D
Acq: 17 Jul 2013 1:43 am

Tgt Ion:142 Resp: 1813492

Ion	Ratio	Lower	Upper
142	100		
141	61.0	69.9	104.9#



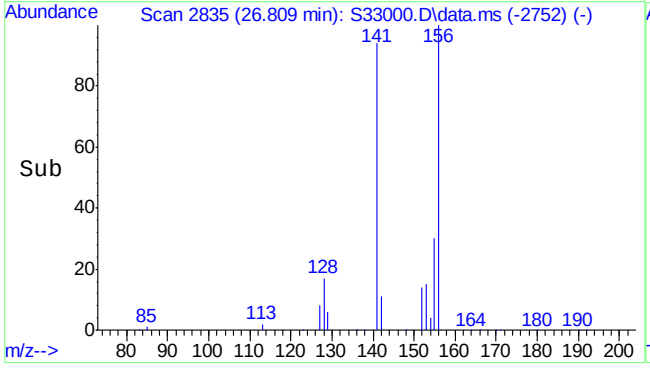


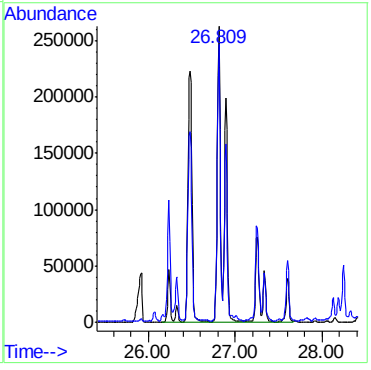


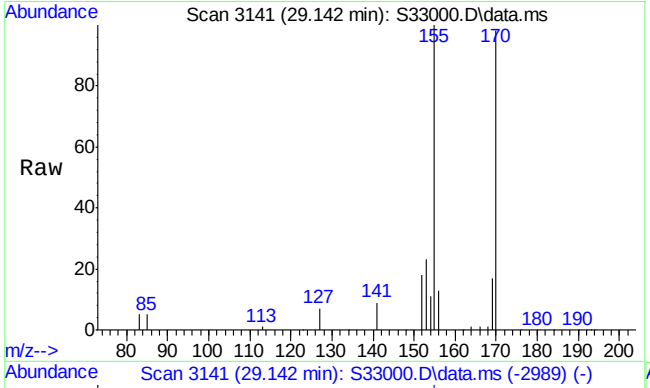
#10
C2-Naphthalenes
Concen: 6186.15 ng/mL m
RT: 26.809 min Scan# 2835
Delta R.T. -0.074 min
Lab File: S33000.D
Acq: 17 Jul 2013 1:43 am

Tgt Ion:156 Resp: 2333816

Ion	Ratio	Lower	Upper
156	100		
141	14.8	64.9	97.3#



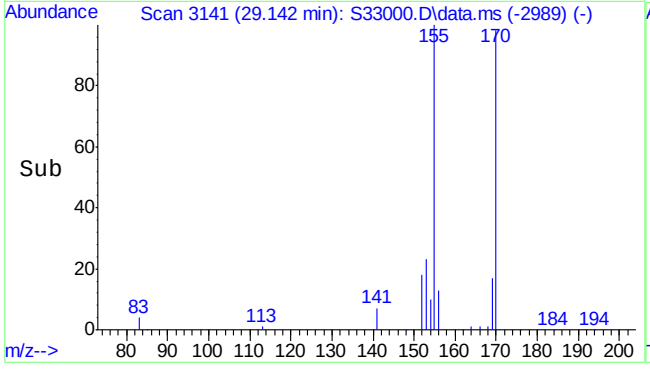


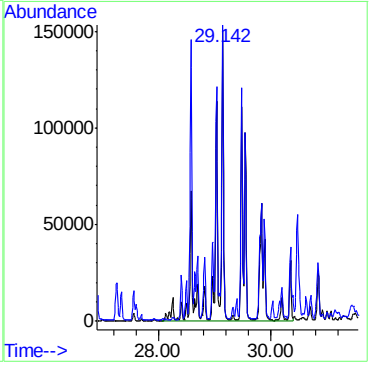


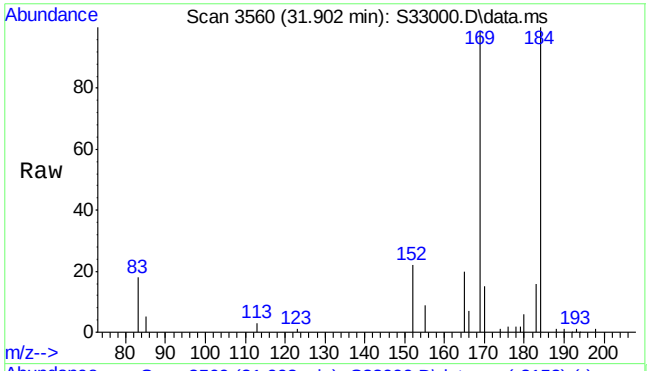
#11
C3-Naphthalenes
Concen: 4825.38 ng/mL m
RT: 29.142 min Scan# 3141
Delta R.T. -0.003 min
Lab File: S33000.D
Acq: 17 Jul 2013 1:43 am

Tgt Ion:170 Resp: 1820445

Ion	Ratio	Lower	Upper
170	100		
155	18.2	85.4	128.2#



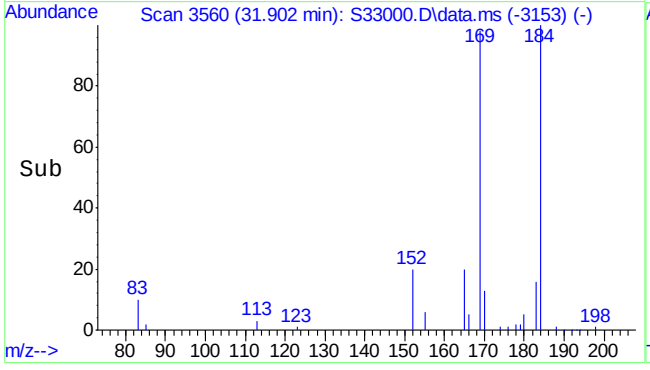


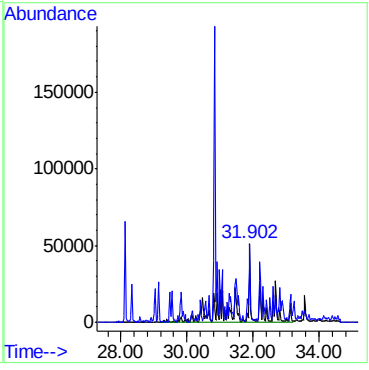


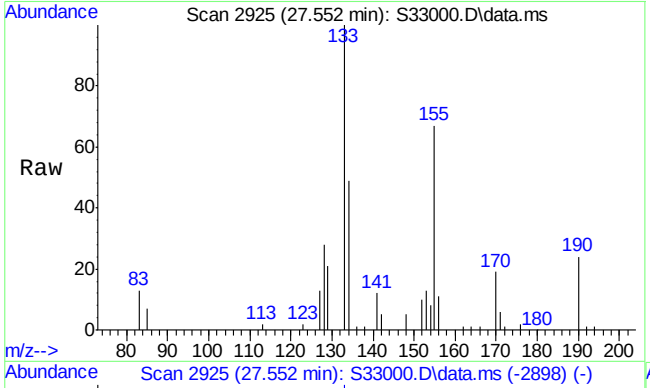
#12
C4-Naphthalenes
Concen: 2758.71 ng/mL m
RT: 31.902 min Scan# 3560
Delta R.T. -0.008 min
Lab File: S33000.D
Acq: 17 Jul 2013 1:43 am

Tgt Ion:184 Resp: 1040763

Ion	Ratio	Lower	Upper
184	100		
169	11.5	81.0	121.6#



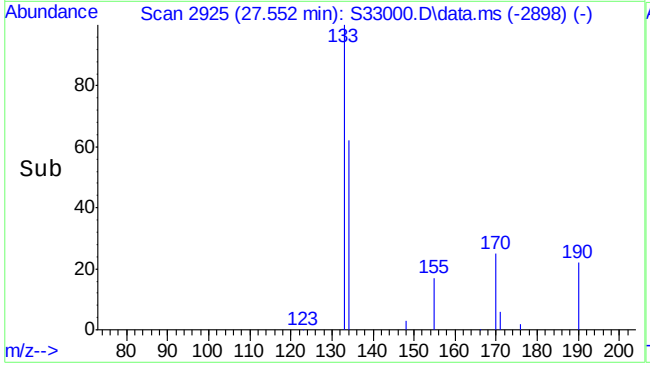


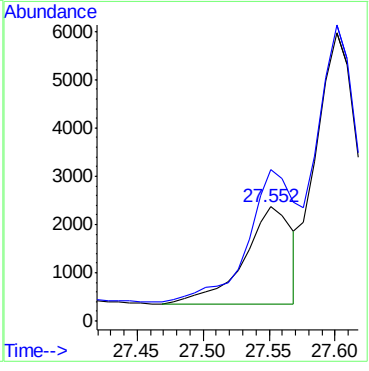


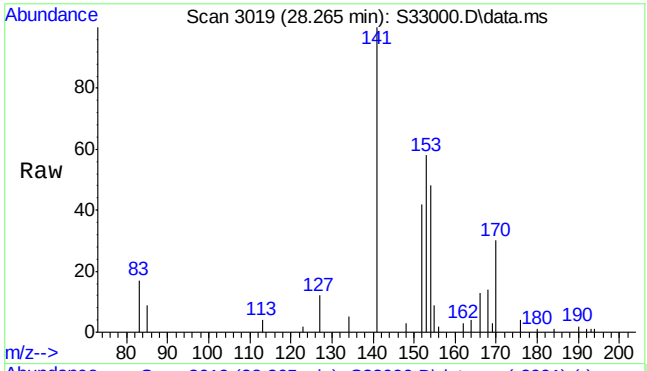
#13
Acenaphthylene
Concen: 14.74 ng/mL
RT: 27.552 min Scan# 2925
Delta R.T. 0.023 min
Lab File: S33000.D
Acq: 17 Jul 2013 1:43 am

Tgt Ion:152 Resp: 5142

Ion	Ratio	Lower	Upper
152	100		
153	141.8	10.5	15.7#



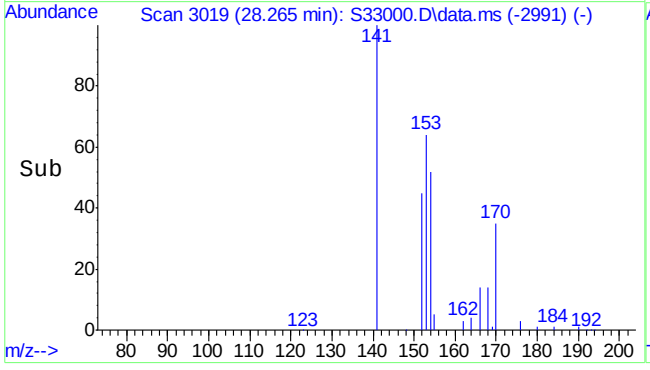


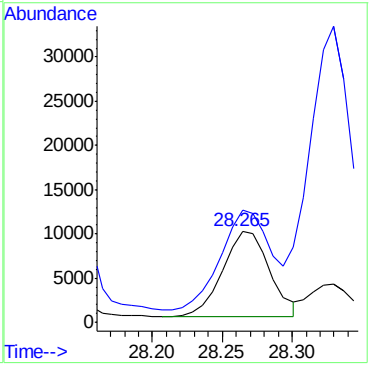


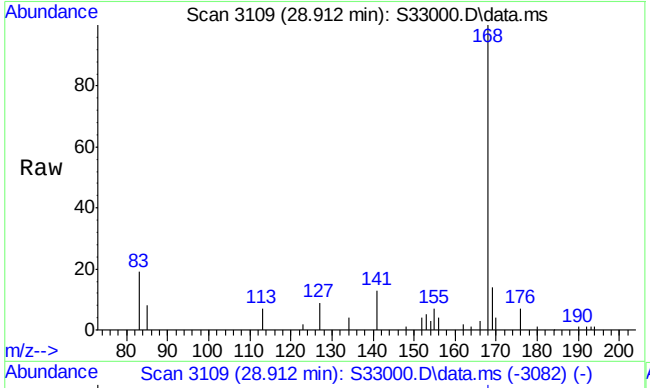
#14
Acenaphthene
Concen: 105.94 ng/mL
RT: 28.265 min Scan# 3019
Delta R.T. -0.000 min
Lab File: S33000.D
Acq: 17 Jul 2013 1:43 am

Tgt Ion:154 Resp: 22551

Ion	Ratio	Lower	Upper
154	100		
153	125.2	88.2	132.4



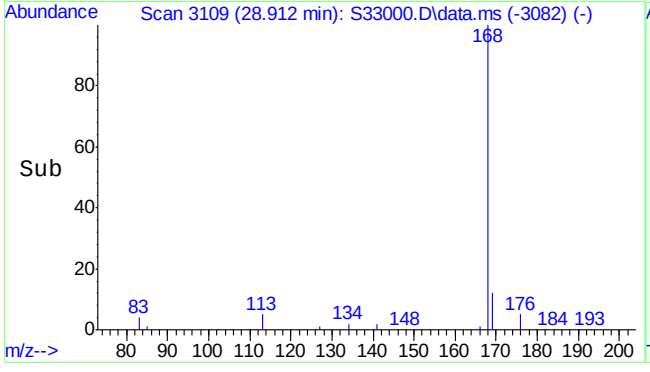


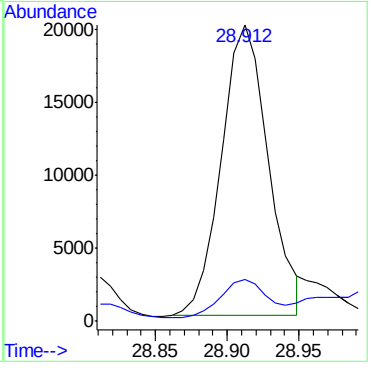


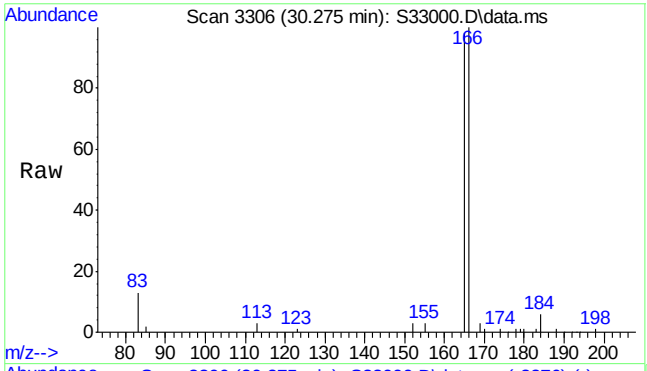
#15
Dibenzofuran
Concen: 150.05 ng/mL m
RT: 28.912 min Scan# 3109
Delta R.T. -0.002 min
Lab File: S33000.D
Acq: 17 Jul 2013 1:43 am

Tgt Ion:168 Resp: 45521

Ion	Ratio	Lower	Upper
168	100		
169	13.2	10.7	16.1



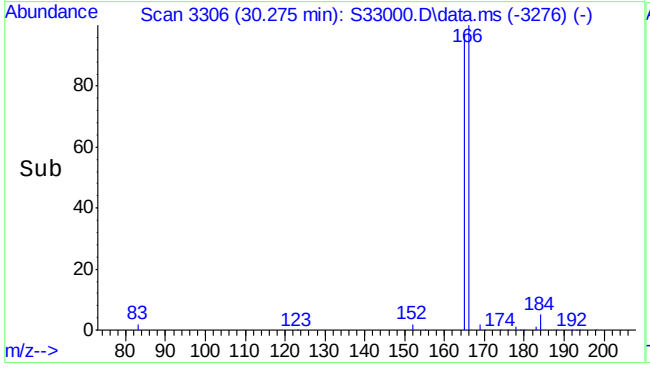


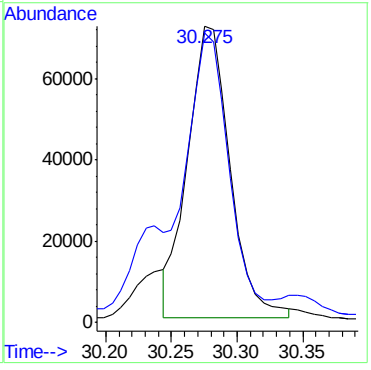


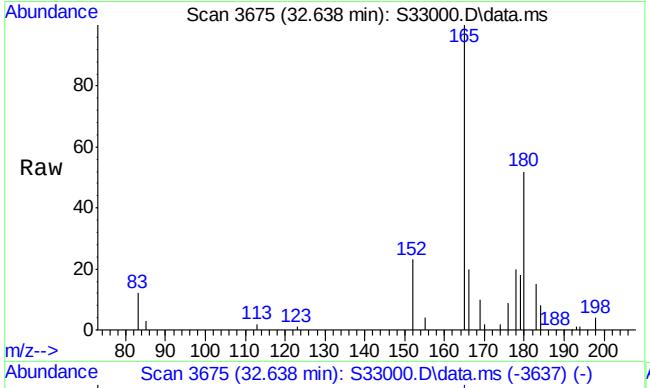
#16
Fluorene
Concen: 600.00 ng/mL m
RT: 30.275 min Scan# 3306
Delta R.T. -0.010 min
Lab File: S33000.D
Acq: 17 Jul 2013 1:43 am

Tgt Ion:166 Resp: 161991

Ion	Ratio	Lower	Upper
166	100		
165	114.8	76.3	114.5#



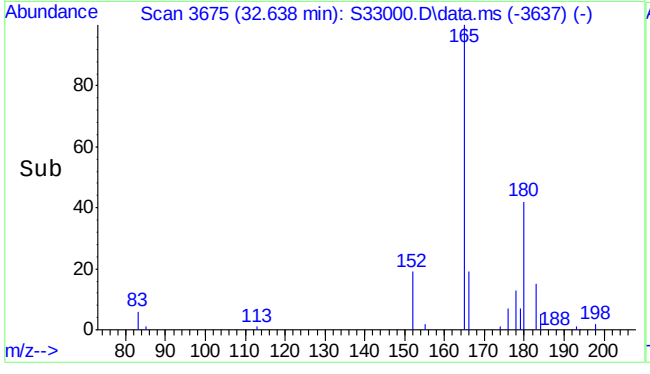


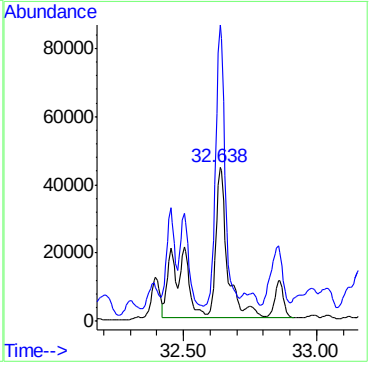


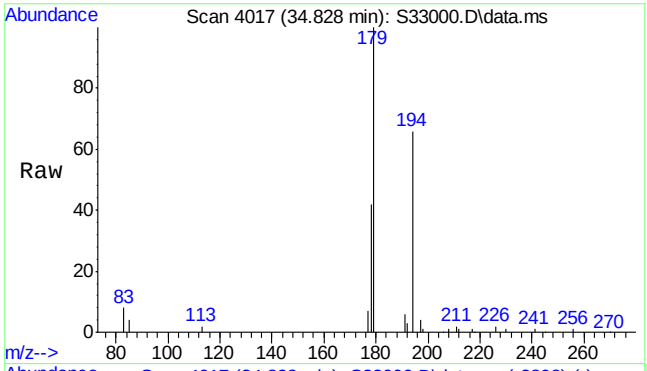
#17
C1-Fluorenes
Concen: 941.73 ng/mL m
RT: 32.638 min Scan# 3675
Delta R.T. 0.007 min
Lab File: S33000.D
Acq: 17 Jul 2013 1:43 am

Tgt Ion:180 Resp: 254252

Ion	Ratio	Lower	Upper
180	100		
165	78.9	134.2	201.4#



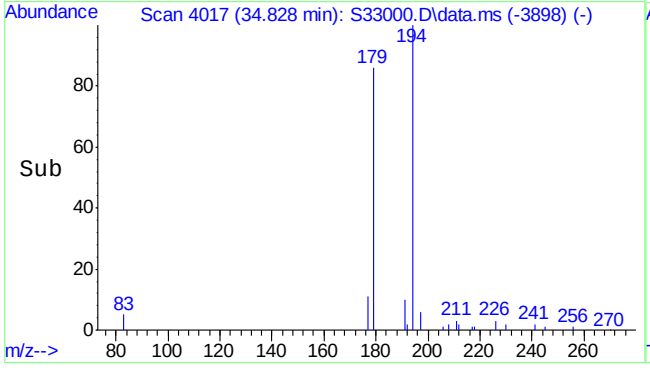


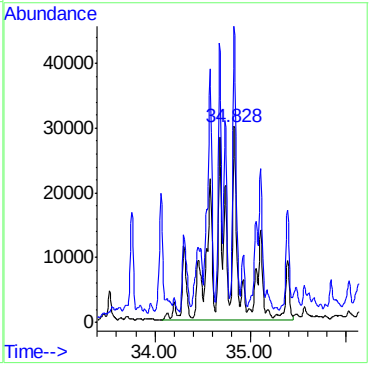


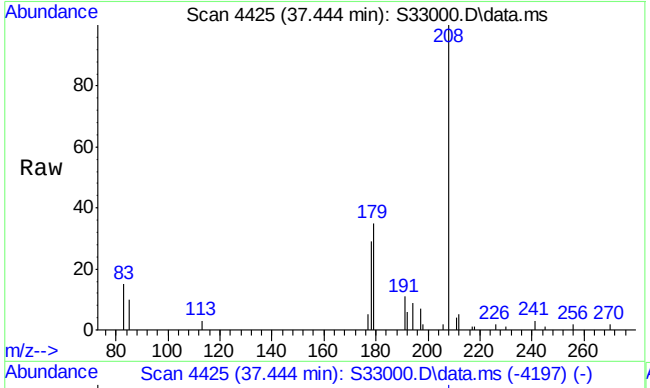
#18
C2-Fluorenes
Concen: 1662.51 ng/mL m
RT: 34.828 min Scan# 4017
Delta R.T. -0.000 min
Lab File: S33000.D
Acq: 17 Jul 2013 1:43 am

Tgt Ion:194 Resp: 448854

Ion	Ratio	Lower	Upper
194	100		
179	23.1	125.0	187.4#



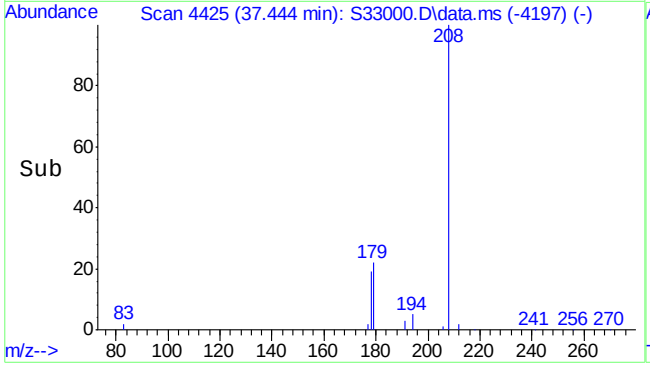


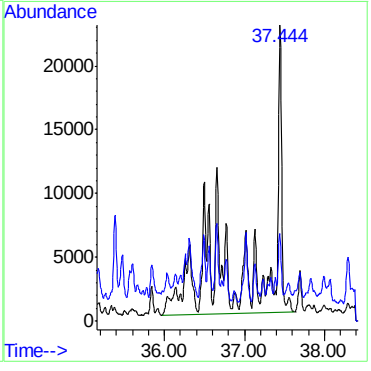


#19
C3-Fluorenes
Concen: 1097.61 ng/mL m
RT: 37.444 min Scan# 4425
Delta R.T. 0.754 min
Lab File: S33000.D
Acq: 17 Jul 2013 1:43 am

Tgt Ion:208 Resp: 296338

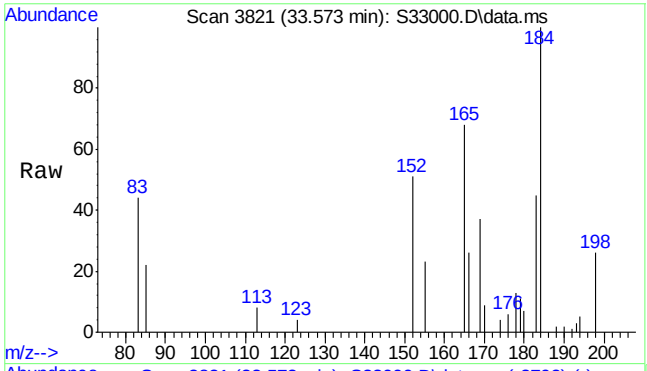
Ion	Ratio	Lower	Upper
208	100		
178	0.7	54.9	82.3#





7.1.12

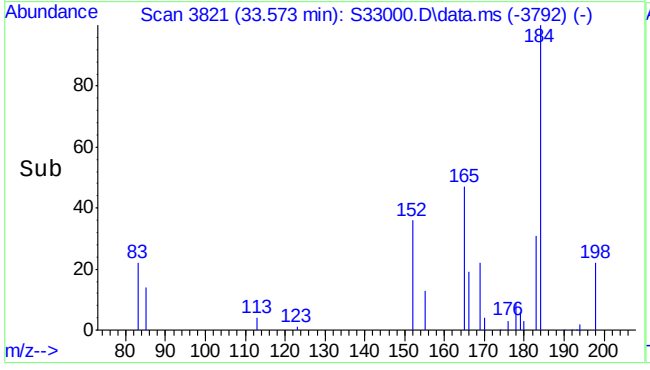
7

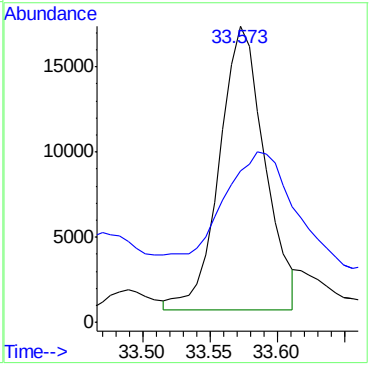


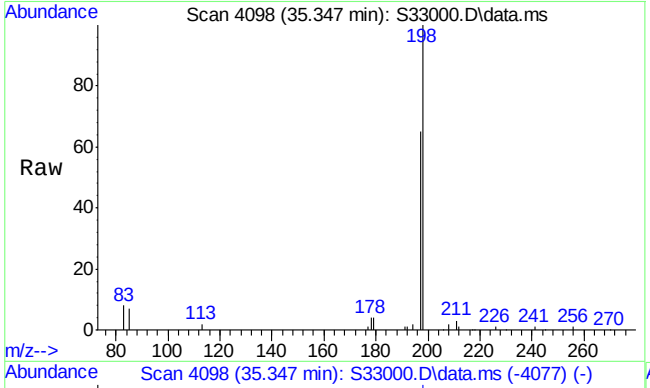
#20
Dibenzothiophene
Concen: 113.99 ng/mL m
RT: 33.573 min Scan# 3821
Delta R.T. -0.013 min
Lab File: S33000.D
Acq: 17 Jul 2013 1:43 am

Tgt Ion:184 Resp: 38800

Ion	Ratio	Lower	Upper
184	100		
152	71.6	7.7	11.5#



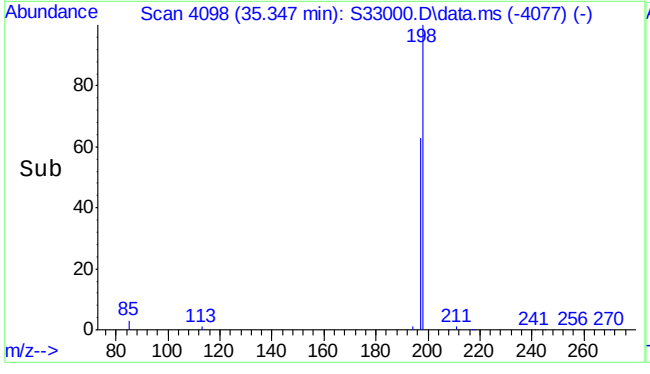


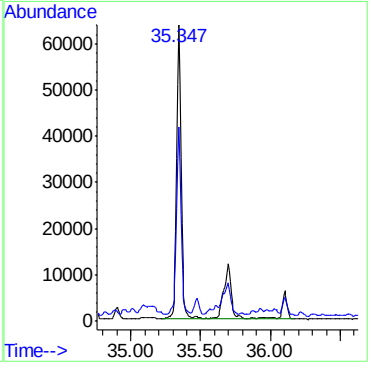


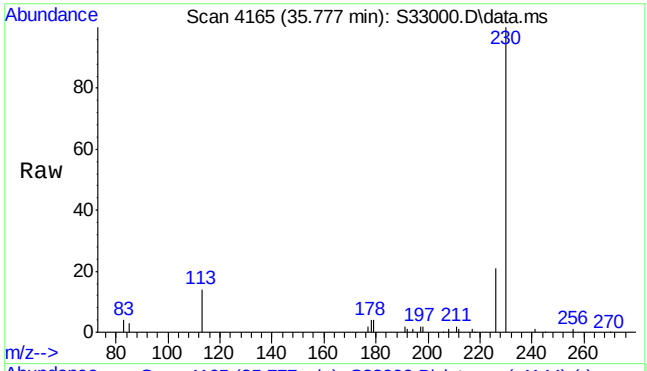
#21
C1-Dibenzothiophenes (unadj)
Concen: 619.07 ng/mL m
RT: 35.347 min Scan# 4098
Delta R.T. -0.018 min
Lab File: S33000.D
Acq: 17 Jul 2013 1:43 am

Tgt Ion:198 Resp: 207718

Ion	Ratio	Lower	Upper
198	100		
197	46.0	53.4	80.0#



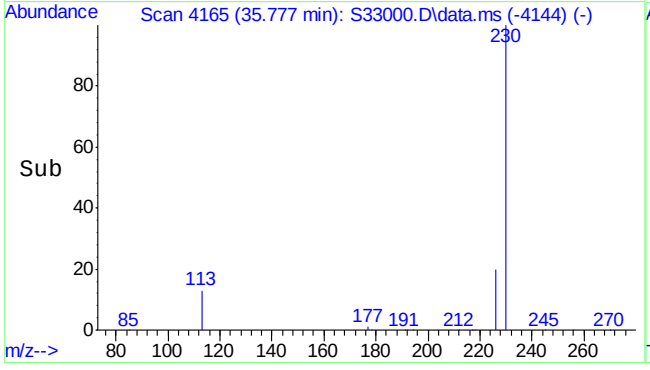


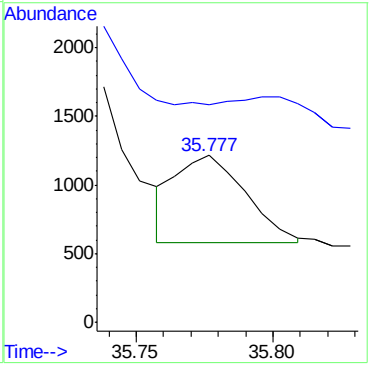


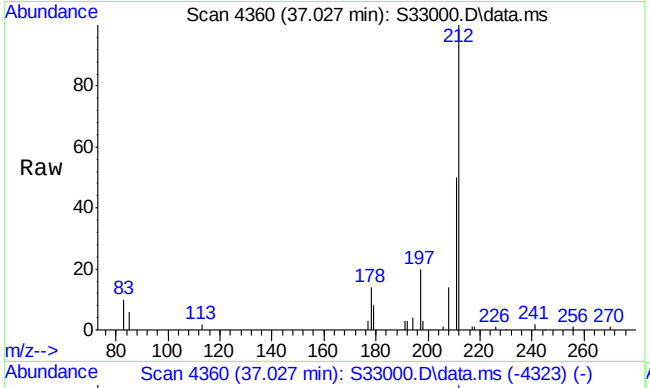
#22
C1-Dibenzothiophenes (OTP)
Concen: 3.36 µg/mL m
RT: 35.777 min Scan# 4165
Delta R.T. 0.045 min
Lab File: S33000.D
Acq: 17 Jul 2013 1:43 am

Tgt Ion:198 Resp: 1128

Ion	Ratio	Lower	Upper
198	100		
197	842.6	58.2	87.2#



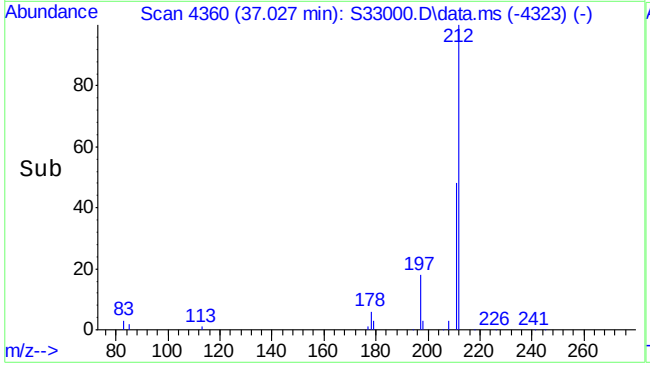


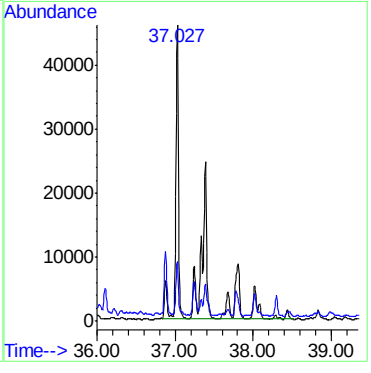


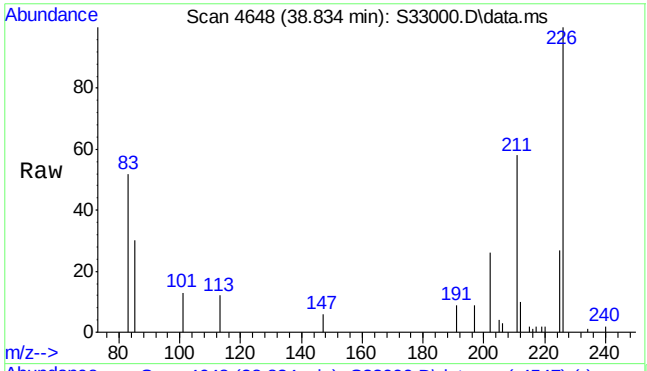
#23
C2-Dibenzothiophenes
Concen: 870.70 ng/mL m
RT: 37.027 min Scan# 4360
Delta R.T. -0.360 min
Lab File: S33000.D
Acq: 17 Jul 2013 1:43 am

Tgt Ion:212 Resp: 292150

Ion	Ratio	Lower	Upper
212	100		
197	5.2	18.8	28.2#



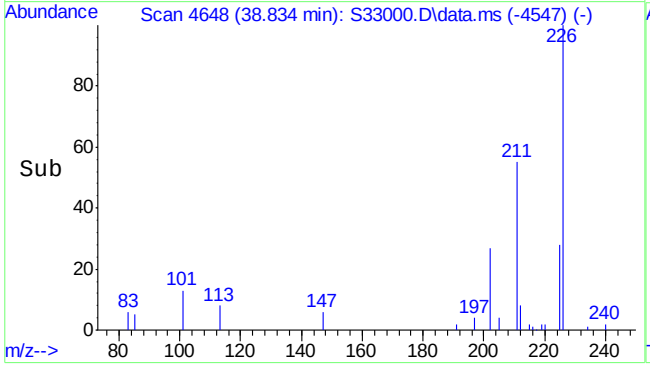


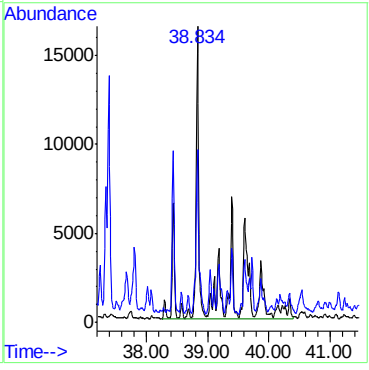


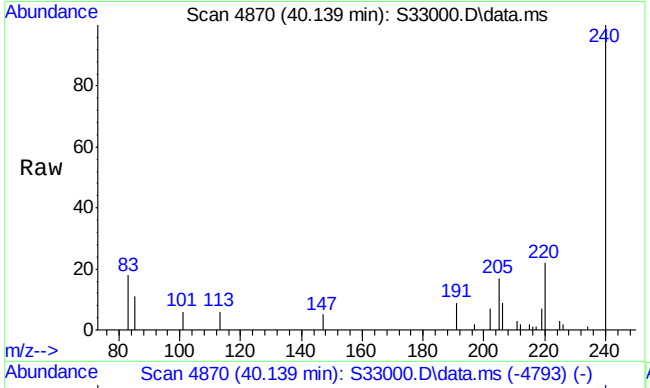
#24
C3-Dibenzothiophenes
Concen: 489.13 ng/mL m
RT: 38.834 min Scan# 4648
Delta R.T. -0.000 min
Lab File: S33000.D
Acq: 17 Jul 2013 1:43 am

Tgt Ion:226 Resp: 164121

Ion	Ratio	Lower	Upper
226	100		
211	18.9	50.0	75.0#

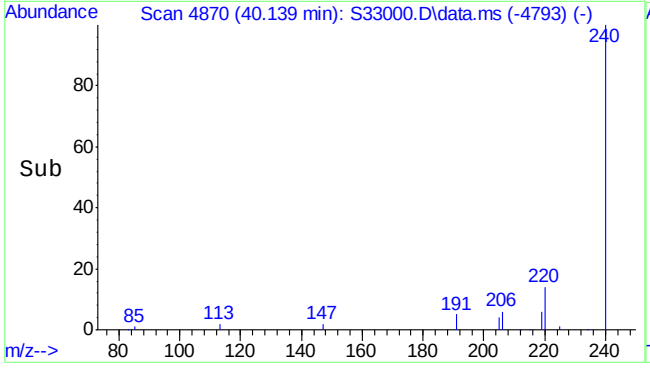


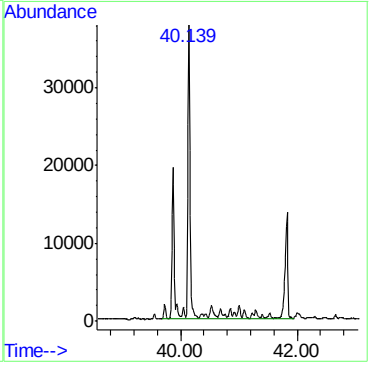


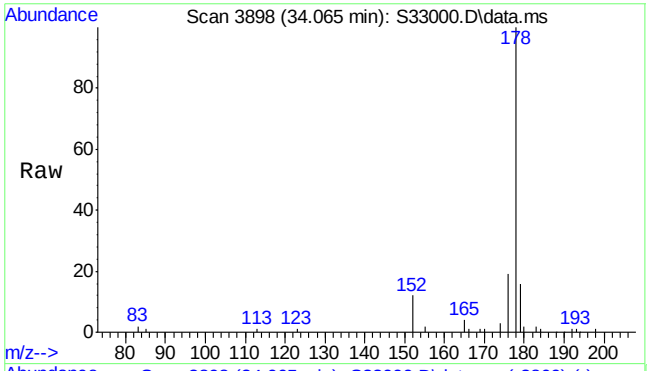


#25
C4-Dibenzothiophenes
Concen: 697.30 ng/mL m
RT: 40.139 min Scan# 4870
Delta R.T. -0.394 min
Lab File: S33000.D
Acq: 17 Jul 2013 1:43 am

Tgt Ion:240 Resp: 233967



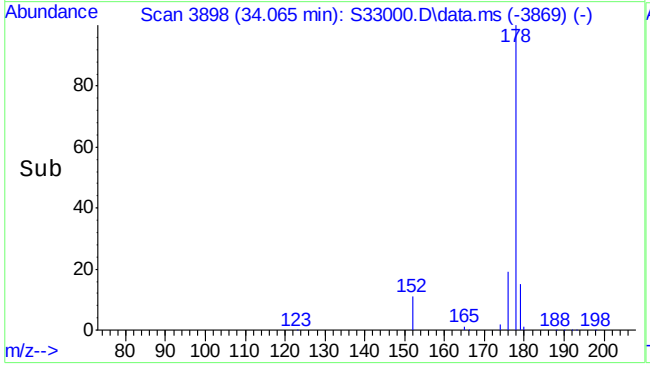


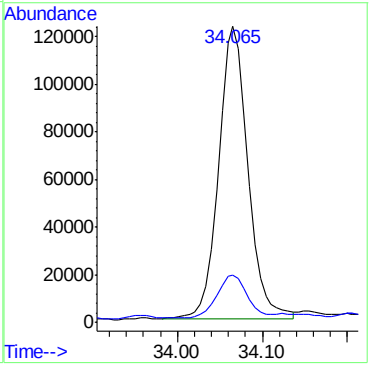


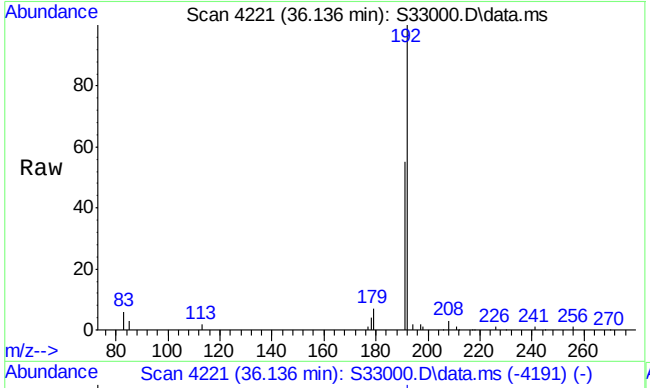
#26
Phenanthrene
Concen: 755.72 ng/mL
RT: 34.065 min Scan# 3898
Delta R.T. -0.015 min
Lab File: S33000.D
Acq: 17 Jul 2013 1:43 am

Tgt Ion:178 Resp: 294126

Ion	Ratio	Lower	Upper
178	100		
179	15.5	12.6	18.8



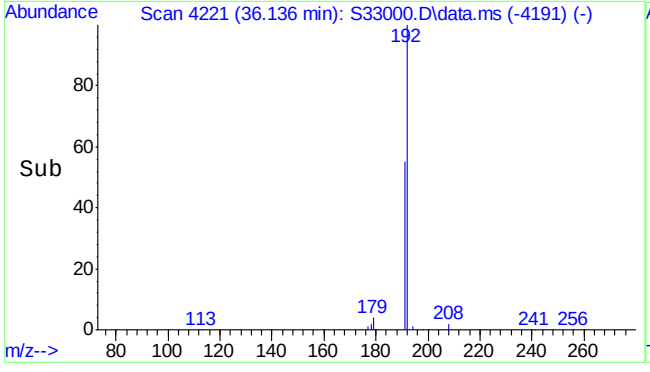


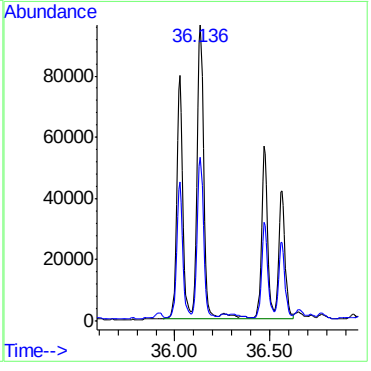


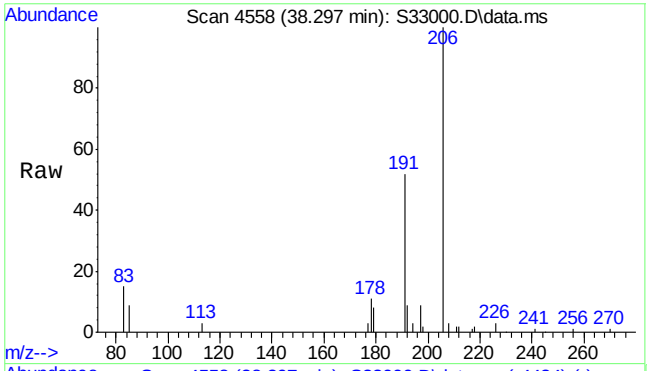
#28
C1-Phenanthrenes/anthracenes
Concen: 1611.28 ng/mL m
RT: 36.136 min Scan# 4221
Delta R.T. -0.362 min
Lab File: S33000.D
Acq: 17 Jul 2013 1:43 am

Tgt Ion:192 Resp: 627107

Ion	Ratio	Lower	Upper
192	100		
191	11.5	46.7	70.1#



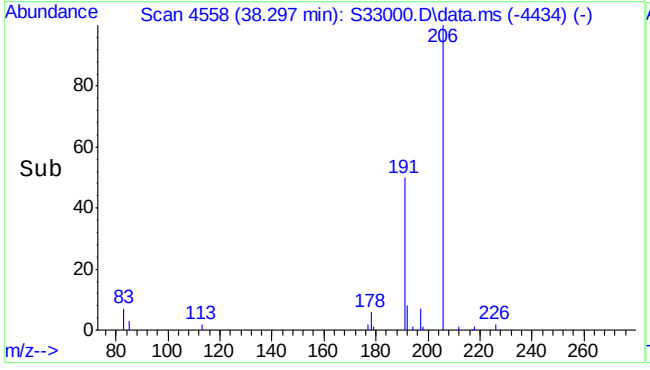


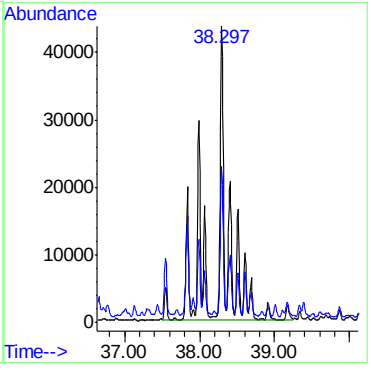


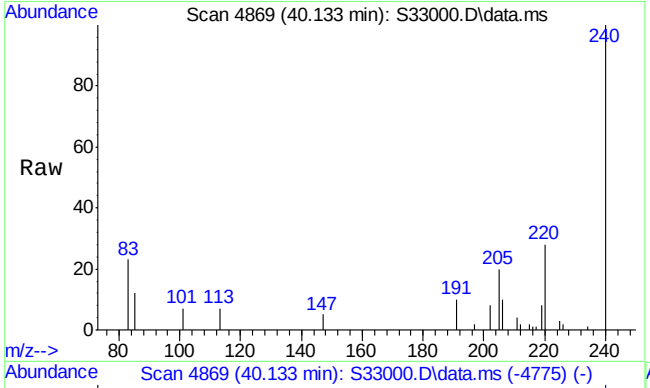
#29
C2-Phenanthrenes/anthracenes (unadj)
Concen: 1102.09 ng/mL m
RT: 38.297 min Scan# 4558
Delta R.T. -0.000 min
Lab File: S33000.D
Acq: 17 Jul 2013 1:43 am

Tgt Ion:206 Resp: 428929

Ion	Ratio	Lower	Upper
206	100		
191	14.1	45.5	68.3#



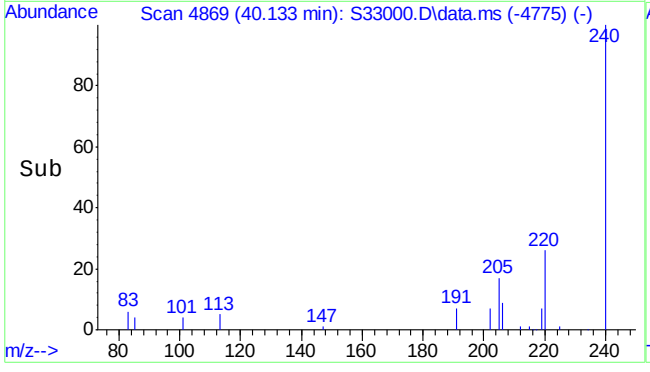


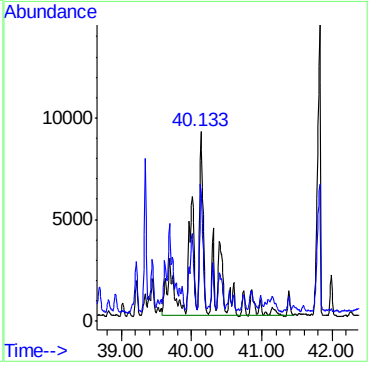


#31
C3-Phenanthrenes/anthracenes
Concen: 326.40 ng/mL m
RT: 40.133 min Scan# 4869
Delta R.T. -0.000 min
Lab File: S33000.D
Acq: 17 Jul 2013 1:43 am

Tgt Ion:220 Resp: 127036

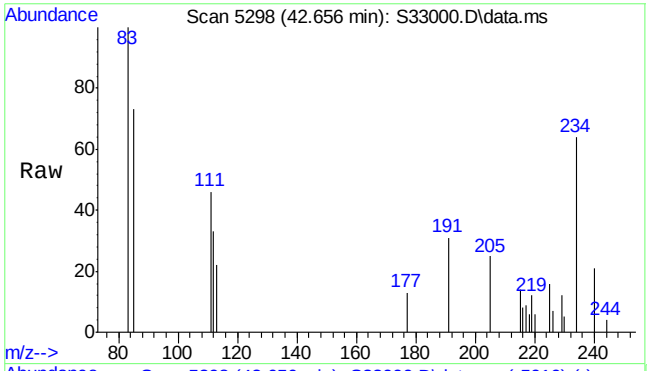
Ion	Ratio	Lower	Upper
220	100		
205	15.3	44.9	67.3#





7.1.12

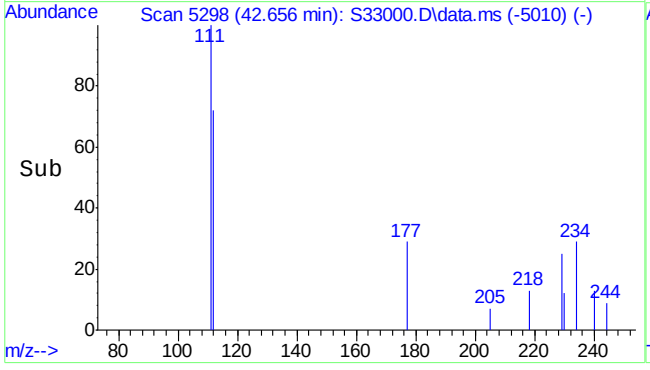
7

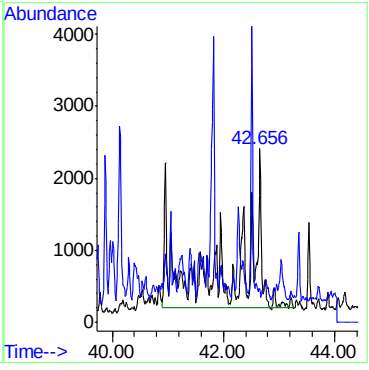


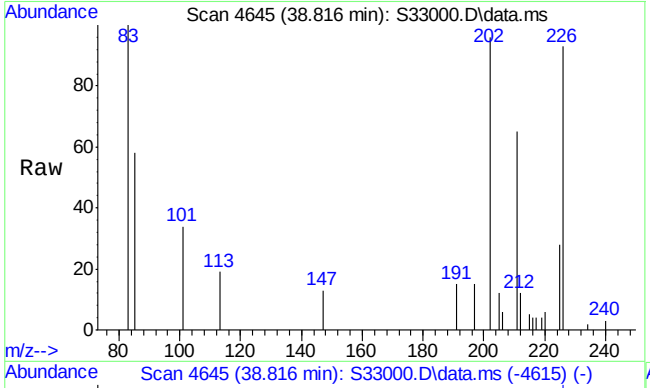
#32
C4-Phenanthrenes/anthracenes
Concen: 148.73 ng/mL m
RT: 42.656 min Scan# 5298
Delta R.T. 0.347 min
Lab File: S33000.D
Acq: 17 Jul 2013 1:43 am

Tgt Ion:234 Resp: 57885

Ion	Ratio	Lower	Upper
234	100		
219	1.5	51.0	76.6#



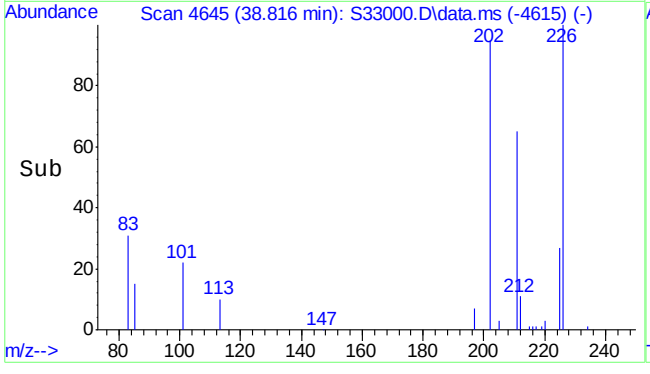


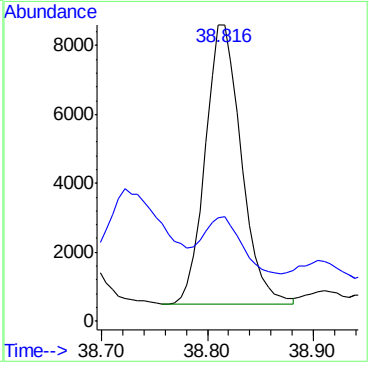


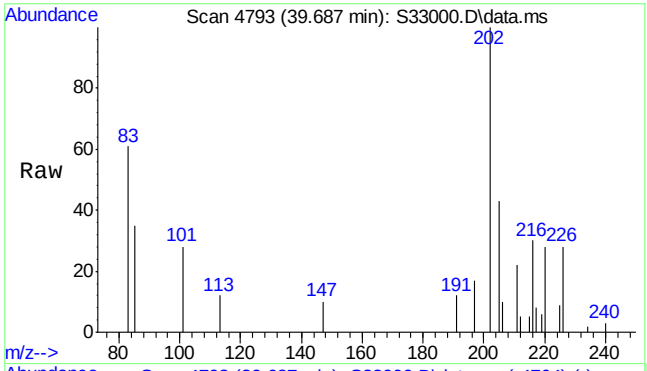
#33
Fluoranthene
Concen: 56.29 ng/mL
RT: 38.816 min Scan# 4645
Delta R.T. -0.025 min
Lab File: S33000.D
Acq: 17 Jul 2013 1:43 am

Tgt Ion:202 Resp: 19407

Ion	Ratio	Lower	Upper
202	100		
101	22.2	9.8	14.6#



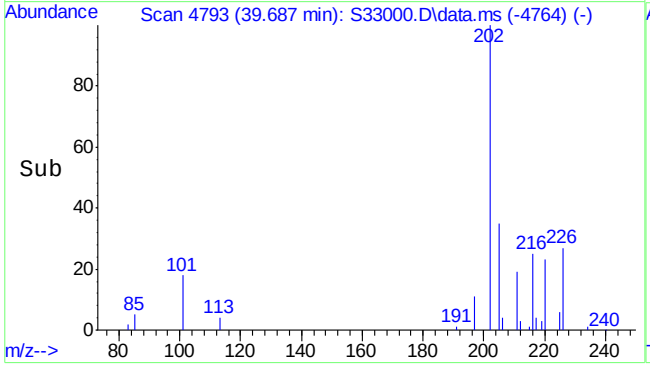


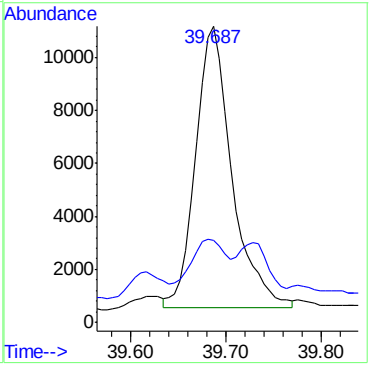


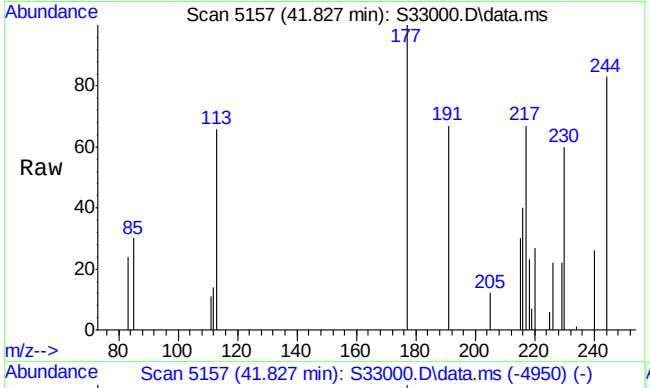
#34
Pyrene
Concen: 78.95 ng/mL m
RT: 39.687 min Scan# 4793
Delta R.T. -0.027 min
Lab File: S33000.D
Acq: 17 Jul 2013 1:43 am

Tgt Ion:202 Resp: 28206

Ion	Ratio	Lower	Upper
202	100		
101	18.8	11.4	17.0#



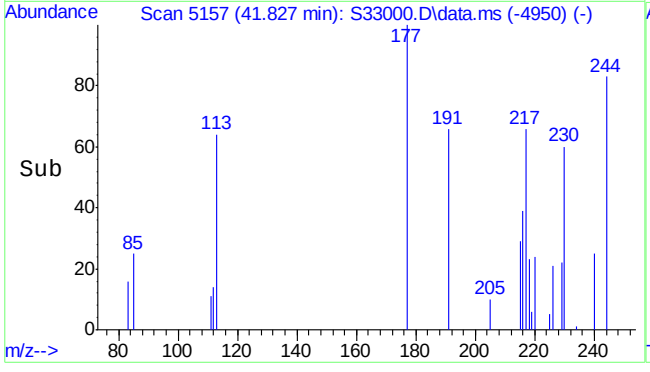


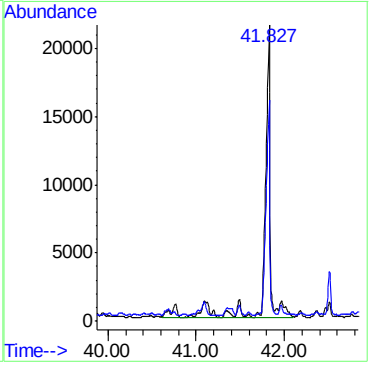


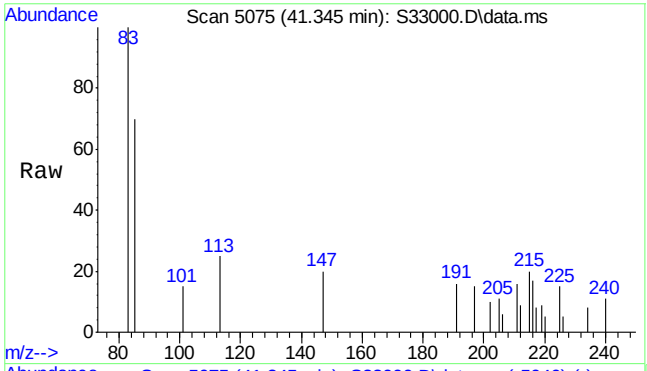
#35
C1-Fluoranthenes/pyrenes
Concen: 257.96 ng/mL m
RT: 41.827 min Scan# 5157
Delta R.T. -0.024 min
Lab File: S33000.D
Acq: 17 Jul 2013 1:43 am

Tgt Ion:216 Resp: 92157

Ion	Ratio	Lower	Upper
216	100		
215	51.8	57.5	86.3#



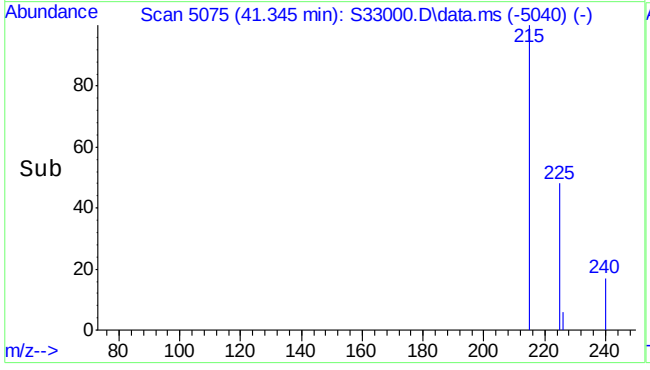


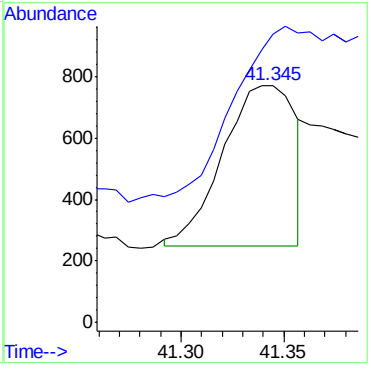


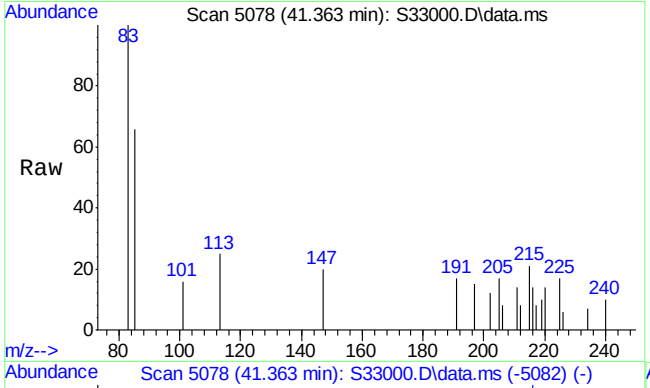
#36
Benzo(b)fluorene
Concen: 3.60 ng/mL m
RT: 41.345 min Scan# 5075
Delta R.T. 0.005 min
Lab File: S33000.D
Acq: 17 Jul 2013 1:43 am

Tgt Ion:216 Resp: 1285

Ion	Ratio	Lower	Upper
216	100		
215	249.6	115.9	173.9#



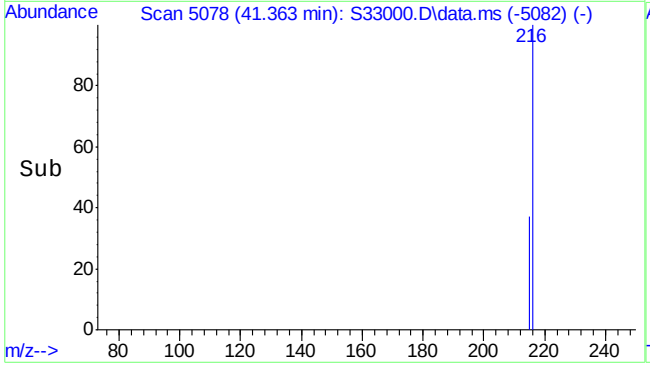


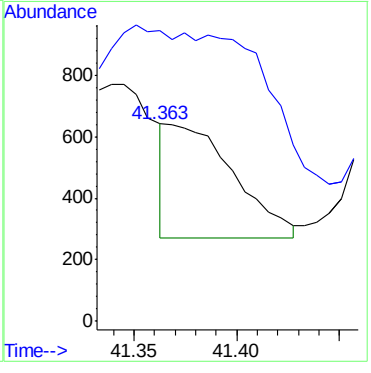


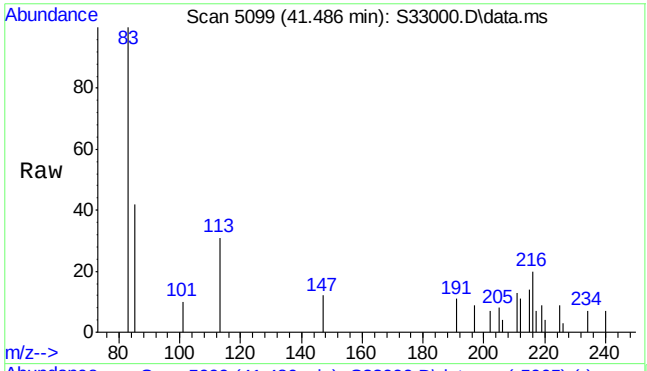
#37
Benzo(c)fluorene
Concen: 2.33 µg/mL m
RT: 41.363 min Scan# 5078
Delta R.T. -0.024 min
Lab File: S33000.D
Acq: 17 Jul 2013 1:43 am

Tgt Ion:216 Resp: 834

Ion	Ratio	Lower	Upper
216	100		
215	222.7	125.0	187.6#



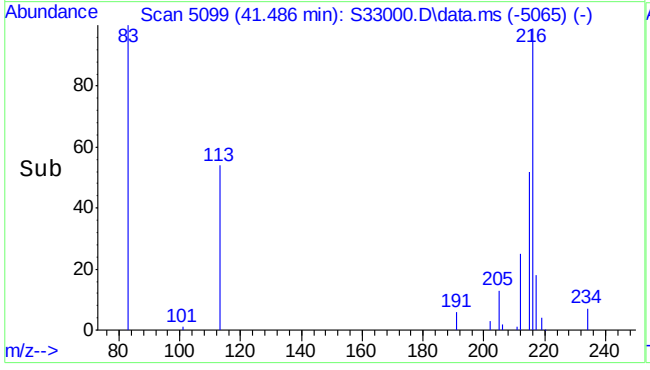


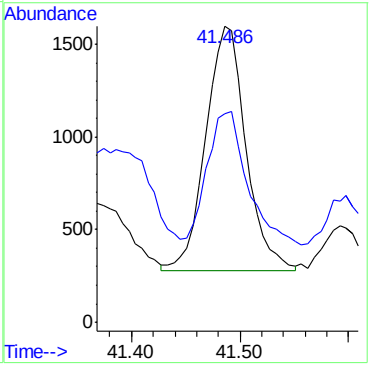


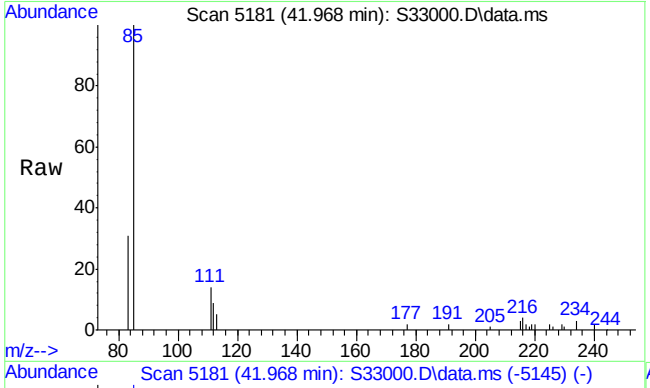
#38
2-Methylpyrene
Concen: 9.39 ng/mL m
RT: 41.486 min Scan# 5099
Delta R.T. -0.000 min
Lab File: S33000.D
Acq: 17 Jul 2013 1:43 am

Tgt Ion:216 Resp: 3355

Ion	Ratio	Lower	Upper
216	100		
215	19.0	78.2	117.4#



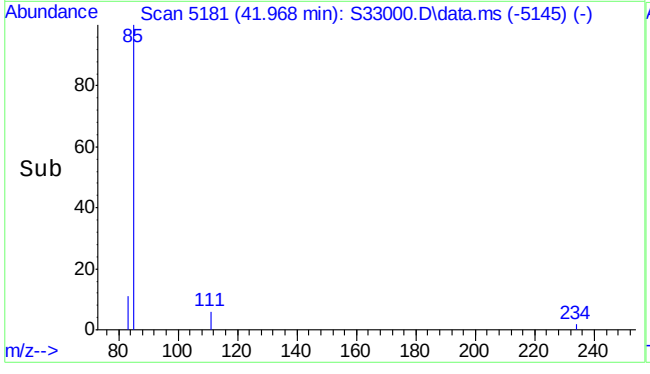


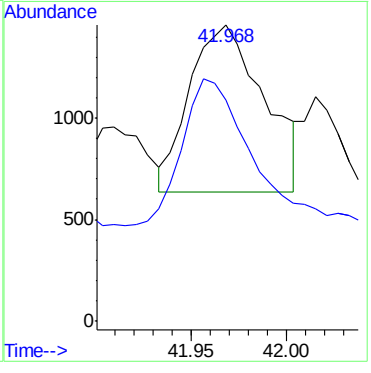


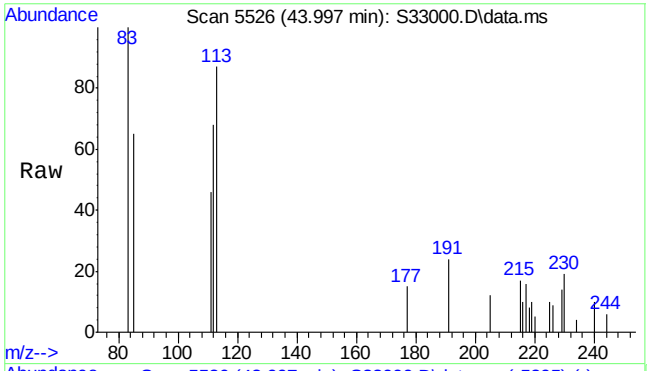
#40
1-Methylpyrene
Concen: 6.29 ng/mL m
RT: 41.968 min Scan# 5181
Delta R.T. 0.011 min
Lab File: S33000.D
Acq: 17 Jul 2013 1:43 am

Tgt Ion:216 Resp: 2248

Ion	Ratio	Lower	Upper
216	100		
215	90.8	80.2	120.2



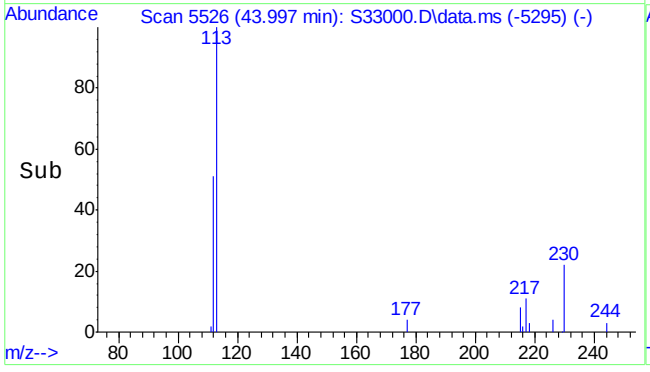


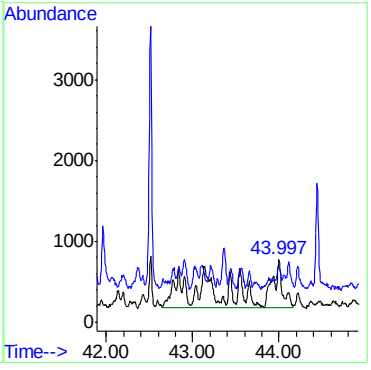


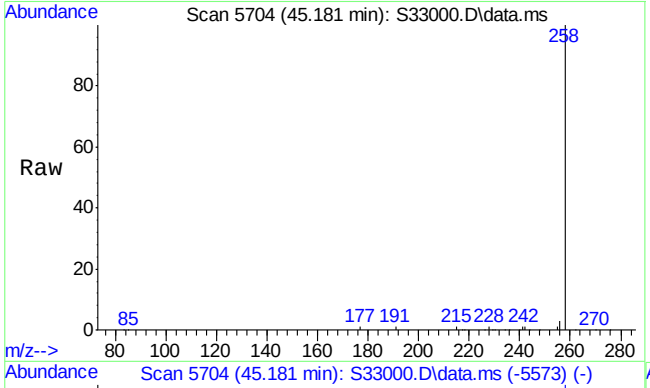
#41
C2-Fluoranthenes/pyrenes
Concen: 48.18 ng/mL m
RT: 43.997 min Scan# 5526
Delta R.T. 1.093 min
Lab File: S33000.D
Acq: 17 Jul 2013 1:43 am

Tgt Ion:230 Resp: 17213

Ion	Ratio	Lower	Upper
230	100		
215	6.8	108.6	163.0#



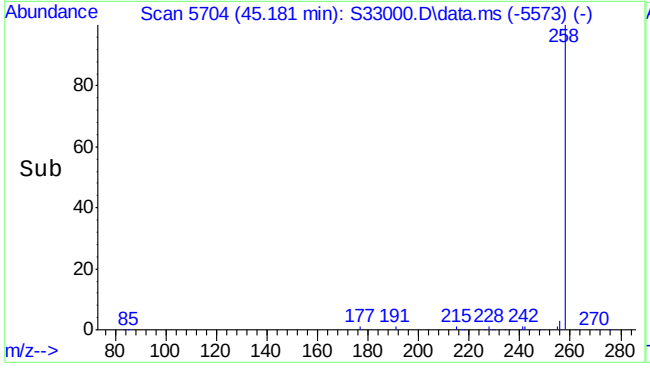


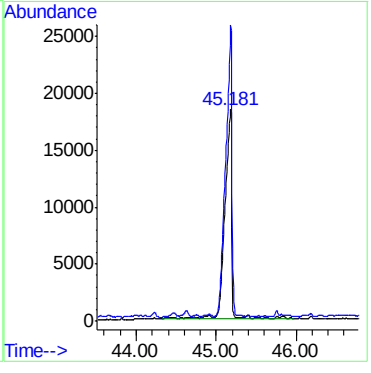


#42
C3-Fluoranthenes/pyrenes
Concen: 307.02 ng/mL m
RT: 45.181 min Scan# 5704
Delta R.T. 0.273 min
Lab File: S33000.D
Acq: 17 Jul 2013 1:43 am

Tgt Ion:244 Resp: 109684

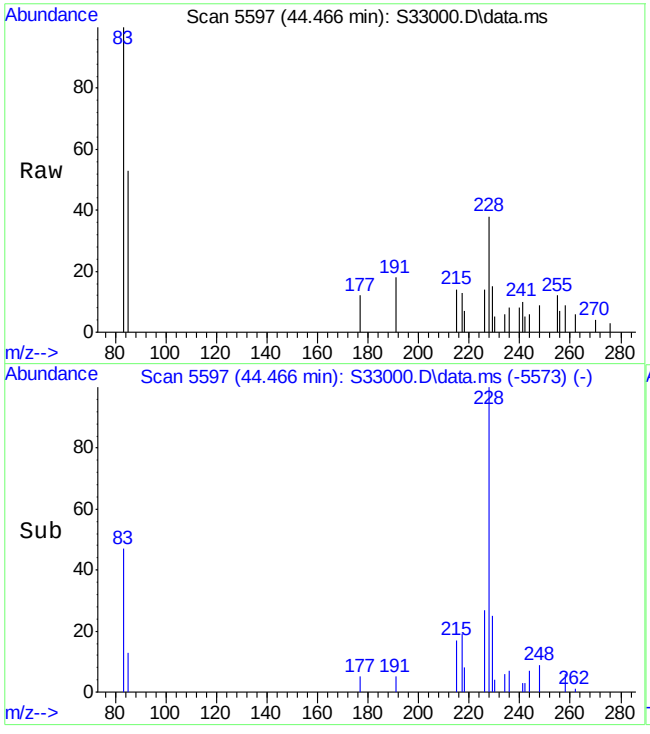
Ion	Ratio	Lower	Upper
244	100		
229	0.5	83.0	124.4#





7.1.12

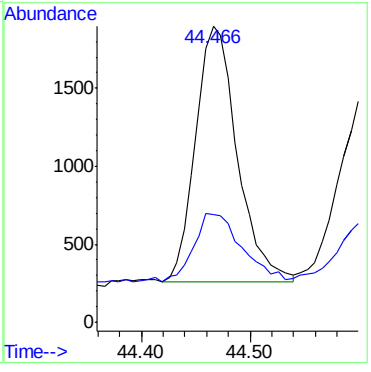
7

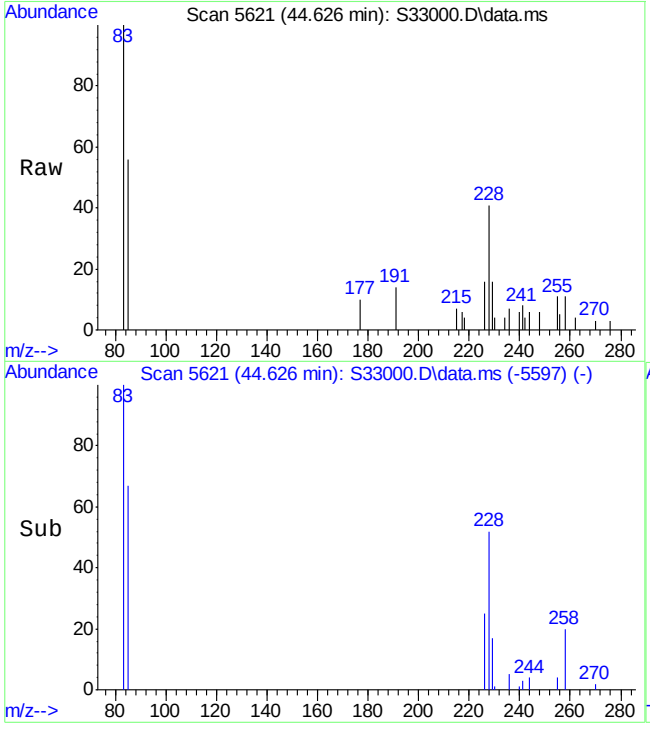


#43
Benz(a)anthracene
Concen: 12.66 ng/mL
RT: 44.466 min Scan# 5597
Delta R.T. -0.043 min
Lab File: S33000.D
Acq: 17 Jul 2013 1:43 am

Tgt Ion:228 Resp: 4369

Ion	Ratio	Lower	Upper
228	100		
226	30.3	21.4	32.2

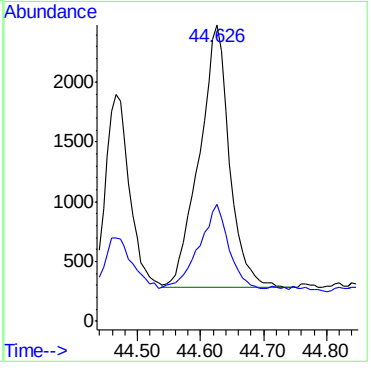


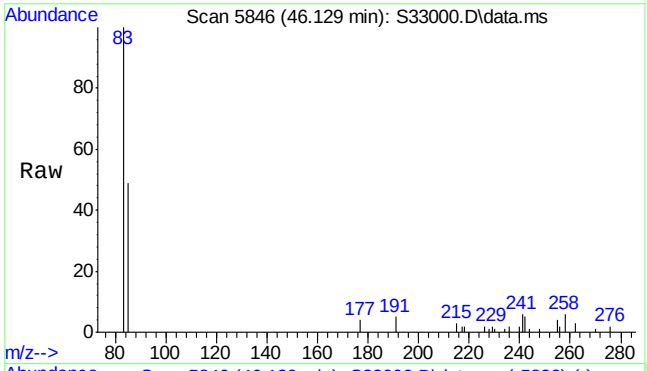


#44
Chrysene
Concen: 22.69 ng/mL
RT: 44.626 min Scan# 5621
Delta R.T. -0.036 min
Lab File: S33000.D
Acq: 17 Jul 2013 1:43 am

Tgt Ion:228 Resp: 7303

Ion	Ratio	Lower	Upper
228	100		
226	31.0	23.8	35.6

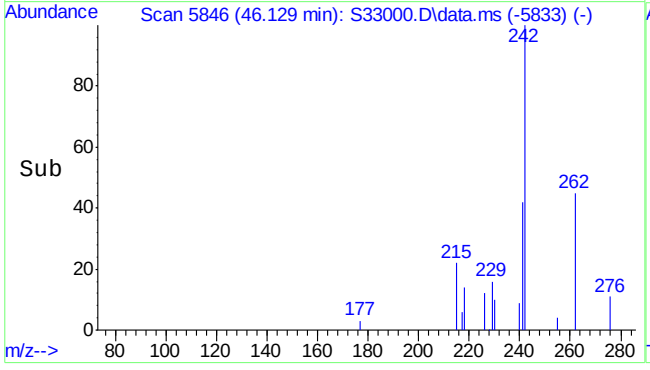


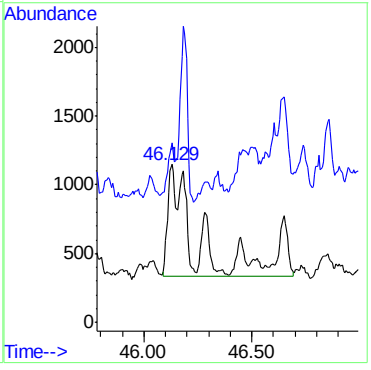


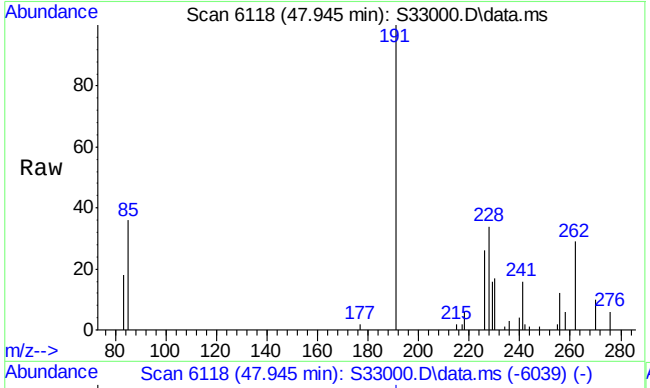
#45
C1-Benz(a)anthracenes/chrysenes
Concen: 23.81 ng/mL m
RT: 46.129 min Scan# 5846
Delta R.T. 0.026 min
Lab File: S33000.D
Acq: 17 Jul 2013 1:43 am

Tgt Ion:242 Resp: 7662

Ion	Ratio	Lower	Upper
242	100		
241	6.7	35.3	52.9#



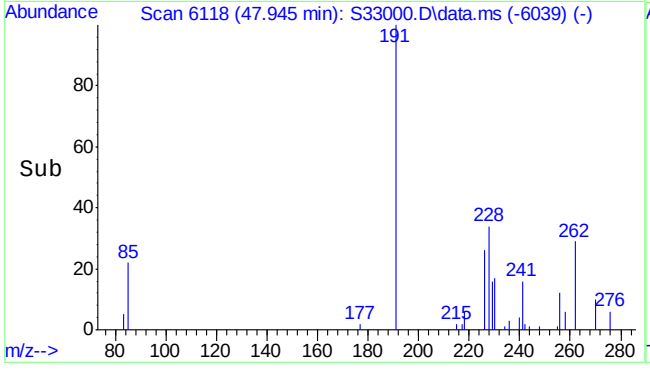


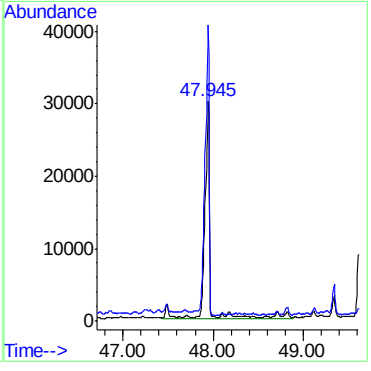


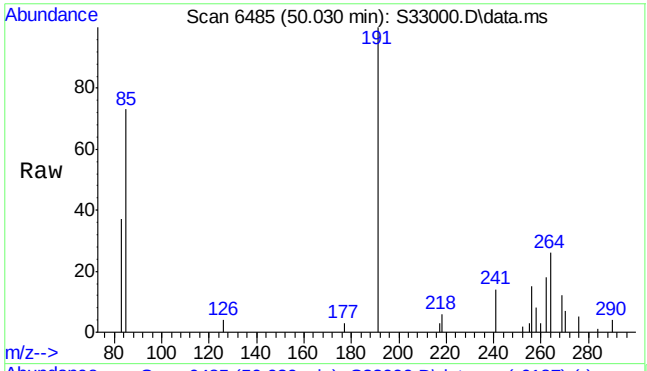
#46
C2-Benz(a)anthracenes/chrysenes
Concen: 332.24 ng/mL m
RT: 47.945 min Scan# 6118
Delta R.T. -0.234 min
Lab File: S33000.D
Acq: 17 Jul 2013 1:43 am

Tgt Ion:256 Resp: 106931

Ion	Ratio	Lower	Upper
256	100		
241	0.0	27.6	41.4#



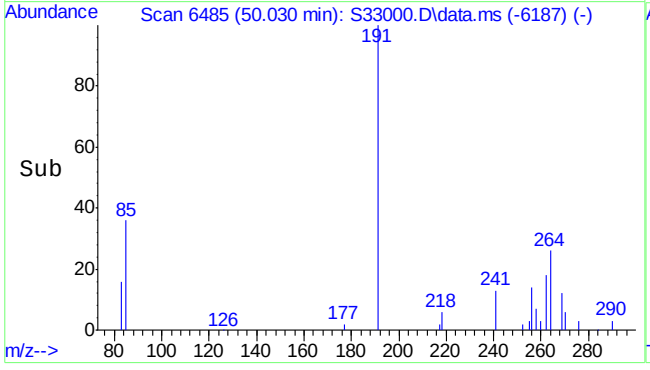


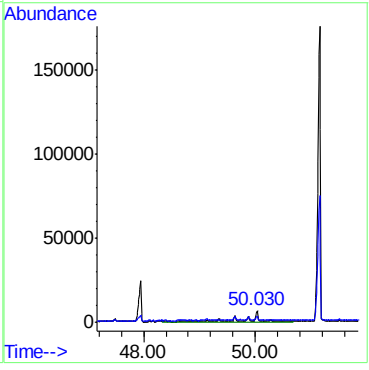


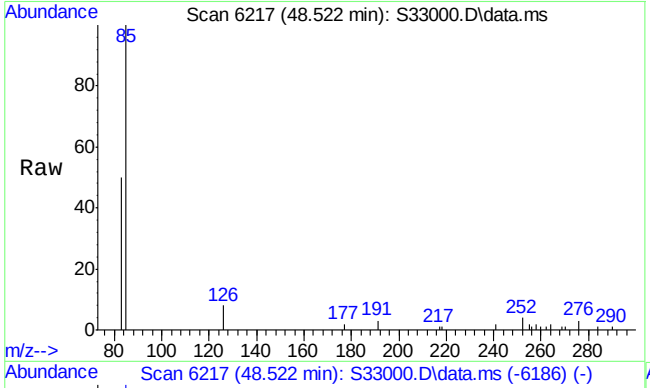
#47
C3-Benz(a)anthracenes/chrysenes
Concen: 205.33 ng/mL m
RT: 50.030 min Scan# 6485
Delta R.T. -0.569 min
Lab File: S33000.D
Acq: 17 Jul 2013 1:43 am

Tgt Ion:270 Resp: 66086

Ion	Ratio	Lower	Upper
270	100		
255	0.0	41.0	61.6#



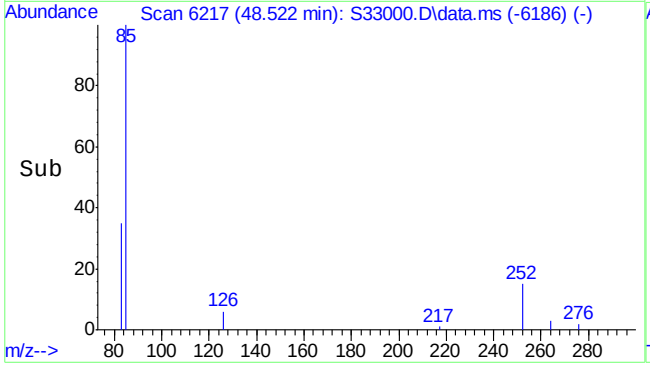


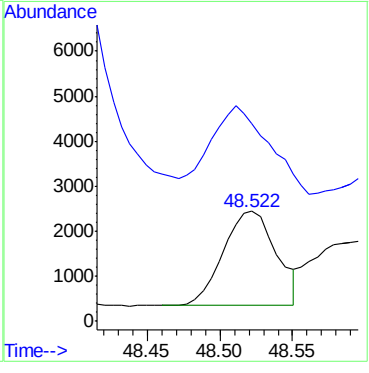


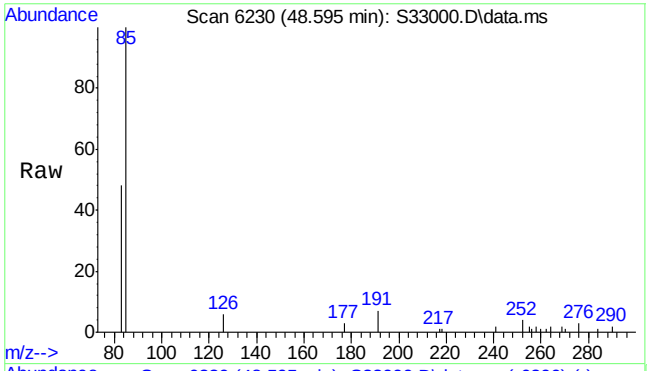
#49
Benzo(b)fluoranthene
Concen: 13.59 ng/mL
RT: 48.522 min Scan# 6217
Delta R.T. -0.025 min
Lab File: S33000.D
Acq: 17 Jul 2013 1:43 am

Tgt Ion:252 Resp: 5368

Ion	Ratio	Lower	Upper
252	100		
126	100.1	10.6	15.8#



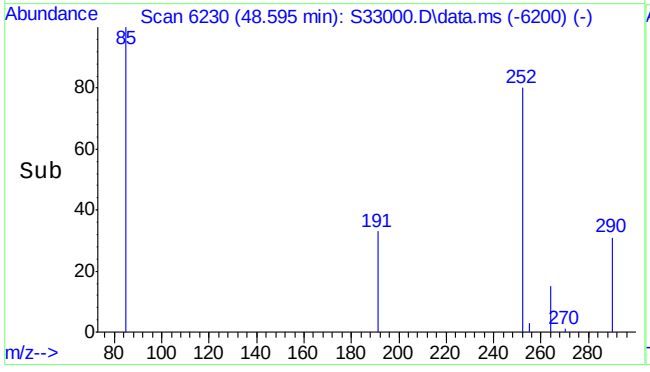


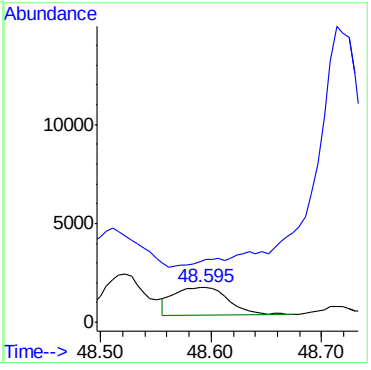


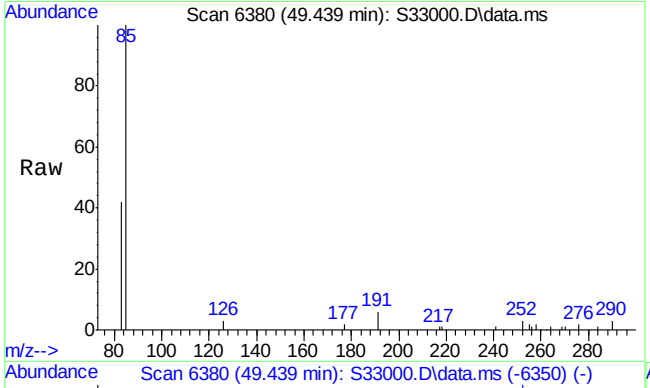
#50
Benzo(k)fluoranthene
Concen: 12.04 ng/mL
RT: 48.595 min Scan# 6230
Delta R.T. -0.031 min
Lab File: S33000.D
Acq: 17 Jul 2013 1:43 am

Tgt Ion:252 Resp: 4740

Ion	Ratio	Lower	Upper
252	100		
126	0.0	11.9	17.9#



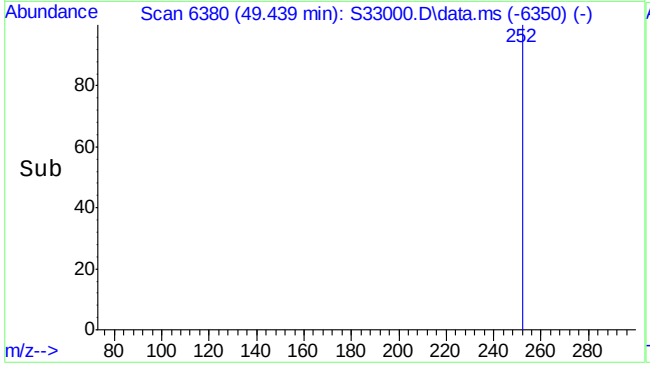


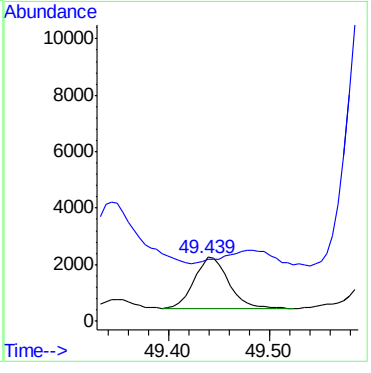


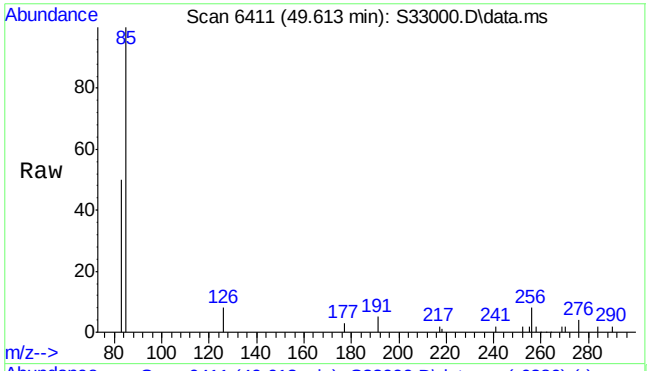
#51
Benzo(e)pyrene
Concen: 12.26 ng/mL
RT: 49.439 min Scan# 6380
Delta R.T. -0.033 min
Lab File: S33000.D
Acq: 17 Jul 2013 1:43 am

Tgt Ion:252 Resp: 4358

Ion	Ratio	Lower	Upper
252	100		
126	0.0	9.9	14.9#



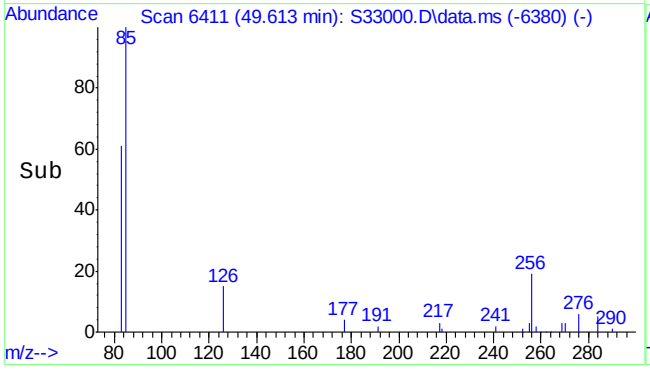


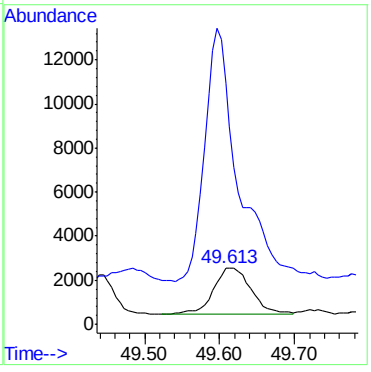


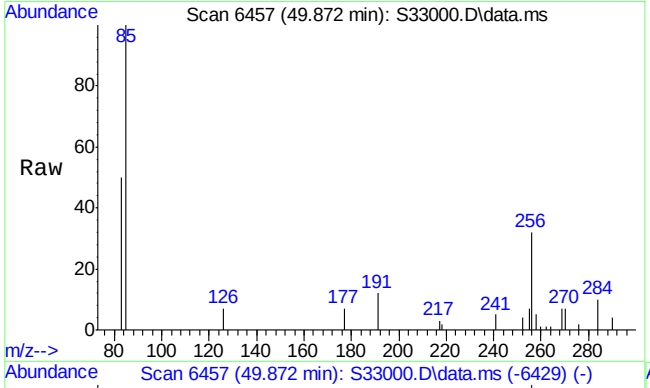
#52
Benzo(a)pyrene
Concen: 21.87 ng/mL
RT: 49.613 min Scan# 6411
Delta R.T. -0.028 min
Lab File: S33000.D
Acq: 17 Jul 2013 1:43 am

Tgt Ion:252 Resp: 7526

Ion	Ratio	Lower	Upper
252	100		
126	484.7	11.6	17.4#



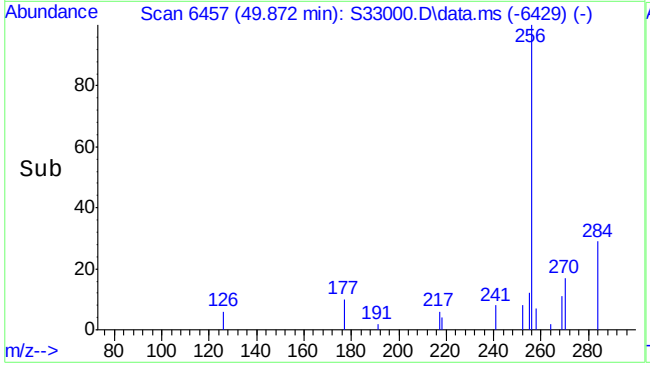


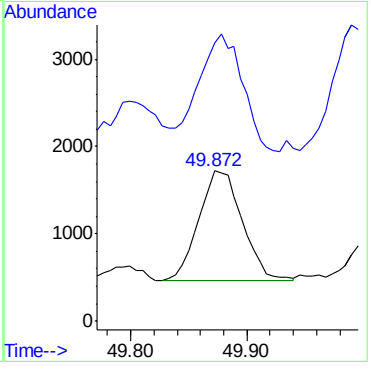


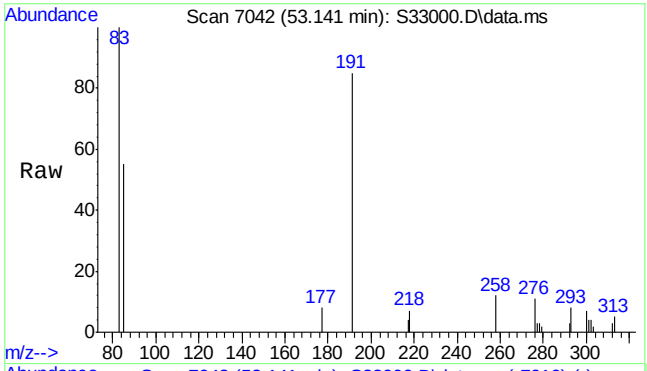
#53
Perylene
Concen: 9.71 ng/mL
RT: 49.872 min Scan# 6457
Delta R.T. -0.040 min
Lab File: S33000.D
Acq: 17 Jul 2013 1:43 am

Tgt Ion:252 Resp: 3248

Ion	Ratio	Lower	Upper
252	100		
126	111.7	12.5	18.7#



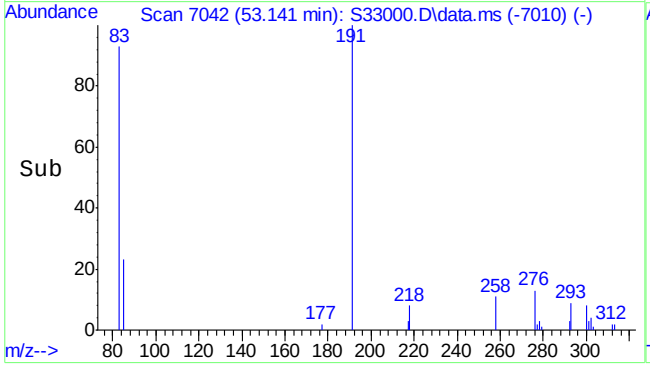


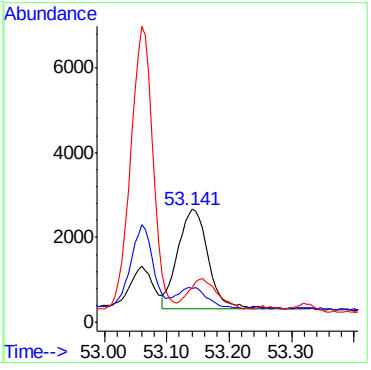


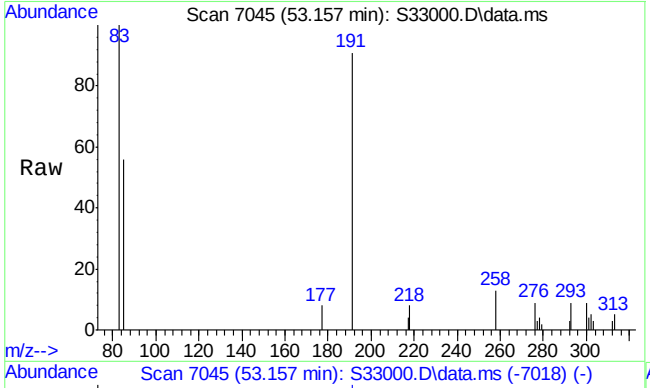
#54
Indeno(1,2,3-cd)pyrene
Concen: 20.14 ng/mL
RT: 53.141 min Scan# 7042
Delta R.T. -0.028 min
Lab File: S33000.D
Acq: 17 Jul 2013 1:43 am

Tgt Ion:276 Resp: 7937

Ion	Ratio	Lower	Upper
276	100		
277	20.3	19.0	28.4
278	28.9	5.7	8.5#



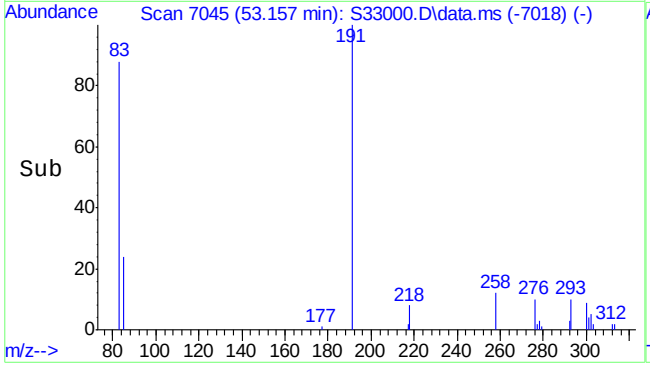


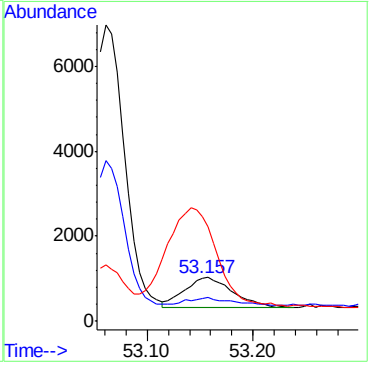


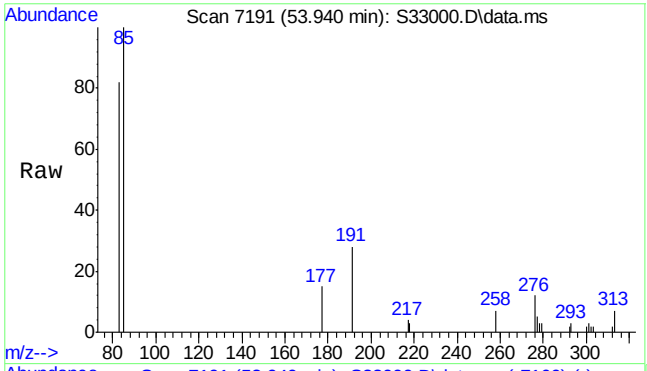
#55
Dibenz(a,h)anthracene
Concen: 6.30 ng/mL
RT: 53.157 min Scan# 7045
Delta R.T. -0.055 min
Lab File: S33000.D
Acq: 17 Jul 2013 1:43 am

Tgt Ion:278 Resp: 2254

Ion	Ratio	Lower	Upper
278	100		
279	21.4	19.2	28.8
276	352.1	29.6	44.4#



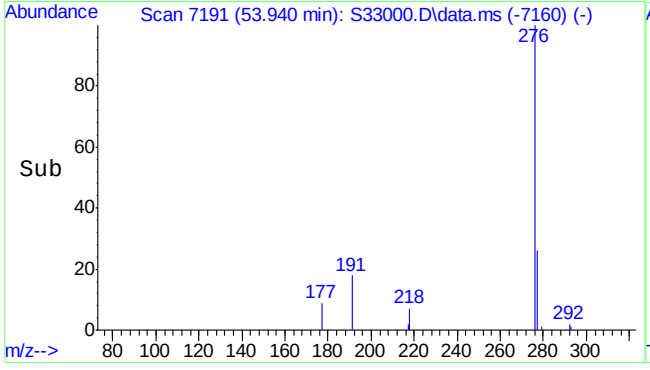


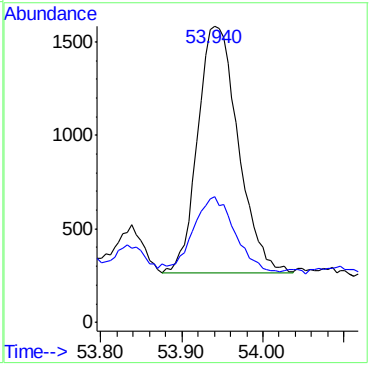


#56
Benzo(g,h,i)perylene
Concen: 10.73 ng/mL
RT: 53.940 min Scan# 7191
Delta R.T. -0.036 min
Lab File: S33000.D
Acq: 17 Jul 2013 1:43 am

Tgt Ion:276 Resp: 4530

Ion	Ratio	Lower	Upper
276	100		
277	30.7	18.9	28.3#





Manual Integrations APPROVED (compounds with "m" flag)
James Roush
07/29/13 14:06

Quantitation Report (QT Reviewed)

Data Path : S:\1\data\S130723\
Data File : S33028.D
Acq On : 24 Jul 2013 5:07 am
Operator : kristinr
Sample : mc21754-6a
Misc : op33686,mss1444,5.30,,,2,10
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Jul 24 14:38:37 2013
Quant Method : S:\1\methods\S130705-B5739ALKPAH.M
Quant Title : PAHs & Alkylated PAHs by GC/MS/SIM
QLast Update : Thu Jul 11 09:13:24 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Acenaphthene-d10	28.056	164	127737	1100.00 ng/mL	0.00
System Monitoring Compounds					
2) Toluene-d8	9.159	98	1014m	7.41 µg/mL	-0.03
Spiked Amount 1000.000			Recovery = 0.74%		
3) Naphthalene-d8	21.118	136	4735m	20.97 ng/mL	0.00
Spiked Amount 1000.000	Range 1 - 0		Recovery = 2.10%#		
4) Phenanthrene-d10	33.886	188	3763m	20.24 ng/mL	0.00
Spiked Amount 1000.000			Recovery = 2.02%		
5) Perylene-d12	49.698	264	3679	22.42 ng/mL	0.02
Spiked Amount 1000.000			Recovery = 2.24%		
Target Compounds					Qvalue
6) Naphthalene	21.193	128	296219	1032.02 ng/mL	95
7) 2-Methylnaphthalene	23.890	142	233639	1371.83 ng/mL	100
8) 1-Methylnaphthalene	24.310	142	97712m	549.95 ng/mL	
9) C1-Naphthalenes	23.890	142	333726m	1162.69 ng/mL	
10) C2-Naphthalenes	26.719	156	531788m	1852.74 ng/mL	
11) C3-Naphthalenes	29.056	170	508699m	1772.29 ng/mL	
12) C4-Naphthalenes	31.819	184	344543m	1200.38 ng/mL	
13) Acenaphthylene	27.453	152	2712	10.22 ng/mL#	1
14) Acenaphthene	28.179	154	22897	141.39 ng/mL	96
15) Dibenzofuran	28.826	168	28177m	122.08 ng/mL	
16) Fluorene	30.192	166	51805m	252.20 ng/mL	
17) C1-Fluorenes	32.555	180	93743m	456.37 ng/mL	
18) C2-Fluorenes	34.745	194	158416m	771.22 ng/mL	
19) C3-Fluorenes	37.361	208	122089m	594.37 ng/mL	
20) Dibenzothiophene	33.483	184	29828	115.18 ng/mL#	9
21) C1-Dibenzothiophenes (...	35.258	198	89833m	351.90 ng/mL	
22) C1-Dibenzothiophenes (...	35.687	198	518m	2.03 µg/mL	
23) C2-Dibenzothiophenes	36.938	212	102543m	401.69 ng/mL	
24) C3-Dibenzothiophenes	38.746	226	49341m	193.28 ng/mL	
25) C4-Dibenzothiophenes	40.051	240	118663m	464.84 ng/mL	
26) Phenanthrene	33.976	178	355822	1201.67 ng/mL	97
27) Anthracene	34.155	178	32568m	118.36 ng/mL	
28) C1-Phenanthrenes/anthr...	36.046	192	216392m	730.79 ng/mL	
29) C2-Phenanthrenes/anthr...	38.208	206	134000m	452.54 ng/mL	
31) C3-Phenanthrenes/anthr...	40.045	220	38534m	130.14 ng/mL	
32) C4-Phenanthrenes/anthr...	42.427	234	24574m	82.99 ng/mL	
33) Fluoranthene	38.722	202	328678m	1252.94 ng/mL	
34) Pyrene	39.593	202	272252m	1001.66 ng/mL	
35) C1-Fluoranthenes/pyrenes	41.698	216	88421m	325.32 ng/mL	
36) Benzo(b)fluorene	41.245	216	4989	18.36 ng/mL#	69
37) Benzo(c)fluorene	41.286	216	3009m	11.07 µg/mL	
38) 2-Methylpyrene	41.392	216	7427m	27.33 ng/mL	
39) 4-Methylpyrene	41.757	216	4634m	17.05 ng/mL	
40) 1-Methylpyrene	41.869	216	3577	13.16 ng/mL#	79
41) C2-Fluoranthenes/pyrenes	43.039	230	31713m	116.68 ng/mL	
42) C3-Fluoranthenes/pyrenes	45.014	244	33425m	122.98 ng/mL	

Quantitation Report (QT Reviewed)

Data Path : S:\1\data\S130723\
Data File : S33028.D
Acq On : 24 Jul 2013 5:07 am
Operator : kristinr
Sample : mc21754-6a
Misc : op33686,mss1444,5.30,,,2,10
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Jul 24 14:38:37 2013
Quant Method : S:\1\methods\S130705-B5739ALKPAH.M
Quant Title : PAHs & Alkylated PAHs by GC/MS/SIM
QLast Update : Thu Jul 11 09:13:24 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
43) Benz(a)anthracene	44.366	228	95491	363.77	ng/mL	98
44) Chrysene	44.526	228	107872	440.54	ng/mL	100
45) C1-Benz(a)anthracenes/...	46.015	242	21887m	89.38	ng/mL	
46) C2-Benz(a)anthracenes/...	47.812	256	31995m	130.66	ng/mL	
49) Benzo(b)fluoranthene	48.410	252	108760	361.88	ng/mL	99
50) Benzo(k)fluoranthene	48.483	252	105063m	350.76	ng/mL	
51) Benzo(e)pyrene	49.338	252	80710	298.54	ng/mL	98
52) Benzo(a)pyrene	49.501	252	116863m	446.27	ng/mL	
53) Perylene	49.777	252	30143	118.46	ng/mL#	91
54) Indeno(1,2,3-cd)pyrene	53.018	276	88888m	295.93	ng/mL	
55) Dibenz(a,h)anthracene	53.056	278	18856m	69.29	ng/mL	
56) Benzo(g,h,i)perylene	53.817	276	86356	268.77	ng/mL	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

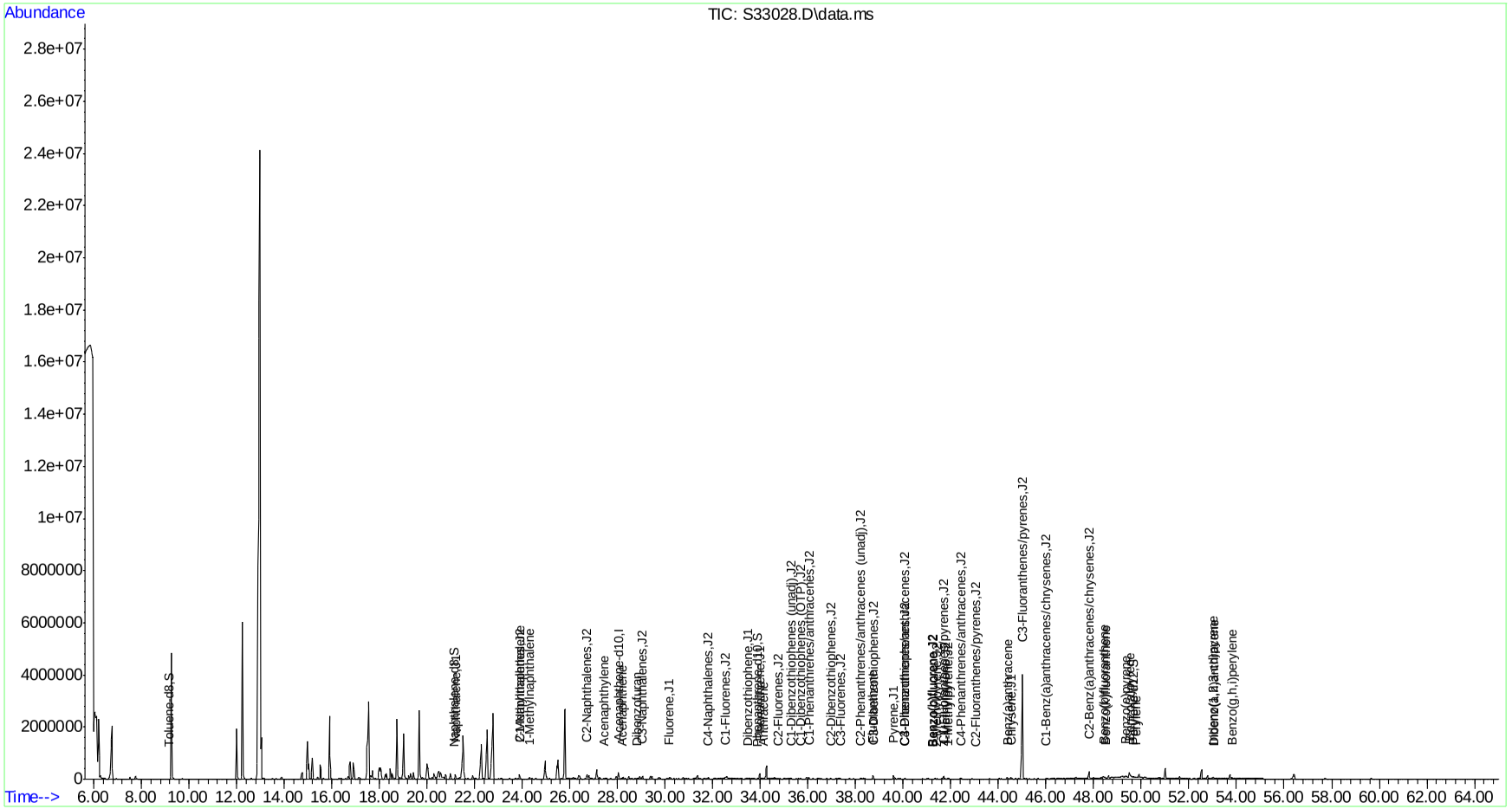
7.1.13

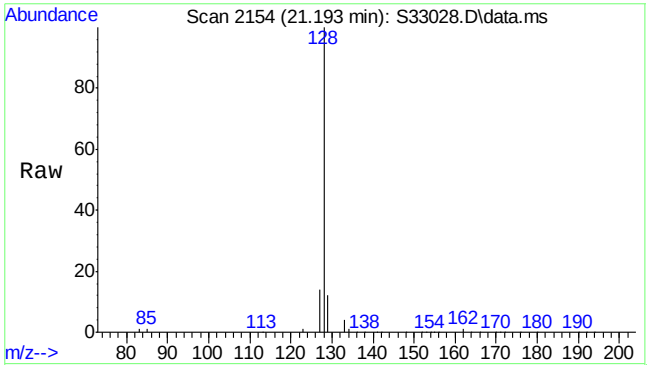
7

Quantitation Report (QT Reviewed)

Data Path : S:\1\data\S130723\
Data File : S33028.D
Acq On : 24 Jul 2013 5:07 am
Operator : kristinr
Sample : mc21754-6a
Misc : op33686,mss1444,5.30,,,2,10
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Jul 24 14:38:37 2013
Quant Method : S:\1\methods\S130705-B5739ALKPAH.M
Quant Title : PAHs & Alkylated PAHs by GC/MS/SIM
QLast Update : Thu Jul 11 09:13:24 2013
Response via : Initial Calibration

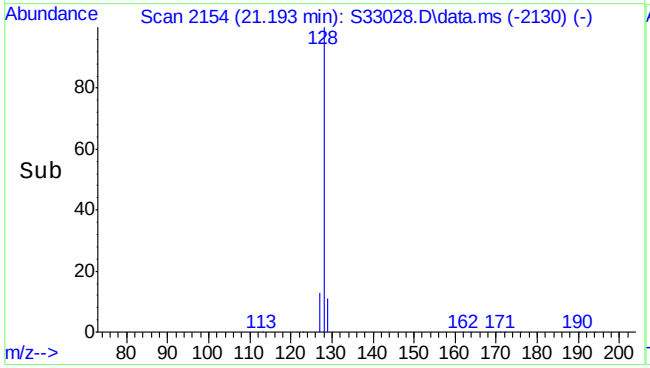


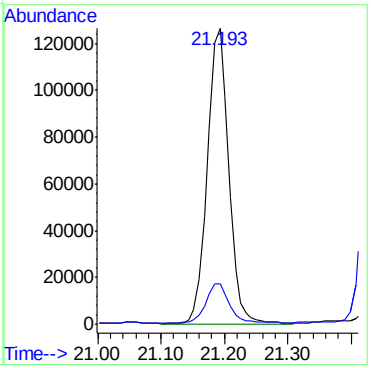


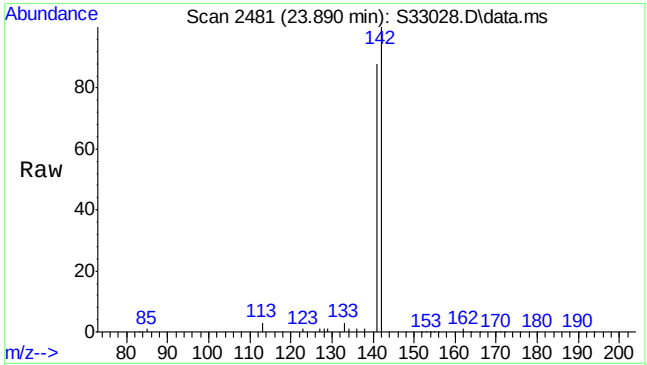
#6
Naphthalene
Concen: 1032.02 ng/mL
RT: 21.193 min Scan# 2154
Delta R.T. -0.000 min
Lab File: S33028.D
Acq: 24 Jul 2013 5:07 am

Tgt Ion:128 Resp: 296219

Ion	Ratio	Lower	Upper
128	100		
127	14.5	10.0	15.0



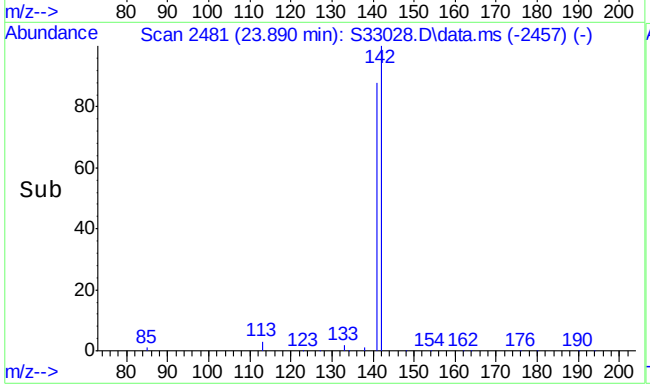


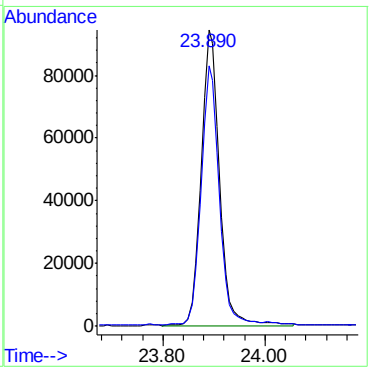


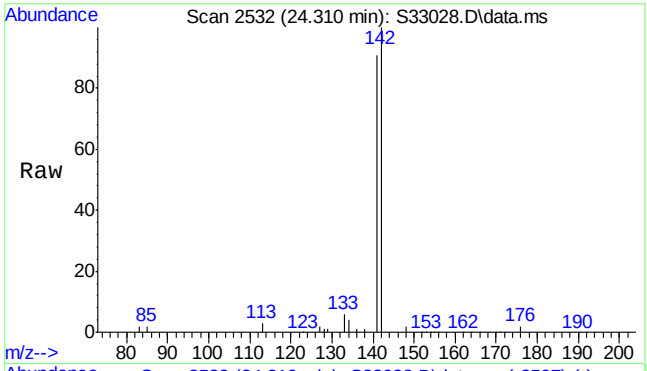
#7
2-Methylnaphthalene
Concen: 1371.83 ng/mL
RT: 23.890 min Scan# 2481
Delta R.T. -0.000 min
Lab File: S33028.D
Acq: 24 Jul 2013 5:07 am

Tgt Ion:142 Resp: 233639

Ion	Ratio	Lower	Upper
142	100		
141	87.2	69.7	104.5



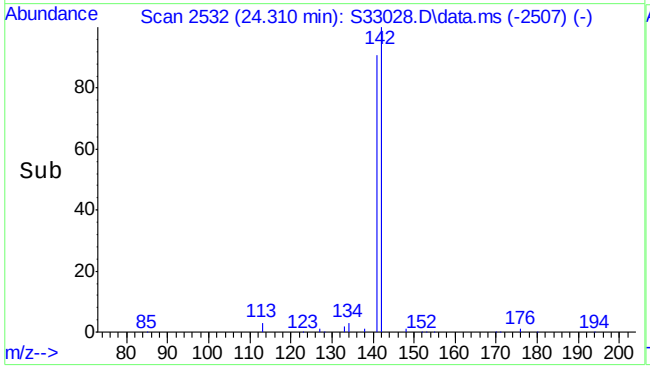


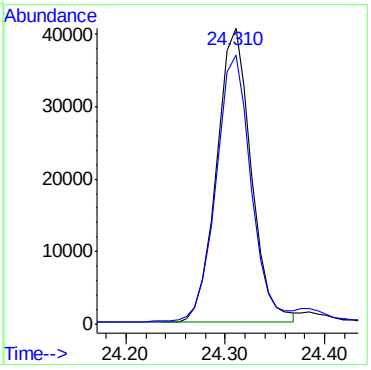


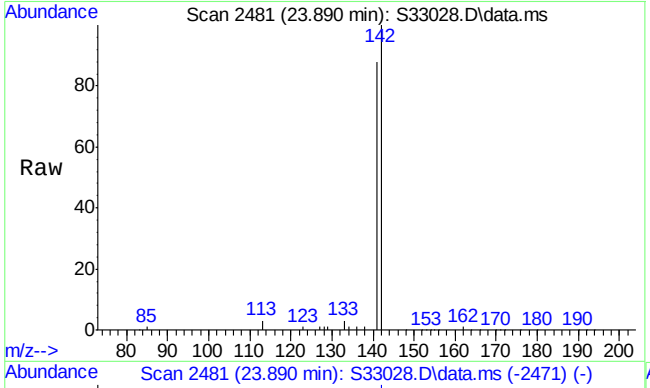
#8
1-Methylnaphthalene
Concen: 549.95 ng/mL m
RT: 24.310 min Scan# 2532
Delta R.T. 0.008 min
Lab File: S33028.D
Acq: 24 Jul 2013 5:07 am

Tgt Ion:142 Resp: 97712

Ion	Ratio	Lower	Upper
142	100		
141	91.9	72.6	108.8



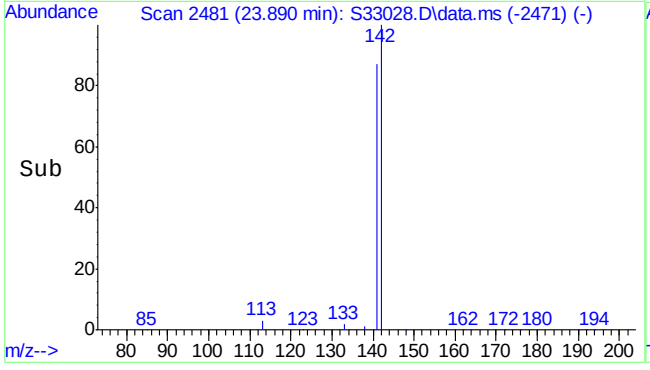


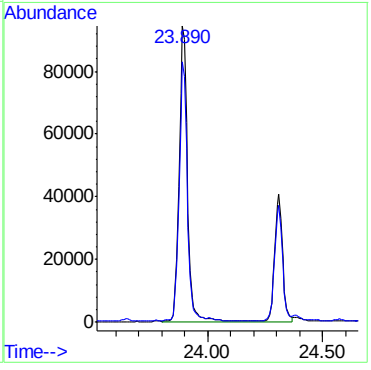


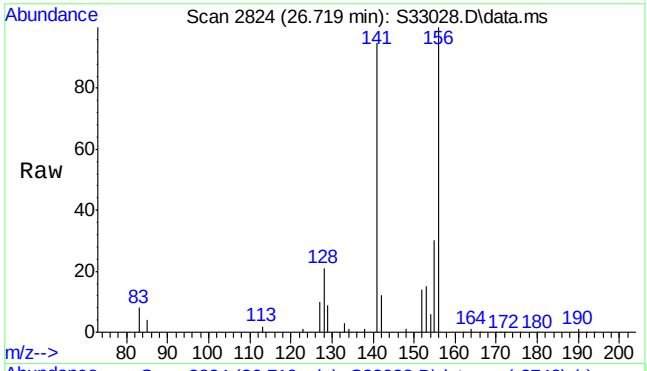
#9
C1-Naphthalenes
Concen: 1162.69 ng/mL m
RT: 23.890 min Scan# 2481
Delta R.T. 0.008 min
Lab File: S33028.D
Acq: 24 Jul 2013 5:07 am

Tgt Ion:142 Resp: 333726

Ion	Ratio	Lower	Upper
142	100		
141	61.4	69.9	104.9#



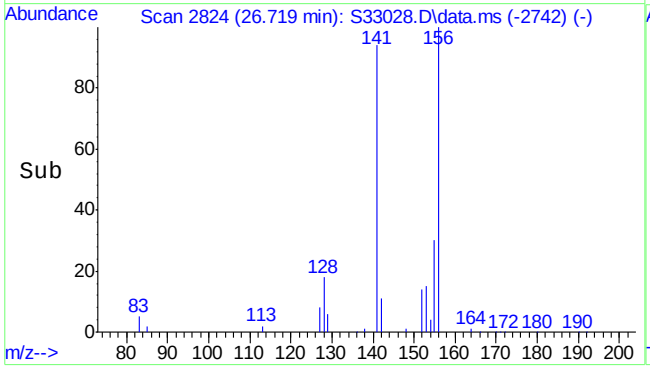


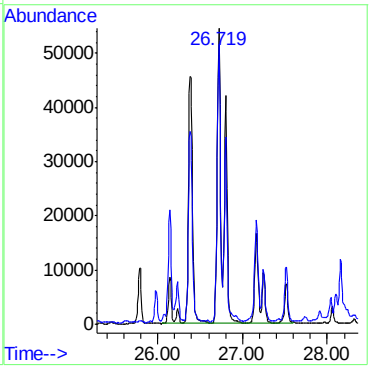


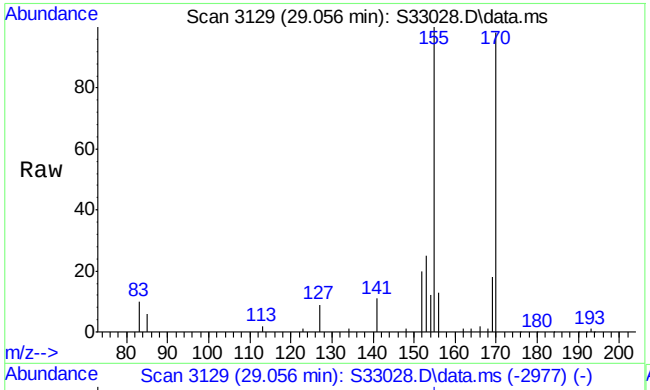
#10
C2-Naphthalenes
Concen: 1852.74 ng/mL m
RT: 26.719 min Scan# 2824
Delta R.T. -0.082 min
Lab File: S33028.D
Acq: 24 Jul 2013 5:07 am

Tgt Ion:156 Resp: 531788

Ion	Ratio	Lower	Upper
156	100		
141	15.1	64.9	97.3#



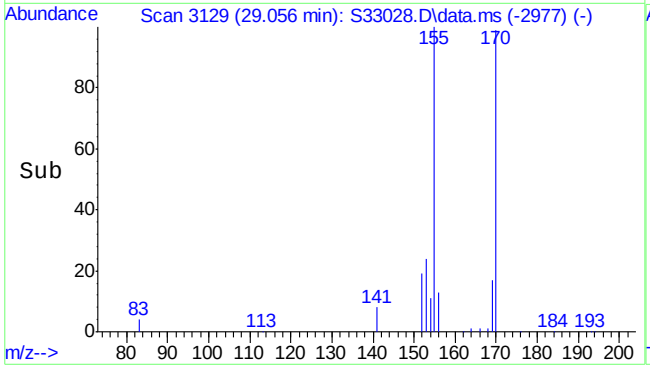


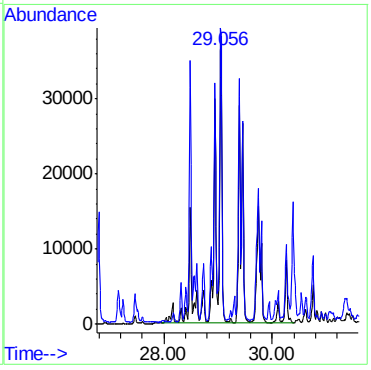


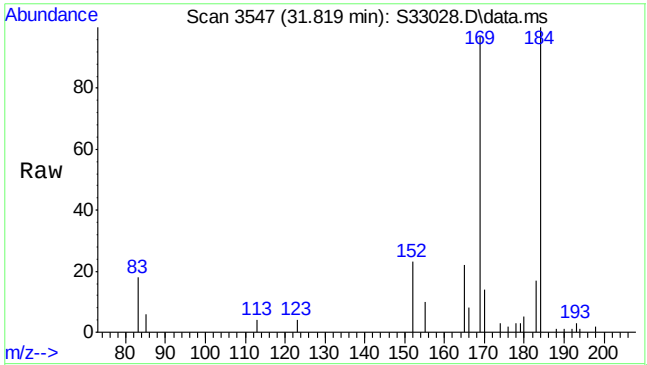
#11
C3-Naphthalenes
Concen: 1772.29 ng/mL m
RT: 29.056 min Scan# 3129
Delta R.T. 0.000 min
Lab File: S33028.D
Acq: 24 Jul 2013 5:07 am

Tgt Ion:170 Resp: 508699

Ion	Ratio	Lower	Upper
170	100		
155	19.3	85.4	128.2#



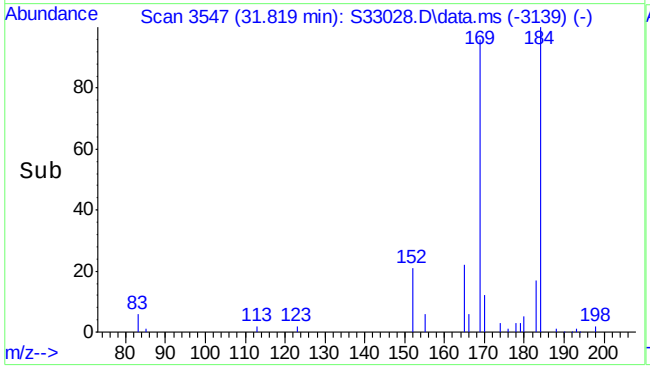


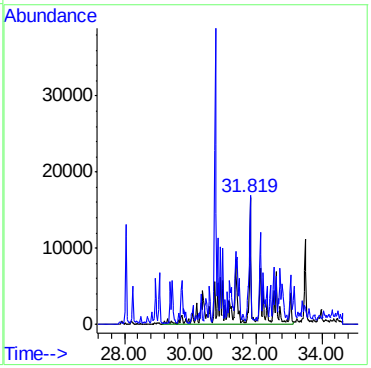


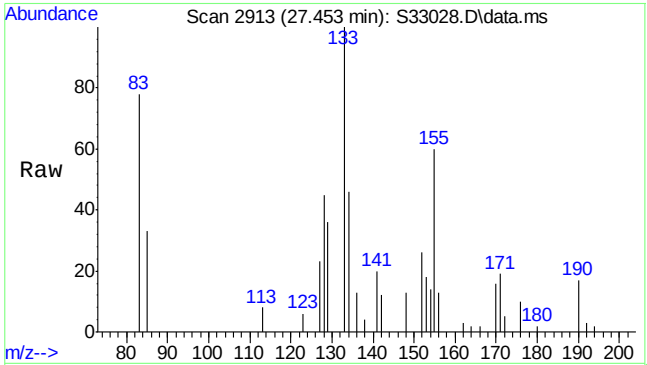
#12
C4-Naphthalenes
Concen: 1200.38 ng/mL m
RT: 31.819 min Scan# 3547
Delta R.T. 0.006 min
Lab File: S33028.D
Acq: 24 Jul 2013 5:07 am

Tgt Ion:184 Resp: 344543

Ion	Ratio	Lower	Upper
184	100		
169	11.8	81.0	121.6#



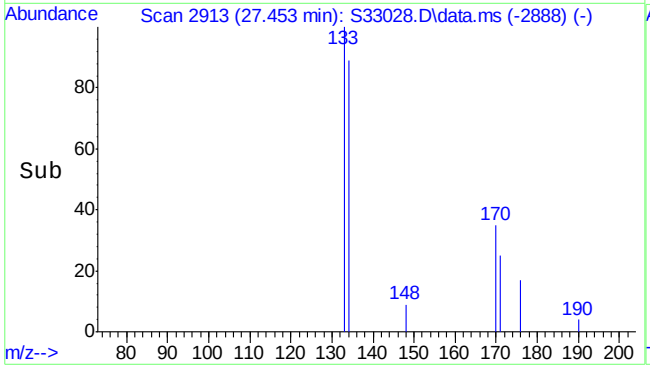


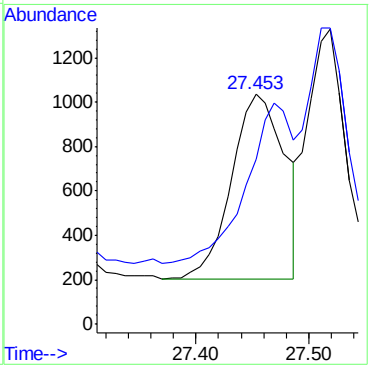


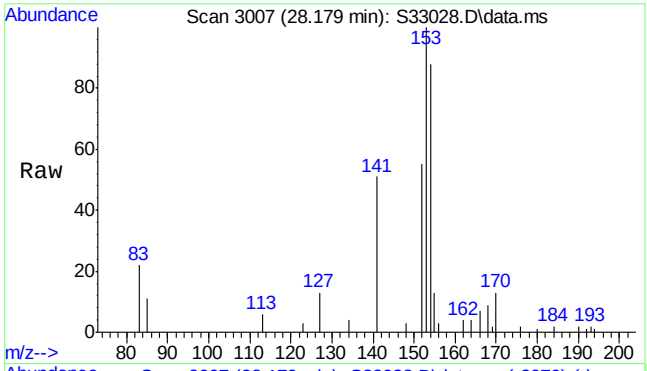
#13
Acenaphthylene
Concen: 10.22 ng/mL
RT: 27.453 min Scan# 2913
Delta R.T. 0.008 min
Lab File: S33028.D
Acq: 24 Jul 2013 5:07 am

Tgt Ion:152 Resp: 2712

Ion	Ratio	Lower	Upper
152	100		
153	75.0	10.5	15.7#



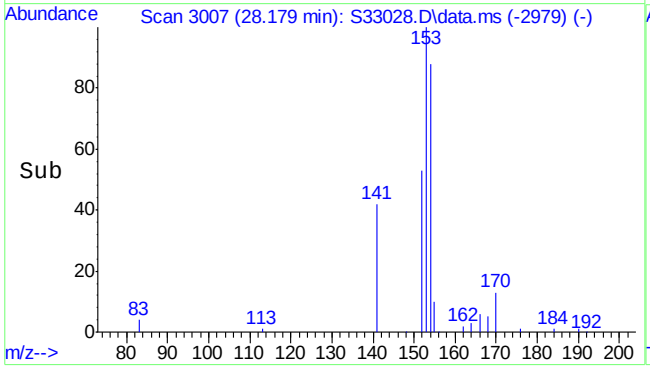


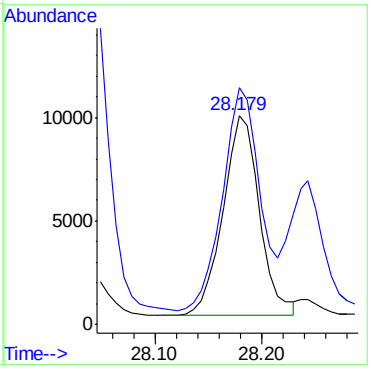


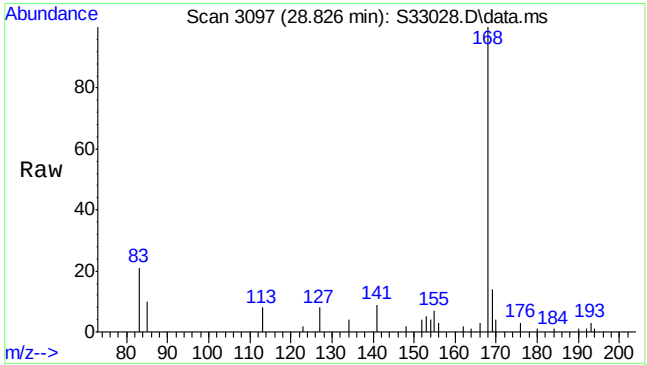
#14
Acenaphthene
Concen: 141.39 ng/mL
RT: 28.179 min Scan# 3007
Delta R.T. -0.000 min
Lab File: S33028.D
Acq: 24 Jul 2013 5:07 am

Tgt Ion:154 Resp: 22897

Ion	Ratio	Lower	Upper
154	100		
153	114.4	88.2	132.4



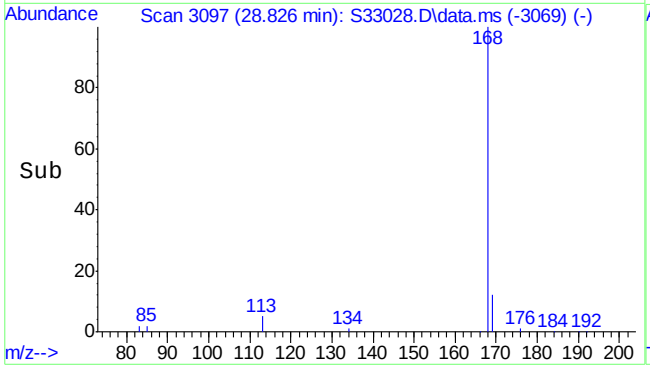


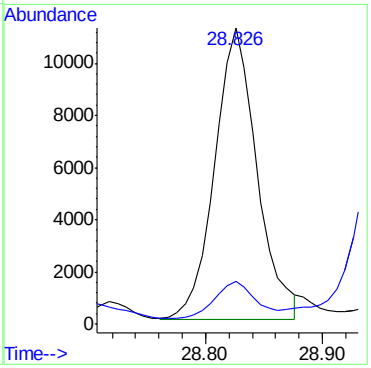


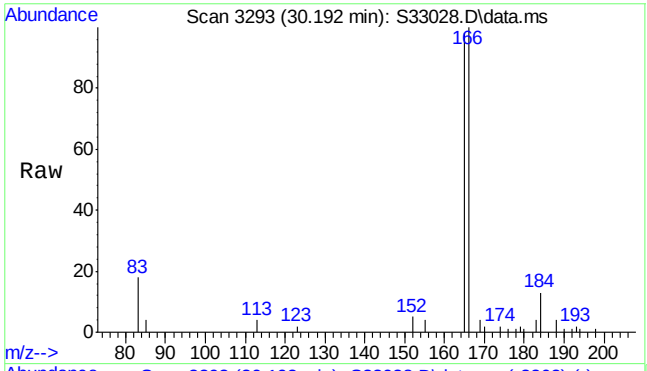
#15
Dibenzofuran
Concen: 122.08 ng/mL m
RT: 28.826 min Scan# 3097
Delta R.T. -0.000 min
Lab File: S33028.D
Acq: 24 Jul 2013 5:07 am

Tgt Ion:168 Resp: 28177

Ion	Ratio	Lower	Upper
168	100		
169	12.4	10.7	16.1



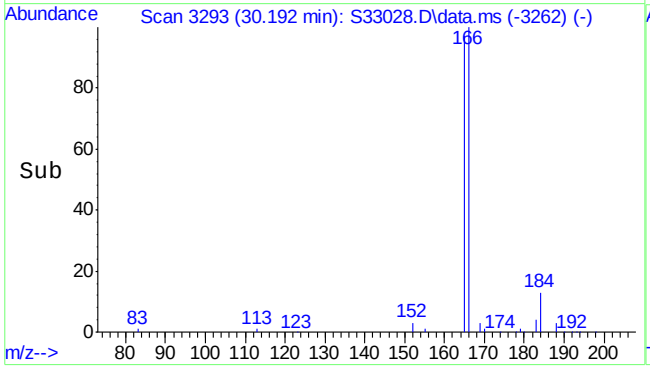


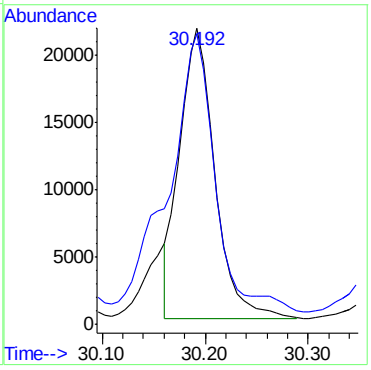


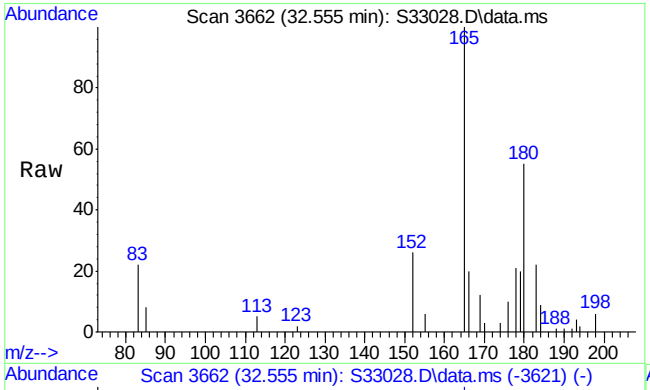
#16
Fluorene
Concen: 252.20 ng/mL m
RT: 30.192 min Scan# 3293
Delta R.T. -0.000 min
Lab File: S33028.D
Acq: 24 Jul 2013 5:07 am

Tgt Ion:166 Resp: 51805

Ion	Ratio	Lower	Upper
166	100		
165	115.7	76.3	114.5#



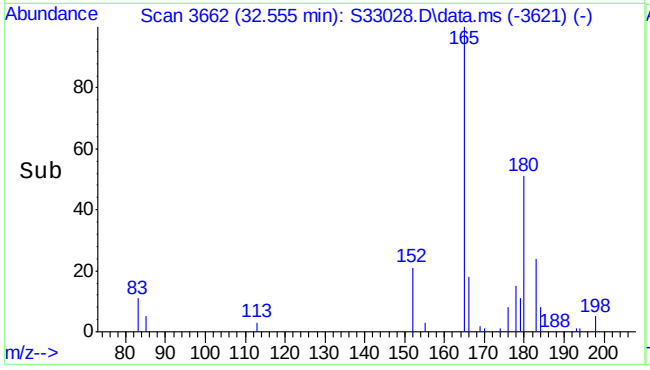


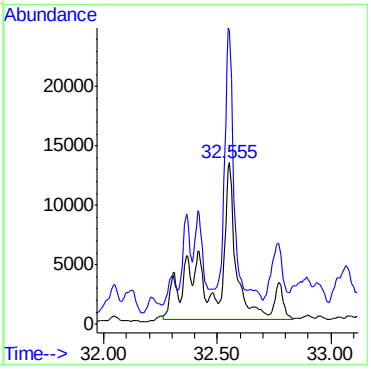


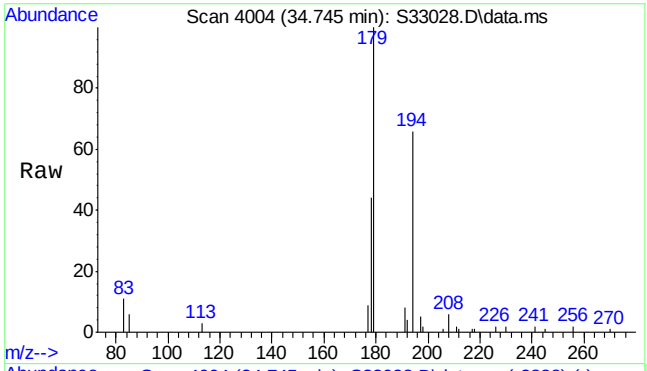
#17
C1-Fluorenes
Concen: 456.37 ng/mL m
RT: 32.555 min Scan# 3662
Delta R.T. 0.024 min
Lab File: S33028.D
Acq: 24 Jul 2013 5:07 am

Tgt Ion:180 Resp: 93743

Ion	Ratio	Lower	Upper
180	100		
165	59.9	134.2	201.4#



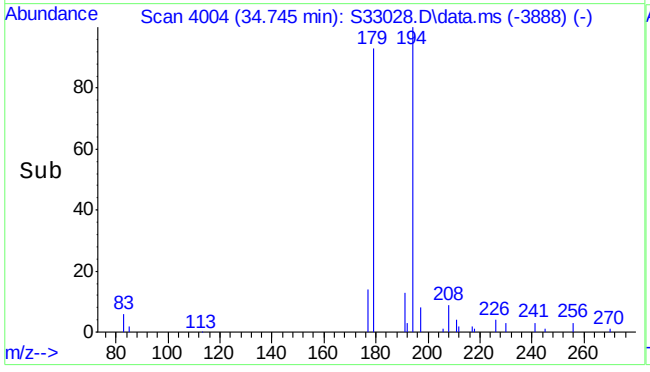


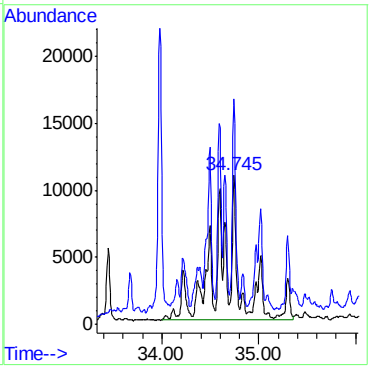


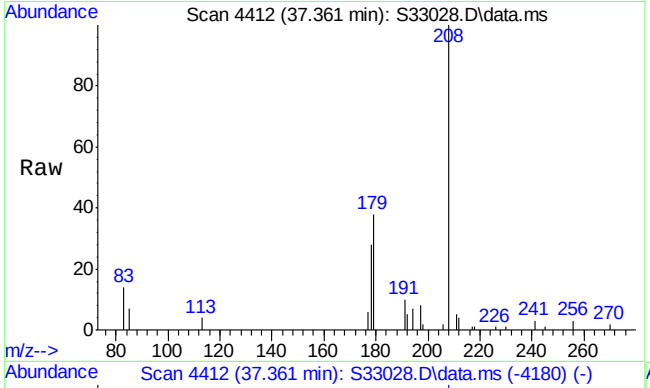
#18
C2-Fluorenes
Concen: 771.22 ng/mL m
RT: 34.745 min Scan# 4004
Delta R.T. 0.000 min
Lab File: S33028.D
Acq: 24 Jul 2013 5:07 am

Tgt Ion:194 Resp: 158416

Ion	Ratio	Lower	Upper
194	100		
179	23.3	126.2	189.4#



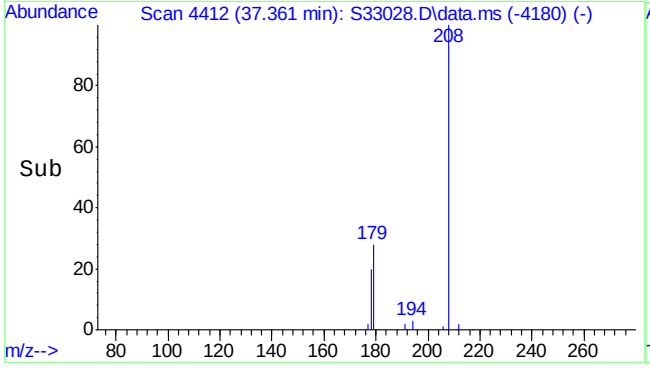


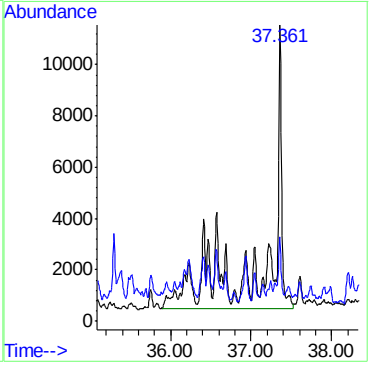


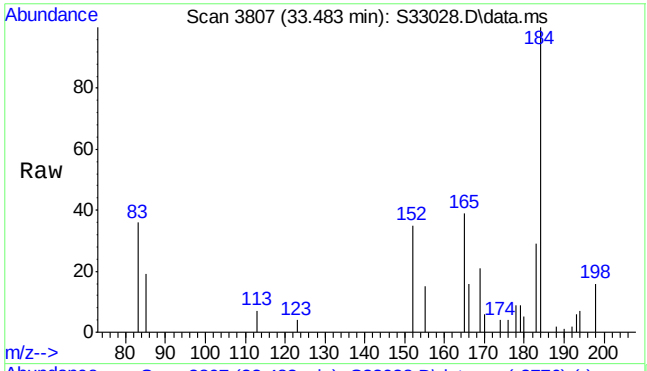
#19
C3-Fluorenes
Concen: 594.37 ng/mL m
RT: 37.361 min Scan# 4412
Delta R.T. 0.782 min
Lab File: S33028.D
Acq: 24 Jul 2013 5:07 am

Tgt Ion:208 Resp: 122089

Ion	Ratio	Lower	Upper
208	100		
178	4.1	54.9	82.3#



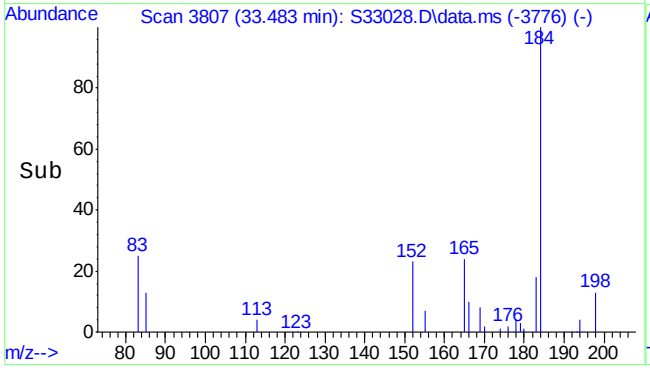


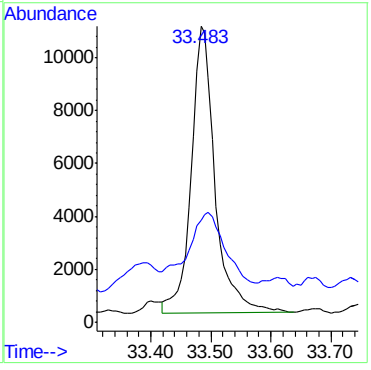


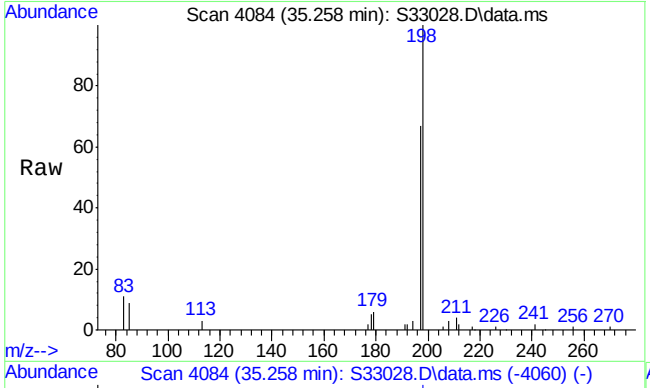
#20
Dibenzothiophene
Concen: 115.18 ng/mL
RT: 33.483 min Scan# 3807
Delta R.T. -0.000 min
Lab File: S33028.D
Acq: 24 Jul 2013 5:07 am

Tgt Ion:184 Resp: 29828

Ion	Ratio	Lower	Upper
184	100		
152	43.0	7.7	11.5#



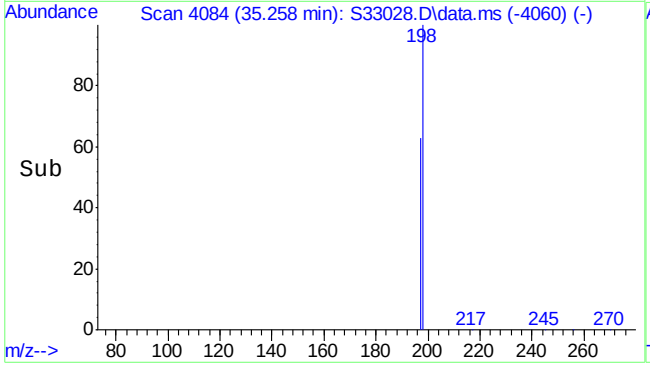


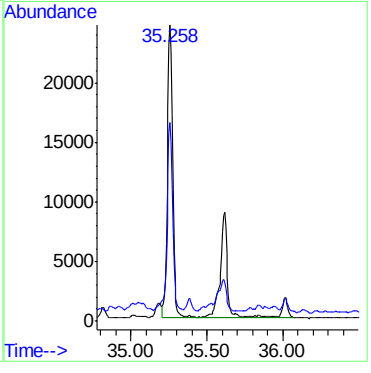


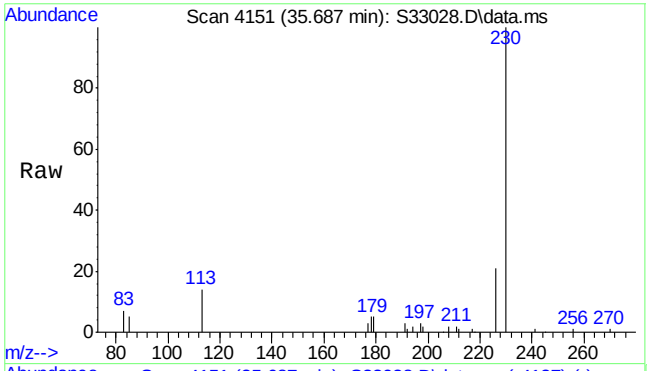
#21
C1-Dibenzothiophenes (unadj)
Concen: 351.90 ng/mL m
RT: 35.258 min Scan# 4084
Delta R.T. 0.000 min
Lab File: S33028.D
Acq: 24 Jul 2013 5:07 am

Tgt Ion:198 Resp: 89833

Ion	Ratio	Lower	Upper
198	100		
197	43.4	53.4	80.0#



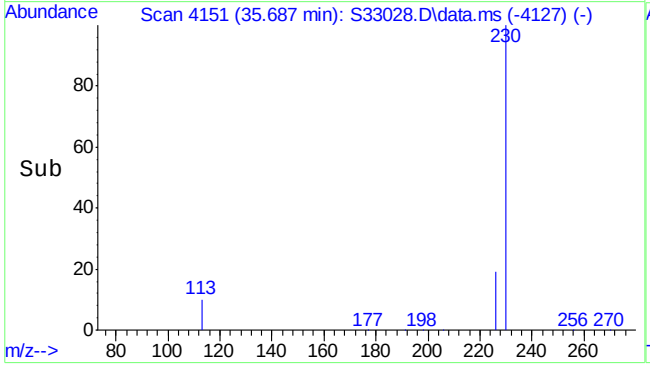


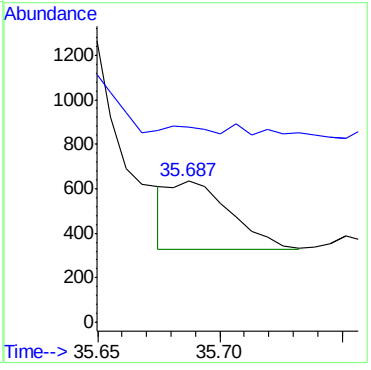


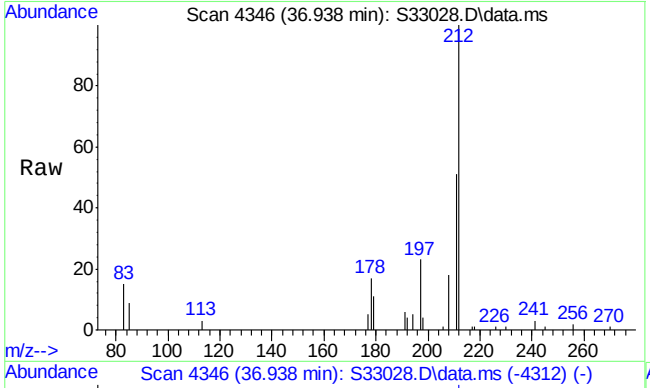
#22
C1-Dibenzothiophenes (OTP)
Concen: 2.03 µg/mL m
RT: 35.687 min Scan# 4151
Delta R.T. 0.064 min
Lab File: S33028.D
Acq: 24 Jul 2013 5:07 am

Tgt Ion:198 Resp: 518

Ion	Ratio	Lower	Upper
198	100		
197	578.6	58.2	87.2#



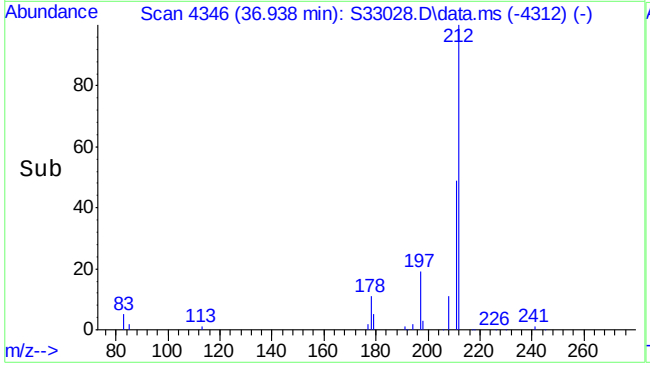


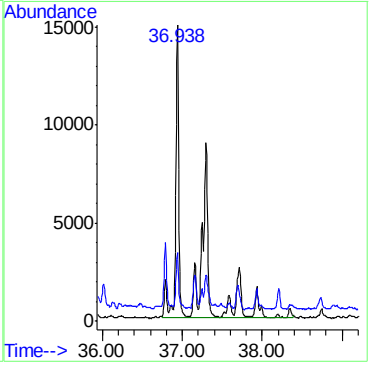


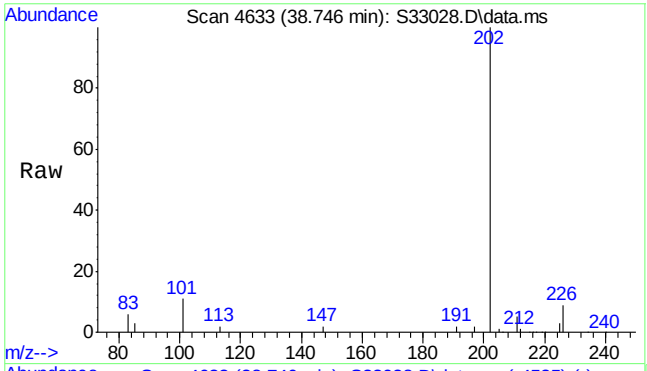
#23
C2-Dibenzothiophenes
Concen: 401.69 ng/mL m
RT: 36.938 min Scan# 4346
Delta R.T. -0.366 min
Lab File: S33028.D
Acq: 24 Jul 2013 5:07 am

Tgt Ion:212 Resp: 102543

Ion	Ratio	Lower	Upper
212	100		
197	5.4	20.6	30.8#



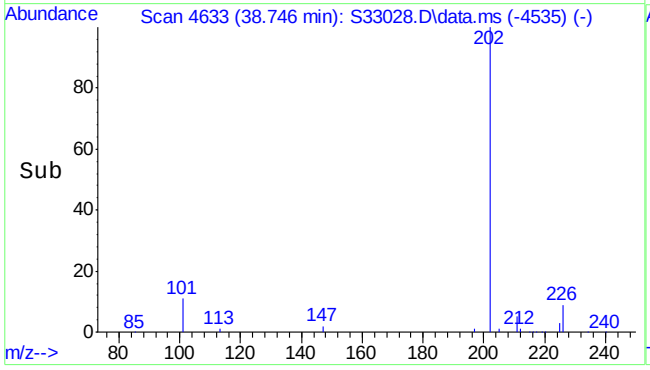


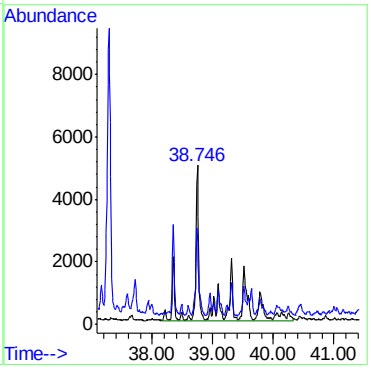


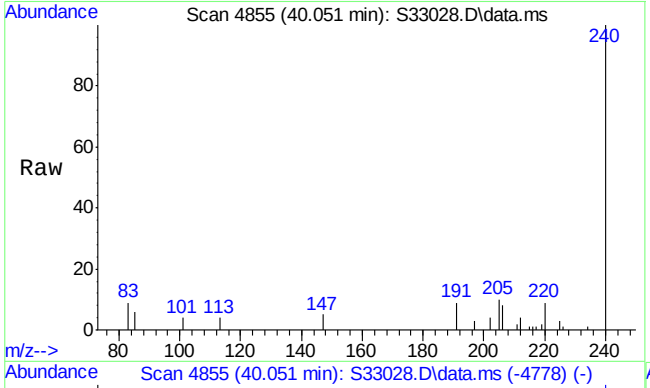
#24
C3-Dibenzothiophenes
Concen: 193.28 ng/mL m
RT: 38.746 min Scan# 4633
Delta R.T. -0.006 min
Lab File: S33028.D
Acq: 24 Jul 2013 5:07 am

Tgt Ion:226 Resp: 49341

Ion	Ratio	Lower	Upper
226	100		
211	19.3	49.7	74.5#

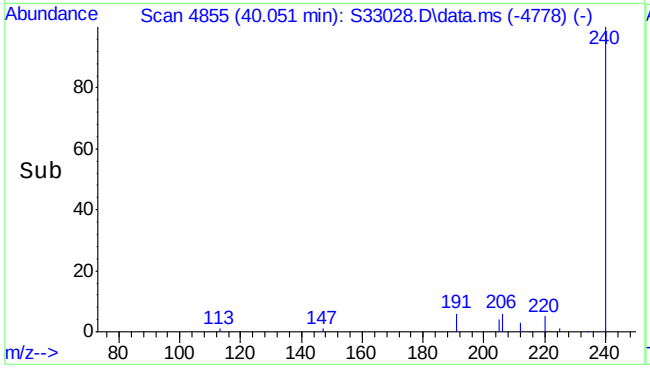


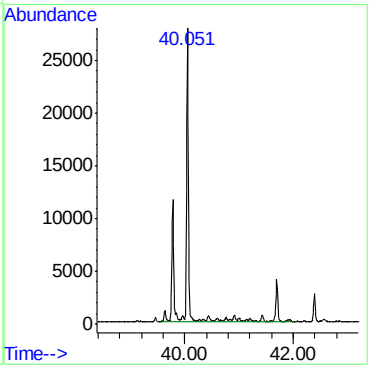


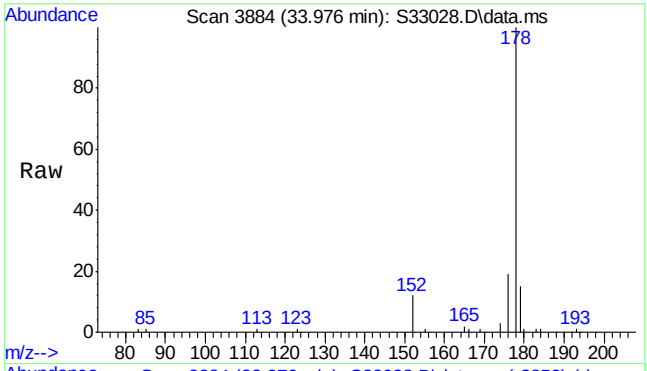


#25
C4-Dibenzothiophenes
Concen: 464.84 ng/mL m
RT: 40.051 min Scan# 4855
Delta R.T. -0.394 min
Lab File: S33028.D
Acq: 24 Jul 2013 5:07 am

Tgt Ion:240 Resp: 118663



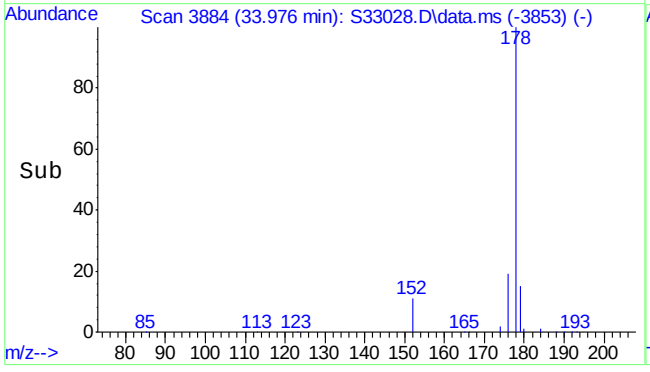


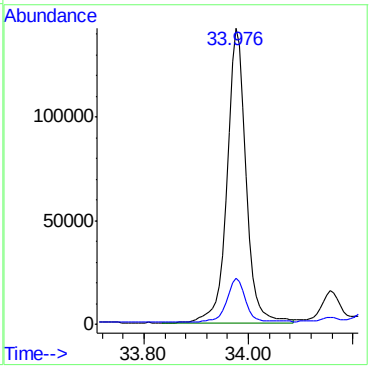


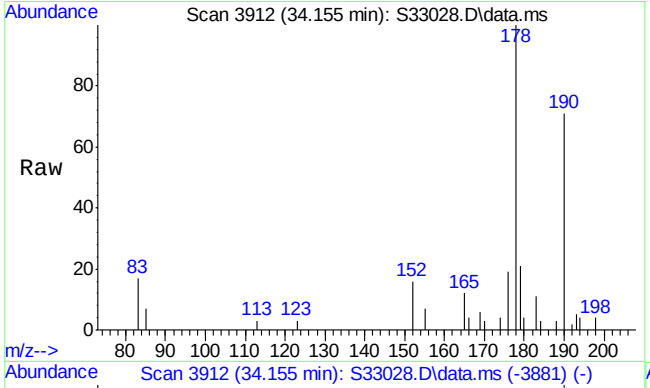
#26
Phenanthrene
Concen: 1201.67 ng/mL
RT: 33.976 min Scan# 3884
Delta R.T. -0.000 min
Lab File: S33028.D
Acq: 24 Jul 2013 5:07 am

Tgt Ion:178 Resp: 355822

Ion	Ratio	Lower	Upper
178	100		
179	14.6	12.6	18.8



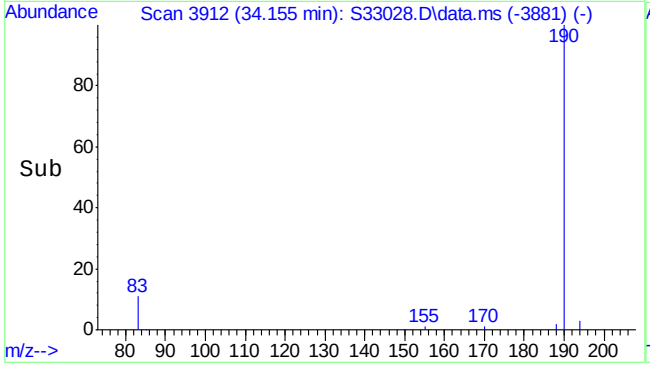


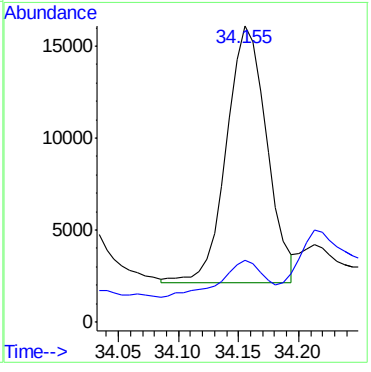


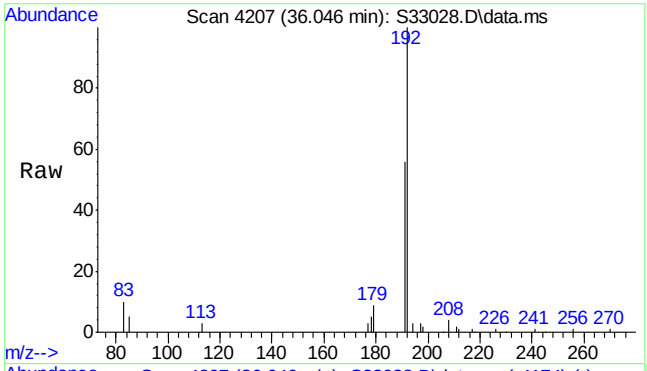
#27
Anthracene
Concen: 118.36 ng/mL m
RT: 34.155 min Scan# 3912
Delta R.T. -0.000 min
Lab File: S33028.D
Acq: 24 Jul 2013 5:07 am

Tgt Ion:178 Resp: 32568

Ion	Ratio	Lower	Upper
178	100		
179	15.4	12.9	19.3



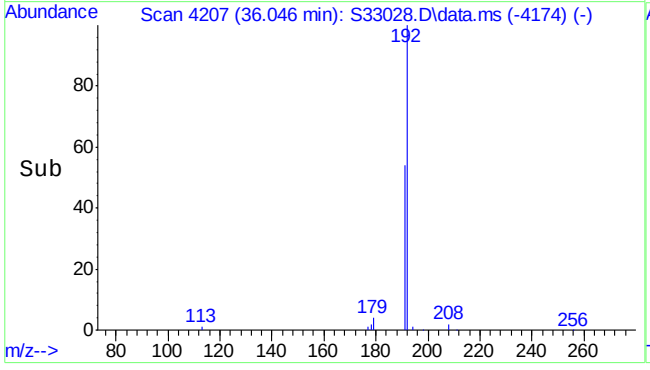


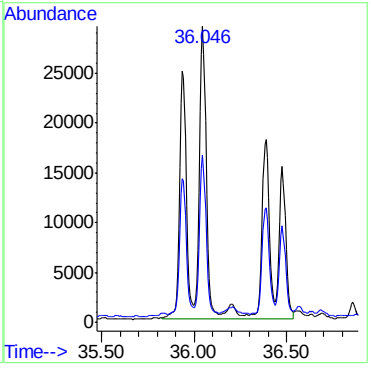


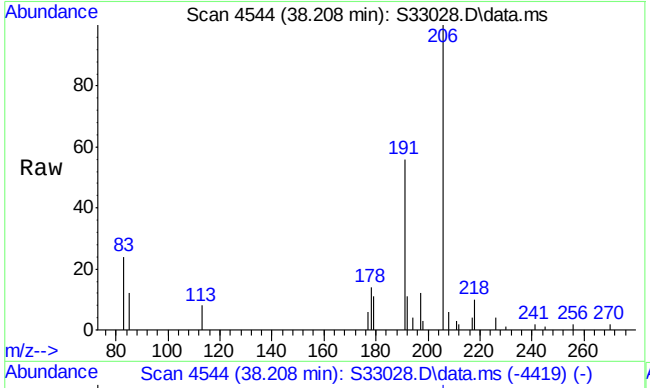
#28
C1-Phenanthrenes/anthracenes
Concen: 730.79 ng/mL m
RT: 36.046 min Scan# 4207
Delta R.T. -0.340 min
Lab File: S33028.D
Acq: 24 Jul 2013 5:07 am

Tgt Ion:192 Resp: 216392

Ion	Ratio	Lower	Upper
192	100		
191	12.6	46.7	70.1#



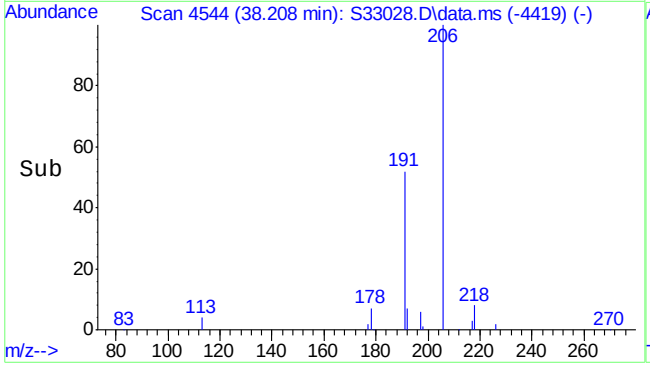


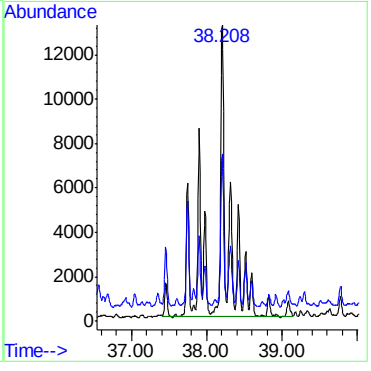


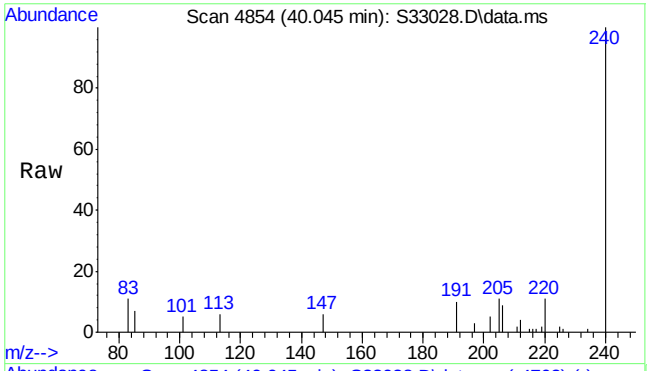
#29
C2-Phenanthrenes/anthracenes (unadj)
Concen: 452.54 ng/mL m
RT: 38.208 min Scan# 4544
Delta R.T. 0.000 min
Lab File: S33028.D
Acq: 24 Jul 2013 5:07 am

Tgt Ion:206 Resp: 134000

Ion	Ratio	Lower	Upper
206	100		
191	14.2	49.1	73.7#



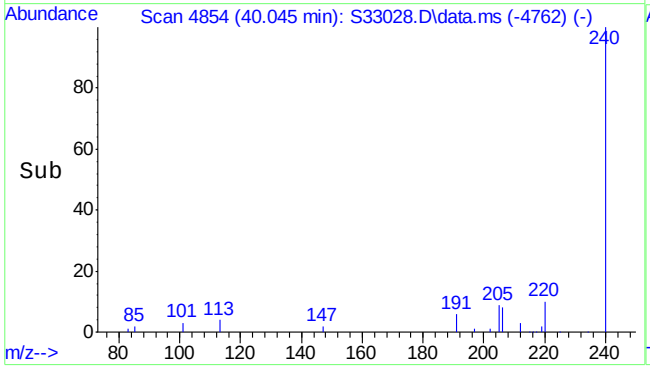


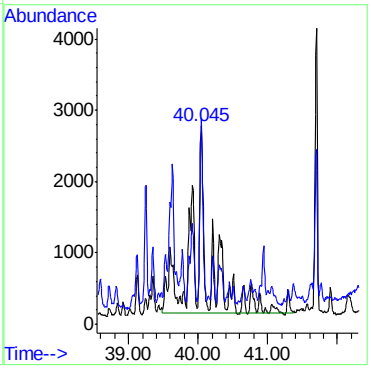


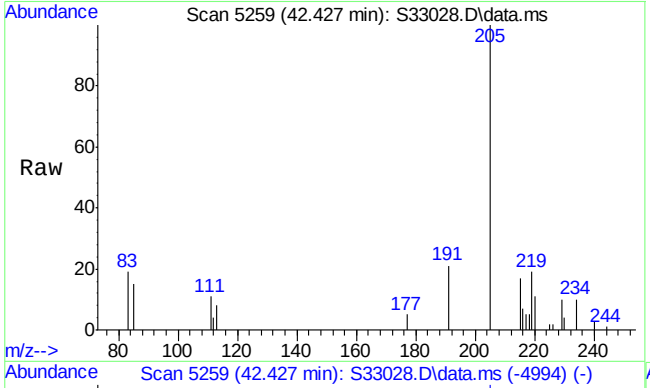
#31
C3-Phenanthrenes/anthracenes
Concen: 130.14 ng/mL m
RT: 40.045 min Scan# 4854
Delta R.T. -0.006 min
Lab File: S33028.D
Acq: 24 Jul 2013 5:07 am

Tgt Ion:220 Resp: 38534

Ion	Ratio	Lower	Upper
220	100		
205	8.4	45.1	67.7#



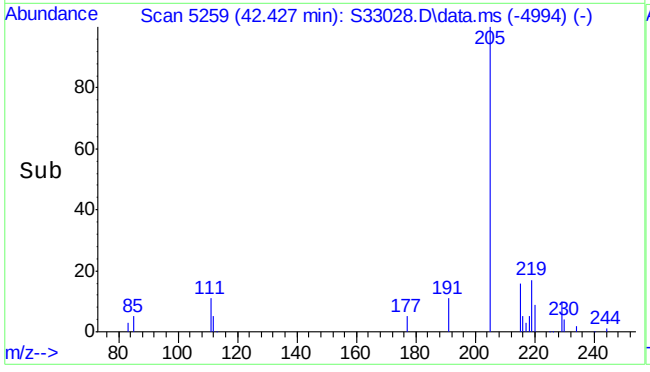


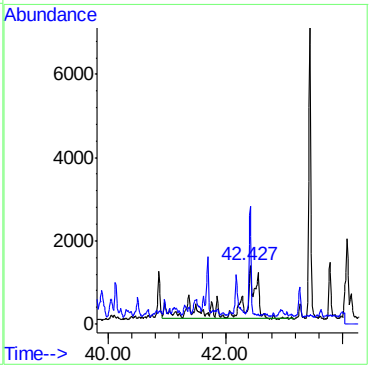


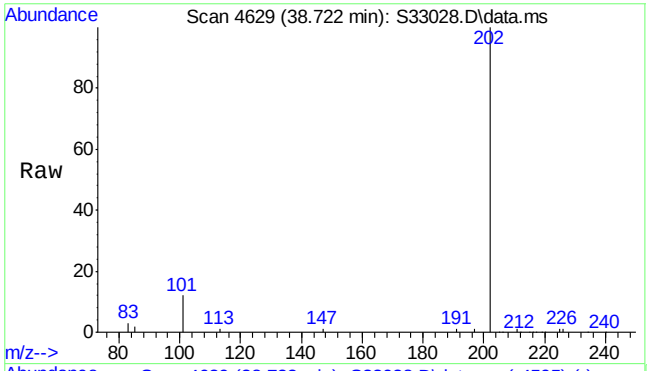
#32
C4-Phenanthrenes/anthracenes
Concen: 82.99 ng/mL m
RT: 42.427 min Scan# 5259
Delta R.T. 0.194 min
Lab File: S33028.D
Acq: 24 Jul 2013 5:07 am

Tgt Ion:234 Resp: 24574

Ion	Ratio	Lower	Upper
234	100		
219	1.2	49.0	73.4#



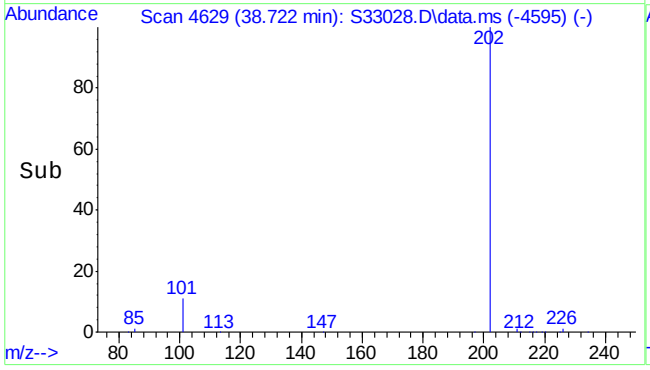


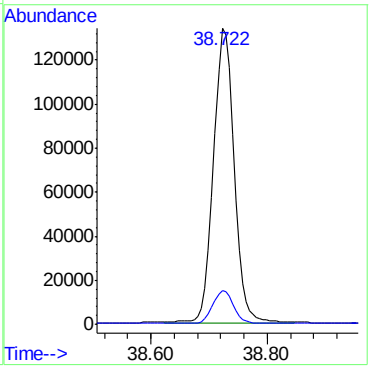


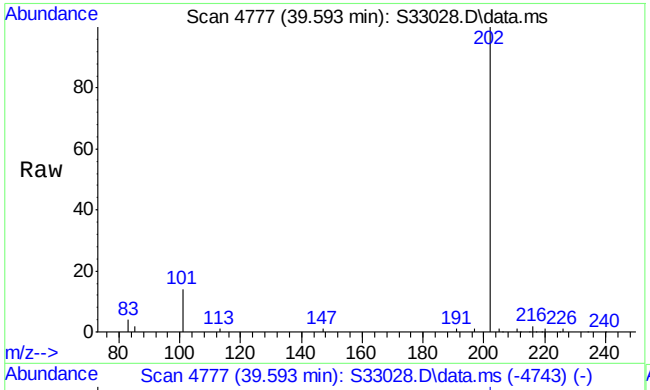
#33
Fluoranthene
Concen: 1252.94 ng/mL m
RT: 38.722 min Scan# 4629
Delta R.T. -0.000 min
Lab File: S33028.D
Acq: 24 Jul 2013 5:07 am

Tgt Ion:202 Resp: 328678

Ion	Ratio	Lower	Upper
202	100		
101	10.8	9.8	14.6



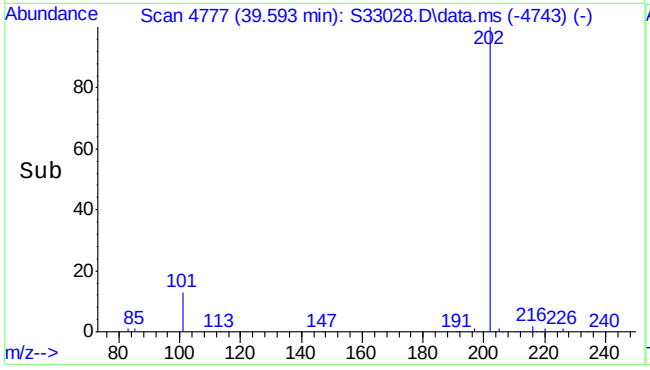


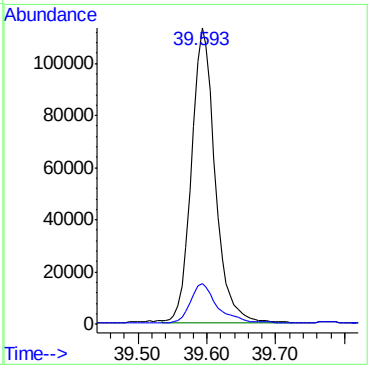


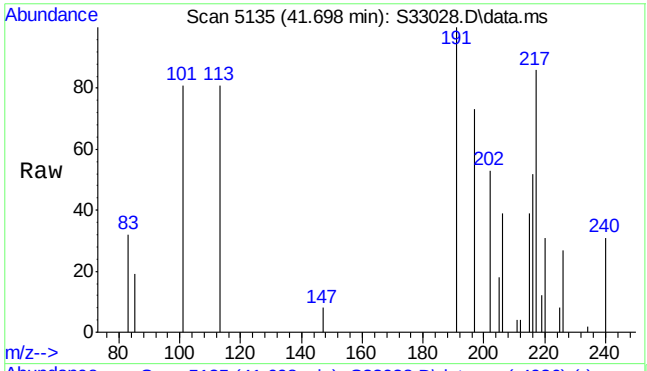
#34
Pyrene
Concen: 1001.66 ng/mL m
RT: 39.593 min Scan# 4777
Delta R.T. -0.000 min
Lab File: S33028.D
Acq: 24 Jul 2013 5:07 am

Tgt Ion:202 Resp: 272252

Ion	Ratio	Lower	Upper
202	100		
101	14.8	11.4	17.0



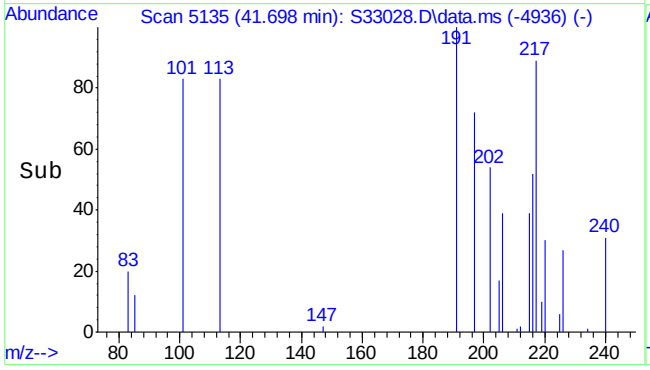


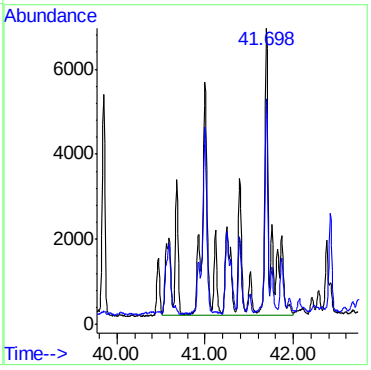


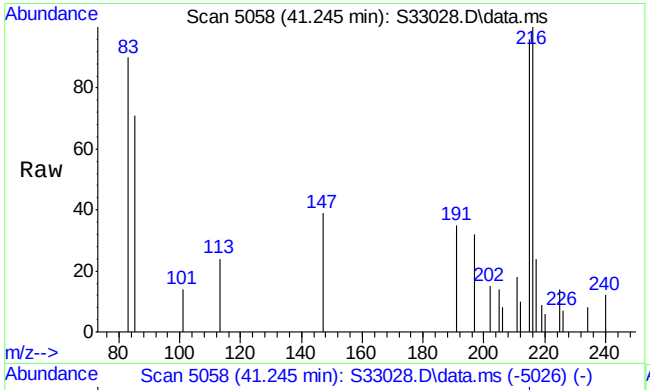
#35
C1-Fluoranthenes/pyrenes
Concen: 325.32 ng/mL m
RT: 41.698 min Scan# 5135
Delta R.T. 0.694 min
Lab File: S33028.D
Acq: 24 Jul 2013 5:07 am

Tgt Ion:216 Resp: 88421

Ion	Ratio	Lower	Upper
216	100		
215	14.4	79.0	118.4#



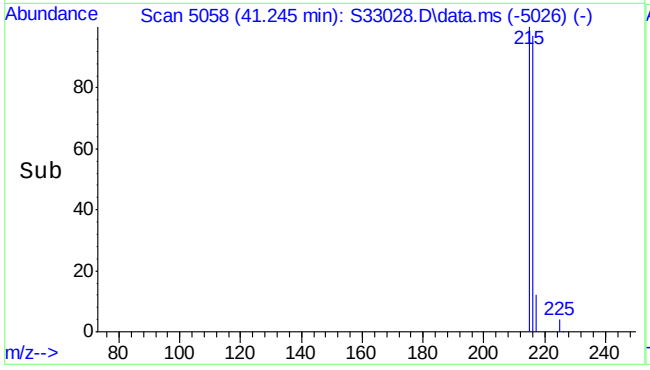


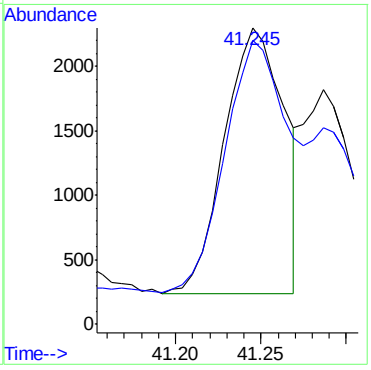


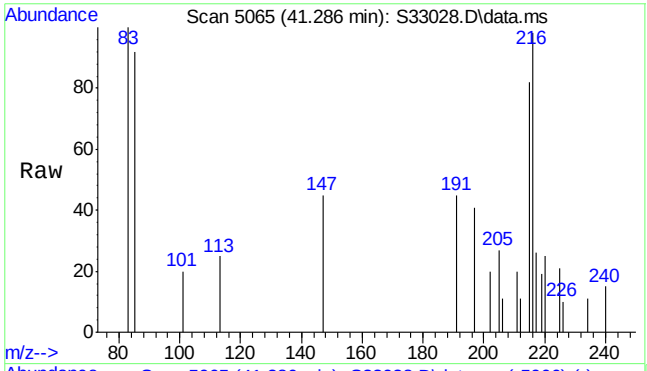
#36
Benzo(b)fluorene
Concen: 18.36 ng/mL
RT: 41.245 min Scan# 5058
Delta R.T. -0.012 min
Lab File: S33028.D
Acq: 24 Jul 2013 5:07 am

Tgt Ion:216 Resp: 4989

Ion	Ratio	Lower	Upper
216	100		
215	102.3	112.3	168.5#



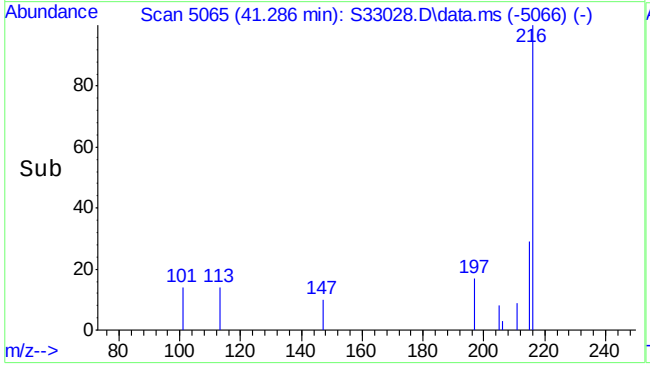


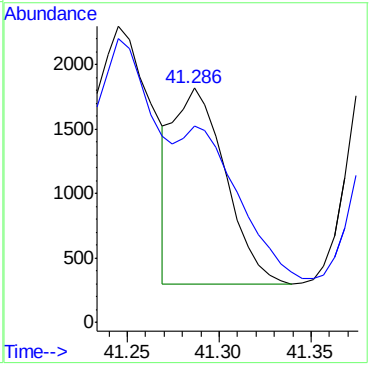


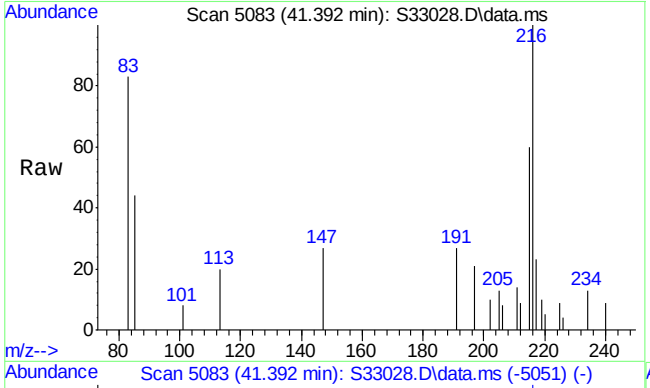
#37
Benzo(c)fluorene
Concen: 11.07 µg/mL m
RT: 41.286 min Scan# 5065
Delta R.T. -0.006 min
Lab File: S33028.D
Acq: 24 Jul 2013 5:07 am

Tgt Ion:216 Resp: 3009

Ion	Ratio	Lower	Upper
216	100		
215	138.8	114.9	172.3



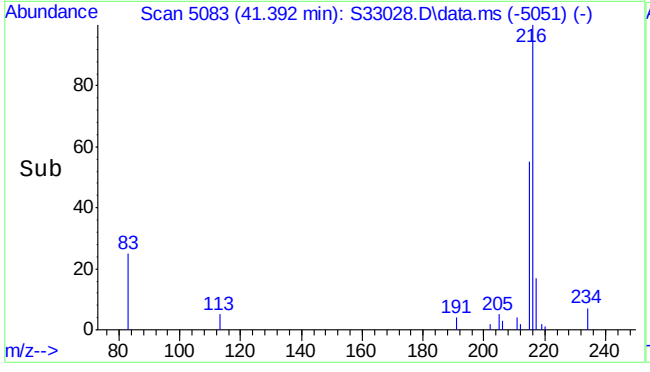


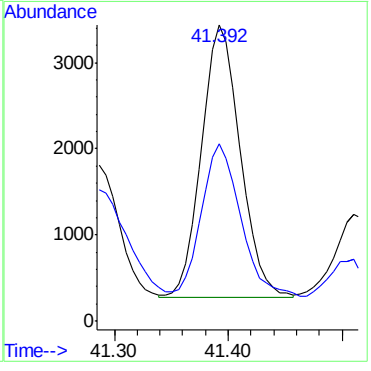


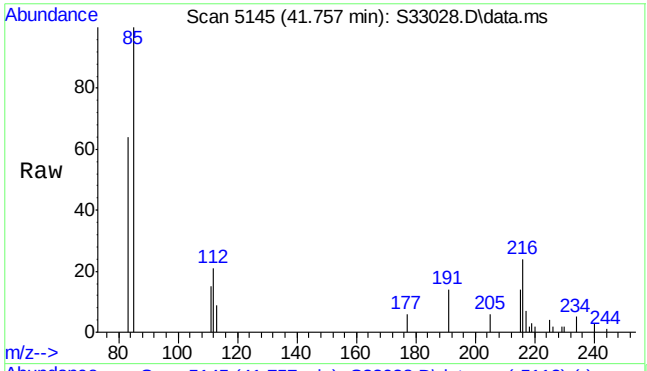
#38
2-Methylpyrene
Concen: 27.33 ng/mL m
RT: 41.392 min Scan# 5083
Delta R.T. -0.012 min
Lab File: S33028.D
Acq: 24 Jul 2013 5:07 am

Tgt Ion:216 Resp: 7427

Ion	Ratio	Lower	Upper
216	100		
215	51.4	81.0	121.6#



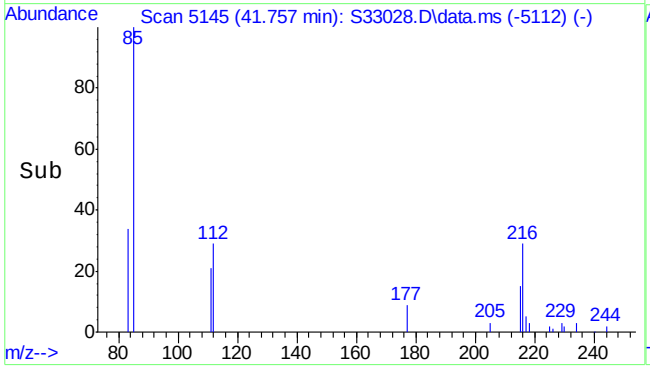


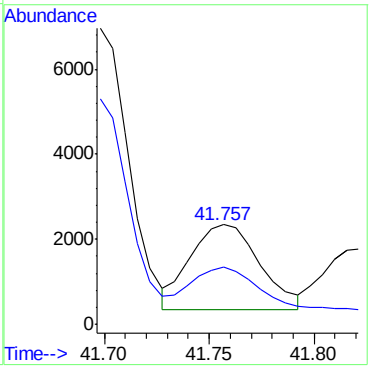


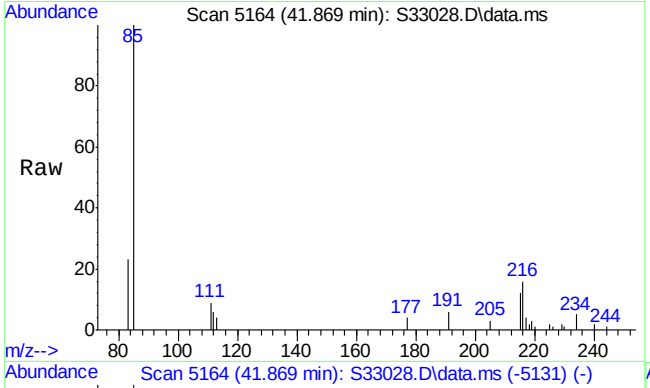
#39
4-Methylpyrene
Concen: 17.05 ng/mL m
RT: 41.757 min Scan# 5145
Delta R.T. -0.006 min
Lab File: S33028.D
Acq: 24 Jul 2013 5:07 am

Tgt Ion:216 Resp: 4634

Ion	Ratio	Lower	Upper
216	100		
215	242.7	58.1	87.1#



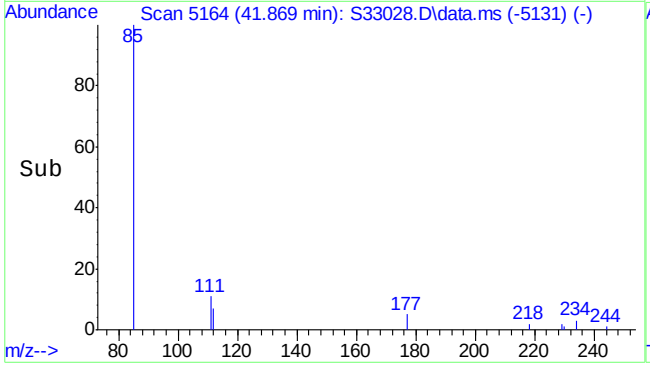


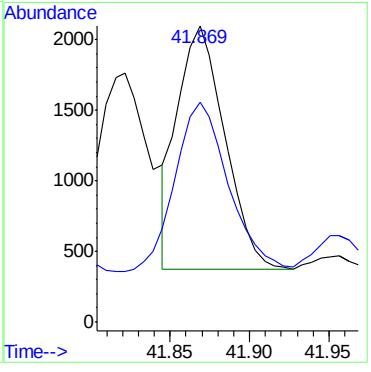


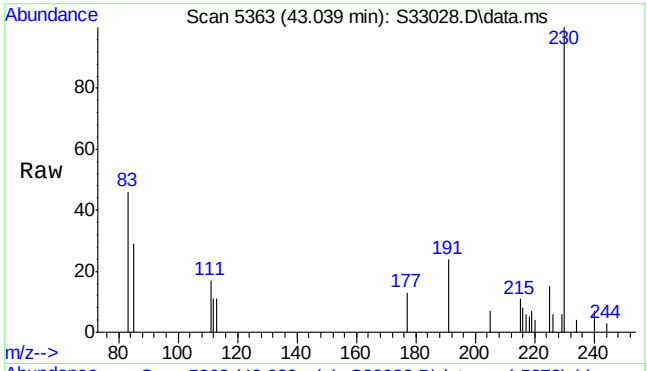
#40
1-Methylpyrene
Concen: 13.16 ng/mL
RT: 41.869 min Scan# 5164
Delta R.T. -0.006 min
Lab File: S33028.D
Acq: 24 Jul 2013 5:07 am

Tgt Ion:216 Resp: 3577

Ion	Ratio	Lower	Upper
216	100		
215	79.5	80.5	120.7#



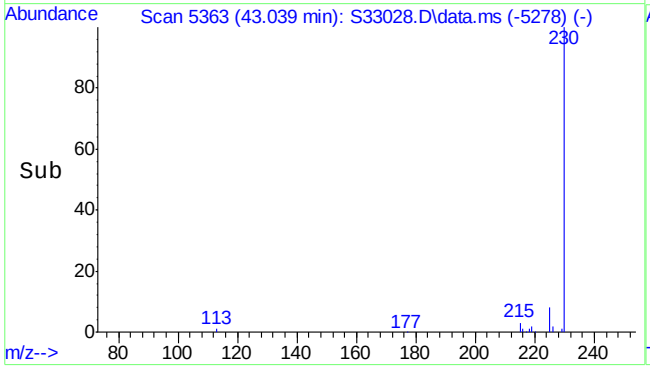


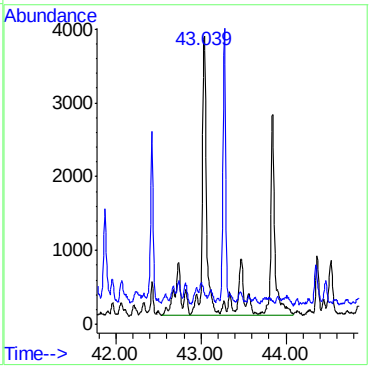


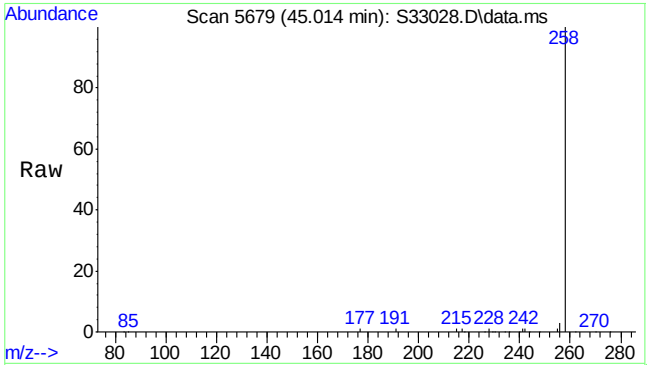
#41
C2-Fluoranthenes/pyrenes
Concen: 116.68 ng/mL m
RT: 43.039 min Scan# 5363
Delta R.T. -0.876 min
Lab File: S33028.D
Acq: 24 Jul 2013 5:07 am

Tgt Ion:230 Resp: 31713

Ion	Ratio	Lower	Upper
230	100		
215	2.3	79.2	118.8#



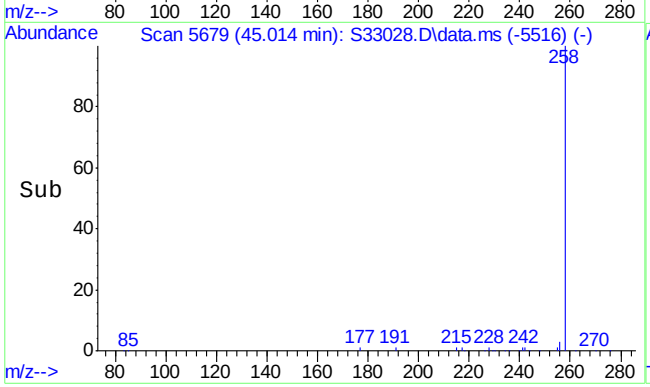


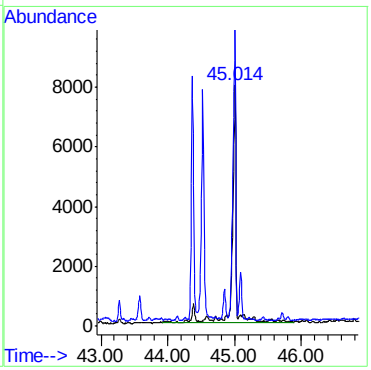


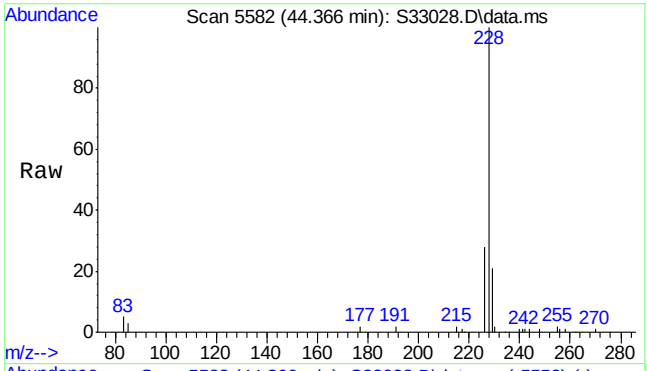
#42
C3-Fluoranthenes/pyrenes
Concen: 122.98 ng/mL m
RT: 45.014 min Scan# 5679
Delta R.T. 0.187 min
Lab File: S33028.D
Acq: 24 Jul 2013 5:07 am

Tgt Ion:244 Resp: 33425

Ion	Ratio	Lower	Upper
244	100		
229	0.9	81.8	122.8#



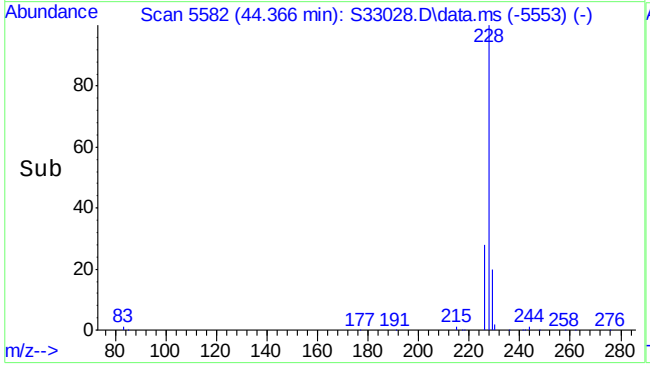


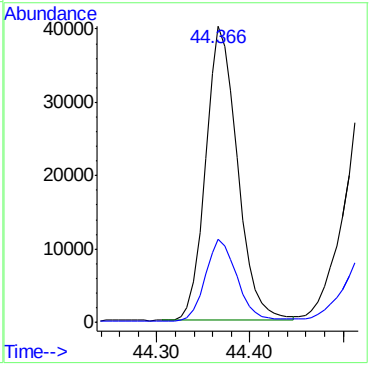


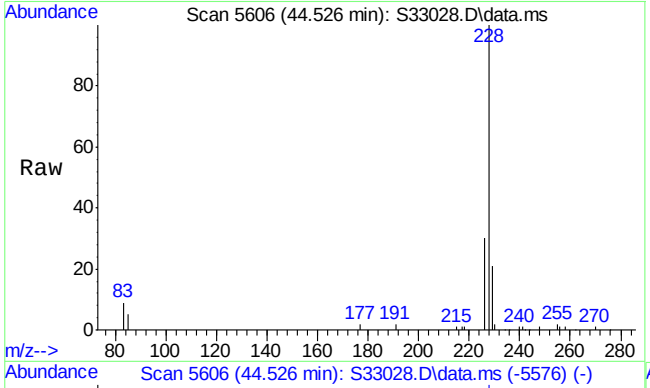
#43
Benz(a)anthracene
Concen: 363.77 ng/mL
RT: 44.366 min Scan# 5582
Delta R.T. -0.007 min
Lab File: S33028.D
Acq: 24 Jul 2013 5:07 am

Tgt Ion:228 Resp: 95491

Ion	Ratio	Lower	Upper
228	100		
226	27.6	21.4	32.2



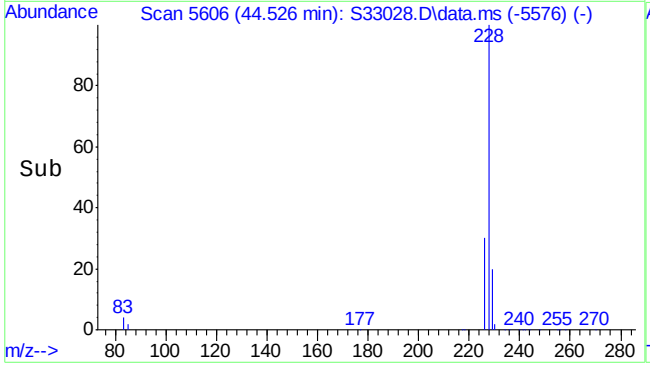


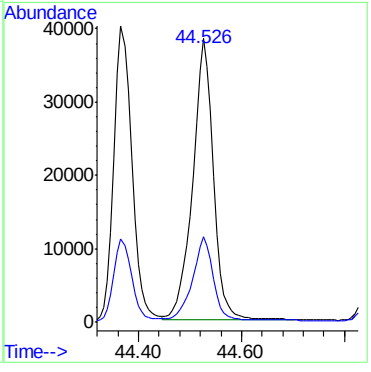


#44
Chrysene
Concen: 440.54 ng/mL
RT: 44.526 min Scan# 5606
Delta R.T. -0.000 min
Lab File: S33028.D
Acq: 24 Jul 2013 5:07 am

Tgt Ion:228 Resp: 107872

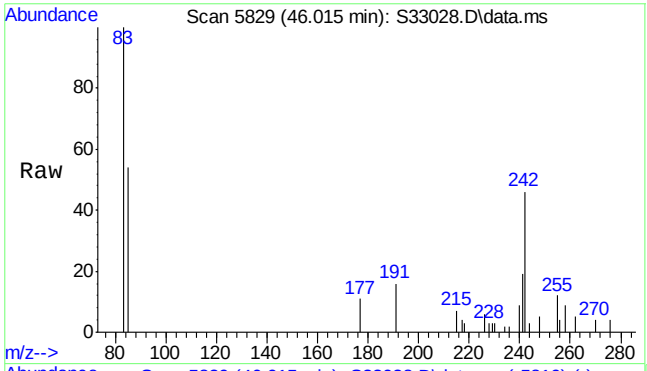
Ion	Ratio	Lower	Upper
228	100		
226	29.7	23.8	35.6





7.1.13

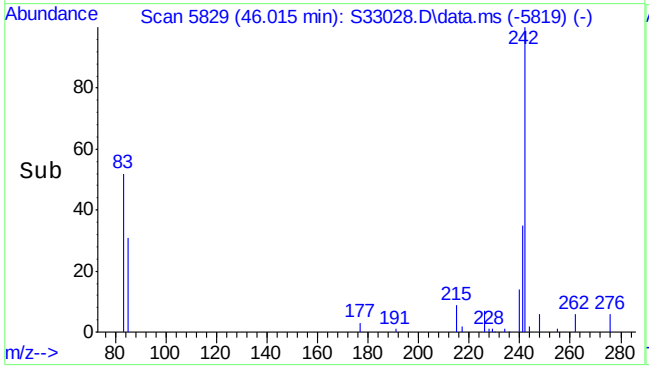
7

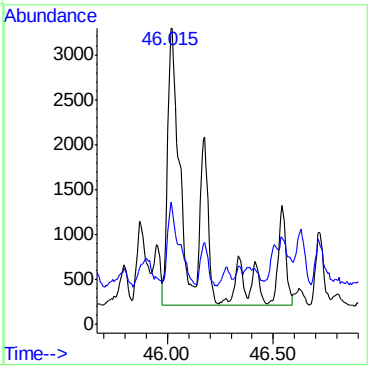


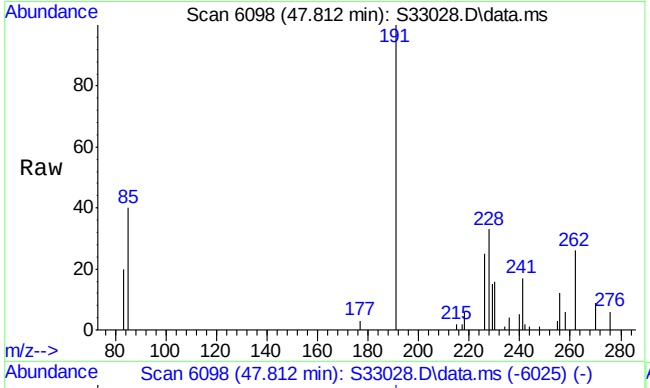
#45
C1-Benz(a)anthracenes/chrysenes
Concen: 89.38 ng/mL m
RT: 46.015 min Scan# 5829
Delta R.T. -0.000 min
Lab File: S33028.D
Acq: 24 Jul 2013 5:07 am

Tgt Ion:242 Resp: 21887

Ion	Ratio	Lower	Upper
242	100		
241	15.5	39.4	59.0#



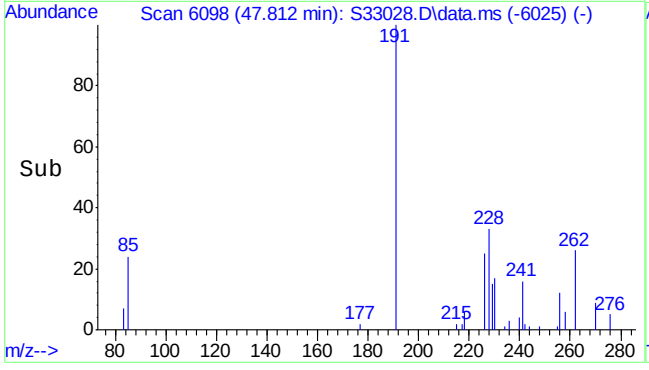


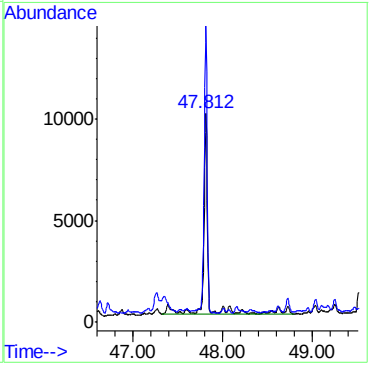


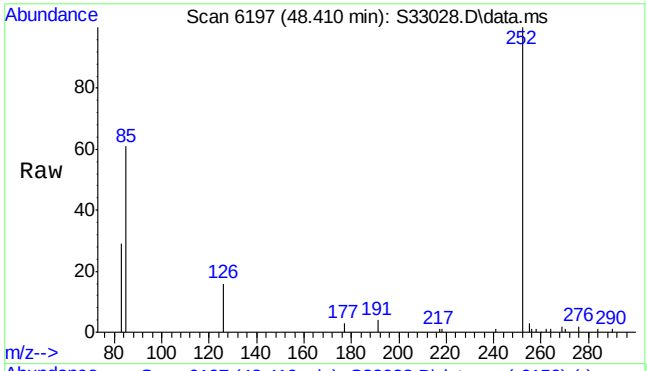
#46
C2-Benz(a)anthracenes/chrysenes
Concen: 130.66 ng/mL m
RT: 47.812 min Scan# 6098
Delta R.T. -0.283 min
Lab File: S33028.D
Acq: 24 Jul 2013 5:07 am

Tgt Ion:256 Resp: 31995

Ion	Ratio	Lower	Upper
256	100		
241	1.0	29.9	44.9#



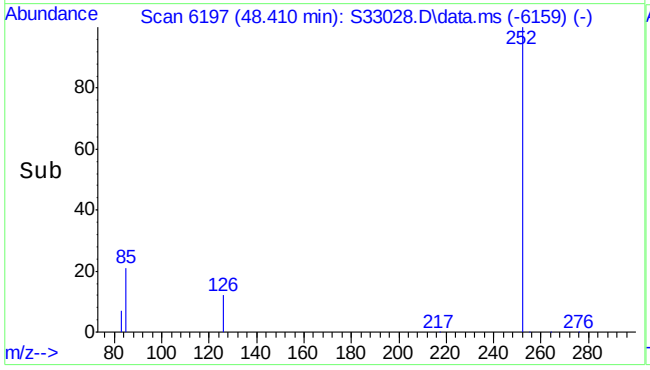


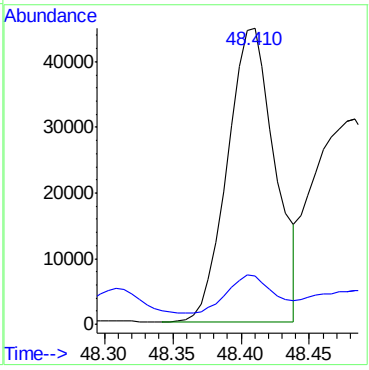


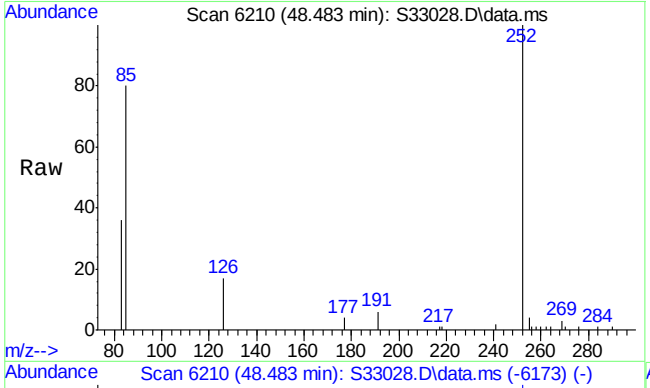
#49
Benzo(b)fluoranthene
Concen: 361.88 ng/mL
RT: 48.410 min Scan# 6197
Delta R.T. 0.011 min
Lab File: S33028.D
Acq: 24 Jul 2013 5:07 am

Tgt Ion:252 Resp: 108760

Ion	Ratio	Lower	Upper
252	100		
126	12.9	10.6	15.8



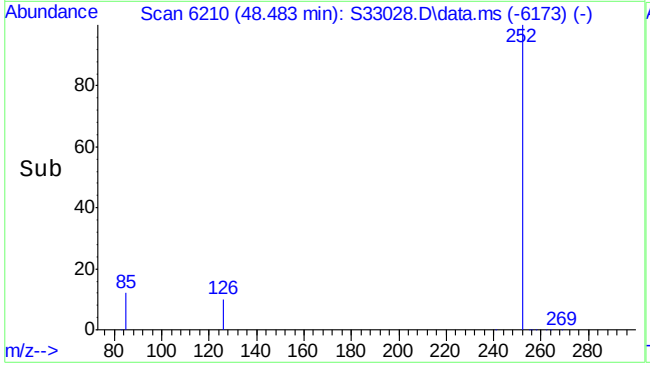


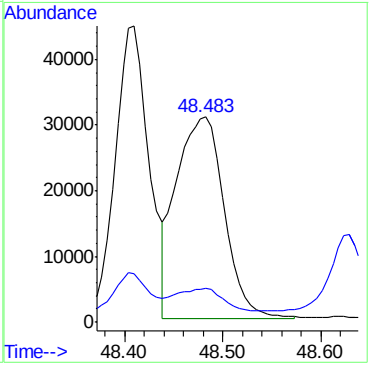


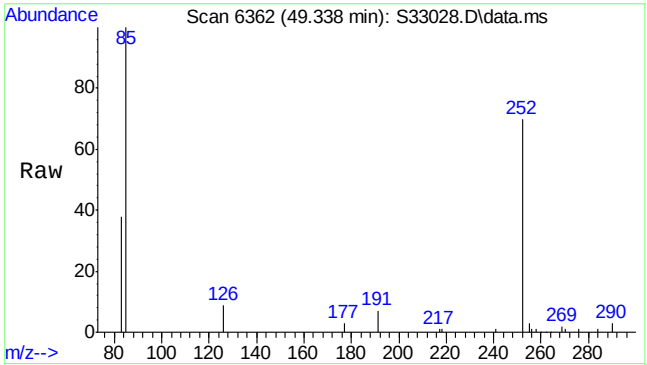
#50
Benzo(k)fluoranthene
Concen: 350.76 ng/mL m
RT: 48.483 min Scan# 6210
Delta R.T. 0.005 min
Lab File: S33028.D
Acq: 24 Jul 2013 5:07 am

Tgt Ion:252 Resp: 105063

Ion	Ratio	Lower	Upper
252	100		
126	13.0	11.9	17.9



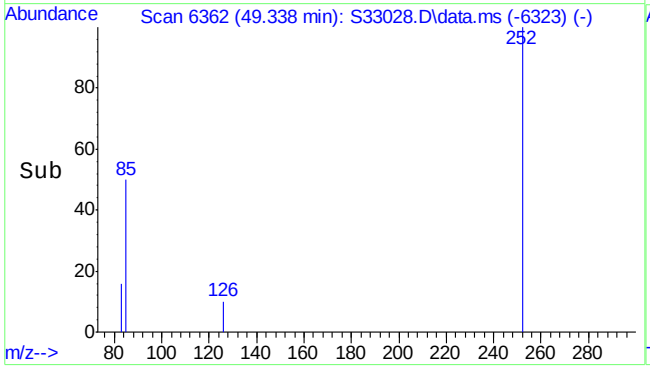


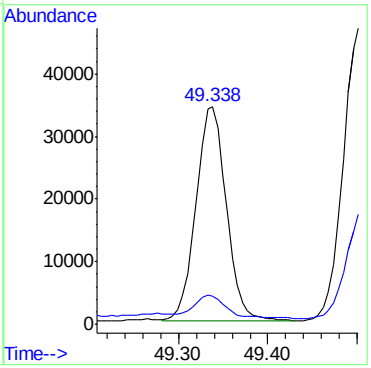


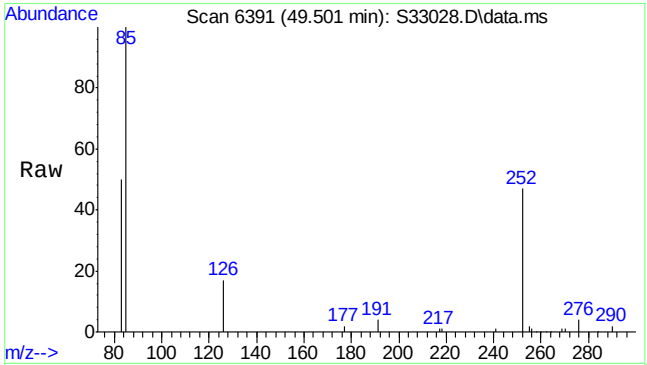
#51
Benzo(e)pyrene
Concen: 298.54 ng/mL
RT: 49.338 min Scan# 6362
Delta R.T. 0.017 min
Lab File: S33028.D
Acq: 24 Jul 2013 5:07 am

Tgt Ion:252 Resp: 80710

Ion	Ratio	Lower	Upper
252	100		
126	11.7	9.9	14.9



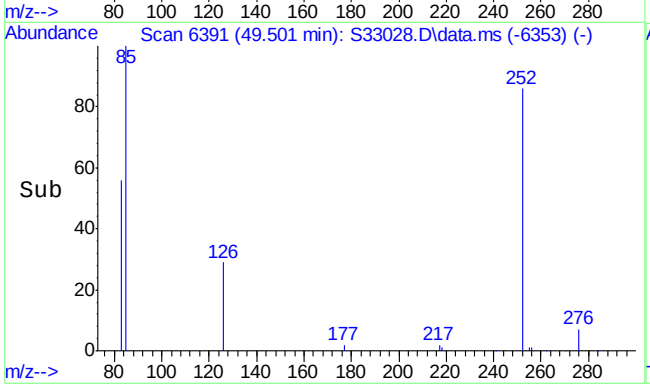


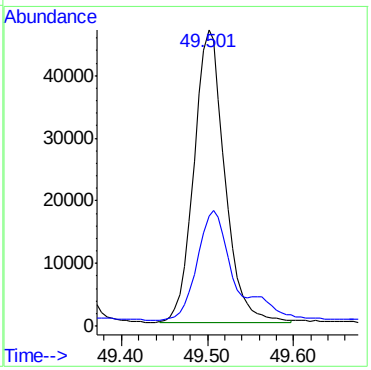


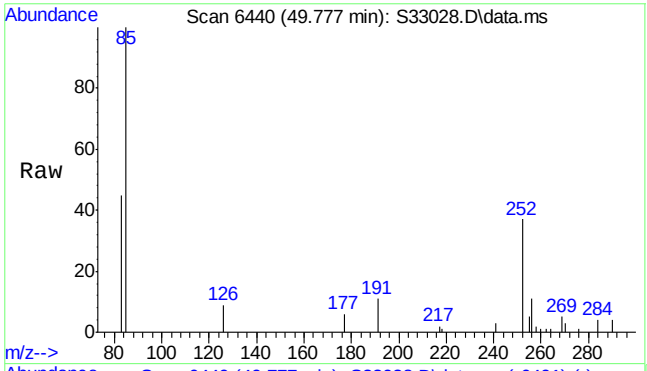
#52
Benzo(a)pyrene
Concen: 446.27 ng/mL m
RT: 49.501 min Scan# 6391
Delta R.T. 0.011 min
Lab File: S33028.D
Acq: 24 Jul 2013 5:07 am

Tgt Ion:252 Resp: 116863

Ion	Ratio	Lower	Upper
252	100		
126	7.9	11.6	17.4#



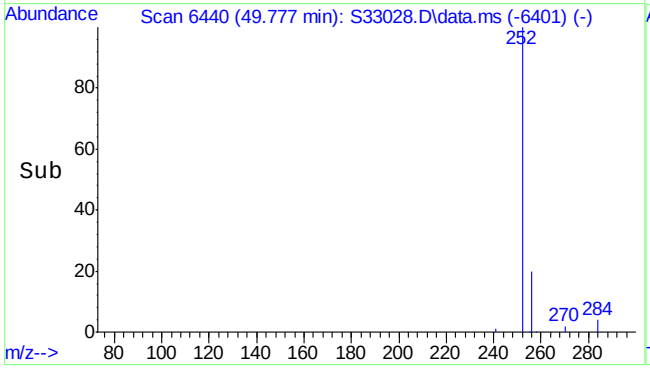


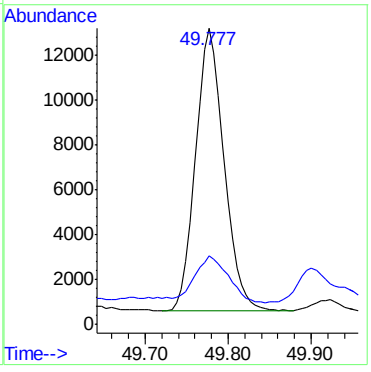


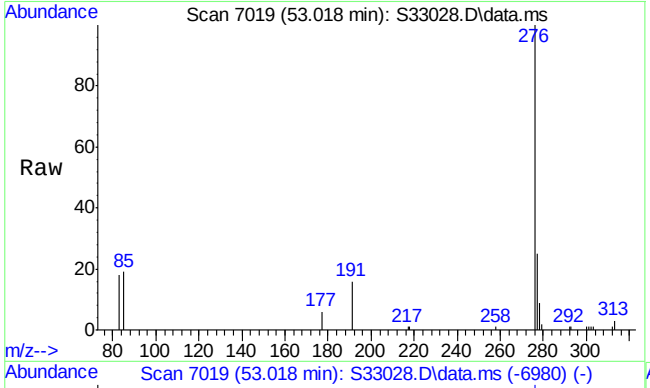
#53
Perylene
Concen: 118.46 ng/mL
RT: 49.777 min Scan# 6440
Delta R.T. 0.017 min
Lab File: S33028.D
Acq: 24 Jul 2013 5:07 am

Tgt Ion:252 Resp: 30143

Ion	Ratio	Lower	Upper
252	100		
126	19.2	12.5	18.7#



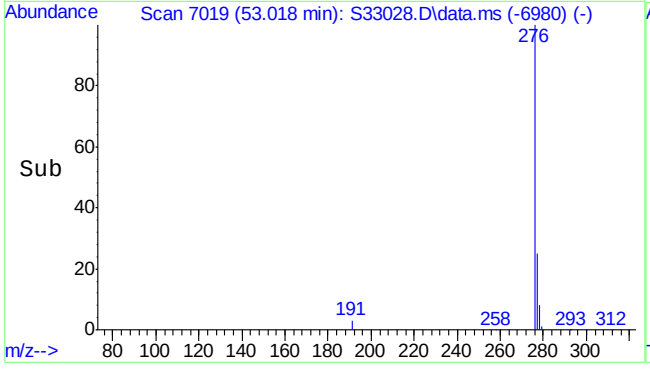


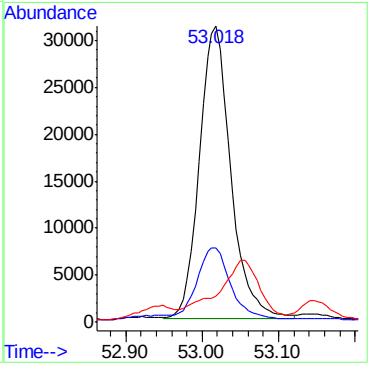


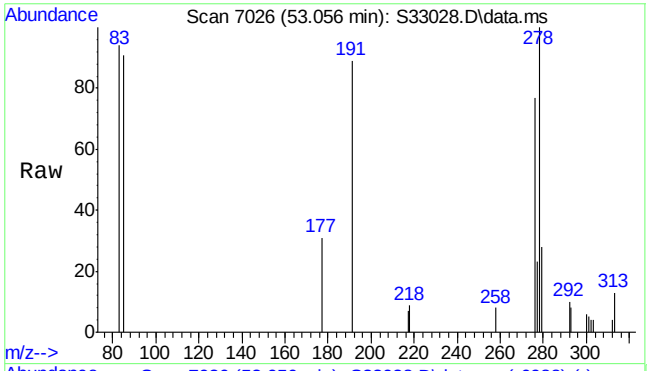
#54
Indeno(1,2,3-cd)pyrene
Concen: 295.93 ng/mL m
RT: 53.018 min Scan# 7019
Delta R.T. 0.010 min
Lab File: S33028.D
Acq: 24 Jul 2013 5:07 am

Tgt Ion:276 Resp: 88888

Ion	Ratio	Lower	Upper
276	100		
277	26.5	19.0	28.4
278	0.0	5.7	8.5#



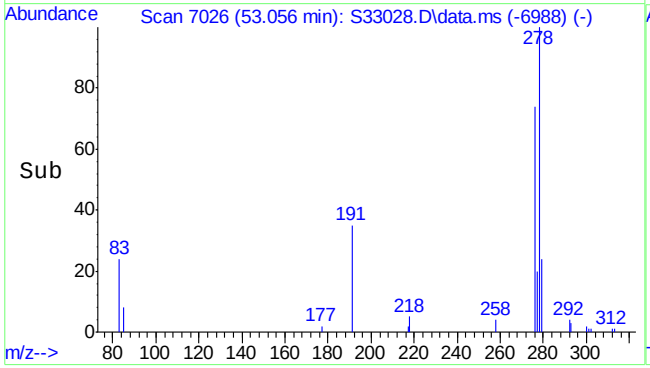


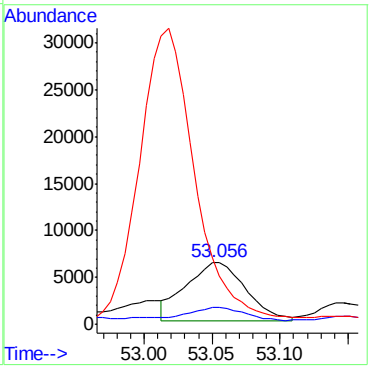


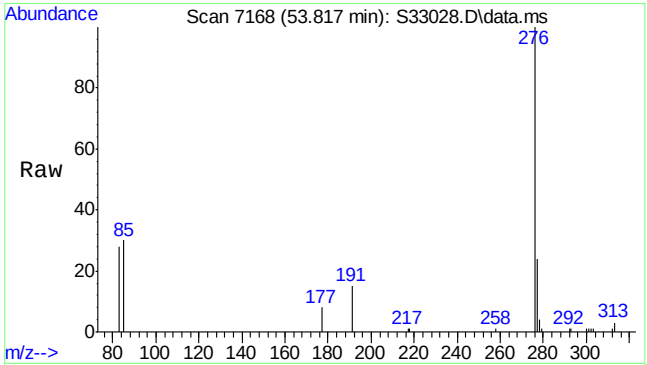
#55
Dibenz(a,h)anthracene
Concen: 69.29 ng/mL m
RT: 53.056 min Scan# 7026
Delta R.T. 0.005 min
Lab File: S33028.D
Acq: 24 Jul 2013 5:07 am

Tgt Ion:278 Resp: 18856

Ion	Ratio	Lower	Upper
278	100		
279	20.0	19.2	28.8
276	0.0	29.6	44.4#



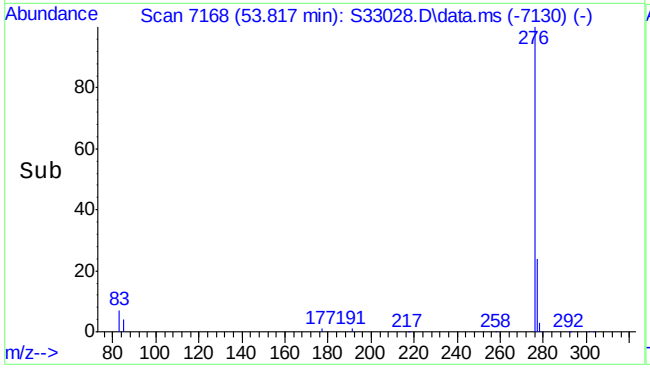


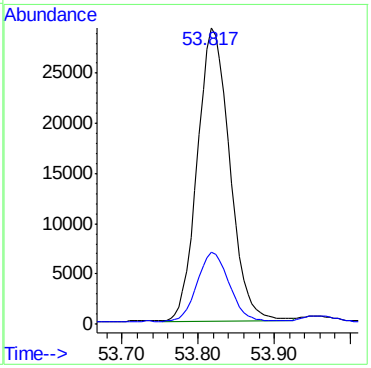


#56
Benzo(g,h,i)perylene
Concen: 268.77 ng/mL
RT: 53.817 min Scan# 7168
Delta R.T. 0.005 min
Lab File: S33028.D
Acq: 24 Jul 2013 5:07 am

Tgt Ion:276 Resp: 86356

Ion	Ratio	Lower	Upper
276	100		
277	23.3	18.9	28.3





Manual Integrations APPROVED (compounds with "m" flag)
James Roush
07/31/13 10:55

Quantitation Report (QT Reviewed)

Data Path : S:\1\data\S130716\
Data File : S33001.D
Acq On : 17 Jul 2013 2:56 am
Operator : kristinr
Sample : mc21754-6a
Misc : op33686,mss1443,5.30,,,2,10
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Jul 30 11:50:36 2013
Quant Method : S:\1\methods\S130705-B5739ALKPAH.M
Quant Title : PAHs & Alkylated PAHs by GC/MS/SIM
QLast Update : Thu Jul 11 09:13:24 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Acenaphthene-d10	28.143	164	110146	1100.00	ng/mL	0.00
System Monitoring Compounds						
2) Toluene-d8	9.224	98	1071	9.08	µg/mL	-0.02
Spiked Amount 1000.000			Recovery = 0.91%			
3) Naphthalene-d8	21.193	136	4497m	23.10	ng/mL	0.00
Spiked Amount 1000.000	Range 1 - 0		Recovery = 2.31%#			
4) Phenanthrene-d10	33.976	188	3202	19.98	ng/mL	-0.01
Spiked Amount 1000.000			Recovery = 2.00%			
5) Perylene-d12	49.783	264	2934	20.73	ng/mL	-0.05
Spiked Amount 1000.000			Recovery = 2.07%			
Target Compounds						Qvalue
6) Naphthalene	21.267	128	282346	1140.79	ng/mL	95
7) 2-Methylnaphthalene	23.972	142	212770	1448.81	ng/mL	100
8) 1-Methylnaphthalene	24.393	142	92170	601.61	ng/mL	97
9) C1-Naphthalenes	23.972	142	303461m	1226.10	ng/mL	
10) C2-Naphthalenes	26.801	156	469063m	1895.20	ng/mL	
11) C3-Naphthalenes	29.135	170	441213m	1782.67	ng/mL	
12) C4-Naphthalenes	31.895	184	288411m	1165.29	ng/mL	
13) Acenaphthylene	27.535	152	2424	10.59	ng/mL#	1
14) Acenaphthene	28.265	154	19970	143.01	ng/mL	99
15) Dibenzofuran	28.912	168	22930m	115.21	ng/mL	
16) Fluorene	30.276	166	46657m	263.42	ng/mL	
17) C1-Fluorenes	32.638	180	71144m	401.67	ng/mL	
18) C2-Fluorenes	34.828	194	134363m	758.59	ng/mL	
19) C3-Fluorenes	37.445	208	93024m	525.20	ng/mL	
20) Dibenzothiophene	33.573	184	24497	109.70	ng/mL#	36
21) C1-Dibenzothiophenes (...	35.341	198	73703m	334.83	ng/mL	
22) C1-Dibenzothiophenes (...	35.771	198	535m	2.43	µg/mL	
23) C2-Dibenzothiophenes	37.028	212	85581m	388.79	ng/mL	
24) C3-Dibenzothiophenes	38.828	226	41009m	186.30	ng/mL	
25) C4-Dibenzothiophenes	40.140	240	59940m	272.30	ng/mL	
26) Phenanthrene	34.066	178	300415	1176.58	ng/mL	99
27) Anthracene	34.245	178	29072m	122.52	ng/mL	
28) C1-Phenanthrenes/anthr...	36.130	192	185565m	726.77	ng/mL	
29) C2-Phenanthrenes/anthr...	38.291	206	115788m	453.48	ng/mL	
31) C3-Phenanthrenes/anthr...	40.128	220	32992m	129.21	ng/mL	
32) C4-Phenanthrenes/anthr...	40.951	234	21297m	83.41	ng/mL	
33) Fluoranthene	38.811	202	287602	1271.45	ng/mL	100
34) Pyrene	39.681	202	238356	1017.01	ng/mL#	93
35) C1-Fluoranthenes/pyrenes	41.780	216	72368m	308.78	ng/mL	
36) Benzo(b)fluorene	41.334	216	3939	16.81	ng/mL#	67
37) Benzo(c)fluorene	41.375	216	2579m	11.00	µg/mL	
38) 2-Methylpyrene	41.481	216	6186m	26.39	ng/mL	
39) 4-Methylpyrene	41.845	216	3959m	16.89	ng/mL	
40) 1-Methylpyrene	41.957	216	2912	12.42	ng/mL	92
41) C2-Fluoranthenes/pyrenes	43.127	230	43122m	183.99	ng/mL	
43) Benz(a)anthracene	44.460	228	80690	356.48	ng/mL	97

Quantitation Report (QT Reviewed)

Data Path : S:\1\data\S130716\
Data File : S33001.D
Acq On : 17 Jul 2013 2:56 am
Operator : kristinr
Sample : mc21754-6a
Misc : op33686,mss1443,5.30,,,2,10
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Jul 30 11:50:36 2013
Quant Method : S:\1\methods\S130705-B5739ALKPAH.M
Quant Title : PAHs & Alkylated PAHs by GC/MS/SIM
QLast Update : Thu Jul 11 09:13:24 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
44) Chrysene	44.620	228	93110	440.98	ng/mL	98
45) C1-Benz(a)anthracenes/...	46.102	242	17322m	82.04	ng/mL	
46) C2-Benz(a)anthracenes/...	47.886	256	21558m	102.10	ng/mL	
47) C3-Benz(a)anthracenes/...	49.996	270	22533m	106.72	ng/mL	
49) Benzo(b)fluoranthene	48.494	252	89969	347.16	ng/mL	96
50) Benzo(k)fluoranthene	48.568	252	92707m	358.94	ng/mL	
51) Benzo(e)pyrene	49.423	252	68636	294.42	ng/mL	98
52) Benzo(a)pyrene	49.586	252	93695	414.94	ng/mL#	27
53) Perylene	49.861	252	25544m	116.42	ng/mL	
54) Indeno(1,2,3-cd)pyrene	53.109	276	73159	282.48	ng/mL#	92
55) Dibenz(a,h)anthracene	53.147	278	16137m	68.77	ng/mL	
56) Benzo(g,h,i)perylene	53.919	276	74006	267.12	ng/mL	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

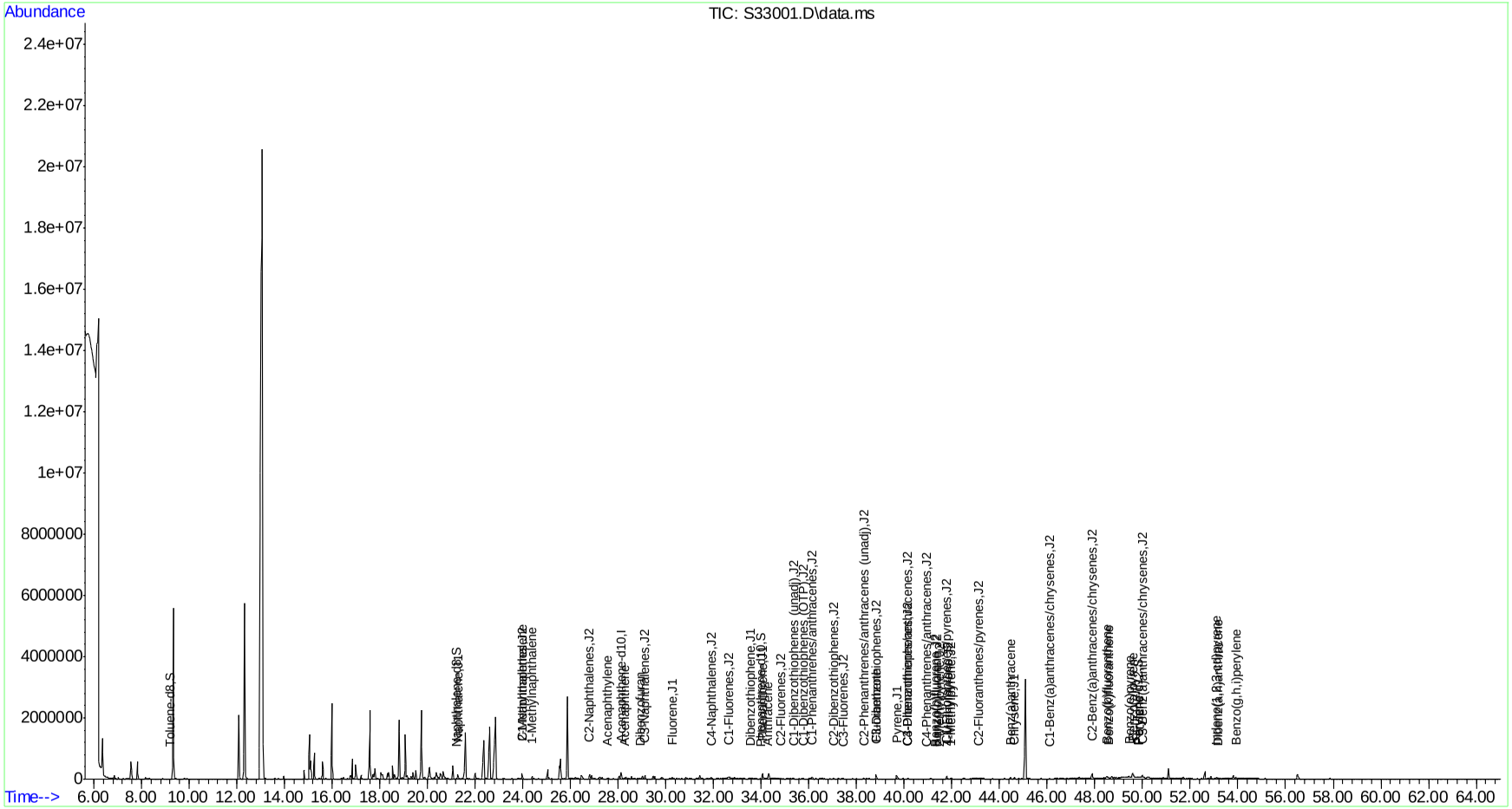
7.1.14

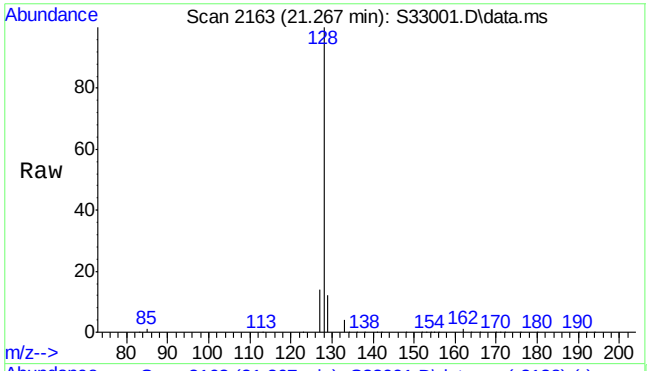
7

Quantitation Report (QT Reviewed)

Data Path : S:\1\data\S130716\
Data File : S33001.D
Acq On : 17 Jul 2013 2:56 am
Operator : kristinr
Sample : mc21754-6a
Misc : op33686,mss1443,5.30,,,2,10
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Jul 30 11:50:36 2013
Quant Method : S:\1\methods\S130705-B5739ALKPAH.M
Quant Title : PAHs & Alkylated PAHs by GC/MS/SIM
QLast Update : Thu Jul 11 09:13:24 2013
Response via : Initial Calibration

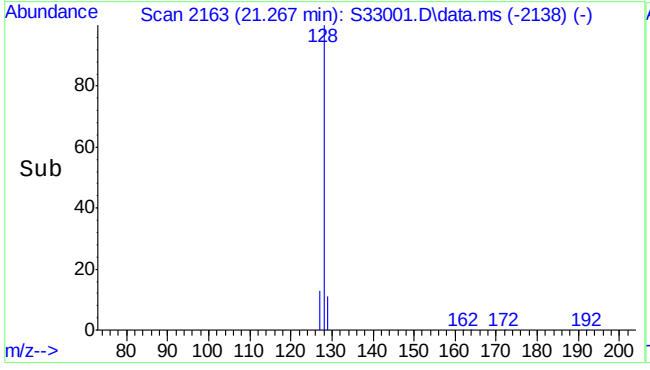


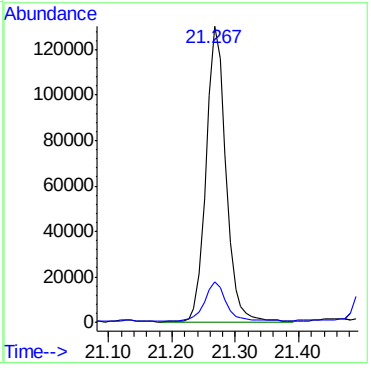


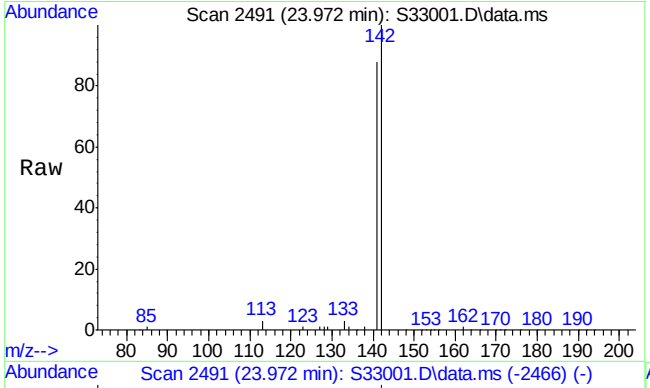
#6
Naphthalene
Concen: 1140.79 ng/mL
RT: 21.267 min Scan# 2163
Delta R.T. 0.009 min
Lab File: S33001.D
Acq: 17 Jul 2013 2:56 am

Tgt Ion:128 Resp: 282346

Ion	Ratio	Lower	Upper
128	100		
127	14.5	10.0	15.0



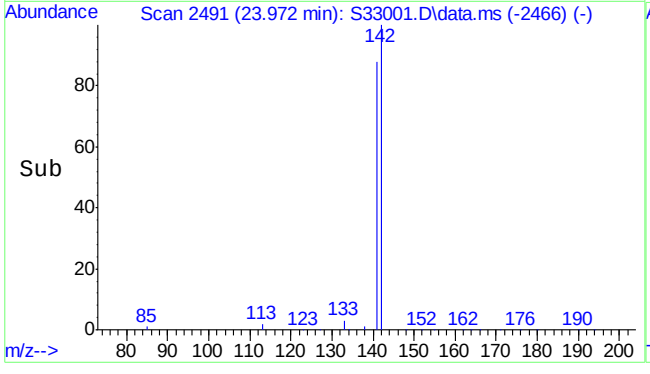


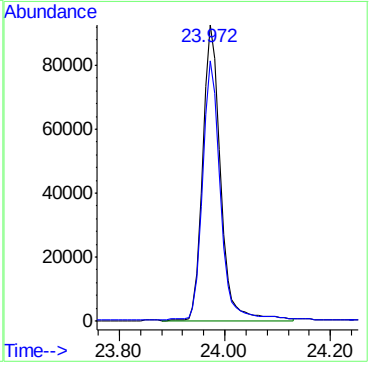


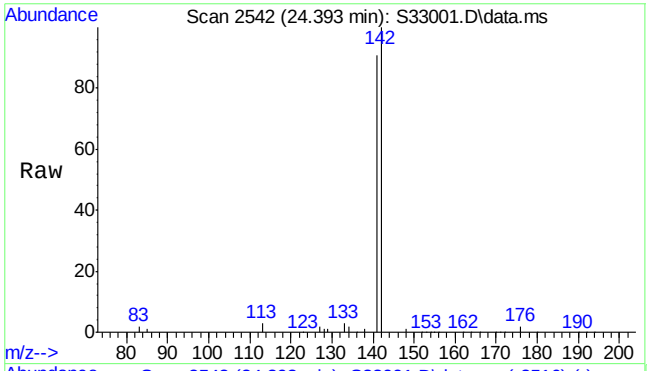
#7
2-Methylnaphthalene
Concen: 1448.81 ng/mL
RT: 23.972 min Scan# 2491
Delta R.T. 0.009 min
Lab File: S33001.D
Acq: 17 Jul 2013 2:56 am

Tgt Ion:142 Resp: 212770

Ion	Ratio	Lower	Upper
142	100		
141	87.1	69.7	104.5



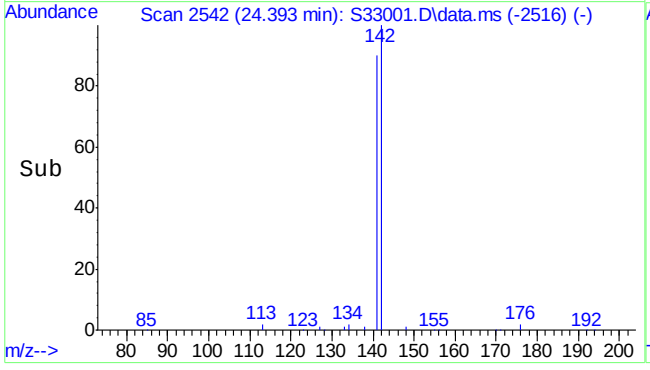


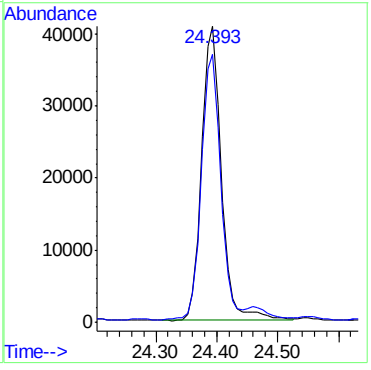


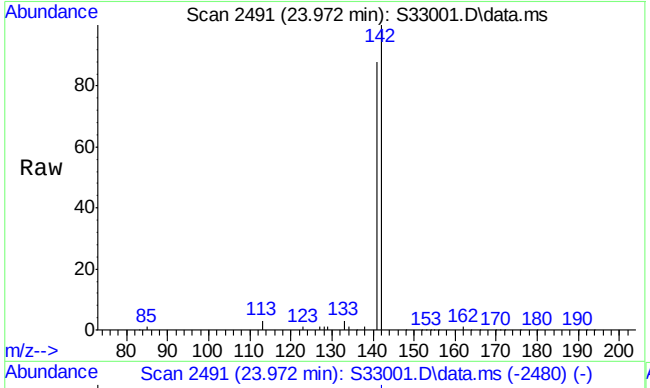
#8
1-Methylnaphthalene
Concen: 601.61 ng/mL
RT: 24.393 min Scan# 2542
Delta R.T. 0.016 min
Lab File: S33001.D
Acq: 17 Jul 2013 2:56 am

Tgt Ion:142 Resp: 92170

Ion	Ratio	Lower	Upper
142	100		
141	88.0	72.6	108.8



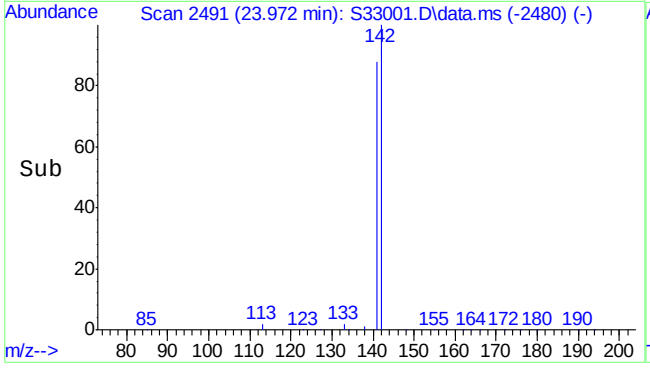


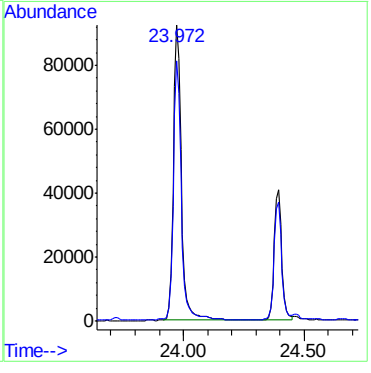


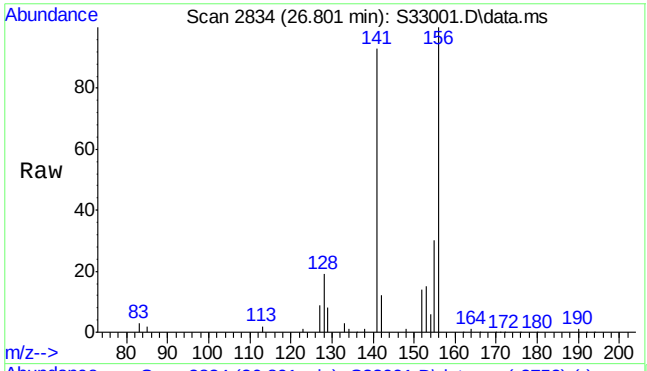
#9
C1-Naphthalenes
Concen: 1226.10 ng/mL m
RT: 23.972 min Scan# 2491
Delta R.T. 0.018 min
Lab File: S33001.D
Acq: 17 Jul 2013 2:56 am

Tgt Ion:142 Resp: 303461

Ion	Ratio	Lower	Upper
142	100		
141	61.3	69.9	104.9#



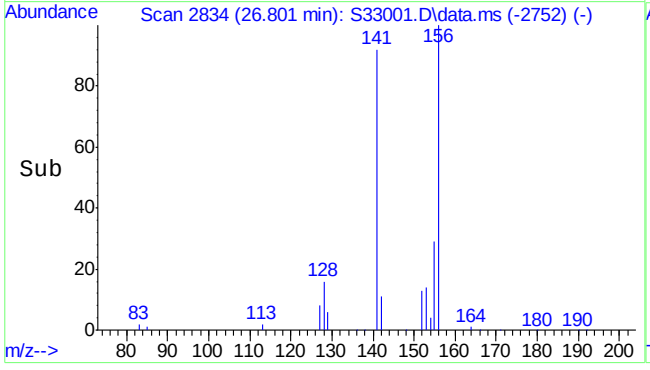


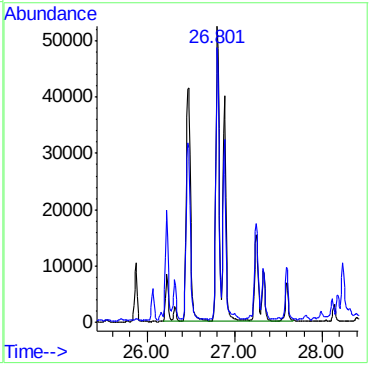


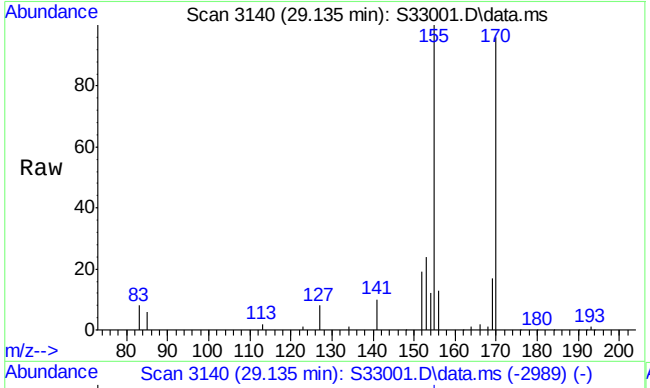
#10
C2-Naphthalenes
Concen: 1895.20 ng/mL m
RT: 26.801 min Scan# 2834
Delta R.T. -0.082 min
Lab File: S33001.D
Acq: 17 Jul 2013 2:56 am

Tgt Ion:156 Resp: 469063

Ion	Ratio	Lower	Upper
156	100		
141	14.4	64.9	97.3#



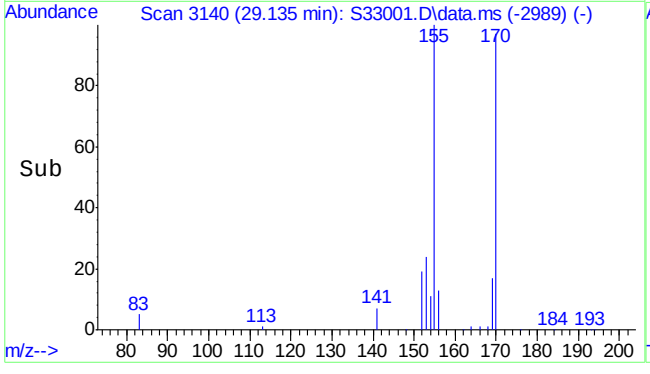


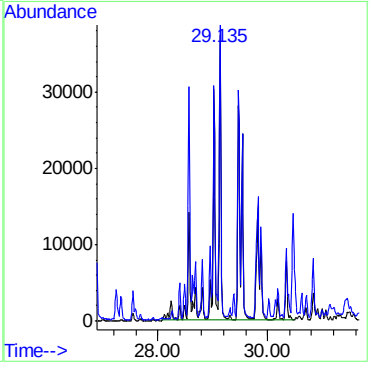


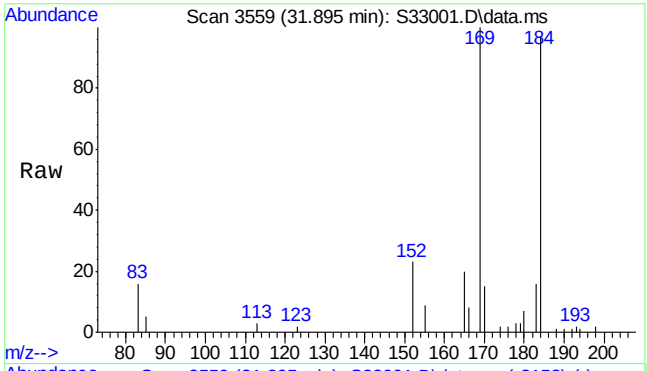
#11
C3-Naphthalenes
Concen: 1782.67 ng/mL m
RT: 29.135 min Scan# 3140
Delta R.T. -0.010 min
Lab File: S33001.D
Acq: 17 Jul 2013 2:56 am

Tgt Ion:170 Resp: 441213

Ion	Ratio	Lower	Upper
170	100		
155	18.7	85.4	128.2#



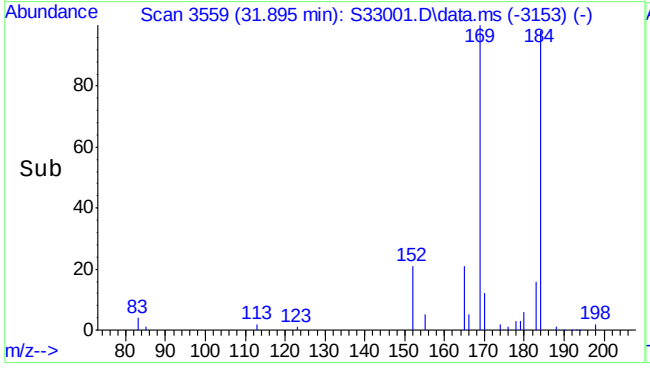


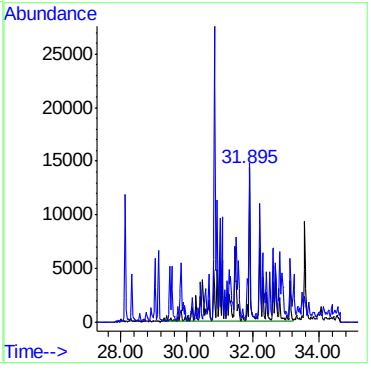


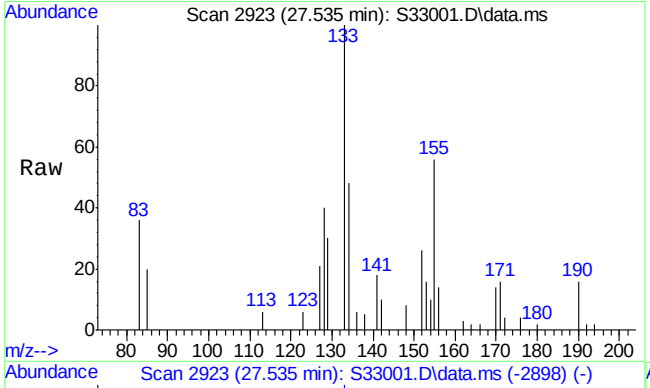
#12
C4-Naphthalenes
Concen: 1165.29 ng/mL m
RT: 31.895 min Scan# 3559
Delta R.T. -0.014 min
Lab File: S33001.D
Acq: 17 Jul 2013 2:56 am

Tgt Ion:184 Resp: 288411

Ion	Ratio	Lower	Upper
184	100		
169	12.3	81.0	121.6#



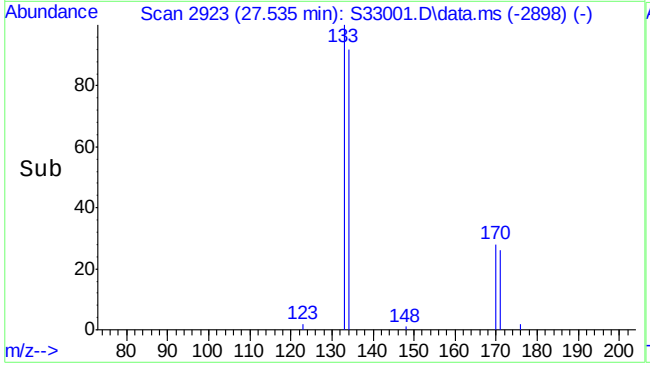


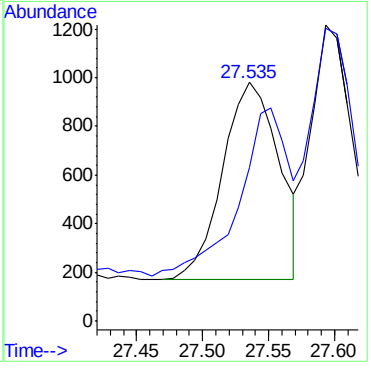


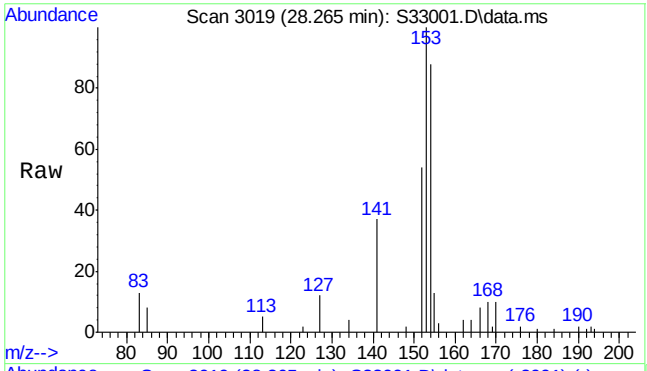
#13
Acenaphthylene
Concen: 10.59 ng/mL
RT: 27.535 min Scan# 2923
Delta R.T. 0.007 min
Lab File: S33001.D
Acq: 17 Jul 2013 2:56 am

Tgt Ion:152 Resp: 2424

Ion	Ratio	Lower	Upper
152	100		
153	74.3	10.5	15.7#



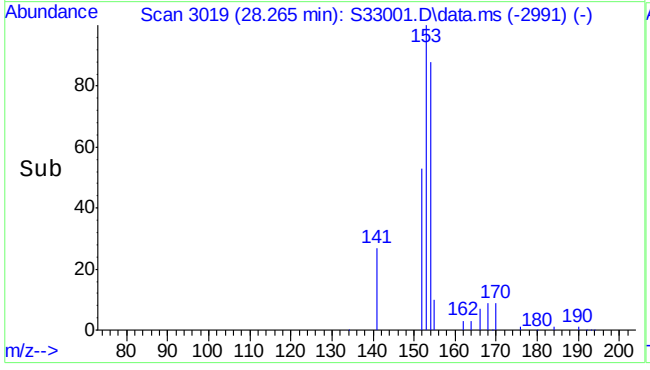


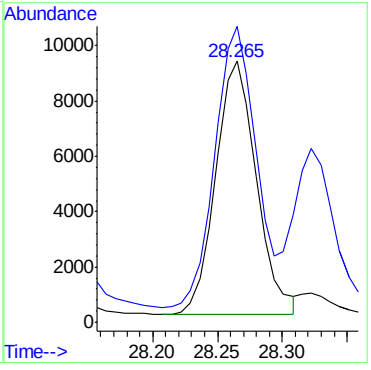


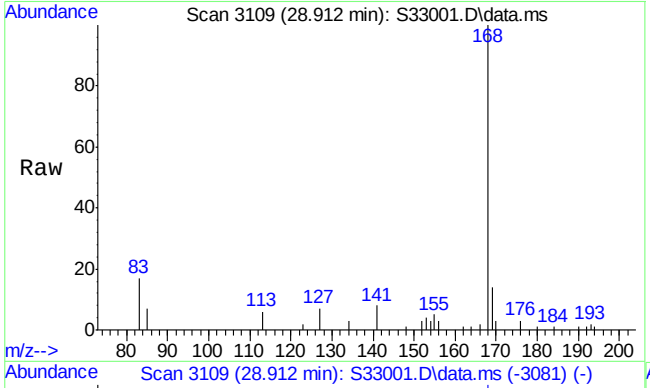
#14
Acenaphthene
Concen: 143.01 ng/mL
RT: 28.265 min Scan# 3019
Delta R.T. 0.000 min
Lab File: S33001.D
Acq: 17 Jul 2013 2:56 am

Tgt Ion:154 Resp: 19970

Ion	Ratio	Lower	Upper
154	100		
153	111.1	88.2	132.4



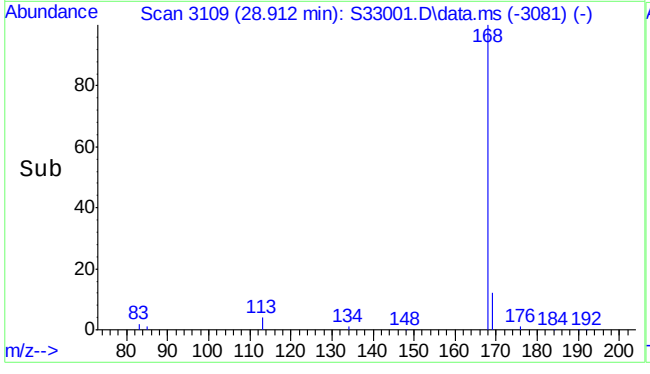


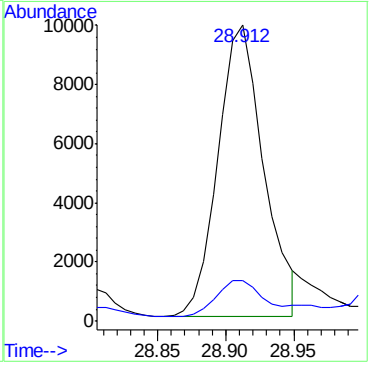


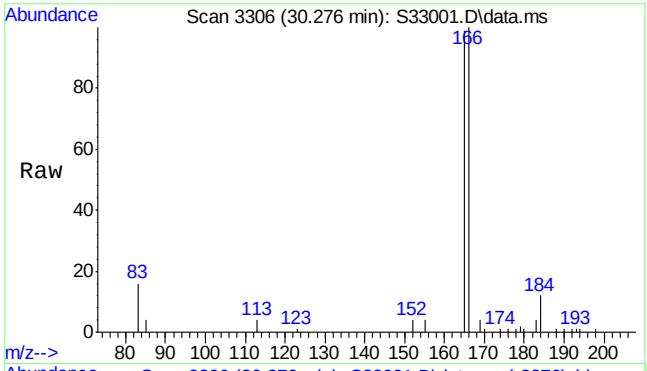
#15
Dibenzofuran
Concen: 115.21 ng/mL m
RT: 28.912 min Scan# 3109
Delta R.T. -0.002 min
Lab File: S33001.D
Acq: 17 Jul 2013 2:56 am

Tgt Ion:168 Resp: 22930

Ion	Ratio	Lower	Upper
168	100		
169	12.7	10.7	16.1



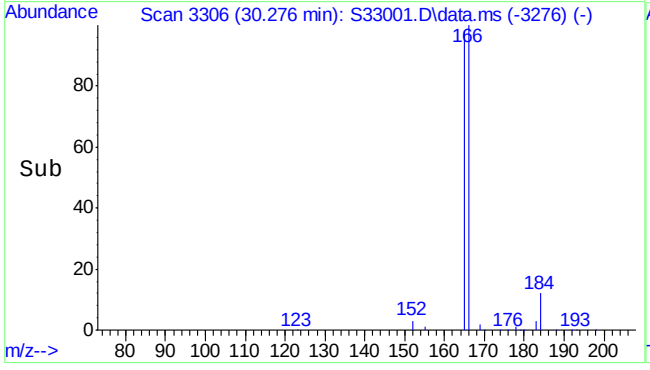


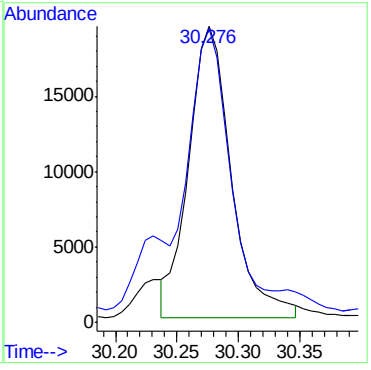


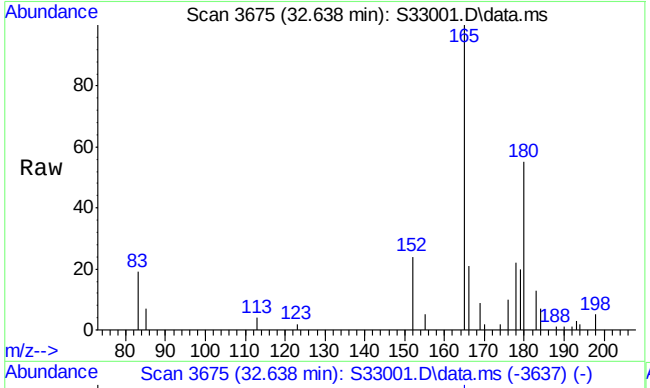
#16
Fluorene
Concen: 263.42 ng/mL m
RT: 30.276 min Scan# 3306
Delta R.T. -0.009 min
Lab File: S33001.D
Acq: 17 Jul 2013 2:56 am

Tgt Ion:166 Resp: 46657

Ion	Ratio	Lower	Upper
166	100		
165	96.9	76.3	114.5



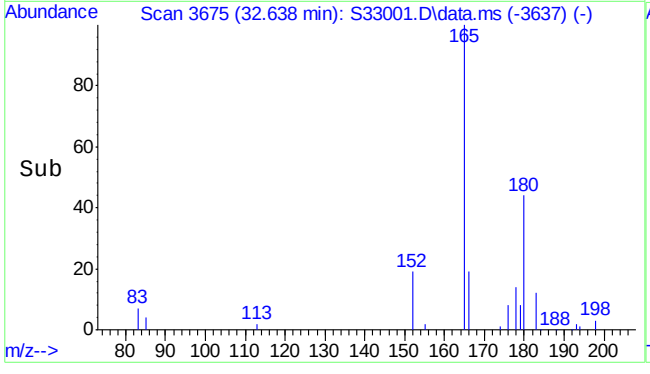


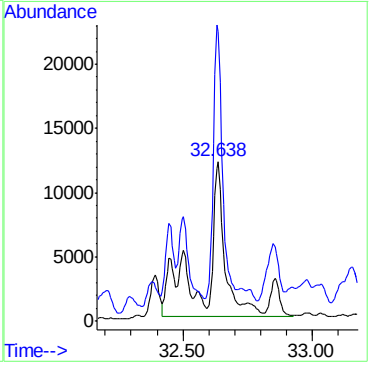


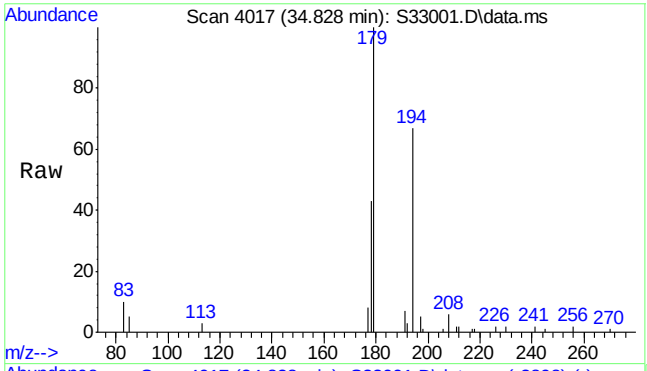
#17
C1-Fluorenes
Concen: 401.67 ng/mL m
RT: 32.638 min Scan# 3675
Delta R.T. 0.008 min
Lab File: S33001.D
Acq: 17 Jul 2013 2:56 am

Tgt Ion:180 Resp: 71144

Ion	Ratio	Lower	Upper
180	100		
165	72.4	134.2	201.4#



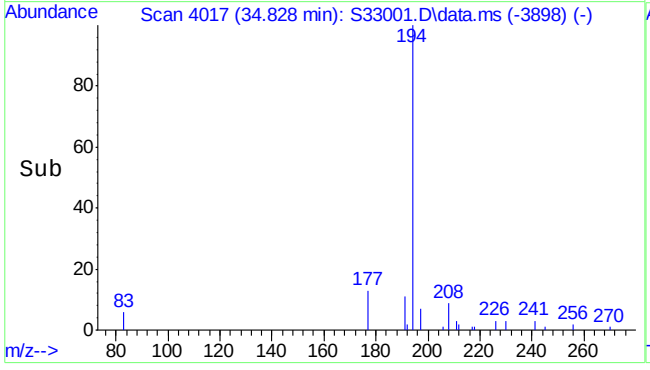


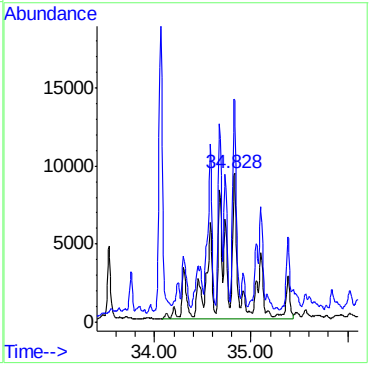


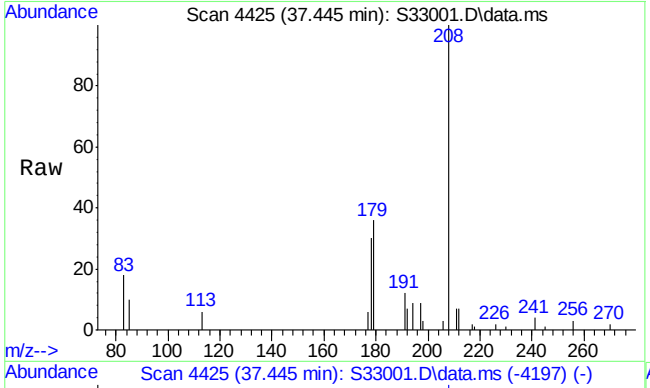
#18
C2-Fluorenes
Concen: 758.59 ng/mL m
RT: 34.828 min Scan# 4017
Delta R.T. -0.000 min
Lab File: S33001.D
Acq: 17 Jul 2013 2:56 am

Tgt Ion:194 Resp: 134363

Ion	Ratio	Lower	Upper
194	100		
179	24.6	125.0	187.4#



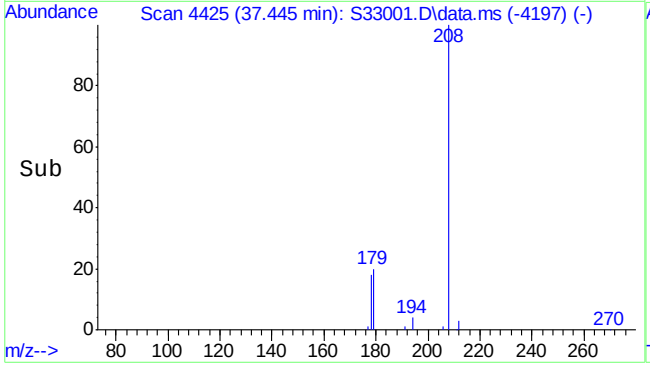


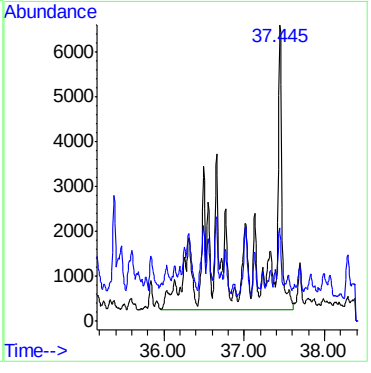


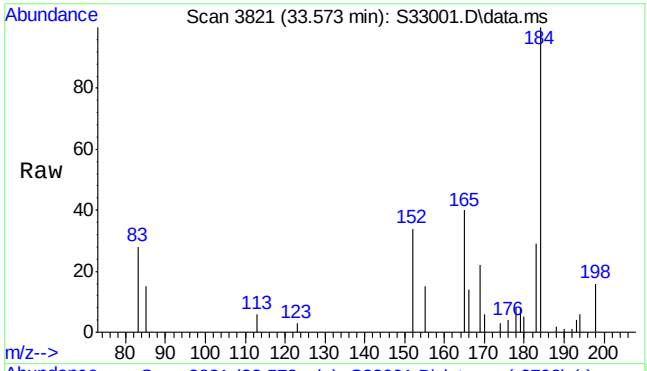
#19
C3-Fluorenes
Concen: 525.20 ng/mL m
RT: 37.445 min Scan# 4425
Delta R.T. 0.754 min
Lab File: S33001.D
Acq: 17 Jul 2013 2:56 am

Tgt Ion:208 Resp: 93024

Ion	Ratio	Lower	Upper
208	100		
178	5.7	54.9	82.3#



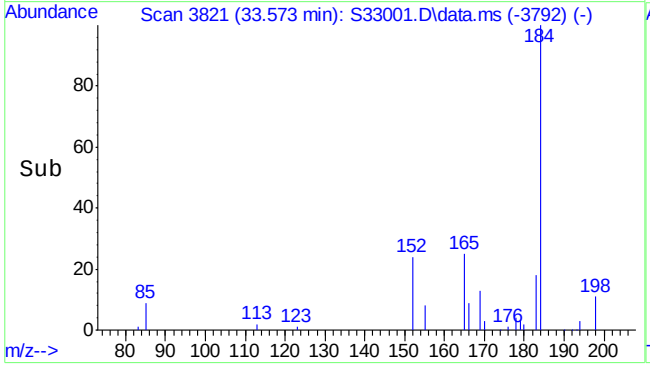


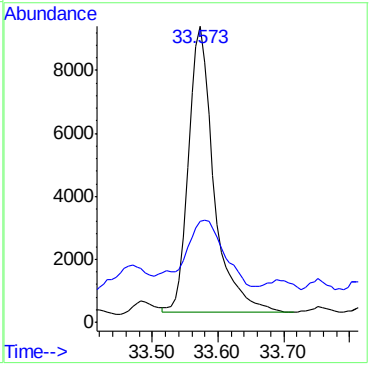


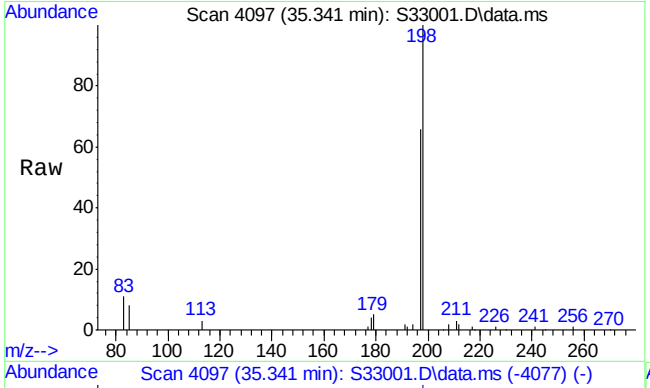
#20
Dibenzothiophene
Concen: 109.70 ng/mL
RT: 33.573 min Scan# 3821
Delta R.T. -0.013 min
Lab File: S33001.D
Acq: 17 Jul 2013 2:56 am

Tgt Ion:184 Resp: 24497

Ion	Ratio	Lower	Upper
184	100		
152	32.9	7.7	11.5#



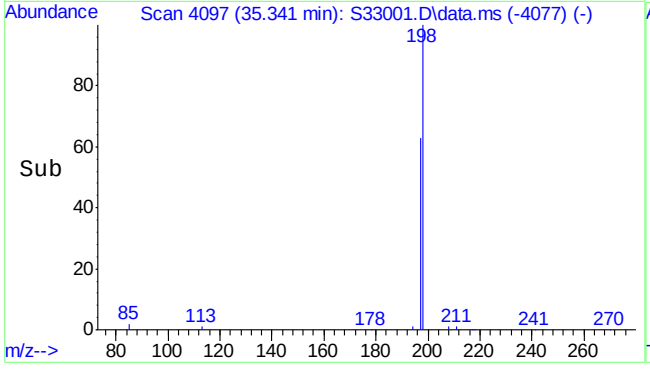


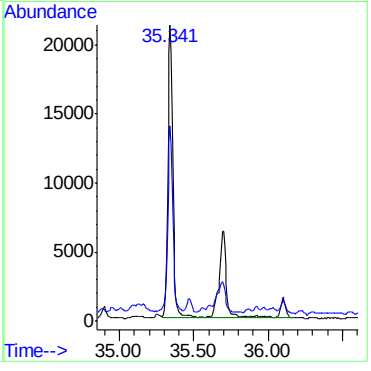


#21
C1-Dibenzothiophenes (unadj)
Concen: 334.83 ng/mL m
RT: 35.341 min Scan# 4097
Delta R.T. -0.024 min
Lab File: S33001.D
Acq: 17 Jul 2013 2:56 am

Tgt Ion:198 Resp: 73703

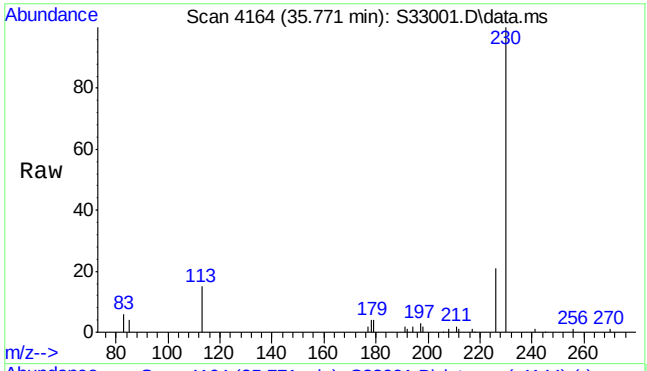
Ion	Ratio	Lower	Upper
198	100		
197	43.3	53.4	80.0#





7.1.14

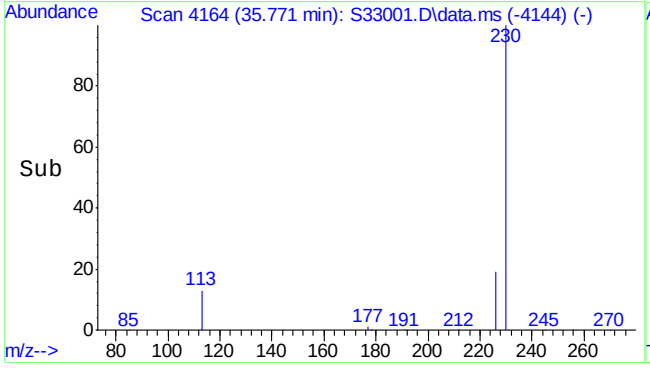
7

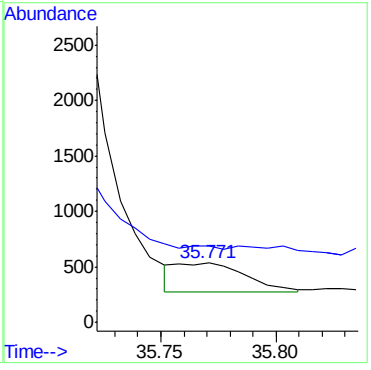


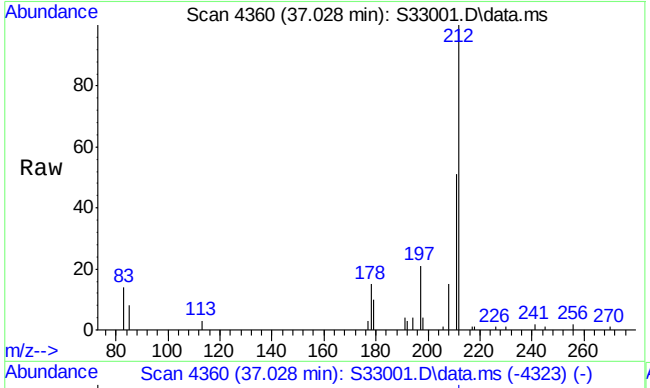
#22
C1-Dibenzothiophenes (OTP)
Concen: 2.43 µg/mL m
RT: 35.771 min Scan# 4164
Delta R.T. 0.039 min
Lab File: S33001.D
Acq: 17 Jul 2013 2:56 am

Tgt Ion:198 Resp: 535

Ion	Ratio	Lower	Upper
198	100		
197	504.7	58.2	87.2#



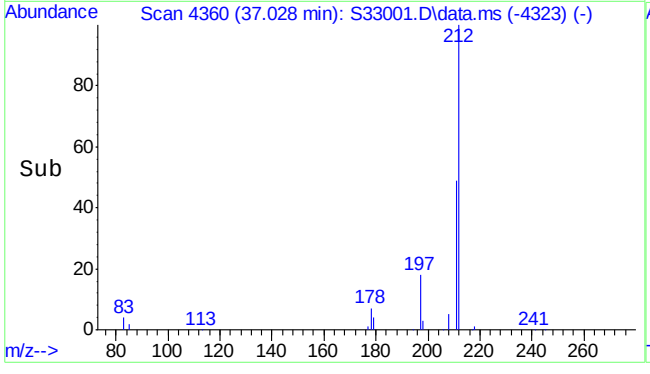


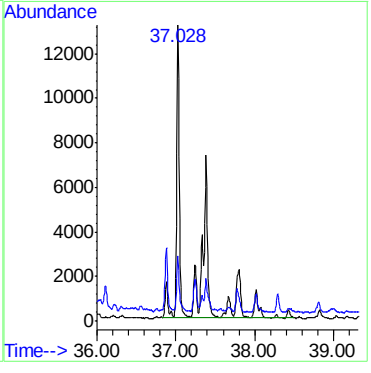


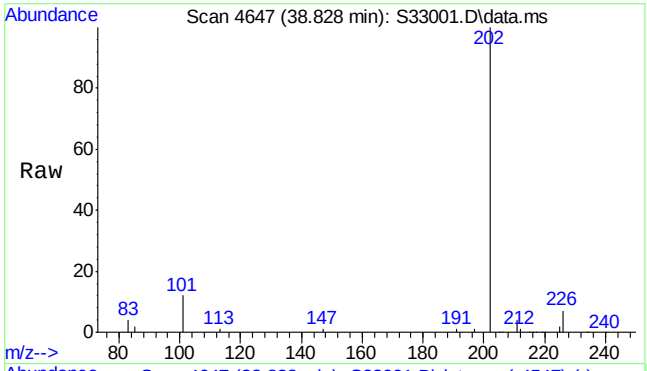
#23
C2-Dibenzothiophenes
Concen: 388.79 ng/mL m
RT: 37.028 min Scan# 4360
Delta R.T. -0.359 min
Lab File: S33001.D
Acq: 17 Jul 2013 2:56 am

Tgt Ion:212 Resp: 85581

Ion	Ratio	Lower	Upper
212	100		
197	4.6	18.8	28.2#



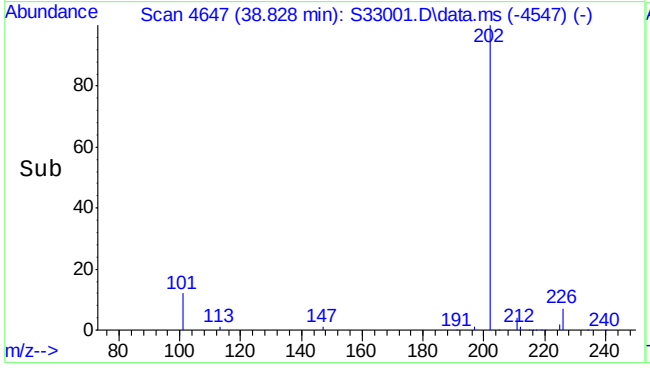


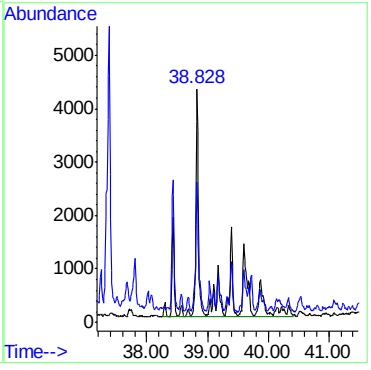


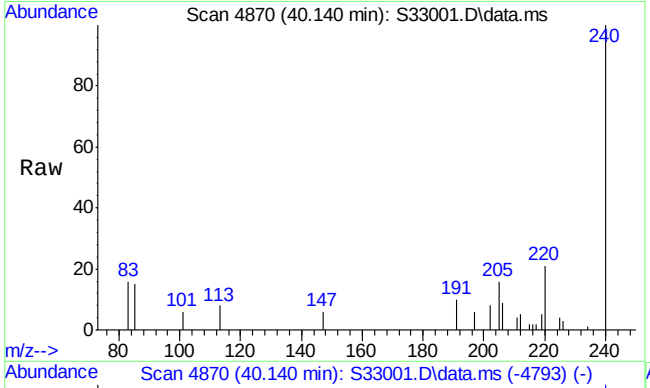
#24
C3-Dibenzothiophenes
Concen: 186.30 ng/mL m
RT: 38.828 min Scan# 4647
Delta R.T. -0.006 min
Lab File: S33001.D
Acq: 17 Jul 2013 2:56 am

Tgt Ion:226 Resp: 41009

Ion	Ratio	Lower	Upper
226	100		
211	19.8	50.0	75.0#

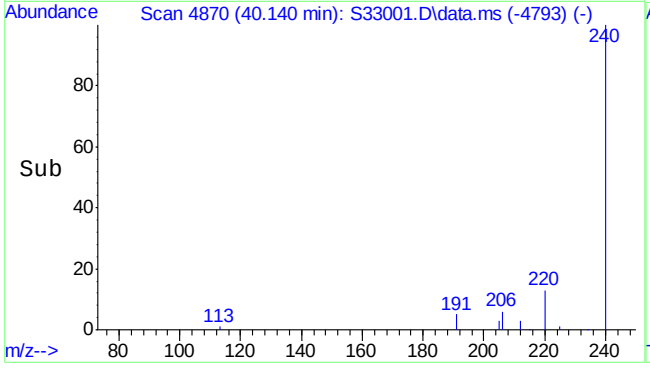


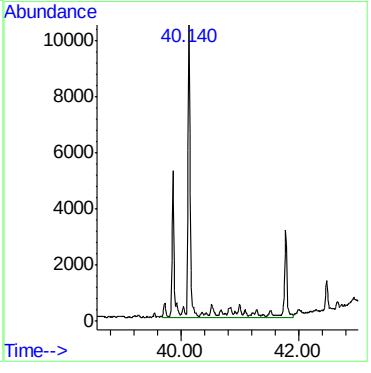


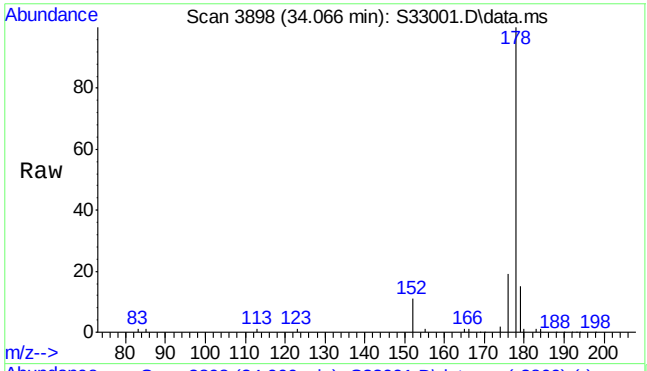


#25
C4-Dibenzothiophenes
Concen: 272.30 ng/mL m
RT: 40.140 min Scan# 4870
Delta R.T. -0.394 min
Lab File: S33001.D
Acq: 17 Jul 2013 2:56 am

Tgt Ion:240 Resp: 59940



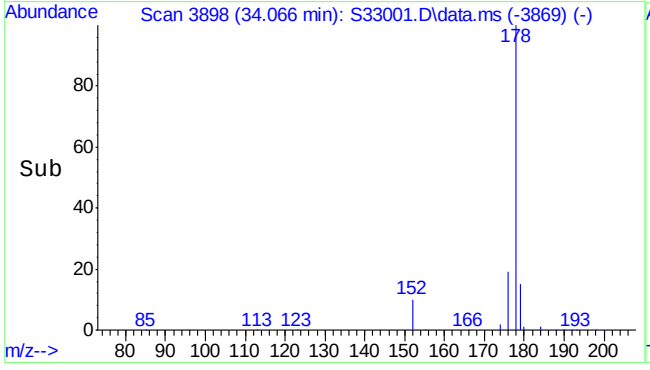


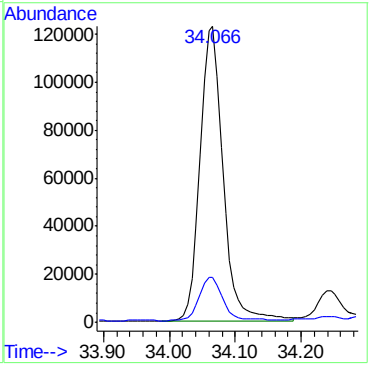


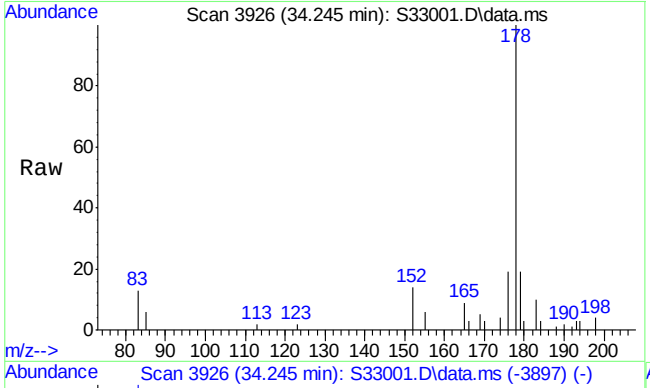
#26
Phenanthrene
Concen: 1176.58 ng/mL
RT: 34.066 min Scan# 3898
Delta R.T. -0.014 min
Lab File: S33001.D
Acq: 17 Jul 2013 2:56 am

Tgt Ion:178 Resp: 300415

Ion	Ratio	Lower	Upper
178	100		
179	15.3	12.6	18.8



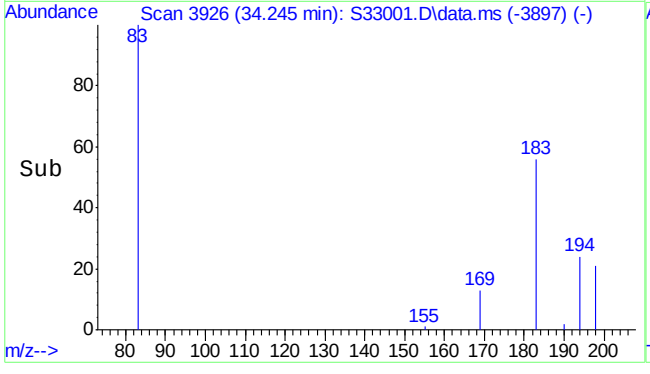


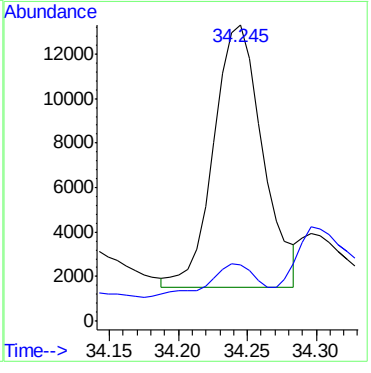


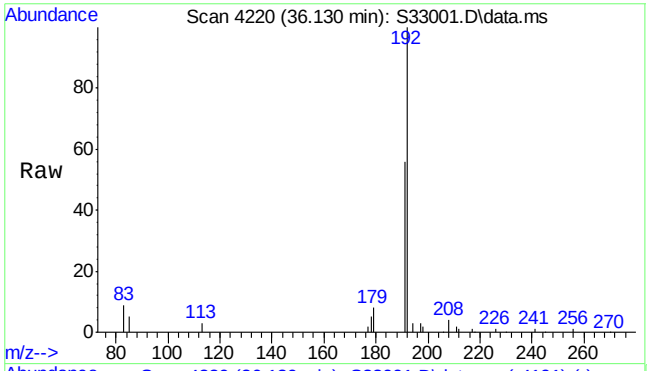
#27
Anthracene
Concen: 122.52 ng/mL m
RT: 34.245 min Scan# 3926
Delta R.T. -0.015 min
Lab File: S33001.D
Acq: 17 Jul 2013 2:56 am

Tgt Ion:178 Resp: 29072

Ion	Ratio	Lower	Upper
178	100		
179	13.6	12.9	19.3



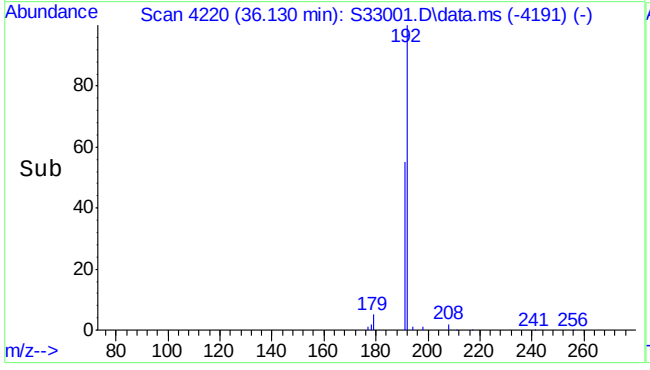


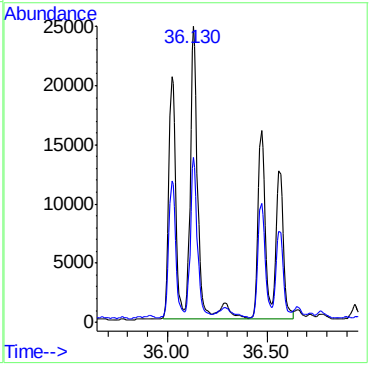


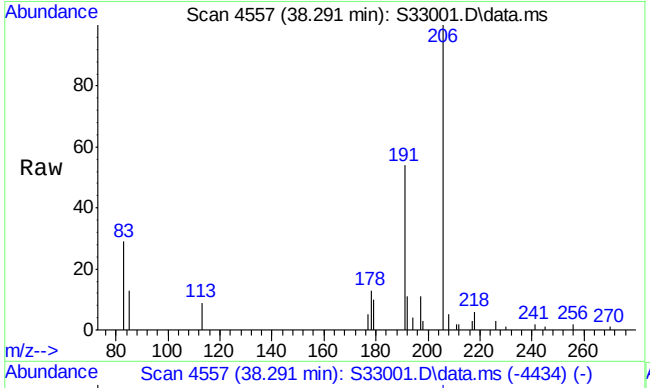
#28
C1-Phenanthrenes/anthracenes
Concen: 726.77 ng/mL m
RT: 36.130 min Scan# 4220
Delta R.T. -0.368 min
Lab File: S33001.D
Acq: 17 Jul 2013 2:56 am

Tgt Ion:192 Resp: 185565

Ion	Ratio	Lower	Upper
192	100		
191	13.1	46.7	70.1#



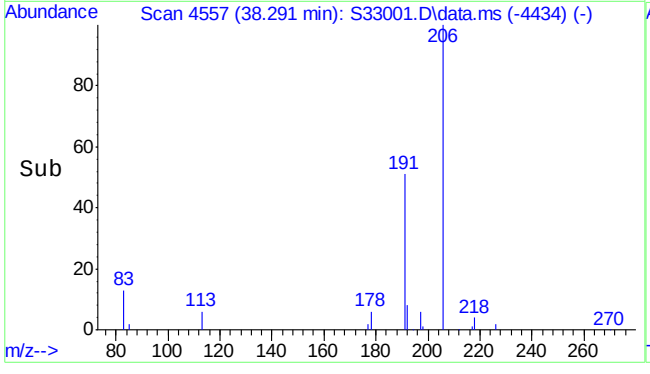


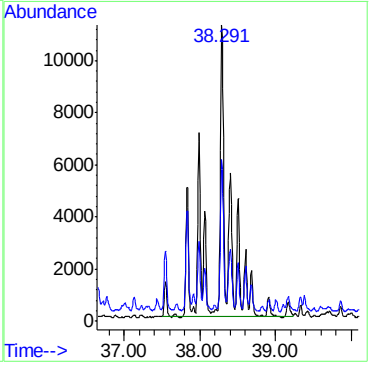


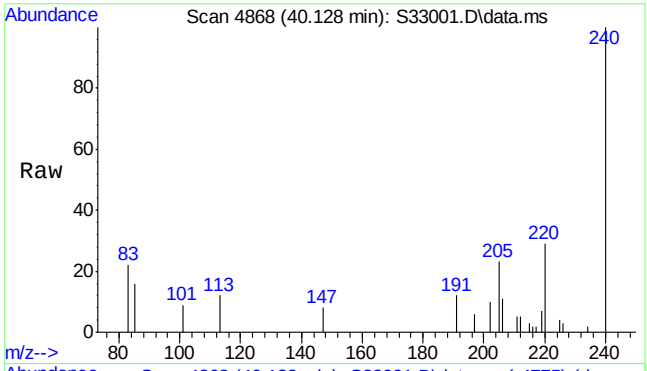
#29
C2-Phenanthrenes/anthracenes (unadj)
Concen: 453.48 ng/mL m
RT: 38.291 min Scan# 4557
Delta R.T. -0.006 min
Lab File: S33001.D
Acq: 17 Jul 2013 2:56 am

Tgt Ion:206 Resp: 115788

Ion	Ratio	Lower	Upper
206	100		
191	14.1	45.5	68.3#



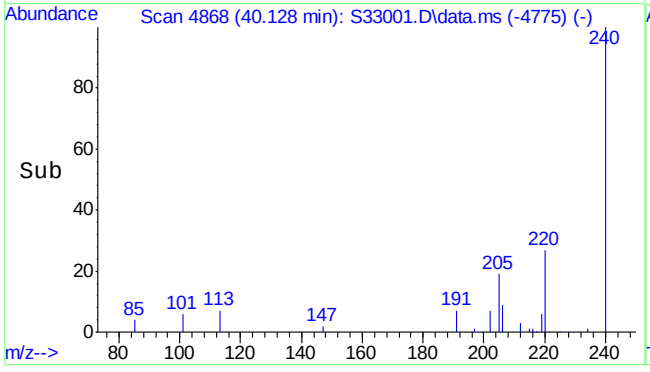


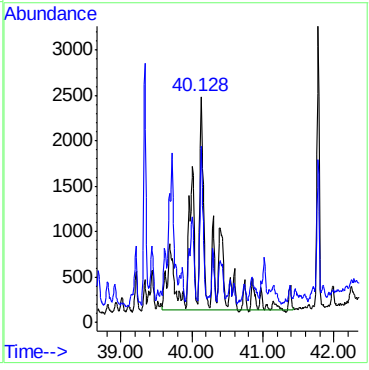


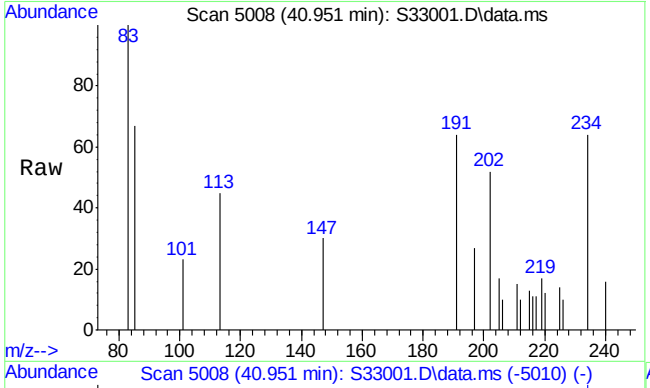
#31
C3-Phenanthrenes/anthracenes
Concen: 129.21 ng/mL m
RT: 40.128 min Scan# 4868
Delta R.T. -0.006 min
Lab File: S33001.D
Acq: 17 Jul 2013 2:56 am

Tgt Ion:220 Resp: 32992

Ion	Ratio	Lower	Upper
220	100		
205	16.2	44.9	67.3#



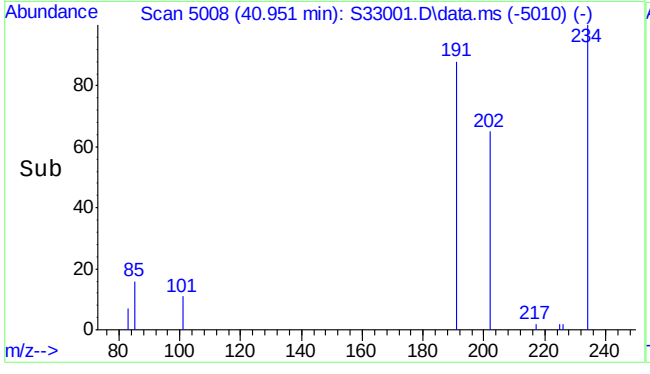


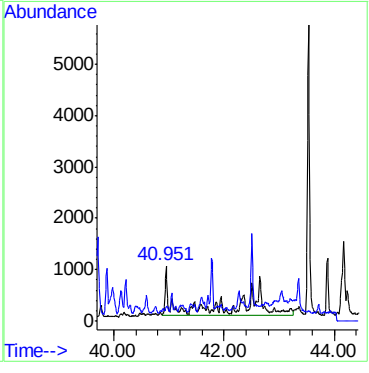


#32
C4-Phenanthrenes/anthracenes
Concen: 83.41 ng/mL m
RT: 40.951 min Scan# 5008
Delta R.T. -1.359 min
Lab File: S33001.D
Acq: 17 Jul 2013 2:56 am

Tgt Ion:234 Resp: 21297

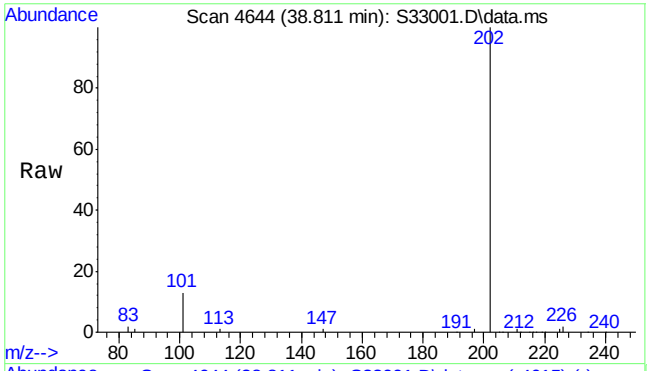
Ion	Ratio	Lower	Upper
234	100		
219	1.0	51.0	76.6#





7.1.14

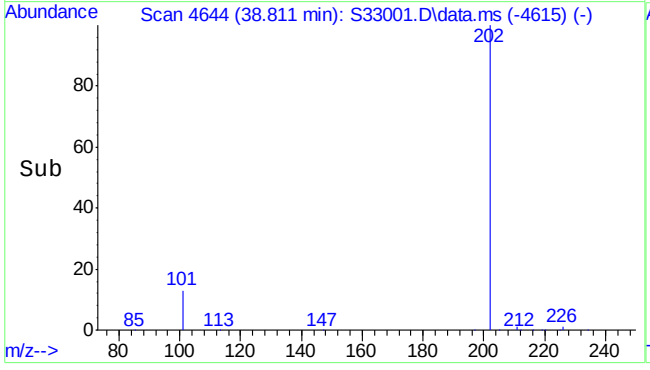
7

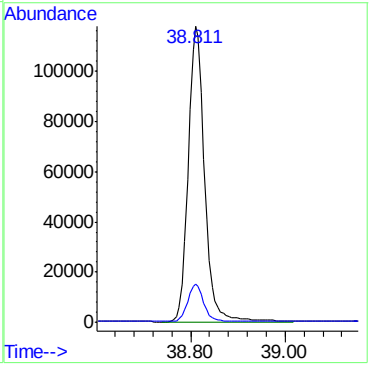


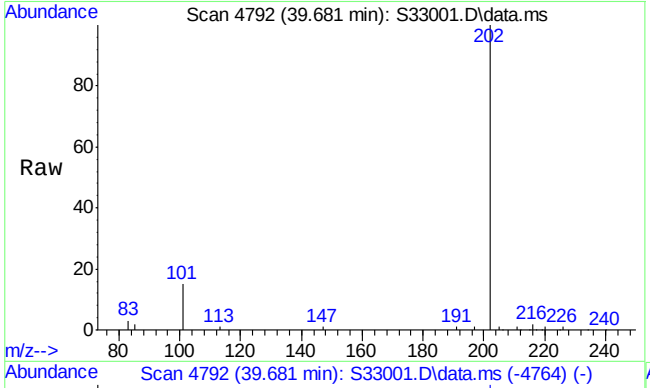
#33
Fluoranthene
Concen: 1271.45 ng/mL
RT: 38.811 min Scan# 4644
Delta R.T. -0.030 min
Lab File: S33001.D
Acq: 17 Jul 2013 2:56 am

Tgt Ion:202 Resp: 287602

Ion	Ratio	Lower	Upper
202	100		
101	12.3	9.8	14.6



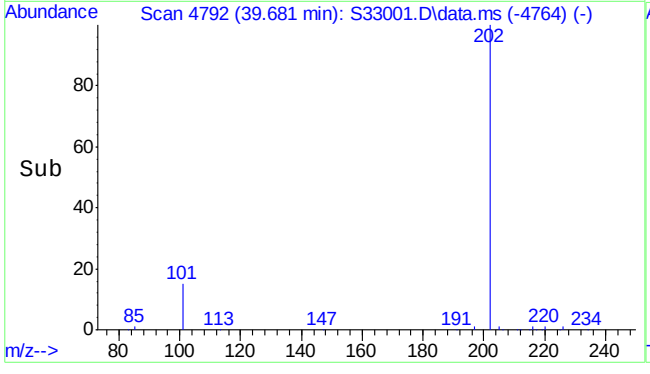


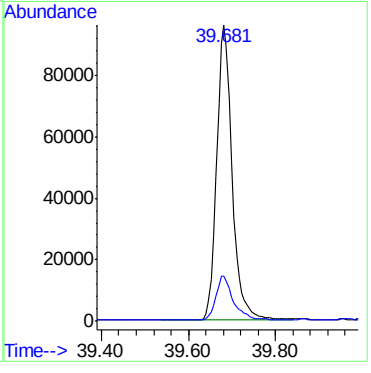


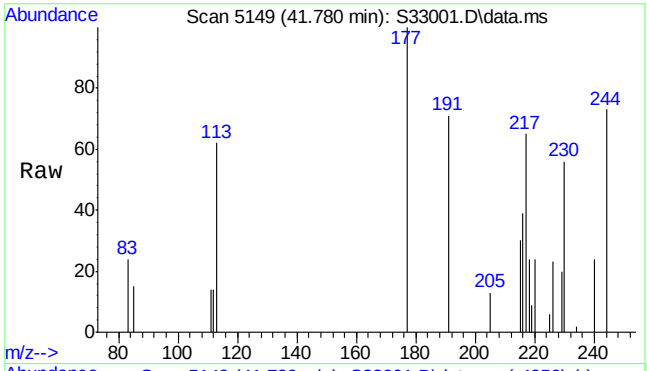
#34
Pyrene
Concen: 1017.01 ng/mL
RT: 39.681 min Scan# 4792
Delta R.T. -0.033 min
Lab File: S33001.D
Acq: 17 Jul 2013 2:56 am

Tgt Ion:202 Resp: 238356

Ion	Ratio	Lower	Upper
202	100		
101	17.2	11.4	17.0#



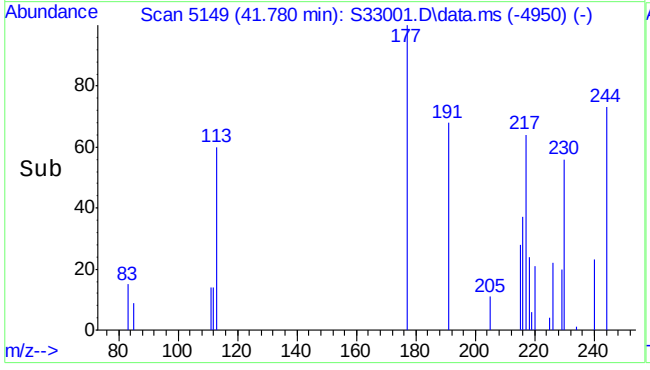


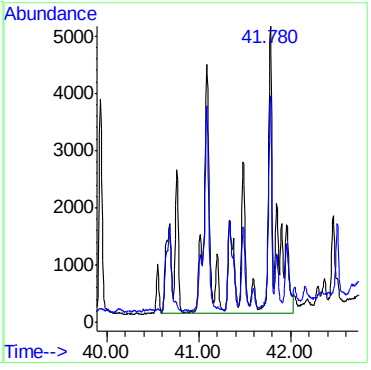


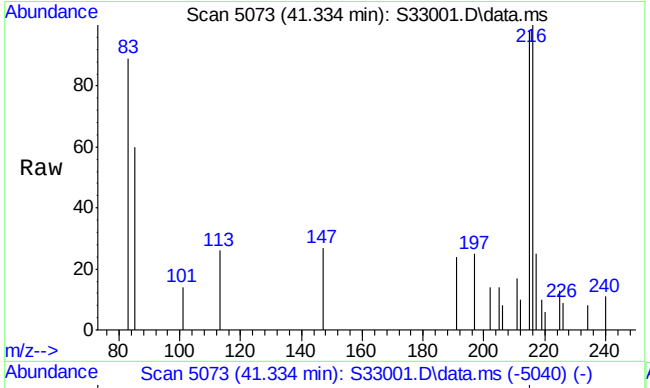
#35
C1-Fluoranthenes/pyrenes
Concen: 308.78 ng/mL m
RT: 41.780 min Scan# 5149
Delta R.T. -0.071 min
Lab File: S33001.D
Acq: 17 Jul 2013 2:56 am

Tgt Ion:216 Resp: 72368

Ion	Ratio	Lower	Upper
216	100		
215	12.2	57.5	86.3#



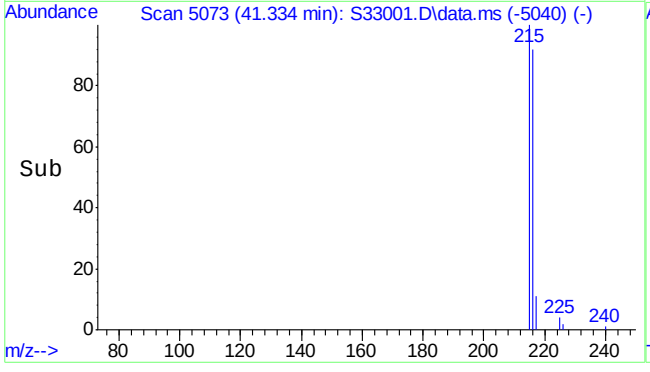


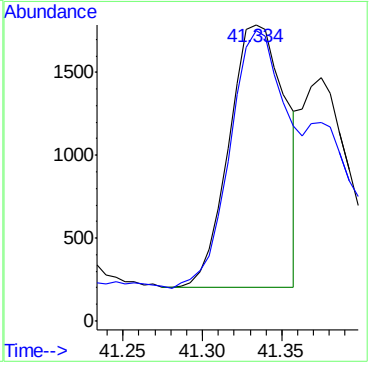


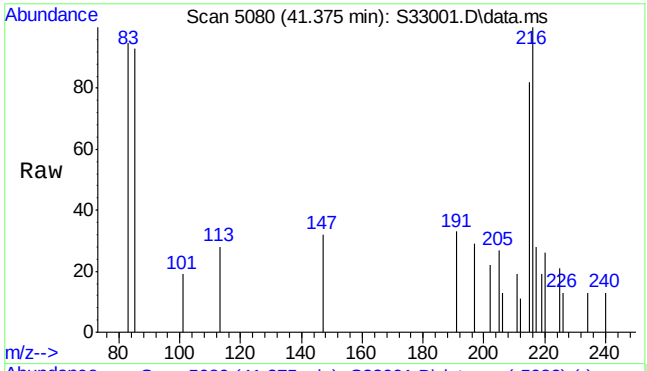
#36
Benzo(b)fluorene
Concen: 16.81 ng/mL
RT: 41.334 min Scan# 5073
Delta R.T. -0.006 min
Lab File: S33001.D
Acq: 17 Jul 2013 2:56 am

Tgt Ion:216 Resp: 3939

Ion	Ratio	Lower	Upper
216	100		
215	103.9	115.9	173.9#



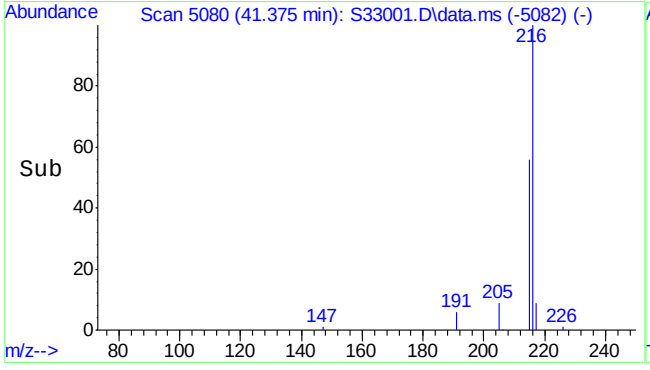


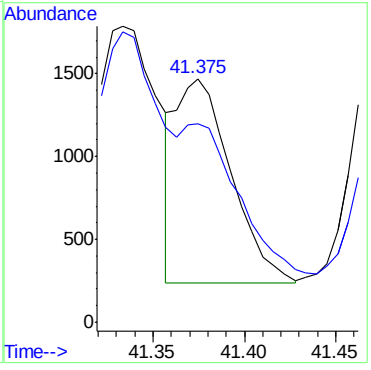


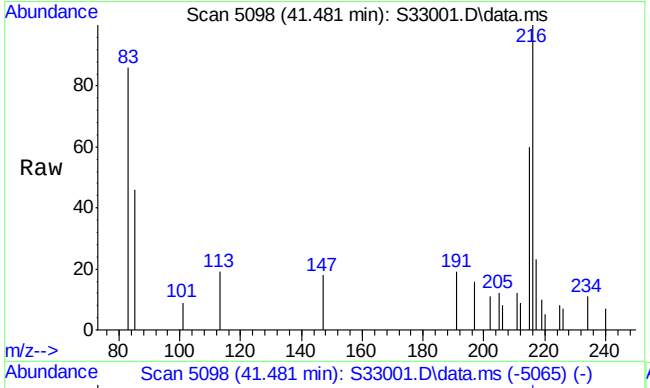
#37
Benzo(c)fluorene
Concen: 11.00 µg/mL m
RT: 41.375 min Scan# 5080
Delta R.T. -0.012 min
Lab File: S33001.D
Acq: 17 Jul 2013 2:56 am

Tgt Ion:216 Resp: 2579

Ion	Ratio	Lower	Upper
216	100		
215	132.6	125.0	187.6



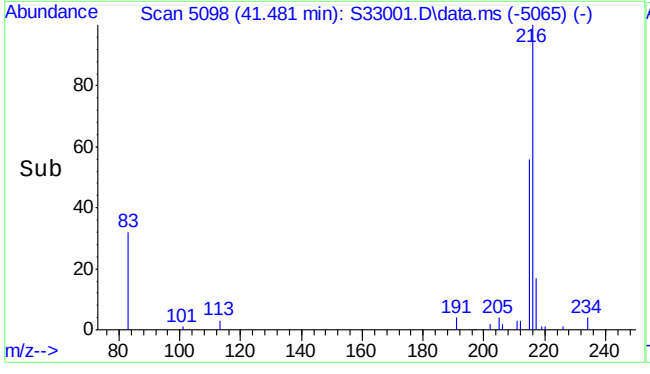


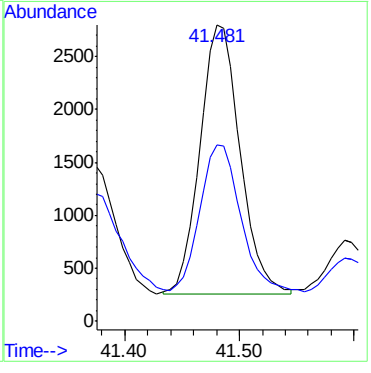


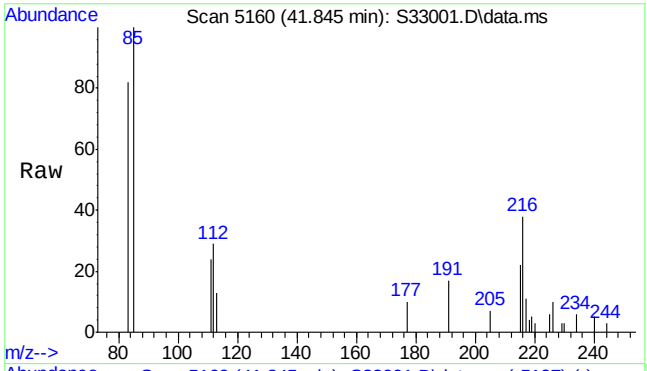
#38
2-Methylpyrene
Concen: 26.39 ng/mL m
RT: 41.481 min Scan# 5098
Delta R.T. -0.006 min
Lab File: S33001.D
Acq: 17 Jul 2013 2:56 am

Tgt Ion:216 Resp: 6186

Ion	Ratio	Lower	Upper
216	100		
215	58.1	78.2	117.4#



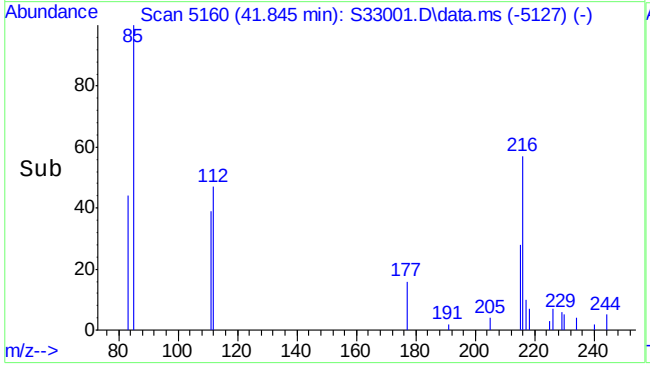


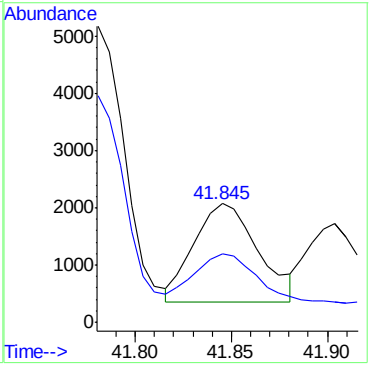


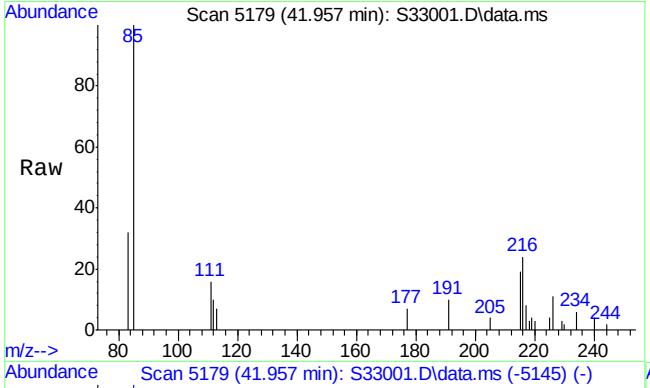
#39
4-Methylpyrene
Concen: 16.89 ng/mL m
RT: 41.845 min Scan# 5160
Delta R.T. -0.006 min
Lab File: S33001.D
Acq: 17 Jul 2013 2:56 am

Tgt Ion:216 Resp: 3959

Ion	Ratio	Lower	Upper
216	100		
215	218.2	57.5	86.3#



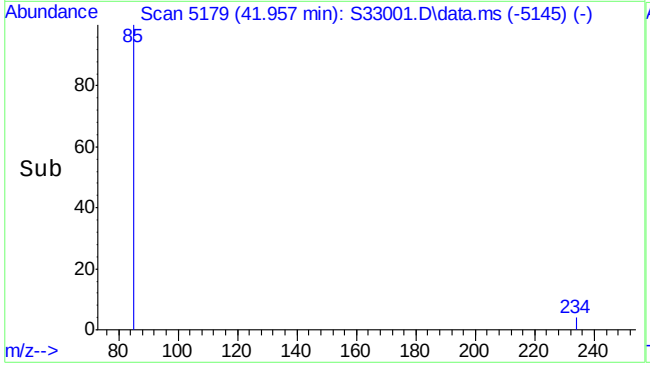


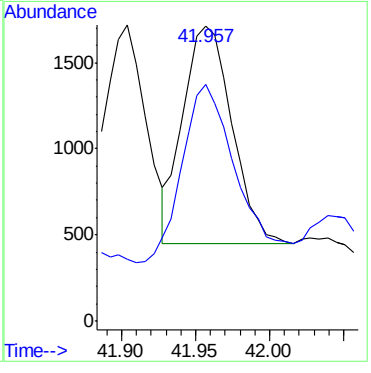


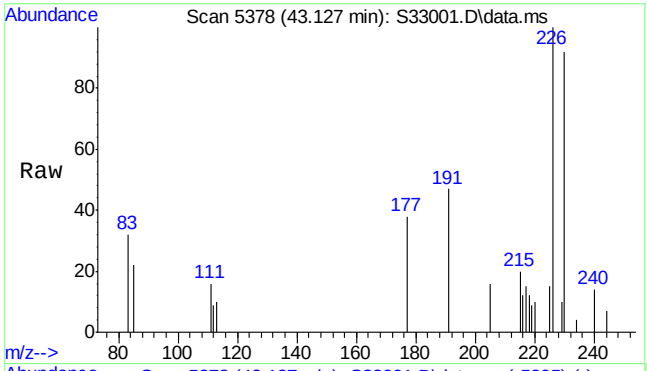
#40
1-Methylpyrene
Concen: 12.42 ng/mL
RT: 41.957 min Scan# 5179
Delta R.T. -0.000 min
Lab File: S33001.D
Acq: 17 Jul 2013 2:56 am

Tgt Ion:216 Resp: 2912

Ion	Ratio	Lower	Upper
216	100		
215	92.2	80.2	120.2



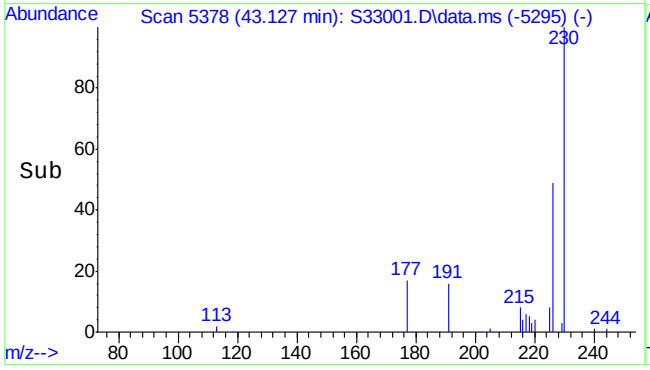


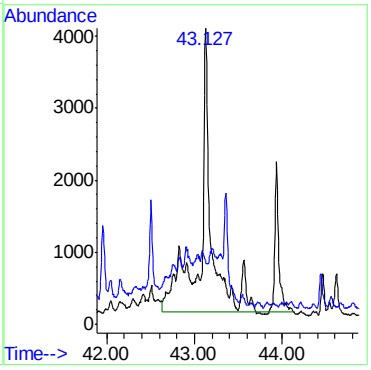


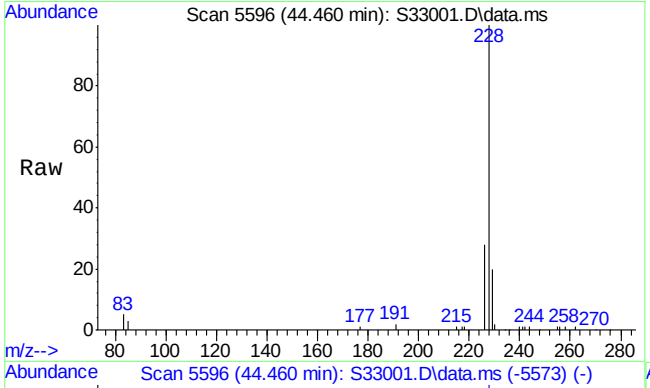
#41
C2-Fluoranthenes/pyrenes
Concen: 183.99 ng/mL m
RT: 43.127 min Scan# 5378
Delta R.T. 0.223 min
Lab File: S33001.D
Acq: 17 Jul 2013 2:56 am

Tgt Ion:230 Resp: 43122

Ion	Ratio	Lower	Upper
230	100		
215	0.0	108.6	163.0#



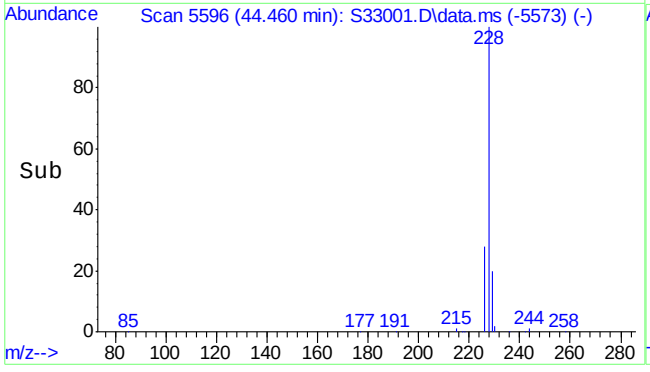


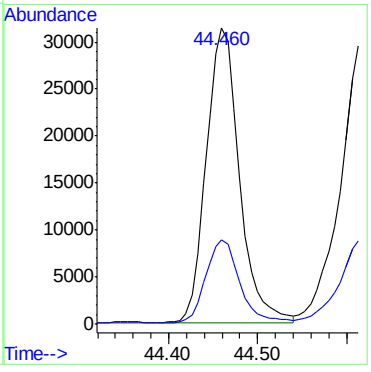


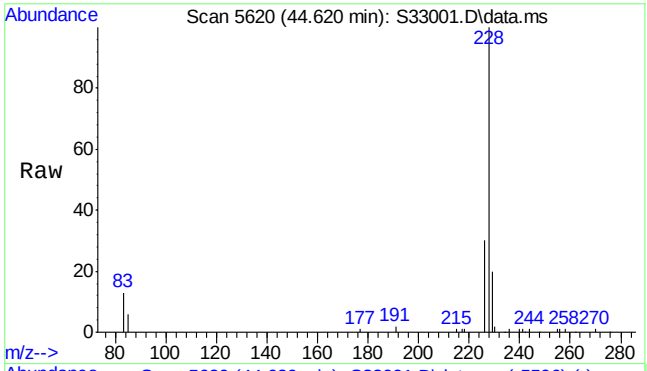
#43
Benz(a)anthracene
Concen: 356.48 ng/mL
RT: 44.460 min Scan# 5596
Delta R.T. -0.049 min
Lab File: S33001.D
Acq: 17 Jul 2013 2:56 am

Tgt Ion:228 Resp: 80690

Ion	Ratio	Lower	Upper
228	100		
226	28.5	21.4	32.2



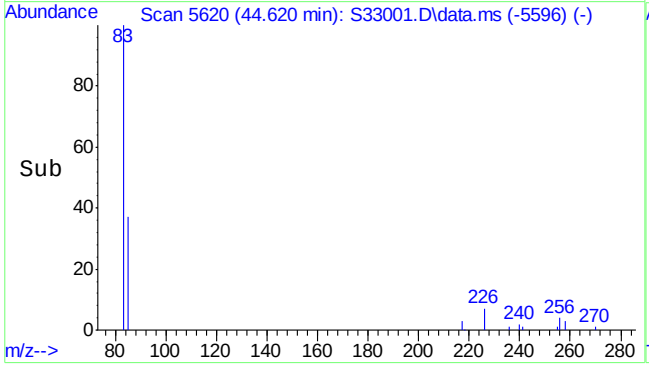


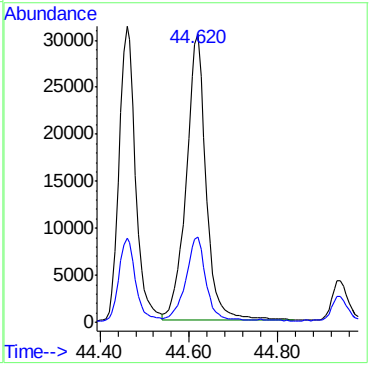


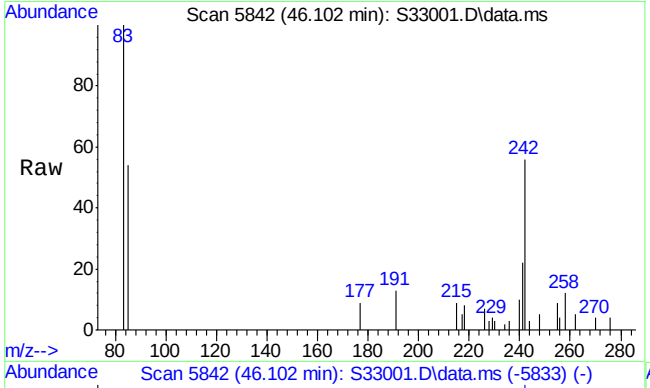
#44
Chrysene
Concen: 440.98 ng/mL
RT: 44.620 min Scan# 5620
Delta R.T. -0.043 min
Lab File: S33001.D
Acq: 17 Jul 2013 2:56 am

Tgt Ion:228 Resp: 93110

Ion	Ratio	Lower	Upper
228	100		
226	28.9	23.8	35.6



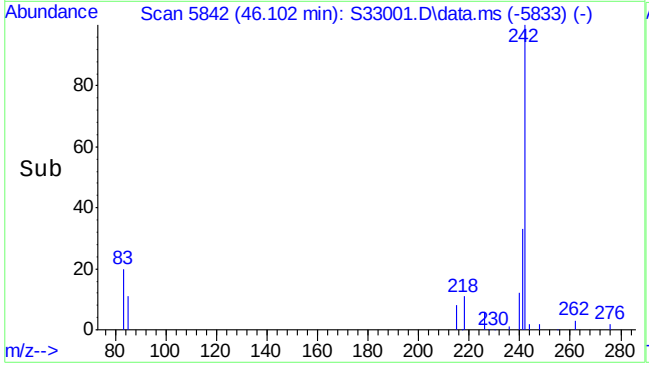


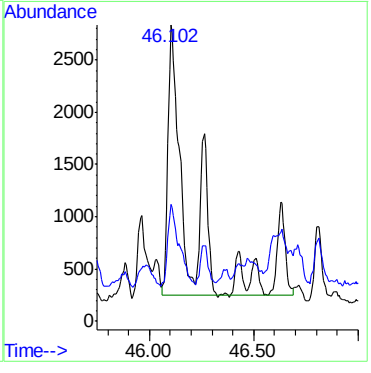


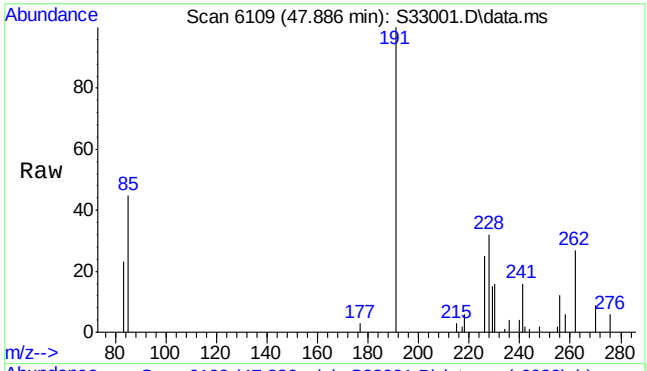
#45
C1-Benz(a)anthracenes/chrysenes
Concen: 82.04 ng/mL m
RT: 46.102 min Scan# 5842
Delta R.T. -0.000 min
Lab File: S33001.D
Acq: 17 Jul 2013 2:56 am

Tgt Ion:242 Resp: 17322

Ion	Ratio	Lower	Upper
242	100		
241	17.1	35.3	52.9#



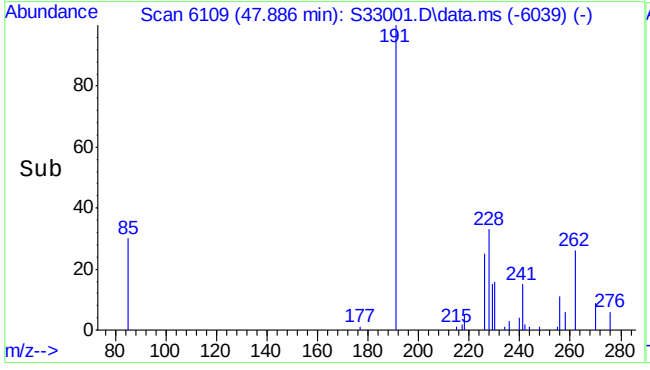


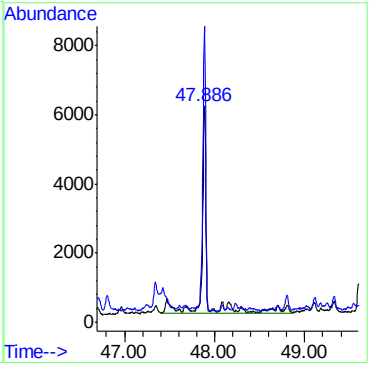


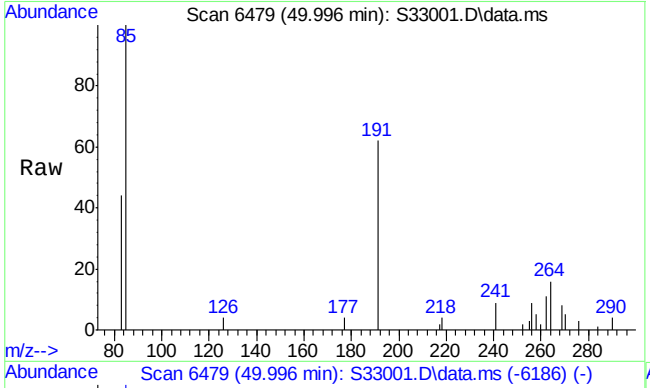
#46
C2-Benz(a)anthracenes/chrysenes
Concen: 102.10 ng/mL m
RT: 47.886 min Scan# 6109
Delta R.T. -0.294 min
Lab File: S33001.D
Acq: 17 Jul 2013 2:56 am

Tgt Ion:256 Resp: 21558

Ion	Ratio	Lower	Upper
256	100		
241	0.0	27.6	41.4#



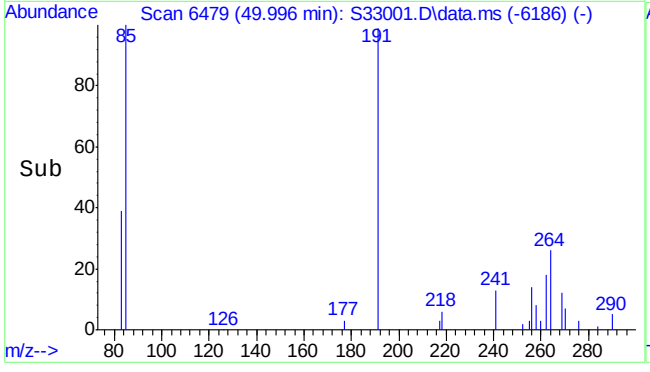


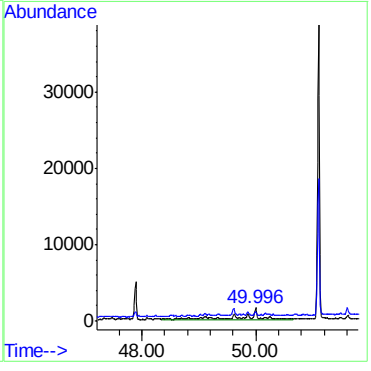


#47
C3-Benz(a)anthracenes/chrysenes
Concen: 106.72 ng/mL m
RT: 49.996 min Scan# 6479
Delta R.T. -0.602 min
Lab File: S33001.D
Acq: 17 Jul 2013 2:56 am

Tgt Ion:270 Resp: 22533

Ion	Ratio	Lower	Upper
270	100		
255	0.0	41.0	61.6#

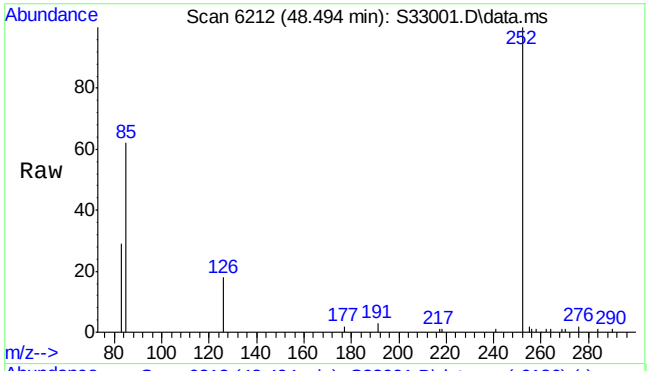




7.1.14

7

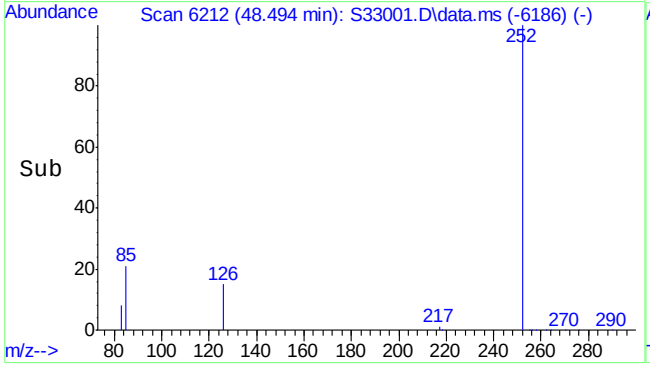
ACCUTEST LABORATORIES MC21754A

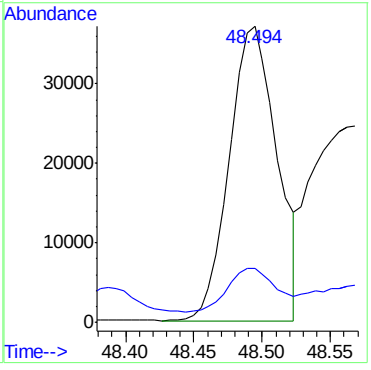


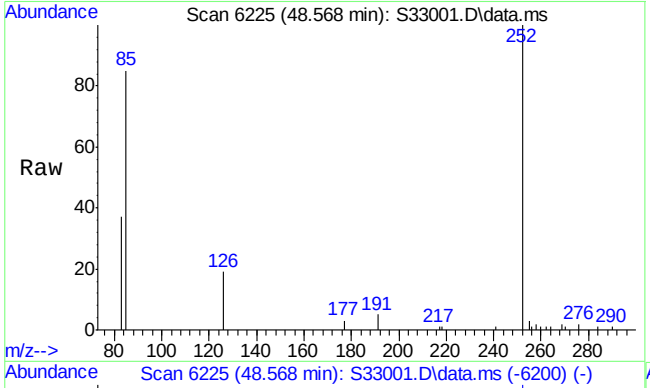
#49
Benzo(b)fluoranthene
Concen: 347.16 ng/mL
RT: 48.494 min Scan# 6212
Delta R.T. -0.052 min
Lab File: S33001.D
Acq: 17 Jul 2013 2:56 am

Tgt Ion:252 Resp: 89969

Ion	Ratio	Lower	Upper
252	100		
126	14.9	10.6	15.8



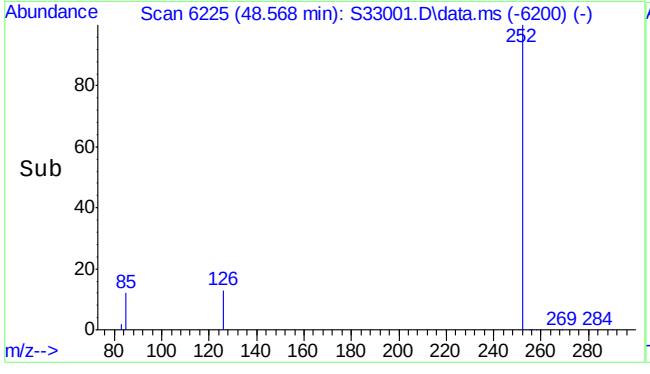


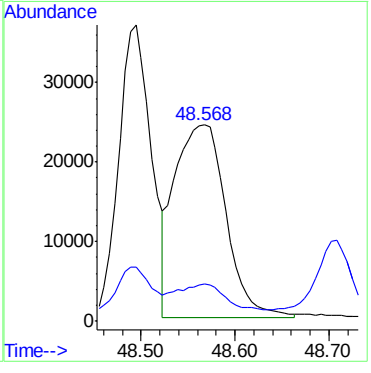


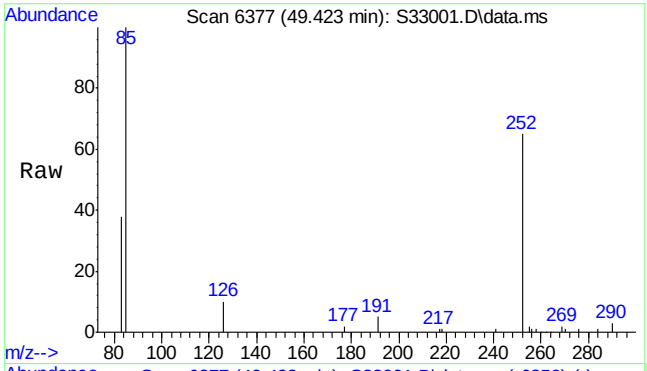
#50
Benzo(k)fluoranthene
Concen: 358.94 ng/mL m
RT: 48.568 min Scan# 6225
Delta R.T. -0.058 min
Lab File: S33001.D
Acq: 17 Jul 2013 2:56 am

Tgt Ion:252 Resp: 92707

Ion	Ratio	Lower	Upper
252	100		
126	14.5	11.9	17.9



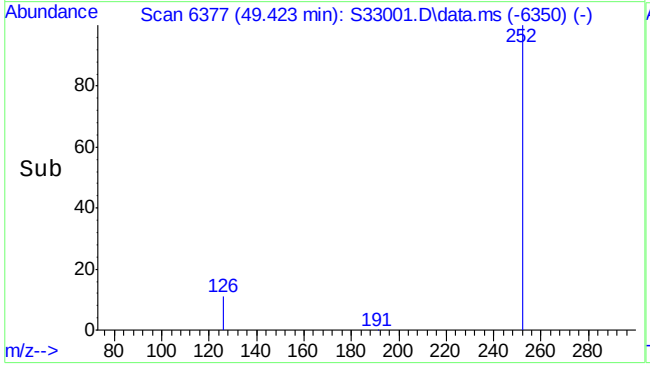


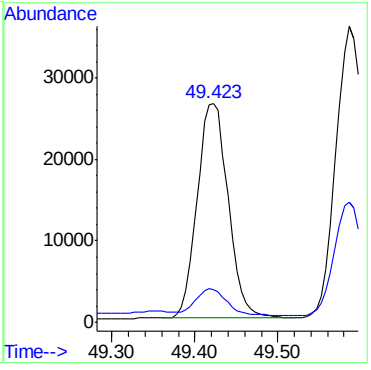


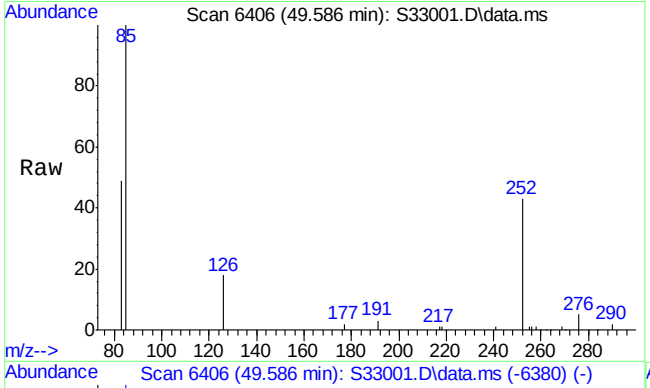
#51
Benzo(e)pyrene
Concen: 294.42 ng/mL
RT: 49.423 min Scan# 6377
Delta R.T. -0.050 min
Lab File: S33001.D
Acq: 17 Jul 2013 2:56 am

Tgt Ion:252 Resp: 68636

Ion	Ratio	Lower	Upper
252	100		
126	13.3	9.9	14.9



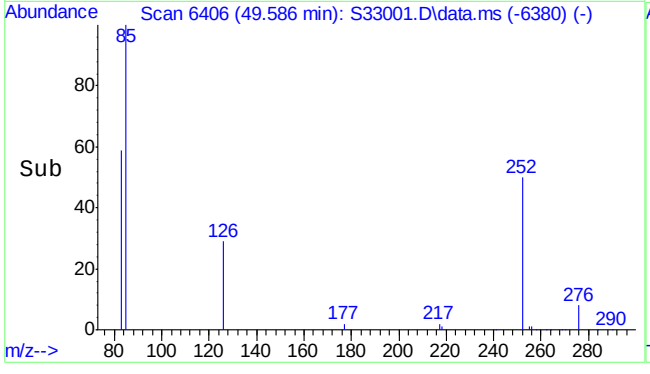


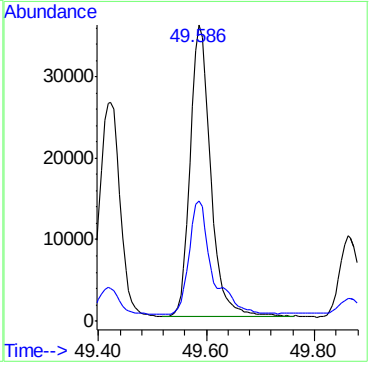


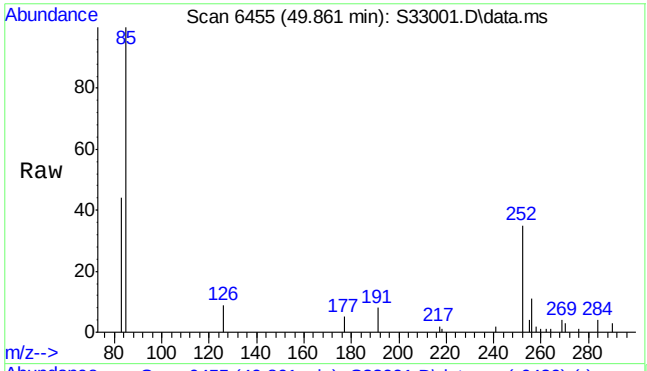
#52
Benzo(a)pyrene
Concen: 414.94 ng/mL
RT: 49.586 min Scan# 6406
Delta R.T. -0.056 min
Lab File: S33001.D
Acq: 17 Jul 2013 2:56 am

Tgt Ion:252 Resp: 93695

Ion	Ratio	Lower	Upper
252	100		
126	44.5	11.6	17.4#



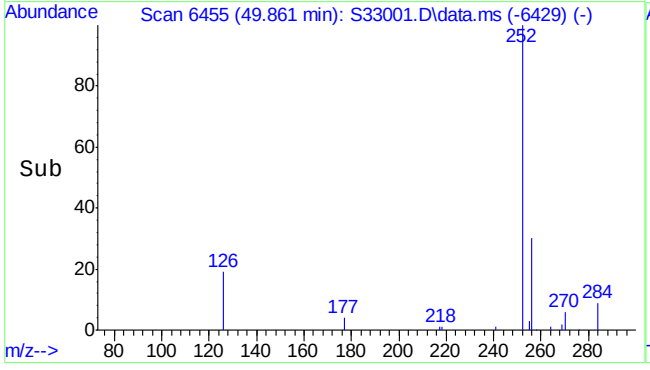


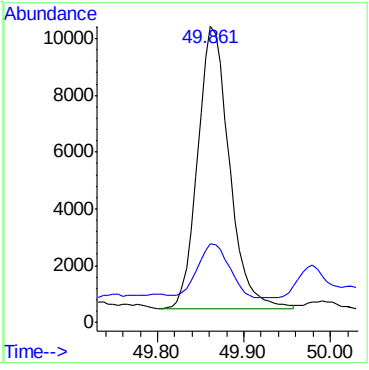


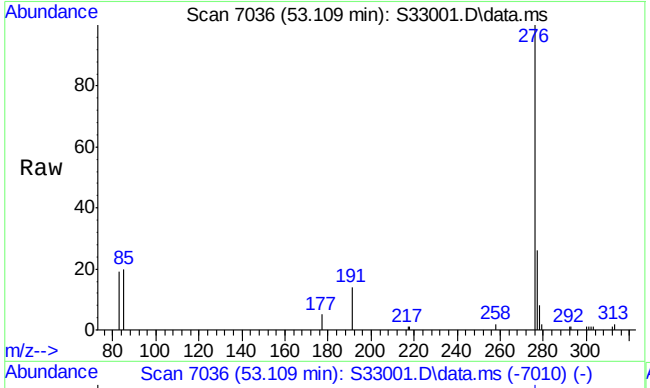
#53
Perylene
Concen: 116.42 ng/mL m
RT: 49.861 min Scan# 6455
Delta R.T. -0.051 min
Lab File: S33001.D
Acq: 17 Jul 2013 2:56 am

Tgt Ion:252 Resp: 25544

Ion	Ratio	Lower	Upper
252	100		
126	19.4	12.5	18.7#



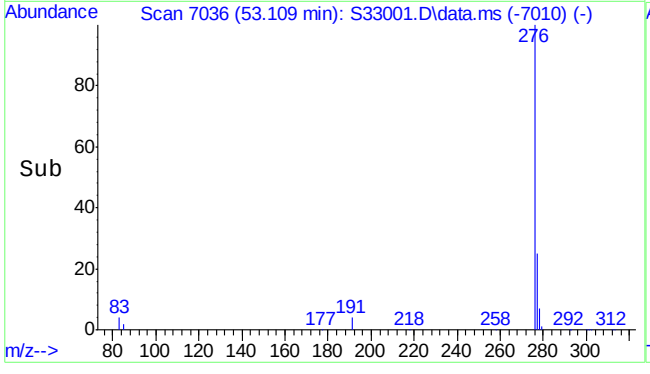


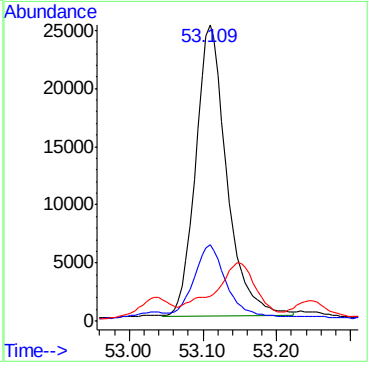


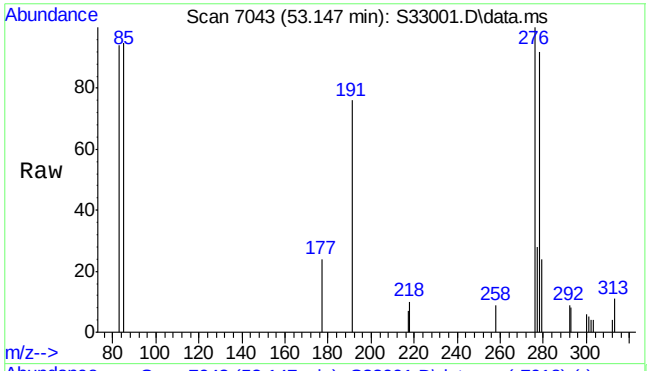
#54
Indeno(1,2,3-cd)pyrene
Concen: 282.48 ng/mL
RT: 53.109 min Scan# 7036
Delta R.T. -0.060 min
Lab File: S33001.D
Acq: 17 Jul 2013 2:56 am

Tgt Ion:276 Resp: 73159

Ion	Ratio	Lower	Upper
276	100		
277	25.8	19.0	28.4
278	0.0	5.7	8.5#



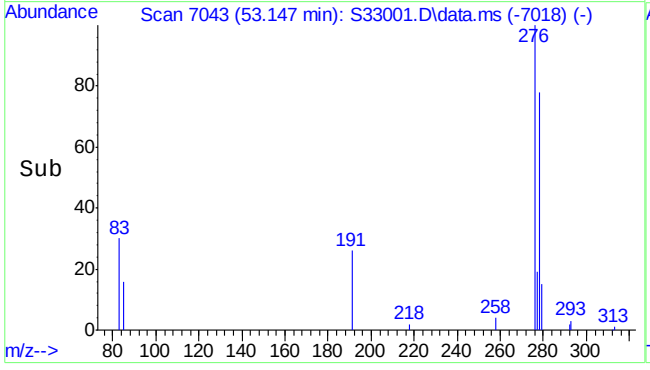


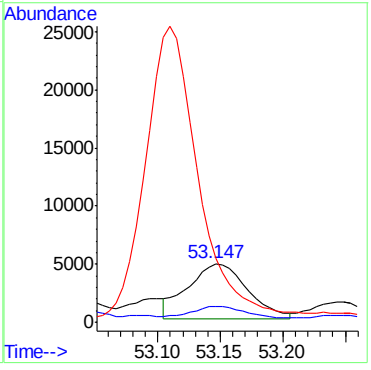


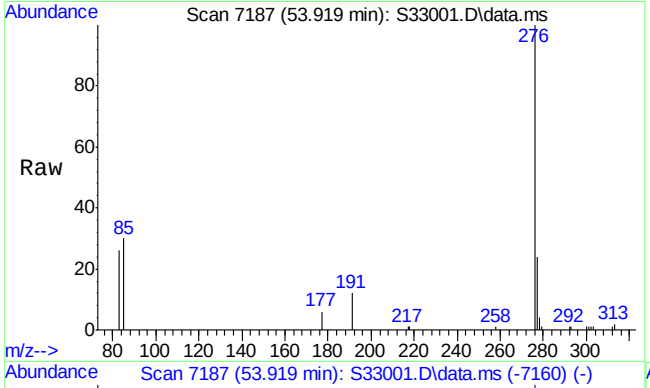
#55
Dibenz(a,h)anthracene
Concen: 68.77 ng/mL m
RT: 53.147 min Scan# 7043
Delta R.T. -0.066 min
Lab File: S33001.D
Acq: 17 Jul 2013 2:56 am

Tgt Ion:278 Resp: 16137

Ion	Ratio	Lower	Upper
278	100		
279	8.9	19.2	28.8#
276	0.0	29.6	44.4#



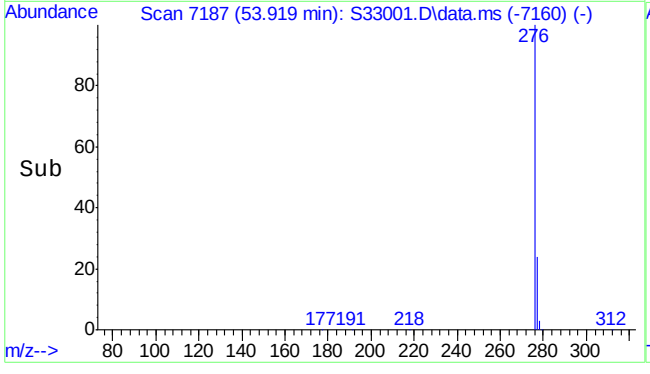


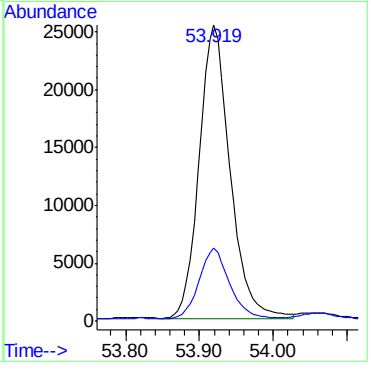


#56
Benzo(g,h,i)perylene
Concen: 267.12 ng/mL
RT: 53.919 min Scan# 7187
Delta R.T. -0.057 min
Lab File: S33001.D
Acq: 17 Jul 2013 2:56 am

Tgt Ion:276 Resp: 74006

Ion	Ratio	Lower	Upper
276	100		
277	23.4	18.9	28.3





Manual Integrations APPROVED (compounds with "m" flag)
James Roush
07/29/13 14:06

Quantitation Report (QT Reviewed)

Data Path : S:\1\data\S130723\
Data File : S33029.D
Acq On : 24 Jul 2013 6:20 am
Operator : kristinr
Sample : mc21754-7a
Misc : op33686,mss1444,5.20,,,2,10
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Jul 24 14:54:42 2013
Quant Method : S:\1\methods\S130705-B5739ALKPAH.M
Quant Title : PAHs & Alkylated PAHs by GC/MS/SIM
QLast Update : Thu Jul 11 09:13:24 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Acenaphthene-d10	28.056	164	190743	1100.00	ng/mL	0.00
System Monitoring Compounds						
2) Toluene-d8	9.181	98	1958m	9.59	µg/mL	0.00
Spiked Amount 1000.000			Recovery = 0.96%			
3) Naphthalene-d8	21.119	136	9621	28.53	ng/mL	0.00
Spiked Amount 1000.000	Range 1 - 0		Recovery = 2.85%#			
4) Phenanthrene-d10	33.887	188	10994m	39.60	ng/mL	0.00
Spiked Amount 1000.000			Recovery = 3.96%			
5) Perylene-d12	49.709	264	10080	41.13	ng/mL	0.03
Spiked Amount 1000.000			Recovery = 4.11%			
Target Compounds						Qvalue
6) Naphthalene	21.193	128	1041068	2428.97	ng/mL	97
7) 2-Methylnaphthalene	23.898	142	1091979	4293.75	ng/mL	99
8) 1-Methylnaphthalene	24.311	142	493837	1861.34	ng/mL	100
9) C1-Naphthalenes	23.898	142	1590413m	3710.68	ng/mL	
10) C2-Naphthalenes	26.727	156	2130780m	4971.43	ng/mL	
11) C3-Naphthalenes	29.056	170	1676666m	3911.92	ng/mL	
12) C4-Naphthalenes	31.812	184	942196m	2198.29	ng/mL	
13) Acenaphthylene	27.478	152	5839m	14.73	ng/mL	
14) Acenaphthene	28.186	154	23031	95.24	ng/mL#	73
15) Dibenzofuran	28.826	168	44608m	129.43	ng/mL	
16) Fluorene	30.192	166	175173m	571.11	ng/mL	
17) C1-Fluorenes	32.555	180	258001m	841.14	ng/mL	
18) C2-Fluorenes	34.745	194	401980m	1310.55	ng/mL	
19) C3-Fluorenes	37.361	208	283735m	925.04	ng/mL	
20) Dibenzothiophene	33.483	184	38745m	100.19	ng/mL	
21) C1-Dibenzothiophenes (...	35.258	198	189352m	496.73	ng/mL	
22) C1-Dibenzothiophenes (...	35.687	198	1268m	3.33	µg/mL	
23) C2-Dibenzothiophenes	36.938	212	306803m	804.85	ng/mL	
24) C3-Dibenzothiophenes	38.746	226	214766m	563.40	ng/mL	
25) C4-Dibenzothiophenes	40.057	240	391886m	1028.05	ng/mL	
26) Phenanthrene	33.976	178	285889m	646.57	ng/mL	
28) C1-Phenanthrenes/anthr...	36.047	192	595407m	1346.58	ng/mL	
29) C2-Phenanthrenes/anthr...	38.208	206	470015m	1062.99	ng/mL	
31) C3-Phenanthrenes/anthr...	40.046	220	142377m	322.00	ng/mL	
32) C4-Phenanthrenes/anthr...	40.869	234	53355m	120.67	ng/mL	
33) Fluoranthene	38.722	202	45546	116.27	ng/mL#	26
34) Pyrene	39.599	202	54322m	133.84	ng/mL	
35) C1-Fluoranthenes/pyrenes	41.745	216	97817m	241.01	ng/mL	
36) Benzo(b)fluorene	41.251	216	1820	4.48	ng/mL#	1
37) Benzo(c)fluorene	41.286	216	1182m	2.91	µg/mL	
38) 2-Methylpyrene	41.392	216	4203m	10.36	ng/mL	
39) 4-Methylpyrene	41.745	216	76870	189.40	ng/mL	98
40) 1-Methylpyrene	41.875	216	3013	7.42	ng/mL	87
41) C2-Fluoranthenes/pyrenes	43.910	230	20376m	50.20	ng/mL	
43) Benz(a)anthracene	44.373	228	14177m	36.17	ng/mL	
44) Chrysene	44.533	228	17620	48.19	ng/mL	99

Quantitation Report (QT Reviewed)

Data Path : S:\1\data\S130723\
Data File : S33029.D
Acq On : 24 Jul 2013 6:20 am
Operator : kristinr
Sample : mc21754-7a
Misc : op33686,mss1444,5.20,,,2,10
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Jul 24 14:54:42 2013
Quant Method : S:\1\methods\S130705-B5739ALKPAH.M
Quant Title : PAHs & Alkylated PAHs by GC/MS/SIM
QLast Update : Thu Jul 11 09:13:24 2013
Response via : Initial Calibration

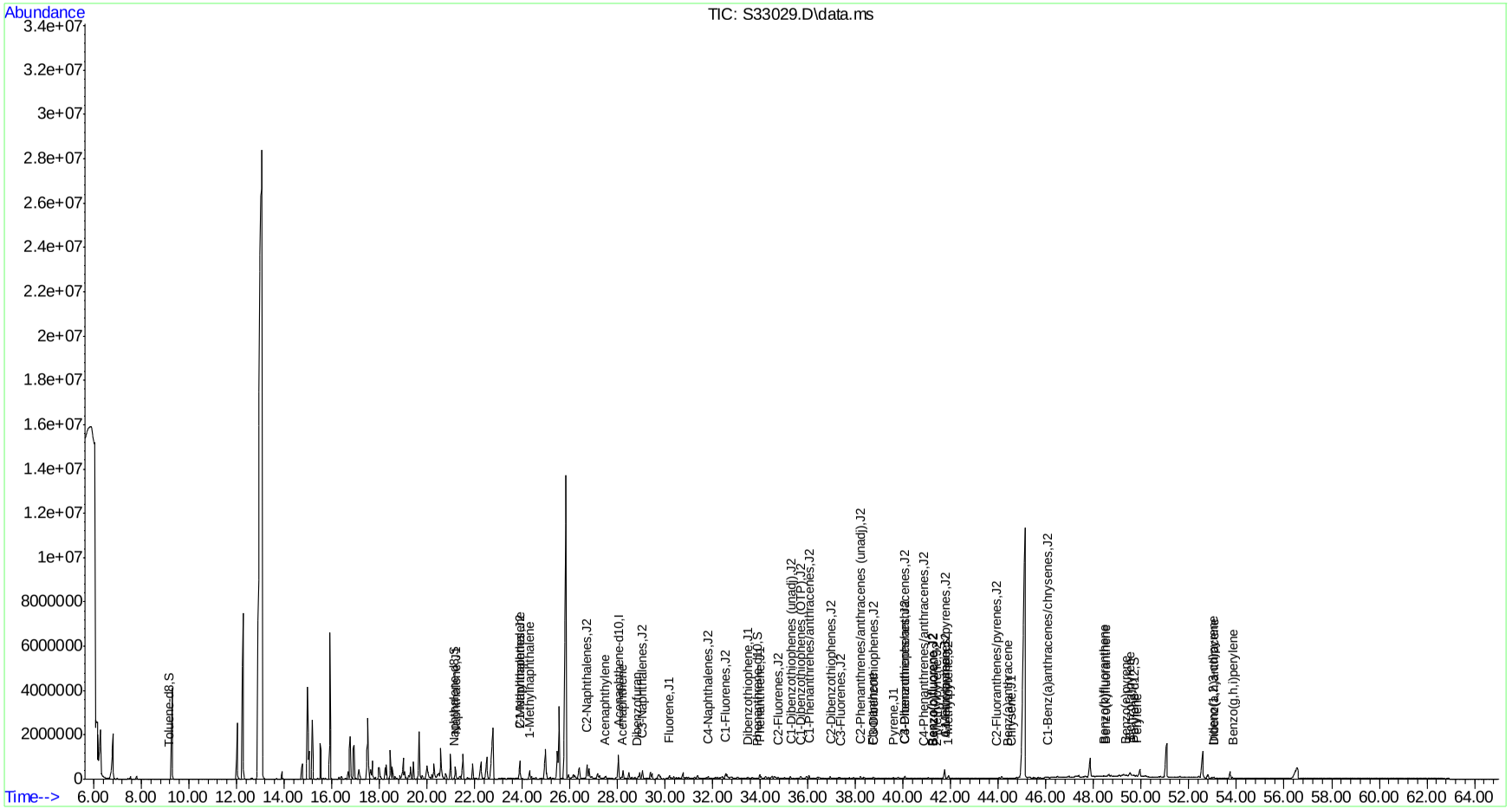
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
45) C1-Benz(a)anthracenes/...	46.042	242	10135m	27.72	ng/mL	
49) Benzo(b)fluoranthene	48.427	252	16033	35.73	ng/mL#	26
50) Benzo(k)fluoranthene	48.494	252	15246m	34.09	ng/mL	
51) Benzo(e)pyrene	49.349	252	13243	32.80	ng/mL#	76
52) Benzo(a)pyrene	49.518	252	19846	50.75	ng/mL#	1
53) Perylene	49.788	252	6575	17.30	ng/mL#	1
54) Indeno(1,2,3-cd)pyrene	53.029	276	15848	35.39	ng/mL#	94
55) Dibenz(a,h)anthracene	53.061	278	3768	9.28	ng/mL#	62
56) Benzo(g,h,i)perylene	53.839	276	14571m	30.37	ng/mL	

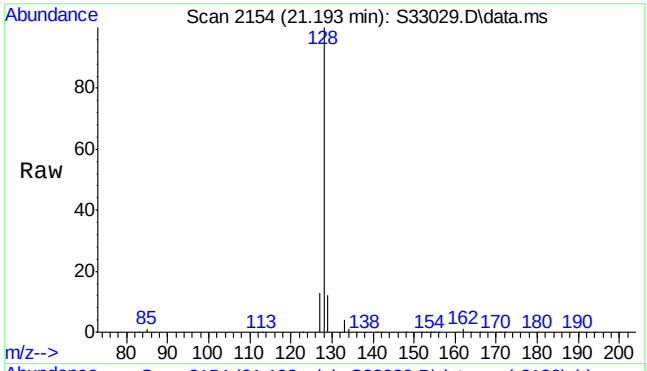
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : S:\1\data\S130723\
Data File : S33029.D
Acq On : 24 Jul 2013 6:20 am
Operator : kristinr
Sample : mc21754-7a
Misc : op33686,mss1444,5.20,,,2,10
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Jul 24 14:54:42 2013
Quant Method : S:\1\methods\S130705-B5739ALKPAH.M
Quant Title : PAHs & Alkylated PAHs by GC/MS/SIM
QLast Update : Thu Jul 11 09:13:24 2013
Response via : Initial Calibration

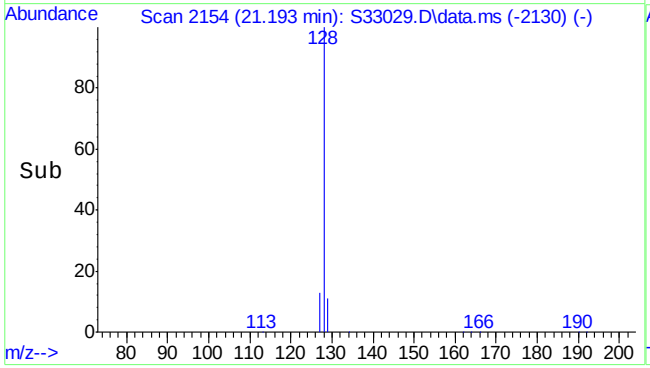


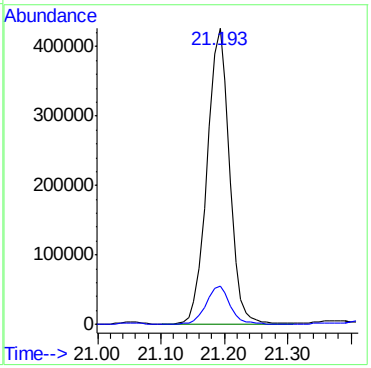


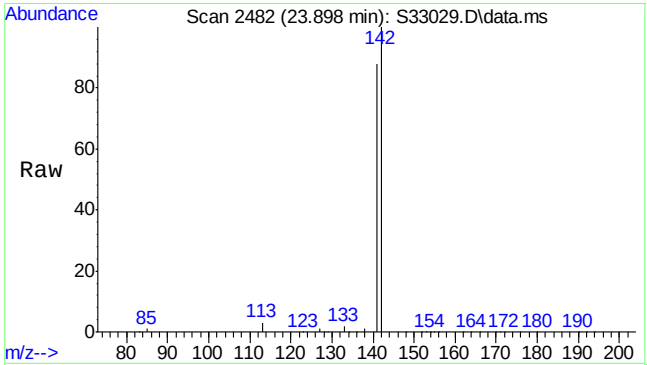
#6
Naphthalene
Concen: 2428.97 ng/mL
RT: 21.193 min Scan# 2154
Delta R.T. -0.000 min
Lab File: S33029.D
Acq: 24 Jul 2013 6:20 am

Tgt Ion:128 Resp: 1041068

Ion	Ratio	Lower	Upper
128	100		
127	13.6	10.0	15.0



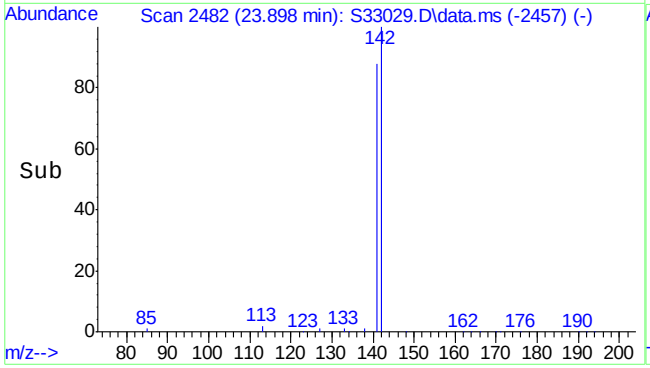


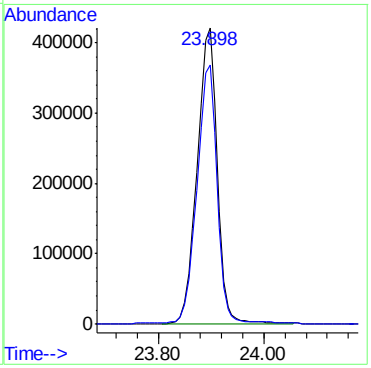


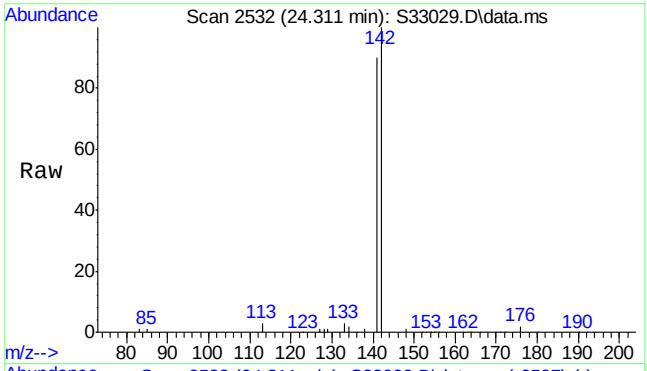
#7
2-Methylnaphthalene
Concen: 4293.75 ng/mL
RT: 23.898 min Scan# 2482
Delta R.T. 0.008 min
Lab File: S33029.D
Acq: 24 Jul 2013 6:20 am

Tgt Ion:142 Resp: 1091979

Ion	Ratio	Lower	Upper
142	100		
141	87.7	69.7	104.5



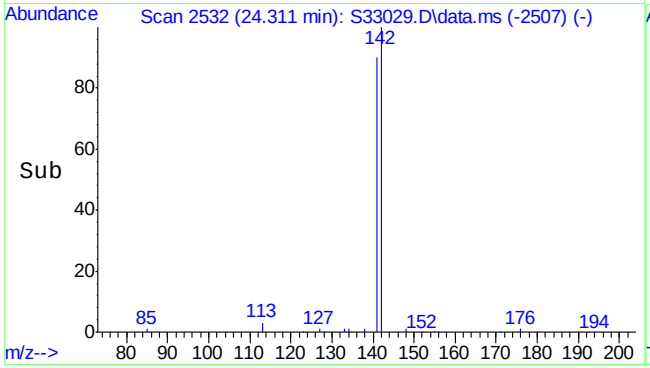


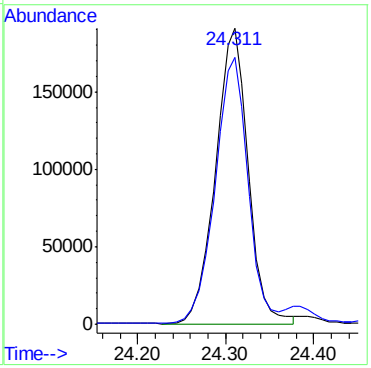


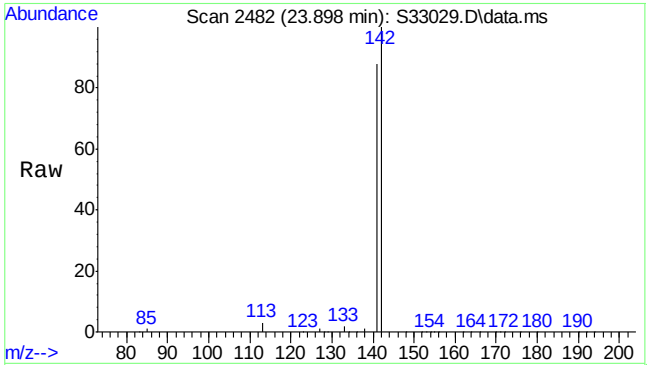
#8
1-Methylnaphthalene
Concen: 1861.34 ng/mL
RT: 24.311 min Scan# 2532
Delta R.T. 0.008 min
Lab File: S33029.D
Acq: 24 Jul 2013 6:20 am

Tgt Ion:142 Resp: 493837

Ion	Ratio	Lower	Upper
142	100		
141	90.5	72.6	108.8



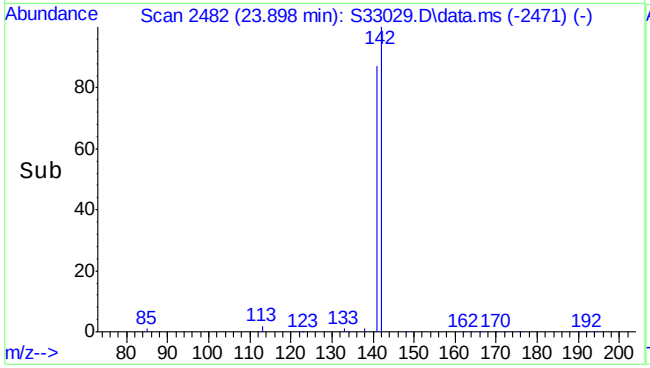


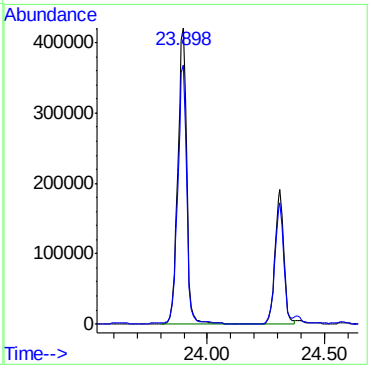


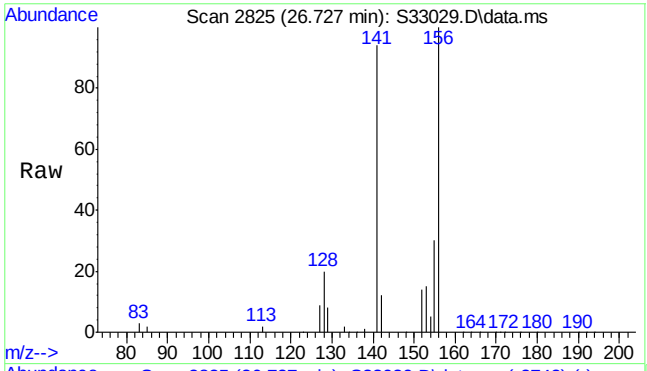
#9
C1-Naphthalenes
Concen: 3710.68 ng/mL m
RT: 23.898 min Scan# 2482
Delta R.T. 0.017 min
Lab File: S33029.D
Acq: 24 Jul 2013 6:20 am

Tgt Ion:142 Resp: 1590413

Ion	Ratio	Lower	Upper
142	100		
141	60.5	69.9	104.9#



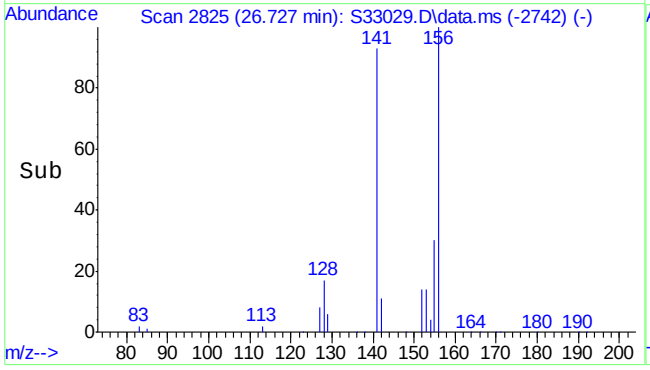


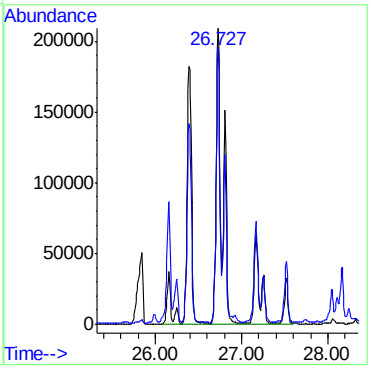


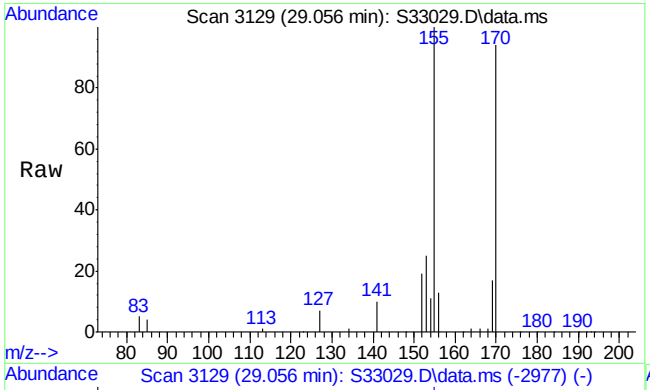
#10
C2-Naphthalenes
Concen: 4971.43 ng/mL m
RT: 26.727 min Scan# 2825
Delta R.T. -0.074 min
Lab File: S33029.D
Acq: 24 Jul 2013 6:20 am

Tgt Ion:156 Resp: 2130780

Ion	Ratio	Lower	Upper
156	100		
141	14.2	64.9	97.3#



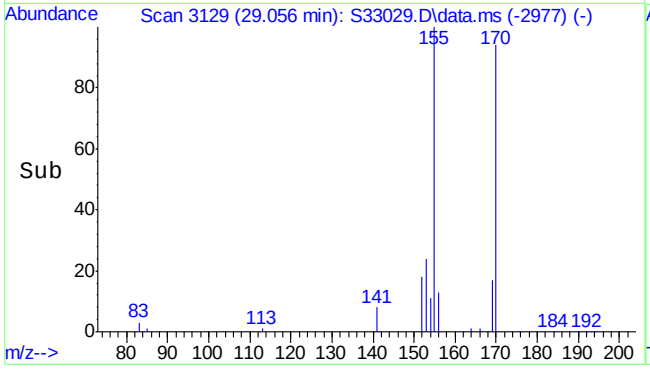


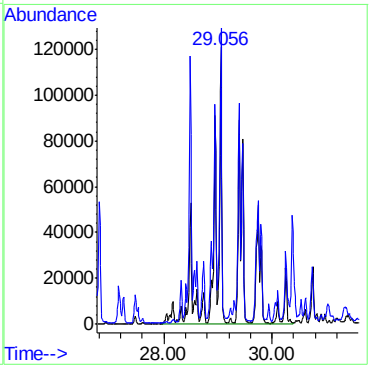


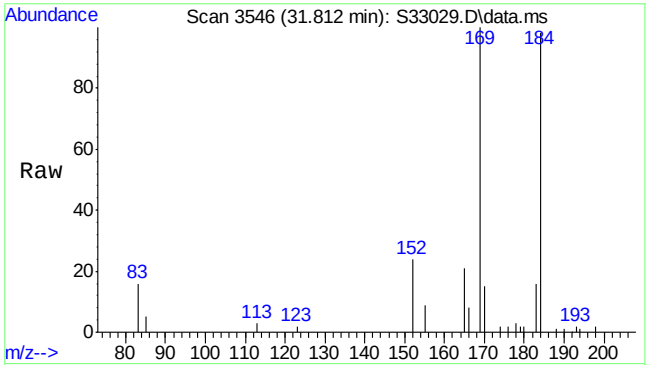
#11
C3-Naphthalenes
Concen: 3911.92 ng/mL m
RT: 29.056 min Scan# 3129
Delta R.T. 0.000 min
Lab File: S33029.D
Acq: 24 Jul 2013 6:20 am

Tgt Ion:170 Resp: 1676666

Ion	Ratio	Lower	Upper
170	100		
155	20.0	85.4	128.2#



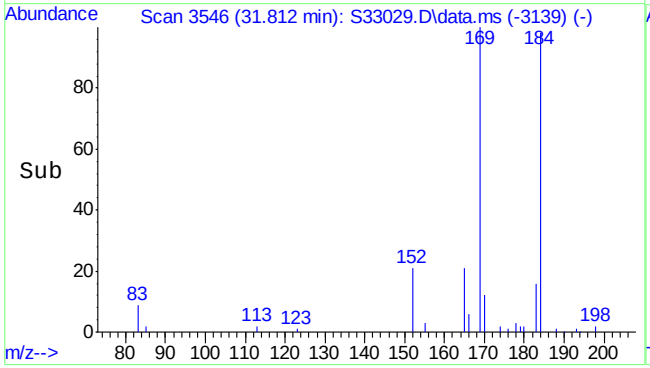


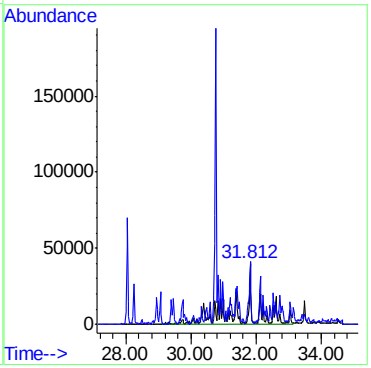


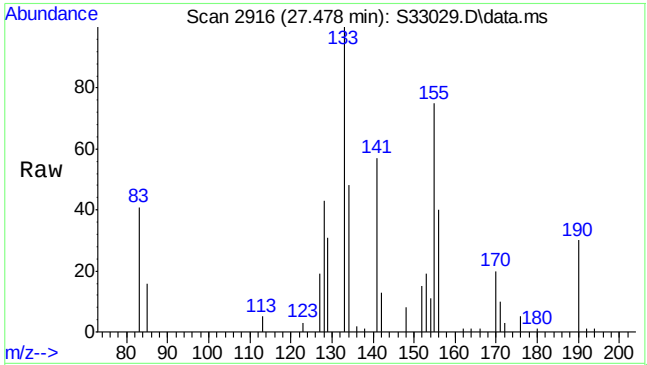
#12
C4-Naphthalenes
Concen: 2198.29 ng/mL m
RT: 31.812 min Scan# 3546
Delta R.T. 0.000 min
Lab File: S33029.D
Acq: 24 Jul 2013 6:20 am

Tgt Ion:184 Resp: 942196

Ion	Ratio	Lower	Upper
184	100		
169	10.9	81.0	121.6#



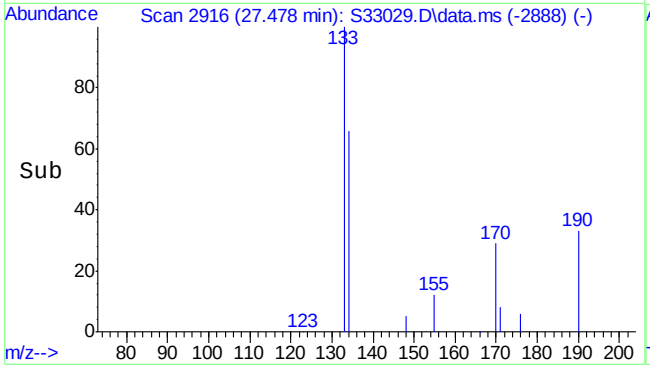


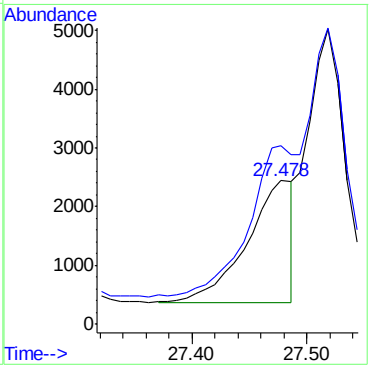


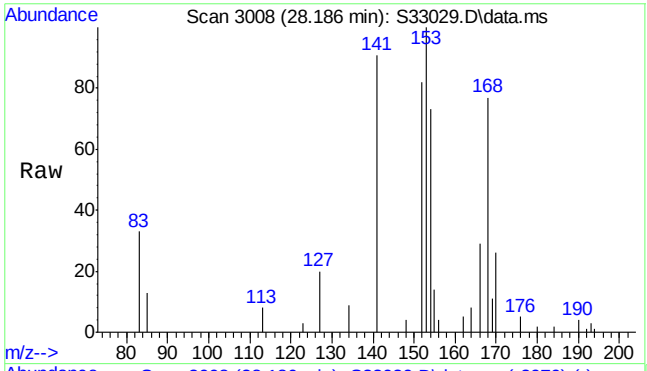
#13
Acenaphthylene
Concen: 14.73 ng/mL m
RT: 27.478 min Scan# 2916
Delta R.T. 0.033 min
Lab File: S33029.D
Acq: 24 Jul 2013 6:20 am

Tgt Ion:152 Resp: 5839

Ion	Ratio	Lower	Upper
152	100		
153	316.4	10.5	15.7#



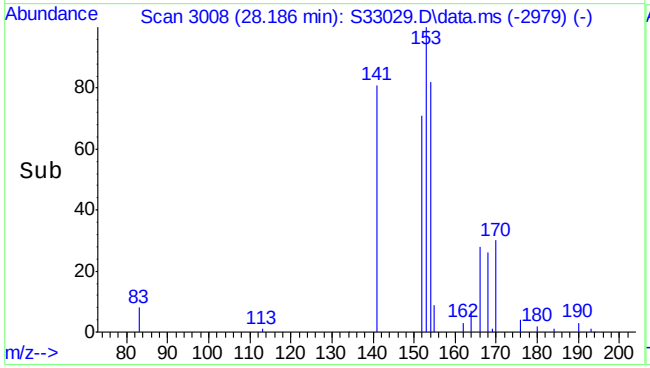


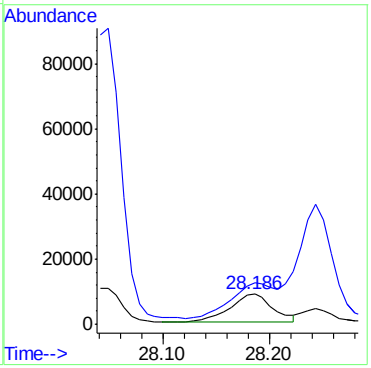


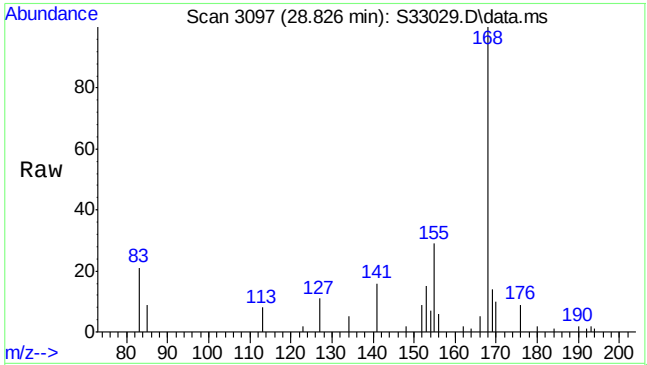
#14
Acenaphthene
Concen: 95.24 ng/mL
RT: 28.186 min Scan# 3008
Delta R.T. 0.007 min
Lab File: S33029.D
Acq: 24 Jul 2013 6:20 am

Tgt Ion:154 Resp: 23031

Ion	Ratio	Lower	Upper
154	100		
153	138.4	88.2	132.4#



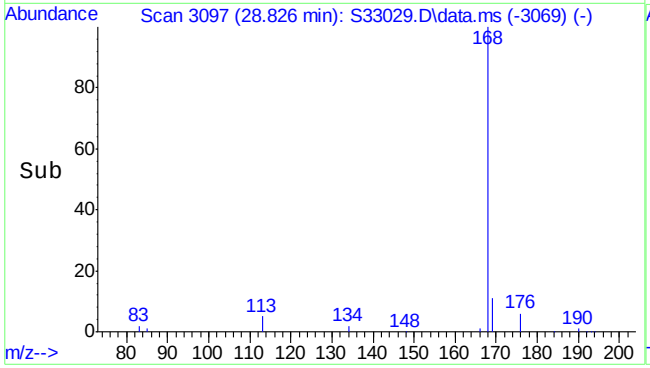


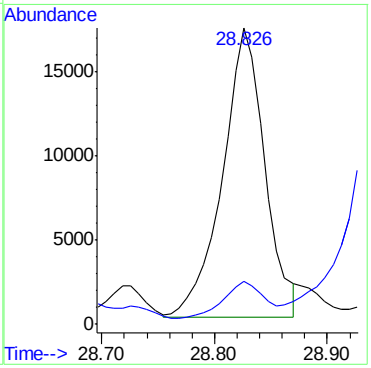


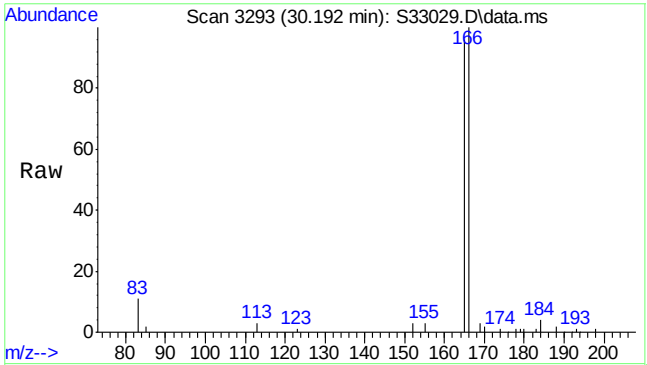
#15
Dibenzofuran
Concen: 129.43 ng/mL m
RT: 28.826 min Scan# 3097
Delta R.T. -0.000 min
Lab File: S33029.D
Acq: 24 Jul 2013 6:20 am

Tgt Ion:168 Resp: 44608

Ion	Ratio	Lower	Upper
168	100		
169	12.2	10.7	16.1



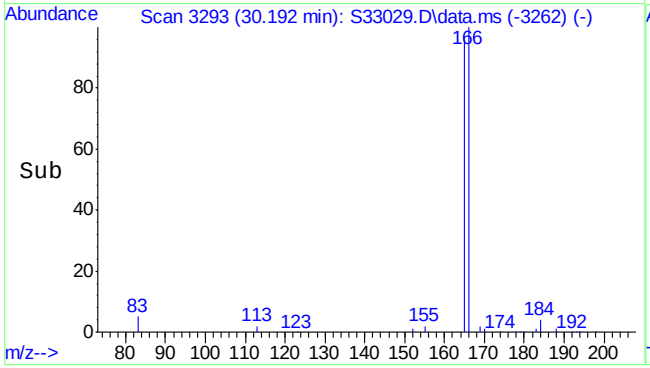


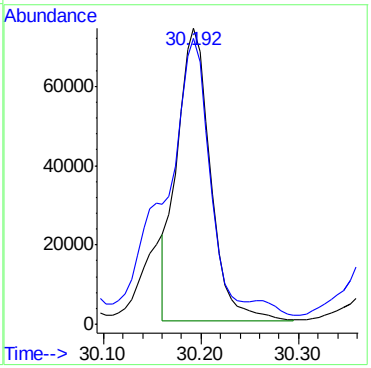


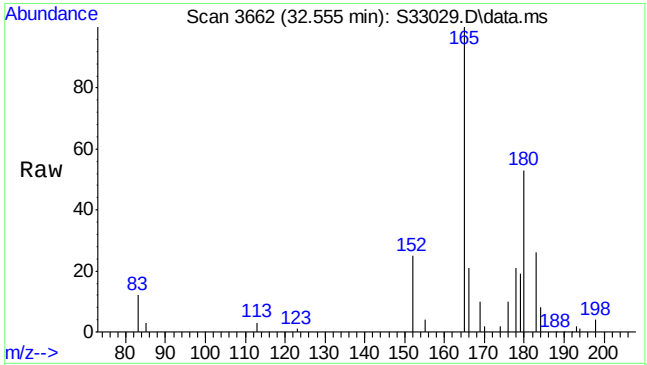
#16
Fluorene
Concen: 571.11 ng/mL m
RT: 30.192 min Scan# 3293
Delta R.T. -0.000 min
Lab File: S33029.D
Acq: 24 Jul 2013 6:20 am

Tgt Ion:166 Resp: 175173

Ion	Ratio	Lower	Upper
166	100		
165	115.8	76.3	114.5#



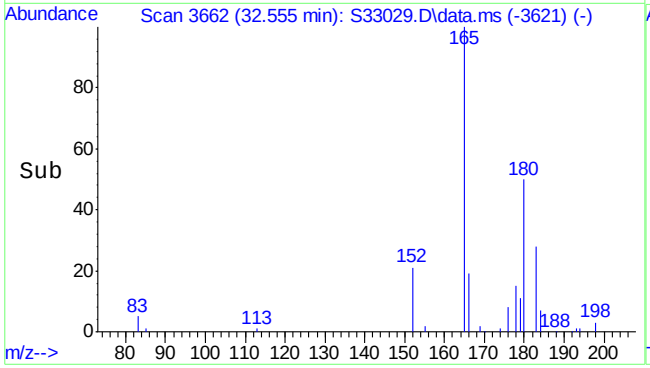


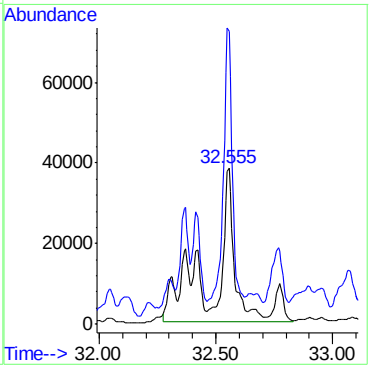


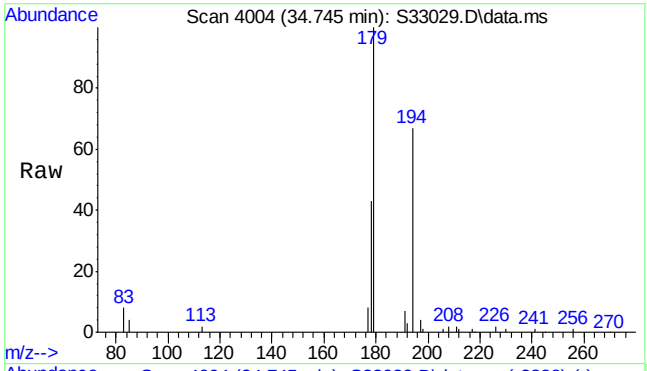
#17
C1-Fluorenes
Concen: 841.14 ng/mL m
RT: 32.555 min Scan# 3662
Delta R.T. 0.024 min
Lab File: S33029.D
Acq: 24 Jul 2013 6:20 am

Tgt Ion:180 Resp: 258001

Ion	Ratio	Lower	Upper
180	100		
165	66.9	134.2	201.4#



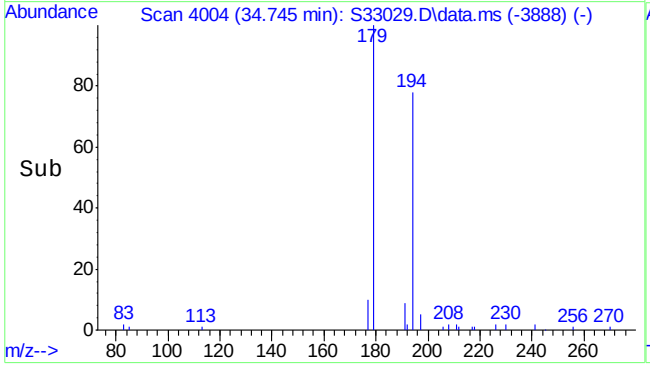


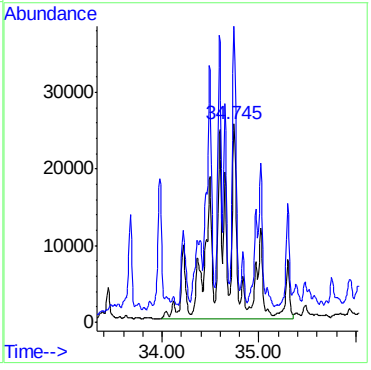


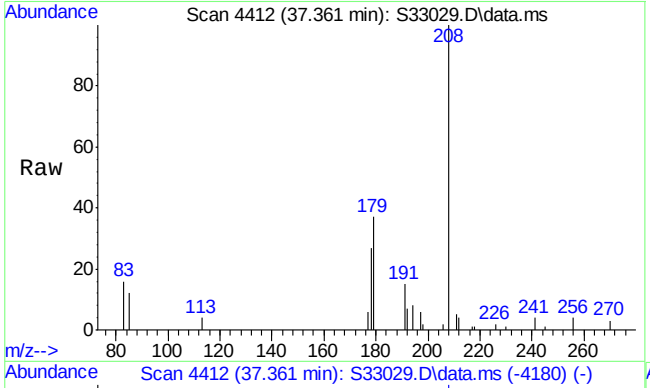
#18
C2-Fluorenes
Concen: 1310.55 ng/mL m
RT: 34.745 min Scan# 4004
Delta R.T. 0.000 min
Lab File: S33029.D
Acq: 24 Jul 2013 6:20 am

Tgt Ion:194 Resp: 401980

Ion	Ratio	Lower	Upper
194	100		
179	21.8	126.2	189.4#



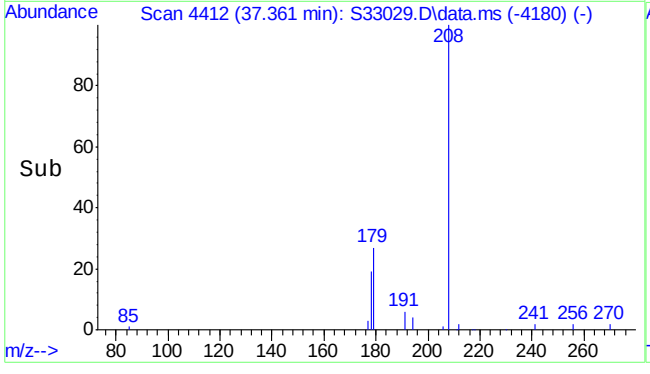


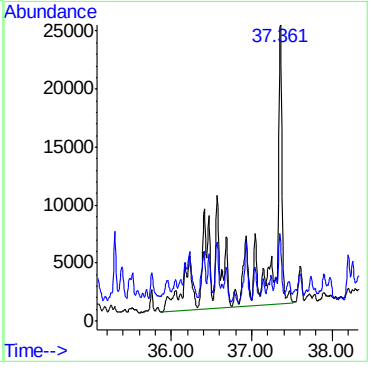


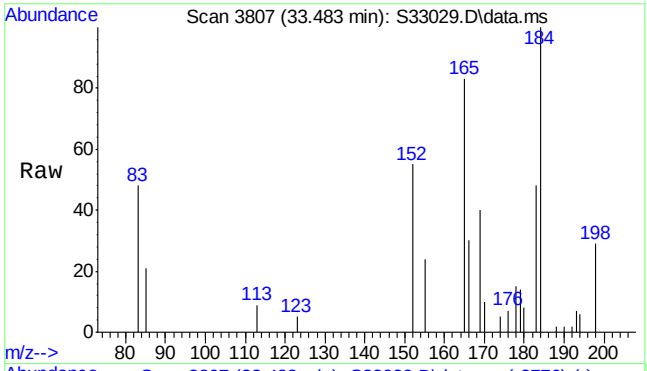
#19
C3-Fluorenes
Concen: 925.04 ng/mL m
RT: 37.361 min Scan# 4412
Delta R.T. 0.782 min
Lab File: S33029.D
Acq: 24 Jul 2013 6:20 am

Tgt Ion:208 Resp: 283735

Ion	Ratio	Lower	Upper
208	100		
178	5.9	54.9	82.3#



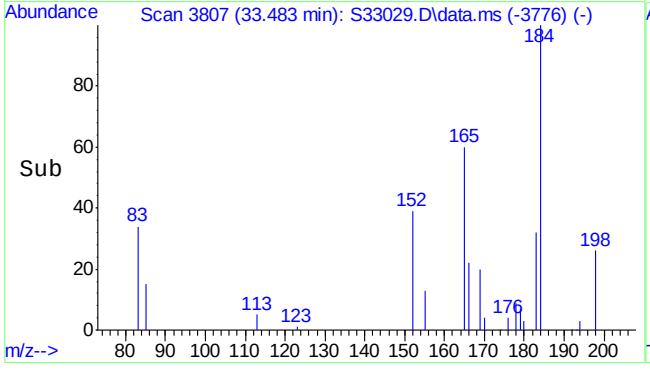


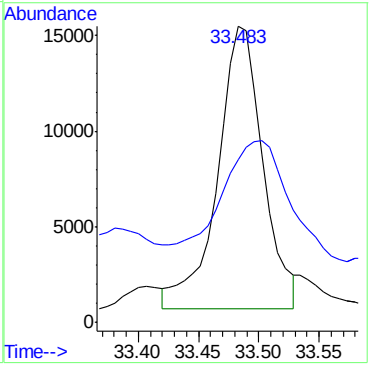


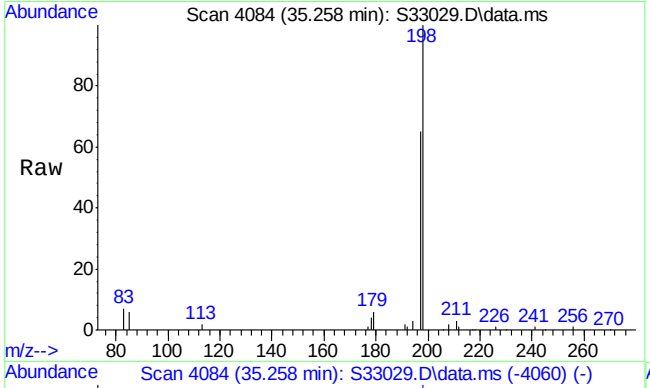
#20
Dibenzothiophene
Concen: 100.19 ng/mL m
RT: 33.483 min Scan# 3807
Delta R.T. -0.000 min
Lab File: S33029.D
Acq: 24 Jul 2013 6:20 am

Tgt Ion:184 Resp: 38745

Ion	Ratio	Lower	Upper
184	100		
152	69.9	7.7	11.5#



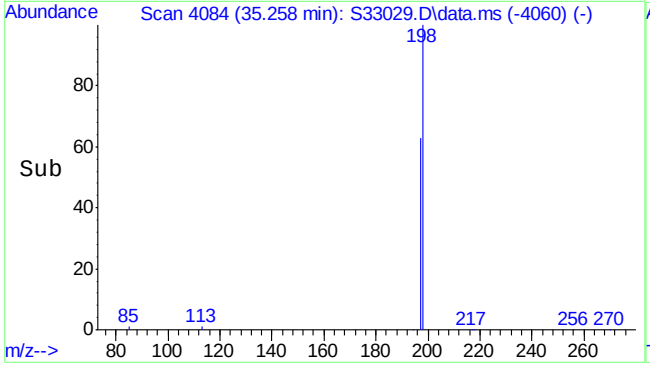


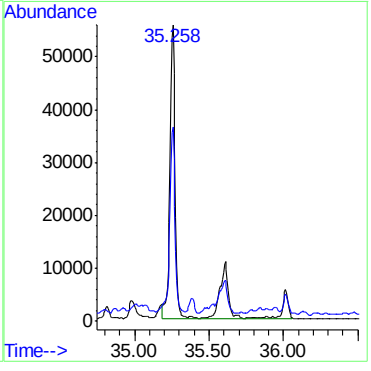


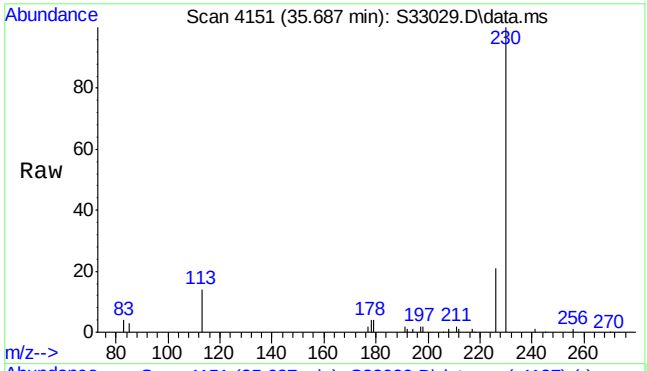
#21
C1-Dibenzothiophenes (unadj)
Concen: 496.73 ng/mL m
RT: 35.258 min Scan# 4084
Delta R.T. 0.000 min
Lab File: S33029.D
Acq: 24 Jul 2013 6:20 am

Tgt Ion:198 Resp: 189352

Ion	Ratio	Lower	Upper
198	100		
197	45.8	53.4	80.0#



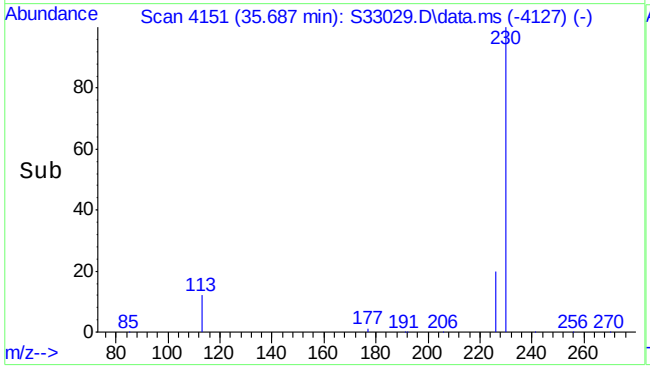


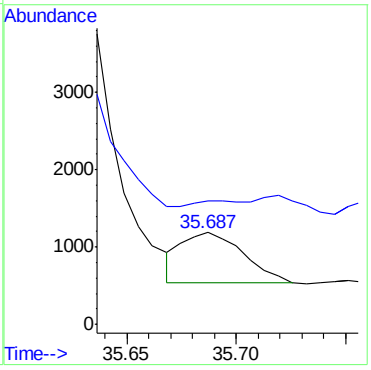


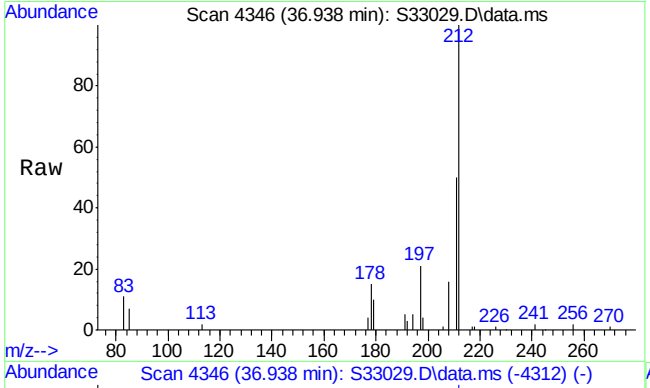
#22
C1-Dibenzothiophenes (OTP)
Concen: 3.33 µg/mL m
RT: 35.687 min Scan# 4151
Delta R.T. 0.064 min
Lab File: S33029.D
Acq: 24 Jul 2013 6:20 am

Tgt Ion:198 Resp: 1268

Ion	Ratio	Lower	Upper
198	100		
197	1801.1	58.2	87.2#



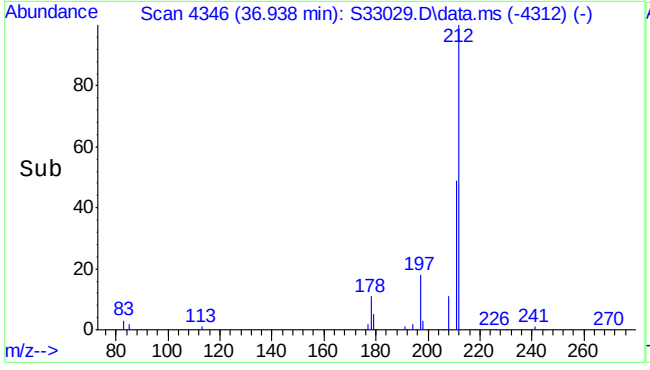


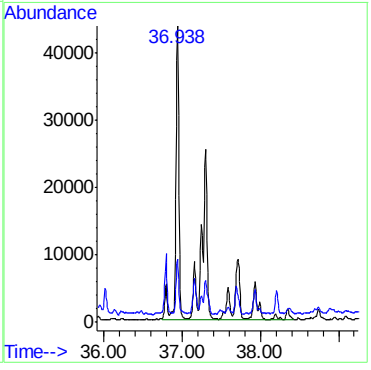


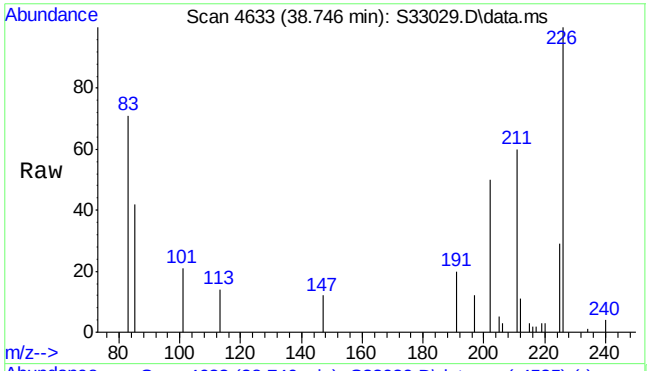
#23
C2-Dibenzothiophenes
Concen: 804.85 ng/mL m
RT: 36.938 min Scan# 4346
Delta R.T. -0.365 min
Lab File: S33029.D
Acq: 24 Jul 2013 6:20 am

Tgt Ion:212 Resp: 306803

Ion	Ratio	Lower	Upper
212	100		
197	5.2	20.6	30.8#



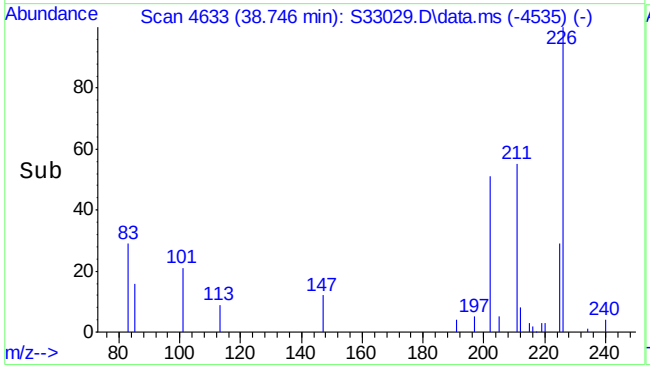


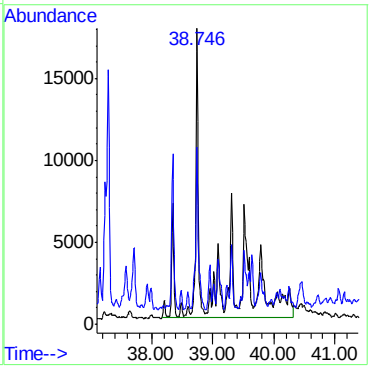


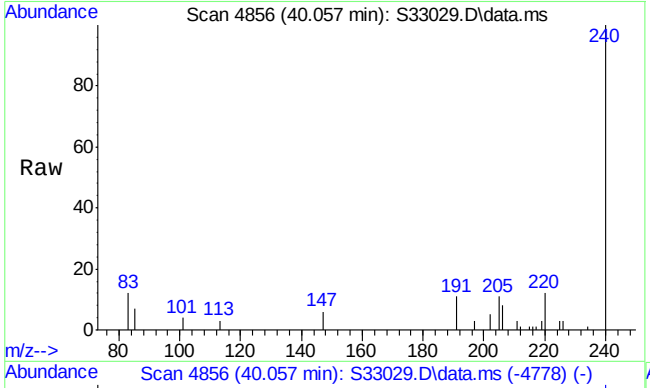
#24
C3-Dibenzothiophenes
Concen: 563.40 ng/mL m
RT: 38.746 min Scan# 4633
Delta R.T. -0.006 min
Lab File: S33029.D
Acq: 24 Jul 2013 6:20 am

Tgt Ion:226 Resp: 214766

Ion	Ratio	Lower	Upper
226	100		
211	15.6	49.7	74.5#

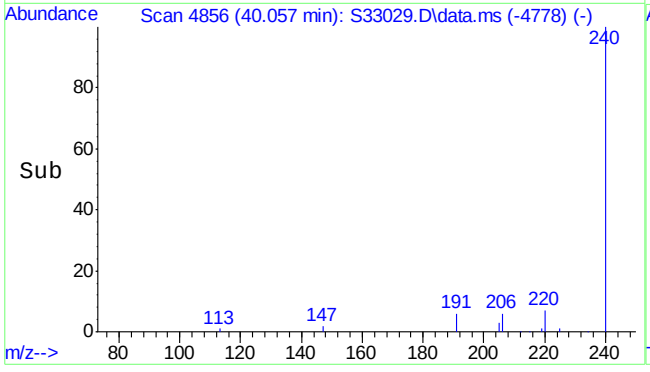


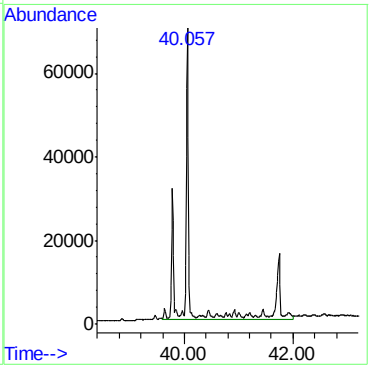


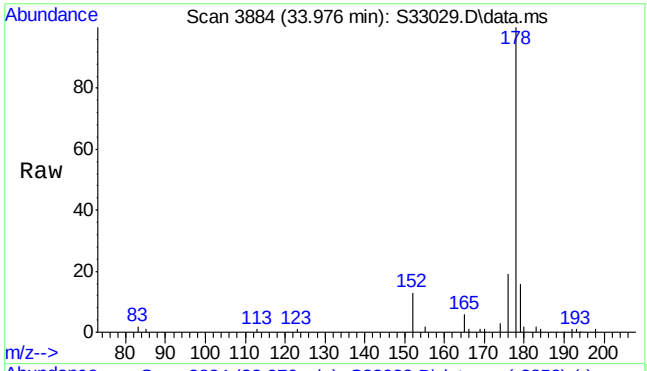


#25
C4-Dibenzothiophenes
Concen: 1028.05 ng/mL m
RT: 40.057 min Scan# 4856
Delta R.T. -0.388 min
Lab File: S33029.D
Acq: 24 Jul 2013 6:20 am

Tgt Ion:240 Resp: 391886



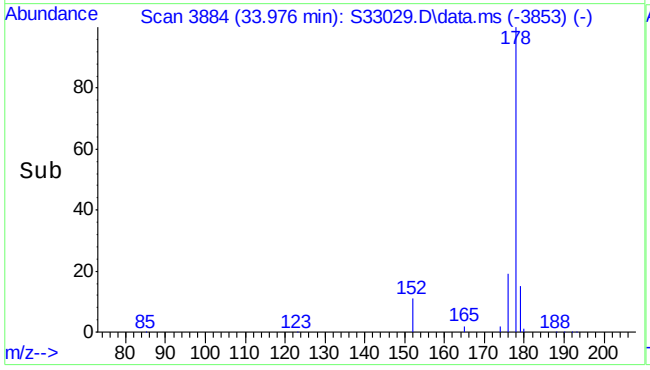


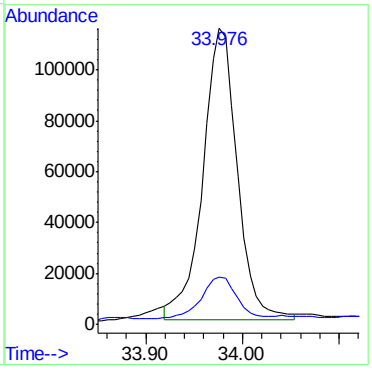


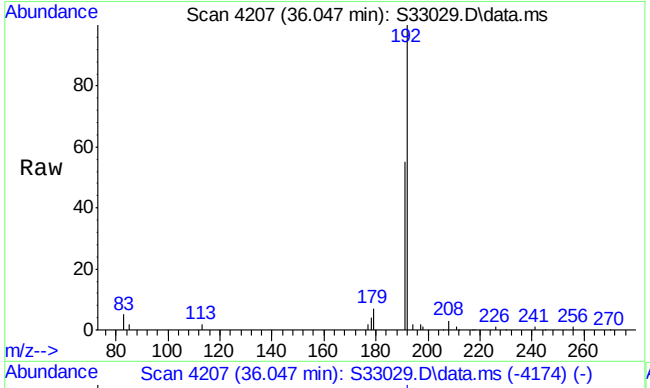
#26
Phenanthrene
Concen: 646.57 ng/mL m
RT: 33.976 min Scan# 3884
Delta R.T. -0.000 min
Lab File: S33029.D
Acq: 24 Jul 2013 6:20 am

Tgt Ion:178 Resp: 285889

Ion	Ratio	Lower	Upper
178	100		
179	14.4	12.6	18.8



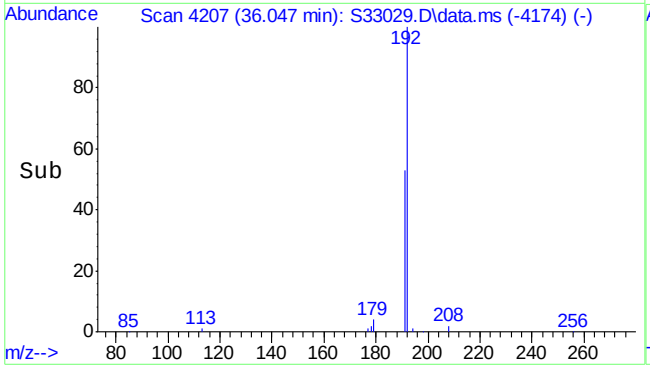


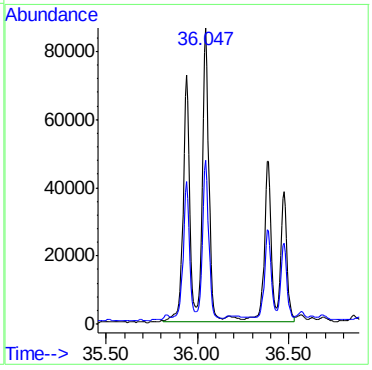


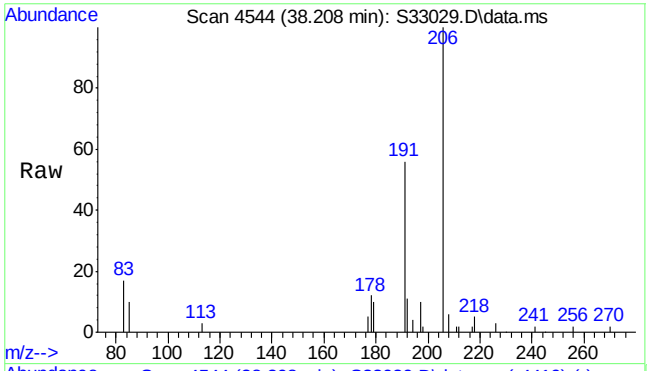
#28
C1-Phenanthrenes/anthracenes
Concen: 1346.58 ng/mL m
RT: 36.047 min Scan# 4207
Delta R.T. -0.340 min
Lab File: S33029.D
Acq: 24 Jul 2013 6:20 am

Tgt Ion:192 Resp: 595407

Ion	Ratio	Lower	Upper
192	100		
191	10.8	46.7	70.1#



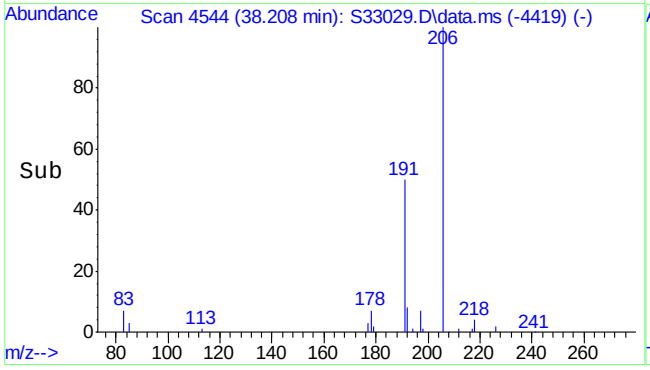


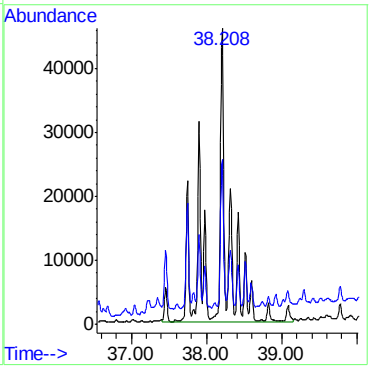


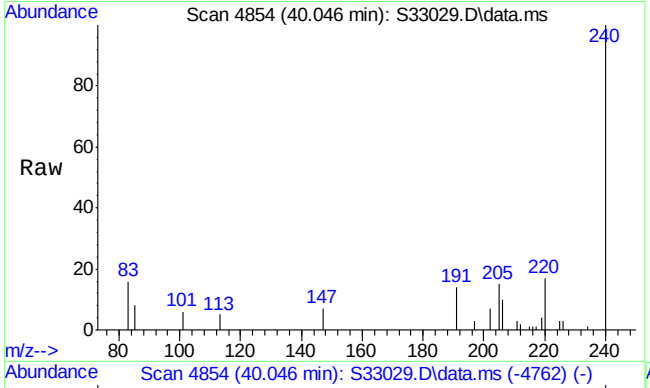
#29
C2-Phenanthrenes/anthracenes (unadj)
Concen: 1062.99 ng/mL m
RT: 38.208 min Scan# 4544
Delta R.T. 0.000 min
Lab File: S33029.D
Acq: 24 Jul 2013 6:20 am

Tgt Ion:206 Resp: 470015

Ion	Ratio	Lower	Upper
206	100		
191	13.6	49.1	73.7#



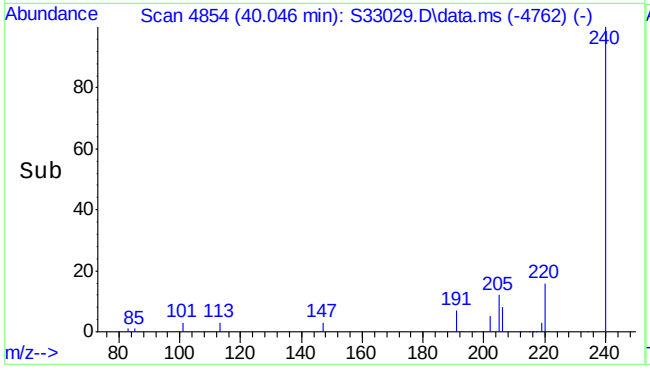


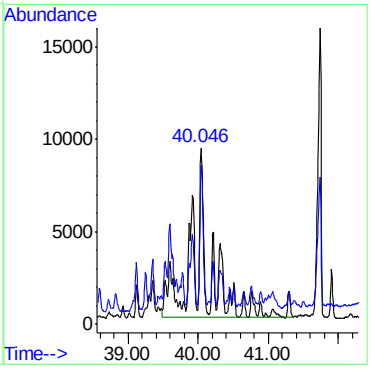


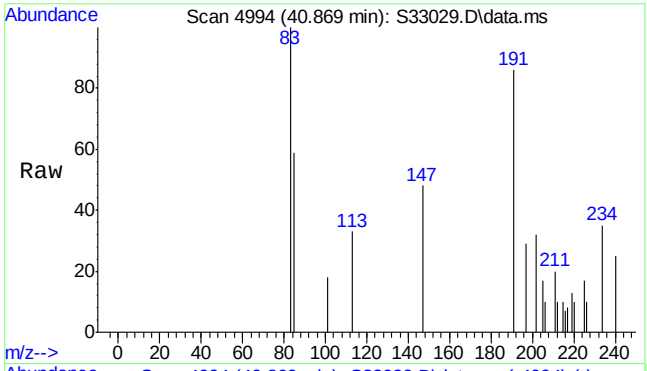
#31
C3-Phenanthrenes/anthracenes
Concen: 322.00 ng/mL m
RT: 40.046 min Scan# 4854
Delta R.T. -0.006 min
Lab File: S33029.D
Acq: 24 Jul 2013 6:20 am

Tgt Ion:220 Resp: 142377

Ion	Ratio	Lower	Upper
220	100		
205	8.2	45.1	67.7#



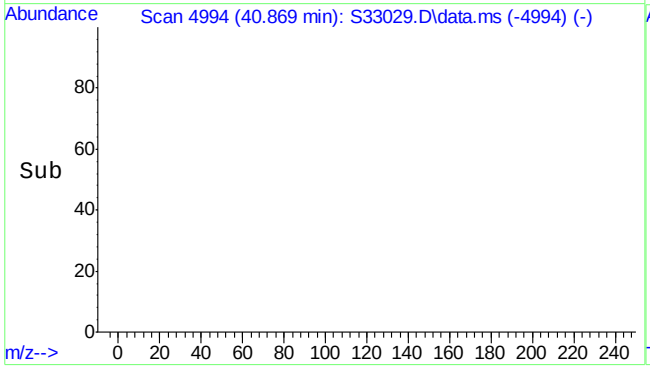


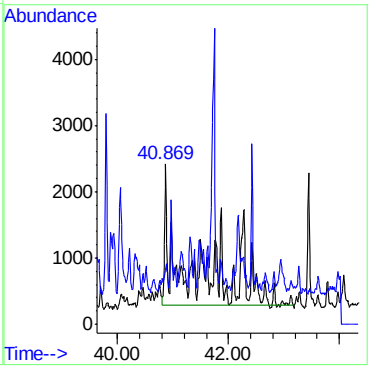


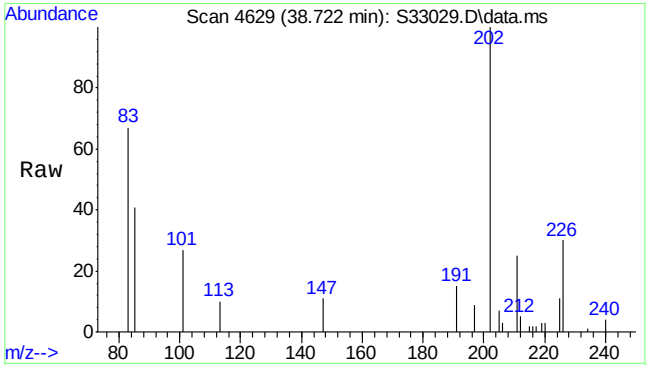
#32
C4-Phenanthrenes/anthracenes
Concen: 120.67 ng/mL m
RT: 40.869 min Scan# 4994
Delta R.T. -1.364 min
Lab File: S33029.D
Acq: 24 Jul 2013 6:20 am

Tgt Ion:234 Resp: 53355

Ion	Ratio	Lower	Upper
234	100		
219	1.8	49.0	73.4#



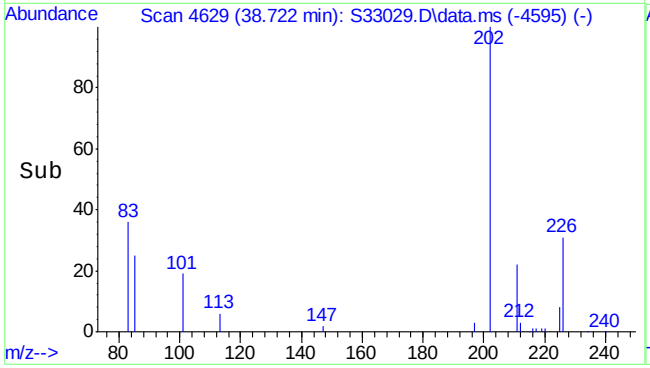


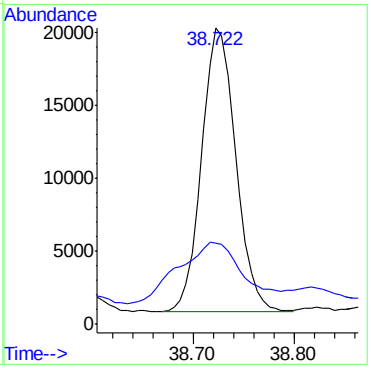


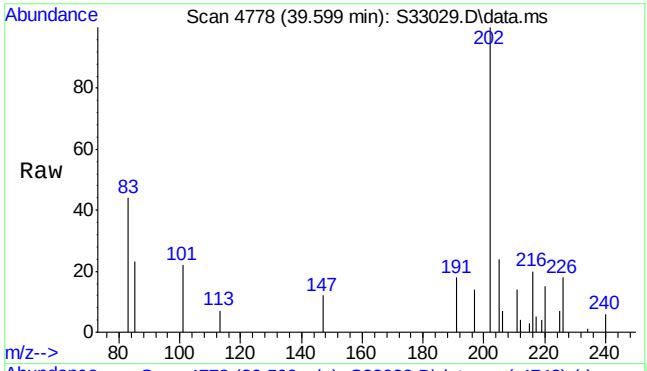
#33
Fluoranthene
Concen: 116.27 ng/mL
RT: 38.722 min Scan# 4629
Delta R.T. -0.000 min
Lab File: S33029.D
Acq: 24 Jul 2013 6:20 am

Tgt Ion:202 Resp: 45546

Ion	Ratio	Lower	Upper
202	100		
101	41.0	9.8	14.6#



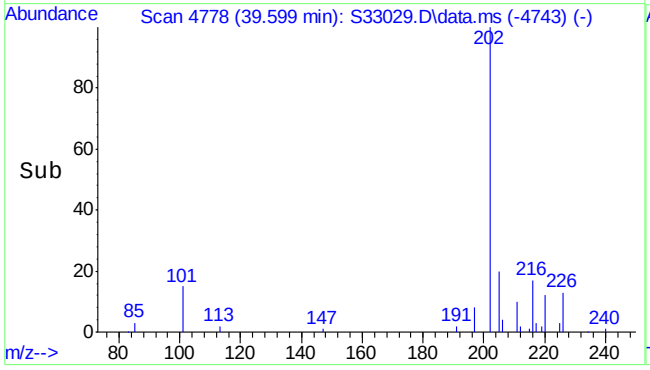


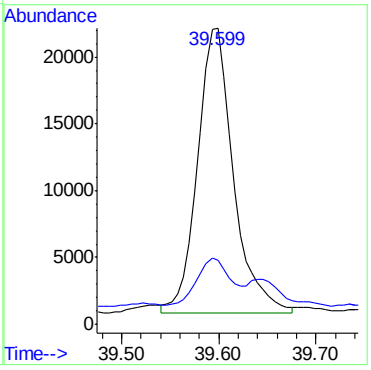


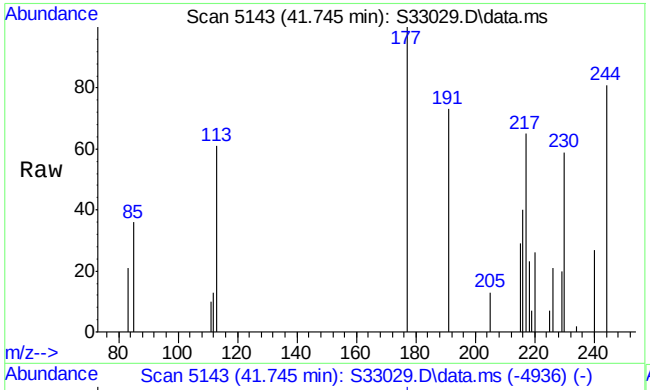
#34
Pyrene
Concen: 133.84 ng/mL m
RT: 39.599 min Scan# 4778
Delta R.T. 0.006 min
Lab File: S33029.D
Acq: 24 Jul 2013 6:20 am

Tgt Ion:202 Resp: 54322

Ion	Ratio	Lower	Upper
202	100		
101	15.6	11.4	17.0



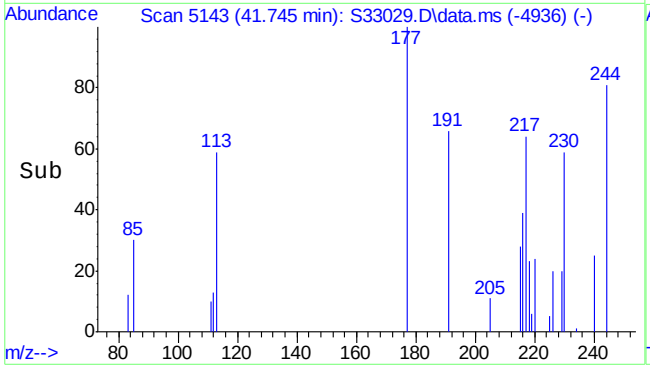


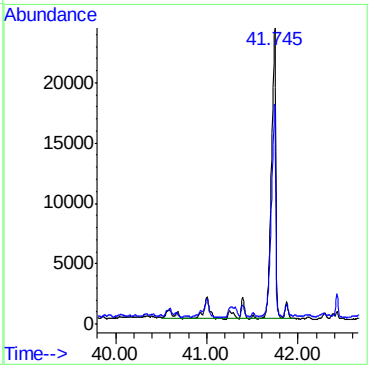


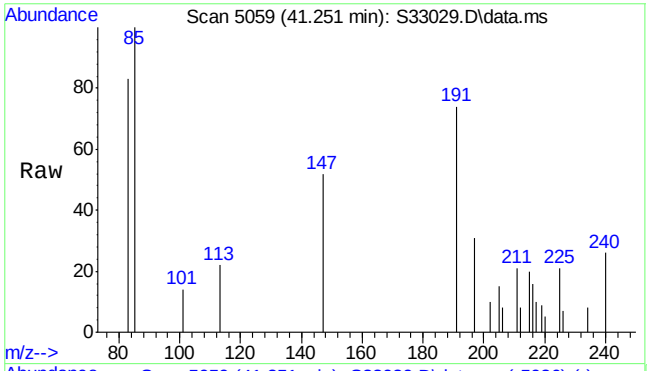
#35
C1-Fluoranthenes/pyrenes
Concen: 241.01 ng/mL m
RT: 41.745 min Scan# 5143
Delta R.T. 0.741 min
Lab File: S33029.D
Acq: 24 Jul 2013 6:20 am

Tgt Ion:216 Resp: 97817

Ion	Ratio	Lower	Upper
216	100		
215	1.0	79.0	118.4#



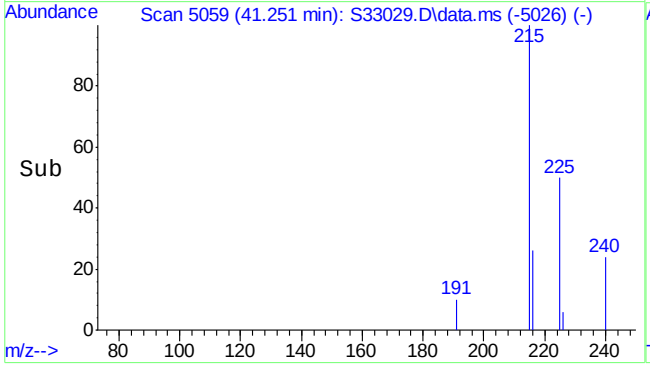


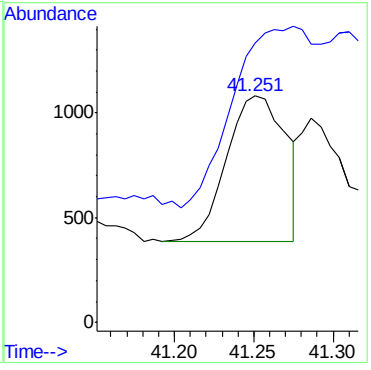


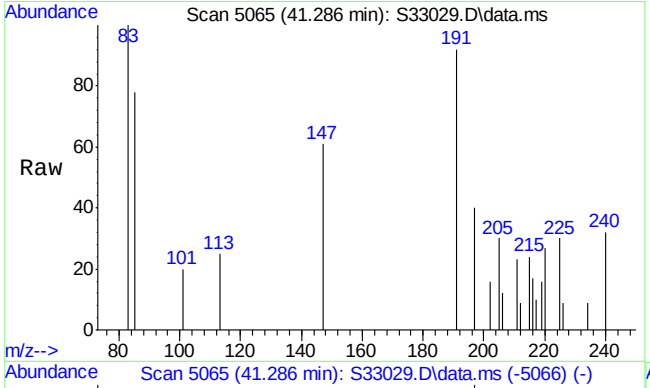
#36
Benzo(b)fluorene
Concen: 4.48 ng/mL
RT: 41.251 min Scan# 5059
Delta R.T. -0.006 min
Lab File: S33029.D
Acq: 24 Jul 2013 6:20 am

Tgt Ion:216 Resp: 1820

Ion	Ratio	Lower	Upper
216	100		
215	0.0	112.3	168.5#



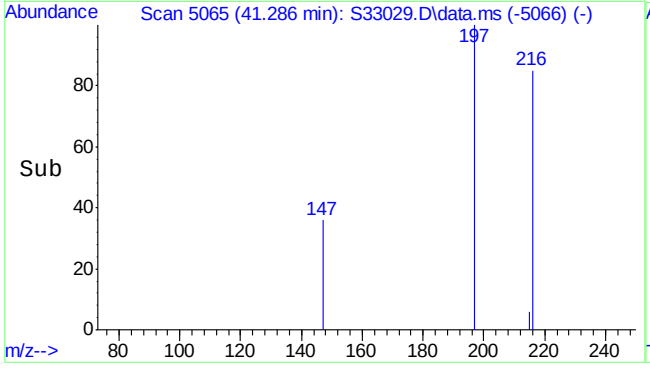


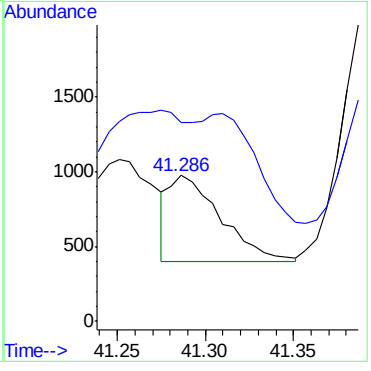


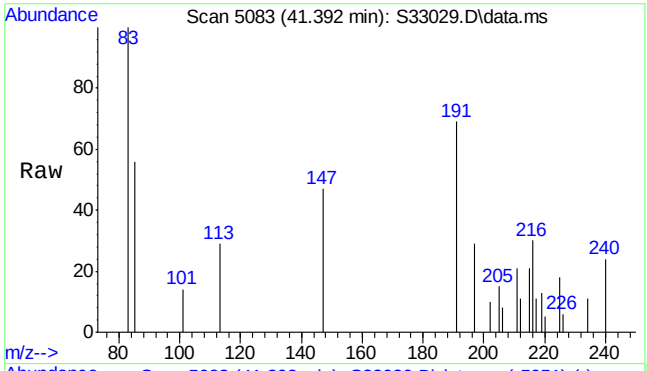
#37
Benzo(c)fluorene
Concen: 2.91 µg/mL m
RT: 41.286 min Scan# 5065
Delta R.T. -0.006 min
Lab File: S33029.D
Acq: 24 Jul 2013 6:20 am

Tgt Ion:216 Resp: 1182

Ion	Ratio	Lower	Upper
216	100		
215	202.1	114.9	172.3#



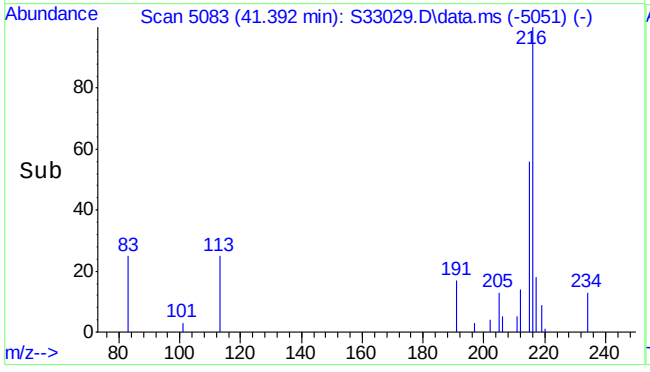


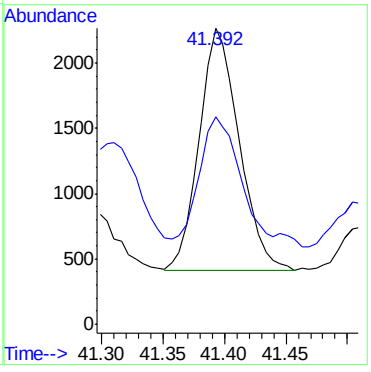


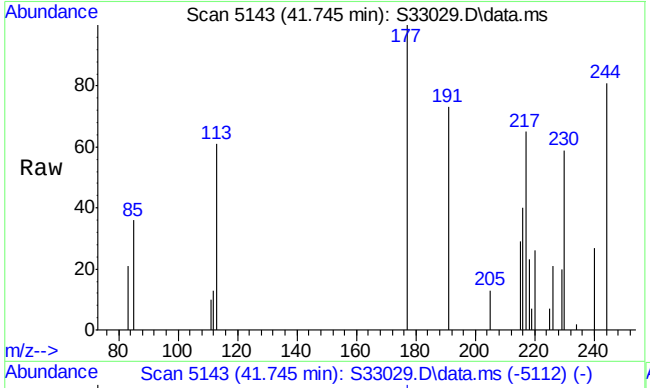
#38
2-Methylpyrene
Concen: 10.36 ng/mL m
RT: 41.392 min Scan# 5083
Delta R.T. -0.012 min
Lab File: S33029.D
Acq: 24 Jul 2013 6:20 am

Tgt Ion:216 Resp: 4203

Ion	Ratio	Lower	Upper
216	100		
215	19.0	81.0	121.6#



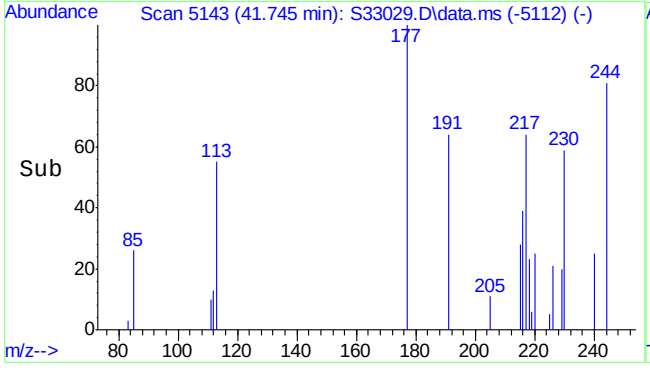


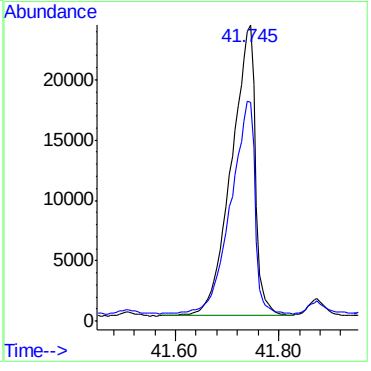


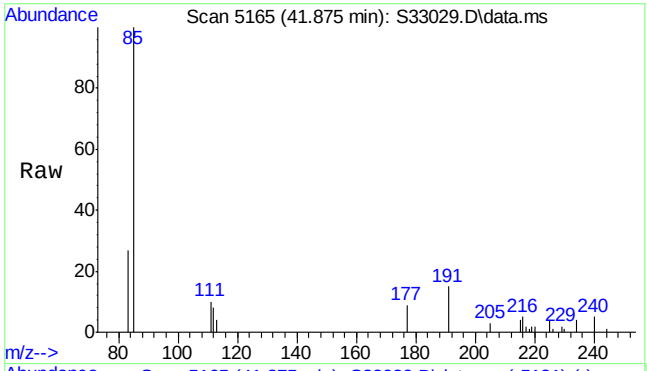
#39
4-Methylpyrene
Concen: 189.40 ng/mL
RT: 41.745 min Scan# 5143
Delta R.T. -0.018 min
Lab File: S33029.D
Acq: 24 Jul 2013 6:20 am

Tgt Ion:216 Resp: 76870

Ion	Ratio	Lower	Upper
216	100		
215	74.1	58.1	87.1



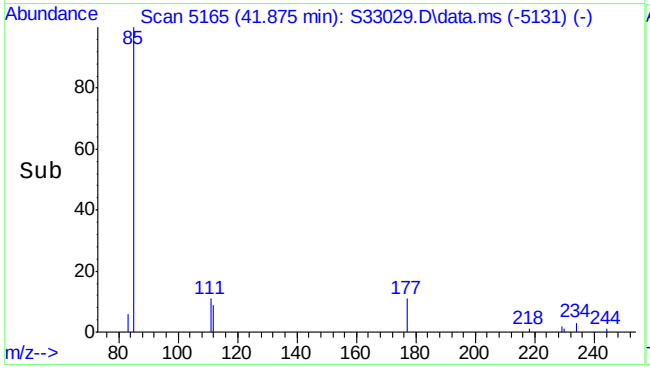


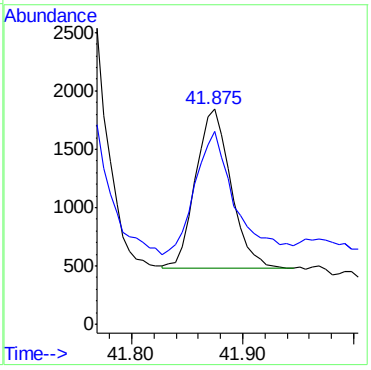


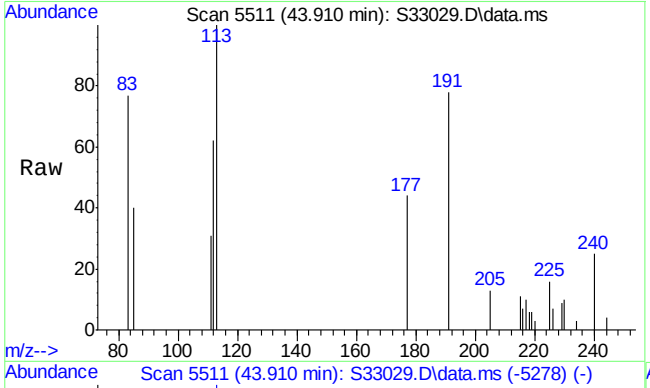
#40
1-Methylpyrene
Concen: 7.42 ng/mL
RT: 41.875 min Scan# 5165
Delta R.T. 0.000 min
Lab File: S33029.D
Acq: 24 Jul 2013 6:20 am

Tgt Ion:216 Resp: 3013

Ion	Ratio	Lower	Upper
216	100		
215	87.3	80.5	120.7



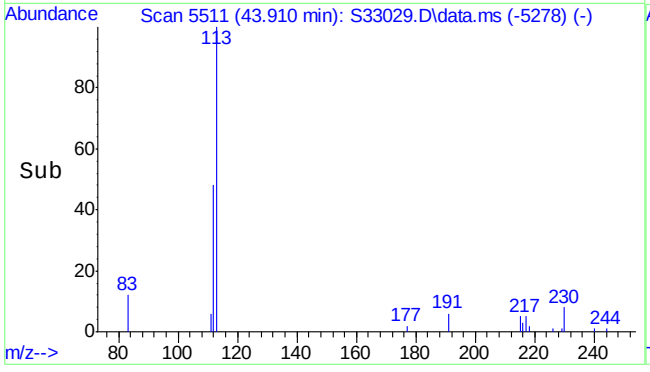


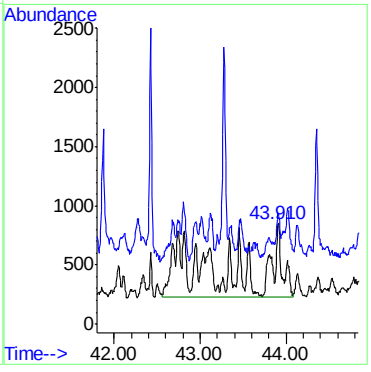


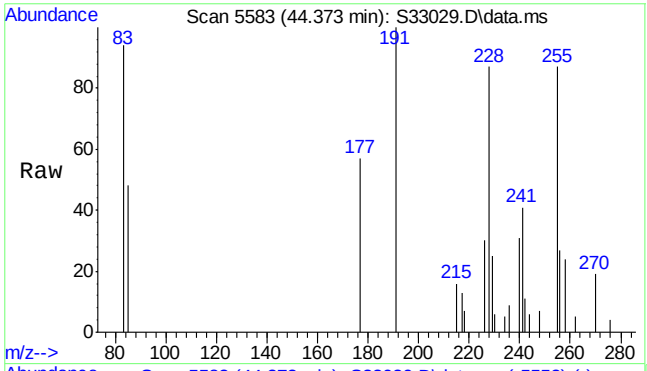
#41
C2-Fluoranthenes/pyrenes
Concen: 50.20 ng/mL m
RT: 43.910 min Scan# 5511
Delta R.T. -0.006 min
Lab File: S33029.D
Acq: 24 Jul 2013 6:20 am

Tgt Ion:230 Resp: 20376

Ion	Ratio	Lower	Upper
230	100		
215	4.4	79.2	118.8#



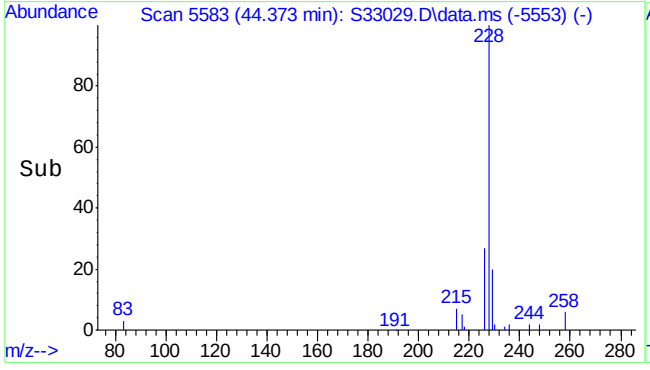


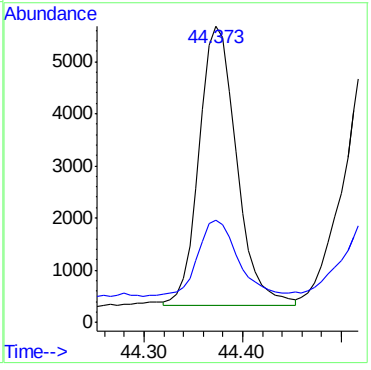


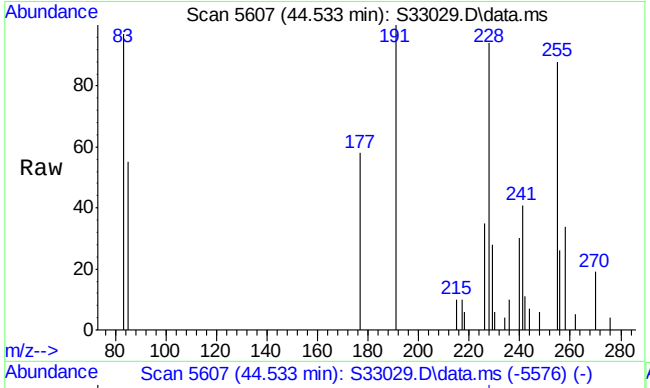
#43
Benz(a)anthracene
Concen: 36.17 ng/mL m
RT: 44.373 min Scan# 5583
Delta R.T. -0.000 min
Lab File: S33029.D
Acq: 24 Jul 2013 6:20 am

Tgt Ion:228 Resp: 14177

Ion	Ratio	Lower	Upper
228	100		
226	29.4	21.4	32.2



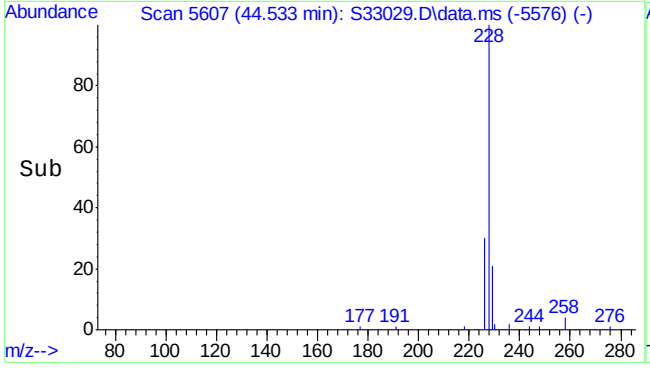


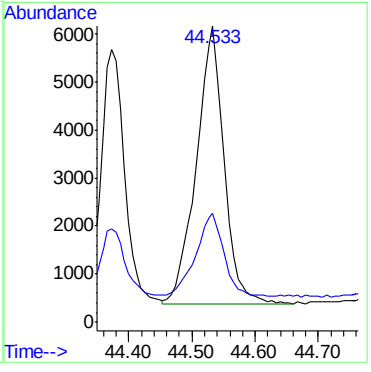


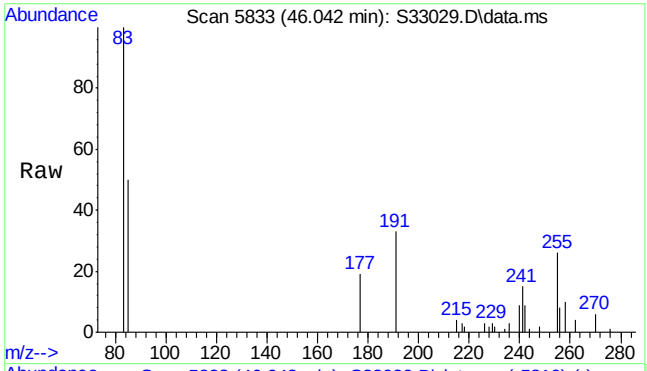
#44
Chrysene
Concen: 48.19 ng/mL
RT: 44.533 min Scan# 5607
Delta R.T. 0.007 min
Lab File: S33029.D
Acq: 24 Jul 2013 6:20 am

Tgt Ion:228 Resp: 17620

Ion	Ratio	Lower	Upper
228	100		
226	30.3	23.8	35.6



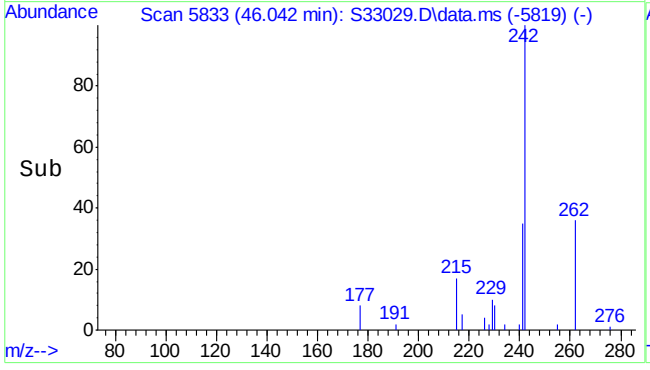


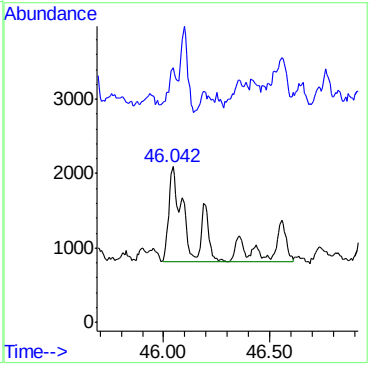


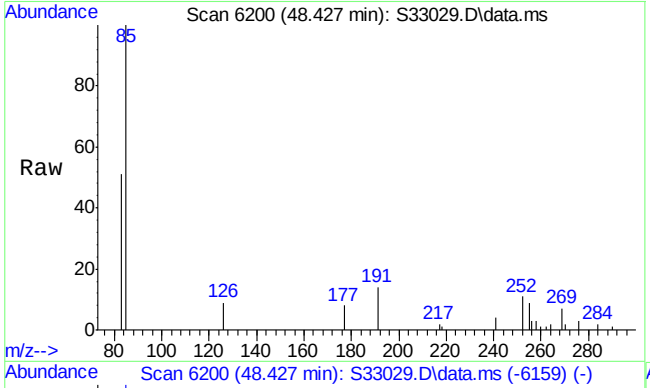
#45
C1-Benz(a)anthracenes/chrysenes
Concen: 27.72 ng/mL m
RT: 46.042 min Scan# 5833
Delta R.T. 0.027 min
Lab File: S33029.D
Acq: 24 Jul 2013 6:20 am

Tgt Ion:242 Resp: 10135

Ion	Ratio	Lower	Upper
242	100		
241	12.7	39.4	59.0#



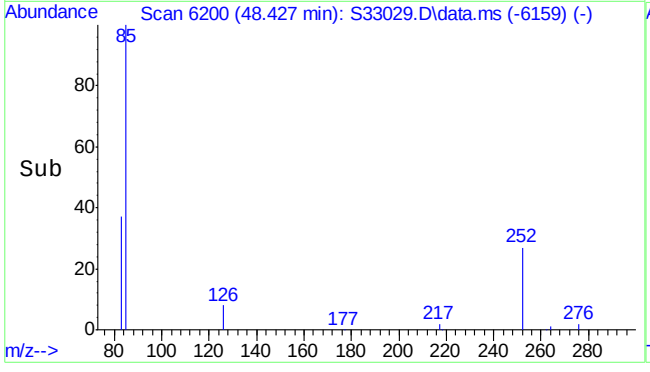


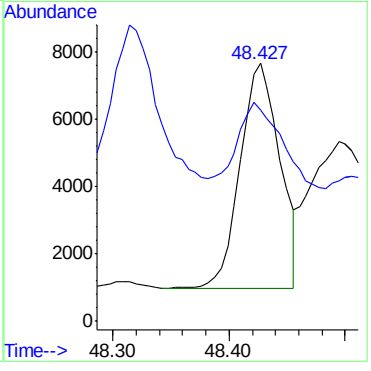


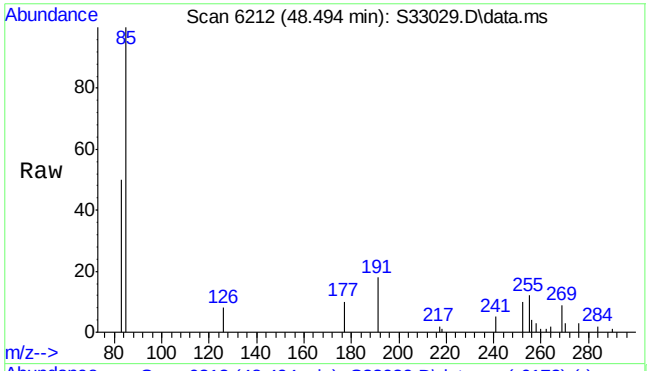
#49
Benzo(b)fluoranthene
Concen: 35.73 ng/mL
RT: 48.427 min Scan# 6200
Delta R.T. 0.028 min
Lab File: S33029.D
Acq: 24 Jul 2013 6:20 am

Tgt Ion:252 Resp: 16033

Ion	Ratio	Lower	Upper
252	100		
126	42.8	10.6	15.8#



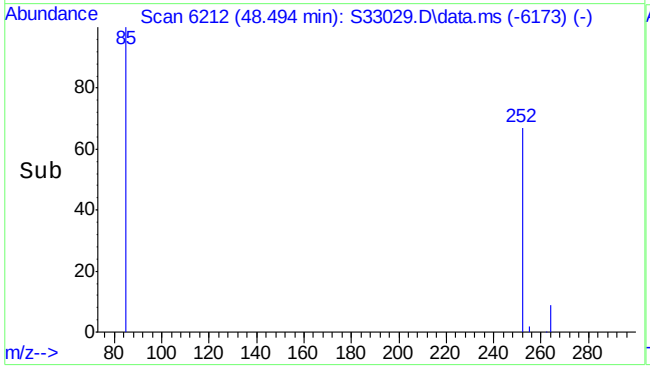


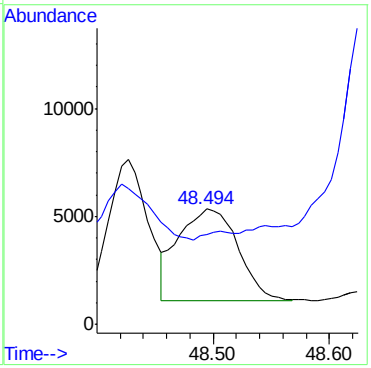


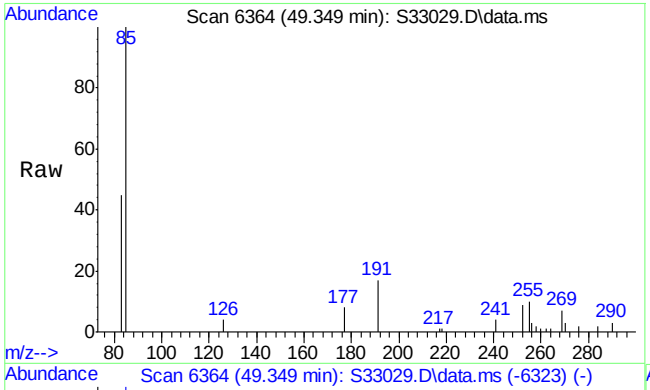
#50
Benzo(k)fluoranthene
Concen: 34.09 ng/mL m
RT: 48.494 min Scan# 6212
Delta R.T. 0.017 min
Lab File: S33029.D
Acq: 24 Jul 2013 6:20 am

Tgt Ion:252 Resp: 15246

Ion	Ratio	Lower	Upper
252	100		
126	3.9	11.9	17.9#



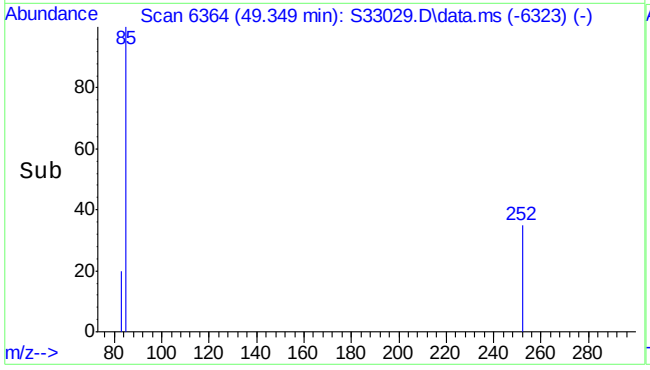


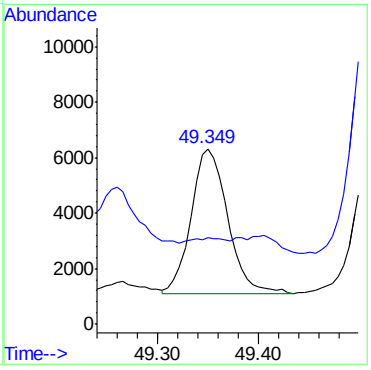


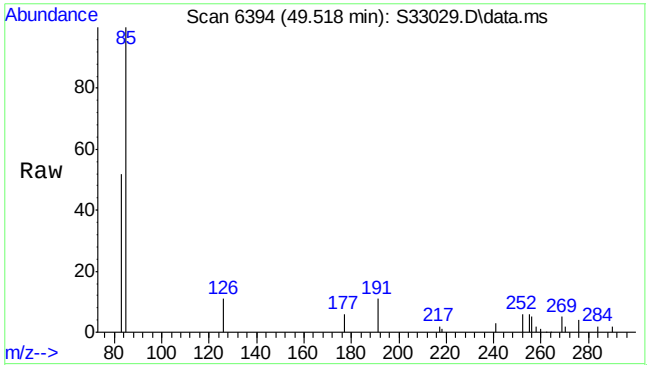
#51
Benzo(e)pyrene
Concen: 32.80 ng/mL
RT: 49.349 min Scan# 6364
Delta R.T. 0.028 min
Lab File: S33029.D
Acq: 24 Jul 2013 6:20 am

Tgt Ion:252 Resp: 13243

Ion	Ratio	Lower	Upper
252	100		
126	3.2	9.9	14.9#



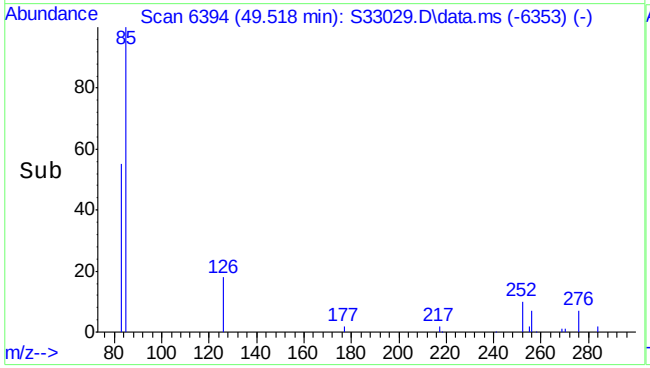


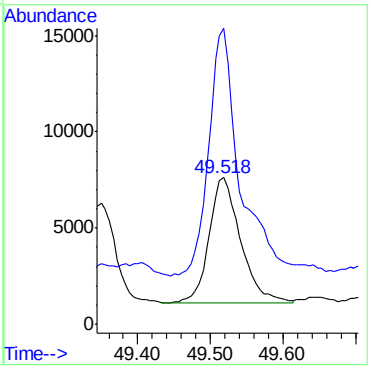


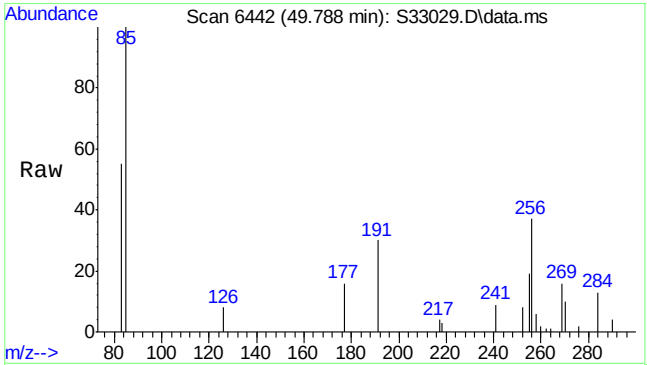
#52
Benzo(a)pyrene
Concen: 50.75 ng/mL
RT: 49.518 min Scan# 6394
Delta R.T. 0.028 min
Lab File: S33029.D
Acq: 24 Jul 2013 6:20 am

Tgt Ion:252 Resp: 19846

Ion	Ratio	Lower	Upper
252	100		
126	199.3	11.6	17.4#



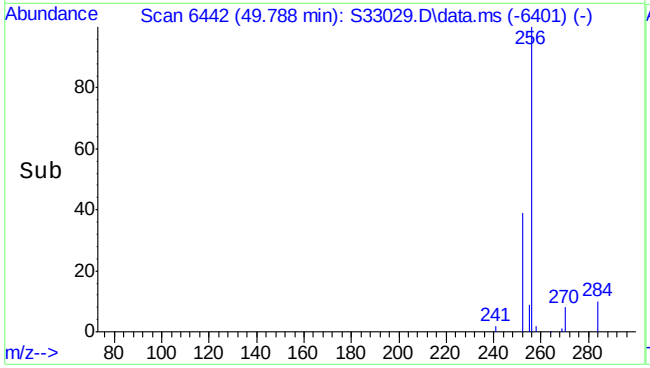


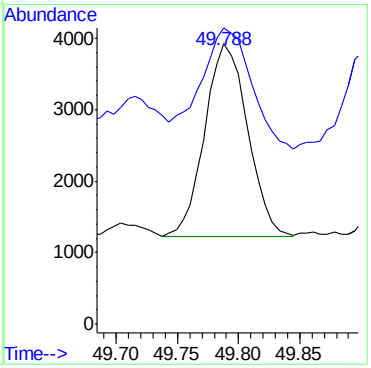


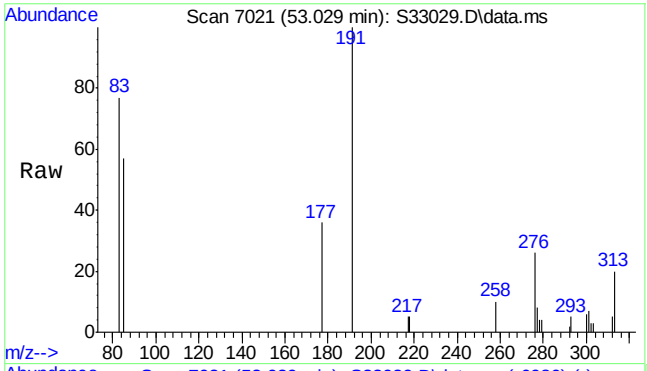
#53
Perylene
Concen: 17.30 ng/mL
RT: 49.788 min Scan# 6442
Delta R.T. 0.028 min
Lab File: S33029.D
Acq: 24 Jul 2013 6:20 am

Tgt Ion:252 Resp: 6575

Ion	Ratio	Lower	Upper
252	100		
126	74.7	12.5	18.7#



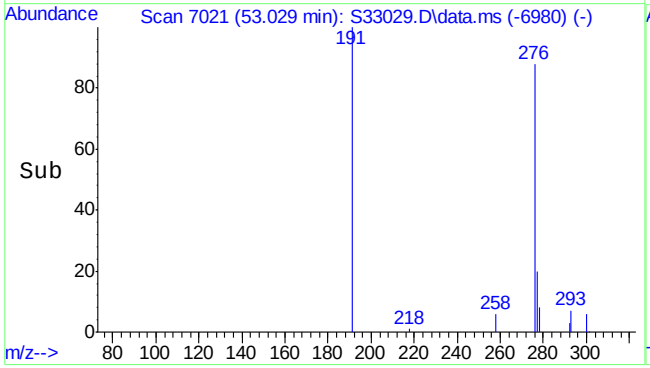


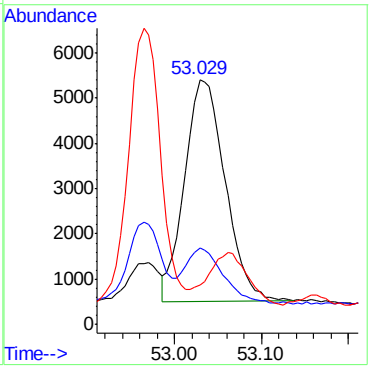


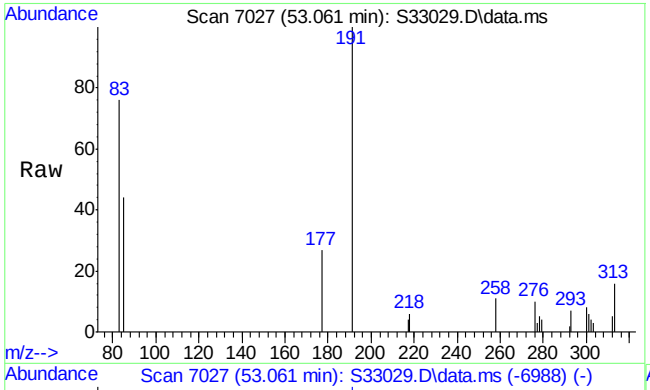
#54
Indeno(1,2,3-cd)pyrene
Concen: 35.39 ng/mL
RT: 53.029 min Scan# 7021
Delta R.T. 0.021 min
Lab File: S33029.D
Acq: 24 Jul 2013 6:20 am

Tgt Ion:276 Resp: 15848

Ion	Ratio	Lower	Upper
276	100		
277	23.2	19.0	28.4
278	0.0	5.7	8.5#



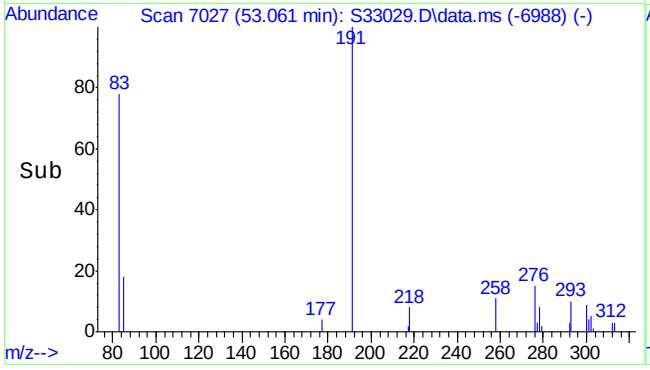


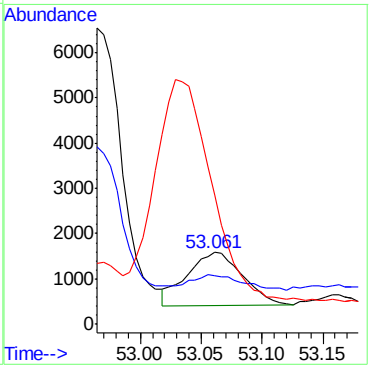


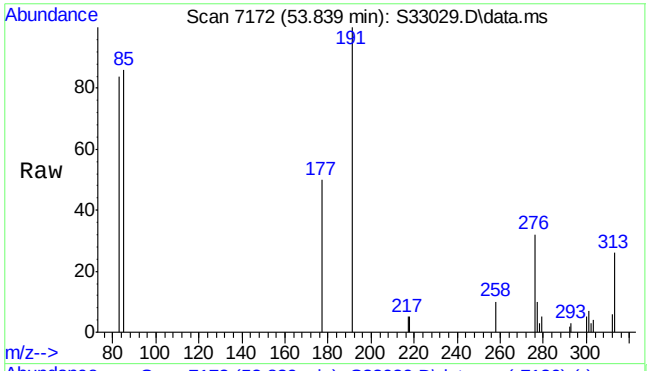
#55
Dibenz(a,h)anthracene
Concen: 9.28 ng/mL
RT: 53.061 min Scan# 7027
Delta R.T. 0.011 min
Lab File: S33029.D
Acq: 24 Jul 2013 6:20 am

Tgt Ion:278 Resp: 3768

Ion	Ratio	Lower	Upper
278	100		
279	25.0	19.2	28.8
276	0.0	29.6	44.4#



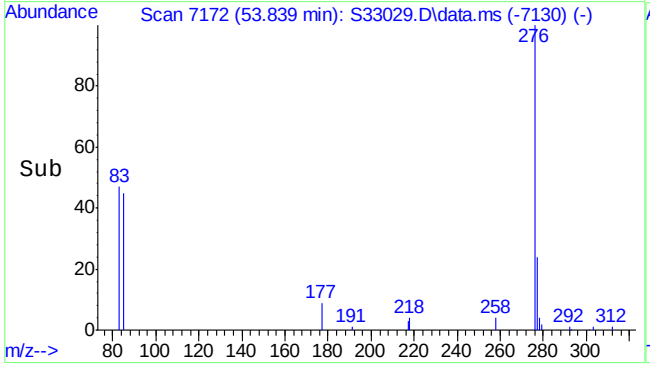


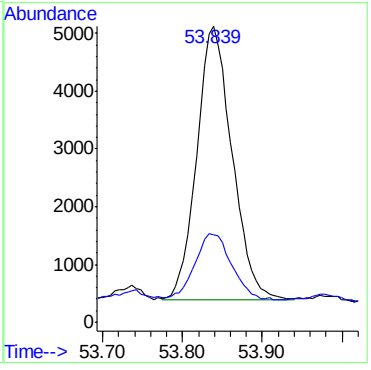


#56
Benzo(g,h,i)perylene
Concen: 30.37 ng/mL m
RT: 53.839 min Scan# 7172
Delta R.T. 0.027 min
Lab File: S33029.D
Acq: 24 Jul 2013 6:20 am

Tgt Ion:276 Resp: 14571

Ion	Ratio	Lower	Upper
276	100		
277	25.1	18.9	28.3





7.1.15

7

Manual Integrations APPROVED (compounds with "m" flag)
James Roush
07/31/13 10:55

Quantitation Report (QT Reviewed)

Data Path : S:\1\data\S130716\
Data File : S33002.D
Acq On : 17 Jul 2013 4:10 am
Operator : kristinr
Sample : mc21754-7a
Misc : op33686,mss1443,5.20,,,2,10
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Jul 30 12:05:43 2013
Quant Method : S:\1\methods\S130705-B5739ALKPAH.M
Quant Title : PAHs & Alkylated PAHs by GC/MS/SIM
QLast Update : Thu Jul 11 09:13:24 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Acenaphthene-d10	28.143	164	143464	1100.00	ng/mL	# 0.00
System Monitoring Compounds						
2) Toluene-d8	9.217	98	2440m	15.89	µg/mL	-0.03
Spiked Amount 1000.000			Recovery =	1.59%		
3) Naphthalene-d8	21.201	136	8803m	34.71	ng/mL	0.02
Spiked Amount 1000.000	Range 1 - 0		Recovery =	3.47%#		
4) Phenanthrene-d10	33.976	188	7977	38.21	ng/mL	-0.01
Spiked Amount 1000.000			Recovery =	3.82%		
5) Perylene-d12	49.794	264	7588	41.17	ng/mL	-0.04
Spiked Amount 1000.000			Recovery =	4.12%		
Target Compounds						Qvalue
6) Naphthalene	21.275	128	1003426	3112.68	ng/mL	97
7) 2-Methylnaphthalene	23.972	142	943346	4931.73	ng/mL	100
8) 1-Methylnaphthalene	24.393	142	419791	2103.69	ng/mL	100
9) C1-Naphthalenes	23.972	142	1361410m	4223.16	ng/mL	
10) C2-Naphthalenes	26.810	156	1772862m	5499.51	ng/mL	
11) C3-Naphthalenes	29.135	170	1371839m	4255.51	ng/mL	
12) C4-Naphthalenes	31.902	184	757994m	2351.34	ng/mL	
13) Acenaphthylene	27.552	152	4024	13.50	ng/mL#	1
14) Acenaphthene	28.265	154	18709	102.86	ng/mL	84
15) Dibenzofuran	28.912	168	35297m	136.16	ng/mL	
16) Fluorene	30.276	166	154152m	668.20	ng/mL	
17) C1-Fluorenes	32.638	180	199230m	863.59	ng/mL	
18) C2-Fluorenes	34.828	194	338222m	1466.08	ng/mL	
19) C3-Fluorenes	37.444	208	219102m	949.73	ng/mL	
20) Dibenzothiophene	33.573	184	30791m	105.86	ng/mL	
21) C1-Dibenzothiophenes (...	35.341	198	162301m	566.08	ng/mL	
22) C1-Dibenzothiophenes (...	35.771	198	1162m	4.05	µg/mL	
23) C2-Dibenzothiophenes	37.028	212	231971m	809.08	ng/mL	
24) C3-Dibenzothiophenes	38.834	226	136582m	476.38	ng/mL	
25) C4-Dibenzothiophenes	40.140	240	190549m	664.61	ng/mL	
26) Phenanthrene	34.066	178	240981m	724.62	ng/mL	
28) C1-Phenanthrenes/anthr...	36.136	192	500874m	1506.10	ng/mL	
29) C2-Phenanthrenes/anthr...	38.291	206	345894m	1040.08	ng/mL	
31) C3-Phenanthrenes/anthr...	40.128	220	103679m	311.76	ng/mL	
32) C4-Phenanthrenes/anthr...	40.951	234	43237m	130.01	ng/mL	
33) Fluoranthene	38.811	202	35165	119.36	ng/mL#	93
34) Pyrene	39.687	202	40680m	133.26	ng/mL	
35) C1-Fluoranthenes/pyrenes	41.822	216	87511m	286.67	ng/mL	
36) Benzo(b)fluorene	41.339	216	1464m	4.80	ng/mL	
37) Benzo(c)fluorene	41.369	216	753m	2.47	µg/mL	
38) 2-Methylpyrene	41.486	216	3372m	11.05	ng/mL	
40) 1-Methylpyrene	41.963	216	2591m	8.49	ng/mL	
41) C2-Fluoranthenes/pyrenes	43.127	230	14631m	47.93	ng/mL	
42) C3-Fluoranthenes/pyrenes	45.181	244	100865m	330.42	ng/mL	
43) Benz(a)anthracene	44.466	228	10269	34.83	ng/mL	96
44) Chrysene	44.620	228	13206	48.02	ng/mL	96

Quantitation Report (QT Reviewed)

Data Path : S:\1\data\S130716\
Data File : S33002.D
Acq On : 17 Jul 2013 4:10 am
Operator : kristinr
Sample : mc21754-7a
Misc : op33686,mss1443,5.20,,,2,10
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Jul 30 12:05:43 2013
Quant Method : S:\1\methods\S130705-B5739ALKPAH.M
Quant Title : PAHs & Alkylated PAHs by GC/MS/SIM
QLast Update : Thu Jul 11 09:13:24 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
45) C1-Benz(a)anthracenes/...	46.122	242	7998m	29.08	ng/mL	
46) C2-Benz(a)anthracenes/...	47.926	256	66293m	241.05	ng/mL	
47) C3-Benz(a)anthracenes/...	50.013	270	42399m	154.17	ng/mL	
49) Benzo(b)fluoranthene	48.511	252	12183	36.09	ng/mL#	23
50) Benzo(k)fluoranthene	48.584	252	11981	35.61	ng/mL#	78
51) Benzo(e)pyrene	49.434	252	9599	31.61	ng/mL#	80
52) Benzo(a)pyrene	49.603	252	14004	47.61	ng/mL#	1
53) Perylene	49.873	252	5106	17.87	ng/mL#	1
54) Indeno(1,2,3-cd)pyrene	53.125	276	12589	37.37	ng/mL#	95
55) Dibenz(a,h)anthracene	53.158	278	3245	10.62	ng/mL#	62
56) Benzo(g,h,i)perylene	53.935	276	11603	32.15	ng/mL	96

(#) = qualifier out of range (m) = manual integration (+) = signals summed

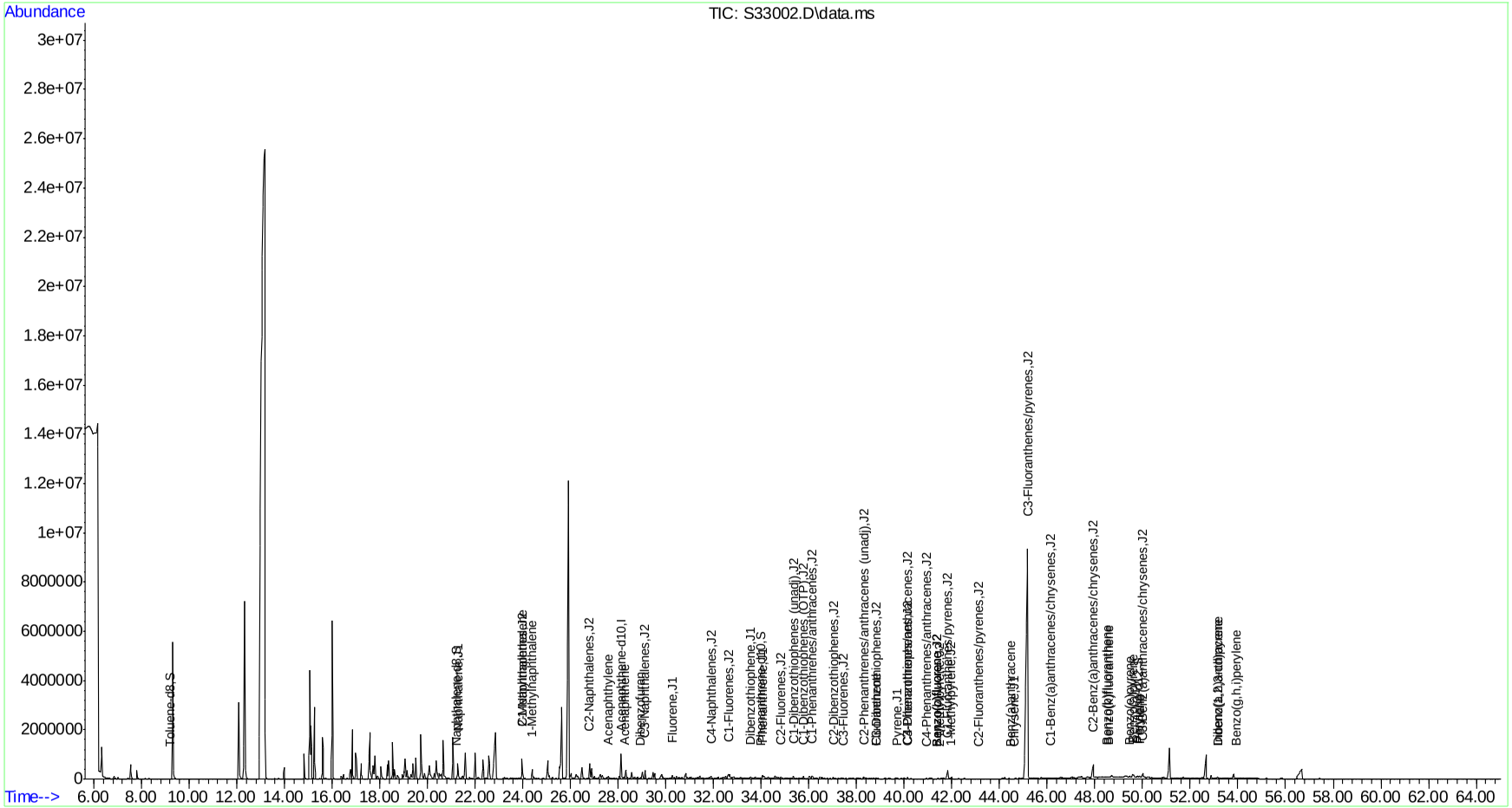
7.1.16

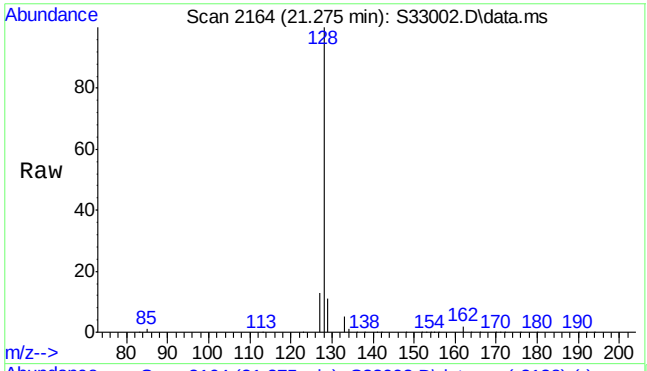
7

Quantitation Report (QT Reviewed)

Data Path : S:\1\data\S130716\
Data File : S33002.D
Acq On : 17 Jul 2013 4:10 am
Operator : kristinr
Sample : mc21754-7a
Misc : op33686,mss1443,5.20,,,2,10
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Jul 30 12:05:43 2013
Quant Method : S:\1\methods\S130705-B5739ALKPAH.M
Quant Title : PAHs & Alkylated PAHs by GC/MS/SIM
QLast Update : Thu Jul 11 09:13:24 2013
Response via : Initial Calibration

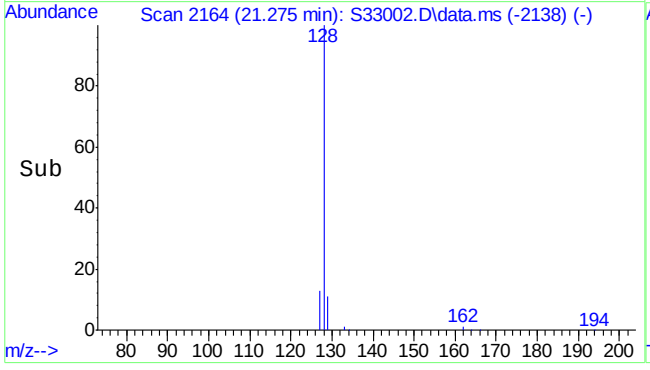


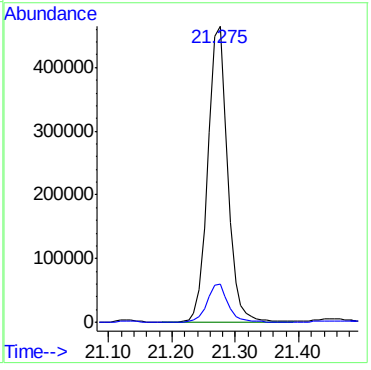


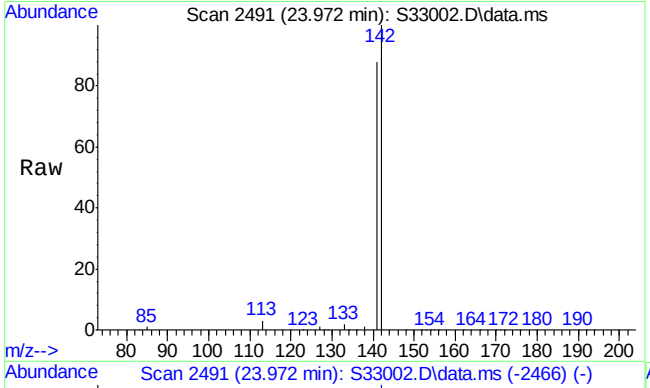
#6
Naphthalene
Concen: 3112.68 ng/mL
RT: 21.275 min Scan# 2164
Delta R.T. 0.018 min
Lab File: S33002.D
Acq: 17 Jul 2013 4:10 am

Tgt Ion:128 Resp: 1003426

Ion	Ratio	Lower	Upper
128	100		
127	13.7	10.0	15.0



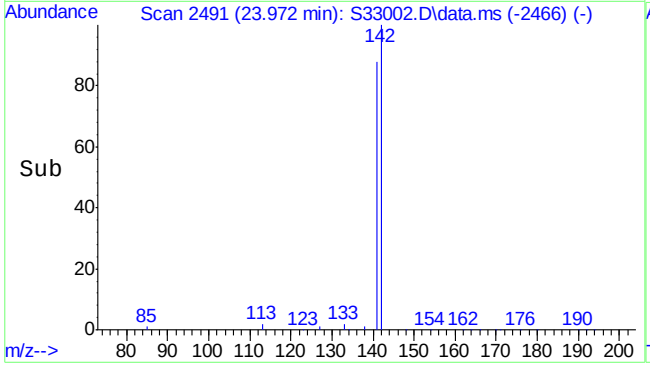


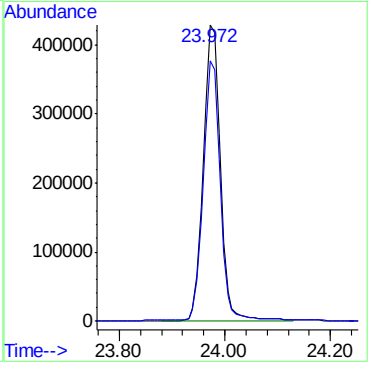


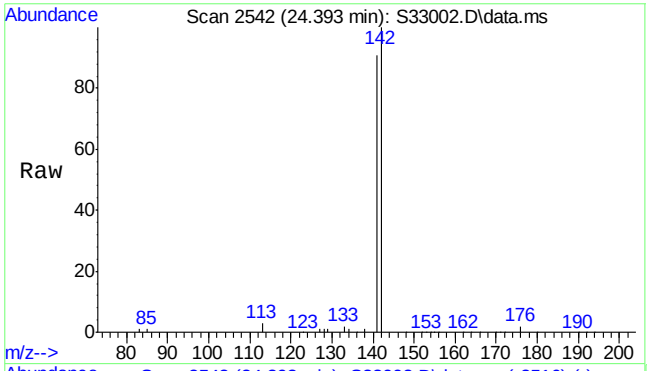
#7
2-Methylnaphthalene
Concen: 4931.73 ng/mL
RT: 23.972 min Scan# 2491
Delta R.T. 0.009 min
Lab File: S33002.D
Acq: 17 Jul 2013 4:10 am

Tgt Ion:142 Resp: 943346

Ion	Ratio	Lower	Upper
142	100		
141	87.5	69.7	104.5



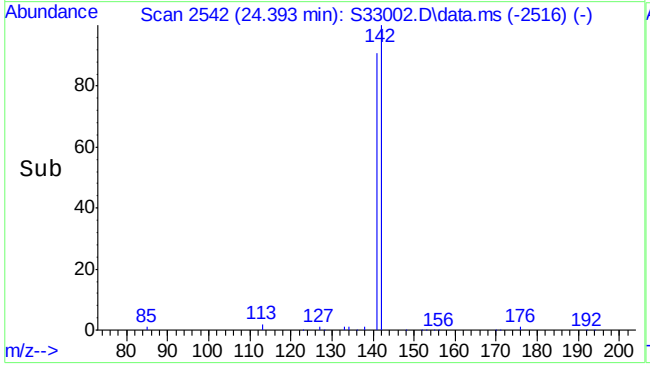


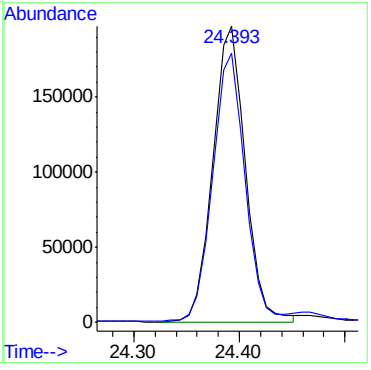


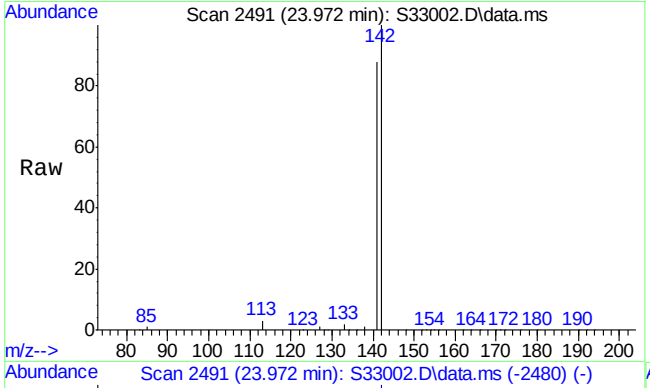
#8
1-Methylnaphthalene
Concen: 2103.69 ng/mL
RT: 24.393 min Scan# 2542
Delta R.T. 0.016 min
Lab File: S33002.D
Acq: 17 Jul 2013 4:10 am

Tgt Ion:142 Resp: 419791

Ion	Ratio	Lower	Upper
142	100		
141	90.7	72.6	108.8



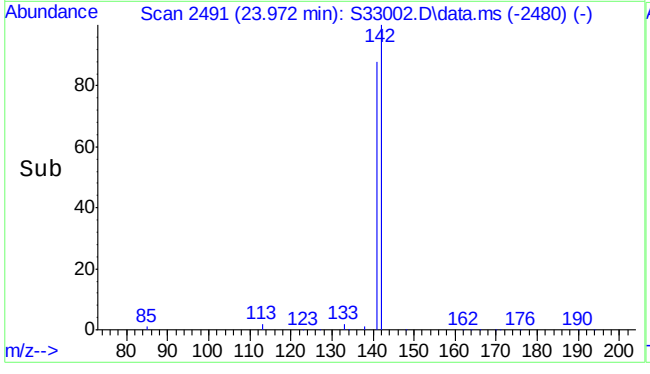


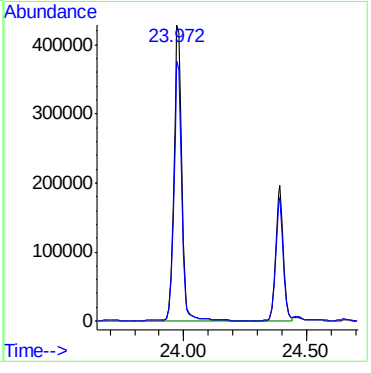


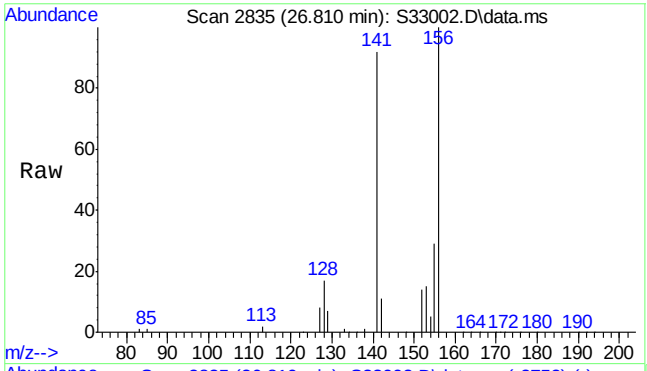
#9
C1-Naphthalenes
Concen: 4223.16 ng/mL m
RT: 23.972 min Scan# 2491
Delta R.T. 0.018 min
Lab File: S33002.D
Acq: 17 Jul 2013 4:10 am

Tgt Ion:142 Resp: 1361410

Ion	Ratio	Lower	Upper
142	100		
141	60.9	69.9	104.9#



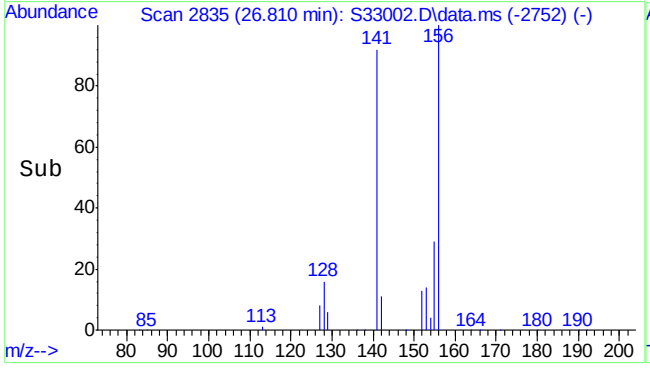


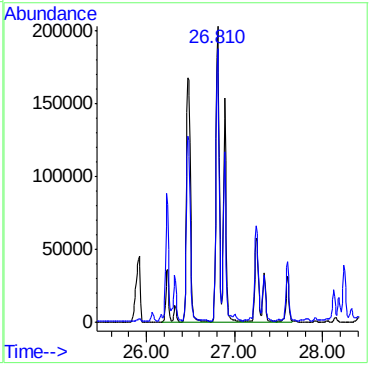


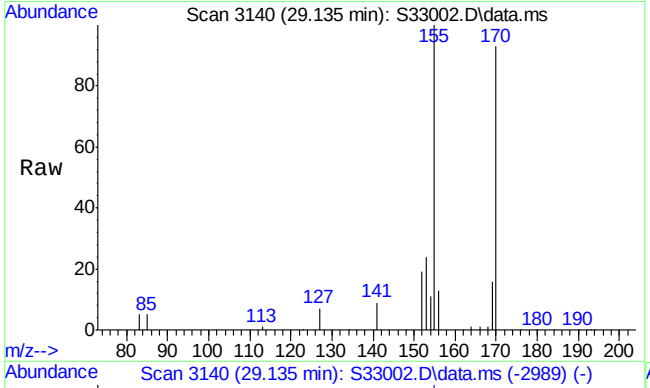
#10
C2-Naphthalenes
Concen: 5499.51 ng/mL m
RT: 26.810 min Scan# 2835
Delta R.T. -0.074 min
Lab File: S33002.D
Acq: 17 Jul 2013 4:10 am

Tgt Ion:156 Resp: 1772862

Ion	Ratio	Lower	Upper
156	100		
141	14.6	64.9	97.3#



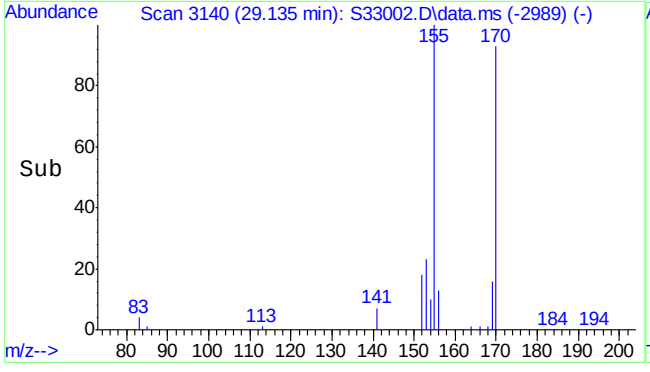


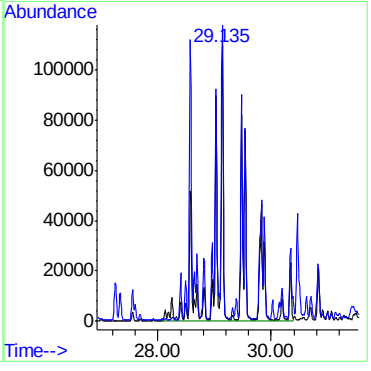


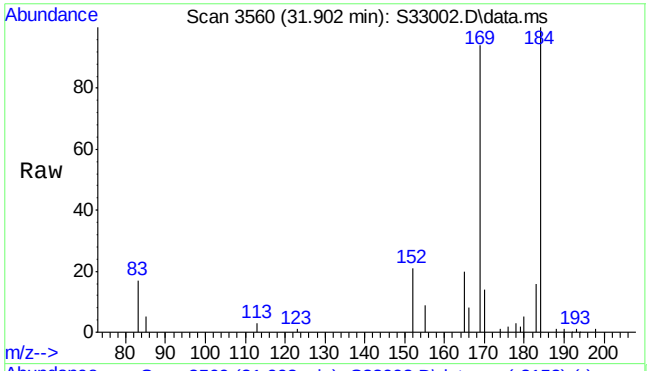
#11
C3-Naphthalenes
Concen: 4255.51 ng/mL m
RT: 29.135 min Scan# 3140
Delta R.T. -0.010 min
Lab File: S33002.D
Acq: 17 Jul 2013 4:10 am

Tgt Ion:170 Resp: 1371839

Ion	Ratio	Lower	Upper
170	100		
155	18.1	85.4	128.2#



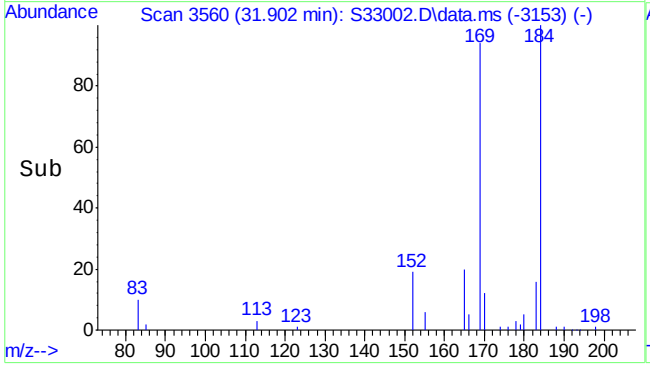


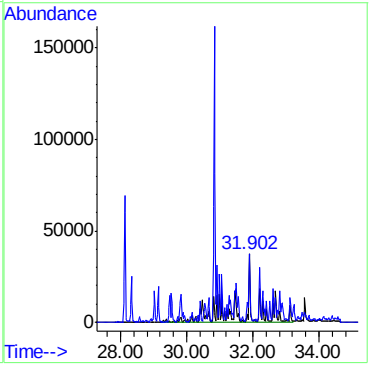


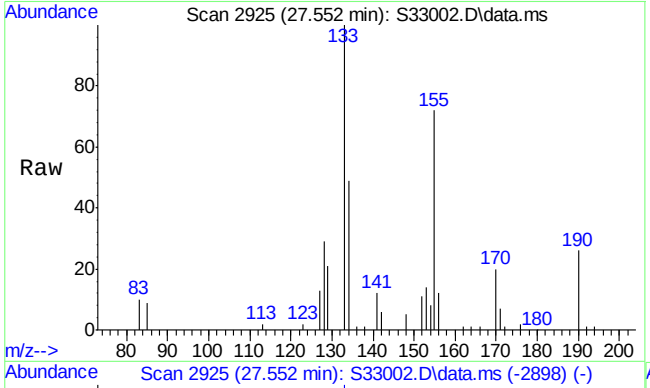
#12
C4-Naphthalenes
Concen: 2351.34 ng/mL m
RT: 31.902 min Scan# 3560
Delta R.T. -0.007 min
Lab File: S33002.D
Acq: 17 Jul 2013 4:10 am

Tgt Ion:184 Resp: 757994

Ion	Ratio	Lower	Upper
184	100		
169	11.8	81.0	121.6#



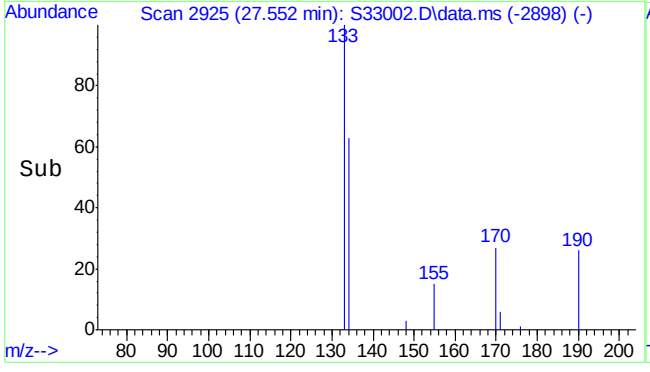


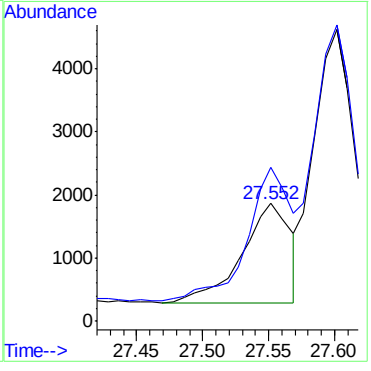


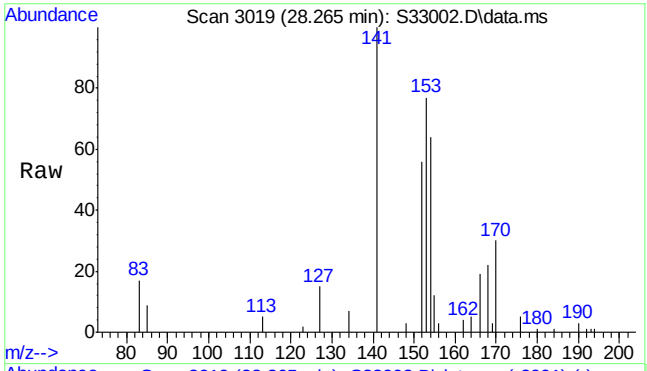
#13
Acenaphthylene
Concen: 13.50 ng/mL
RT: 27.552 min Scan# 2925
Delta R.T. 0.023 min
Lab File: S33002.D
Acq: 17 Jul 2013 4:10 am

Tgt Ion:152 Resp: 4024

Ion	Ratio	Lower	Upper
152	100		
153	119.8	10.5	15.7#



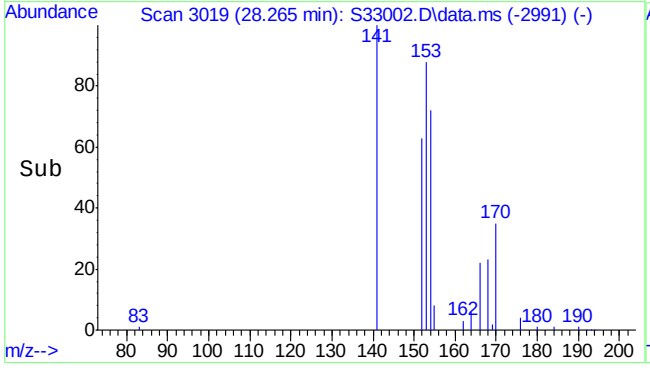


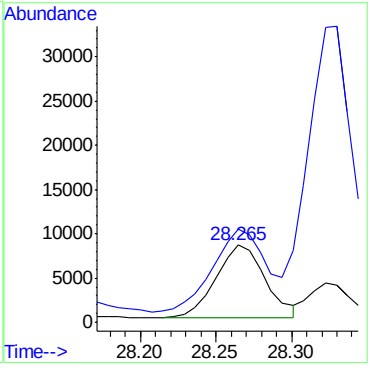


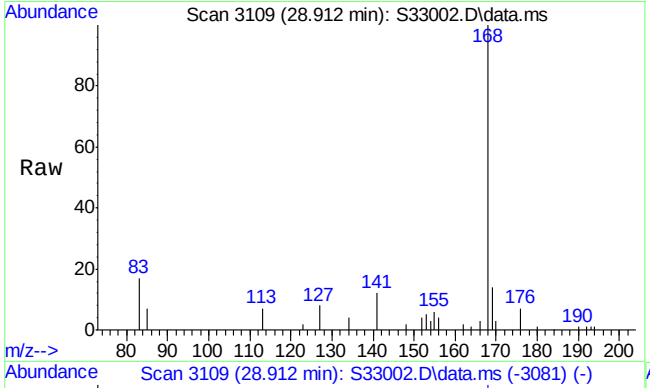
#14
Acenaphthene
Concen: 102.86 ng/mL
RT: 28.265 min Scan# 3019
Delta R.T. 0.000 min
Lab File: S33002.D
Acq: 17 Jul 2013 4:10 am

Tgt Ion:154 Resp: 18709

Ion	Ratio	Lower	Upper
154	100		
153	127.6	88.2	132.4



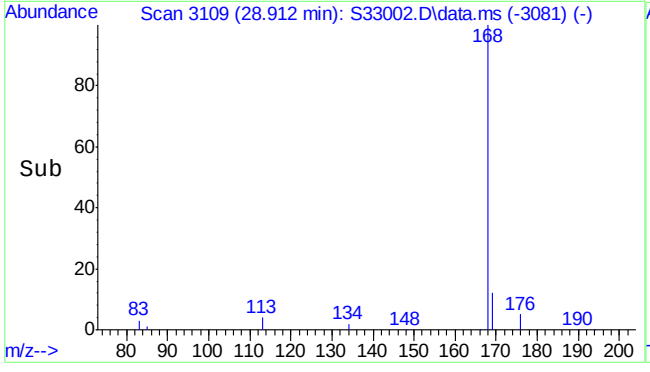


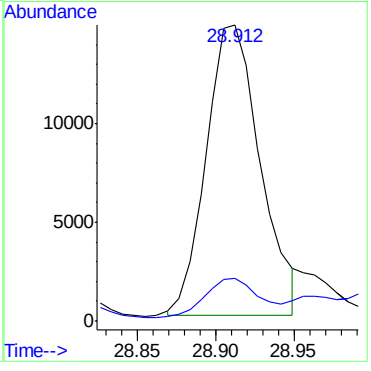


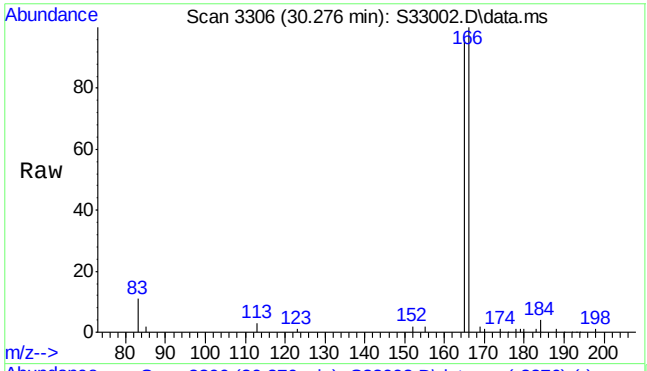
#15
Dibenzofuran
Concen: 136.16 ng/mL m
RT: 28.912 min Scan# 3109
Delta R.T. -0.002 min
Lab File: S33002.D
Acq: 17 Jul 2013 4:10 am

Tgt Ion:168 Resp: 35297

Ion	Ratio	Lower	Upper
168	100		
169	13.4	10.7	16.1



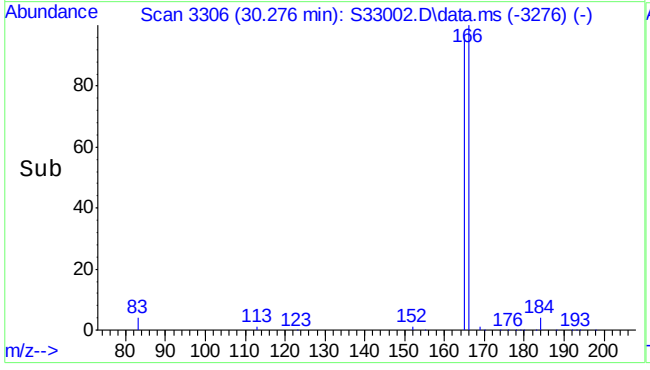


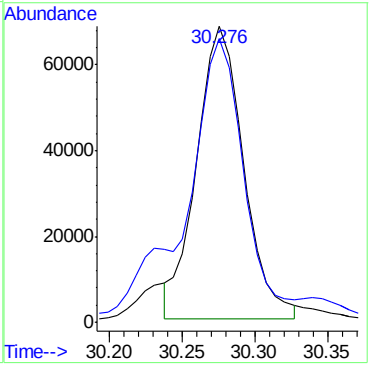


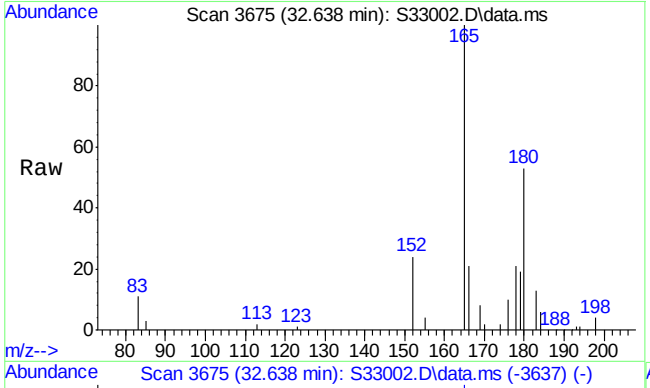
#16
Fluorene
Concen: 668.20 ng/mL m
RT: 30.276 min Scan# 3306
Delta R.T. -0.009 min
Lab File: S33002.D
Acq: 17 Jul 2013 4:10 am

Tgt Ion:166 Resp: 154152

Ion	Ratio	Lower	Upper
166	100		
165	110.6	76.3	114.5



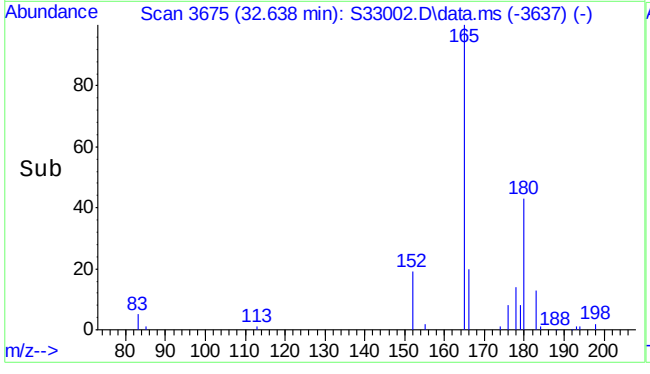


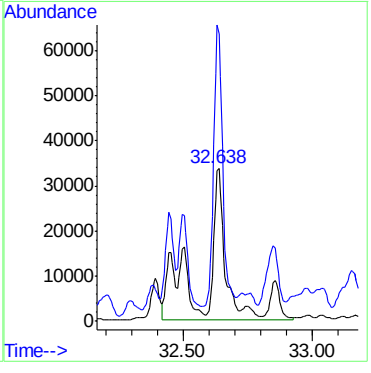


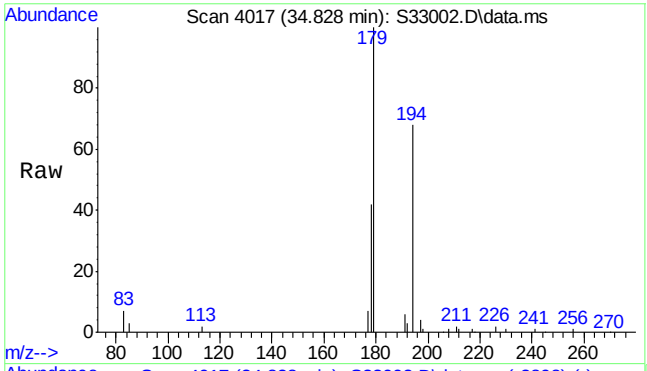
#17
C1-Fluorenes
Concen: 863.59 ng/mL m
RT: 32.638 min Scan# 3675
Delta R.T. 0.008 min
Lab File: S33002.D
Acq: 17 Jul 2013 4:10 am

Tgt Ion:180 Resp: 199230

Ion	Ratio	Lower	Upper
180	100		
165	76.2	134.2	201.4#



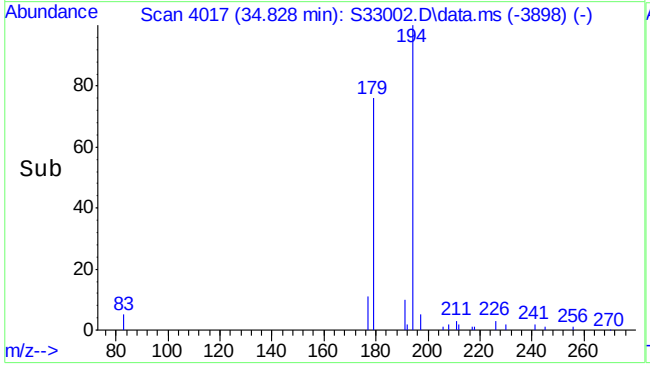


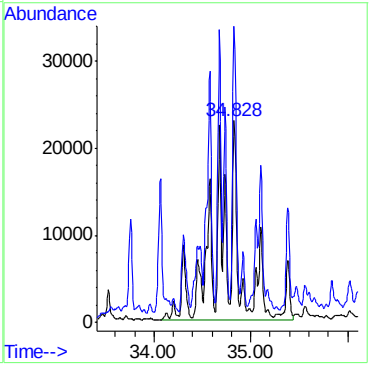


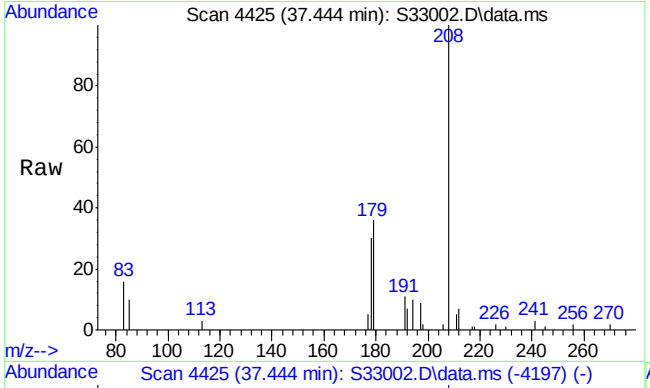
#18
C2-Fluorenes
Concen: 1466.08 ng/mL m
RT: 34.828 min Scan# 4017
Delta R.T. -0.000 min
Lab File: S33002.D
Acq: 17 Jul 2013 4:10 am

Tgt Ion:194 Resp: 338222

Ion	Ratio	Lower	Upper
194	100		
179	24.2	125.0	187.4#



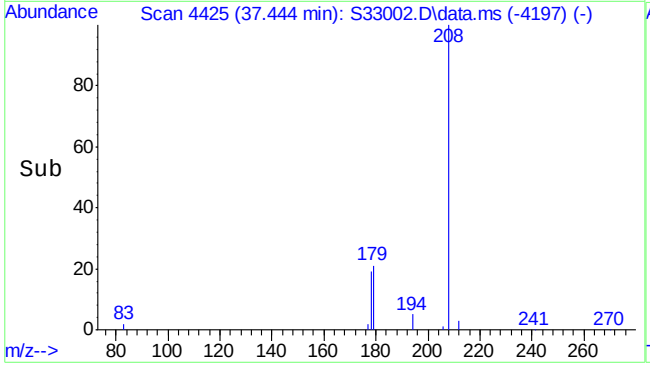


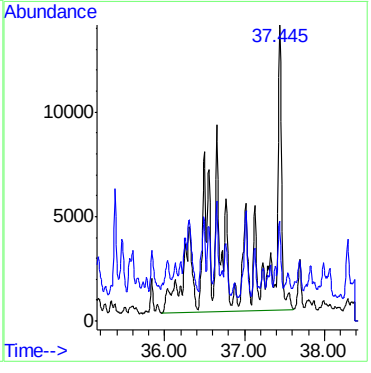


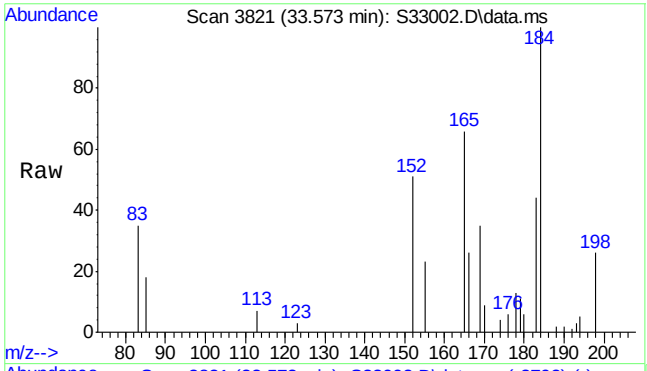
#19
C3-Fluorenes
Concen: 949.73 ng/mL m
RT: 37.444 min Scan# 4425
Delta R.T. 0.754 min
Lab File: S33002.D
Acq: 17 Jul 2013 4:10 am

Tgt Ion:208 Resp: 219102

Ion	Ratio	Lower	Upper
208	100		
178	0.8	54.9	82.3#



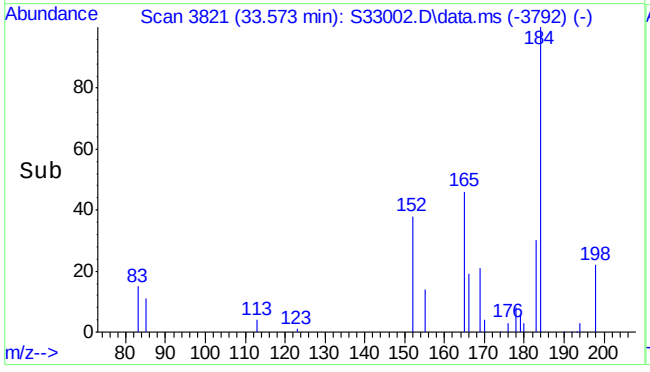


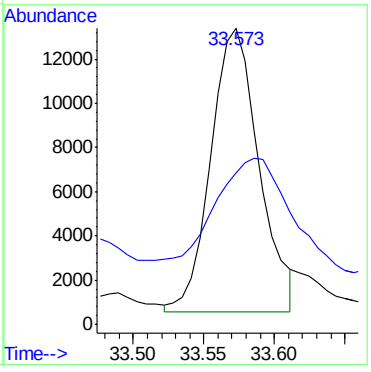


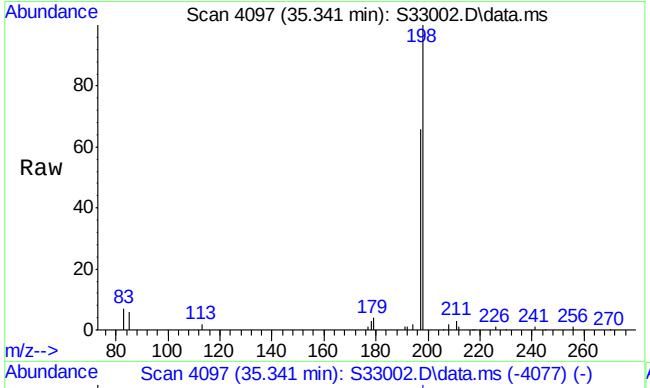
#20
Dibenzothiophene
Concen: 105.86 ng/mL m
RT: 33.573 min Scan# 3821
Delta R.T. -0.013 min
Lab File: S33002.D
Acq: 17 Jul 2013 4:10 am

Tgt Ion:184 Resp: 30791

Ion	Ratio	Lower	Upper
184	100		
152	63.1	7.7	11.5#



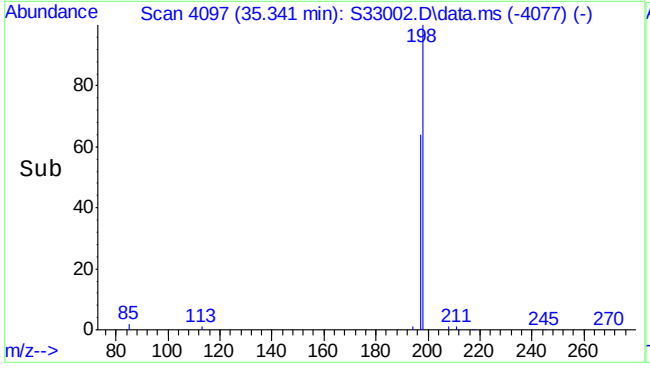


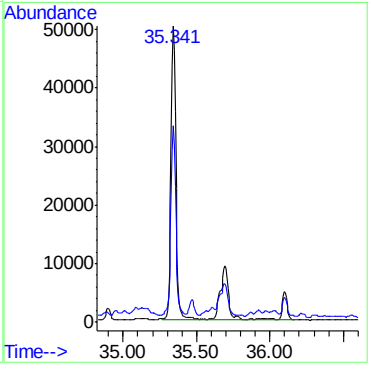


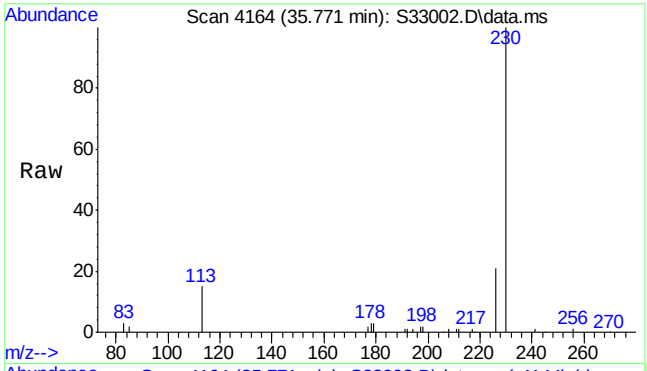
#21
C1-Dibenzothiophenes (unadj)
Concen: 566.08 ng/mL m
RT: 35.341 min Scan# 4097
Delta R.T. -0.024 min
Lab File: S33002.D
Acq: 17 Jul 2013 4:10 am

Tgt Ion:198 Resp: 162301

Ion	Ratio	Lower	Upper
198	100		
197	45.5	53.4	80.0#



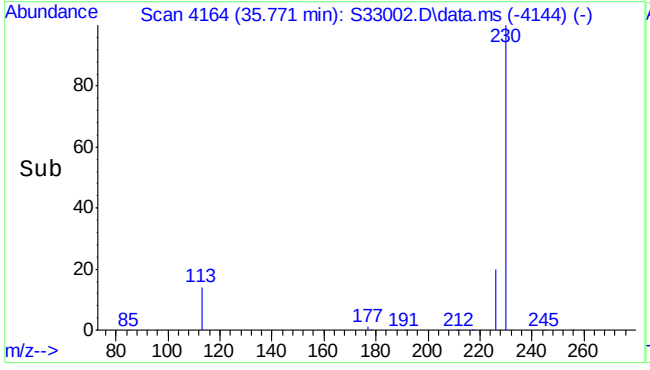


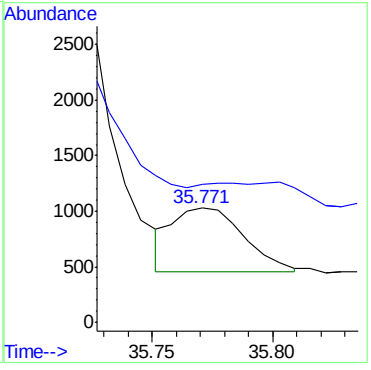


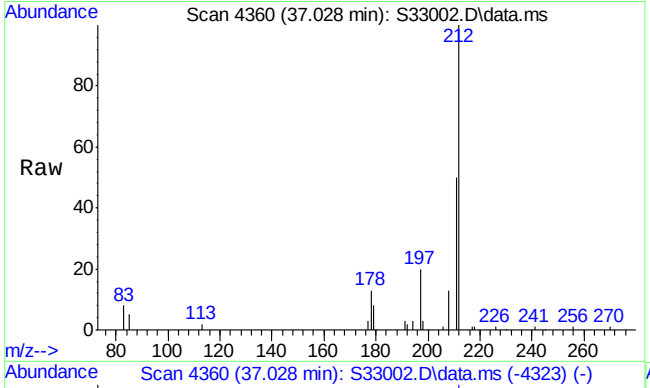
#22
C1-Dibenzothiophenes (OTP)
Concen: 4.05 µg/mL m
RT: 35.771 min Scan# 4164
Delta R.T. 0.039 min
Lab File: S33002.D
Acq: 17 Jul 2013 4:10 am

Tgt Ion:198 Resp: 1162

Ion	Ratio	Lower	Upper
198	100		
197	663.3	58.2	87.2#



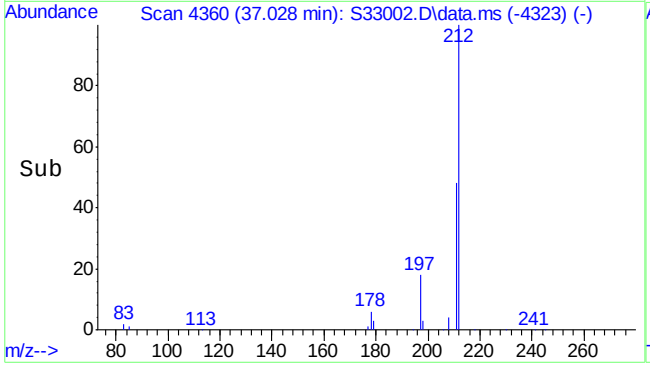


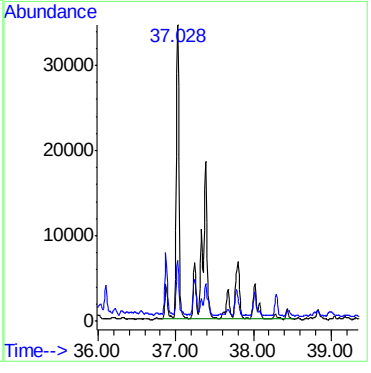


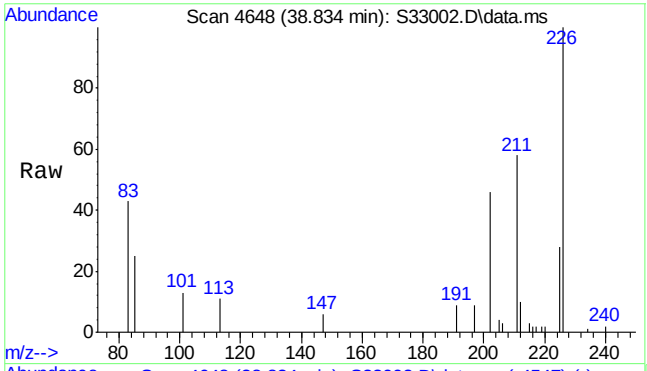
#23
C2-Dibenzothiophenes
Concen: 809.08 ng/mL m
RT: 37.028 min Scan# 4360
Delta R.T. -0.359 min
Lab File: S33002.D
Acq: 17 Jul 2013 4:10 am

Tgt Ion:212 Resp: 231971

Ion	Ratio	Lower	Upper
212	100		
197	5.3	18.8	28.2#



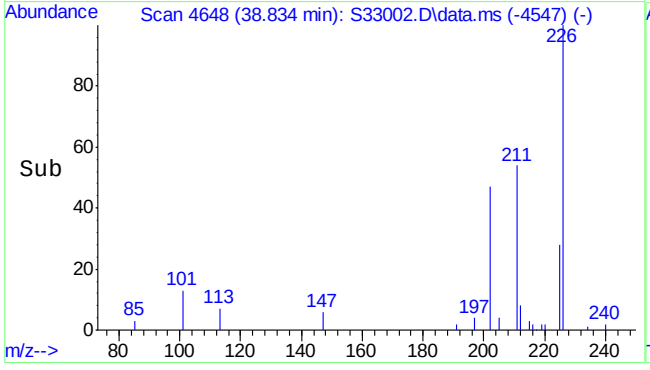


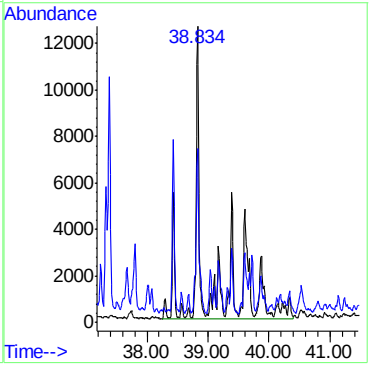


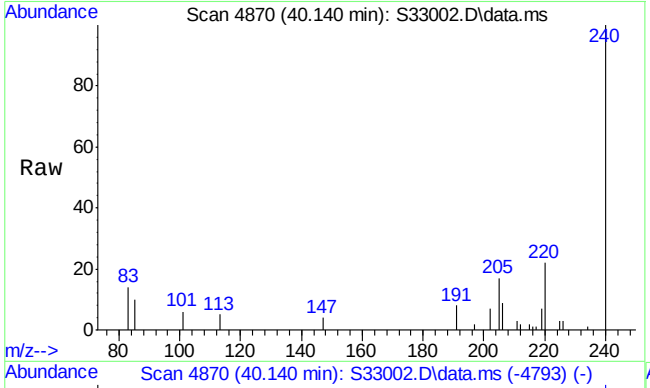
#24
C3-Dibenzothiophenes
Concen: 476.38 ng/mL m
RT: 38.834 min Scan# 4648
Delta R.T. -0.000 min
Lab File: S33002.D
Acq: 17 Jul 2013 4:10 am

Tgt Ion:226 Resp: 136582

Ion	Ratio	Lower	Upper
226	100		
211	18.3	50.0	75.0#

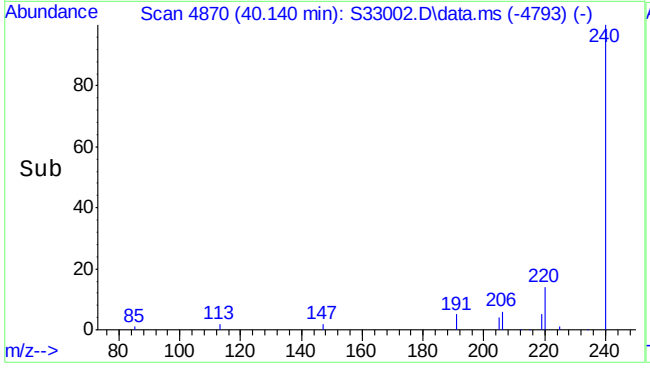


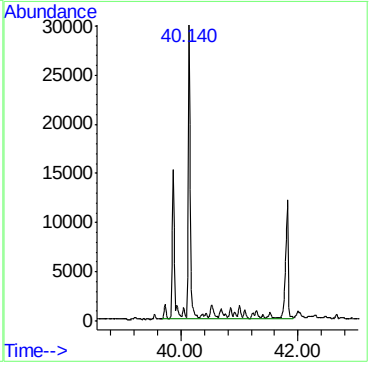


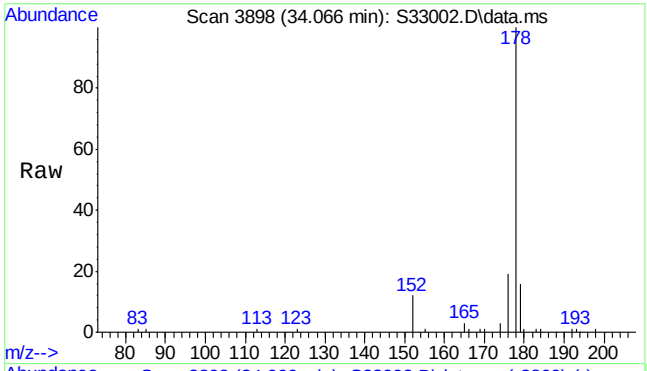


#25
C4-Dibenzothiophenes
Concen: 664.61 ng/mL m
RT: 40.140 min Scan# 4870
Delta R.T. -0.394 min
Lab File: S33002.D
Acq: 17 Jul 2013 4:10 am

Tgt Ion:240 Resp: 190549



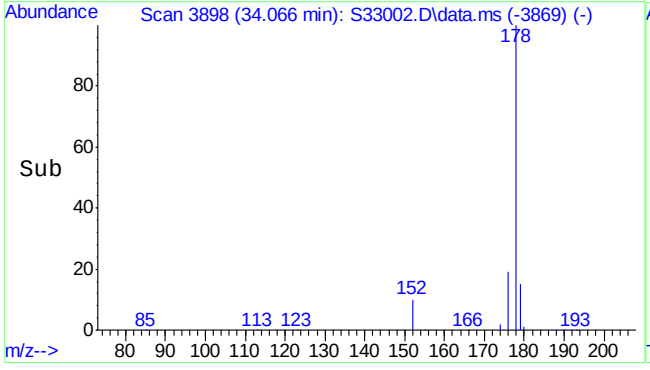


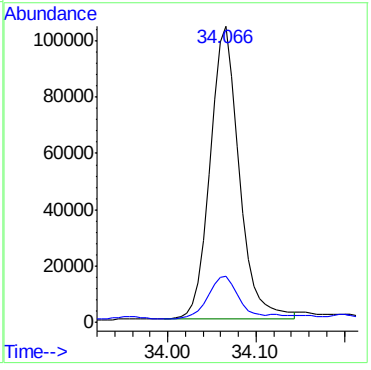


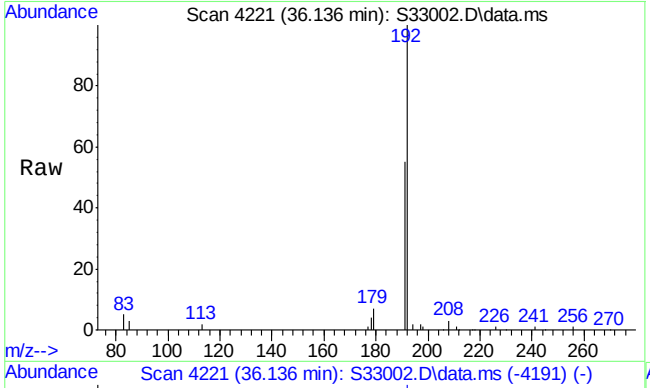
#26
Phenanthrene
Concen: 724.62 ng/mL m
RT: 34.066 min Scan# 3898
Delta R.T. -0.014 min
Lab File: S33002.D
Acq: 17 Jul 2013 4:10 am

Tgt Ion:178 Resp: 240981

Ion	Ratio	Lower	Upper
178	100		
179	17.7	12.6	18.8



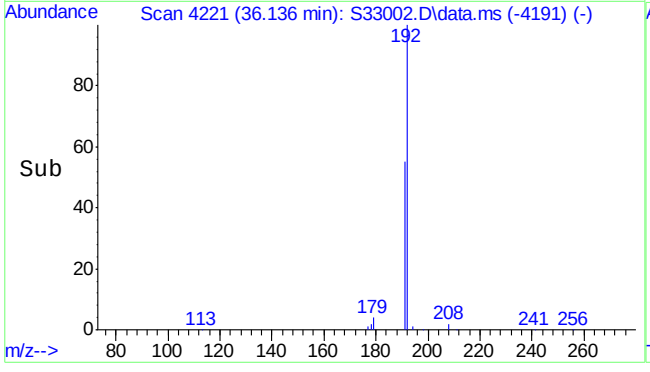


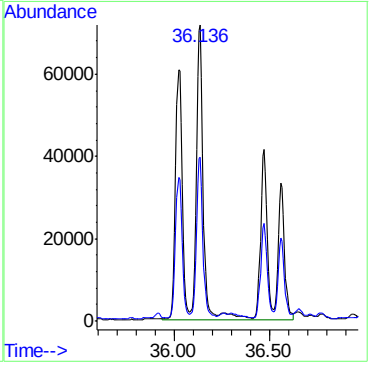


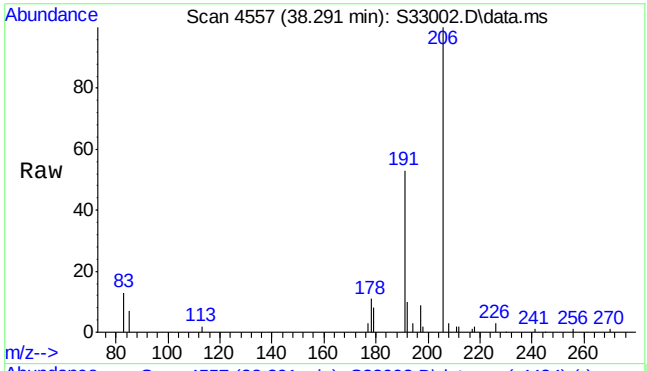
#28
C1-Phenanthrenes/anthracenes
Concen: 1506.10 ng/mL m
RT: 36.136 min Scan# 4221
Delta R.T. -0.361 min
Lab File: S33002.D
Acq: 17 Jul 2013 4:10 am

Tgt Ion:192 Resp: 500874

Ion	Ratio	Lower	Upper
192	100		
191	11.3	46.7	70.1#



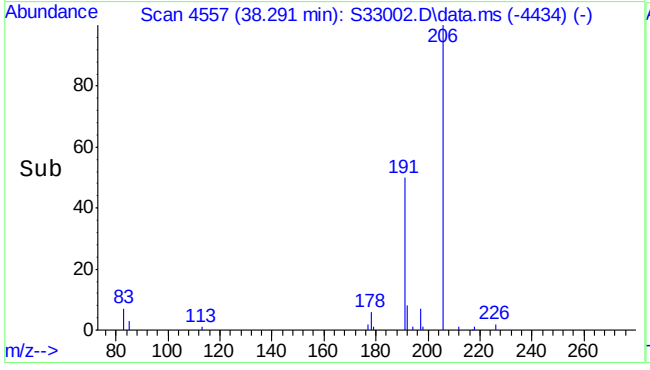


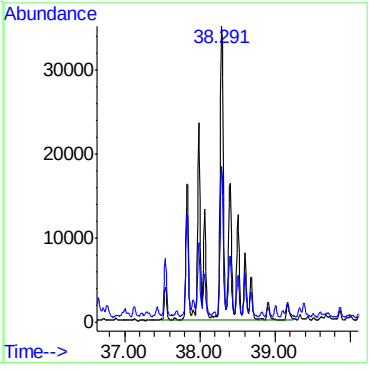


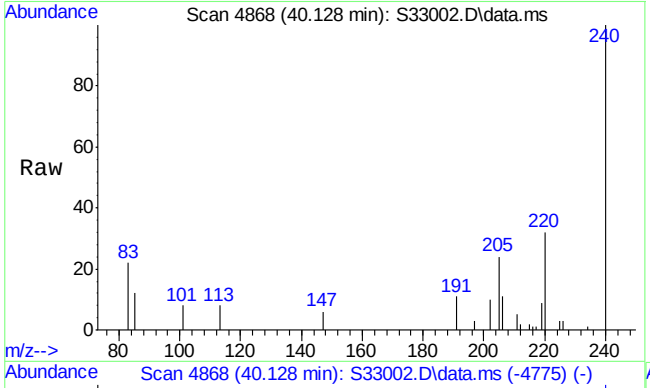
#29
C2-Phenanthrenes/anthracenes (unadj)
Concen: 1040.08 ng/mL m
RT: 38.291 min Scan# 4557
Delta R.T. -0.006 min
Lab File: S33002.D
Acq: 17 Jul 2013 4:10 am

Tgt Ion:206 Resp: 345894

Ion	Ratio	Lower	Upper
206	100		
191	14.1	45.5	68.3#



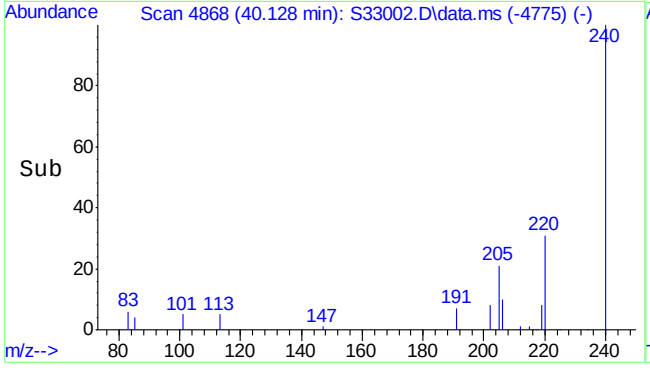


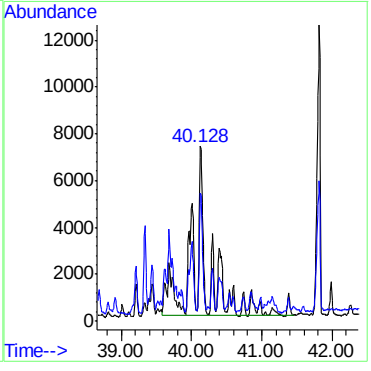


#31
C3-Phenanthrenes/anthracenes
Concen: 311.76 ng/mL m
RT: 40.128 min Scan# 4868
Delta R.T. -0.006 min
Lab File: S33002.D
Acq: 17 Jul 2013 4:10 am

Tgt Ion:220 Resp: 103679

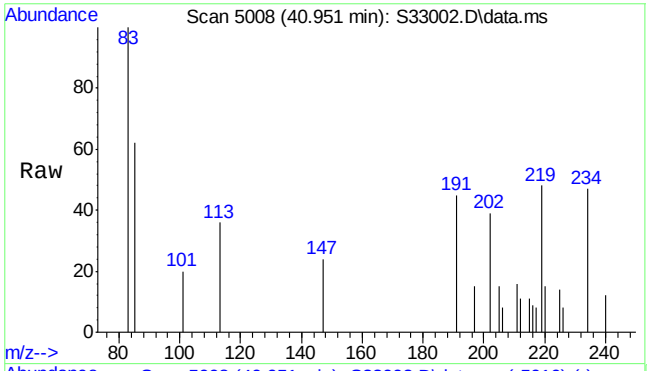
Ion	Ratio	Lower	Upper
220	100		
205	15.1	44.9	67.3#





7.1.16

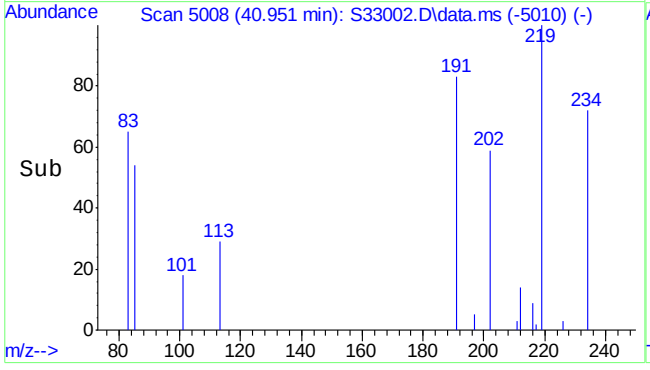
7

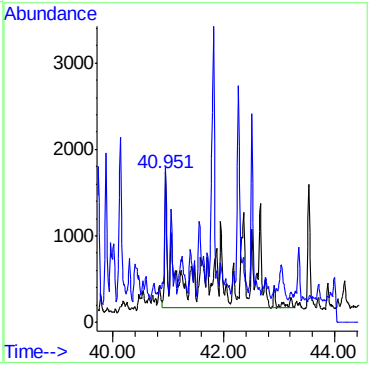


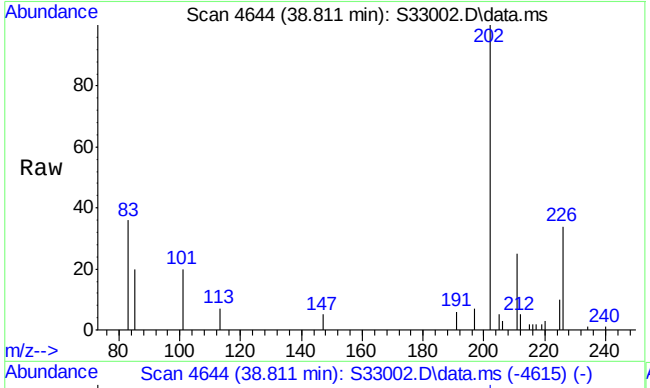
#32
C4-Phenanthrenes/anthracenes
Concen: 130.01 ng/mL m
RT: 40.951 min Scan# 5008
Delta R.T. -1.359 min
Lab File: S33002.D
Acq: 17 Jul 2013 4:10 am

Tgt Ion:234 Resp: 43237

Ion	Ratio	Lower	Upper
234	100		
219	1.8	51.0	76.6#



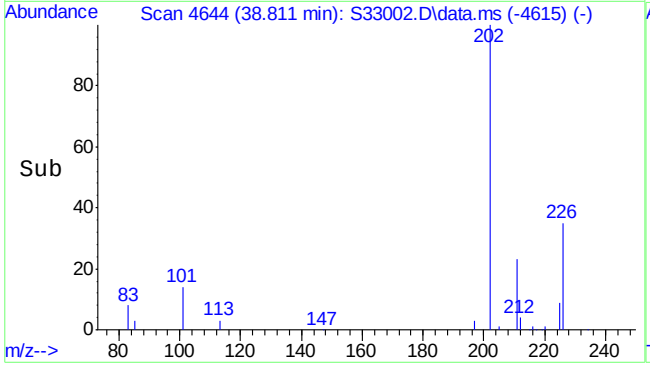


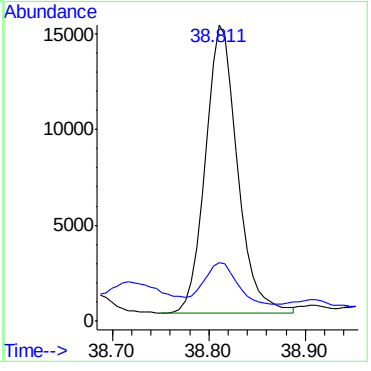


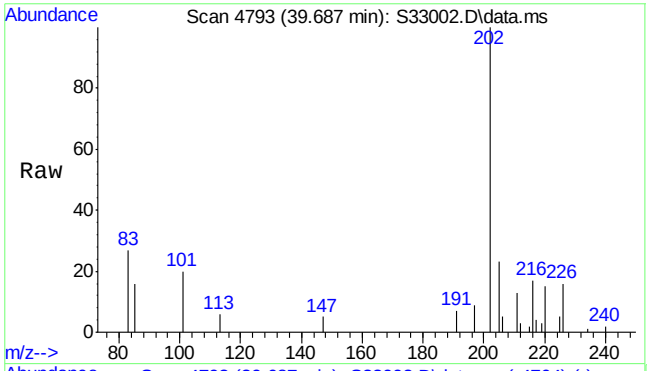
#33
Fluoranthene
Concen: 119.36 ng/mL
RT: 38.811 min Scan# 4644
Delta R.T. -0.030 min
Lab File: S33002.D
Acq: 17 Jul 2013 4:10 am

Tgt Ion:202 Resp: 35165

Ion	Ratio	Lower	Upper
202	100		
101	14.8	9.8	14.6#



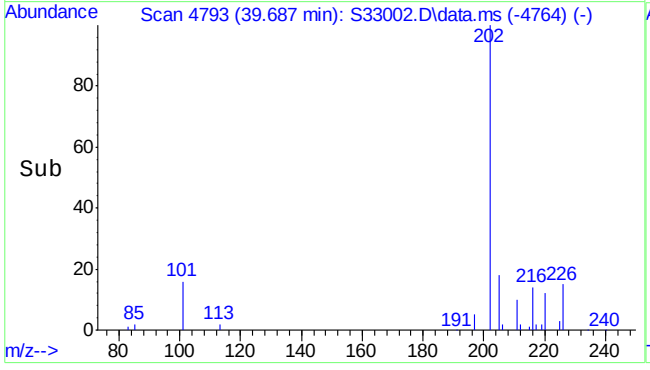


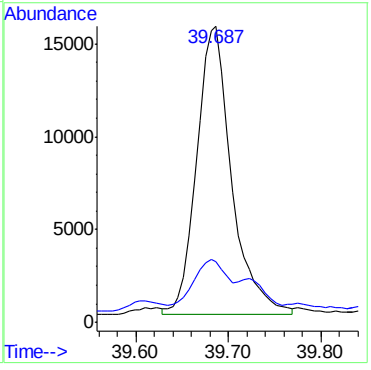


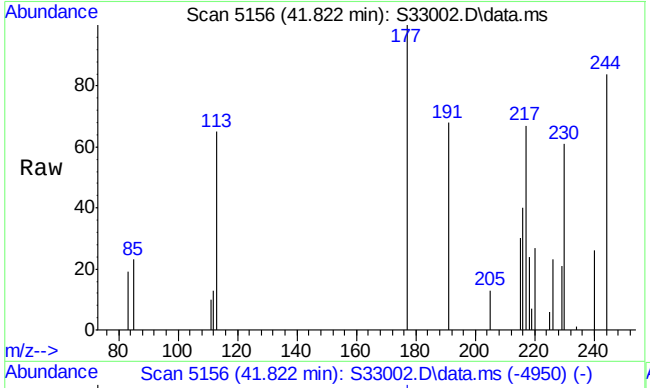
#34
Pyrene
Concen: 133.26 ng/mL m
RT: 39.687 min Scan# 4793
Delta R.T. -0.027 min
Lab File: S33002.D
Acq: 17 Jul 2013 4:10 am

Tgt Ion:202 Resp: 40680

Ion	Ratio	Lower	Upper
202	100		
101	15.2	11.4	17.0



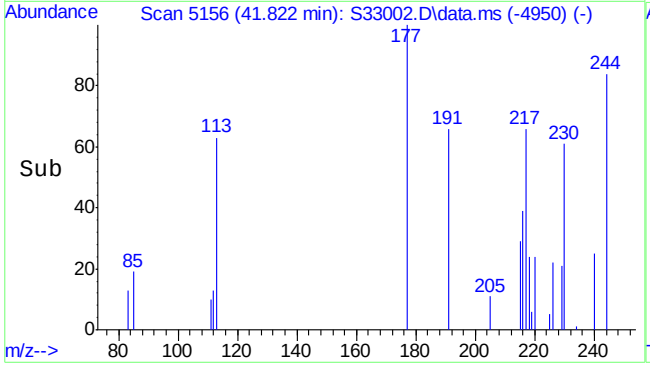


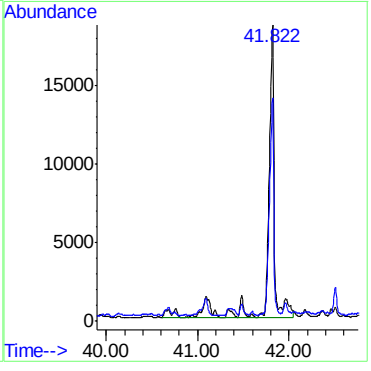


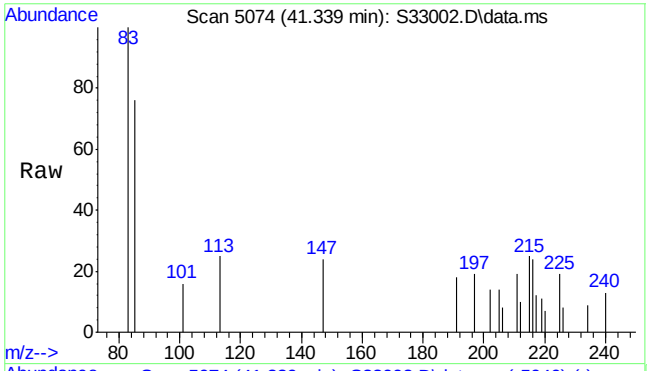
#35
C1-Fluoranthenes/pyrenes
Concen: 286.67 ng/mL m
RT: 41.822 min Scan# 5156
Delta R.T. -0.029 min
Lab File: S33002.D
Acq: 17 Jul 2013 4:10 am

Tgt Ion:216 Resp: 87511

Ion	Ratio	Lower	Upper
216	100		
215	49.7	57.5	86.3#



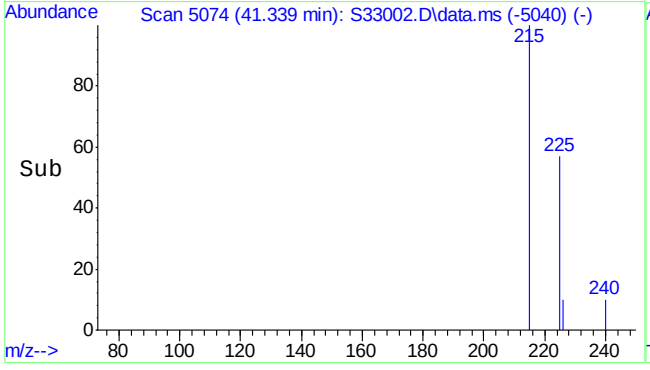


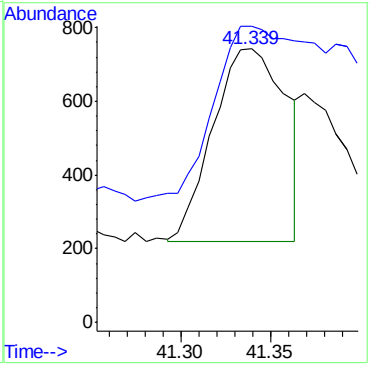


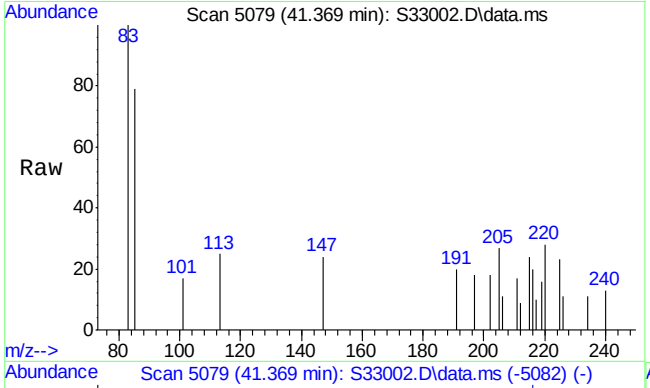
#36
Benzo(b)fluorene
Concen: 4.80 ng/mL m
RT: 41.339 min Scan# 5074
Delta R.T. -0.000 min
Lab File: S33002.D
Acq: 17 Jul 2013 4:10 am

Tgt Ion:216 Resp: 1464

Ion	Ratio	Lower	Upper
216	100		
215	188.0	115.9	173.9#



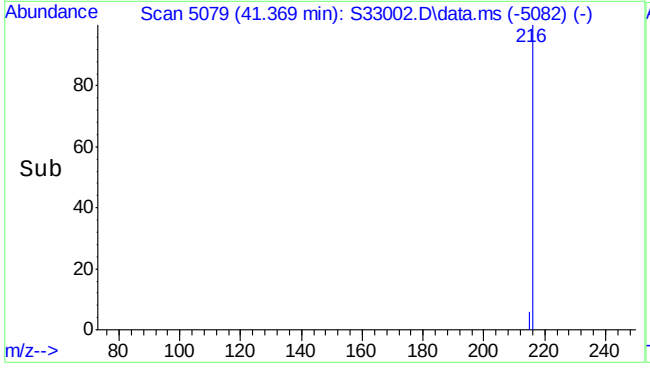


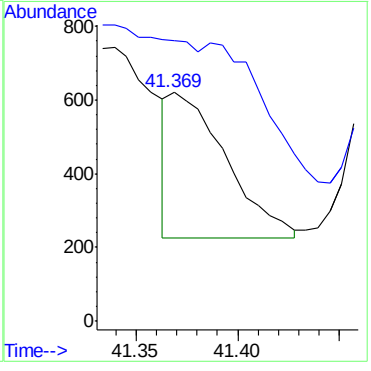


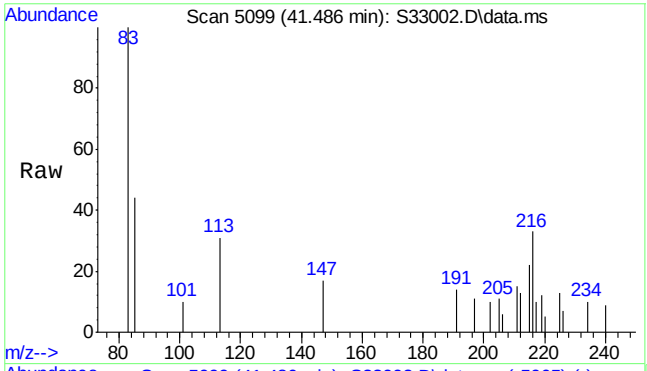
#37
Benzo(c)fluorene
Concen: 2.47 µg/mL m
RT: 41.369 min Scan# 5079
Delta R.T. -0.018 min
Lab File: S33002.D
Acq: 17 Jul 2013 4:10 am

Tgt Ion:216 Resp: 753

Ion	Ratio	Lower	Upper
216	100		
215	227.4	125.0	187.6#



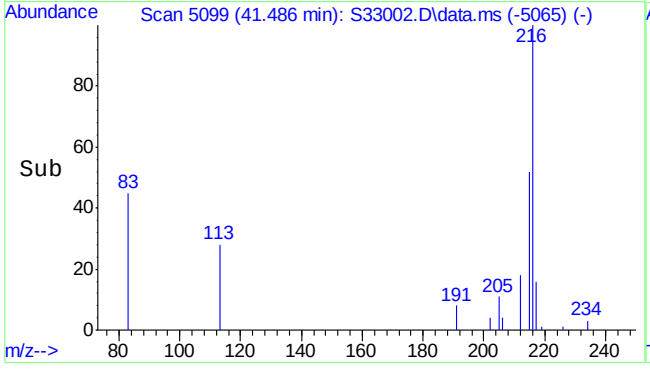


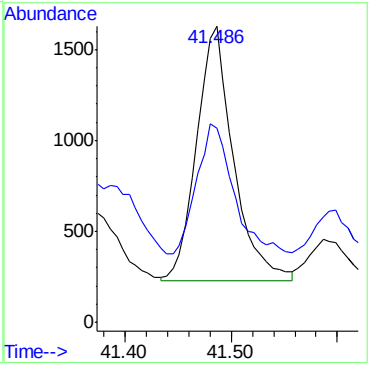


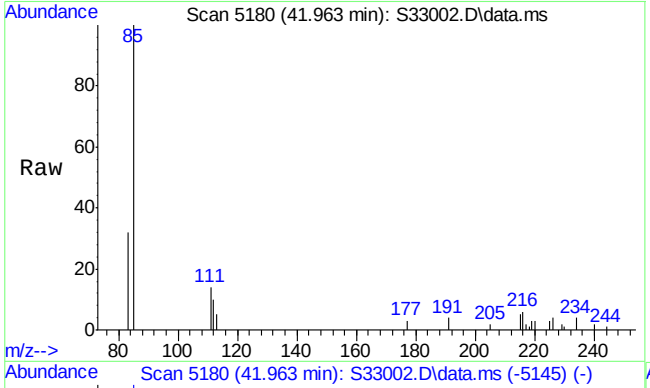
#38
2-Methylpyrene
Concen: 11.05 ng/mL m
RT: 41.486 min Scan# 5099
Delta R.T. -0.000 min
Lab File: S33002.D
Acq: 17 Jul 2013 4:10 am

Tgt Ion:216 Resp: 3372

Ion	Ratio	Lower	Upper
216	100		
215	15.5	78.2	117.4#



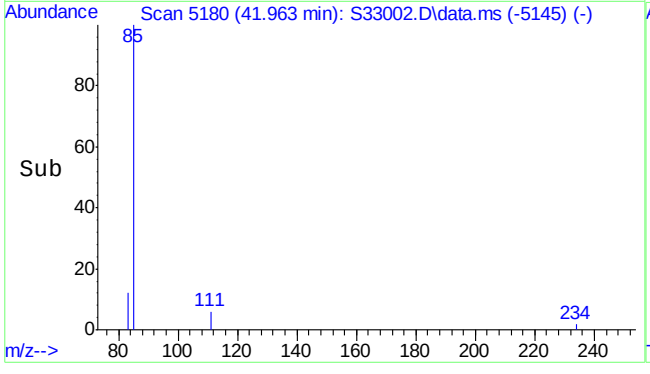


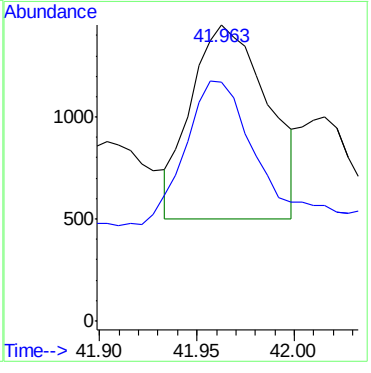


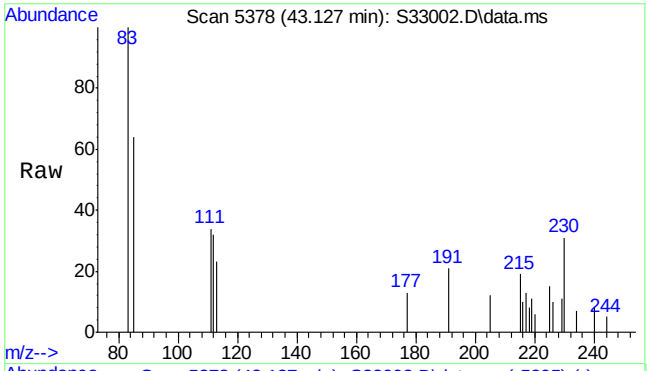
#40
1-Methylpyrene
Concen: 8.49 ng/mL m
RT: 41.963 min Scan# 5180
Delta R.T. 0.006 min
Lab File: S33002.D
Acq: 17 Jul 2013 4:10 am

Tgt Ion:216 Resp: 2591

Ion	Ratio	Lower	Upper
216	100		
215	72.2	80.2	120.2#



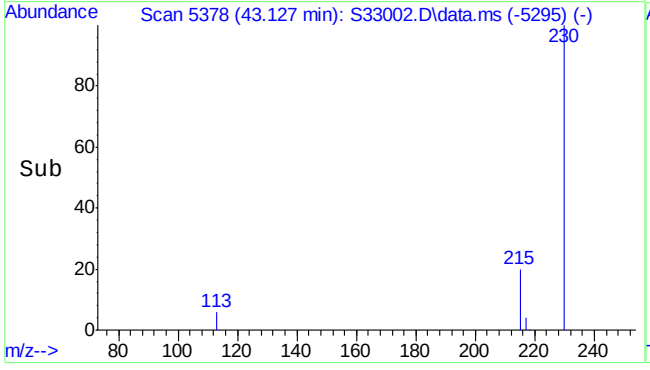


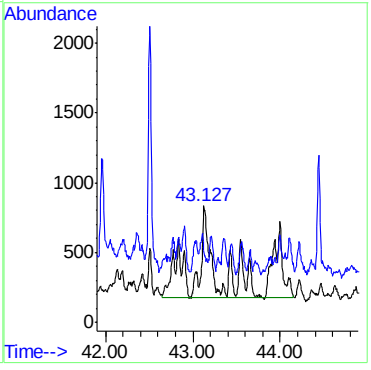


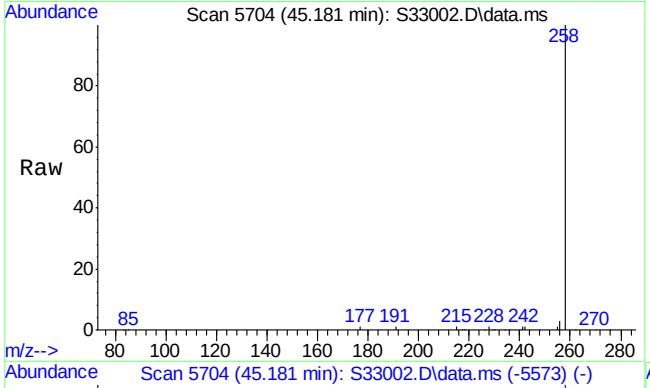
#41
C2-Fluoranthenes/pyrenes
Concen: 47.93 ng/mL m
RT: 43.127 min Scan# 5378
Delta R.T. 0.223 min
Lab File: S33002.D
Acq: 17 Jul 2013 4:10 am

Tgt Ion:230 Resp: 14631

Ion	Ratio	Lower	Upper
230	100		
215	6.5	108.6	163.0#



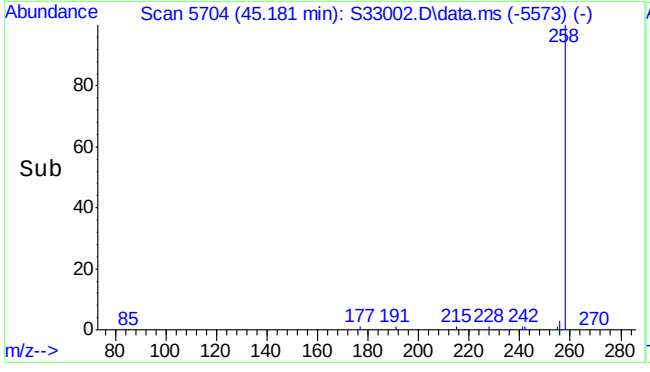


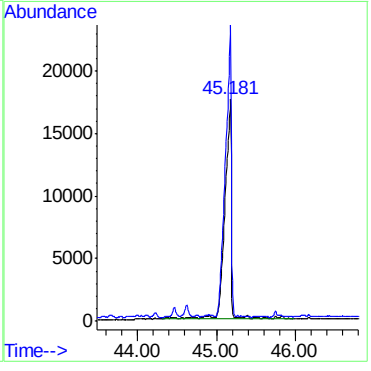


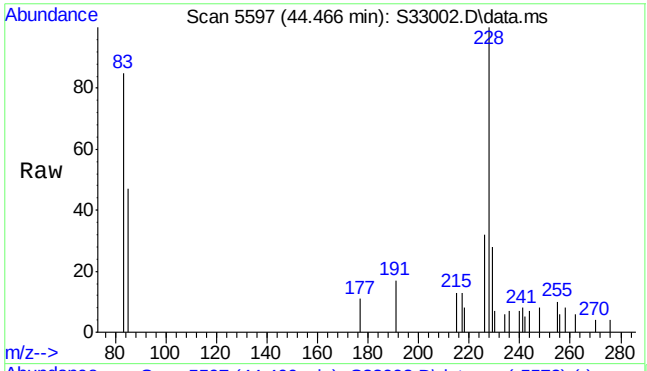
#42
C3-Fluoranthenes/pyrenes
Concen: 330.42 ng/mL m
RT: 45.181 min Scan# 5704
Delta R.T. 0.274 min
Lab File: S33002.D
Acq: 17 Jul 2013 4:10 am

Tgt Ion:244 Resp: 100865

Ion	Ratio	Lower	Upper
244	100		
229	0.0	83.0	124.4#



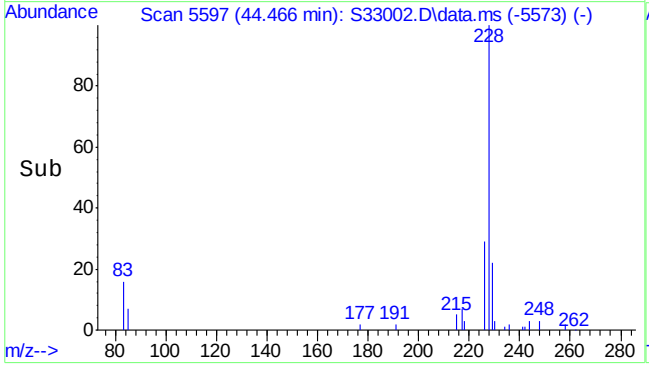


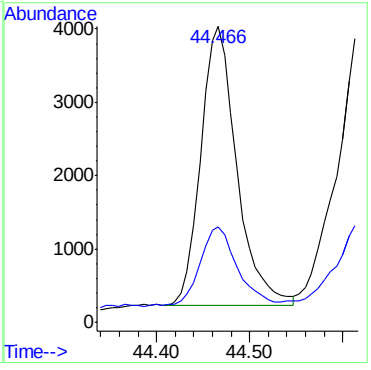


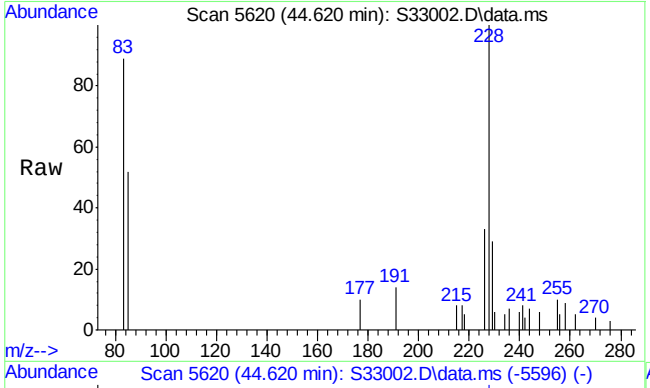
#43
Benz(a)anthracene
Concen: 34.83 ng/mL
RT: 44.466 min Scan# 5597
Delta R.T. -0.042 min
Lab File: S33002.D
Acq: 17 Jul 2013 4:10 am

Tgt Ion:228 Resp: 10269

Ion	Ratio	Lower	Upper
228	100		
226	28.8	21.4	32.2



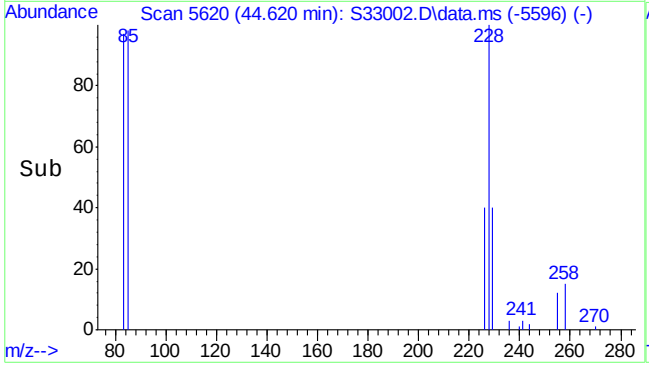


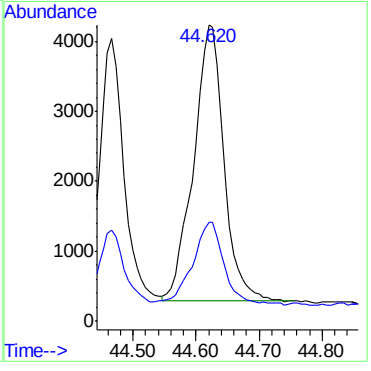


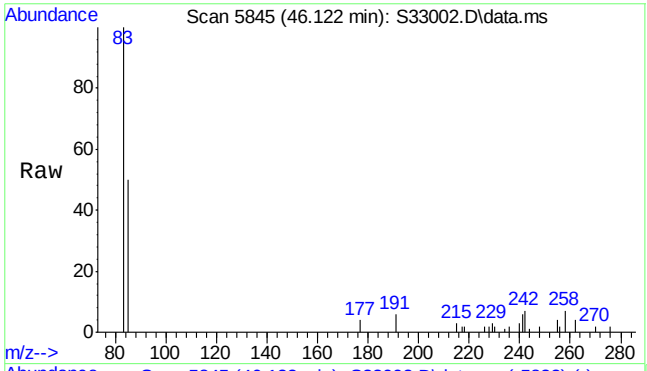
#44
Chrysene
Concen: 48.02 ng/mL
RT: 44.620 min Scan# 5620
Delta R.T. -0.043 min
Lab File: S33002.D
Acq: 17 Jul 2013 4:10 am

Tgt Ion:228 Resp: 13206

Ion	Ratio	Lower	Upper
228	100		
226	32.0	23.8	35.6



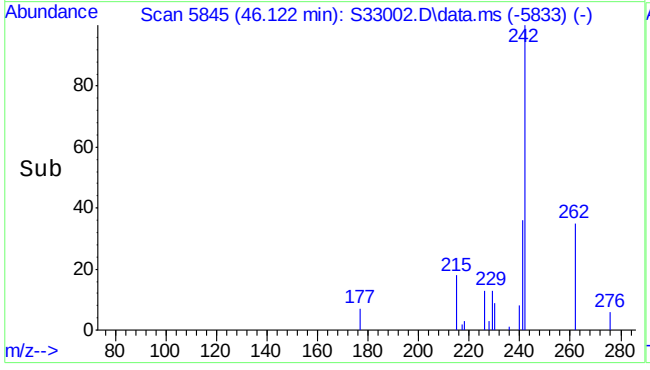


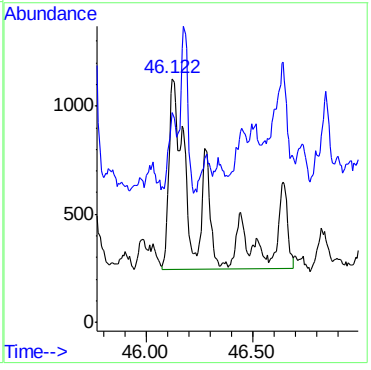


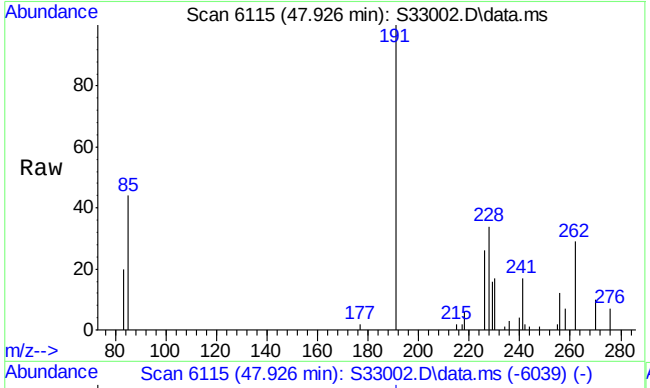
#45
C1-Benz(a)anthracenes/chrysenes
Concen: 29.08 ng/mL m
RT: 46.122 min Scan# 5845
Delta R.T. 0.020 min
Lab File: S33002.D
Acq: 17 Jul 2013 4:10 am

Tgt Ion:242 Resp: 7998

Ion	Ratio	Lower	Upper
242	100		
241	6.4	35.3	52.9#



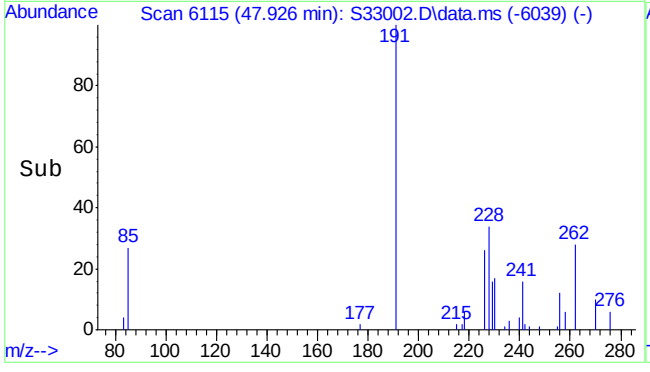


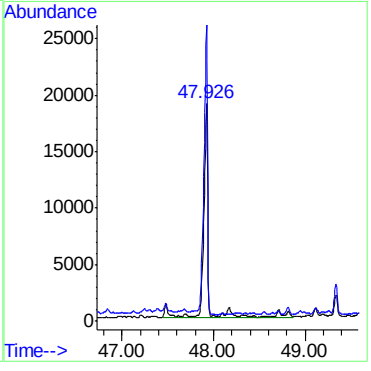


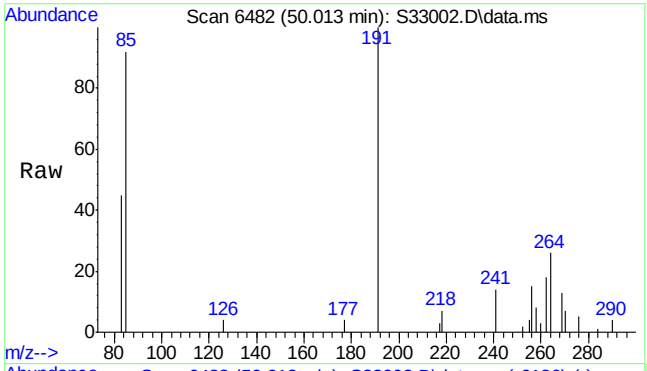
#46
C2-Benz(a)anthracenes/chrysenes
Concen: 241.05 ng/mL m
RT: 47.926 min Scan# 6115
Delta R.T. -0.254 min
Lab File: S33002.D
Acq: 17 Jul 2013 4:10 am

Tgt Ion:256 Resp: 66293

Ion	Ratio	Lower	Upper
256	100		
241	0.0	27.6	41.4#



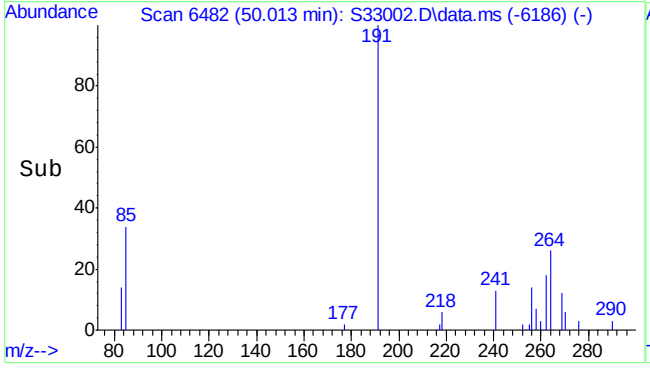


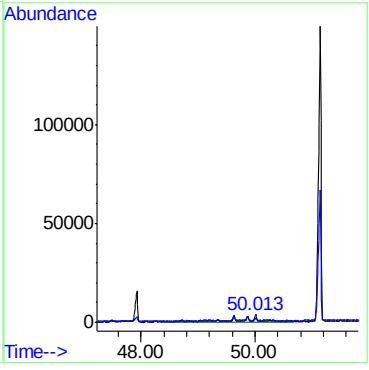


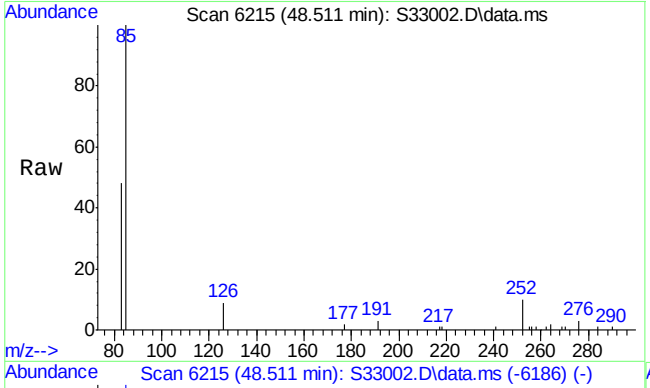
#47
C3-Benz(a)anthracenes/chrysenes
Concen: 154.17 ng/mL m
RT: 50.013 min Scan# 6482
Delta R.T. -0.585 min
Lab File: S33002.D
Acq: 17 Jul 2013 4:10 am

Tgt Ion:270 Resp: 42399

Ion	Ratio	Lower	Upper
270	100		
255	0.0	41.0	61.6#



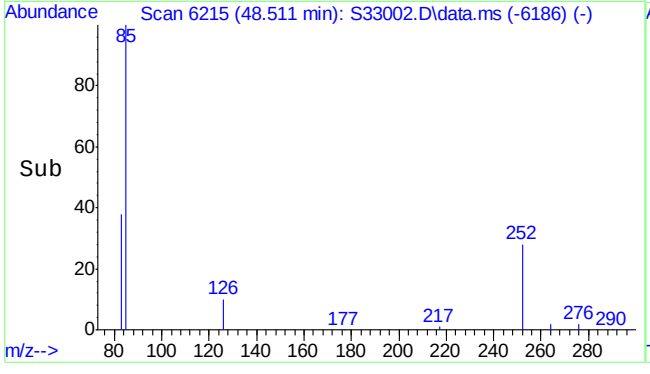


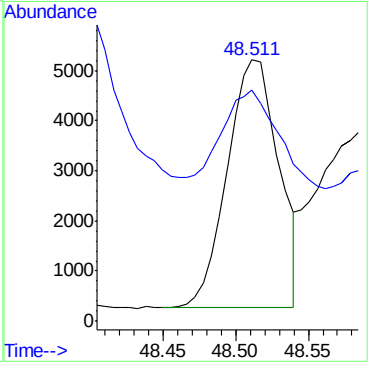


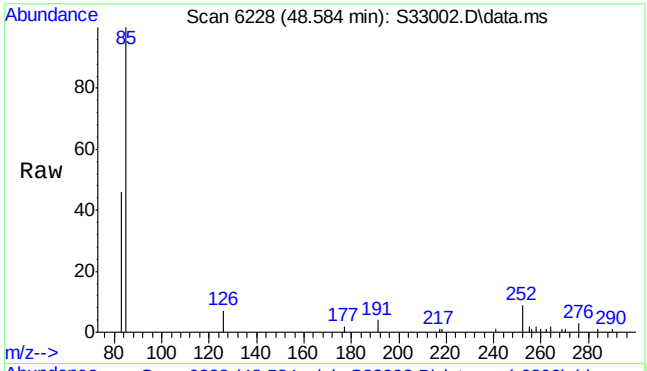
#49
Benzo(b)fluoranthene
Concen: 36.09 ng/mL
RT: 48.511 min Scan# 6215
Delta R.T. -0.036 min
Lab File: S33002.D
Acq: 17 Jul 2013 4:10 am

Tgt Ion:252 Resp: 12183

Ion	Ratio	Lower	Upper
252	100		
126	43.9	10.6	15.8#



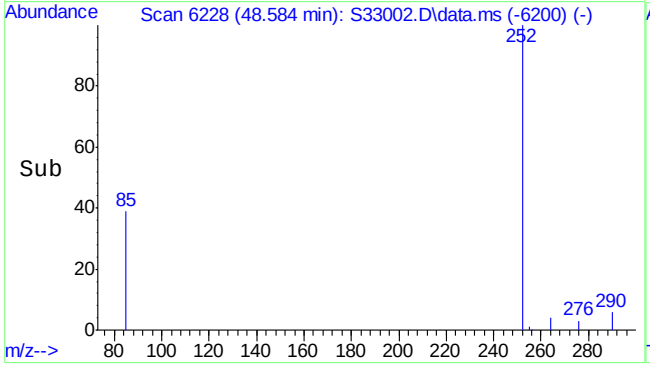


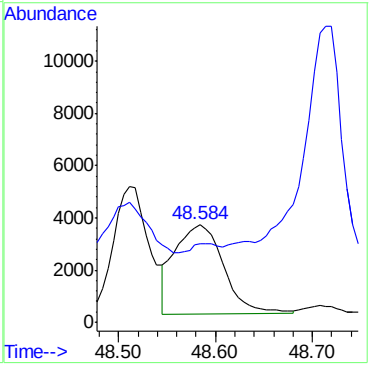


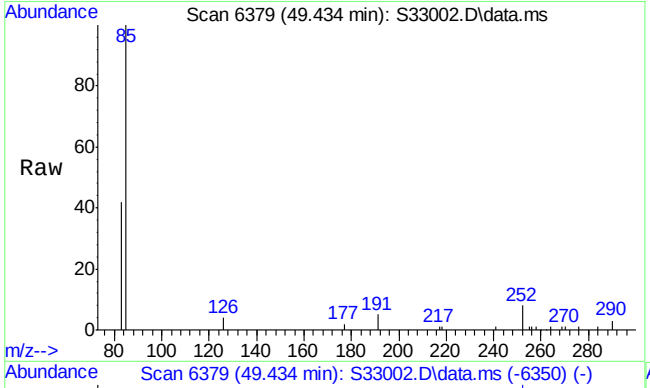
#50
Benzo(k)fluoranthene
Concen: 35.61 ng/mL
RT: 48.584 min Scan# 6228
Delta R.T. -0.041 min
Lab File: S33002.D
Acq: 17 Jul 2013 4:10 am

Tgt Ion:252 Resp: 11981

Ion	Ratio	Lower	Upper
252	100		
126	5.8	11.9	17.9#



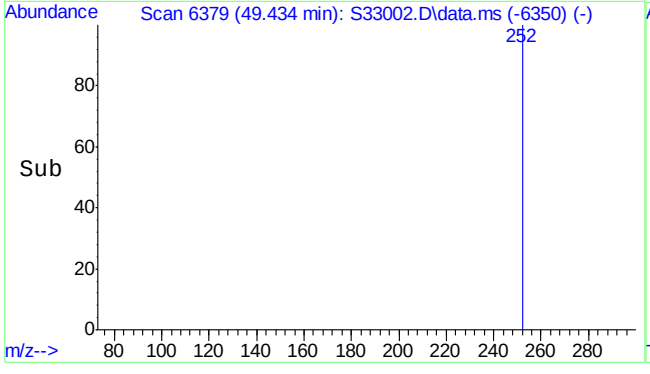


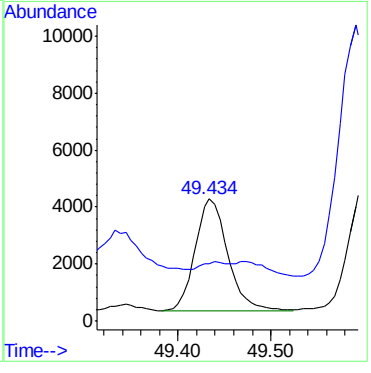


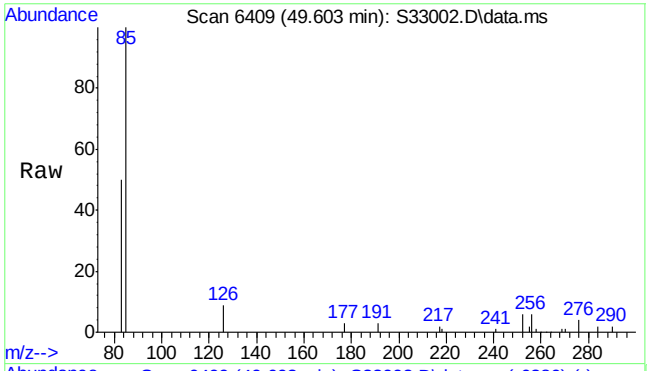
#51
Benzo(e)pyrene
Concen: 31.61 ng/mL
RT: 49.434 min Scan# 6379
Delta R.T. -0.038 min
Lab File: S33002.D
Acq: 17 Jul 2013 4:10 am

Tgt Ion:252 Resp: 9599

Ion	Ratio	Lower	Upper
252	100		
126	4.5	9.9	14.9#



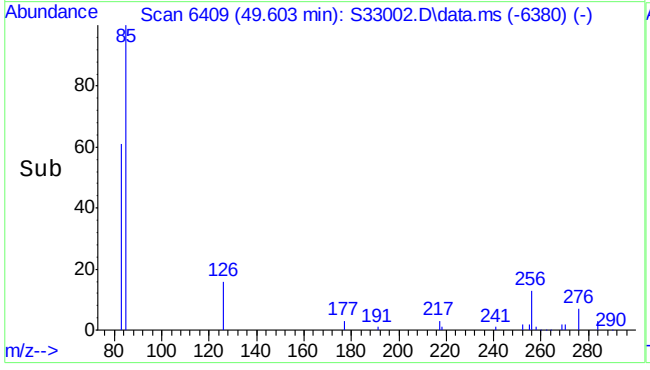


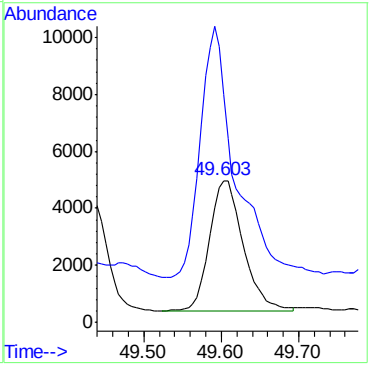


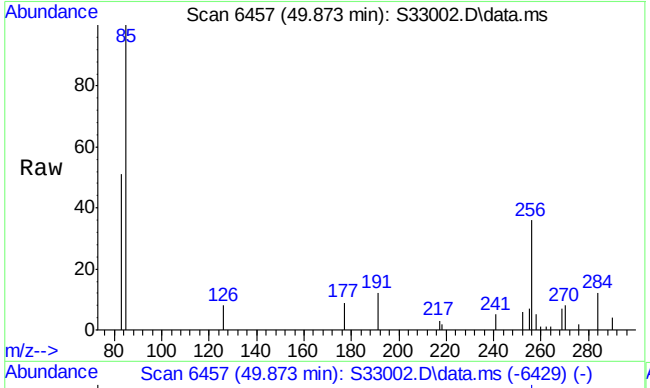
#52
Benzo(a)pyrene
Concen: 47.61 ng/mL
RT: 49.603 min Scan# 6409
Delta R.T. -0.039 min
Lab File: S33002.D
Acq: 17 Jul 2013 4:10 am

Tgt Ion:252 Resp: 14004

Ion	Ratio	Lower	Upper
252	100		
126	199.7	11.6	17.4#



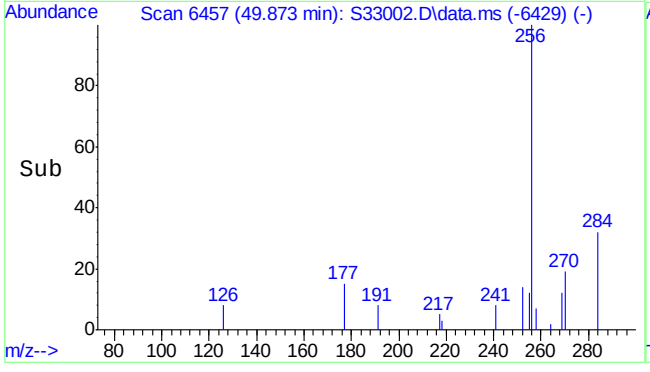


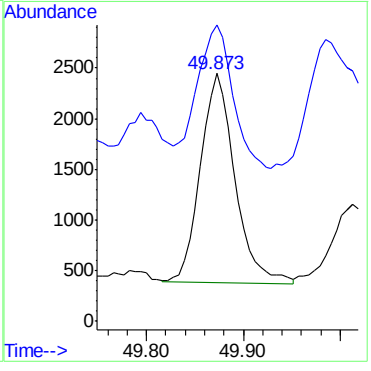


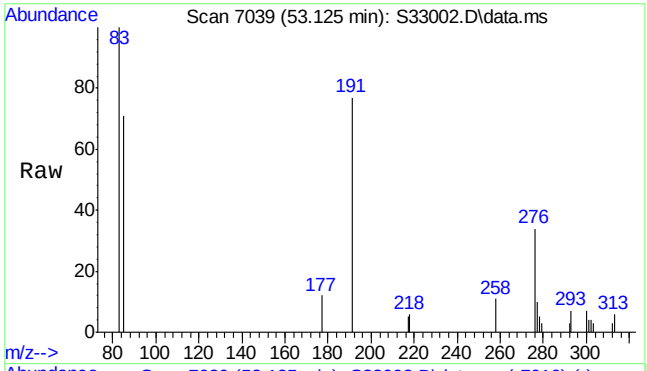
#53
Perylene
Concen: 17.87 ng/mL
RT: 49.873 min Scan# 6457
Delta R.T. -0.040 min
Lab File: S33002.D
Acq: 17 Jul 2013 4:10 am

Tgt Ion:252 Resp: 5106

Ion	Ratio	Lower	Upper
252	100		
126	71.0	12.5	18.7#



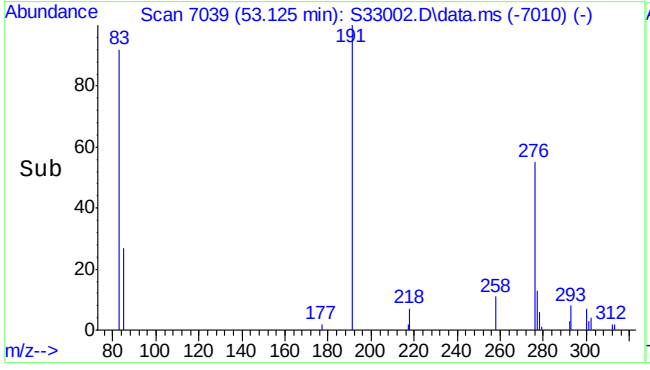


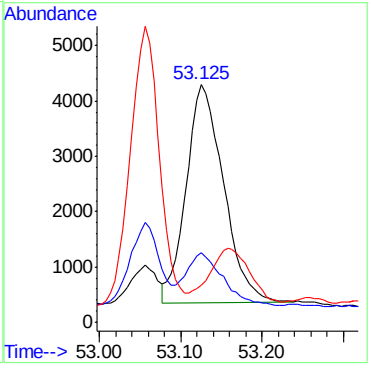


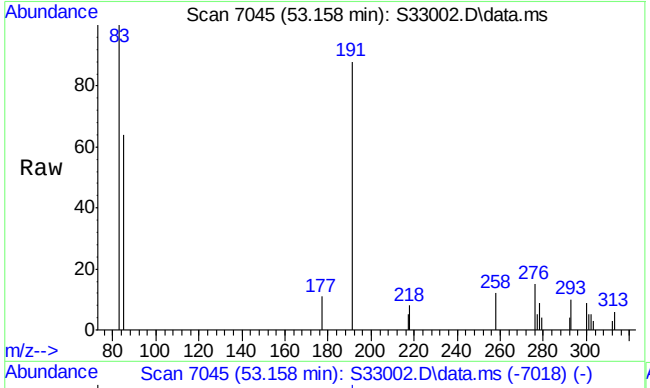
#54
Indeno(1,2,3-cd)pyrene
Concen: 37.37 ng/mL
RT: 53.125 min Scan# 7039
Delta R.T. -0.044 min
Lab File: S33002.D
Acq: 17 Jul 2013 4:10 am

Tgt Ion:276 Resp: 12589

Ion	Ratio	Lower	Upper
276	100		
277	23.8	19.0	28.4
278	0.0	5.7	8.5#



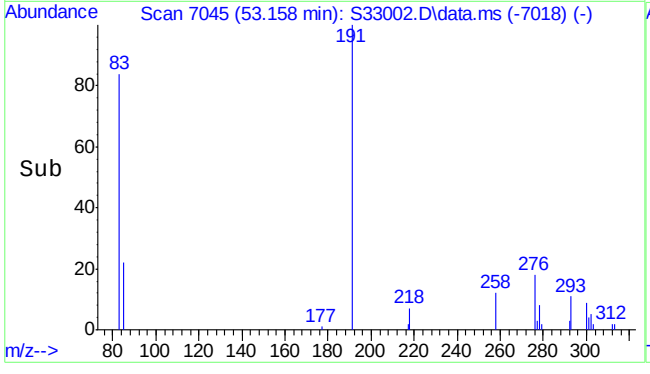


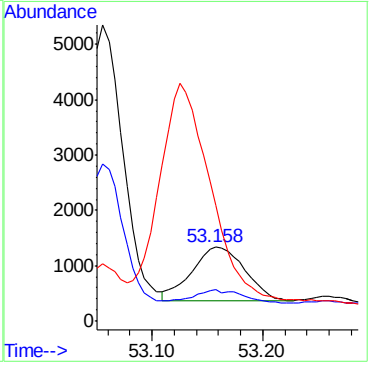


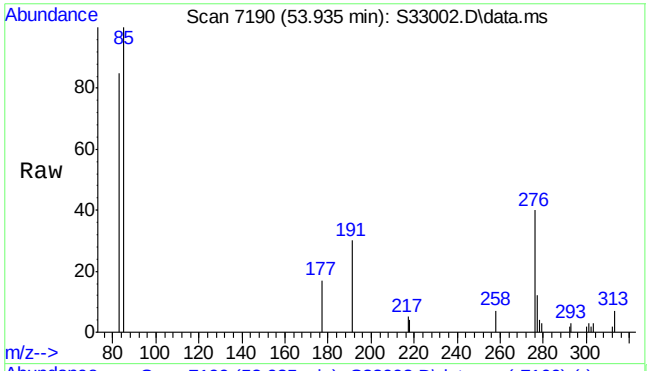
#55
Dibenz(a,h)anthracene
Concen: 10.62 ng/mL
RT: 53.158 min Scan# 7045
Delta R.T. -0.055 min
Lab File: S33002.D
Acq: 17 Jul 2013 4:10 am

Tgt Ion:278 Resp: 3245

Ion	Ratio	Lower	Upper
278	100		
279	23.4	19.2	28.8
276	0.0	29.6	44.4#



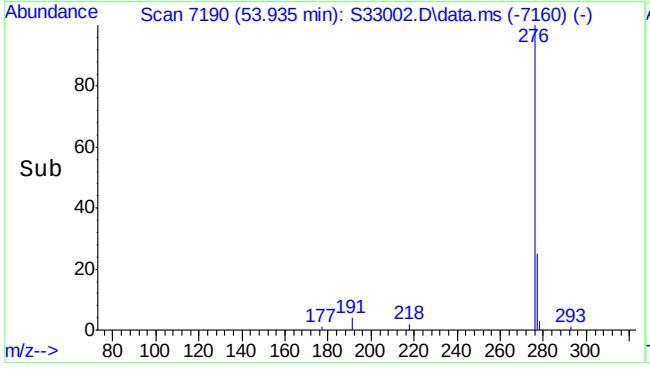


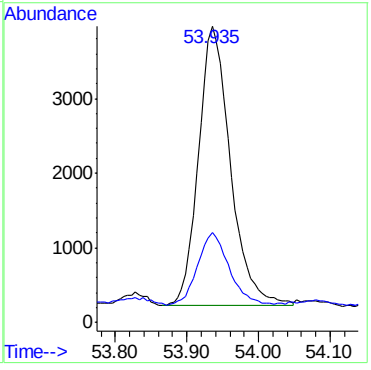


#56
Benzo(g,h,i)perylene
Concen: 32.15 ng/mL
RT: 53.935 min Scan# 7190
Delta R.T. -0.041 min
Lab File: S33002.D
Acq: 17 Jul 2013 4:10 am

Tgt Ion:276 Resp: 11603

Ion	Ratio	Lower	Upper
276	100		
277	25.6	18.9	28.3





7.1.16

7

Manual Integrations APPROVED (compounds with "m" flag)
James Roush
07/29/13 14:06

Quantitation Report (QT Reviewed)

Data Path : S:\1\data\S130723\
Data File : S33020.D
Acq On : 23 Jul 2013 7:18 pm
Operator : kristinr
Sample : op33686-mb
Misc : op33686,mss1444,5.19,,,2,10
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jul 24 12:33:15 2013
Quant Method : S:\1\methods\S130705-B5739ALKPAH.M
Quant Title : PAHs & Alkylated PAHs by GC/MS/SIM
QLast Update : Thu Jul 11 09:13:24 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Acenaphthene-d10	28.064	164	131653	1100.00	ng/mL	0.00
System Monitoring Compounds						
2) Toluene-d8	9.181	98	3910m	27.74	µg/mL	0.00
Spiked Amount 1000.000			Recovery = 2.77%			
3) Naphthalene-d8	21.119	136	12857	55.24	ng/mL	0.00
Spiked Amount 1000.000	Range 1 - 0		Recovery = 5.52%#			
4) Phenanthrene-d10	33.900	188	10215	53.31	ng/mL	0.01
Spiked Amount 1000.000			Recovery = 5.33%			
5) Perylene-d12	49.693	264	10217	60.41	ng/mL	0.01
Spiked Amount 1000.000			Recovery = 6.04%			
Target Compounds						Qvalue
6) Naphthalene	21.193	128	7776	26.29	ng/mL	95
7) 2-Methylnaphthalene	23.890	142	1993	11.35	ng/mL	92
8) 1-Methylnaphthalene	24.311	142	749m	4.09	ng/mL	
9) C1-Naphthalenes	23.890	142	2834m	9.58	ng/mL	
10) C2-Naphthalenes	26.727	156	2464m	8.33	ng/mL	
11) C3-Naphthalenes	29.056	170	1015m	3.43	ng/mL	
14) Acenaphthene	28.179	154	351	2.10	ng/mL	99
15) Dibenzofuran	28.833	168	682m	2.87	ng/mL	
16) Fluorene	30.199	166	782m	3.69	ng/mL	
17) C1-Fluorenes	32.408	180	849m	4.01	ng/mL	
20) Dibenzothiophene	33.496	184	108m	0.40	ng/mL	
26) Phenanthrene	33.983	178	2089m	6.85	ng/mL	
28) C1-Phenanthrenes/anthr...	35.989	192	930m	3.05	ng/mL	
29) C2-Phenanthrenes/anthr...	38.429	206	1089m	3.57	ng/mL	
30) C2-Phenanthrenes/anthr...	37.913	206	55m	0.18	µg/mL	
33) Fluoranthene	38.734	202	1274	4.71	ng/mL#	69
34) Pyrene	39.605	202	800	2.86	ng/mL#	65
43) Benz(a)anthracene	44.386	228	222	0.82	ng/mL#	48
44) Chrysene	44.547	228	364	1.44	ng/mL#	45
49) Benzo(b)fluoranthene	48.405	252	334	1.08	ng/mL#	67
50) Benzo(k)fluoranthene	48.500	252	297m	0.96	ng/mL	
51) Benzo(e)pyrene	49.338	252	142m	0.51	ng/mL	
52) Benzo(a)pyrene	49.490	252	80m	0.30	ng/mL	
54) Indeno(1,2,3-cd)pyrene	53.024	276	103m	0.33	ng/mL	
56) Benzo(g,h,i)perylene	53.823	276	196m	0.59	ng/mL	

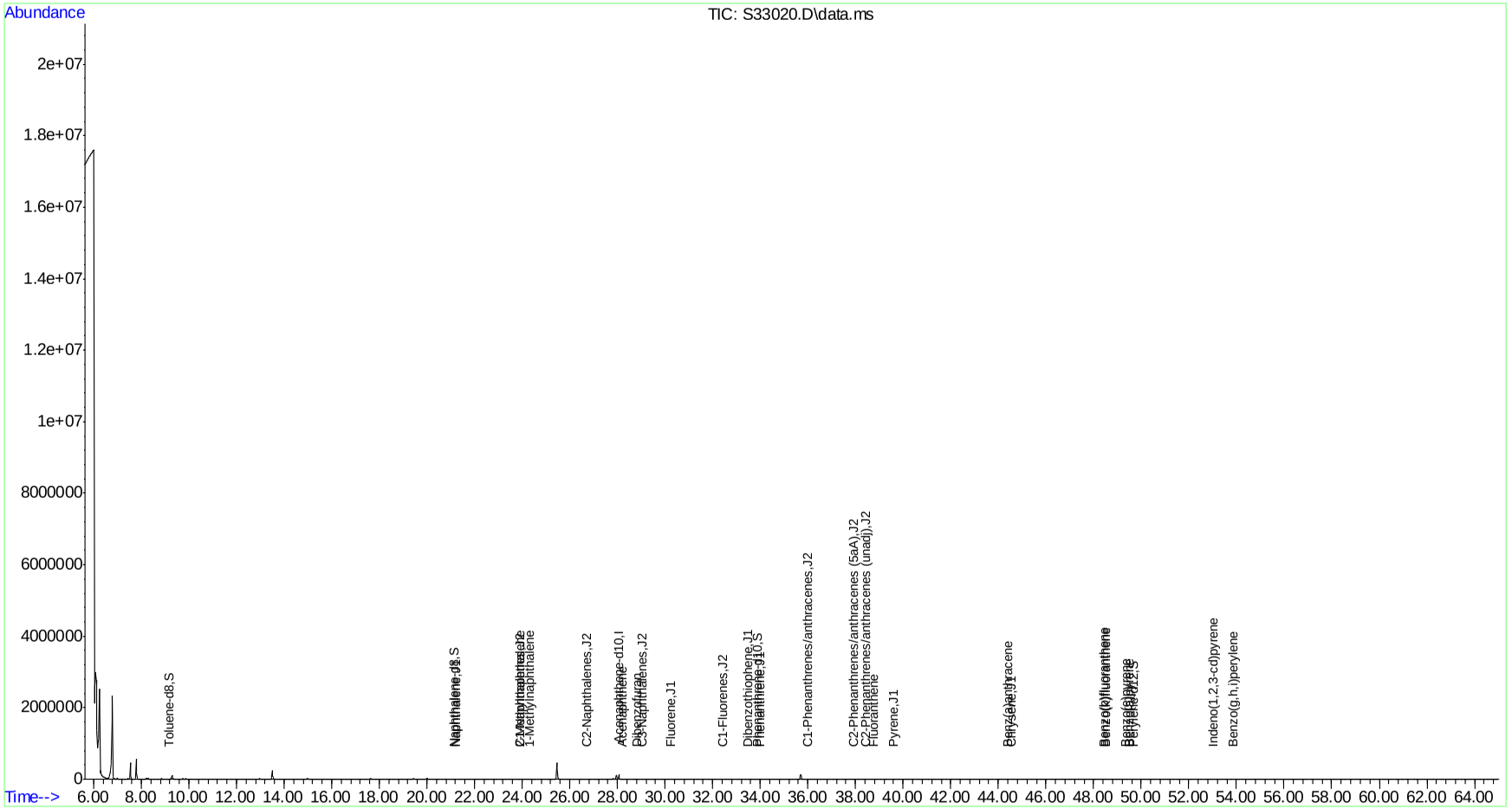
(#) = qualifier out of range (m) = manual integration (+) = signals summed

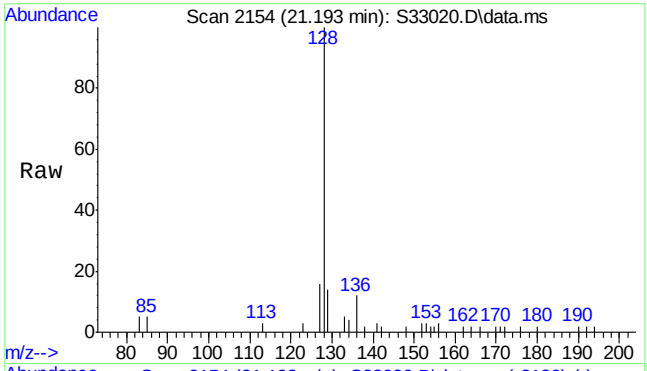
7.2.1
7

Quantitation Report (QT Reviewed)

Data Path : S:\1\data\S130723\
Data File : S33020.D
Acq On : 23 Jul 2013 7:18 pm
Operator : kristinr
Sample : op33686-mb
Misc : op33686,mss1444,5.19,,,2,10
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jul 24 12:33:15 2013
Quant Method : S:\1\methods\S130705-B5739ALKPAH.M
Quant Title : PAHs & Alkylated PAHs by GC/MS/SIM
QLast Update : Thu Jul 11 09:13:24 2013
Response via : Initial Calibration

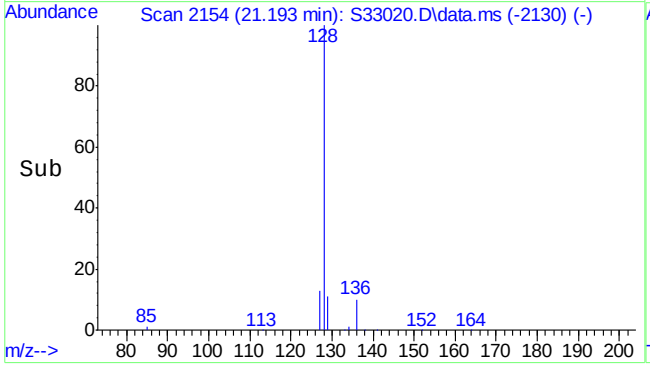


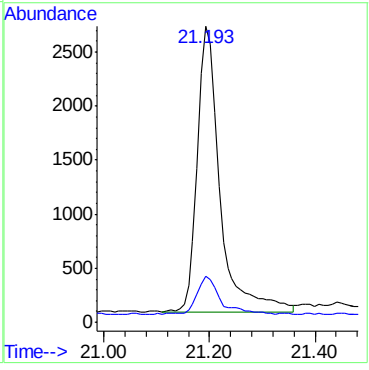


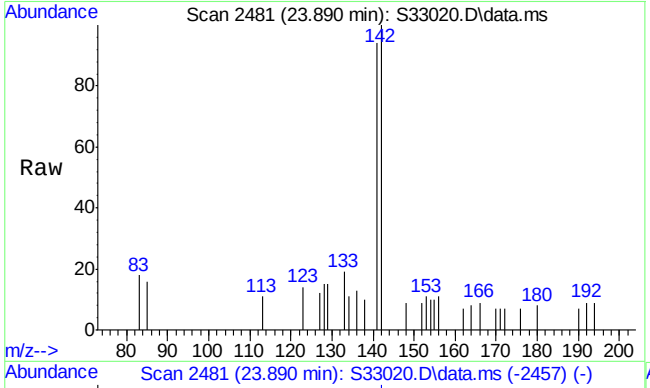
#6
Naphthalene
Concen: 26.29 ng/mL
RT: 21.193 min Scan# 2154
Delta R.T. 0.000 min
Lab File: S33020.D
Acq: 23 Jul 2013 7:18 pm

Tgt Ion:128 Resp: 7776

Ion	Ratio	Lower	Upper
128	100		
127	14.3	10.0	15.0



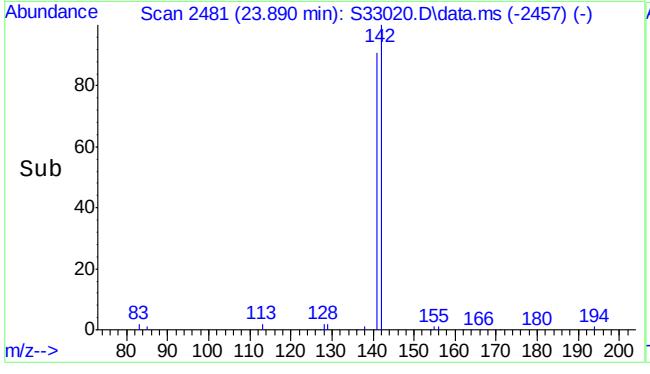


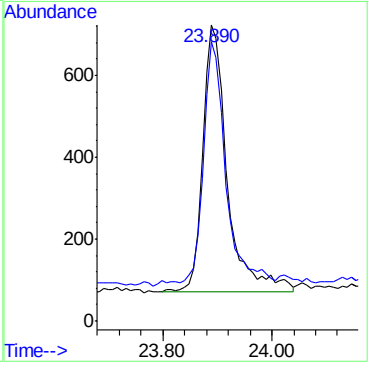


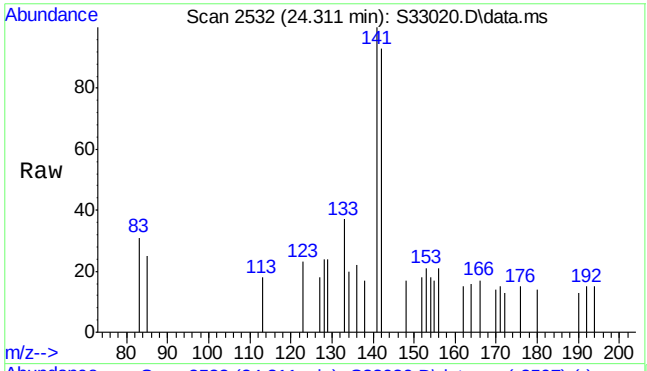
#7
2-Methylnaphthalene
Concen: 11.35 ng/mL
RT: 23.890 min Scan# 2481
Delta R.T. 0.000 min
Lab File: S33020.D
Acq: 23 Jul 2013 7:18 pm

Tgt Ion:142 Resp: 1993

Ion	Ratio	Lower	Upper
142	100		
141	80.1	69.7	104.5



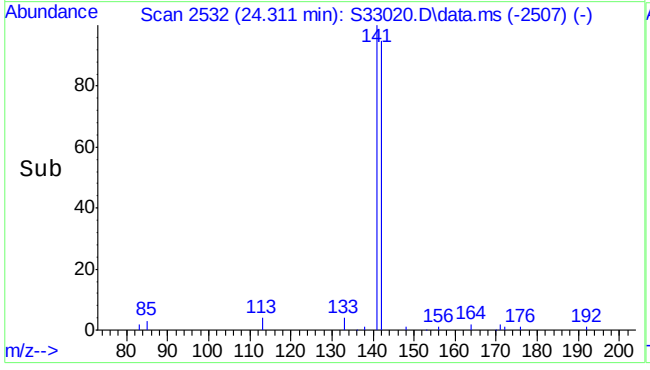


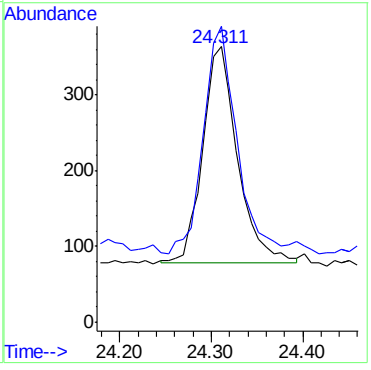


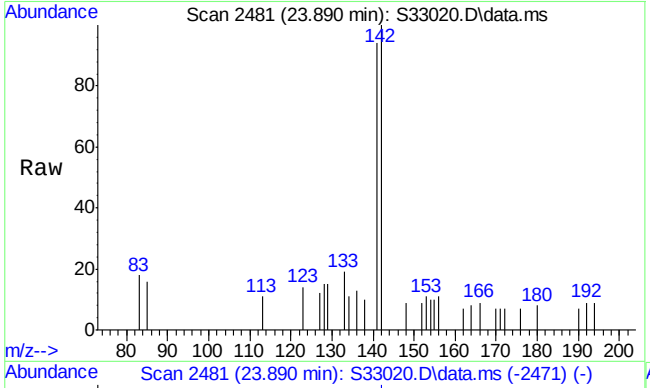
#8
1-Methylnaphthalene
Concen: 4.09 ng/mL m
RT: 24.311 min Scan# 2532
Delta R.T. 0.008 min
Lab File: S33020.D
Acq: 23 Jul 2013 7:18 pm

Tgt Ion:142 Resp: 749

Ion	Ratio	Lower	Upper
142	100		
141	100.4	72.6	108.8



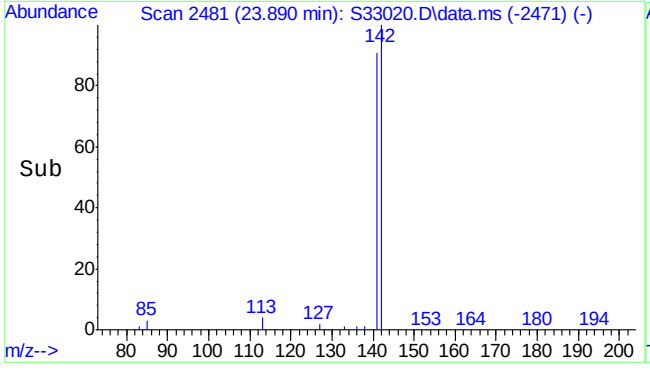


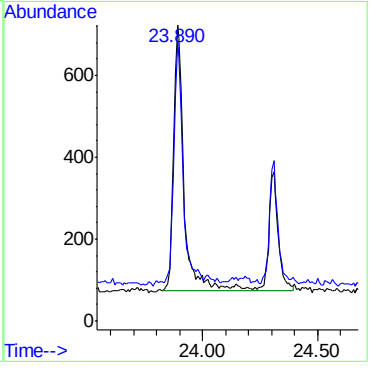


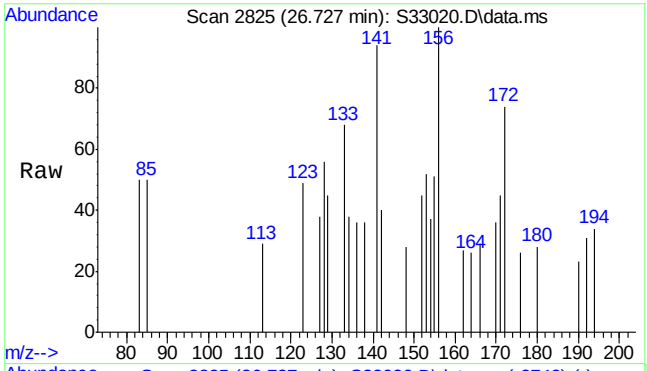
#9
C1-Naphthalenes
Concen: 9.58 ng/mL m
RT: 23.890 min Scan# 2481
Delta R.T. 0.009 min
Lab File: S33020.D
Acq: 23 Jul 2013 7:18 pm

Tgt Ion:142 Resp: 2834

Ion	Ratio	Lower	Upper
142	100		
141	56.3	69.9	104.9#



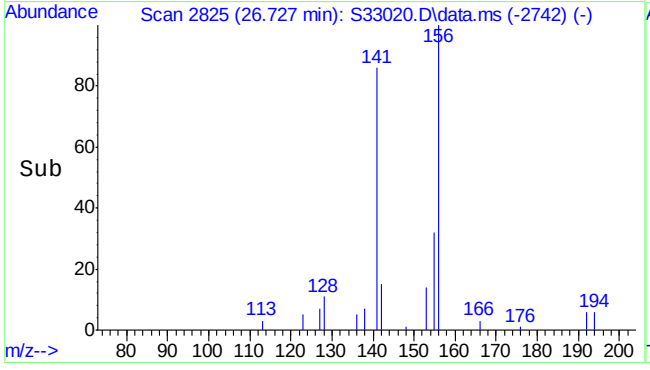


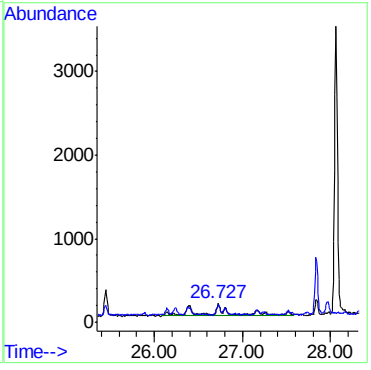


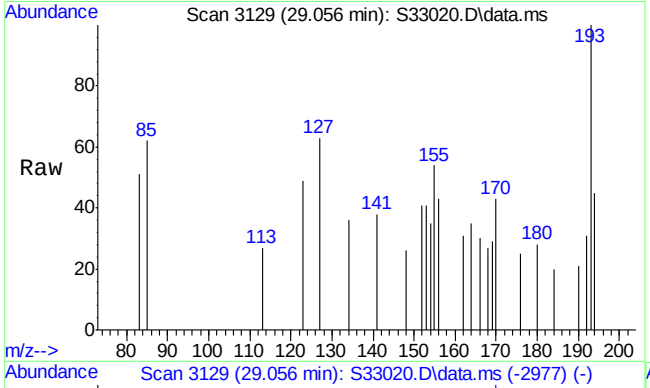
#10
C2-Naphthalenes
Concen: 8.33 ng/mL m
RT: 26.727 min Scan# 2825
Delta R.T. -0.074 min
Lab File: S33020.D
Acq: 23 Jul 2013 7:18 pm

Tgt Ion:156 Resp: 2464

Ion	Ratio	Lower	Upper
156	100		
141	9.4	64.9	97.3#



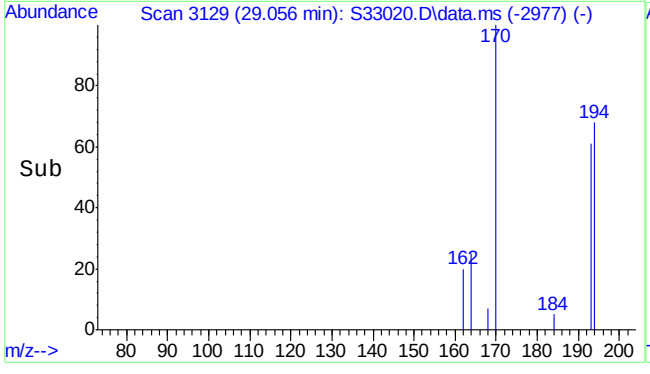


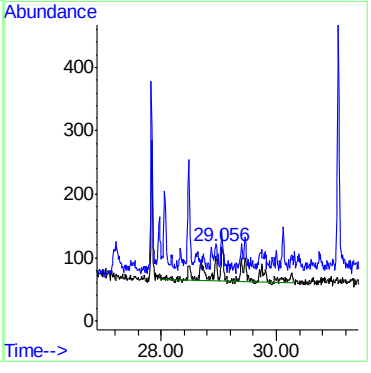


#11
C3-Naphthalenes
Concen: 3.43 ng/mL m
RT: 29.056 min Scan# 3129
Delta R.T. 0.000 min
Lab File: S33020.D
Acq: 23 Jul 2013 7:18 pm

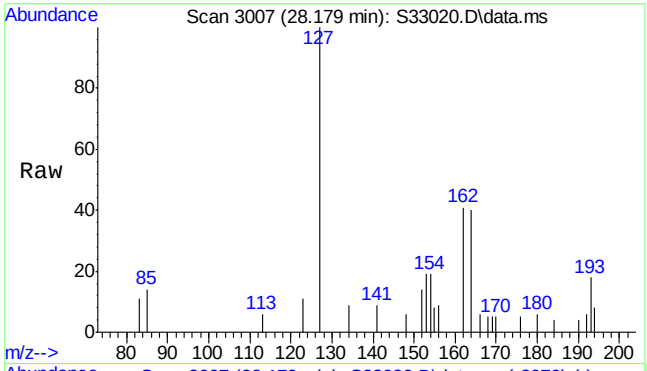
Tgt Ion:170 Resp: 1015

Ion	Ratio	Lower	Upper
170	100		
155	0.0	85.4	128.2#





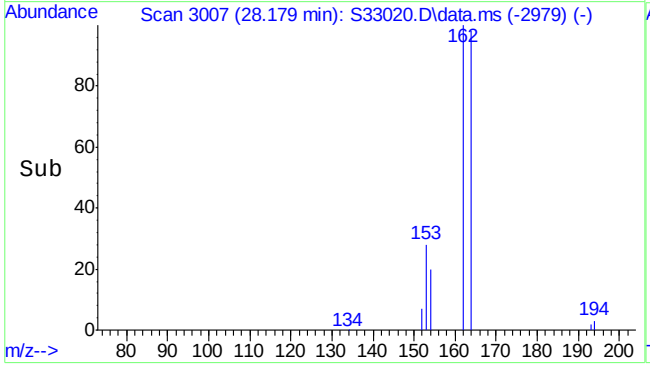
ACCUTEST LABORATORIES MC21754A

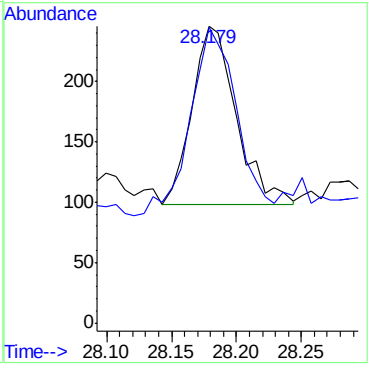


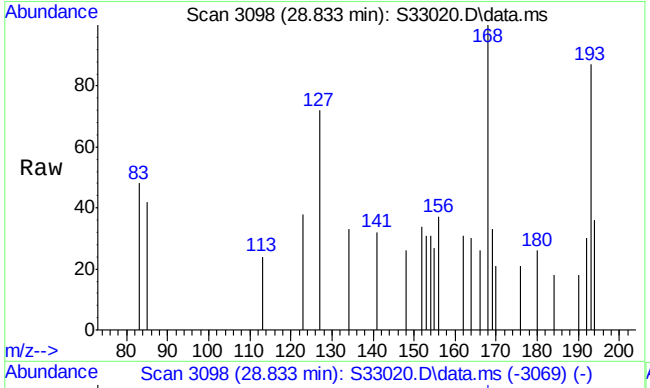
#14
Acenaphthene
Concen: 2.10 ng/mL
RT: 28.179 min Scan# 3007
Delta R.T. 0.000 min
Lab File: S33020.D
Acq: 23 Jul 2013 7:18 pm

Tgt Ion:154 Resp: 351

Ion	Ratio	Lower	Upper
154	100		
153	111.4	88.2	132.4



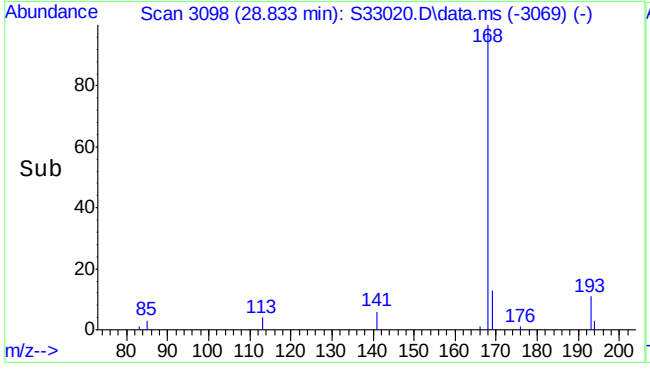


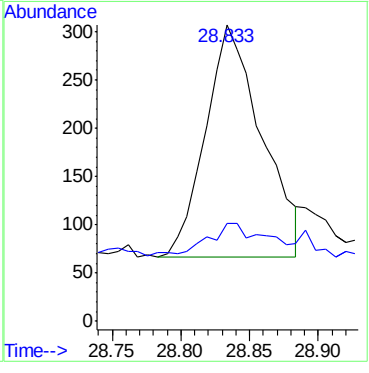


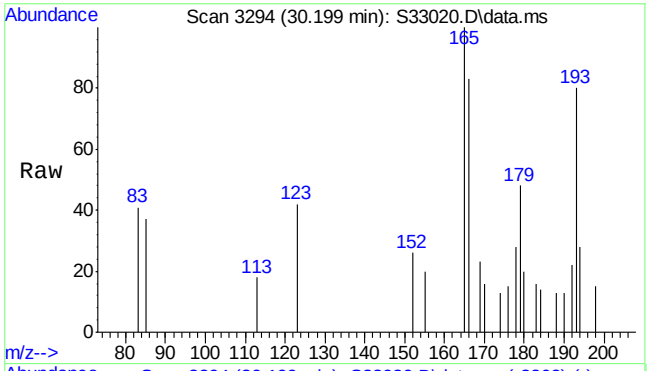
#15
Dibenzofuran
Concen: 2.87 ng/mL m
RT: 28.833 min Scan# 3098
Delta R.T. 0.007 min
Lab File: S33020.D
Acq: 23 Jul 2013 7:18 pm

Tgt Ion:168 Resp: 682

Ion	Ratio	Lower	Upper
168	100		
169	0.0	10.7	16.1#



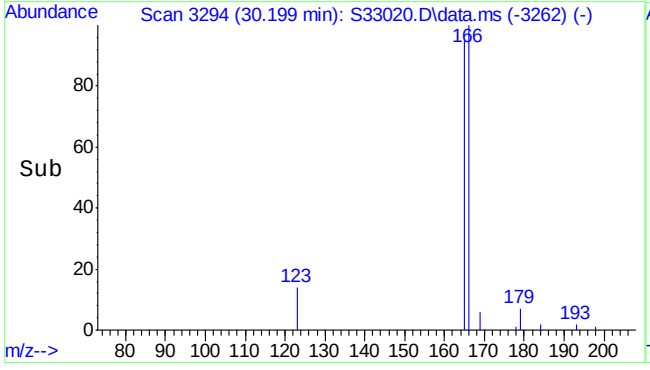


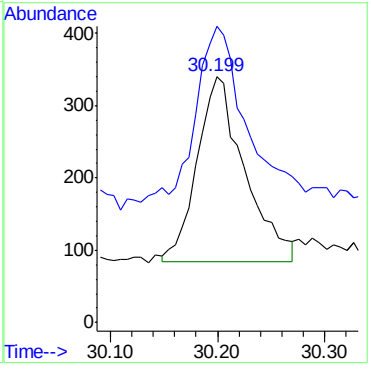


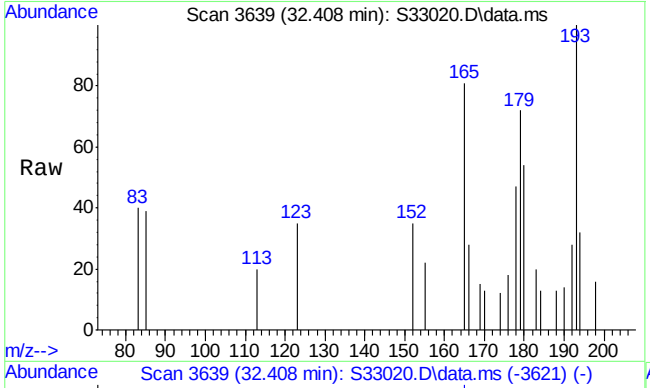
#16
Fluorene
Concen: 3.69 ng/mL m
RT: 30.199 min Scan# 3294
Delta R.T. 0.006 min
Lab File: S33020.D
Acq: 23 Jul 2013 7:18 pm

Tgt Ion:166 Resp: 782

Ion	Ratio	Lower	Upper
166	100		
165	115.6	76.3	114.5#



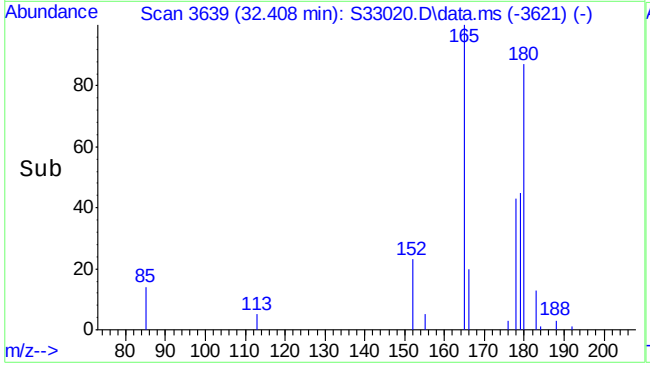


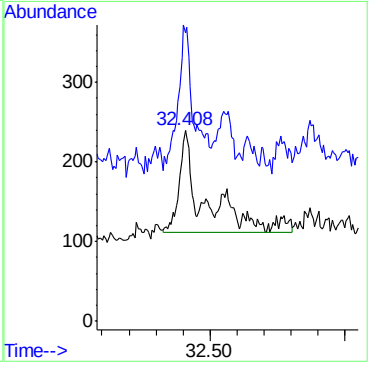


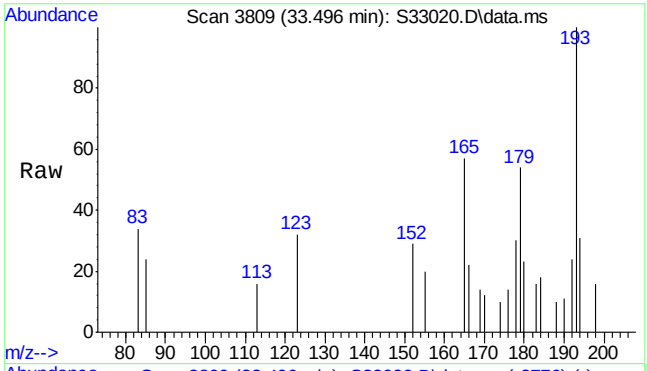
#17
C1-Fluorenes
Concen: 4.01 ng/mL m
RT: 32.408 min Scan# 3639
Delta R.T. -0.123 min
Lab File: S33020.D
Acq: 23 Jul 2013 7:18 pm

Tgt Ion:180 Resp: 849

Ion	Ratio	Lower	Upper
180	100		
165	88.3	134.2	201.4#



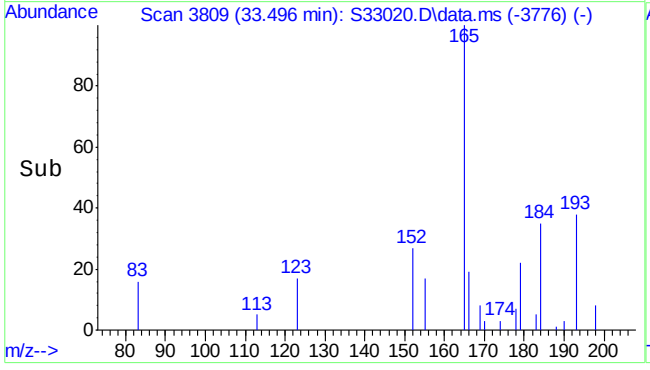


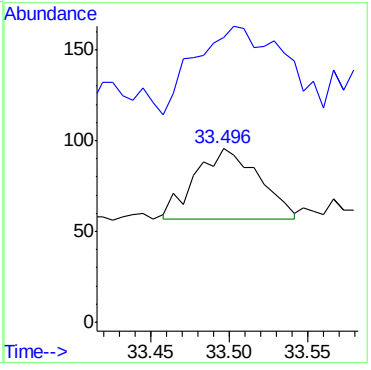


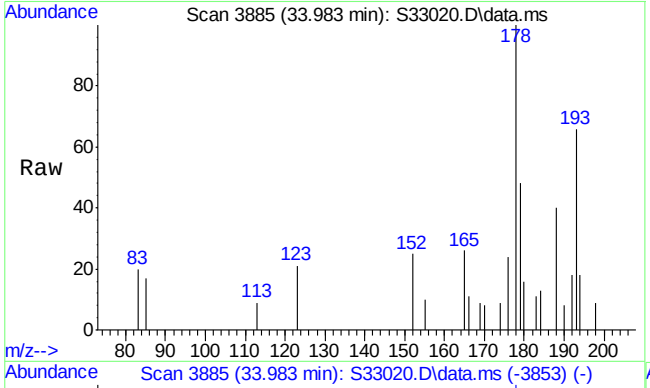
#20
Dibenzothiophene
Concen: 0.40 ng/mL m
RT: 33.496 min Scan# 3809
Delta R.T. 0.013 min
Lab File: S33020.D
Acq: 23 Jul 2013 7:18 pm

Tgt Ion:184 Resp: 108

Ion	Ratio	Lower	Upper
184	100		
152	0.0	7.7	11.5#



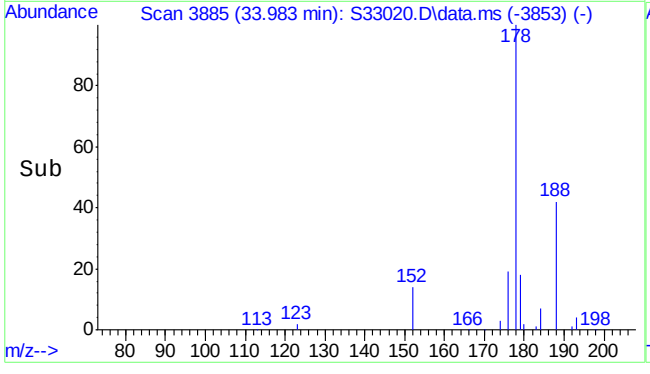


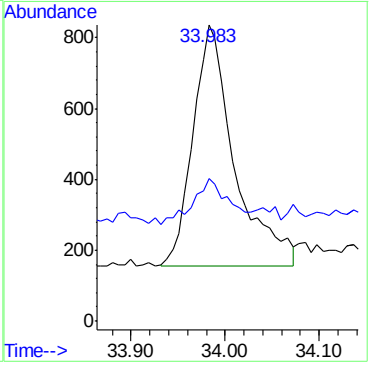


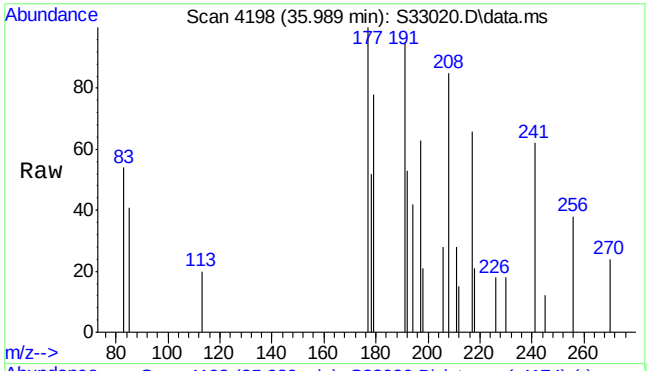
#26
Phenanthrene
Concen: 6.85 ng/mL m
RT: 33.983 min Scan# 3885
Delta R.T. 0.006 min
Lab File: S33020.D
Acq: 23 Jul 2013 7:18 pm

Tgt Ion:178 Resp: 2089

Ion	Ratio	Lower	Upper
178	100		
179	16.4	12.6	18.8



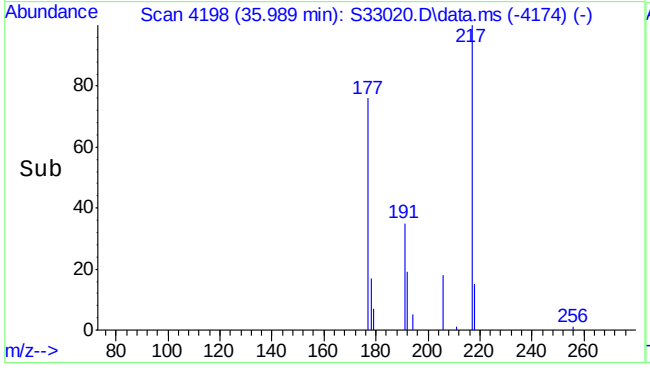


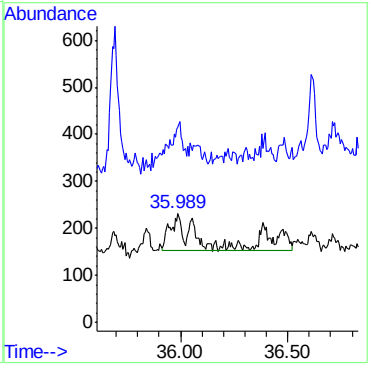


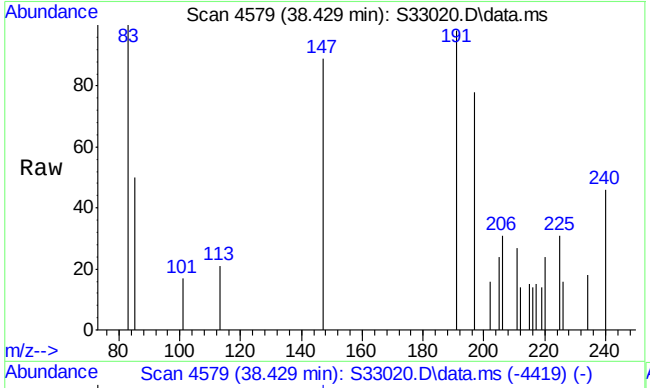
#28
C1-Phenanthrenes/anthracenes
Concen: 3.05 ng/mL m
RT: 35.989 min Scan# 4198
Delta R.T. -0.397 min
Lab File: S33020.D
Acq: 23 Jul 2013 7:18 pm

Tgt Ion:192 Resp: 930

Ion	Ratio	Lower	Upper
192	100		
191	0.0	46.7	70.1#



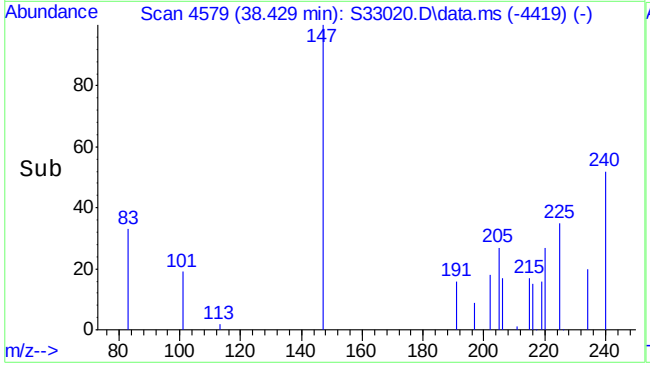


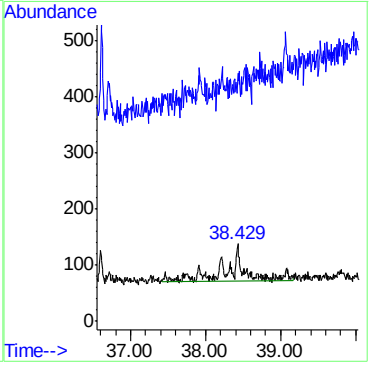


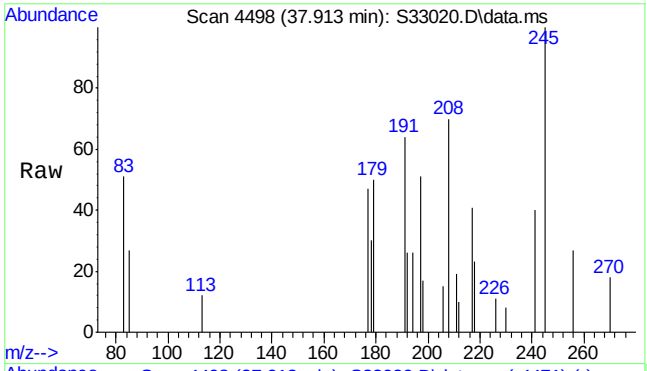
#29
C2-Phenanthrenes/anthracenes (unadj)
Concen: 3.57 ng/mL m
RT: 38.429 min Scan# 4579
Delta R.T. 0.221 min
Lab File: S33020.D
Acq: 23 Jul 2013 7:18 pm

Tgt Ion:206 Resp: 1089

Ion	Ratio	Lower	Upper
206	100		
191	0.0	49.1	73.7#



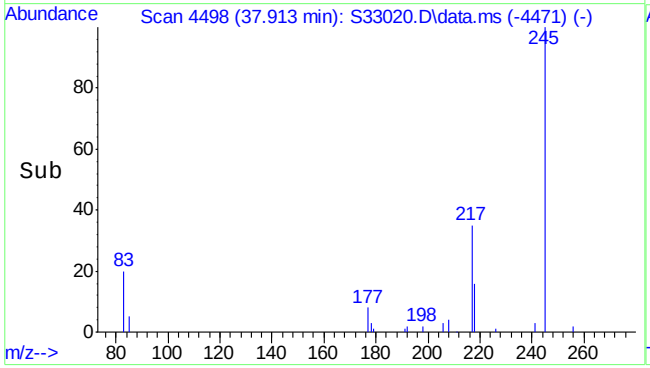


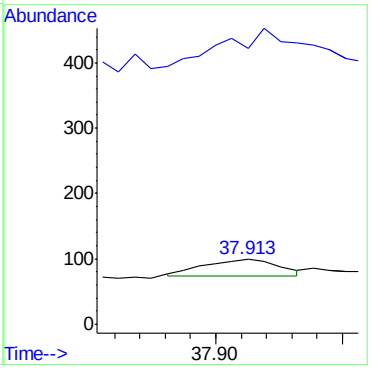


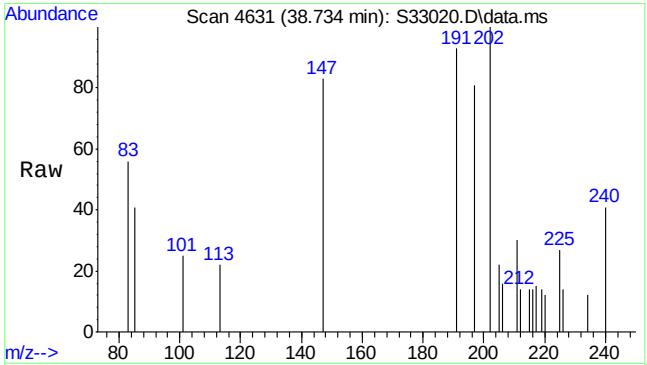
#30
C2-Phenanthrenes/anthracenes (5aA)
Concen: 0.18 µg/mL m
RT: 37.913 min Scan# 4498
Delta R.T. -0.025 min
Lab File: S33020.D
Acq: 23 Jul 2013 7:18 pm

Tgt Ion:206 Resp: 55

Ion	Ratio	Lower	Upper
206	100		
191	0.0	94.0	141.0#



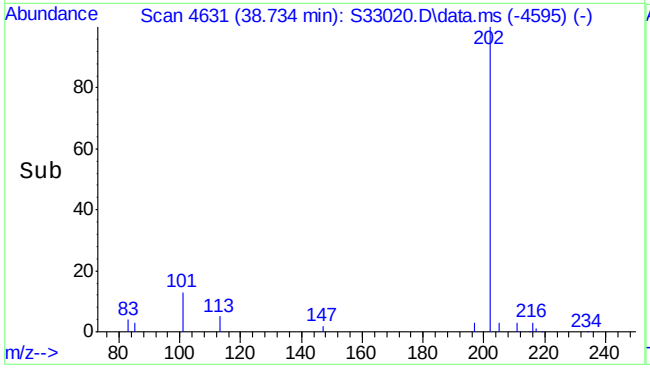


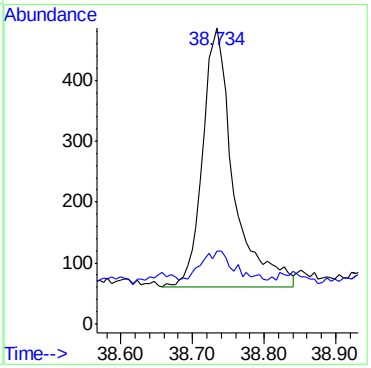


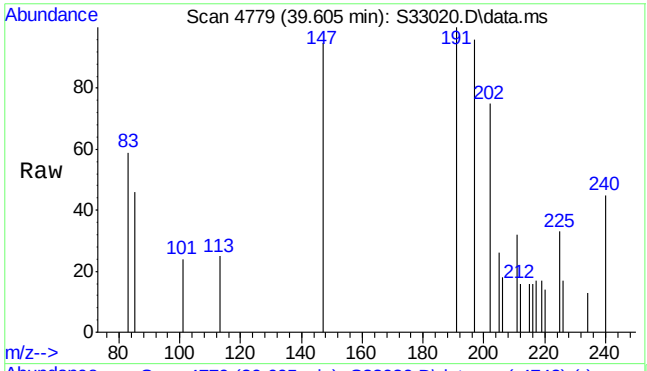
#33
Fluoranthene
Concen: 4.71 ng/mL
RT: 38.734 min Scan# 4631
Delta R.T. 0.012 min
Lab File: S33020.D
Acq: 23 Jul 2013 7:18 pm

Tgt Ion:202 Resp: 1274

Ion	Ratio	Lower	Upper
202	100		
101	0.0	9.8	14.6#



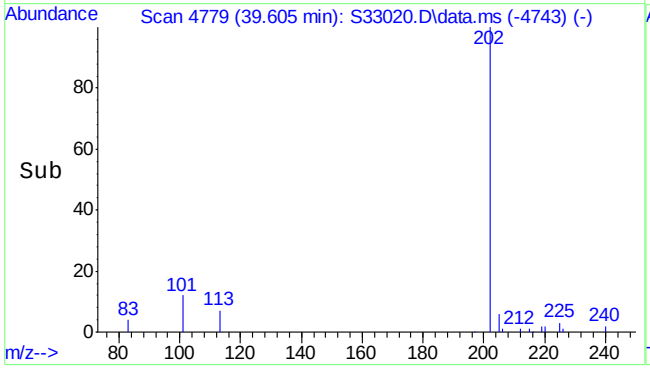


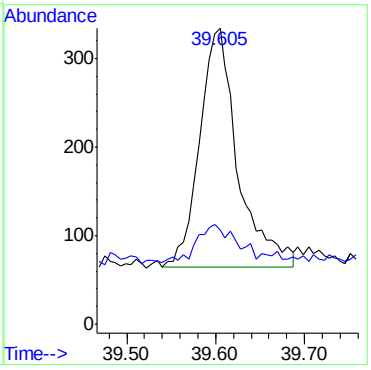


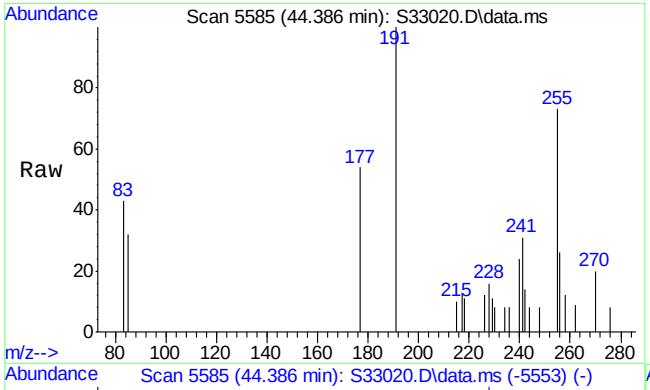
#34
Pyrene
Concen: 2.86 ng/mL
RT: 39.605 min Scan# 4779
Delta R.T. 0.012 min
Lab File: S33020.D
Acq: 23 Jul 2013 7:18 pm

Tgt Ion:202 Resp: 800

Ion	Ratio	Lower	Upper
202	100		
101	0.0	11.4	17.0#



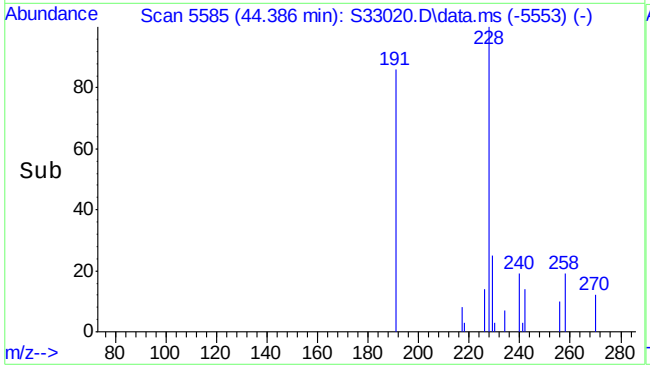


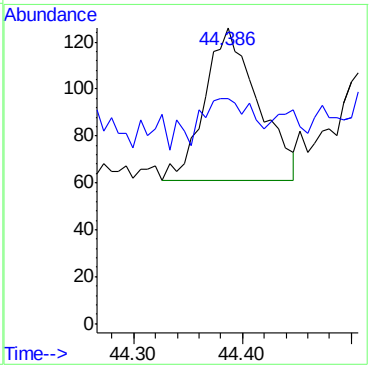


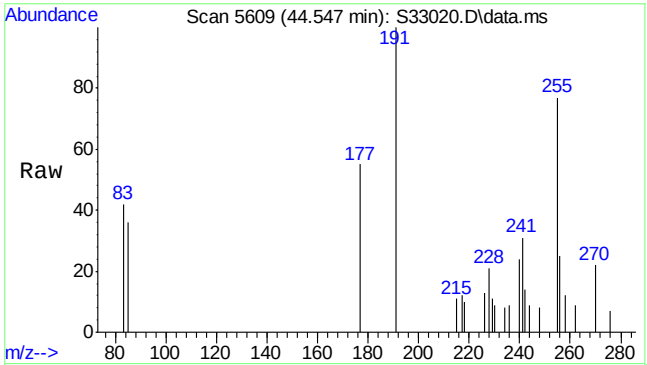
#43
Benz(a)anthracene
Concen: 0.82 ng/mL
RT: 44.386 min Scan# 5585
Delta R.T. 0.013 min
Lab File: S33020.D
Acq: 23 Jul 2013 7:18 pm

Tgt Ion:228 Resp: 222

Ion	Ratio	Lower	Upper
228	100		
226	0.0	21.4	32.2#



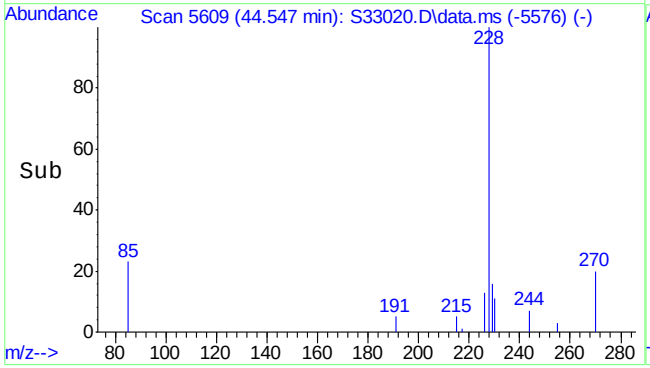


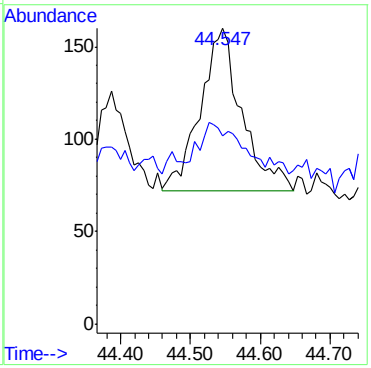


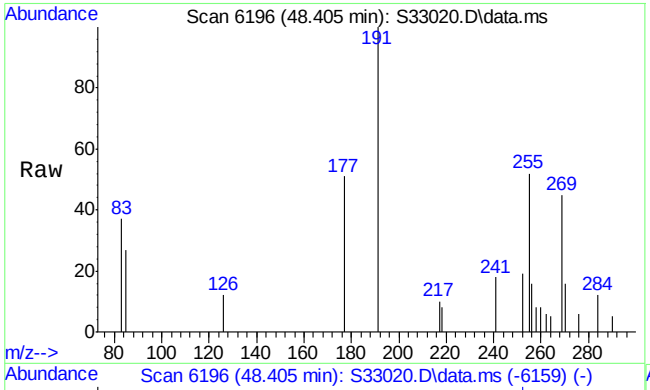
#44
Chrysene
Concen: 1.44 ng/mL
RT: 44.547 min Scan# 5609
Delta R.T. 0.020 min
Lab File: S33020.D
Acq: 23 Jul 2013 7:18 pm

Tgt Ion:228 Resp: 364

Ion	Ratio	Lower	Upper
228	100		
226	0.0	23.8	35.6#



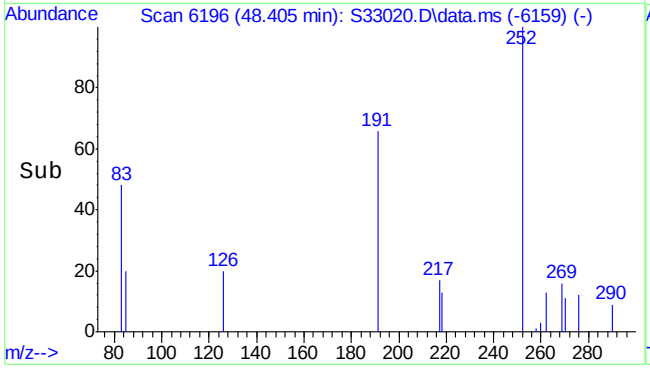


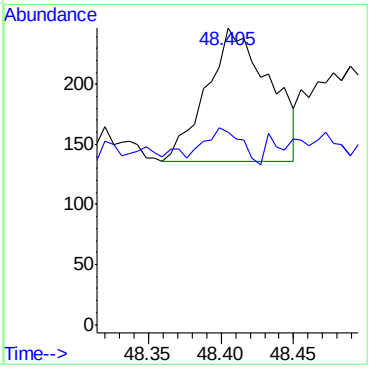


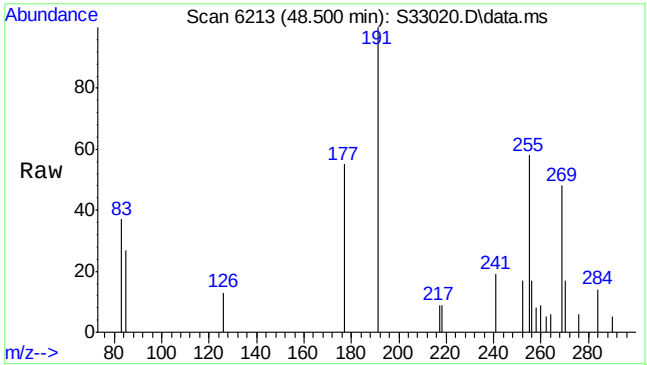
#49
Benzo(b)fluoranthene
Concen: 1.08 ng/mL
RT: 48.405 min Scan# 6196
Delta R.T. 0.006 min
Lab File: S33020.D
Acq: 23 Jul 2013 7:18 pm

Tgt Ion:252 Resp: 334

Ion	Ratio	Lower	Upper
252	100		
126	0.0	10.6	15.8#



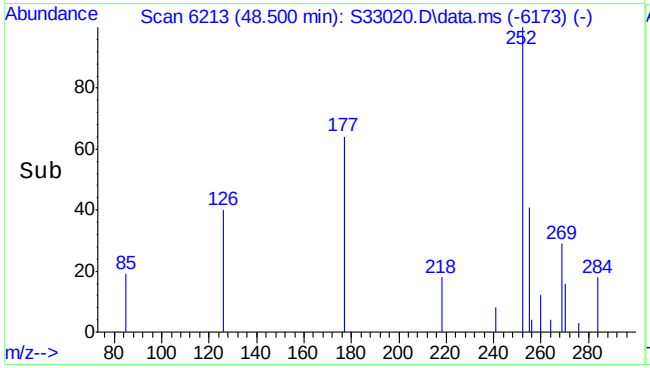


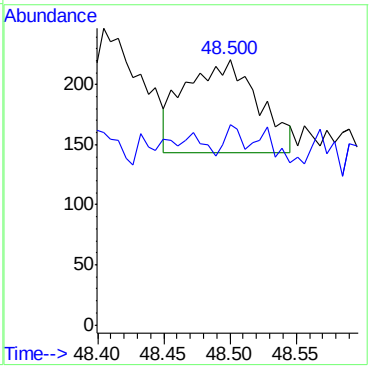


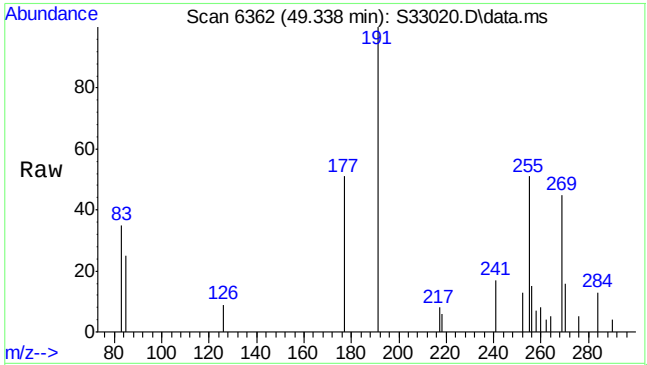
#50
Benzo(k)fluoranthene
Concen: 0.96 ng/mL m
RT: 48.500 min Scan# 6213
Delta R.T. 0.023 min
Lab File: S33020.D
Acq: 23 Jul 2013 7:18 pm

Tgt Ion:252 Resp: 297

Ion	Ratio	Lower	Upper
252	100		
126	0.0	11.9	17.9#



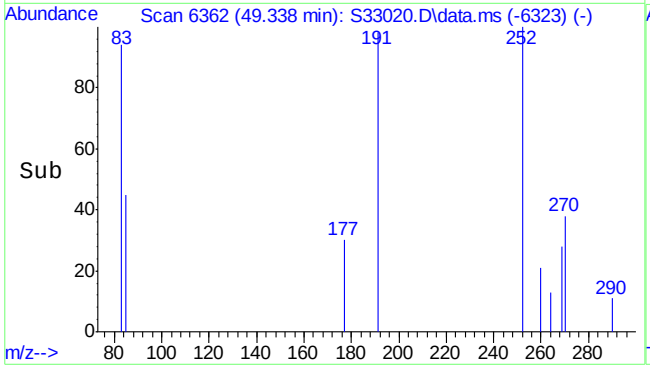


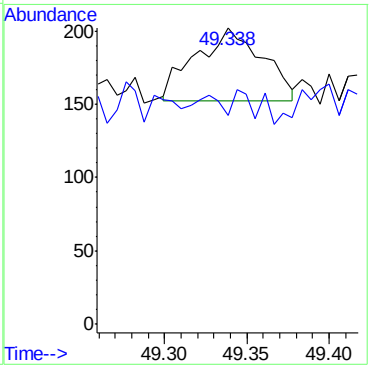


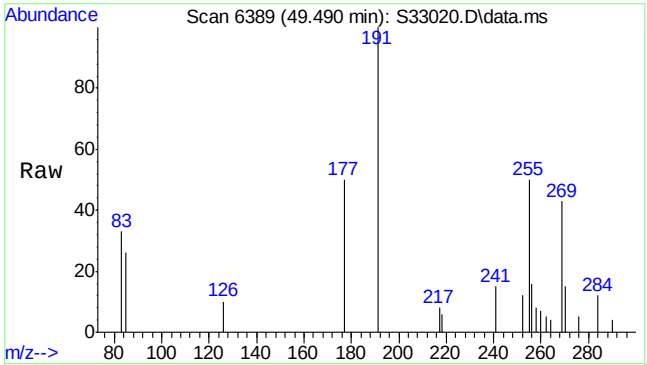
#51
Benzo(e)pyrene
Concen: 0.51 ng/mL m
RT: 49.338 min Scan# 6362
Delta R.T. 0.017 min
Lab File: S33020.D
Acq: 23 Jul 2013 7:18 pm

Tgt Ion:252 Resp: 142

Ion	Ratio	Lower	Upper
252	100		
126	0.0	9.9	14.9#



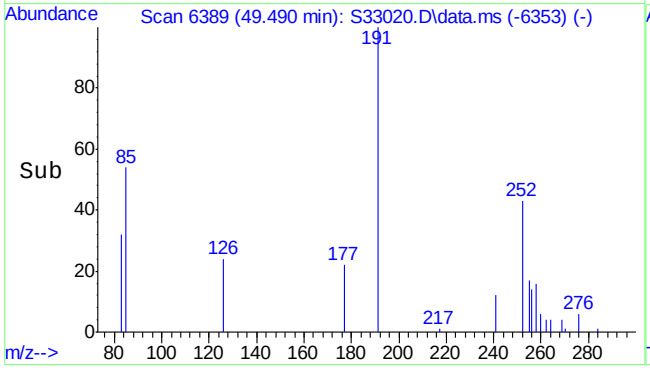


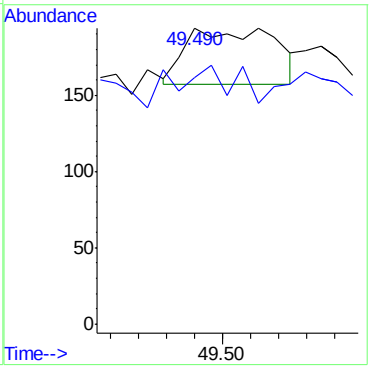


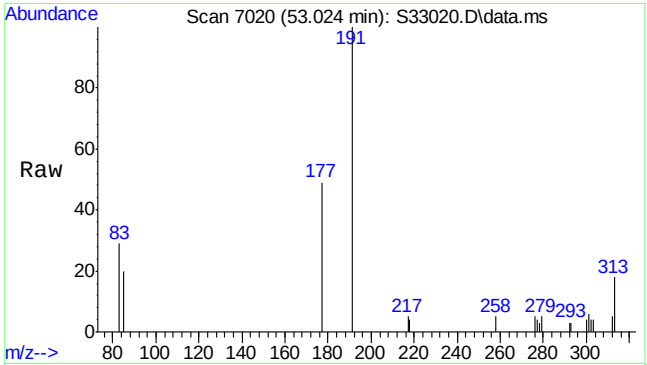
#52
Benzo(a)pyrene
Concen: 0.30 ng/mL m
RT: 49.490 min Scan# 6389
Delta R.T. 0.000 min
Lab File: S33020.D
Acq: 23 Jul 2013 7:18 pm

Tgt Ion:252 Resp: 80

Ion	Ratio	Lower	Upper
252	100		
126	0.0	11.6	17.4#



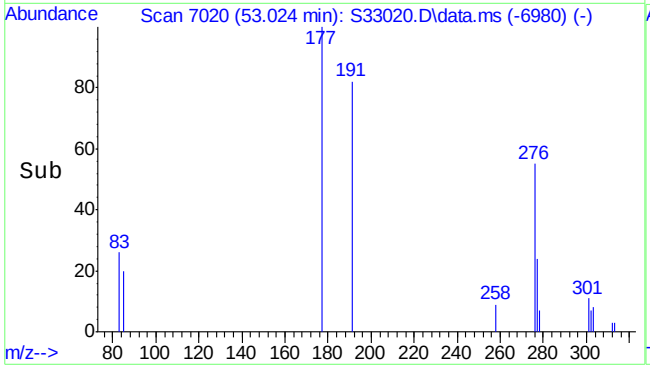


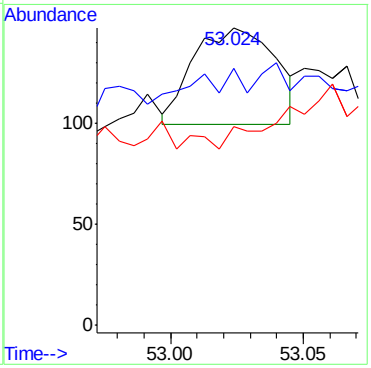


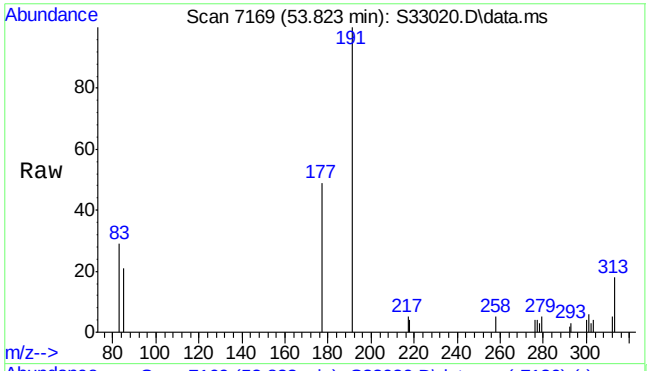
#54
Indeno(1,2,3-cd)pyrene
Concen: 0.33 ng/mL m
RT: 53.024 min Scan# 7020
Delta R.T. 0.016 min
Lab File: S33020.D
Acq: 23 Jul 2013 7:18 pm

Tgt Ion:276 Resp: 103

Ion	Ratio	Lower	Upper
276	100		
277	0.0	19.0	28.4#
278	0.0	5.7	8.5#



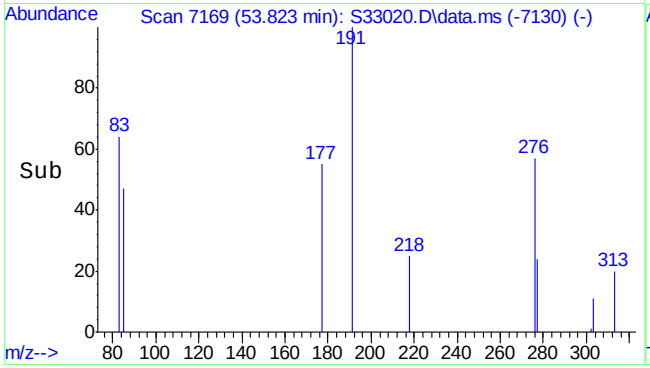


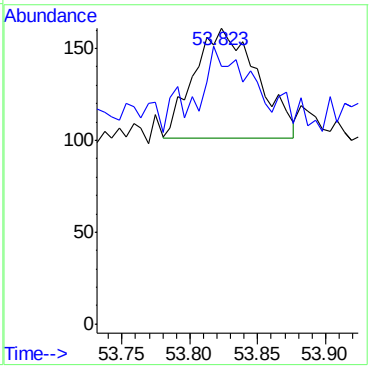


#56
Benzo(g,h,i)perylene
Concen: 0.59 ng/mL m
RT: 53.823 min Scan# 7169
Delta R.T. 0.011 min
Lab File: S33020.D
Acq: 23 Jul 2013 7:18 pm

Tgt Ion:276 Resp: 196

Ion	Ratio	Lower	Upper
276	100		
277	0.0	18.9	28.3#





7.2.1

7

New England ACCUTEST LABORATORIES

GC Semi-volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Surrogate Recovery Summaries

Method Blank Summary

Job Number: MC21754A
Account: LMNJE Lockheed Martin
Project: USEPA SERAS 1-089

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP33685-MB	BG40434.D	1	06/25/13	DB	06/21/13	OP33685	GBG1529

The QC reported here applies to the following samples: **Method:** ASTM D3328-06

MC21754-1A, MC21754-2A, MC21754-3A, MC21754-4A, MC21754-5A, MC21754-6A, MC21754-7A

CAS No.	Compound	Result	RL	Units	Q
	C-8	ND	0.40	mg/kg	
	C-9	ND	0.40	mg/kg	
	C-10	ND	0.40	mg/kg	
	C-11	ND	0.40	mg/kg	
	C-12	ND	0.40	mg/kg	
	C-13	ND	0.40	mg/kg	
3891-98-3	2,6,10-trimethyldodecane (138	ND	0.40	mg/kg	
	C-14	ND	0.40	mg/kg	
3891-99-4	2,6,10-trimethyltridecane (147	ND	0.40	mg/kg	
	C-15	ND	0.40	mg/kg	
	C-16	ND	0.40	mg/kg	
3892-00-0	2,6,10-trimethylpentadecane (1	ND	0.40	mg/kg	
	C-17	ND	0.40	mg/kg	
1921-70-6	Pristane	ND	0.40	mg/kg	
	C-18	ND	0.40	mg/kg	
638-36-8	Phytane	ND	0.40	mg/kg	
	C-19	ND	0.40	mg/kg	
	C-20	ND	0.40	mg/kg	
	C-21	ND	0.40	mg/kg	
	C-22	ND	0.40	mg/kg	
	C-23	ND	0.40	mg/kg	
	C-24	ND	0.40	mg/kg	
	C-25	ND	0.40	mg/kg	
	C-26	ND	0.40	mg/kg	
	C-27	ND	0.40	mg/kg	
	C-28	ND	0.40	mg/kg	
	C-29	ND	0.40	mg/kg	
	C-30	ND	0.40	mg/kg	
	C-31	ND	0.40	mg/kg	
	C-32	ND	0.40	mg/kg	
	C-33	ND	0.40	mg/kg	
	C-34	ND	0.40	mg/kg	
	C-35	ND	0.40	mg/kg	
	C-36	ND	0.40	mg/kg	
	C-37	ND	0.40	mg/kg	
	C-38	ND	0.40	mg/kg	

Method Blank Summary

Job Number: MC21754A
Account: LMNJE Lockheed Martin
Project: USEPA SERAS 1-089

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP33685-MB	BG40434.D	1	06/25/13	DB	06/21/13	OP33685	GBG1529

The QC reported here applies to the following samples: **Method:** ASTM D3328-06

MC21754-1A, MC21754-2A, MC21754-3A, MC21754-4A, MC21754-5A, MC21754-6A, MC21754-7A

CAS No.	Compound	Result	RL	Units	Q
	C-39	ND	0.40	mg/kg	
	C-40	ND	0.40	mg/kg	
	TPH (C8-C40)	ND	40	mg/kg	

CAS No.	Surrogate Recoveries		Limits
84-15-1	o-Terphenyl	98%	40-140%

Blank Spike Summary

Job Number: MC21754A
Account: LMNJE Lockheed Martin
Project: USEPA SERAS 1-089

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP33685-BS	BG40435.D	1	06/25/13	DB	06/21/13	OP33685	GBG1529

The QC reported here applies to the following samples: **Method:** ASTM D3328-06

MC21754-1A, MC21754-2A, MC21754-3A, MC21754-4A, MC21754-5A, MC21754-6A, MC21754-7A

CAS No.	Compound	Spike mg/kg	BSP mg/kg	BSP %	Limits
	C-8	10	7.84	78	40-140
	C-9	10	8.57	86	40-140
	C-10	10	8.56	86	40-140
	C-11	10	8.70	87	40-140
	C-12	10	8.63	86	40-140
	C-13	10	8.51	85	40-140
3891-98-3	2,6,10-trimethyldodecane (138		ND		40-140
	C-14	10	8.42	84	40-140
3891-99-4	2,6,10-trimethyltridecane (147		ND		40-140
	C-15	10	8.34	83	40-140
	C-16	10	8.36	84	40-140
3892-00-0	2,6,10-trimethylpentadecane (1		ND		40-140
	C-17	10	8.20	82	40-140
1921-70-6	Pristane	10	8.51	85	40-140
	C-18	10	8.50	85	40-140
638-36-8	Phytane	10	8.48	85	40-140
	C-19	10	8.50	85	40-140
	C-20	10	8.28	83	40-140
	C-21	10	8.26	83	40-140
	C-22	10	8.21	82	40-140
	C-23	10	8.08	81	40-140
	C-24	10	8.12	81	40-140
	C-25	10	8.08	81	40-140
	C-26	10	8.03	80	40-140
	C-27	10	7.97	80	40-140
	C-28	10	8.00	80	40-140
	C-29	10	7.92	79	40-140
	C-30	10	7.84	78	40-140
	C-31	10	7.72	77	40-140
	C-32	10	7.57	76	40-140
	C-33	10	7.34	73	40-140
	C-34	10	7.02	70	40-140
	C-35	10	6.67	67	40-140
	C-36	10	6.40	64	40-140
	C-37	10	6.09	61	40-140
	C-38	10	5.74	57	40-140

* = Outside of Control Limits.

Blank Spike Summary

Job Number: MC21754A
Account: LMNJE Lockheed Martin
Project: USEPA SERAS 1-089

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP33685-BS	BG40435.D	1	06/25/13	DB	06/21/13	OP33685	GBG1529

The QC reported here applies to the following samples: **Method:** ASTM D3328-06

MC21754-1A, MC21754-2A, MC21754-3A, MC21754-4A, MC21754-5A, MC21754-6A, MC21754-7A

CAS No.	Compound	Spike mg/kg	BSP mg/kg	BSP %	Limits
	C-39	10	5.48	55	40-140
	C-40	10	5.16	52	40-140
	TPH (C8-C40)		330		40-140

CAS No.	Surrogate Recoveries	BSP	Limits
84-15-1	o-Terphenyl	93%	40-140%

* = Outside of Control Limits.

Duplicate Summary

Job Number: MC21754A
Account: LMNJE Lockheed Martin
Project: USEPA SERAS 1-089

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP33685-DUP	BG40438.D	10	06/25/13	DB	06/21/13	OP33685	GBG1529
MC21754-3A	BG40439.D	10	06/25/13	DB	06/19/13	OP33685	GBG1529

The QC reported here applies to the following samples: **Method:** ASTM D3328-06

MC21754-1A, MC21754-2A, MC21754-3A, MC21754-4A, MC21754-5A, MC21754-6A, MC21754-7A

		MC21754-3ADUP					
CAS No.	**Compound**	**mg/kg**	**Q**	**mg/kg**	**Q**	**RPD**	**Limits**
	C-8	85.0		41.1		70* [a]	30
	C-9	IND		0.00		nc	30
	C-10	50.0		29.3		52* [a]	30
	C-11	80.5		33.6		82* [a]	30
	C-12	348		341		2	30
	C-13	28.4		12.2		80* [a]	30
3891-98-3	2,6,10-trimethyldodecane (138	74.6		51.0		38* [a]	30
	C-14	61.1		40.4		41* [a]	30
3891-99-4	2,6,10-trimethyltridecane (147	28.6		17.1		50* [a]	30
	C-15	100		61.0		48* [a]	30
	C-16	193		107		57* [a]	30
3892-00-0	2,6,10-trimethylpentadecane (1	IND		0.00		nc	30
	C-17	185		116		46* [a]	30
1921-70-6	Pristane	203		153		28	30
	C-18	127		67.5		61* [a]	30
638-36-8	Phytane	116		49.7		80* [a]	30
	C-19	56.4		29.3		63* [a]	30
	C-20	79.3		14.7		137* [a]	30
	C-21	15.3		13.4		13	30
	C-22	42.0		20.5		69* [a]	30
	C-23	54.5		31.1		55* [a]	30
	C-24	84.9		43.7		64* [a]	30
	C-25	46.4		27.2		52* [a]	30
	C-26	66.5		39.0		52* [a]	30
	C-27	50.9		27.5		60* [a]	30
	C-28	33.0		28.4		15	30
	C-29	32.4		24.4		28	30
	C-30	17.3		ND		200* [a]	30
	C-31	21.7		11.1		65* [a]	30
	C-32	9.55		5.96		46* [a]	30
	C-33	11.0		ND		200* [a]	30
	C-34	ND		ND		nc	30
	C-35	ND		ND		nc	30
	C-36	ND		ND		nc	30
	C-37	ND		ND		nc	30
	C-38	ND		ND		nc	30

* = Outside of Control Limits.

Duplicate Summary

Job Number: MC21754A
Account: LMNJE Lockheed Martin
Project: USEPA SERAS 1-089

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP33685-DUP	BG40438.D	10	06/25/13	DB	06/21/13	OP33685	GBG1529
MC21754-3A	BG40439.D	10	06/25/13	DB	06/19/13	OP33685	GBG1529

The QC reported here applies to the following samples: **Method:** ASTM D3328-06

MC21754-1A, MC21754-2A, MC21754-3A, MC21754-4A, MC21754-5A, MC21754-6A, MC21754-7A

CAS No.	Compound	MC21754-3A mg/kg	Q	DUP mg/kg	Q	RPD	Limits
	C-39	ND		ND		nc	30
	C-40	ND		ND		nc	30
	TPH (C8-C40)	94000		50700		60* [a]	30

CAS No.	Surrogate Recoveries	DUP	MC21754-3A	Limits
84-15-1	o-Terphenyl	68%	107%	40-140%

(a) High RPD due to possible sample heterogeneity.

* = Outside of Control Limits.

Semivolatile Surrogate Recovery Summary

Job Number: MC21754A
Account: LMNJE Lockheed Martin
Project: USEPA SERAS 1-089

Method: ASTM D3328-06 **Matrix:** SO

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1 [a]
MC21754-1A	BG40436.D	51.0
MC21754-2A	BG40437.D	68.0
MC21754-3A	BG40439.D	107.0
MC21754-4A	BG40440.D	72.0
MC21754-5A	BG40441.D	57.0
MC21754-6A	BG40442.D	45.0
MC21754-7A	BG40443.D	52.0
OP33685-BS	BG40435.D	93.0
OP33685-DUP	BG40438.D	68.0
OP33685-MB	BG40434.D	98.0

Surrogate Compounds	Recovery Limits
S1 = o-Terphenyl	40-140%

(a) Recovery from GC signal #1

New England ACCUTEST LABORATORIES

GC Semi-volatiles

Raw Data

Manual Integrations APPROVED (compounds with "m" flag)
James Roush
07/29/13 12:29

Quantitation Report (QT Reviewed)

Data Path : G:\1\DATA\BG130625\
Data File : BG40436.d
Signal(s) : FID1A.ch
Acq On : 25 Jun 2013 6:03 pm
Operator : danielb
Sample : mc21754-1a
Misc : op33685,gbg1529,5.27,,,2,10
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jul 29 12:16:18 2013
Quant Method : G:\1\METHODS\BG120629ALK.m
Quant Title : n-C8 - n-C40 normal alkanes w/ isoprenoids
Response via : Initial Calibration

	Compound	R.T.	Response	Conc Units
Internal Standards				
1) I	5a-Androstane	30.454	96772742	50.000 µg/mLm
System Monitoring Compounds				
2) S	o-Terphenyl	28.453	2361360	1.263 µg/mLm
Target Compounds				
3)	C-8	5.947	19425999	12.706 µg/mLm
4)	C-9	8.180	5384564	3.300 µg/mL
5)	C-10	10.576	8640324	4.964 µg/mLm
6)	C-11	12.973	11899742	6.970 µg/mLm
7)	C-12	15.302	67116996	38.656 µg/mLm
8)	C-13	17.458	7412752	4.227 µg/mLm
9)	2,6,10-trimethyldodec...	19.071	4452670	2.512 µg/mLm
10)	C-14	19.526	17721092	9.893 µg/mLm
11)	2,6,10-trimethyltride...	20.765	7886776	4.373 µg/mLm
12)	C-15	21.487	31636782	17.421 µg/mLm
13)	C-16	23.347	42166203	23.203 µg/mLm
14)	2,6,10-trimethylpenta...	24.346	1389634331	748.820 µg/mLm
15)	C-17	25.119	46668708	24.637 µg/mLm
16)	Pristane	25.207	38464329	21.260 µg/mLm
17)	C-18	26.790	42091209	22.481 µg/mLm
18)	Phytane	26.953	30781496	16.504 µg/mLm
19)	C-19	28.394	20843813	10.657 µg/mLm
20)	C-20	29.923	19370354	10.310 µg/mLm
21)	C-21	31.370	16007102	8.490 µg/mLm
22)	C-22	32.812	83662130	43.675 µg/mLm
23)	C-23	34.164	126985912	65.608 µg/mLm
24)	C-24	35.461	149992731	77.981 µg/mLm
25)	C-25	36.708	154425077	79.067 µg/mLm
26)	C-26	37.908	152696392	76.847 µg/mLm
27)	C-27	39.073	125996438	65.068 µg/mLm
28)	C-28	40.180	90361246	45.824 µg/mLm
29)	C-29	41.261	76888676	38.708 µg/mLm
30)	C-30	42.298	55818941	28.053 µg/mLm
31)	C-31	43.308	42351038	21.293 µg/mLm
32)	C-32	44.286	26207550	13.337 µg/mLm
33)	C-33	45.241	18506739	9.459 µg/mLm
34)	C-34	46.160	9892798	4.926 µg/mLm
35)	C-35	47.061	7368763	3.685 µg/mLm
36)	C-36	47.934	3922945	1.848 µg/mLm
37)	C-37	48.783	3314911	1.678 µg/mLm
41) H	TPH (C8-C40)	30.469	46162210475	24446.137 µg/mLm

SemiQuant Compounds - Not Calibrated on this Instrument

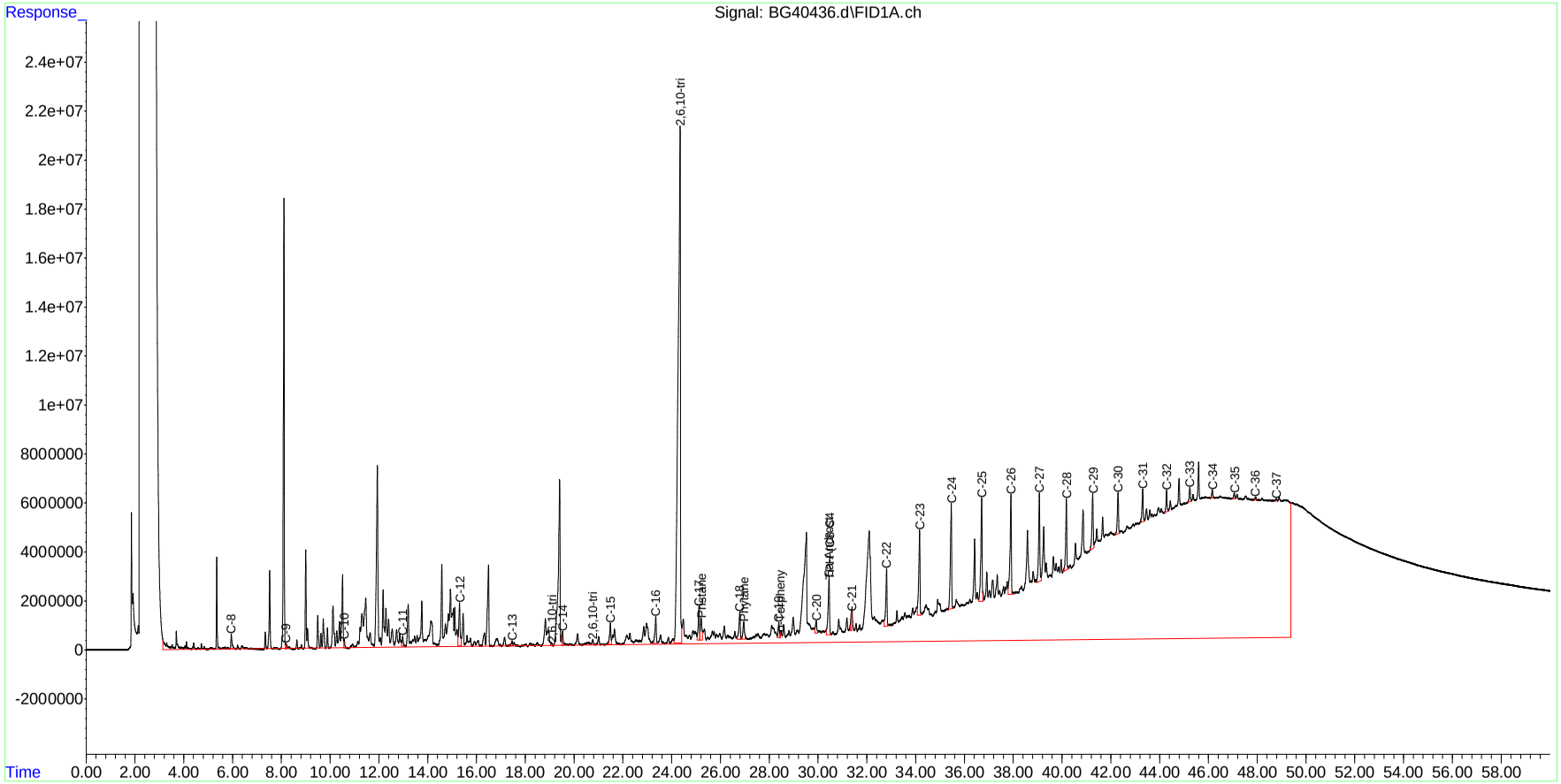
(f)=RT Delta > 1/2 Window (m)=manual int.

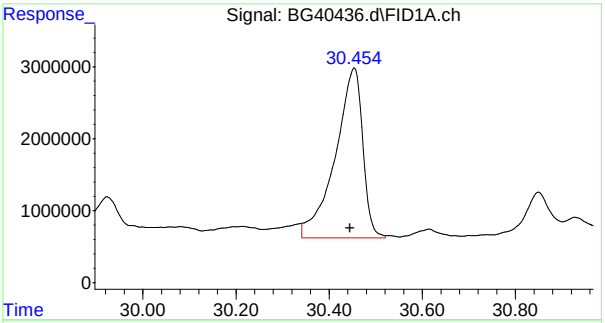
9.1.1
9

Quantitation Report (QT Reviewed)

Data Path : G:\1\DATA\BG130625\
Data File : BG40436.d
Signal(s) : FID1A.ch
Acq On : 25 Jun 2013 6:03 pm
Operator : danielb
Sample : mc21754-1a
Misc : op33685,gbg1529,5.27,,,2,10
ALS Vial : 6 Sample Multiplier: 1

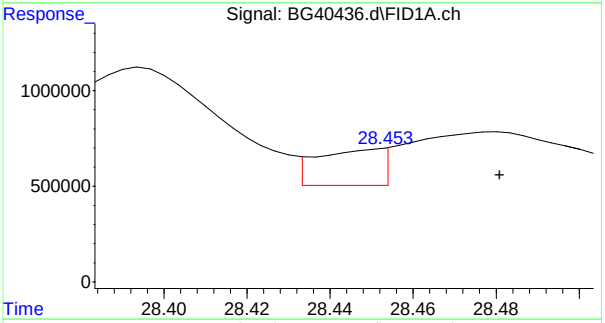
Quant Time: Jul 29 12:16:18 2013
Quant Method : G:\1\METHODS\BG120629ALK.m
Quant Title : n-C8 - n-C40 normal alkanes w/ isoprenoids
Response via : Initial Calibration





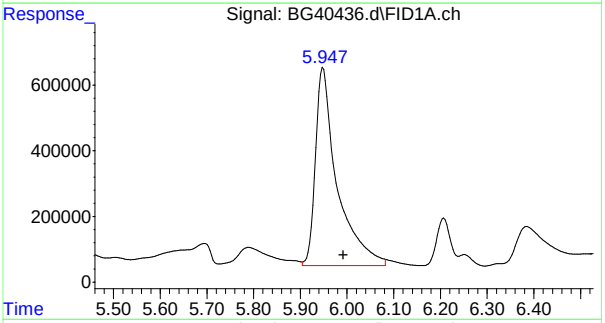
#1 5a-Androstane

R.T.: 30.454 min
Delta R.T.: 0.009 min
Response: 96772742
Conc: 50.00 µg/mL m



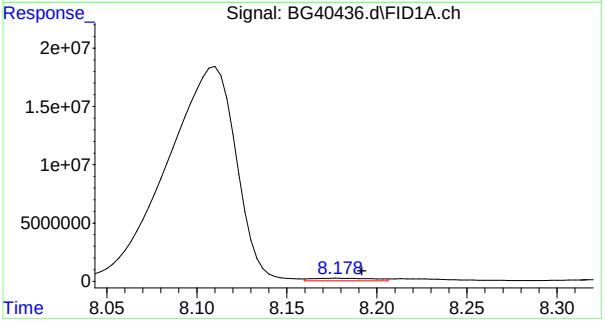
#2 o-Terphenyl

R.T.: 28.453 min
Delta R.T.: -0.027 min
Response: 2361360
Conc: 1.26 µg/mL m



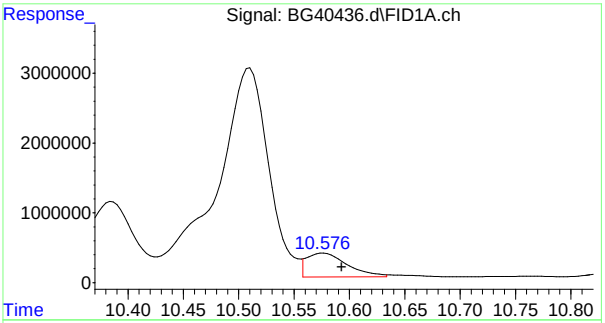
#3 C-8

R.T.: 5.947 min
Delta R.T.: -0.044 min
Response: 19425999
Conc: 12.71 µg/mL m



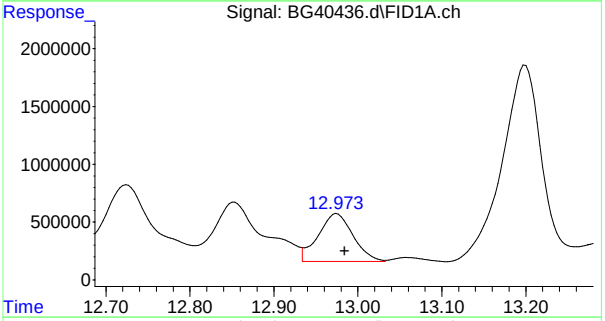
#4 C-9

R.T.: 8.180 min
Delta R.T.: -0.012 min
Response: 5384564
Conc: 3.30 µg/mL



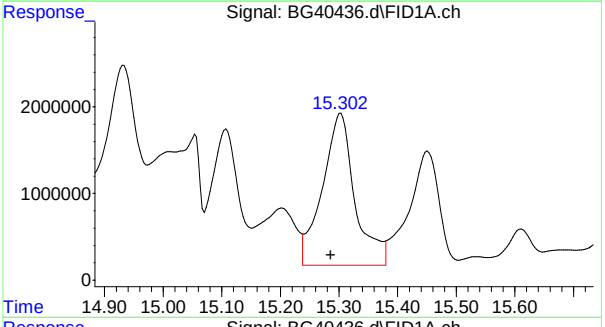
#5 C-10

R.T.: 10.576 min
Delta R.T.: -0.017 min
Response: 8640324
Conc: 4.96 µg/mL m



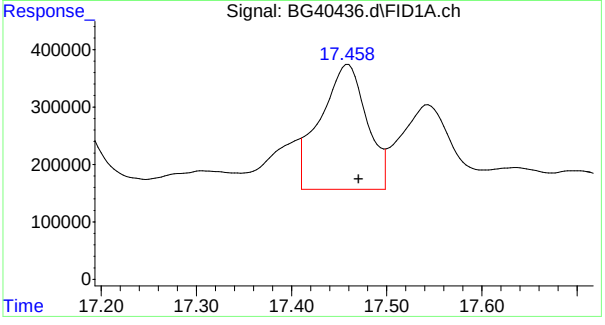
#6 C-11

R.T.: 12.973 min
Delta R.T.: -0.011 min
Response: 11899742
Conc: 6.97 µg/mL m



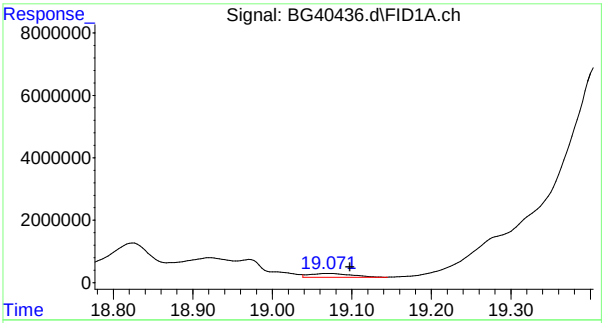
#7 C-12

R.T.: 15.302 min
Delta R.T.: 0.016 min
Response: 67116996
Conc: 38.66 µg/mL m



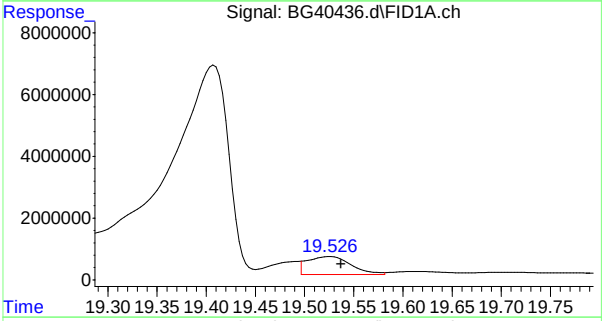
#8 C-13

R.T.: 17.458 min
Delta R.T.: -0.012 min
Response: 7412752
Conc: 4.23 µg/mL m



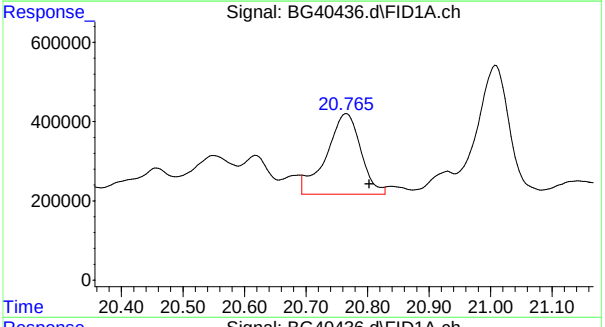
#9 2,6,10-trimethyldodecane (1380)

R.T.: 19.071 min
Delta R.T.: -0.027 min
Response: 4452670
Conc: 2.51 µg/mL m



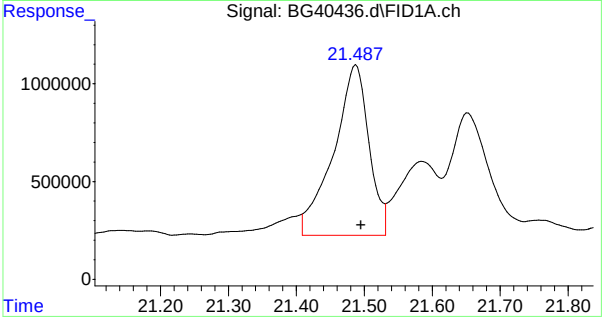
#10 C-14

R.T.: 19.526 min
Delta R.T.: -0.011 min
Response: 17721092
Conc: 9.89 µg/mL m



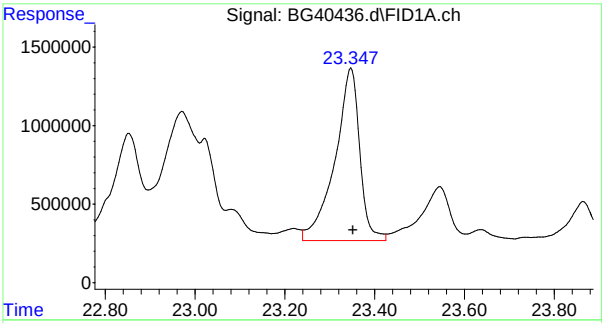
#11 2,6,10-trimethyltridecane (1470)

R.T.: 20.765 min
Delta R.T.: -0.038 min
Response: 7886776
Conc: 4.37 µg/mL m



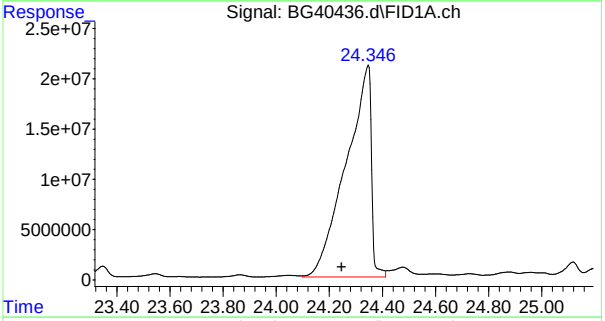
#12 C-15

R.T.: 21.487 min
Delta R.T.: -0.009 min
Response: 31636782
Conc: 17.42 µg/mL m



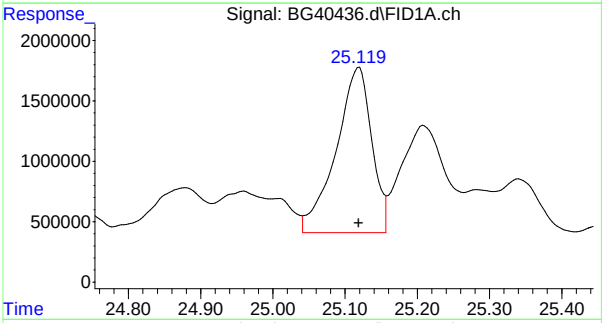
#13 C-16

R.T.: 23.347 min
Delta R.T.: -0.005 min
Response: 42166203
Conc: 23.20 µg/mL m



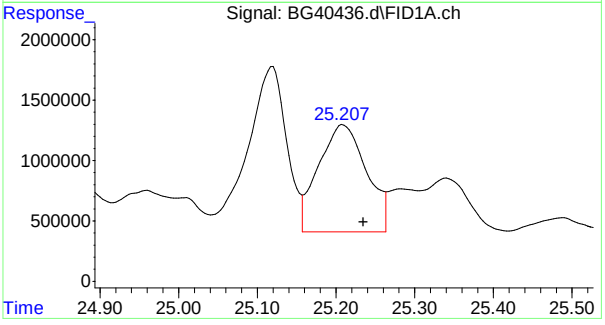
#14 2,6,10-trimethylpentadecane (1650)

R.T.: 24.346 min
Delta R.T.: 0.101 min
Response: 1389634331
Conc: 748.82 µg/mL m



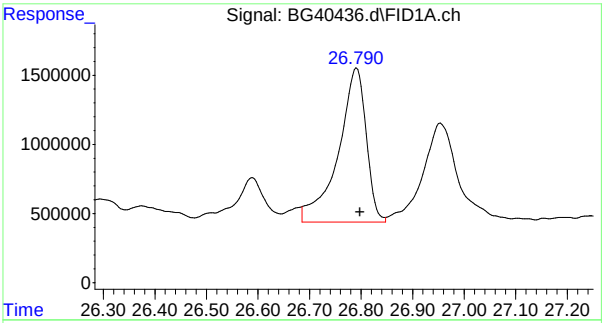
#15 C-17

R.T.: 25.119 min
Delta R.T.: 0.000 min
Response: 46668708
Conc: 24.64 µg/mL m



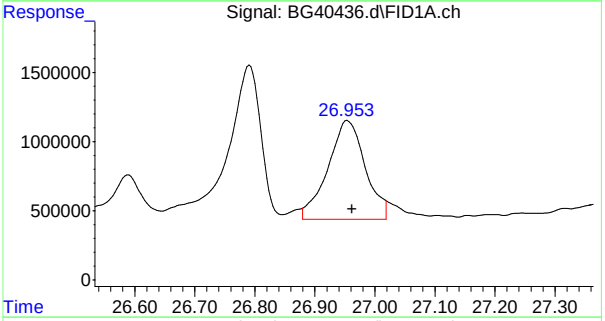
#16 Pristane

R.T.: 25.207 min
Delta R.T.: -0.027 min
Response: 38464329
Conc: 21.26 µg/mL m



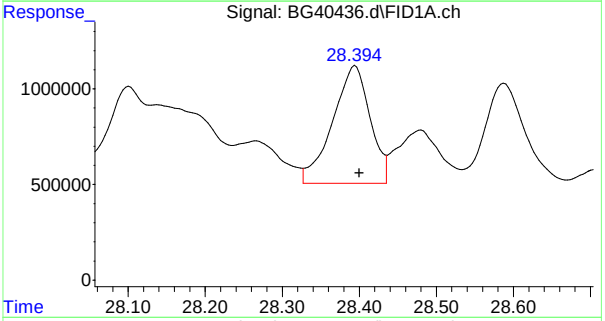
#17 C-18

R.T.: 26.790 min
Delta R.T.: -0.008 min
Response: 42091209
Conc: 22.48 µg/mL m



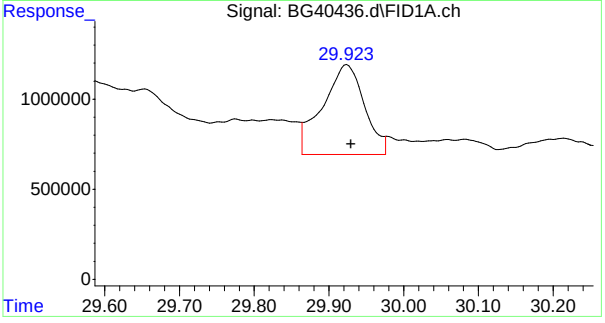
#18 Phytane

R.T.: 26.953 min
Delta R.T.: -0.009 min
Response: 30781496
Conc: 16.50 µg/mL m



#19 C-19

R.T.: 28.394 min
Delta R.T.: -0.006 min
Response: 20843813
Conc: 10.66 µg/mL m

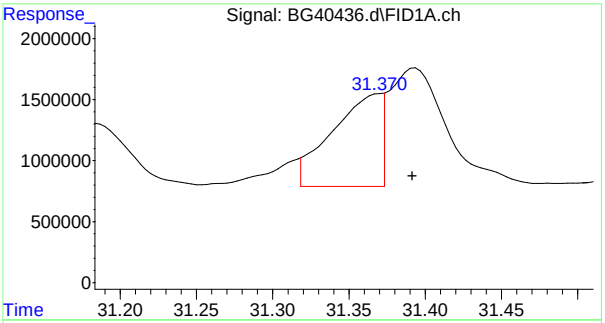


#20 C-20

R.T.: 29.923 min
Delta R.T.: -0.007 min
Response: 19370354
Conc: 10.31 µg/mL m

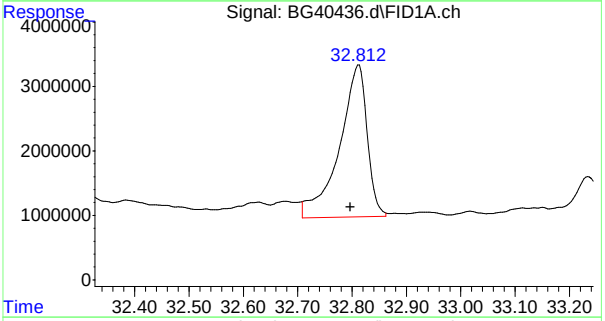
9.1.1

9



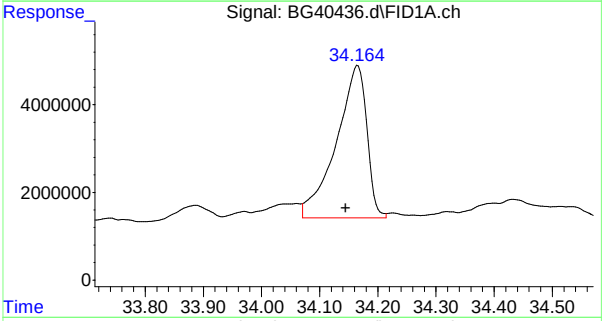
#21 C-21

R.T.: 31.370 min
Delta R.T.: -0.022 min
Response: 16007102
Conc: 8.49 µg/mL m



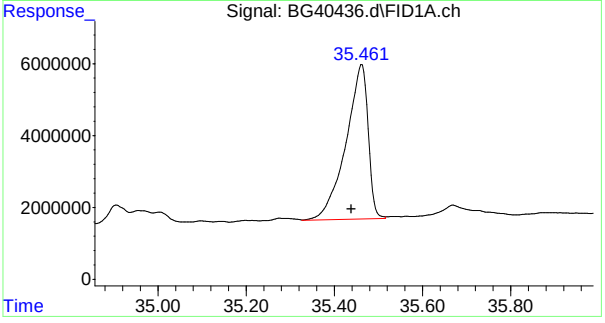
#22 C-22

R.T.: 32.812 min
Delta R.T.: 0.015 min
Response: 83662130
Conc: 43.67 µg/mL m



#23 C-23

R.T.: 34.164 min
Delta R.T.: 0.020 min
Response: 126985912
Conc: 65.61 µg/mL m

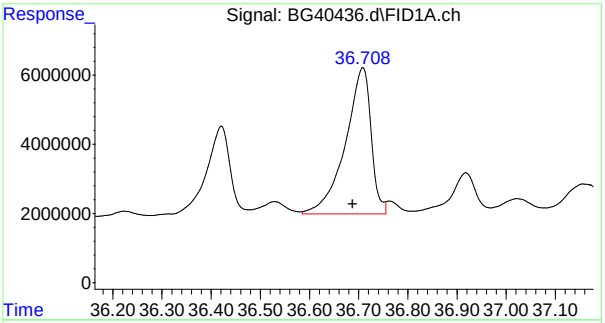


#24 C-24

R.T.: 35.461 min
Delta R.T.: 0.023 min
Response: 149992731
Conc: 77.98 µg/mL m

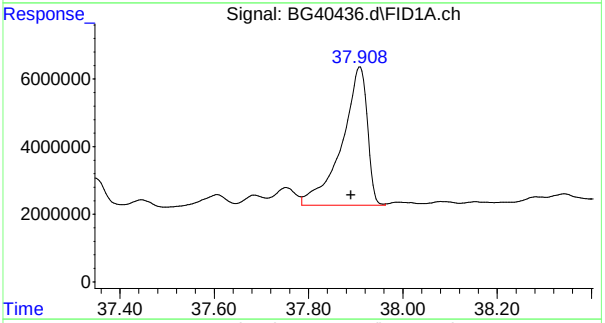
9.1.1

9



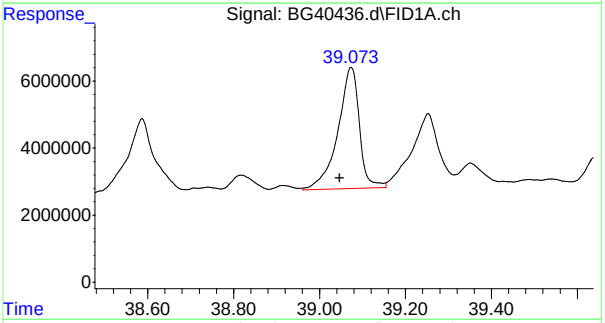
#25 C-25

R.T.: 36.708 min
Delta R.T.: 0.021 min
Response: 154425077
Conc: 79.07 µg/mL m



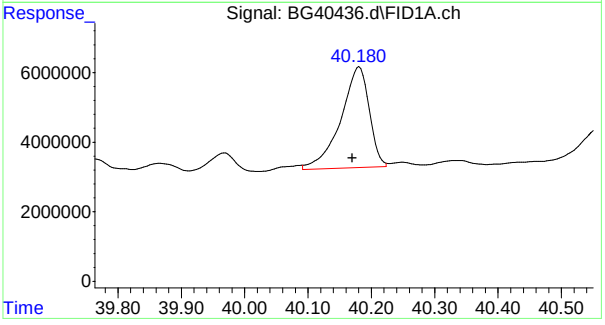
#26 C-26

R.T.: 37.908 min
Delta R.T.: 0.018 min
Response: 152696392
Conc: 76.85 µg/mL m



#27 C-27

R.T.: 39.073 min
Delta R.T.: 0.026 min
Response: 125996438
Conc: 65.07 µg/mL m

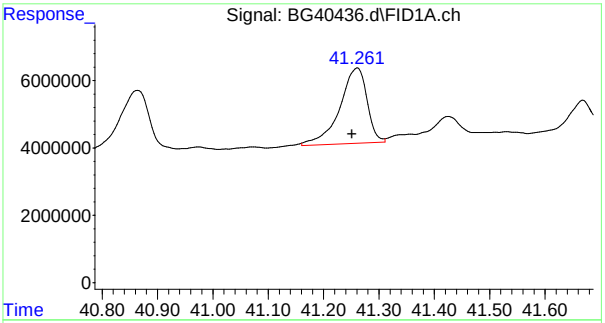


#28 C-28

R.T.: 40.180 min
Delta R.T.: 0.010 min
Response: 90361246
Conc: 45.82 µg/mL m

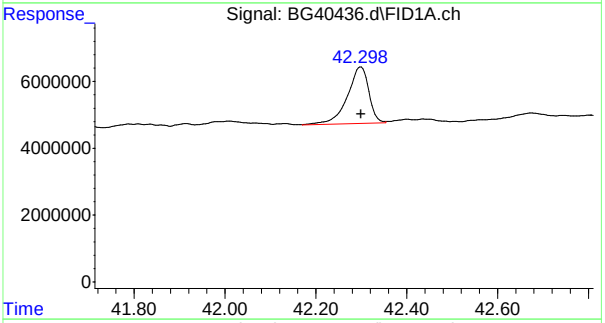
9.1.1

9



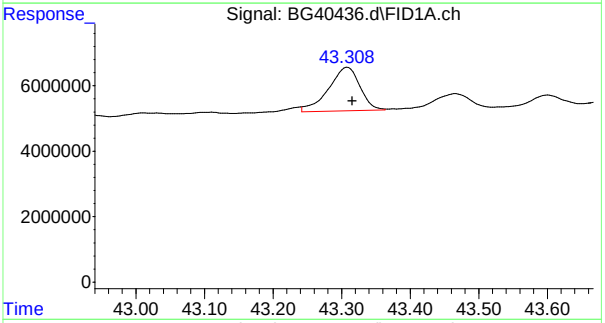
#29 C-29

R.T.: 41.261 min
Delta R.T.: 0.009 min
Response: 76888676
Conc: 38.71 µg/mL m



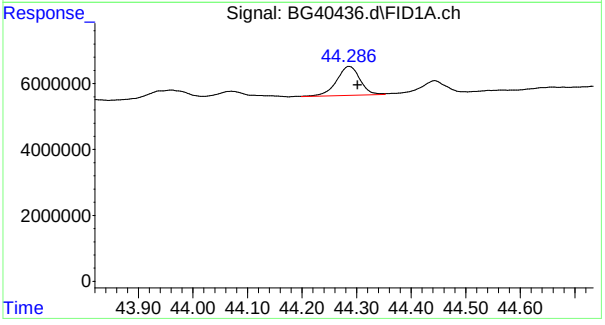
#30 C-30

R.T.: 42.298 min
Delta R.T.: -0.001 min
Response: 55818941
Conc: 28.05 µg/mL m



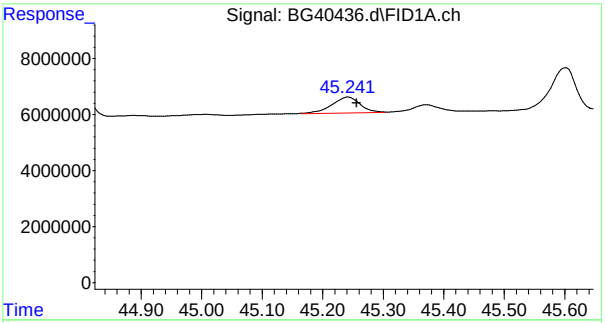
#31 C-31

R.T.: 43.308 min
Delta R.T.: -0.008 min
Response: 42351038
Conc: 21.29 µg/mL m



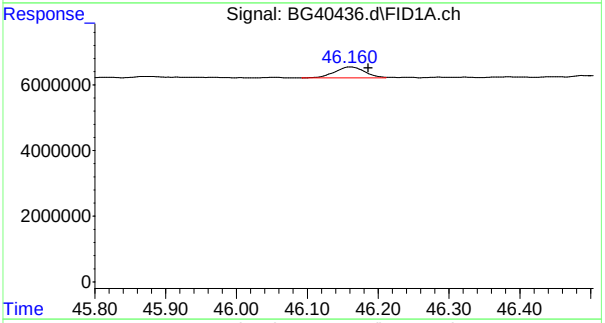
#32 C-32

R.T.: 44.286 min
Delta R.T.: -0.016 min
Response: 26207550
Conc: 13.34 µg/mL m



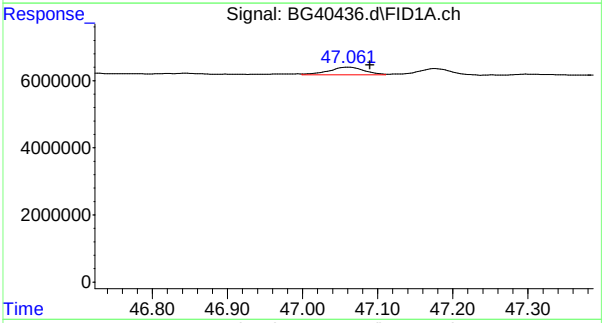
#33 C-33

R.T.: 45.241 min
Delta R.T.: -0.015 min
Response: 18506739
Conc: 9.46 µg/mL m



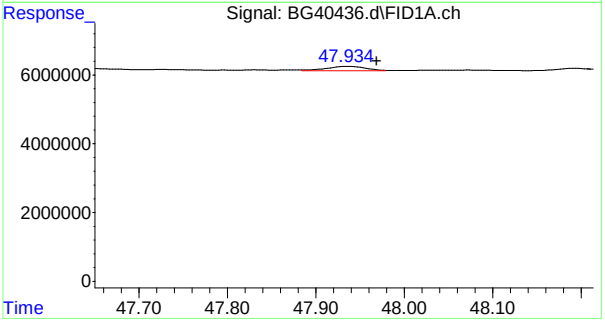
#34 C-34

R.T.: 46.160 min
Delta R.T.: -0.026 min
Response: 9892798
Conc: 4.93 µg/mL m



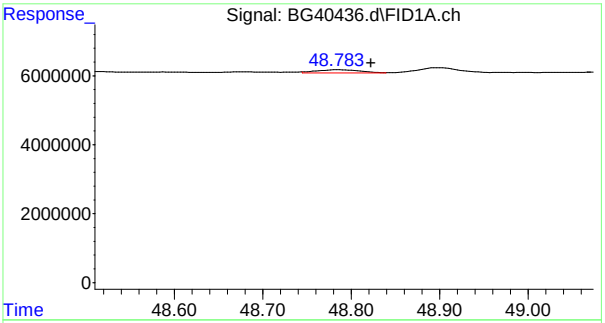
#35 C-35

R.T.: 47.061 min
Delta R.T.: -0.028 min
Response: 7368763
Conc: 3.68 µg/mL m



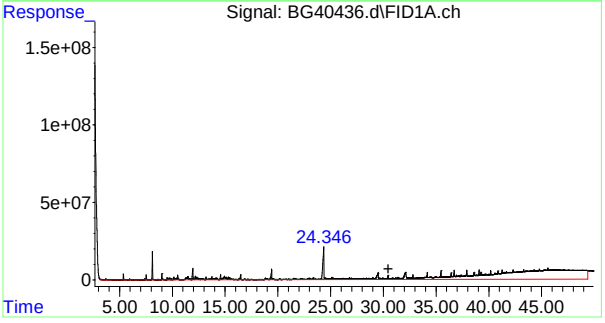
#36 C-36

R.T.: 47.934 min
Delta R.T.: -0.035 min
Response: 3922945
Conc: 1.85 µg/mL m



#37 C-37

R.T.: 48.783 min
Delta R.T.: -0.039 min
Response: 3314911
Conc: 1.68 µg/mL m



#41 TPH (C8-C40)

R.T.: 30.469 min
Delta R.T.: 0.000 min
Response: 46162210475
Conc: 24446.14 µg/mL m

9.1.1

9

Manual Integrations APPROVED (compounds with "m" flag)
James Roush
07/29/13 12:29

Quantitation Report (QT Reviewed)

Data Path : G:\1\DATA\BG130625\
Data File : BG40437.d
Signal(s) : FID1A.ch
Acq On : 25 Jun 2013 7:10 pm
Operator : danielb
Sample : mc21754-2a
Misc : op33685,gbg1529,5.13,,,2,10
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jul 29 12:25:08 2013
Quant Method : G:\1\METHODS\BG120629ALK.m
Quant Title : n-C8 - n-C40 normal alkanes w/ isoprenoids
Response via : Initial Calibration

	Compound	R.T.	Response	Conc	Units
	Internal Standards				
1) I	5a-Androstane	30.415	101439860	50.000	µg/mLm
	System Monitoring Compounds				
2) S	o-Terphenyl	28.443	3328948	1.699	µg/mLm
	Target Compounds				
3)	C-8	5.932	15769817	9.840	µg/mLm
4)	C-9	8.177	3051037595	1783.952	µg/mLm
5)	C-10	10.554	16072776	8.808	µg/mLm
6)	C-11	12.947	24779299	13.846	µg/mLm
7)	C-12	15.312	199220641	109.461	µg/mLm
8)	C-13	17.426	5916732	3.219	µg/mLm
9)	2,6,10-trimethyldodec...	19.069	14883689	8.011	µg/mLm
10)	C-14	19.495	20577819	10.959	µg/mLm
11)	2,6,10-trimethyltride...	20.733	7087952	3.749	µg/mLm
12)	C-15	21.456	34161851	17.946	µg/mLm
13)	C-16	23.316	53363384	28.013	µg/mLm
14)	2,6,10-trimethylpenta...	24.248	449457831	231.052	µg/mLm
15)	C-17	25.086	57820172	29.120	µg/mLm
16)	Pristane	25.203	47877403	25.245	µg/mLm
17)	C-18	26.758	40105058	20.435	µg/mLm
18)	Phytane	26.920	30086967	15.389	µg/mLm
19)	C-19	28.361	18492993	9.020	µg/mLm
20)	C-20	29.885	9505332	4.826	µg/mLm
21)	C-21	31.348	5459848	2.763	µg/mLm
22)	C-22	32.744	5392769	2.686	µg/mLm
23)	C-23	34.101	4689173	2.311	µg/mLm
24)	C-24	35.408	20144718	9.991	µg/mLm
27)	C-27	39.026	8914606	4.392	µg/mLm
41) H	TPH (C8-C40)	30.469	33432889158	16890.479	µg/mL

SemiQuant Compounds - Not Calibrated on this Instrument

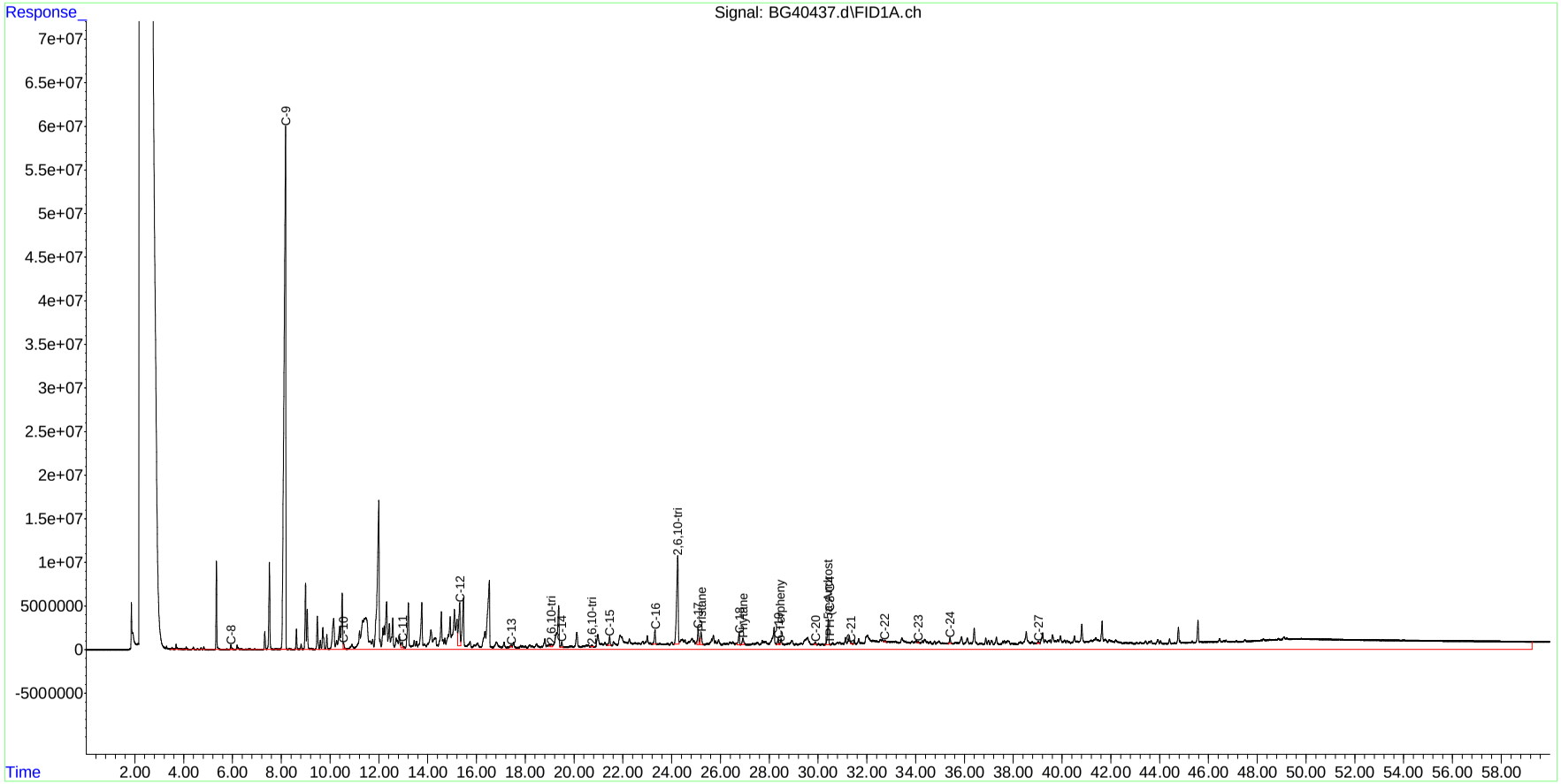
(f)=RT Delta > 1/2 Window (m)=manual int.

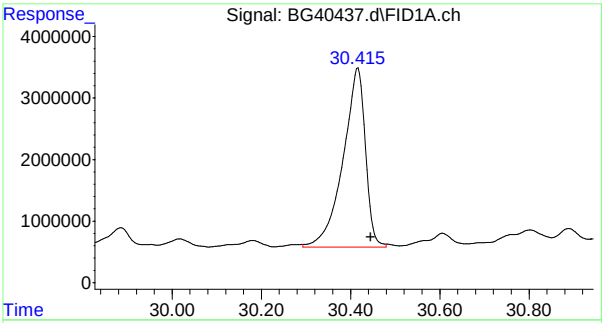
9.1.2
9

Quantitation Report (QT Reviewed)

Data Path : G:\1\DATA\BG130625\
Data File : BG40437.d
Signal(s) : FID1A.ch
Acq On : 25 Jun 2013 7:10 pm
Operator : danielb
Sample : mc21754-2a
Misc : op33685,gbg1529,5.13,,,2,10
ALS Vial : 7 Sample Multiplier: 1

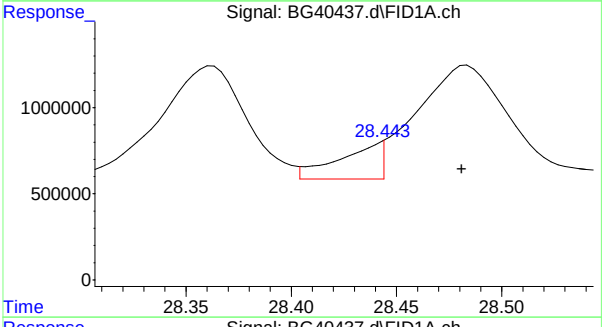
Quant Time: Jul 29 12:25:08 2013
Quant Method : G:\1\METHODS\BG120629ALK.m
Quant Title : n-C8 - n-C40 normal alkanes w/ isoprenoids
Response via : Initial Calibration





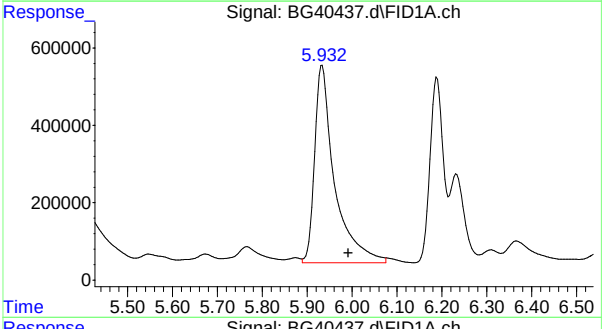
#1 5a-Androstane

R.T.: 30.415 min
Delta R.T.: -0.029 min
Response: 101439860
Conc: 50.00 µg/mL m



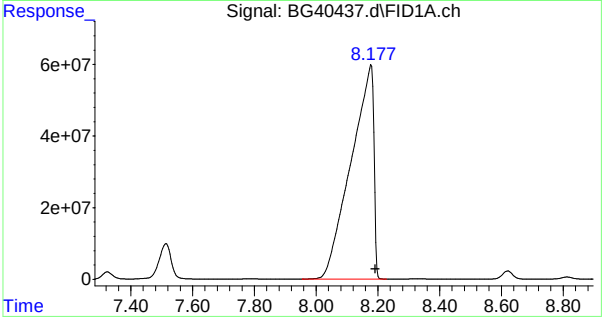
#2 o-Terphenyl

R.T.: 28.443 min
Delta R.T.: -0.037 min
Response: 3328948
Conc: 1.70 µg/mL m



#3 C-8

R.T.: 5.932 min
Delta R.T.: -0.060 min
Response: 15769817
Conc: 9.84 µg/mL m

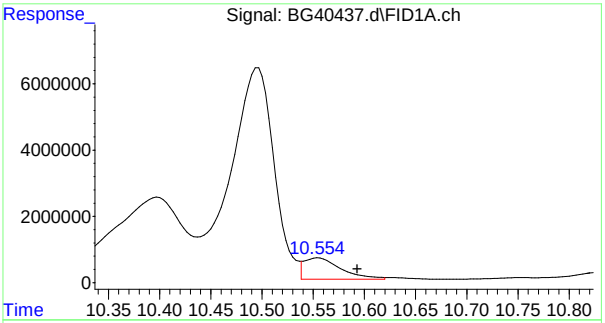


#4 C-9

R.T.: 8.177 min
Delta R.T.: -0.014 min
Response: 3051037595
Conc: 1783.95 µg/mL m

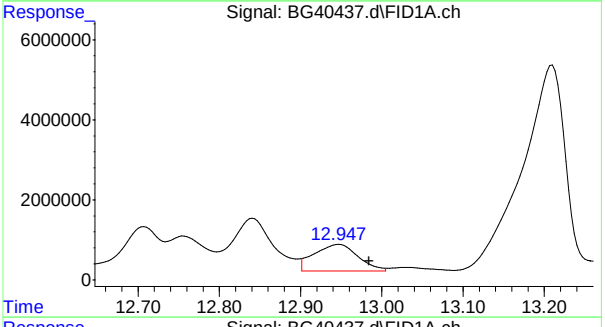
9.1.2

9



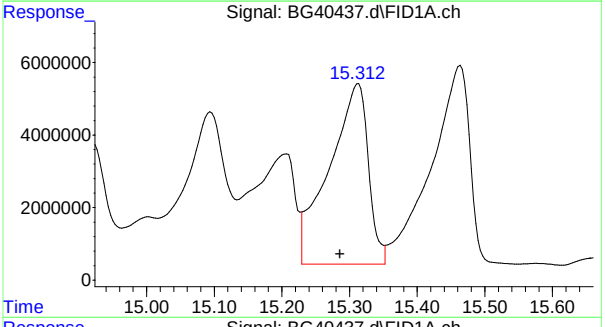
#5 C-10

R.T.: 10.554 min
Delta R.T.: -0.039 min
Response: 16072776
Conc: 8.81 µg/mL m



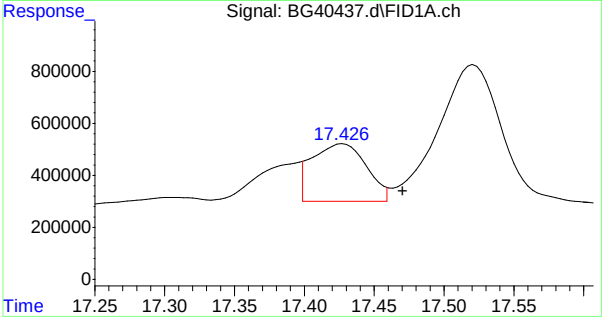
#6 C-11

R.T.: 12.947 min
Delta R.T.: -0.038 min
Response: 24779299
Conc: 13.85 µg/mL m



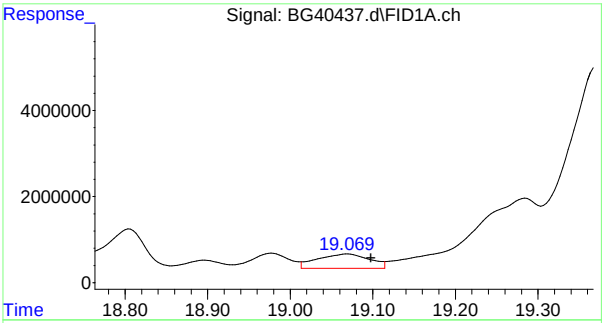
#7 C-12

R.T.: 15.312 min
Delta R.T.: 0.026 min
Response: 199220641
Conc: 109.46 µg/mL m



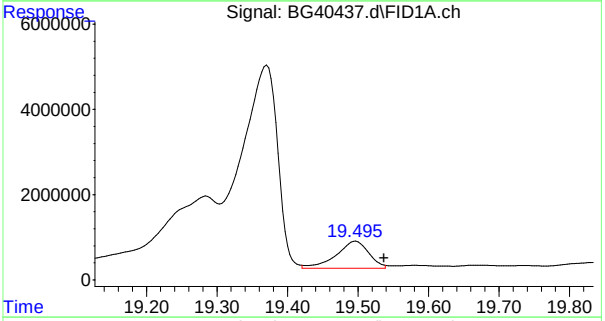
#8 C-13

R.T.: 17.426 min
Delta R.T.: -0.044 min
Response: 5916732
Conc: 3.22 µg/mL m



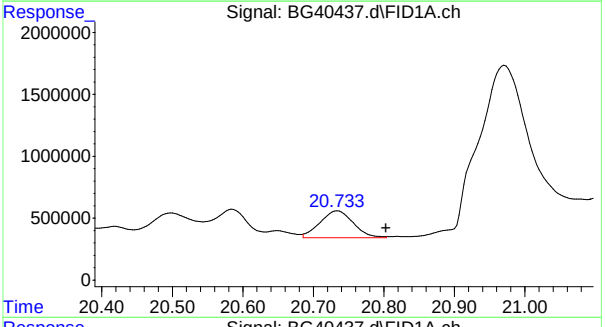
#9 2,6,10-trimethyldodecane (1380)

R.T.: 19.069 min
Delta R.T.: -0.029 min
Response: 14883689
Conc: 8.01 µg/mL m



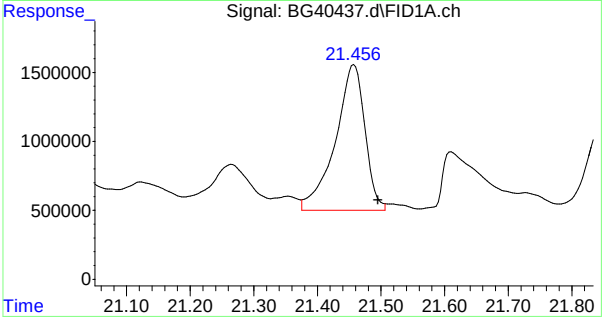
#10 C-14

R.T.: 19.495 min
Delta R.T.: -0.041 min
Response: 20577819
Conc: 10.96 µg/mL m



#11 2,6,10-trimethyltridecane (1470)

R.T.: 20.733 min
Delta R.T.: -0.070 min
Response: 7087952
Conc: 3.75 µg/mL m

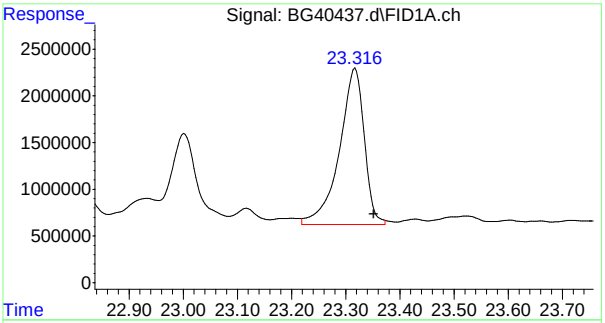


#12 C-15

R.T.: 21.456 min
Delta R.T.: -0.039 min
Response: 34161851
Conc: 17.95 µg/mL m

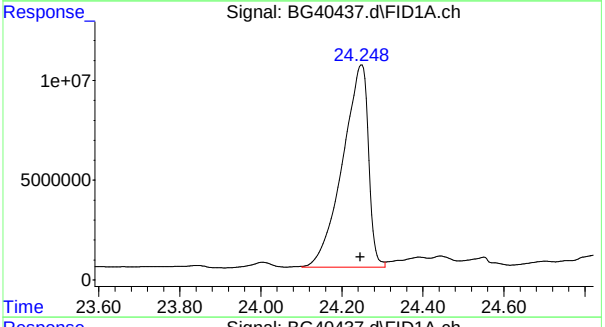
9.1.2

9



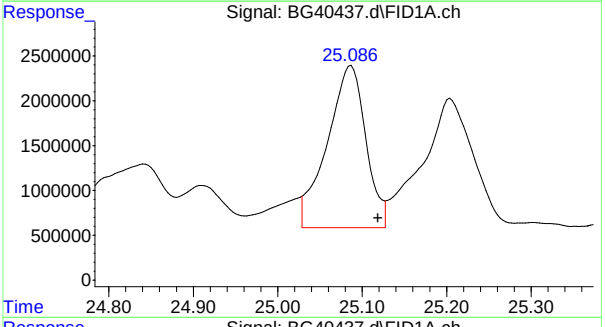
#13 C-16

R.T.: 23.316 min
Delta R.T.: -0.035 min
Response: 53363384
Conc: 28.01 µg/mL m



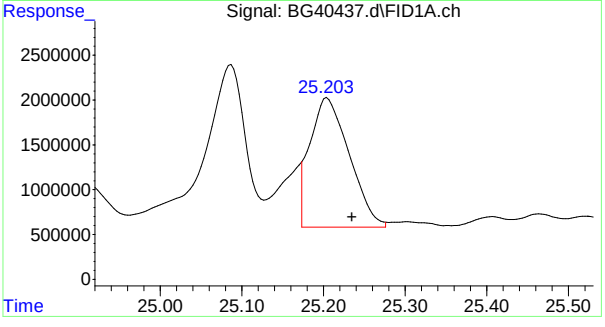
#14 2,6,10-trimethylpentadecane (1650)

R.T.: 24.248 min
Delta R.T.: 0.003 min
Response: 449457831
Conc: 231.05 µg/mL m



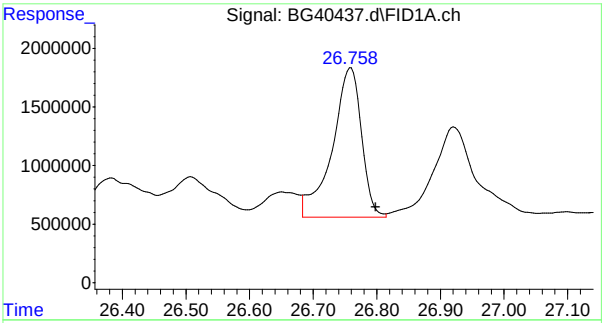
#15 C-17

R.T.: 25.086 min
Delta R.T.: -0.033 min
Response: 57820172
Conc: 29.12 µg/mL m



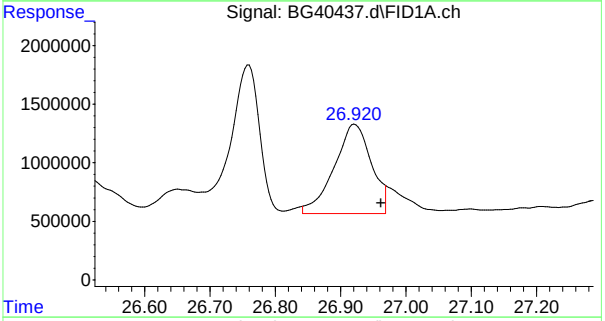
#16 Pristane

R.T.: 25.203 min
Delta R.T.: -0.032 min
Response: 47877403
Conc: 25.25 µg/mL m



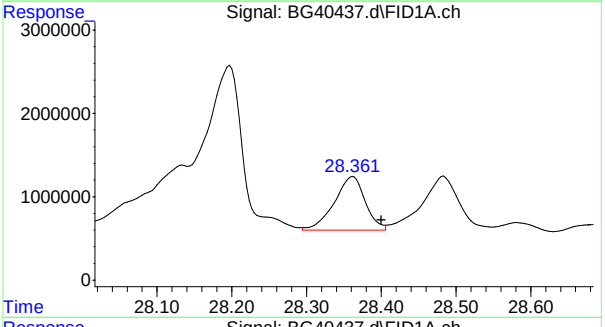
#17 C-18

R.T.: 26.758 min
Delta R.T.: -0.040 min
Response: 40105058
Conc: 20.43 µg/mL m



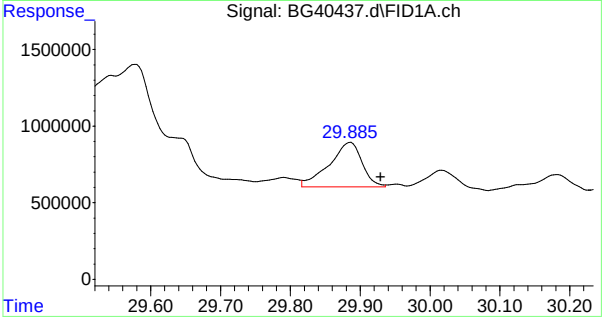
#18 Phytane

R.T.: 26.920 min
Delta R.T.: -0.042 min
Response: 30086967
Conc: 15.39 µg/mL m



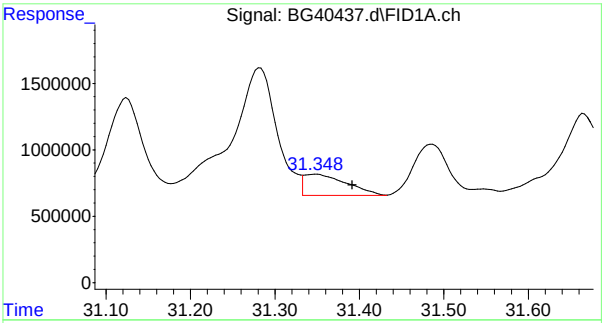
#19 C-19

R.T.: 28.361 min
Delta R.T.: -0.039 min
Response: 18492993
Conc: 9.02 µg/mL m



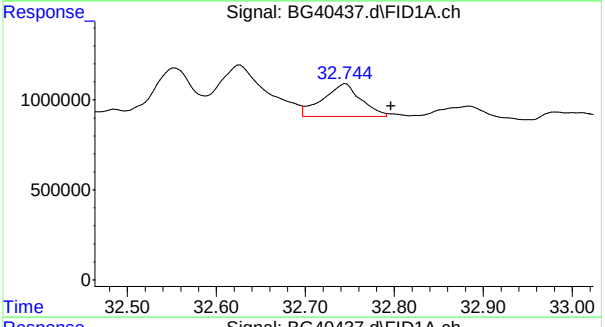
#20 C-20

R.T.: 29.885 min
Delta R.T.: -0.044 min
Response: 9505332
Conc: 4.83 µg/mL m



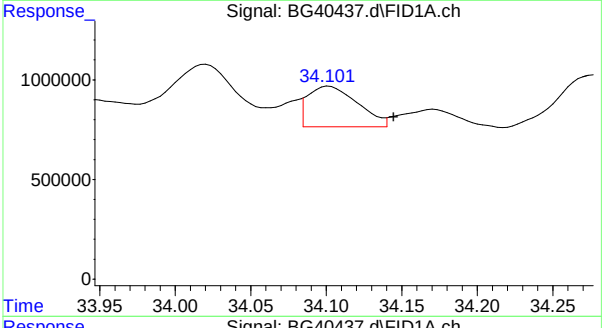
#21 C-21

R.T.: 31.348 min
Delta R.T.: -0.044 min
Response: 5459848
Conc: 2.76 µg/mL m



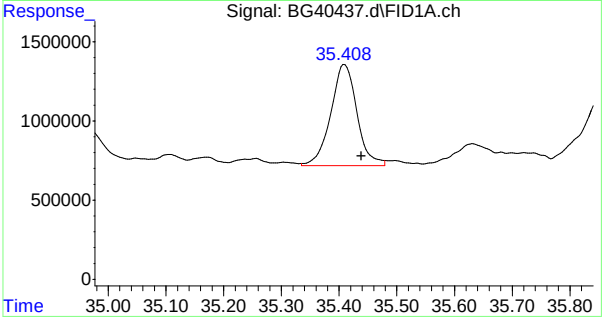
#22 C-22

R.T.: 32.744 min
Delta R.T.: -0.052 min
Response: 5392769
Conc: 2.69 µg/mL m



#23 C-23

R.T.: 34.101 min
Delta R.T.: -0.044 min
Response: 4689173
Conc: 2.31 µg/mL m

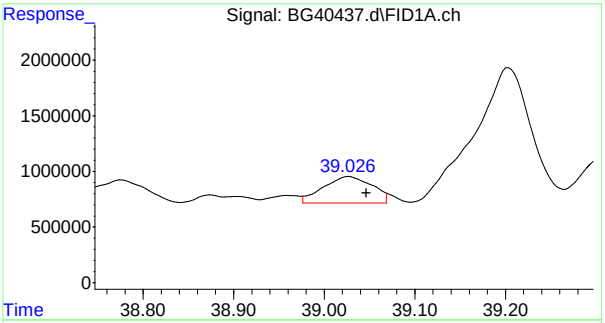


#24 C-24

R.T.: 35.408 min
Delta R.T.: -0.031 min
Response: 20144718
Conc: 9.99 µg/mL m

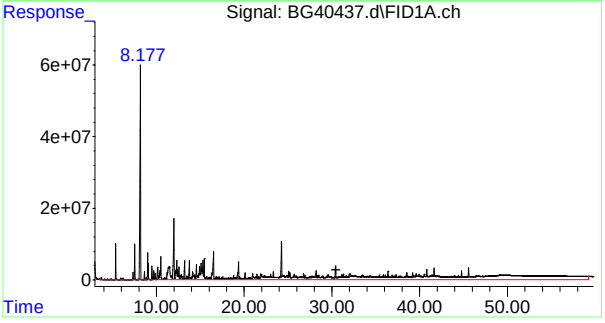
9.1.2

9



#27 C-27

```
      R.T.:   39.026 min
Delta R.T.:   -0.021 min
  Response:   8914606
      Conc:   4.39 µg/mL m
```



#41 TPH (C8-C40)

```
      R.T.:   30.469 min
Delta R.T.:    0.000 min
  Response: 33432889158
      Conc: 16890.48 µg/mL
```

9.1.2

9

Manual Integrations APPROVED (compounds with "m" flag)
James Roush
07/29/13 12:29

Quantitation Report (QT Reviewed)

Data Path : G:\1\DATA\BG130625\
Data File : BG40439.d
Signal(s) : FID1A.ch
Acq On : 25 Jun 2013 9:22 pm
Operator : danielb
Sample : mc21754-3a
Misc : op33685,gbg1529,5.18,,,2,10
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Jul 29 12:19:55 2013
Quant Method : G:\1\METHODS\BG120629ALK.m
Quant Title : n-C8 - n-C40 normal alkanes w/ isoprenoids
Response via : Initial Calibration

	Compound	R.T.	Response	Conc	Units
	Internal Standards				
1) I	5a-Androstane	30.420	107172117	50.000	µg/mLm
	System Monitoring Compounds				
2) S	o-Terphenyl	28.437	5555053	2.683	µg/mLm
	Target Compounds				
3)	C-8	5.947	25671430	15.162	µg/mLm
4)	C-9	8.202	3666168962	2028.966	µg/mLm
5)	C-10	10.561	17197127	8.921	µg/mLm
6)	C-11	12.951	27162126	14.365	µg/mLm
7)	C-12	15.287	119262836	62.024	µg/mLm
8)	C-13	17.430	9846293	5.070	µg/mLm
9)	2,6,10-trimethyldodec...	19.088	26119191	13.307	µg/mLm
10)	C-14	19.500	21615102	10.896	µg/mLm
11)	2,6,10-trimethyltride...	20.737	10196350	5.105	µg/mLm
12)	C-15	21.458	36058725	17.929	µg/mLm
13)	C-16	23.321	69435359	34.501	µg/mLm
14)	2,6,10-trimethylpenta...	24.265	565018576	274.923	µg/mLm
15)	C-17	25.089	69162605	32.969	µg/mLm
16)	Pristane	25.223	72433349	36.151	µg/mLm
17)	C-18	26.762	46828157	22.584	µg/mLm
18)	Phytane	26.928	42871701	20.756	µg/mLm
19)	C-19	28.365	21790105	10.060	µg/mLm
20)	C-20	29.892	29427329	14.143	µg/mLm
21)	C-21	31.360	5714106	2.737	µg/mLm
22)	C-22	32.763	15895761	7.493	µg/mLm
23)	C-23	34.113	20852416	9.728	µg/mLm
24)	C-24	35.409	32257730	15.143	µg/mLm
25)	C-25	36.652	17928487	8.289	µg/mLm
26)	C-26	37.841	26130982	11.875	µg/mLm
27)	C-27	39.014	19471004	9.080	µg/mLm
28)	C-28	40.121	12850295	5.884	µg/mLm
29)	C-29	41.209	12705233	5.776	µg/mLm
30)	C-30	42.246	6806246	3.089	µg/mLm
31)	C-31	43.266	8511598	3.864	µg/mLm
32)	C-32	44.239	3707101	1.704	µg/mLm
33)	C-33	45.199	4239381	1.957	µg/mLm
41) H	TPH (C8-C40)	30.469	35072168098	16770.944	µg/mLm

SemiQuant Compounds - Not Calibrated on this Instrument

(f)=RT Delta > 1/2 Window (m)=manual int.

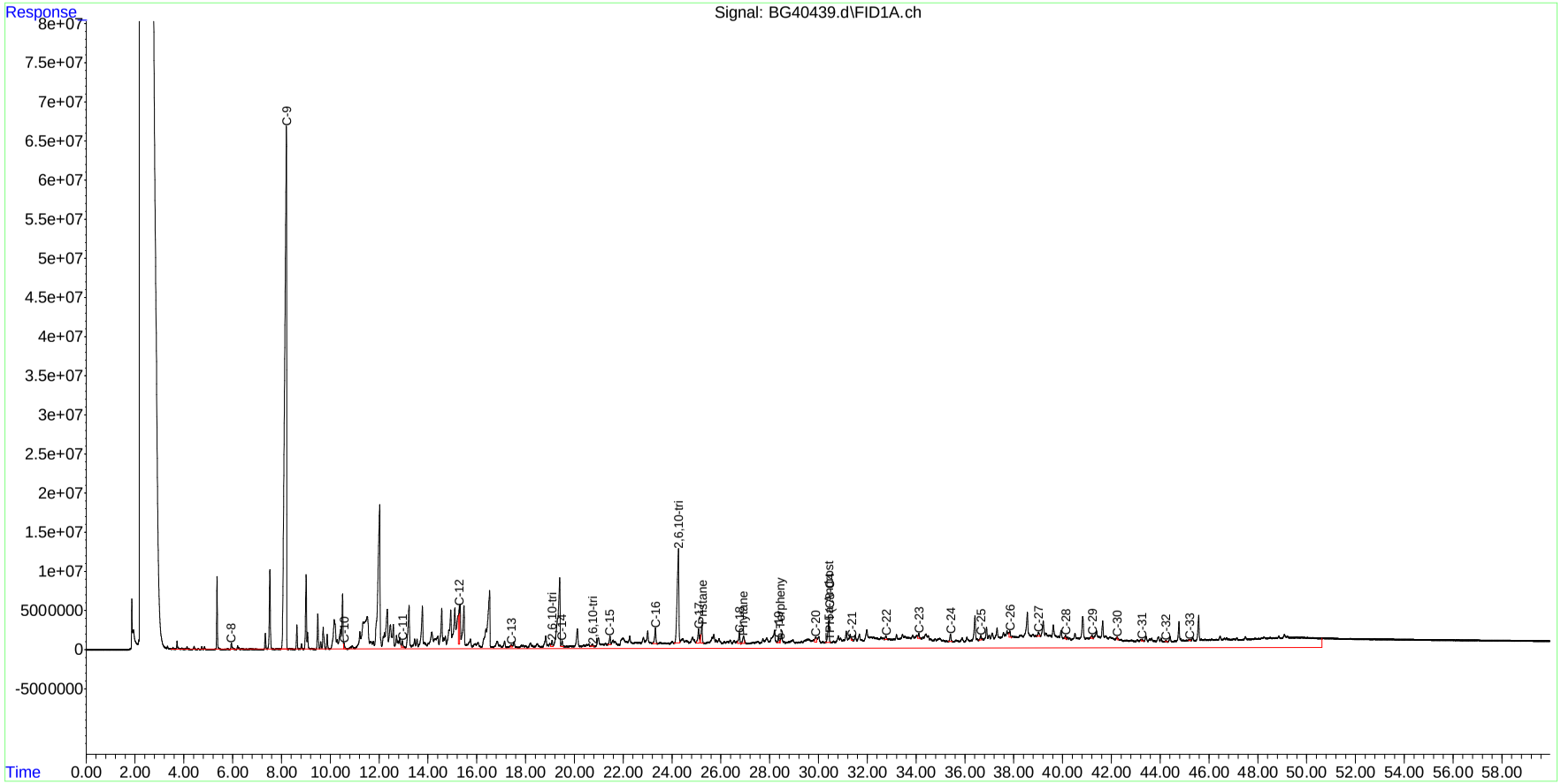
9.1.3

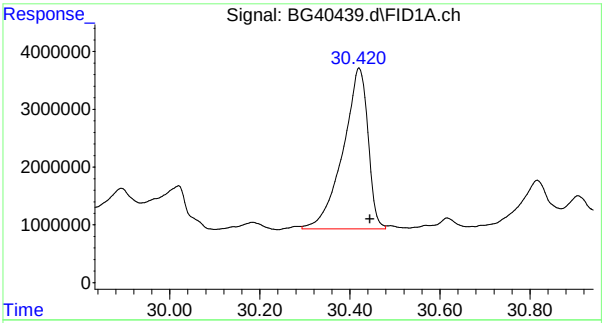
9

Quantitation Report (QT Reviewed)

Data Path : G:\1\DATA\BG130625\
Data File : BG40439.d
Signal(s) : FID1A.ch
Acq On : 25 Jun 2013 9:22 pm
Operator : danielb
Sample : mc21754-3a
Misc : op33685,gbg1529,5.18,,,2,10
ALS Vial : 9 Sample Multiplier: 1

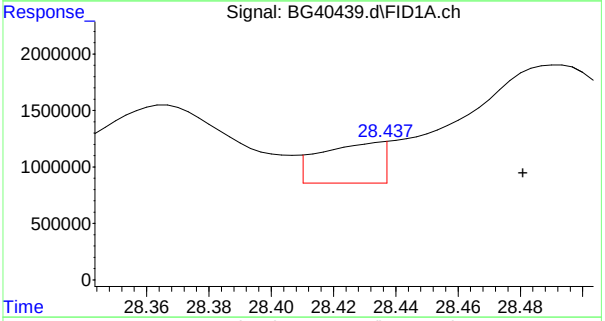
Quant Time: Jul 29 12:19:55 2013
Quant Method : G:\1\METHODS\BG120629ALK.m
Quant Title : n-C8 - n-C40 normal alkanes w/ isoprenoids
Response via : Initial Calibration





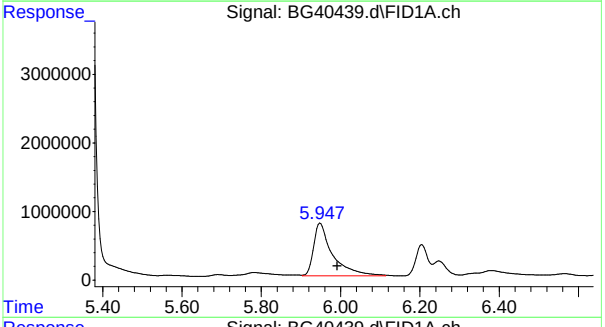
#1 5a-Androstane

R.T.: 30.420 min
Delta R.T.: -0.025 min
Response: 107172117
Conc: 50.00 µg/mL m



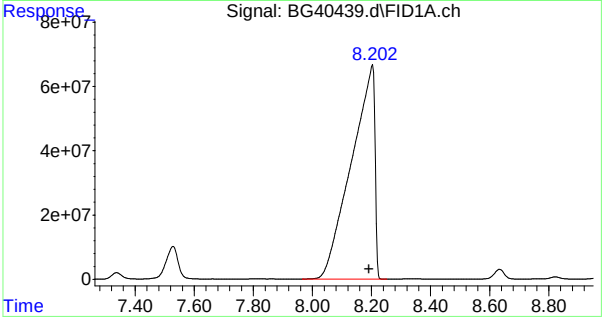
#2 o-Terphenyl

R.T.: 28.437 min
Delta R.T.: -0.044 min
Response: 5555053
Conc: 2.68 µg/mL m



#3 C-8

R.T.: 5.947 min
Delta R.T.: -0.044 min
Response: 25671430
Conc: 15.16 µg/mL m

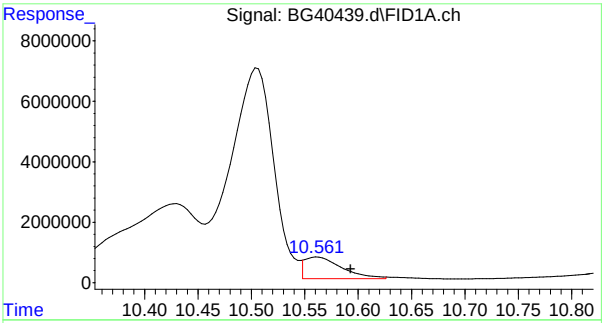


#4 C-9

R.T.: 8.202 min
Delta R.T.: 0.011 min
Response: 3666168962
Conc: 2028.97 µg/mL m

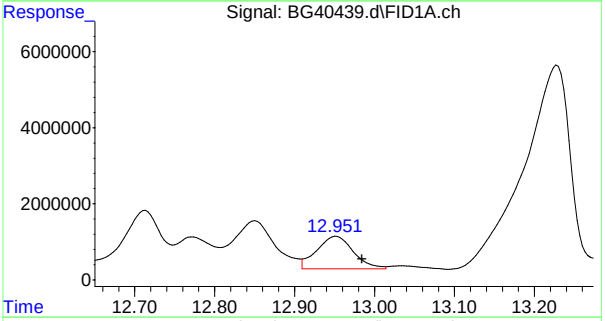
9.1.3

9



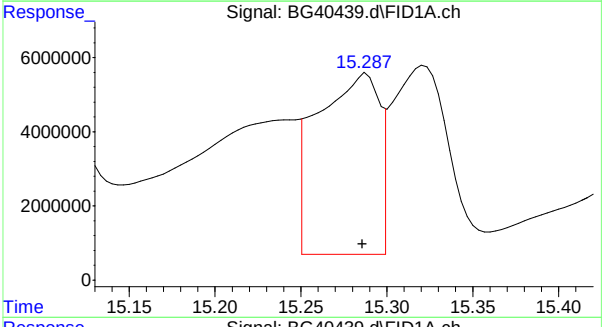
#5 C-10

R.T.: 10.561 min
Delta R.T.: -0.032 min
Response: 17197127
Conc: 8.92 µg/mL m



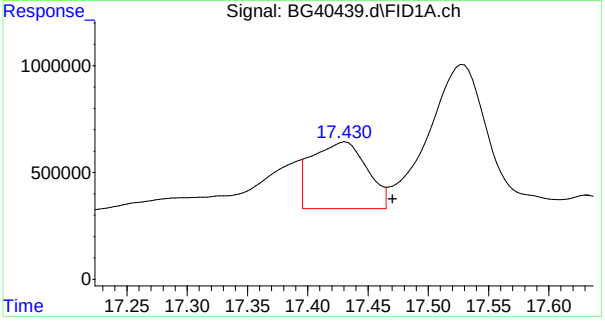
#6 C-11

R.T.: 12.951 min
Delta R.T.: -0.034 min
Response: 27162126
Conc: 14.37 µg/mL m



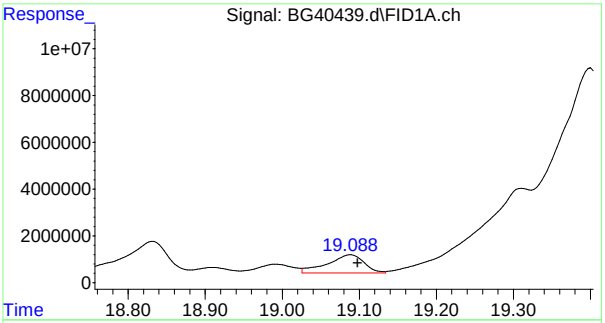
#7 C-12

R.T.: 15.287 min
Delta R.T.: 0.001 min
Response: 119262836
Conc: 62.02 µg/mL m



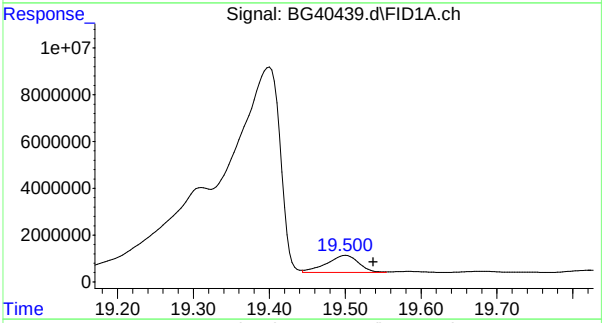
#8 C-13

R.T.: 17.430 min
Delta R.T.: -0.040 min
Response: 9846293
Conc: 5.07 µg/mL m



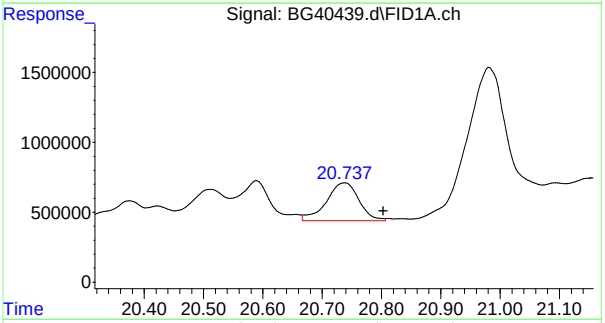
#9 2,6,10-trimethyldodecane (1380)

R.T.: 19.088 min
Delta R.T.: -0.010 min
Response: 26119191
Conc: 13.31 µg/mL m



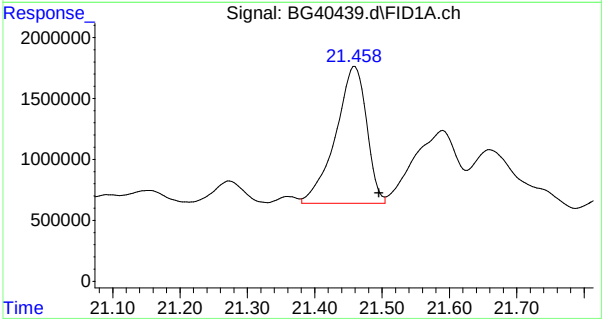
#10 C-14

R.T.: 19.500 min
Delta R.T.: -0.037 min
Response: 21615102
Conc: 10.90 µg/mL m



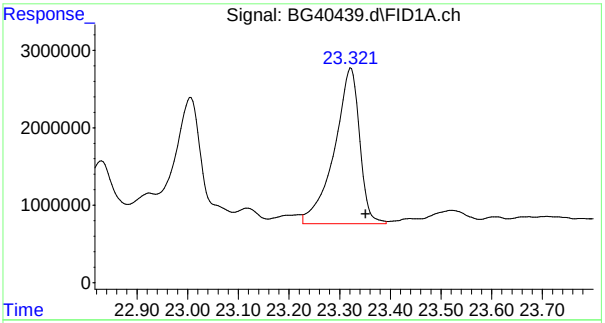
#11 2,6,10-trimethyltridecane (1470)

R.T.: 20.737 min
Delta R.T.: -0.065 min
Response: 10196350
Conc: 5.10 µg/mL m



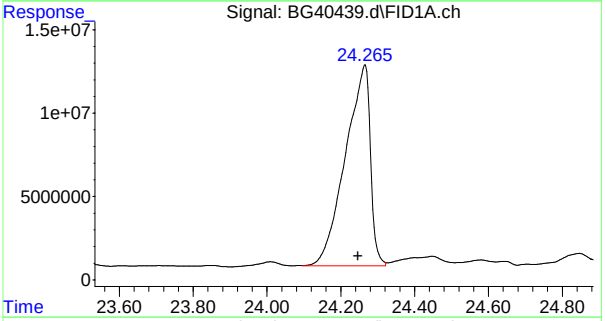
#12 C-15

R.T.: 21.458 min
Delta R.T.: -0.037 min
Response: 36058725
Conc: 17.93 µg/mL m



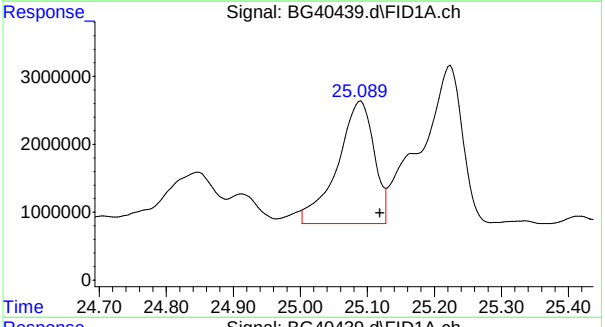
#13 C-16

R.T.: 23.321 min
Delta R.T.: -0.030 min
Response: 69435359
Conc: 34.50 µg/mL m



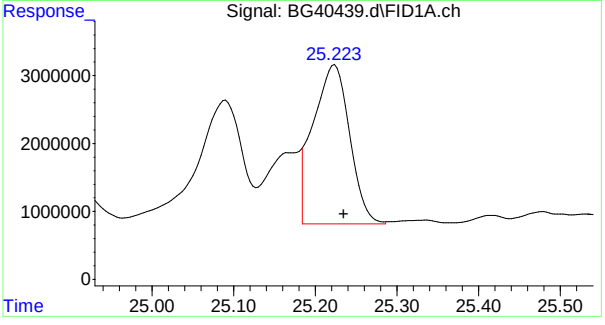
#14 2,6,10-trimethylpentadecane (1650)

R.T.: 24.265 min
Delta R.T.: 0.019 min
Response: 565018576
Conc: 274.92 µg/mL m



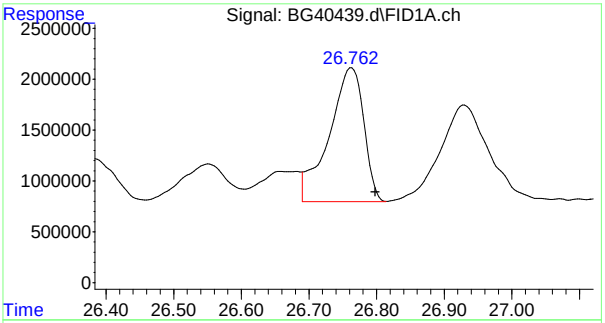
#15 C-17

R.T.: 25.089 min
Delta R.T.: -0.030 min
Response: 69162605
Conc: 32.97 µg/mL m



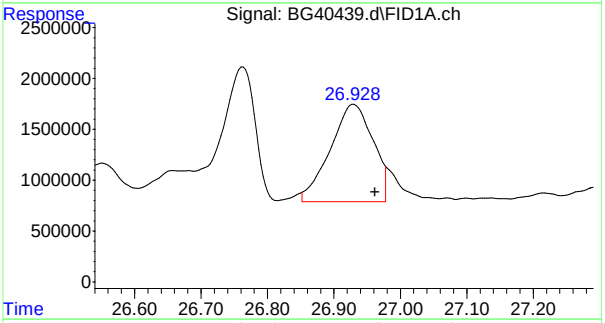
#16 Pristane

R.T.: 25.223 min
Delta R.T.: -0.012 min
Response: 72433349
Conc: 36.15 µg/mL m



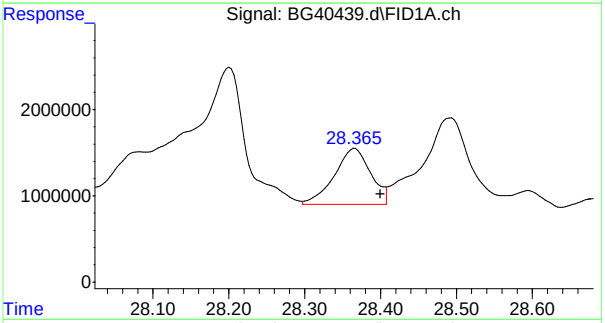
#17 C-18

R.T.: 26.762 min
Delta R.T.: -0.036 min
Response: 46828157
Conc: 22.58 µg/mL m



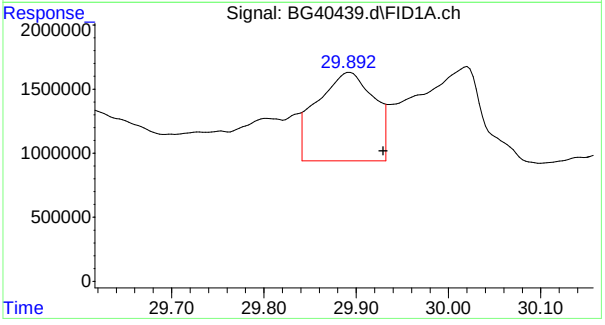
#18 Phytane

R.T.: 26.928 min
Delta R.T.: -0.034 min
Response: 42871701
Conc: 20.76 µg/mL m



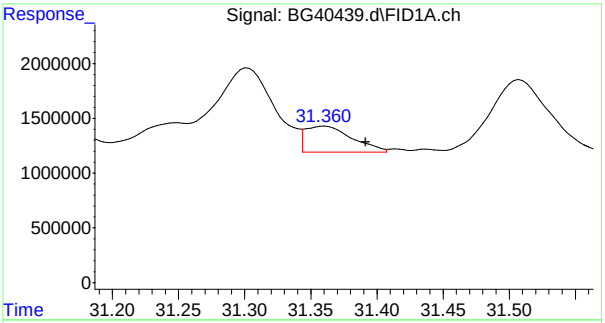
#19 C-19

R.T.: 28.365 min
Delta R.T.: -0.035 min
Response: 21790105
Conc: 10.06 µg/mL m



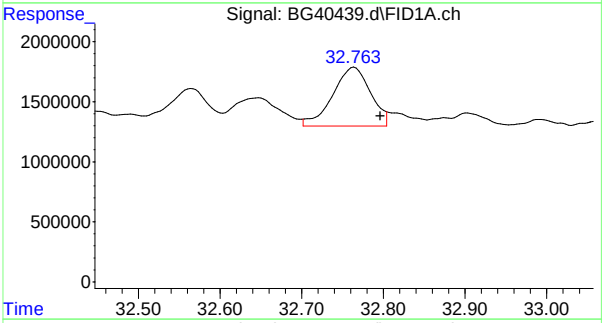
#20 C-20

R.T.: 29.892 min
Delta R.T.: -0.038 min
Response: 29427329
Conc: 14.14 µg/mL m



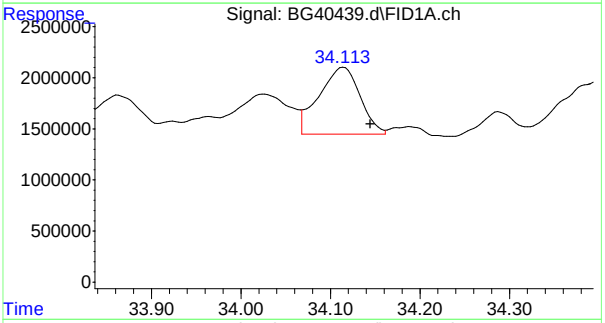
#21 C-21

R.T.: 31.360 min
Delta R.T.: -0.032 min
Response: 5714106
Conc: 2.74 µg/mL m



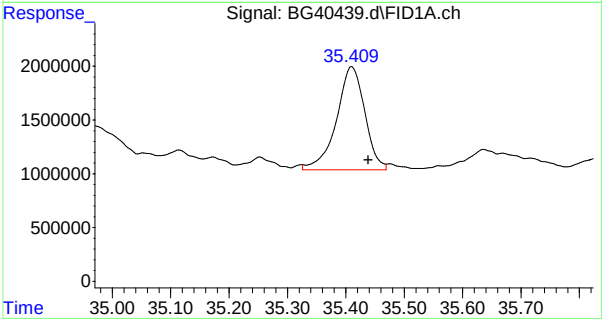
#22 C-22

R.T.: 32.763 min
Delta R.T.: -0.033 min
Response: 15895761
Conc: 7.49 µg/mL m



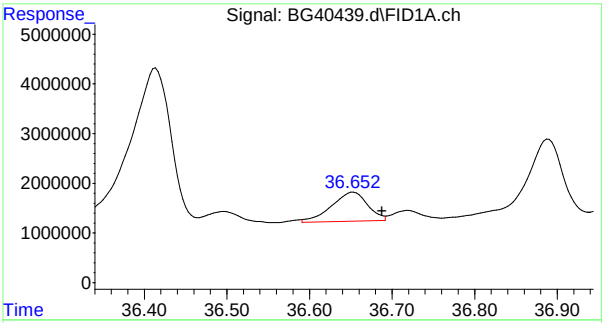
#23 C-23

R.T.: 34.113 min
Delta R.T.: -0.031 min
Response: 20852416
Conc: 9.73 µg/mL m



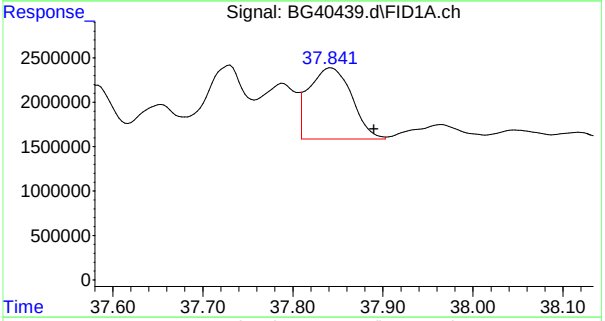
#24 C-24

R.T.: 35.409 min
Delta R.T.: -0.029 min
Response: 32257730
Conc: 15.14 µg/mL m



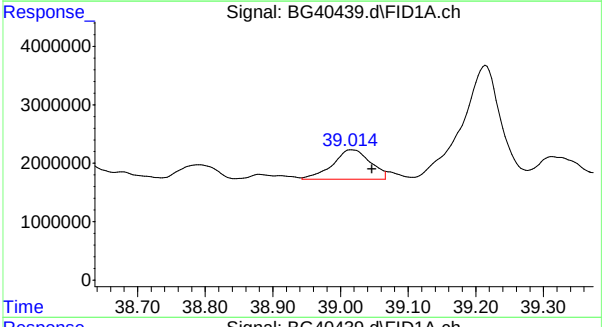
#25 C-25

R.T.: 36.652 min
Delta R.T.: -0.036 min
Response: 17928487
Conc: 8.29 µg/mL m



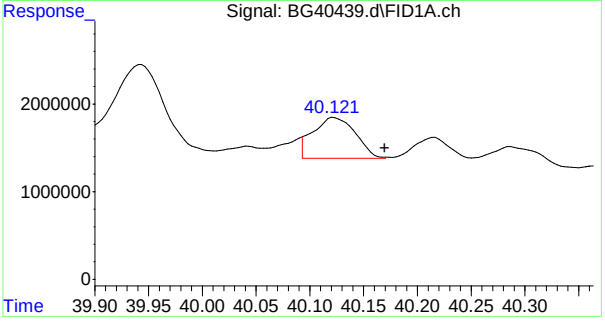
#26 C-26

R.T.: 37.841 min
Delta R.T.: -0.049 min
Response: 26130982
Conc: 11.87 µg/mL m



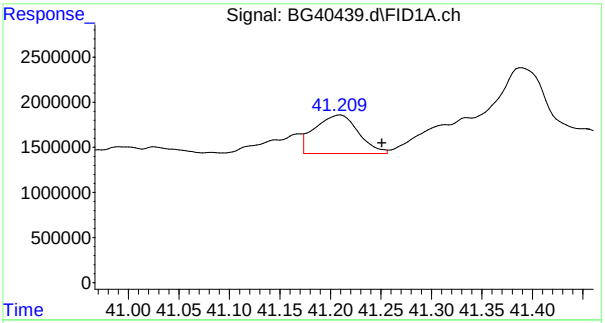
#27 C-27

R.T.: 39.014 min
Delta R.T.: -0.032 min
Response: 19471004
Conc: 9.08 µg/mL m



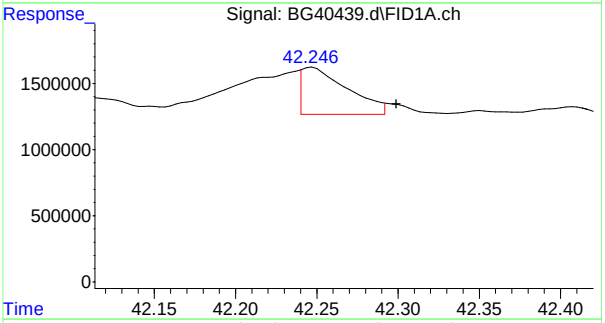
#28 C-28

R.T.: 40.121 min
Delta R.T.: -0.049 min
Response: 12850295
Conc: 5.88 µg/mL m



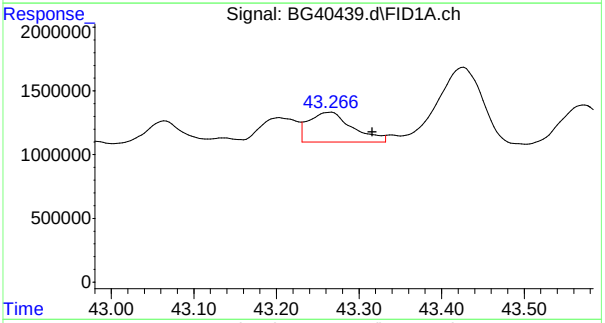
#29 C-29

R.T.: 41.209 min
Delta R.T.: -0.042 min
Response: 12705233
Conc: 5.78 µg/mL m



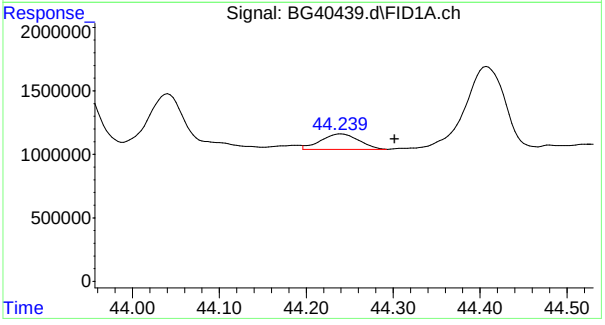
#30 C-30

R.T.: 42.246 min
Delta R.T.: -0.053 min
Response: 6806246
Conc: 3.09 µg/mL m



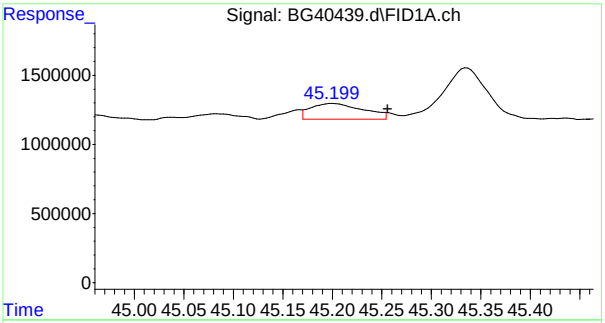
#31 C-31

R.T.: 43.266 min
Delta R.T.: -0.050 min
Response: 8511598
Conc: 3.86 µg/mL m



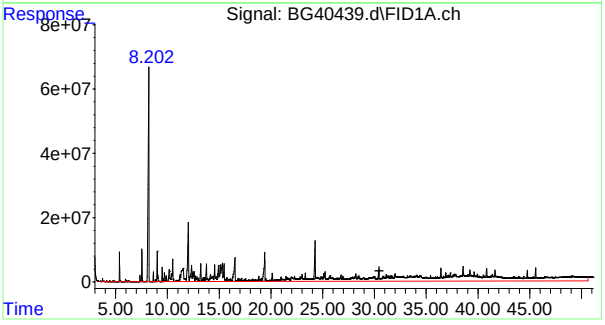
#32 C-32

R.T.: 44.239 min
Delta R.T.: -0.063 min
Response: 3707101
Conc: 1.70 µg/mL m



#33 C-33

R.T.: 45.199 min
Delta R.T.: -0.057 min
Response: 4239381
Conc: 1.96 µg/mL m



#41 TPH (C8-C40)

R.T.: 30.469 min
Delta R.T.: 0.000 min
Response: 35072168098
Conc: 16770.94 µg/mL m

9.1.3

9

Manual Integrations APPROVED (compounds with "m" flag)
James Roush
07/29/13 12:29

Quantitation Report (QT Reviewed)

Data Path : G:\1\DATA\BG130625\
Data File : BG40440.d
Signal(s) : FID1A.ch
Acq On : 25 Jun 2013 10:28 pm
Operator : danielb
Sample : mc21754-4a
Misc : op33685,gbg1529,5.05,,,2,10
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jul 29 12:01:45 2013
Quant Method : G:\1\METHODS\BG120629ALK.m
Quant Title : n-C8 - n-C40 normal alkanes w/ isoprenoids
Response via : Initial Calibration

	Compound	R.T.	Response	Conc	Units
Internal Standards					
1) I	5a-Androstane	30.411	99047354	50.000	µg/mLm
System Monitoring Compounds					
2) S	o-Terphenyl	28.430	3443655	1.800	µg/mLm
Target Compounds					
3)	C-8	5.937	13493425	8.623	µg/mLm
4)	C-9	8.150	3942509	2.361	µg/mLm
5)	C-10	10.567	9317751	5.230	µg/mLm
6)	C-11	12.949	19337935	11.066	µg/mLm
7)	C-12	15.228	237223948	133.490	µg/mLm
8)	C-13	17.428	16107078	8.975	µg/mLm
9)	2,6,10-trimethyldodec...	19.100	39057123	21.531	µg/mLm
10)	C-14	19.496	14020201	7.647	µg/mLm
11)	2,6,10-trimethyltride...	20.735	6597285	3.574	µg/mLm
12)	C-15	21.453	14946570	8.042	µg/mLm
13)	C-16	23.314	39113184	21.028	µg/mLm
14)	2,6,10-trimethylpenta...	24.220	256159948	134.865	µg/mLm
15)	C-17	25.073	21734721	11.211	µg/mLm
16)	Pristane	25.206	71280931	38.494	µg/mLm
17)	C-18	26.750	17521797	9.144	µg/mLm
18)	Phytane	26.911	12378367	6.484	µg/mLm
19)	C-19	28.352	10011481	5.001	µg/mLm
20)	C-20	29.879	5734163	2.982	µg/mLm
21)	C-21	31.348	4234240	2.194	µg/mLm
22)	C-22	32.744	6291687	3.209	µg/mLm
23)	C-23	34.092	8570569	4.326	µg/mLm
24)	C-24	35.402	18358435	9.325	µg/mLm
26)	C-26	37.817	11108994	5.462	µg/mLm
27)	C-27	38.999	2429248	1.226	µg/mLm
41) H	TPH (C8-C40)	30.469	21160381400	10948.568	µg/mLm

SemiQuant Compounds - Not Calibrated on this Instrument

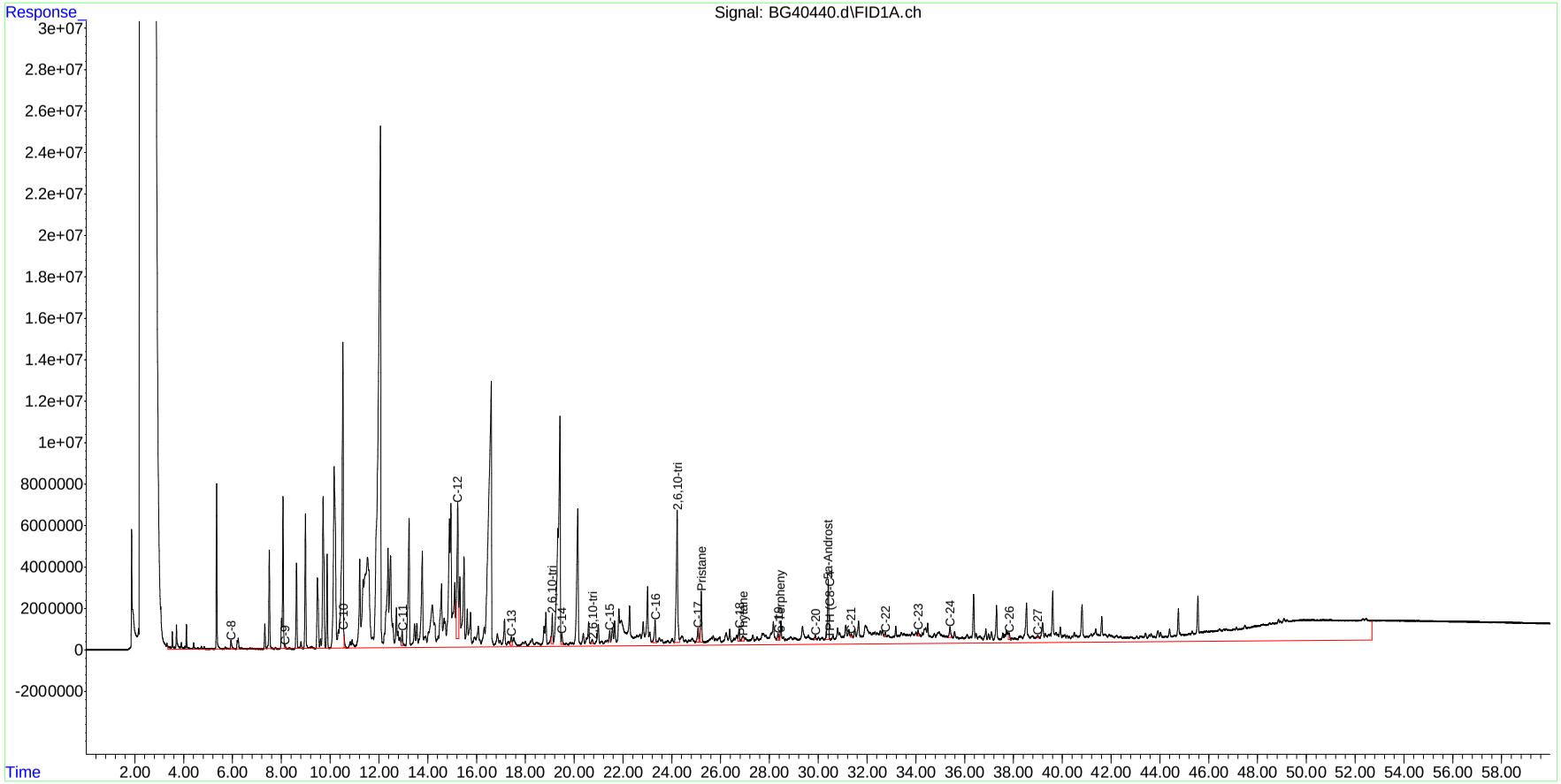
(f)=RT Delta > 1/2 Window (m)=manual int.

9.1.4
9

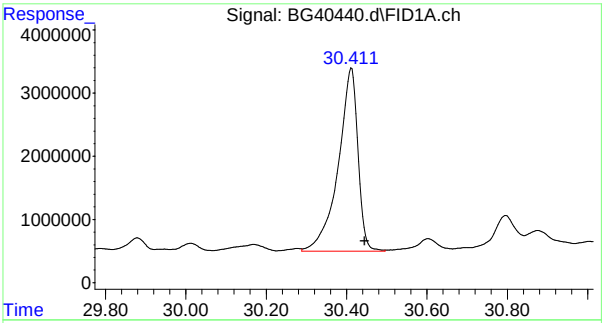
Quantitation Report (QT Reviewed)

Data Path : G:\1\DATA\BG130625\
Data File : BG40440.d
Signal(s) : FID1A.ch
Acq On : 25 Jun 2013 10:28 pm
Operator : danielb
Sample : mc21754-4a
Misc : op33685,gbg1529,5.05,,,2,10
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jul 29 12:01:45 2013
Quant Method : G:\1\METHODS\BG120629ALK.m
Quant Title : n-C8 - n-C40 normal alkanes w/ isoprenoids
Response via : Initial Calibration

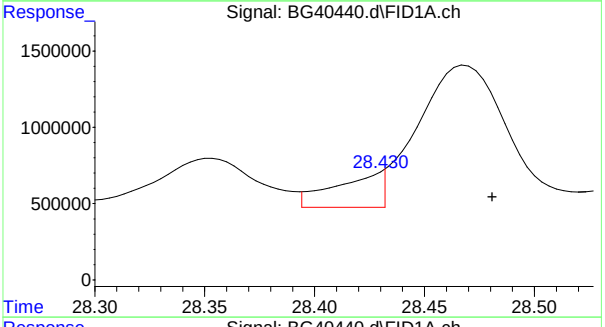


G120629ALK.m Mon Jul 29 12:02:08 2013 Page: 2



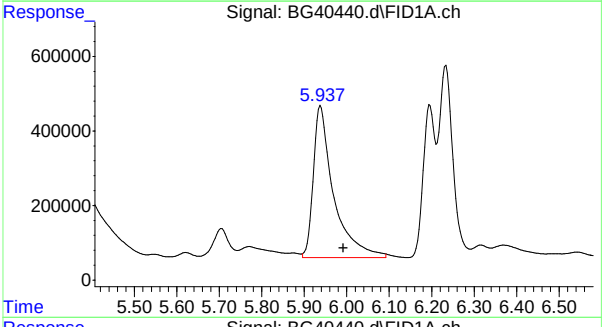
#1 5a-Androstane

R.T.: 30.411 min
Delta R.T.: -0.034 min
Response: 99047354
Conc: 50.00 µg/mL m



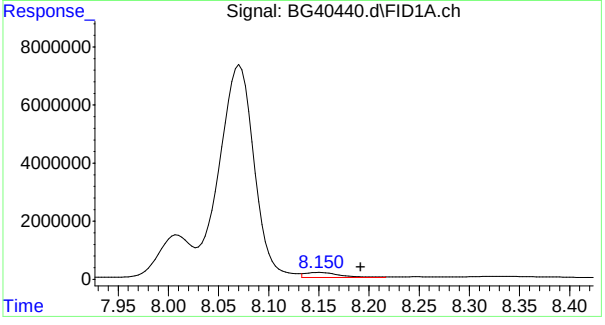
#2 o-Terphenyl

R.T.: 28.430 min
Delta R.T.: -0.051 min
Response: 3443655
Conc: 1.80 µg/mL m



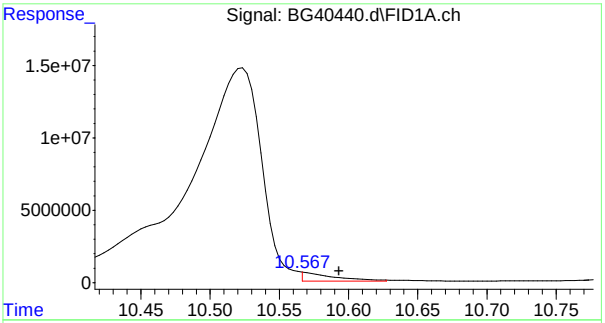
#3 C-8

R.T.: 5.937 min
Delta R.T.: -0.055 min
Response: 13493425
Conc: 8.62 µg/mL m



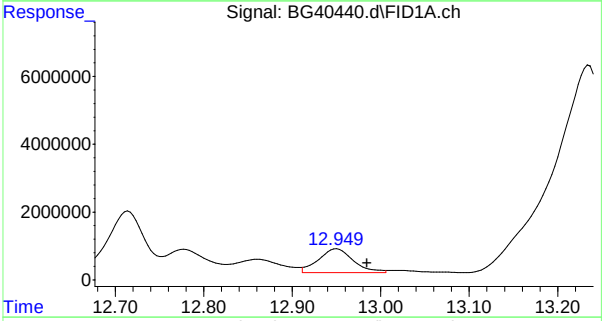
#4 C-9

R.T.: 8.150 min
Delta R.T.: -0.042 min
Response: 3942509
Conc: 2.36 µg/mL m



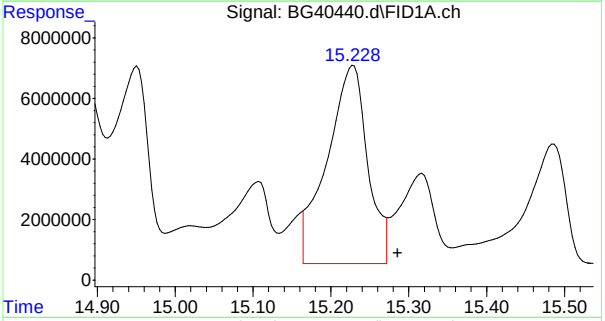
#5 C-10

R.T.: 10.567 min
Delta R.T.: -0.026 min
Response: 9317751
Conc: 5.23 µg/mL m



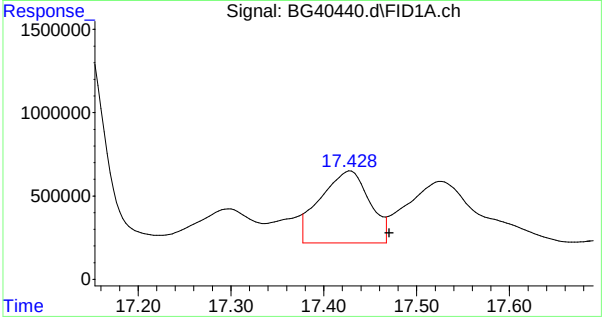
#6 C-11

R.T.: 12.949 min
Delta R.T.: -0.035 min
Response: 19337935
Conc: 11.07 µg/mL m



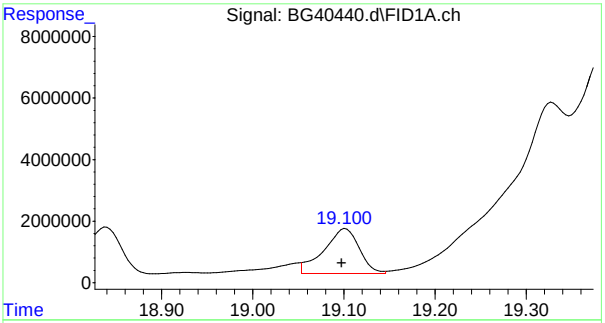
#7 C-12

R.T.: 15.228 min
Delta R.T.: -0.058 min
Response: 237223948
Conc: 133.49 µg/mL m



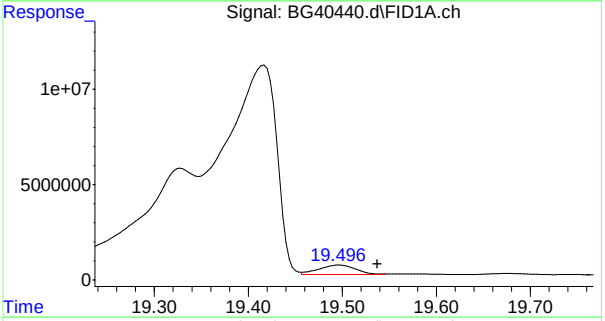
#8 C-13

R.T.: 17.428 min
Delta R.T.: -0.043 min
Response: 16107078
Conc: 8.97 µg/mL m



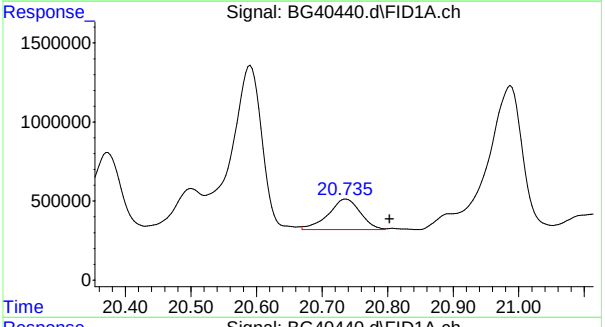
#9 2,6,10-trimethyldodecane (1380)

R.T.: 19.100 min
Delta R.T.: 0.003 min
Response: 39057123
Conc: 21.53 µg/mL m



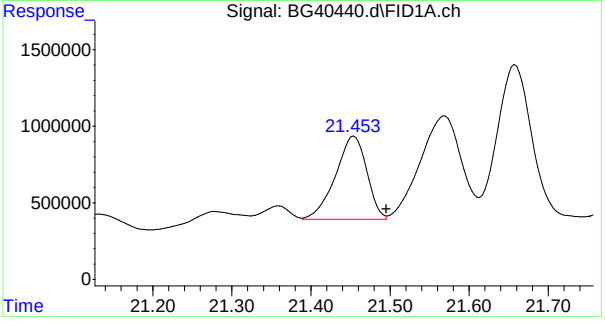
#10 C-14

R.T.: 19.496 min
Delta R.T.: -0.041 min
Response: 14020201
Conc: 7.65 µg/mL m



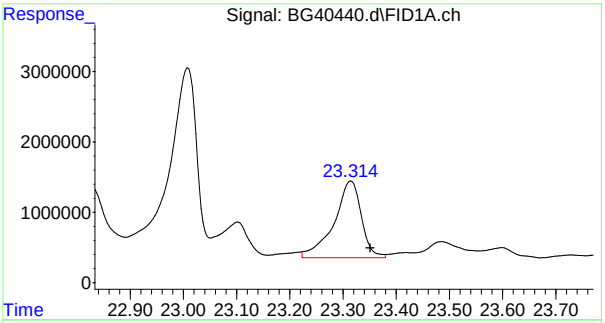
#11 2,6,10-trimethyltridecane (1470)

R.T.: 20.735 min
Delta R.T.: -0.068 min
Response: 6597285
Conc: 3.57 µg/mL m



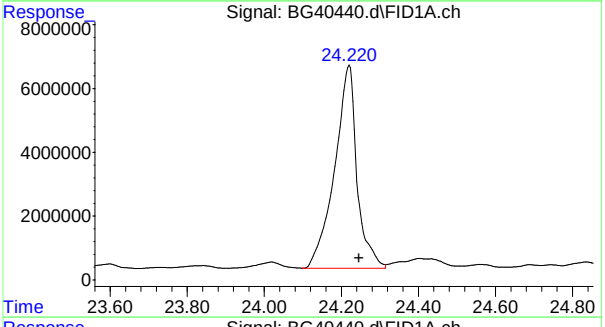
#12 C-15

R.T.: 21.453 min
Delta R.T.: -0.042 min
Response: 14946570
Conc: 8.04 µg/mL m



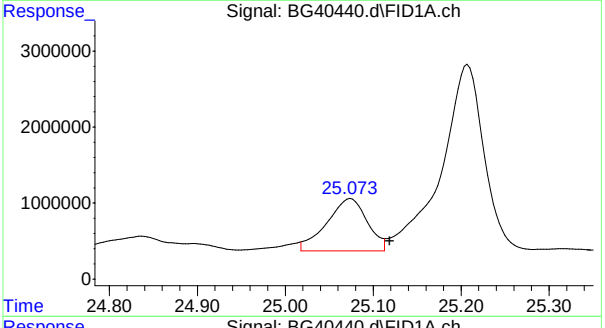
#13 C-16

R.T.: 23.314 min
Delta R.T.: -0.037 min
Response: 39113184
Conc: 21.03 µg/mL m



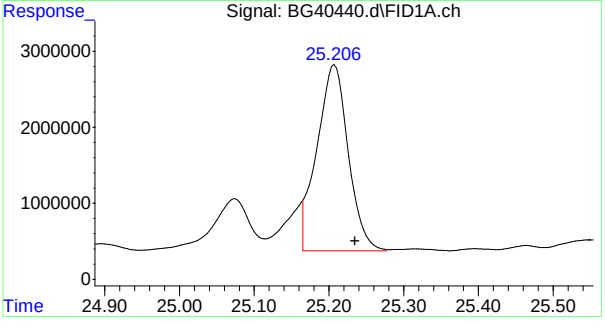
#14 2,6,10-trimethylpentadecane (1650)

R.T.: 24.220 min
Delta R.T.: -0.026 min
Response: 256159948
Conc: 134.86 µg/mL m



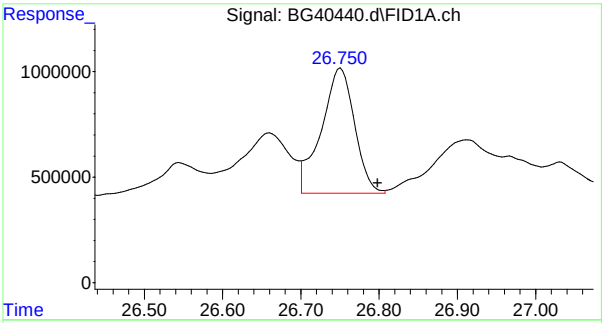
#15 C-17

R.T.: 25.073 min
Delta R.T.: -0.045 min
Response: 21734721
Conc: 11.21 µg/mL m



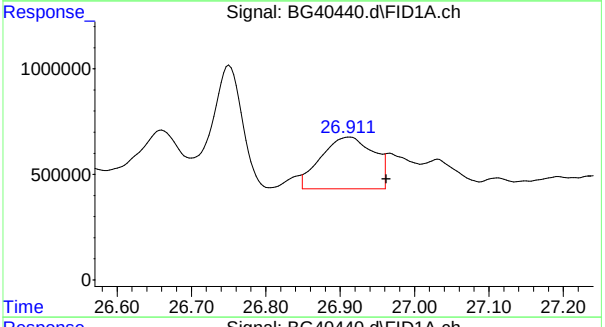
#16 Pristane

R.T.: 25.206 min
Delta R.T.: -0.028 min
Response: 71280931
Conc: 38.49 µg/mL m



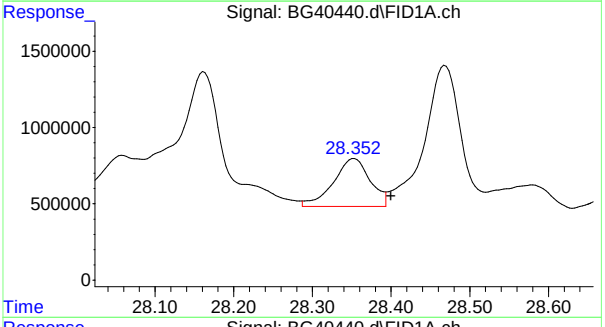
#17 C-18

R.T.: 26.750 min
Delta R.T.: -0.049 min
Response: 17521797
Conc: 9.14 µg/mL m



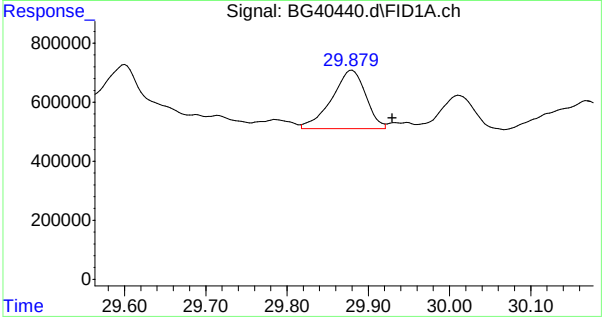
#18 Phytane

R.T.: 26.911 min
Delta R.T.: -0.051 min
Response: 12378367
Conc: 6.48 µg/mL m



#19 C-19

R.T.: 28.352 min
Delta R.T.: -0.048 min
Response: 10011481
Conc: 5.00 µg/mL m

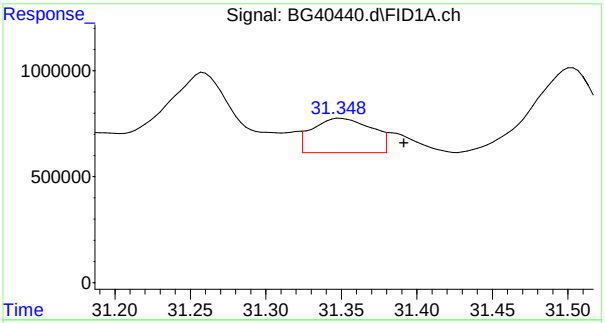


#20 C-20

R.T.: 29.879 min
Delta R.T.: -0.051 min
Response: 5734163
Conc: 2.98 µg/mL m

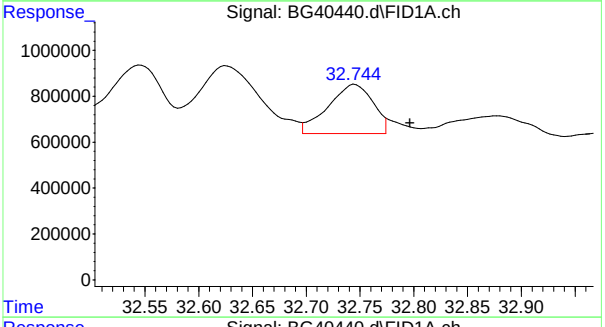
9.1.4

9



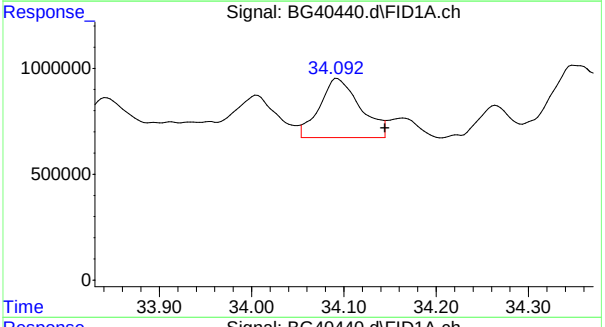
#21 C-21

R.T.: 31.348 min
Delta R.T.: -0.043 min
Response: 4234240
Conc: 2.19 µg/mL m



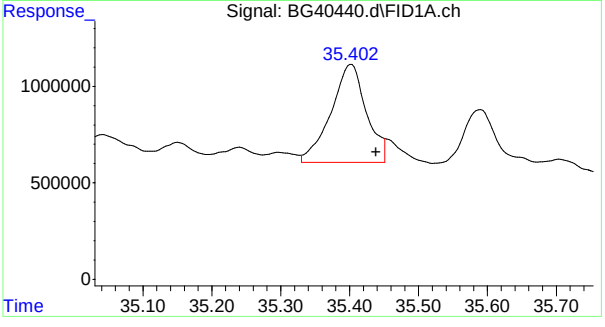
#22 C-22

R.T.: 32.744 min
Delta R.T.: -0.053 min
Response: 6291687
Conc: 3.21 µg/mL m



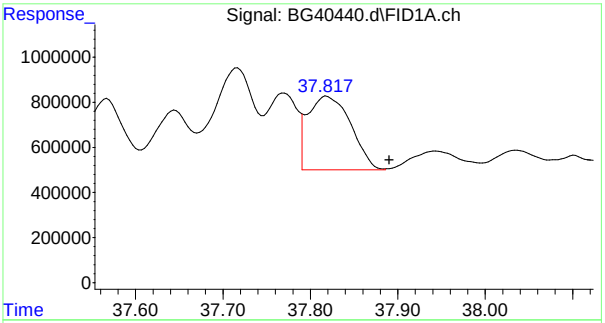
#23 C-23

R.T.: 34.092 min
Delta R.T.: -0.053 min
Response: 8570569
Conc: 4.33 µg/mL m



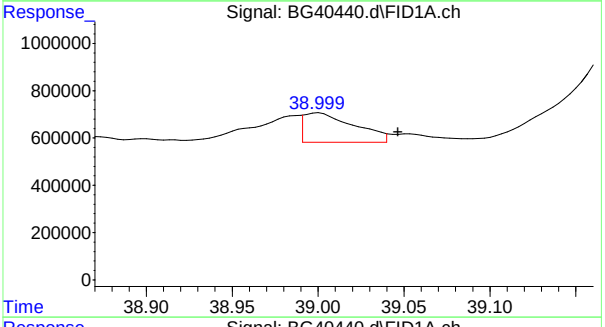
#24 C-24

R.T.: 35.402 min
Delta R.T.: -0.037 min
Response: 18358435
Conc: 9.33 µg/mL m



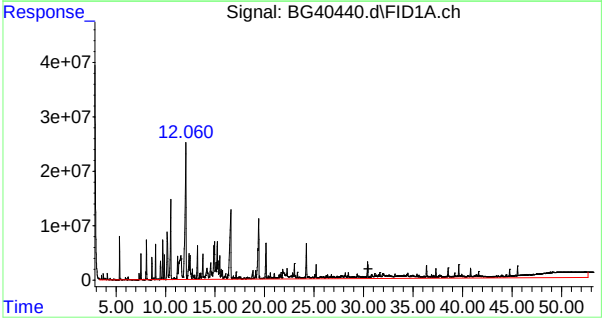
#26 C-26

R.T.: 37.817 min
Delta R.T.: -0.073 min
Response: 11108994
Conc: 5.46 µg/mL m



#27 C-27

R.T.: 38.999 min
Delta R.T.: -0.047 min
Response: 2429248
Conc: 1.23 µg/mL m



#41 TPH (C8-C40)

R.T.: 30.469 min
Delta R.T.: 0.000 min
Response: 21160381400
Conc: 10948.57 µg/mL m

9.1.4

9

Manual Integrations APPROVED (compounds with "m" flag)
James Roush
07/29/13 12:29

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\BG130625\
Data File : BG40441.d
Signal(s) : FID1A.ch
Acq On : 25 Jun 2013 11:34 pm
Operator : danielb
Sample : mc21754-5a
Misc : op33685,gbg1529,5.47,,,2,10
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Jul 23 11:51:12 2013
Quant Method : G:\1\METHODS\BG120629ALK.m
Quant Title : n-C8 - n-C40 normal alkanes w/ isoprenoids

	Compound	R.T.	Response	Conc Units
Internal Standards				
1) I	5a-Androstane	30.403	225864048	50.000 µg/mLm
System Monitoring Compounds				
2) S	o-Terphenyl	28.433	6250303	1.432 µg/mLm
Target Compounds				
5)	C-10	10.581	231568538	56.997 µg/mLm
6)	C-11	12.970	229401417	57.569 µg/mLm
7)	C-12	15.264	63298283	15.620 µg/mLm
8)	C-13	17.438	66507704	16.251 µg/mLm
9)	2,6,10-trimethyldodec...	19.108	130364126	31.515 µg/mLm
10)	C-14	19.510	93140537	22.278 µg/mLm
11)	2,6,10-trimethyltride...	20.737	32525832	7.727 µg/mLm
12)	C-15	21.470	106277036	25.074 µg/mLm
13)	C-16	23.326	150933232	35.585 µg/mLm
15)	C-17	25.091	125278629	28.337 µg/mLm
16)	Pristane	25.188	50941683	12.064 µg/mLm
17)	C-18	26.767	116342574	26.624 µg/mLm
18)	Phytane	26.932	142627715	32.764 µg/mLm
19)	C-19	28.357	65109806	14.263 µg/mLm
20)	C-20	29.878	26782909	6.108 µg/mLm
21)	C-21	31.352	24780801	5.631 µg/mL
22)	C-22	32.728	22205381	4.967 µg/mLm
23)	C-23	34.084	198223104	43.879 µg/mLm
24)	C-24	35.398	29317052	6.530 µg/mLm
26)	C-26	37.825	10475811	2.259 µg/mLm
29)	C-29	41.211	28410250	6.128 µg/mLm
41) H	TPH (C8-C40)	30.469	47474652894	10771.877 µg/mLm

SemiQuant Compounds - Not Calibrated on this Instrument

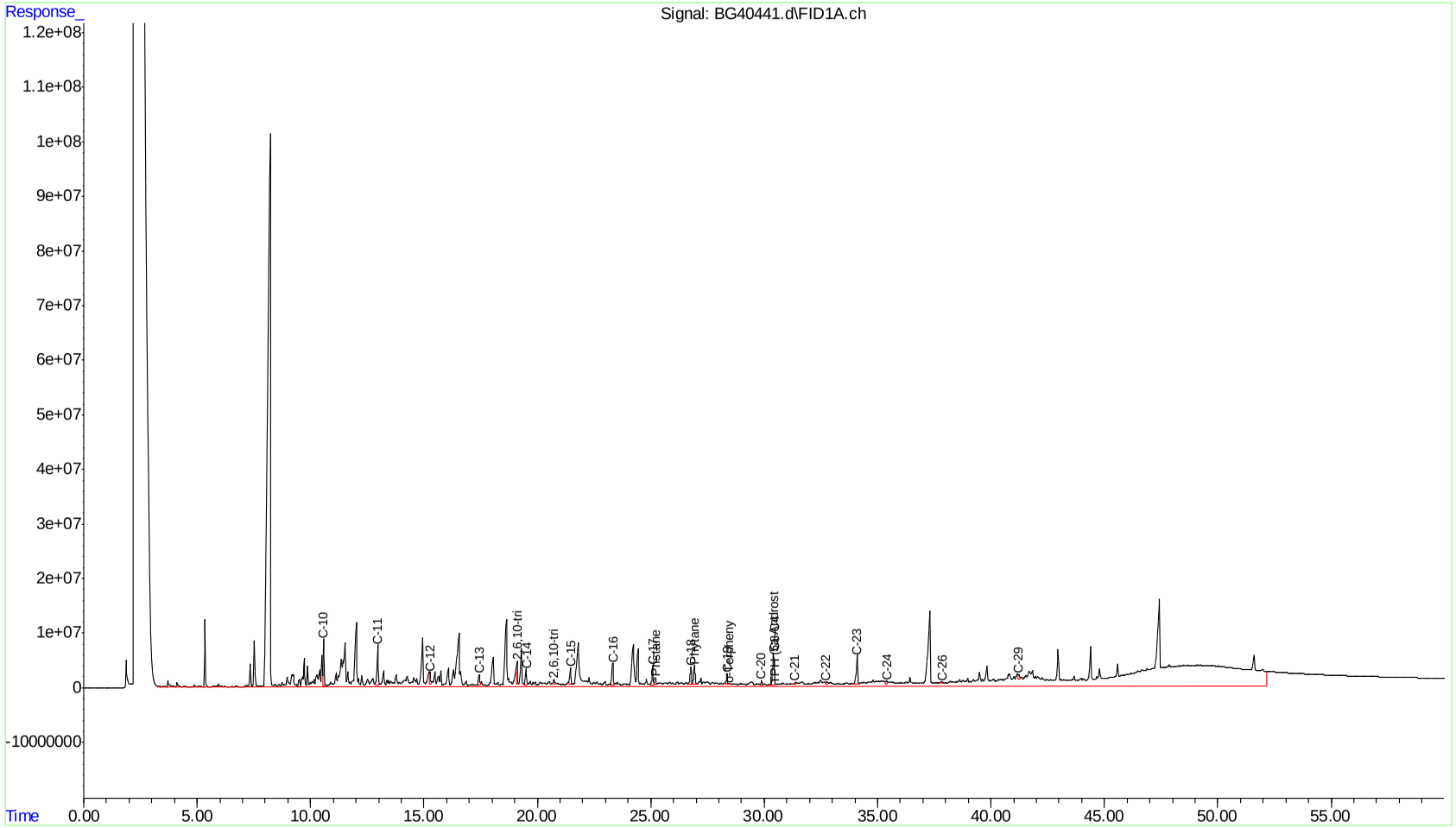
(f)=RT Delta > 1/2 Window (m)=manual int.

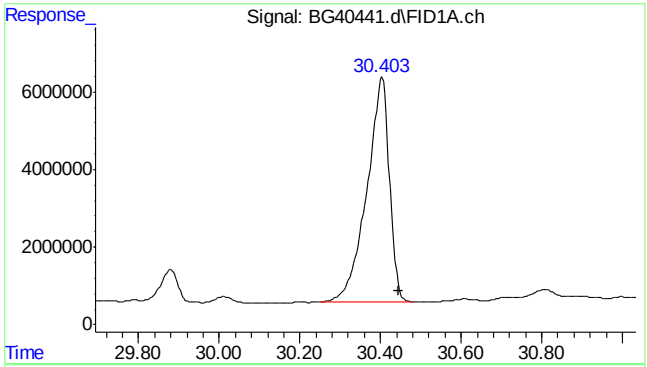
9.1.5
9

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\BG130625\
Data File : BG40441.d
Signal(s) : FID1A.ch
Acq On : 25 Jun 2013 11:34 pm
Operator : danielb
Sample : mc21754-5a
Misc : op33685,gbg1529,5.47,,,2,10
ALS Vial : 11 Sample Multiplier: 1

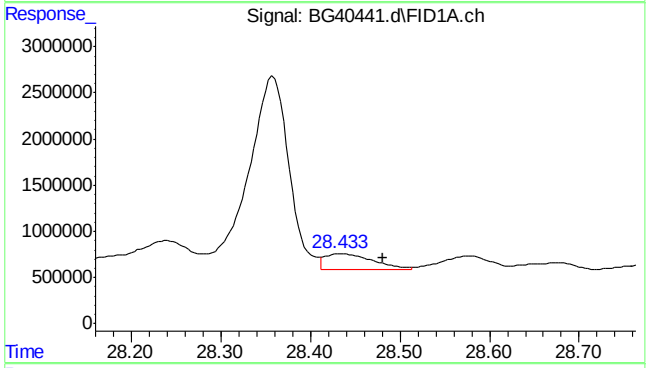
Quant Time: Jul 23 11:51:12 2013
Quant Method : G:\1\METHODS\BG120629ALK.m
Quant Title : n-C8 - n-C40 normal alkanes w/ isoprenoids





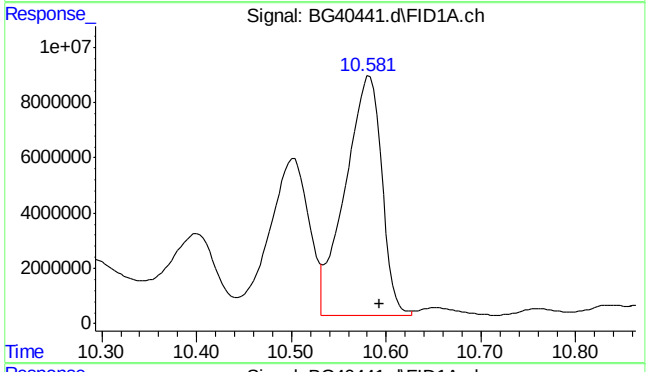
#1 5a-Androstane

R.T.: 30.403 min
Delta R.T.: -0.041 min
Response: 225864048
Conc: 50.00 µg/mL m



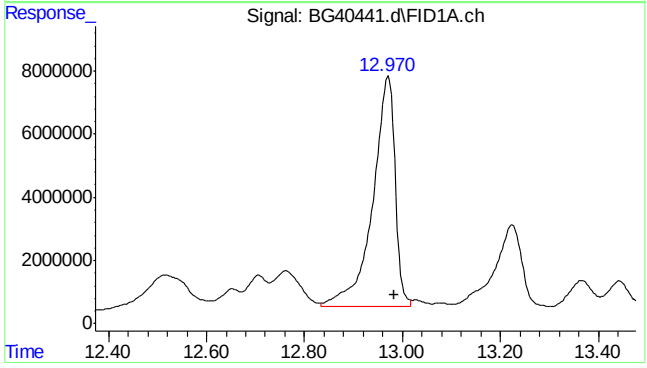
#2 o-Terphenyl

R.T.: 28.433 min
Delta R.T.: -0.047 min
Response: 6250303
Conc: 1.43 µg/mL m



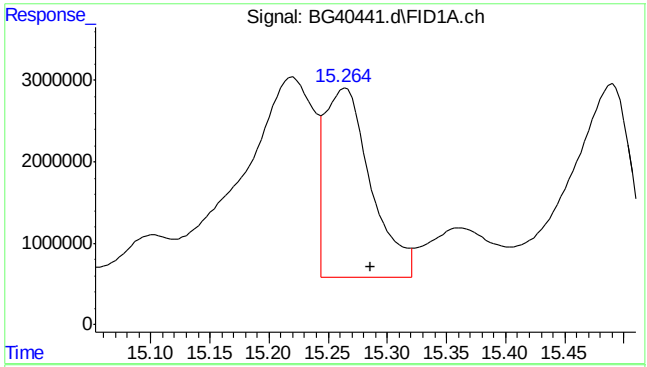
#5 C-10

R.T.: 10.581 min
Delta R.T.: -0.012 min
Response: 231568538
Conc: 57.00 µg/mL m



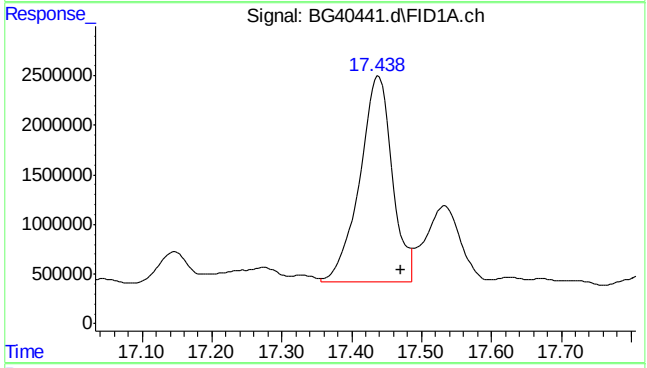
#6 C-11

R.T.: 12.970 min
Delta R.T.: -0.014 min
Response: 229401417
Conc: 57.57 µg/mL m



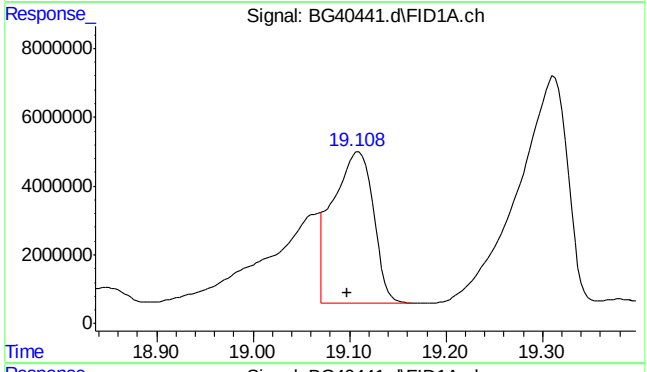
#7 C-12

R.T.: 15.264 min
Delta R.T.: -0.022 min
Response: 63298283
Conc: 15.62 µg/mL m



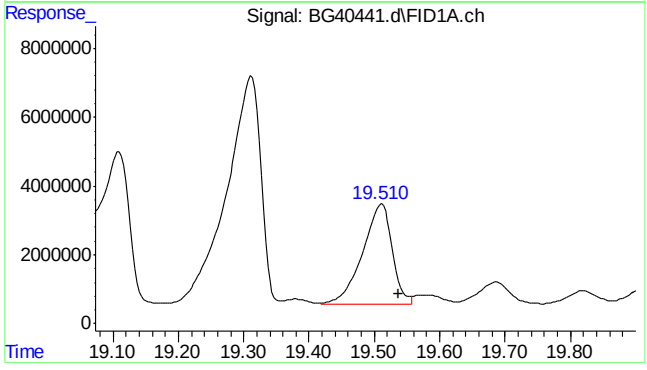
#8 C-13

R.T.: 17.438 min
Delta R.T.: -0.033 min
Response: 66507704
Conc: 16.25 µg/mL m



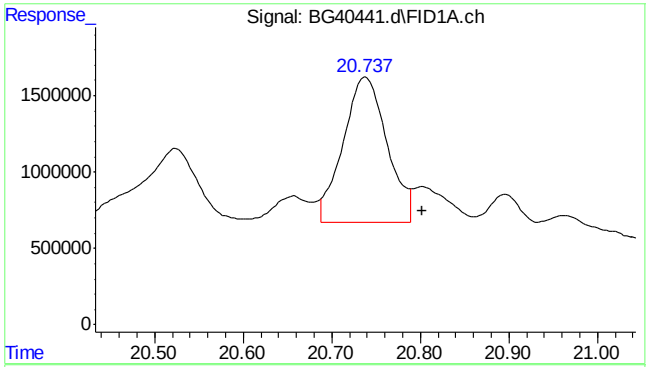
#9 2,6,10-trimethyldodecane (1380)

R.T.: 19.108 min
Delta R.T.: 0.010 min
Response: 130364126
Conc: 31.51 µg/mL m



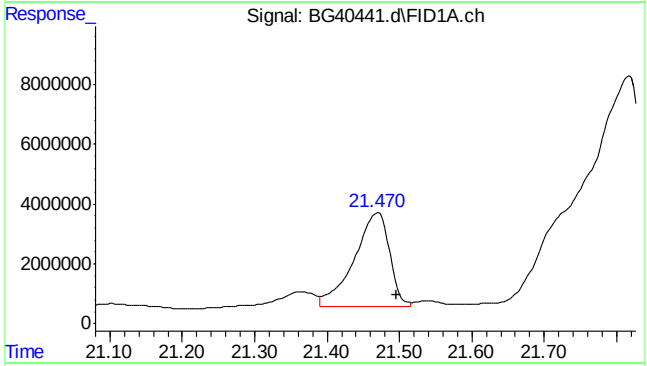
#10 C-14

R.T.: 19.510 min
Delta R.T.: -0.027 min
Response: 93140537
Conc: 22.28 µg/mL m



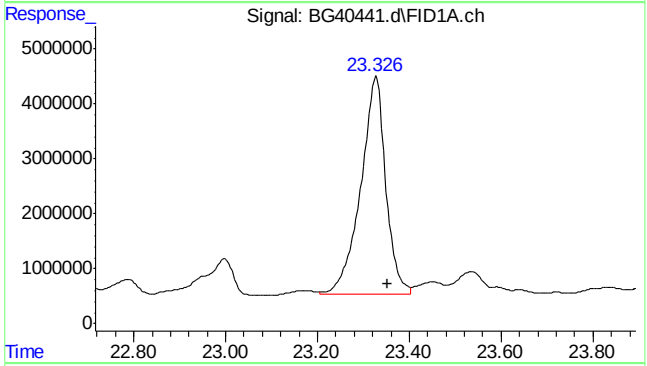
#11 2,6,10-trimethyltridecane (1470)

R.T.: 20.737 min
Delta R.T.: -0.065 min
Response: 32525832
Conc: 7.73 µg/mL m



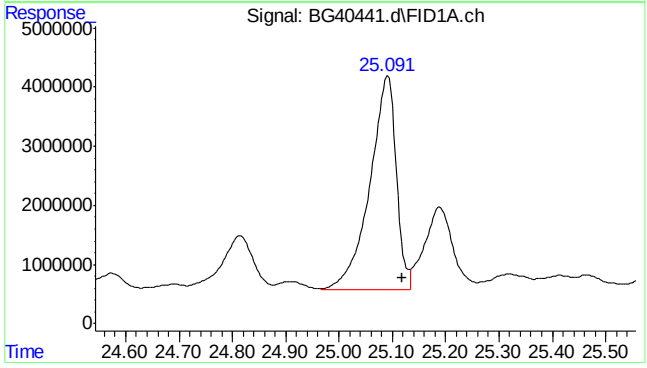
#12 C-15

R.T.: 21.470 min
Delta R.T.: -0.025 min
Response: 106277036
Conc: 25.07 µg/mL m



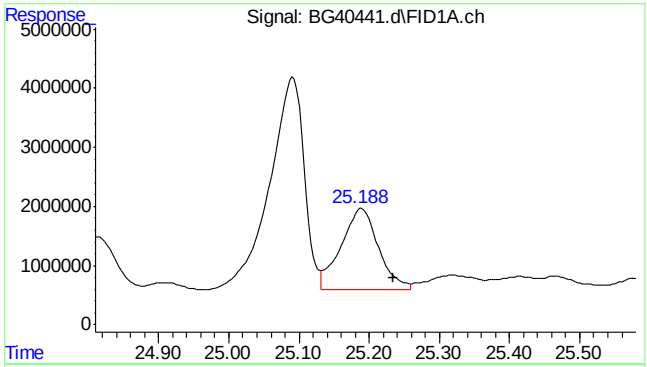
#13 C-16

R.T.: 23.326 min
Delta R.T.: -0.025 min
Response: 150933232
Conc: 35.58 µg/mL m



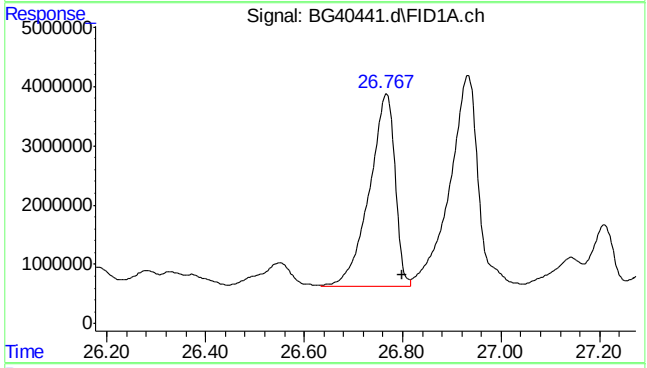
#15 C-17

R.T.: 25.091 min
Delta R.T.: -0.028 min
Response: 125278629
Conc: 28.34 µg/mL m



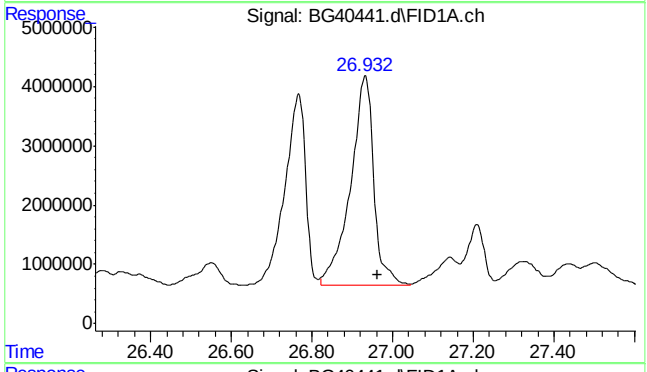
#16 Pristane

R.T.: 25.188 min
Delta R.T.: -0.047 min
Response: 50941683
Conc: 12.06 µg/mL m



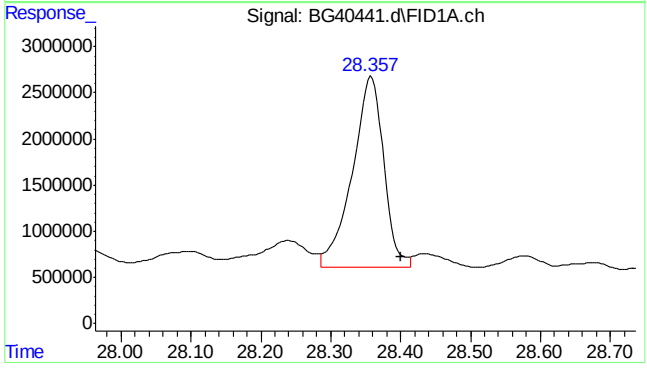
#17 C-18

R.T.: 26.767 min
Delta R.T.: -0.031 min
Response: 116342574
Conc: 26.62 µg/mL m



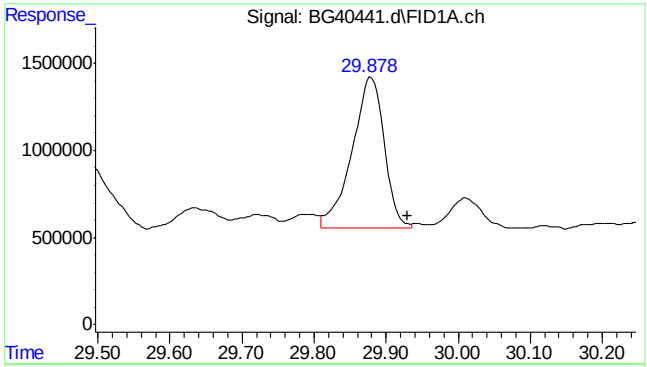
#18 Phytane

R.T.: 26.932 min
Delta R.T.: -0.030 min
Response: 142627715
Conc: 32.76 µg/mL m



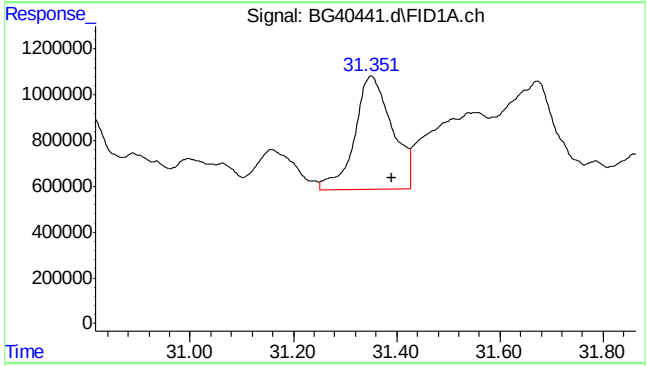
#19 C-19

R.T.: 28.357 min
Delta R.T.: -0.043 min
Response: 65109806
Conc: 14.26 µg/mL m



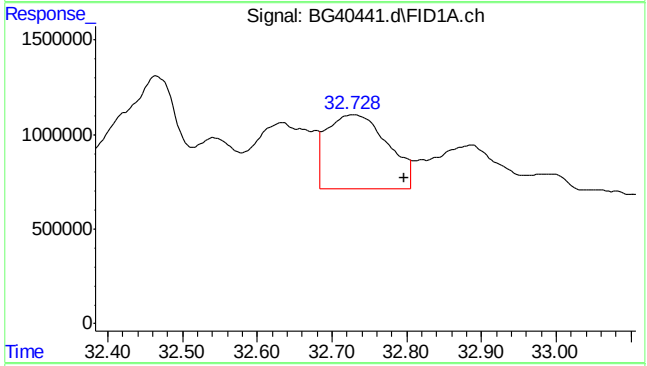
#20 C-20

R.T.: 29.878 min
Delta R.T.: -0.052 min
Response: 26782909
Conc: 6.11 µg/mL m



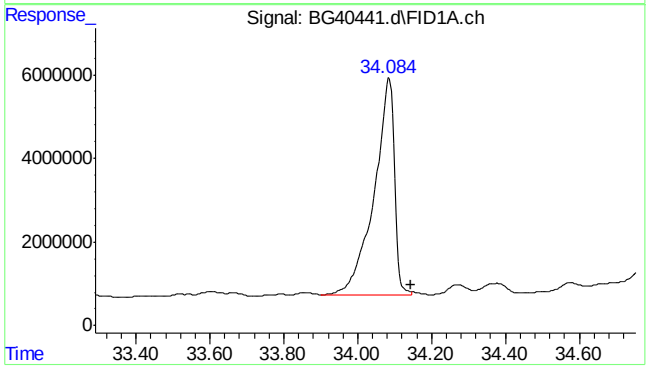
#21 C-21

R.T.: 31.352 min
Delta R.T.: -0.040 min
Response: 24780801
Conc: 5.63 µg/mL



#22 C-22

R.T.: 32.728 min
Delta R.T.: -0.068 min
Response: 22205381
Conc: 4.97 µg/mL m

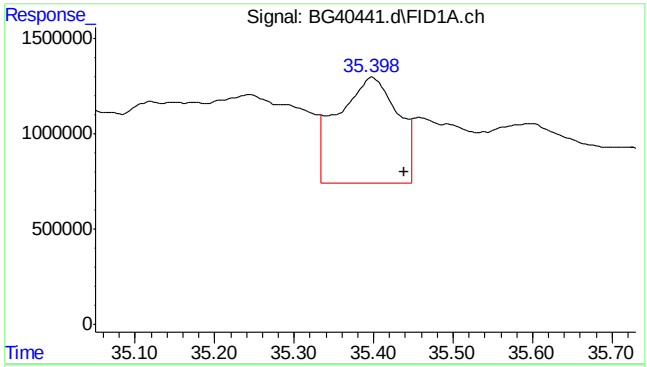


#23 C-23

R.T.: 34.084 min
Delta R.T.: -0.060 min
Response: 198223104
Conc: 43.88 µg/mL m

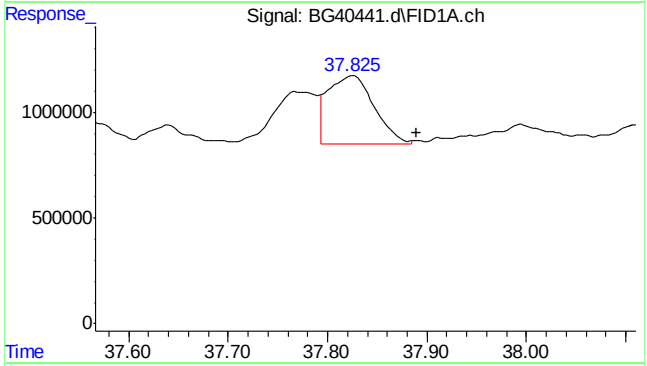
9.1.5

9



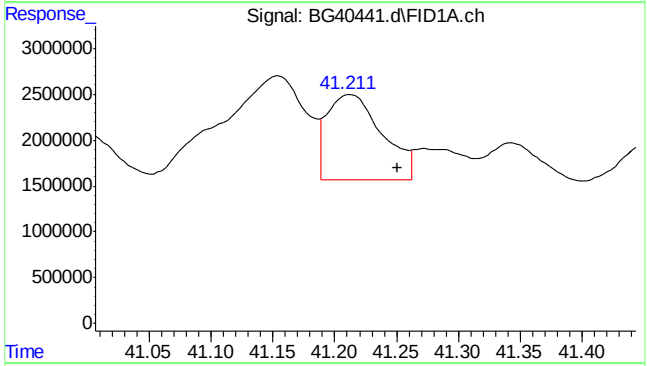
#24 C-24

R.T.: 35.398 min
Delta R.T.: -0.041 min
Response: 29317052
Conc: 6.53 µg/mL m



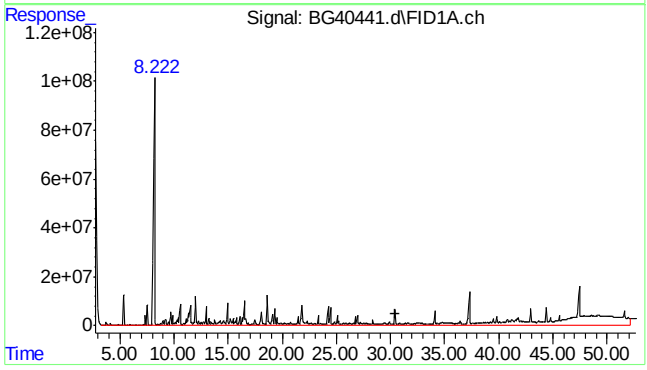
#26 C-26

R.T.: 37.825 min
Delta R.T.: -0.065 min
Response: 10475811
Conc: 2.26 µg/mL m



#29 C-29

R.T.: 41.211 min
Delta R.T.: -0.040 min
Response: 28410250
Conc: 6.13 µg/mL m



#41 TPH (C8-C40)

R.T.: 30.469 min
Delta R.T.: 0.000 min
Response: 47474652894
Conc: 10771.88 µg/mL m

9.1.5

9

Manual Integrations APPROVED (compounds with "m" flag)
James Roush
07/29/13 12:29

Quantitation Report (QT Reviewed)

Data Path : G:\1\DATA\BG130625\
Data File : BG40442.d
Signal(s) : FID1A.ch
Acq On : 26 Jun 2013 12:40 am
Operator : danielb
Sample : mc21754-6a
Misc : op33685,gbg1529,5.30,,,2,10
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Jul 29 12:02:41 2013
Quant Method : G:\1\METHODS\BG120629ALK.m
Quant Title : n-C8 - n-C40 normal alkanes w/ isoprenoids
Response via : Initial Calibration

	Compound	R.T.	Response	Conc	Units
Internal Standards					
1) I	5a-Androstane	30.392	157304242	50.000	µg/mLm
System Monitoring Compounds					
2) S	o-Terphenyl	28.423	3419202	1.125	µg/mLm
Target Compounds					
3)	C-8	5.936	5704303	2.295	µg/mLm
4)	C-9	8.161	21347489	8.049	µg/mLm
5)	C-10	10.546	66109605	23.364	µg/mLm
6)	C-11	12.934	99399981	35.816	µg/mLm
7)	C-12	15.238	20603149	7.300	µg/mLm
8)	C-13	17.415	30714009	10.776	µg/mLm
9)	2,6,10-trimethyldodec...	19.056	36279003	12.593	µg/mLm
10)	C-14	19.486	52082924	17.887	µg/mLm
11)	2,6,10-trimethyltride...	20.737	34353925	11.718	µg/mLm
12)	C-15	21.442	59700737	20.225	µg/mLm
13)	C-16	23.307	122977281	41.630	µg/mLm
14)	2,6,10-trimethylpenta...	24.228	384734786	127.541	µg/mLm
15)	C-17	25.062	54932026	17.840	µg/mLm
16)	Pristane	25.166	24784348	8.427	µg/mLm
17)	C-18	26.740	52806389	17.351	µg/mLm
18)	Phytane	26.909	109128209	35.995	µg/mLm
19)	C-19	28.336	25865232	8.135	µg/mLm
20)	C-20	29.858	10371301	3.396	µg/mLm
21)	C-21	31.325	5196706	1.696	µg/mLm
22)	C-22	32.718	2201143	0.707	µg/mLm
23)	C-23	34.099	3058170	0.972	µg/mLm
24)	C-24	35.379	10208258	3.265	µg/mLm
41) H	TPH (C8-C40)	30.469	18614570137	6064.420	µg/mLm

SemiQuant Compounds - Not Calibrated on this Instrument

(f)=RT Delta > 1/2 Window (m)=manual int.

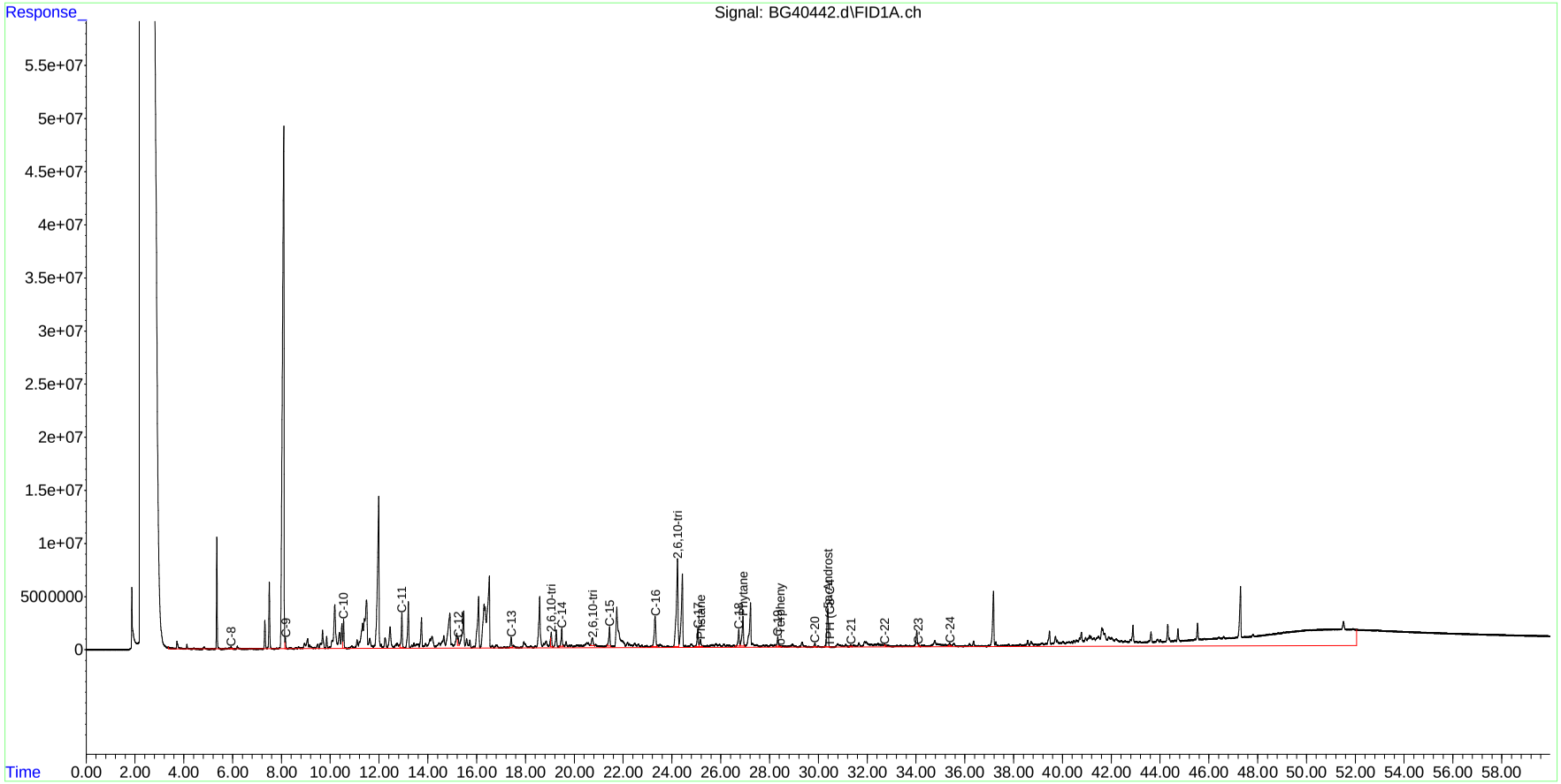
9.1.6

9

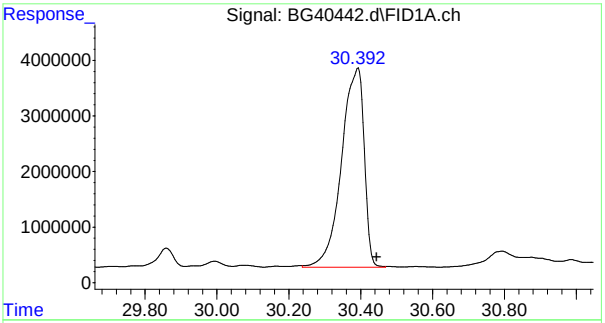
Quantitation Report (QT Reviewed)

Data Path : G:\1\DATA\BG130625\
Data File : BG40442.d
Signal(s) : FID1A.ch
Acq On : 26 Jun 2013 12:40 am
Operator : danielb
Sample : mc21754-6a
Misc : op33685,gbg1529,5.30,,,2,10
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Jul 29 12:02:41 2013
Quant Method : G:\1\METHODS\BG120629ALK.m
Quant Title : n-C8 - n-C40 normal alkanes w/ isoprenoids
Response via : Initial Calibration

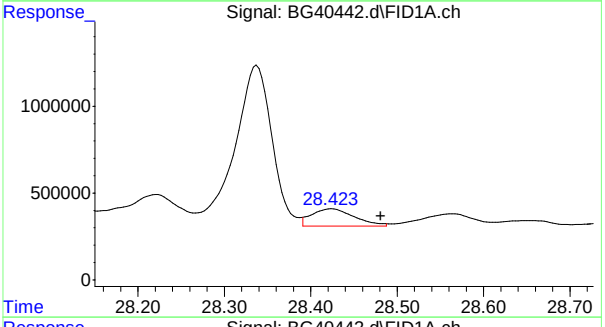


G120629ALK.m Mon Jul 29 12:02:44 2013 Page: 2



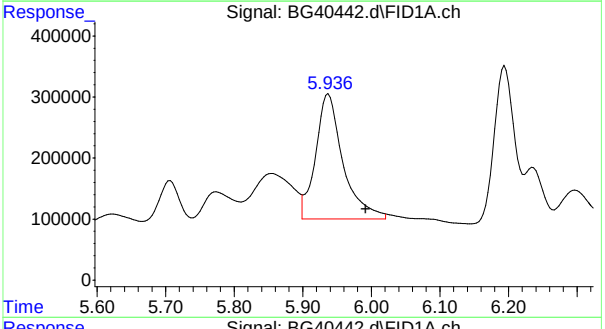
#1 5a-Androstane

R.T.: 30.392 min
Delta R.T.: -0.052 min
Response: 157304242
Conc: 50.00 µg/mL m



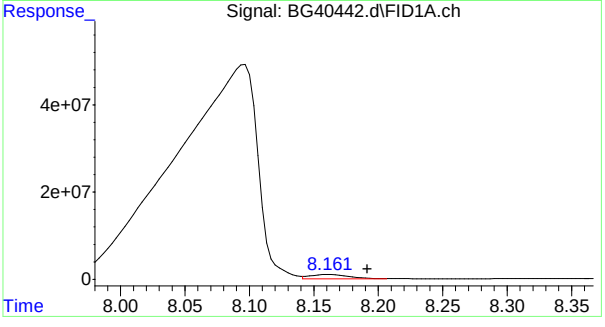
#2 o-Terphenyl

R.T.: 28.423 min
Delta R.T.: -0.058 min
Response: 3419202
Conc: 1.13 µg/mL m



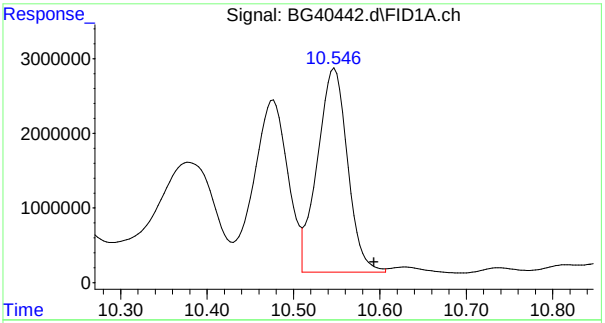
#3 C-8

R.T.: 5.936 min
Delta R.T.: -0.055 min
Response: 5704303
Conc: 2.30 µg/mL m



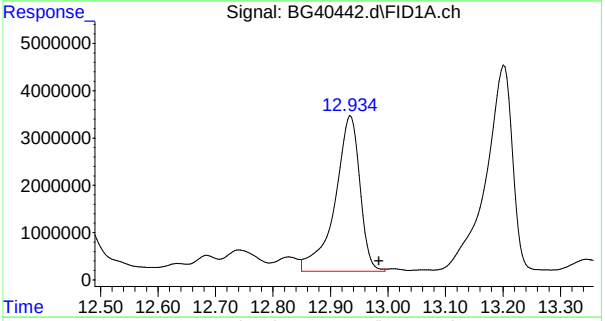
#4 C-9

R.T.: 8.161 min
Delta R.T.: -0.031 min
Response: 21347489
Conc: 8.05 µg/mL m



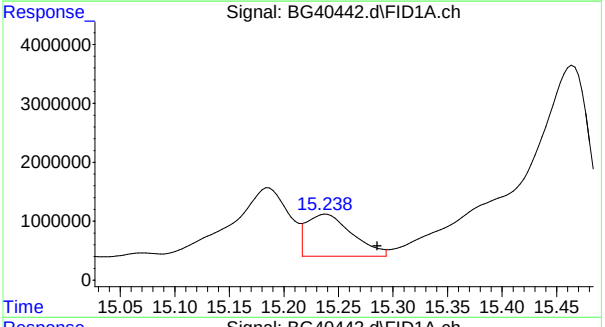
#5 C-10

R.T.: 10.546 min
Delta R.T.: -0.047 min
Response: 66109605
Conc: 23.36 µg/mL m



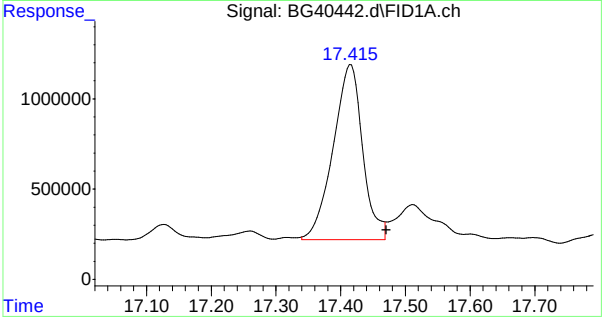
#6 C-11

R.T.: 12.934 min
Delta R.T.: -0.050 min
Response: 99399981
Conc: 35.82 µg/mL m



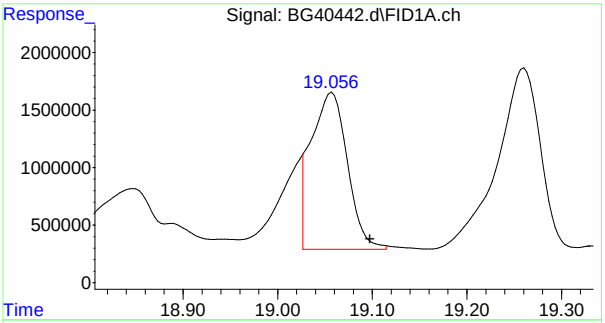
#7 C-12

R.T.: 15.238 min
Delta R.T.: -0.048 min
Response: 20603149
Conc: 7.30 µg/mL m



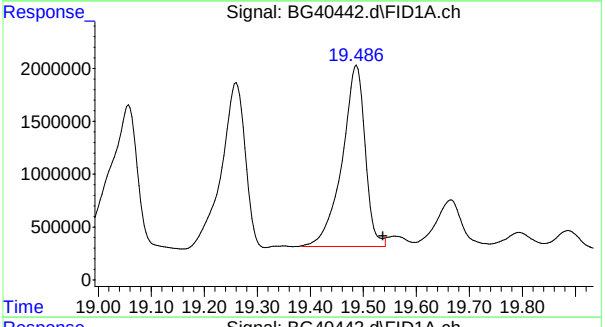
#8 C-13

R.T.: 17.415 min
Delta R.T.: -0.056 min
Response: 30714009
Conc: 10.78 µg/mL m



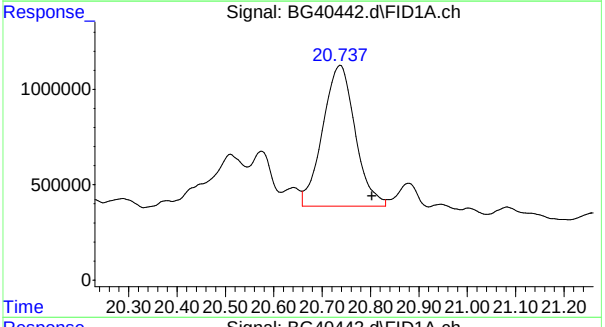
#9 2,6,10-trimethyldodecane (1380)

R.T.: 19.056 min
Delta R.T.: -0.041 min
Response: 36279003
Conc: 12.59 µg/mL m



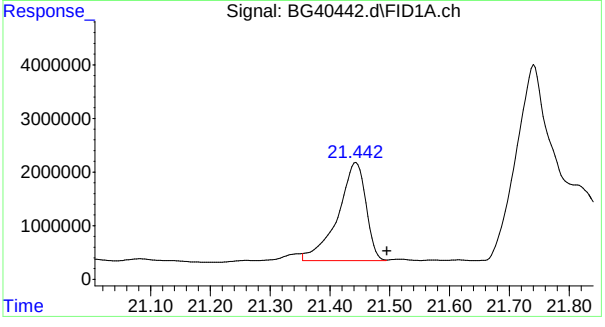
#10 C-14

R.T.: 19.486 min
Delta R.T.: -0.051 min
Response: 52082924
Conc: 17.89 µg/mL m



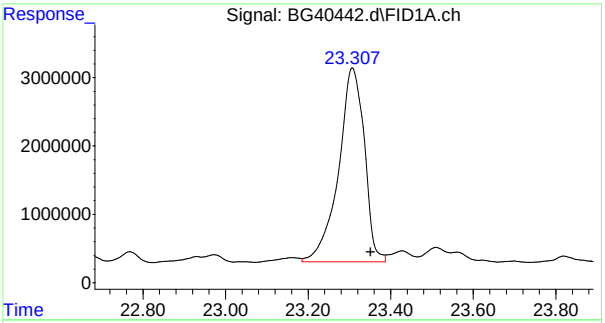
#11 2,6,10-trimethyltridecane (1470)

R.T.: 20.737 min
Delta R.T.: -0.066 min
Response: 34353925
Conc: 11.72 µg/mL m



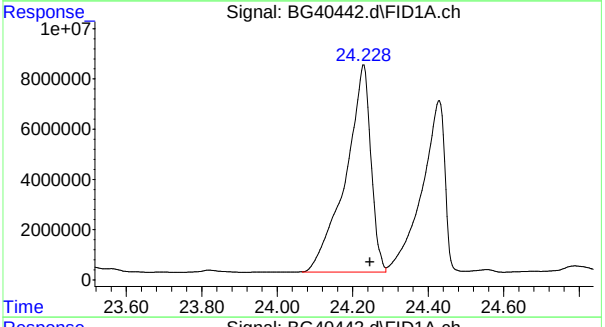
#12 C-15

R.T.: 21.442 min
Delta R.T.: -0.053 min
Response: 59700737
Conc: 20.22 µg/mL m



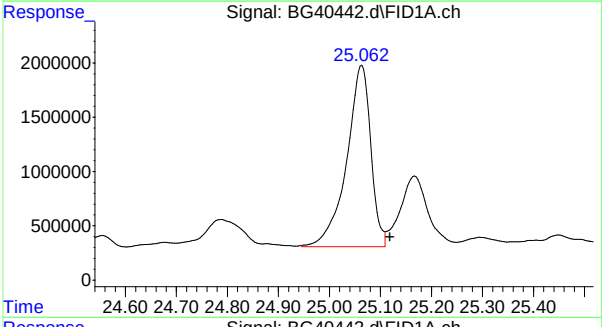
#13 C-16

R.T.: 23.307 min
Delta R.T.: -0.045 min
Response: 122977281
Conc: 41.63 µg/mL m



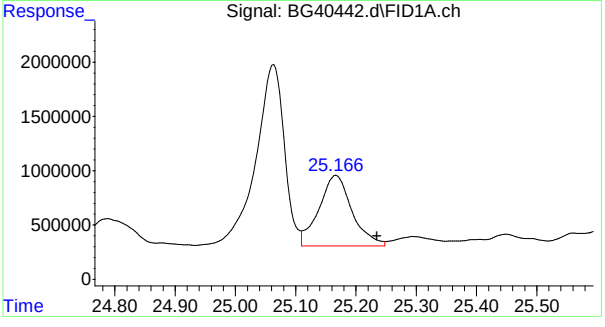
#14 2,6,10-trimethylpentadecane (1650)

R.T.: 24.228 min
Delta R.T.: -0.017 min
Response: 384734786
Conc: 127.54 µg/mL m



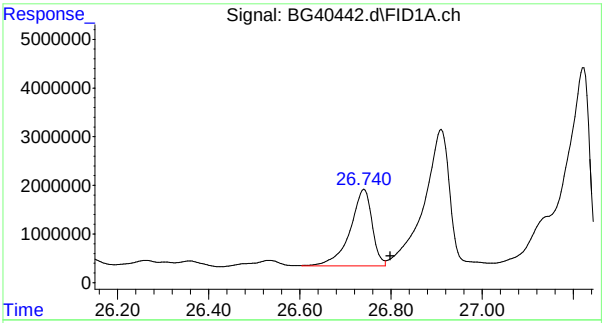
#15 C-17

R.T.: 25.062 min
Delta R.T.: -0.056 min
Response: 54932026
Conc: 17.84 µg/mL m



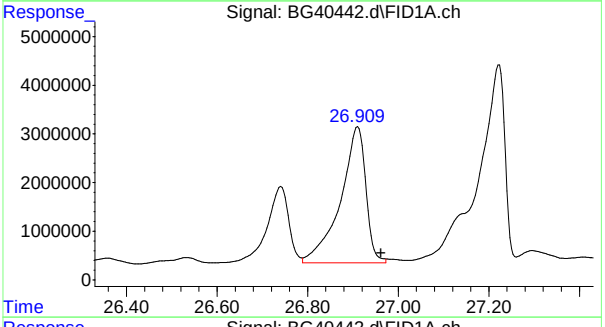
#16 Pristane

R.T.: 25.166 min
Delta R.T.: -0.068 min
Response: 24784348
Conc: 8.43 µg/mL m



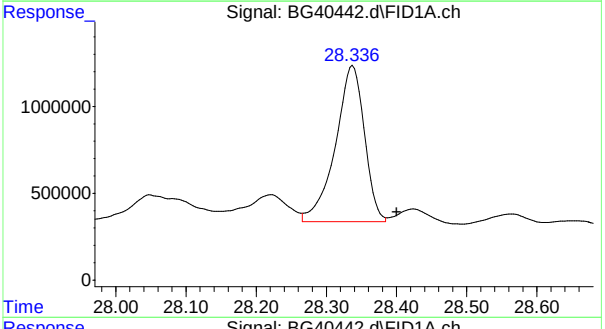
#17 C-18

R.T.: 26.740 min
Delta R.T.: -0.058 min
Response: 52806389
Conc: 17.35 µg/mL m



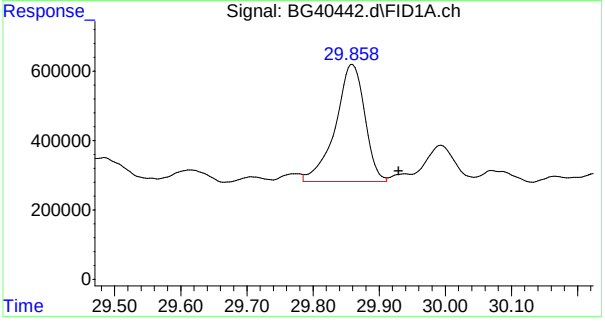
#18 Phytane

R.T.: 26.909 min
Delta R.T.: -0.052 min
Response: 109128209
Conc: 35.99 µg/mL m



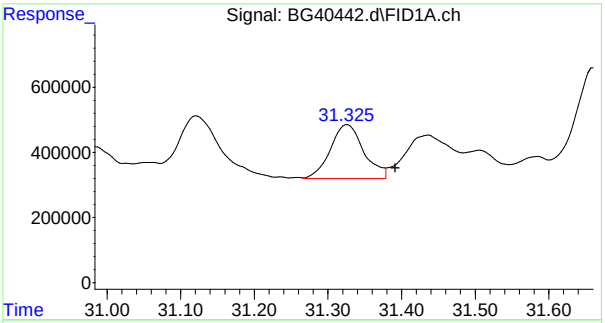
#19 C-19

R.T.: 28.336 min
Delta R.T.: -0.064 min
Response: 25865232
Conc: 8.14 µg/mL m



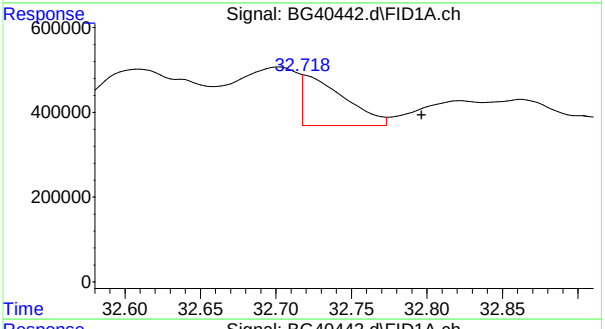
#20 C-20

R.T.: 29.858 min
Delta R.T.: -0.071 min
Response: 10371301
Conc: 3.40 µg/mL m



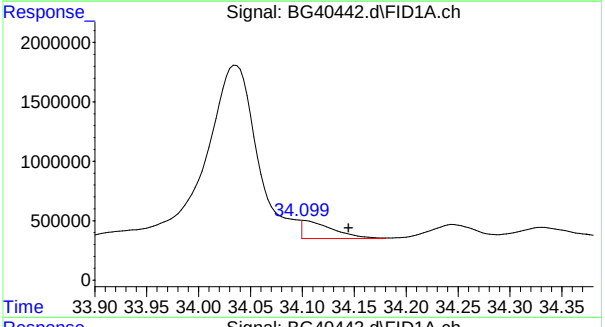
#21 C-21

R.T.: 31.325 min
Delta R.T.: -0.066 min
Response: 5196706
Conc: 1.70 µg/mL m



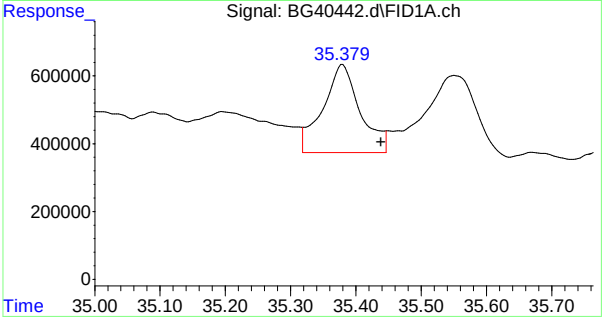
#22 C-22

R.T.: 32.718 min
Delta R.T.: -0.079 min
Response: 2201143
Conc: 0.71 µg/mL m



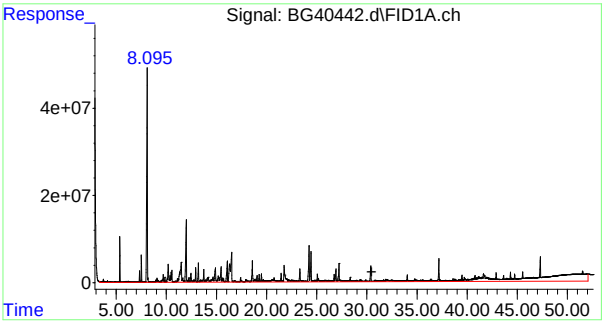
#23 C-23

R.T.: 34.099 min
Delta R.T.: -0.045 min
Response: 3058170
Conc: 0.97 µg/mL m



#24 C-24

R.T.: 35.379 min
Delta R.T.: -0.060 min
Response: 10208258
Conc: 3.26 µg/mL m



#41 TPH (C8-C40)

R.T.: 30.469 min
Delta R.T.: 0.000 min
Response: 18614570137
Conc: 6064.42 µg/mL m

Manual Integrations APPROVED (compounds with "m" flag)
James Roush
07/29/13 12:29

Quantitation Report (QT Reviewed)

Data Path : G:\1\DATA\BG130625\
Data File : BG40443.d
Signal(s) : FID1A.ch
Acq On : 26 Jun 2013 1:46 am
Operator : danielb
Sample : mc21754-7a
Misc : op33685,gbg1529,5.20,,,2,10
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Jul 29 12:02:55 2013
Quant Method : G:\1\METHODS\BG120629ALK.m
Quant Title : n-C8 - n-C40 normal alkanes w/ isoprenoids
Response via : Initial Calibration

	Compound	R.T.	Response	Conc	Units
	Internal Standards				
1) I	5a-Androstane	30.374	177156932	50.000	µg/mLm
	System Monitoring Compounds				
2) S	o-Terphenyl	28.420	4465518	1.305	µg/mLm
	Target Compounds				
3)	C-8	5.933	7621652	2.723	µg/mLm
4)	C-9	8.169	5670519038	1898.492	µg/mLm
5)	C-10	10.560	182162198	57.163	µg/mLm
6)	C-11	12.949	171800810	54.967	µg/mLm
7)	C-12	15.243	49484156	15.568	µg/mLm
8)	C-13	17.417	53492178	16.664	µg/mLm
9)	2,6,10-trimethyldodec...	19.092	139328159	42.942	µg/mLm
10)	C-14	19.487	71252217	21.729	µg/mLm
11)	2,6,10-trimethyltride...	20.717	26226587	7.943	µg/mLm
12)	C-15	21.444	83773404	25.199	µg/mLm
13)	C-16	23.300	111562977	33.534	µg/mLm
14)	2,6,10-trimethylpenta...	24.202	346073507	101.869	µg/mLm
15)	C-17	25.064	93314892	26.910	µg/mLm
16)	Pristane	25.166	40819651	12.325	µg/mLm
17)	C-18	26.739	88486422	25.817	µg/mLm
18)	Phytane	26.901	103376275	30.277	µg/mLm
19)	C-19	28.336	48714441	13.605	µg/mLm
20)	C-20	29.858	20445968	5.944	µg/mLm
21)	C-21	31.323	14764107	4.278	µg/mLm
24)	C-24	35.370	20999599	5.964	µg/mLm
41) H	TPH (C8-C40)	30.469	34757802046	10054.740	µg/mLm

SemiQuant Compounds - Not Calibrated on this Instrument

(f)=RT Delta > 1/2 Window (m)=manual int.

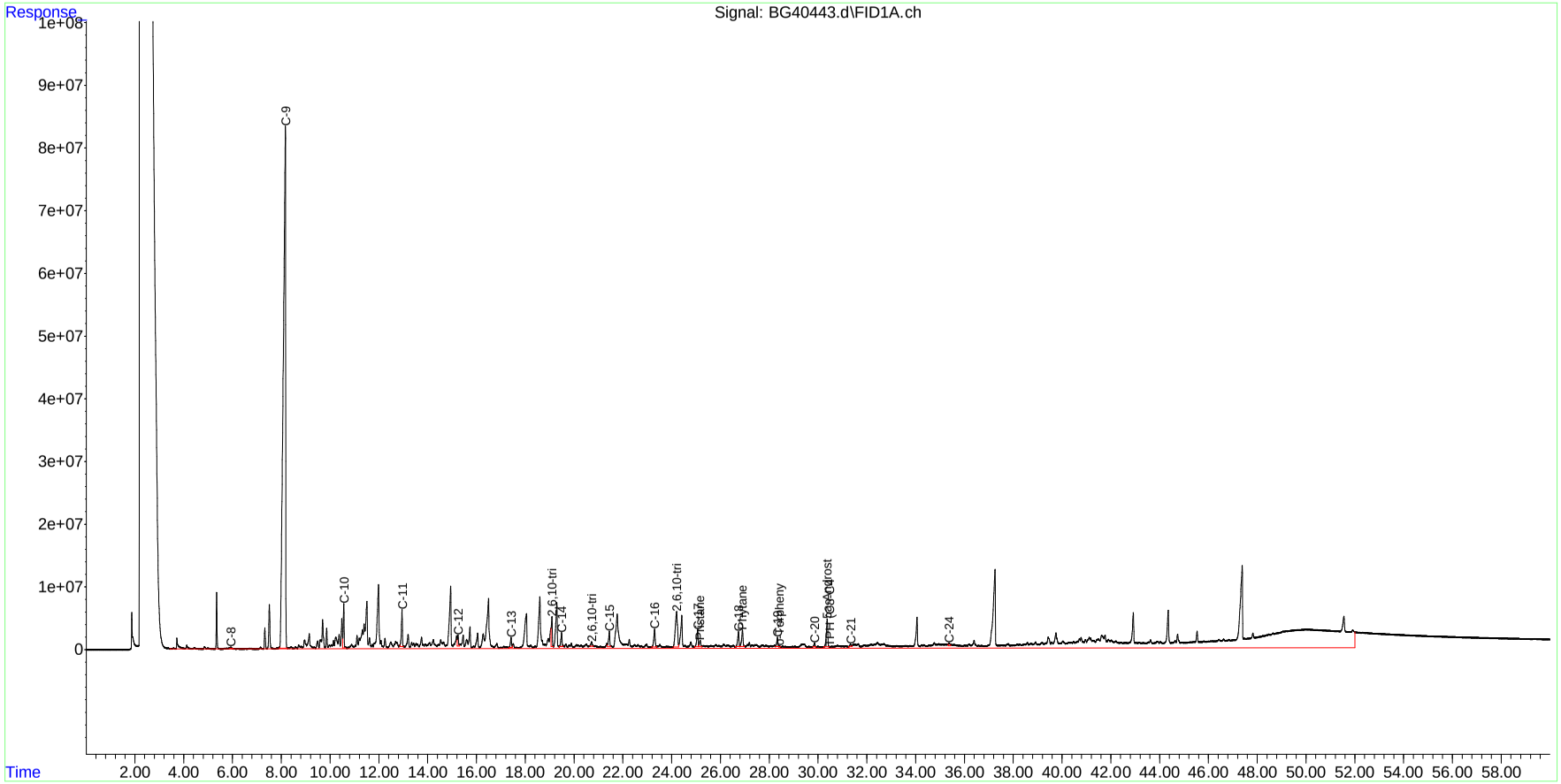
9.1.7

9

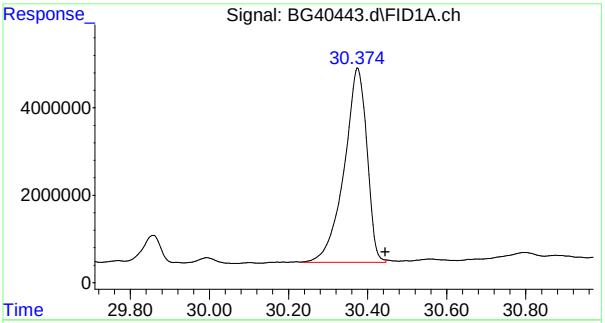
Quantitation Report (QT Reviewed)

Data Path : G:\1\DATA\BG130625\
Data File : BG40443.d
Signal(s) : FID1A.ch
Acq On : 26 Jun 2013 1:46 am
Operator : danielb
Sample : mc21754-7a
Misc : op33685,gbg1529,5.20,,,2,10
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Jul 29 12:02:55 2013
Quant Method : G:\1\METHODS\BG120629ALK.m
Quant Title : n-C8 - n-C40 normal alkanes w/ isoprenoids
Response via : Initial Calibration

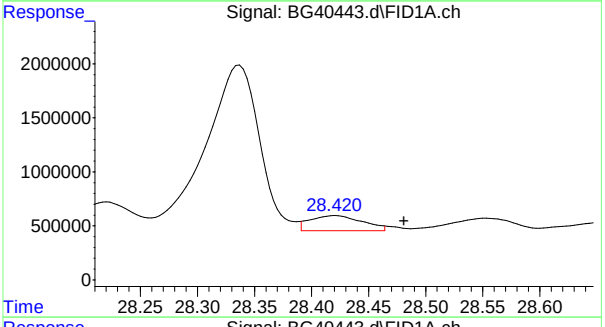


G120629ALK.m Mon Jul 29 12:02:59 2013 Page: 2



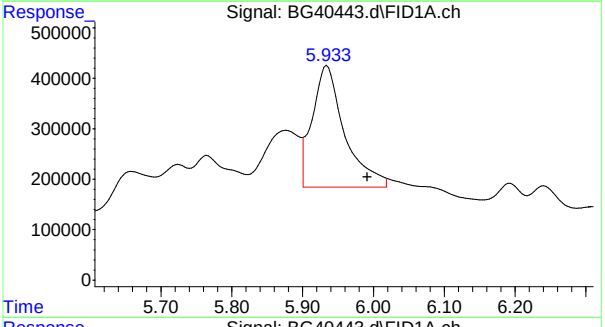
#1 5a-Androstane

R.T.: 30.374 min
Delta R.T.: -0.071 min
Response: 177156932
Conc: 50.00 µg/mL m



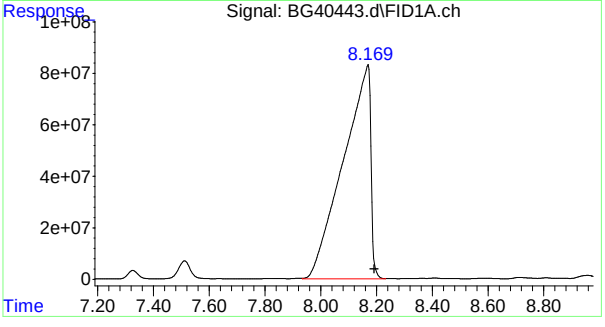
#2 o-Terphenyl

R.T.: 28.420 min
Delta R.T.: -0.061 min
Response: 4465518
Conc: 1.30 µg/mL m



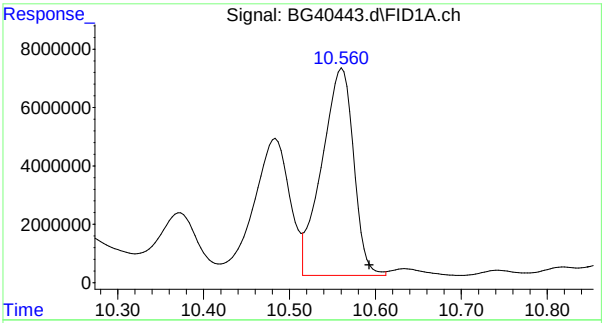
#3 C-8

R.T.: 5.933 min
Delta R.T.: -0.058 min
Response: 7621652
Conc: 2.72 µg/mL m



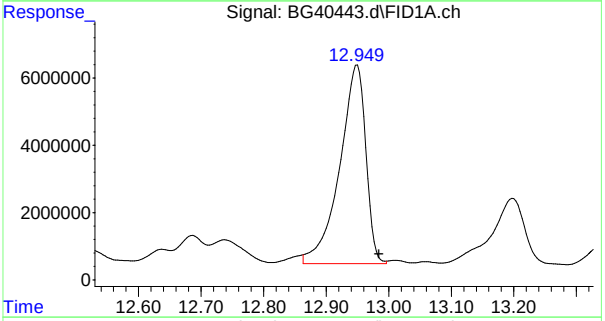
#4 C-9

R.T.: 8.169 min
Delta R.T.: -0.022 min
Response: 5670519038
Conc: 1898.49 µg/mL m



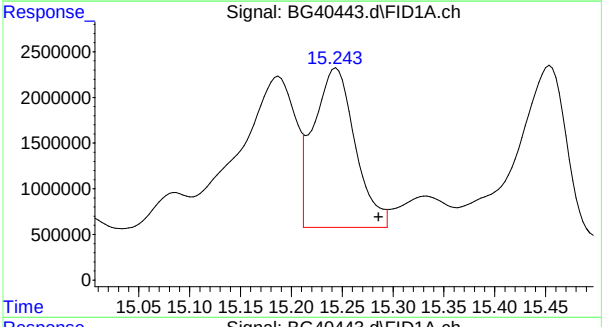
#5 C-10

R.T.: 10.560 min
Delta R.T.: -0.033 min
Response: 182162198
Conc: 57.16 µg/mL m



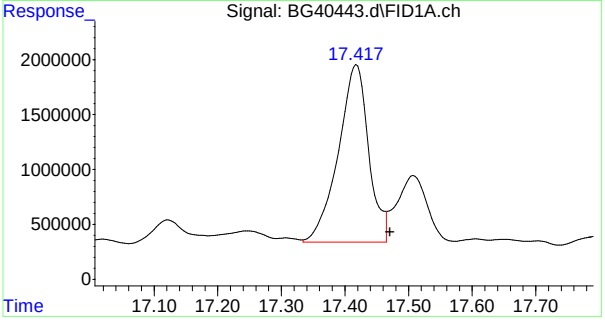
#6 C-11

R.T.: 12.949 min
Delta R.T.: -0.036 min
Response: 171800810
Conc: 54.97 µg/mL m



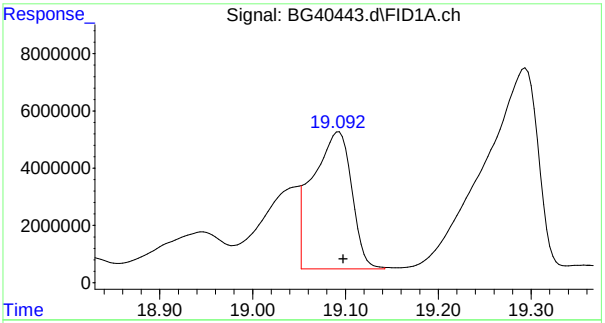
#7 C-12

R.T.: 15.243 min
Delta R.T.: -0.043 min
Response: 49484156
Conc: 15.57 µg/mL m



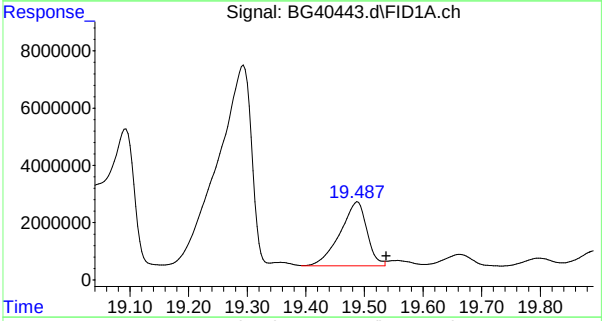
#8 C-13

R.T.: 17.417 min
Delta R.T.: -0.053 min
Response: 53492178
Conc: 16.66 µg/mL m



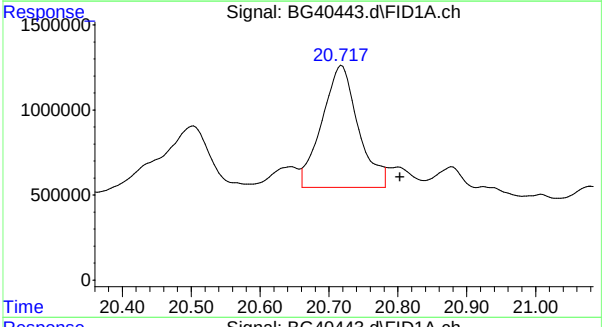
#9 2,6,10-trimethyldodecane (1380)

R.T.: 19.092 min
Delta R.T.: -0.006 min
Response: 139328159
Conc: 42.94 µg/mL m



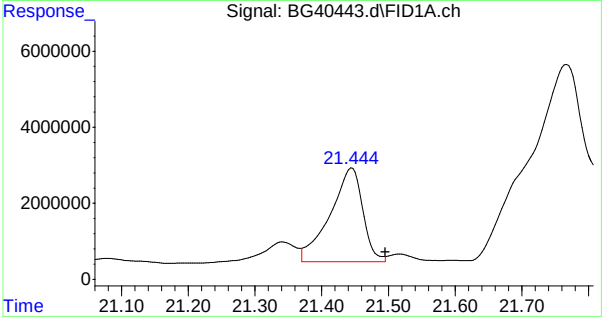
#10 C-14

R.T.: 19.487 min
Delta R.T.: -0.050 min
Response: 71252217
Conc: 21.73 µg/mL m



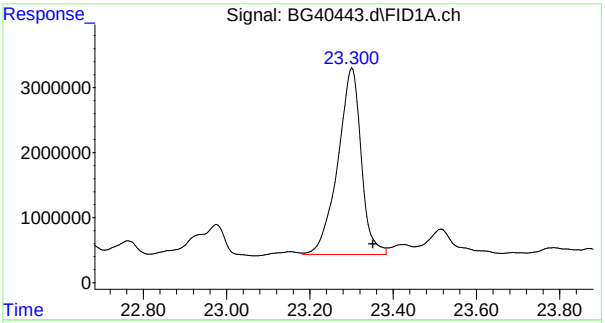
#11 2,6,10-trimethyltridecane (1470)

R.T.: 20.717 min
Delta R.T.: -0.086 min
Response: 26226587
Conc: 7.94 µg/mL m



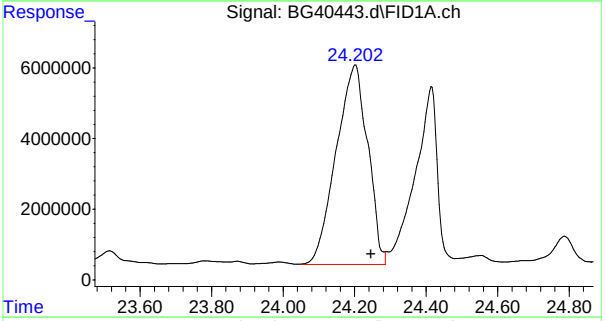
#12 C-15

R.T.: 21.444 min
Delta R.T.: -0.051 min
Response: 83773404
Conc: 25.20 µg/mL m



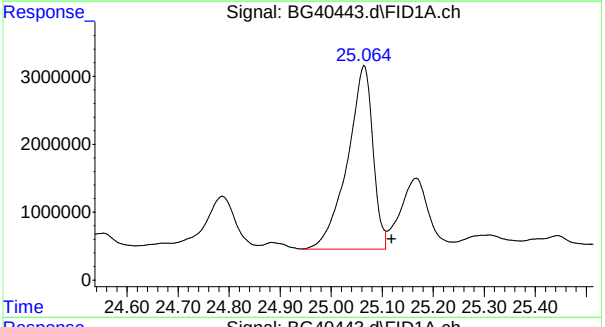
#13 C-16

R.T.: 23.300 min
Delta R.T.: -0.051 min
Response: 111562977
Conc: 33.53 µg/mL m



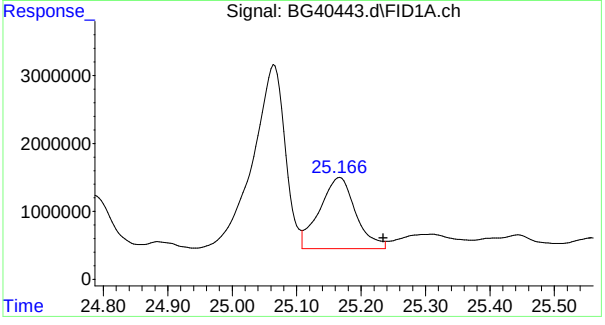
#14 2,6,10-trimethylpentadecane (1650)

R.T.: 24.202 min
Delta R.T.: -0.044 min
Response: 346073507
Conc: 101.87 µg/mL m



#15 C-17

R.T.: 25.064 min
Delta R.T.: -0.054 min
Response: 93314892
Conc: 26.91 µg/mL m

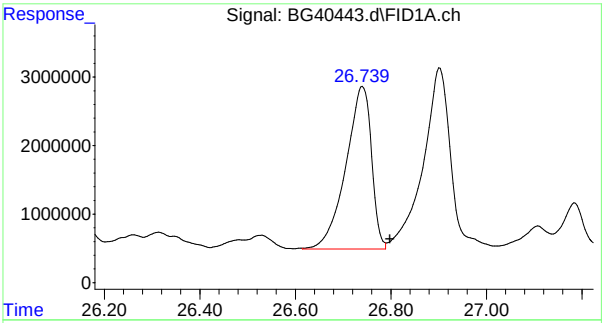


#16 Pristane

R.T.: 25.166 min
Delta R.T.: -0.068 min
Response: 40819651
Conc: 12.32 µg/mL m

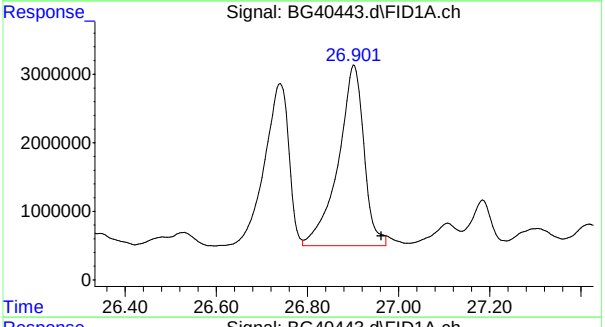
9.1.7

9



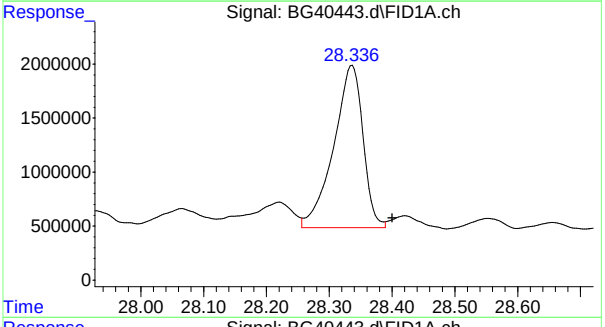
#17 C-18

R.T.: 26.739 min
Delta R.T.: -0.059 min
Response: 88486422
Conc: 25.82 µg/mL m



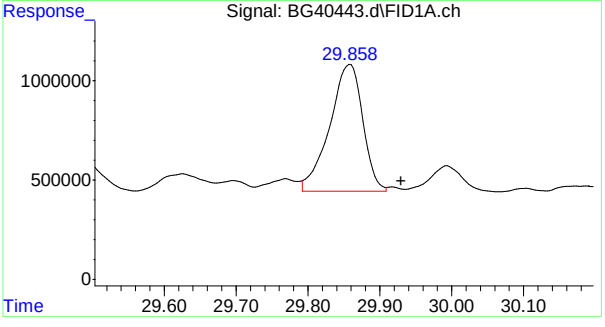
#18 Phytane

R.T.: 26.901 min
Delta R.T.: -0.061 min
Response: 103376275
Conc: 30.28 µg/mL m



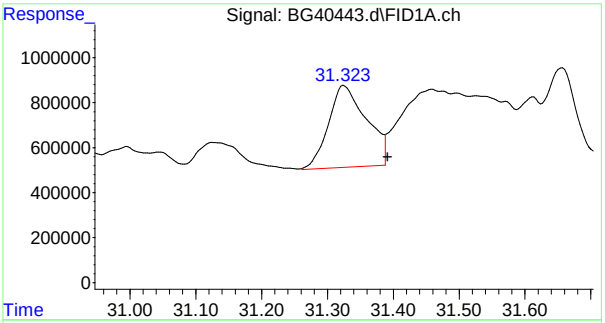
#19 C-19

R.T.: 28.336 min
Delta R.T.: -0.064 min
Response: 48714441
Conc: 13.61 µg/mL m



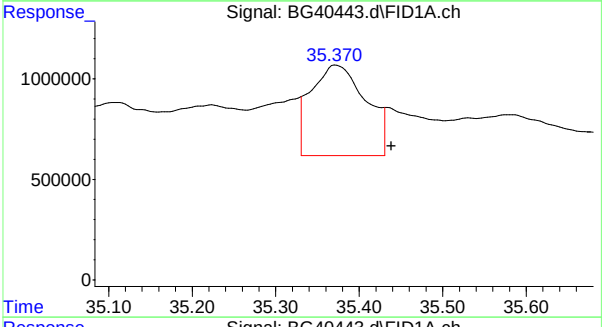
#20 C-20

R.T.: 29.858 min
Delta R.T.: -0.071 min
Response: 20445968
Conc: 5.94 µg/mL m



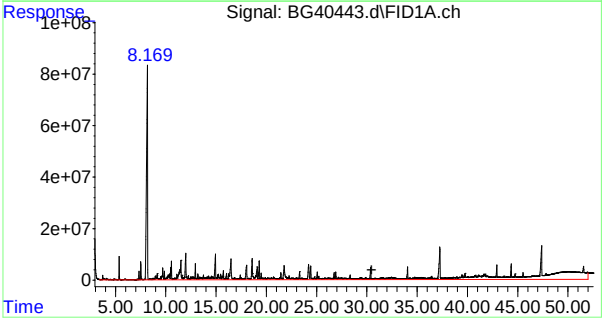
#21 C-21

R.T.: 31.323 min
Delta R.T.: -0.068 min
Response: 14764107
Conc: 4.28 µg/mL m



#24 C-24

R.T.: 35.370 min
Delta R.T.: -0.068 min
Response: 20999599
Conc: 5.96 µg/mL m



#41 TPH (C8-C40)

R.T.: 30.469 min
Delta R.T.: 0.000 min
Response: 34757802046
Conc: 10054.74 µg/mL m

9.1.7

9

Manual Integrations APPROVED (compounds with "m" flag)
James Roush
07/29/13 12:25

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\BG130625\
Data File : BG40434.d
Signal(s) : FID1A.ch
Acq On : 25 Jun 2013 3:50 pm
Operator : danielb
Sample : op33685-mb
Misc : op33685,gbg1529,5,,,2,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jul 23 12:44:34 2013
Quant Method : G:\1\METHODS\BG120629ALK.m
Quant Title : n-C8 - n-C40 normal alkanes w/ isoprenoids

	Compound	R.T.	Response	Conc Units
Internal Standards				
1) I	5a-Androstane	30.443	80090482	50.000 µg/mL
System Monitoring Compounds				
2) S	o-Terphenyl	28.473	37738874	24.391 µg/mL
Target Compounds				
3)	C-8	5.992	211536	0.167 µg/mLm
41) H	TPH (C8-C40)	30.469	16221659	10.380 µg/mLm
SemiQuant Compounds - Not Calibrated on this Instrument				

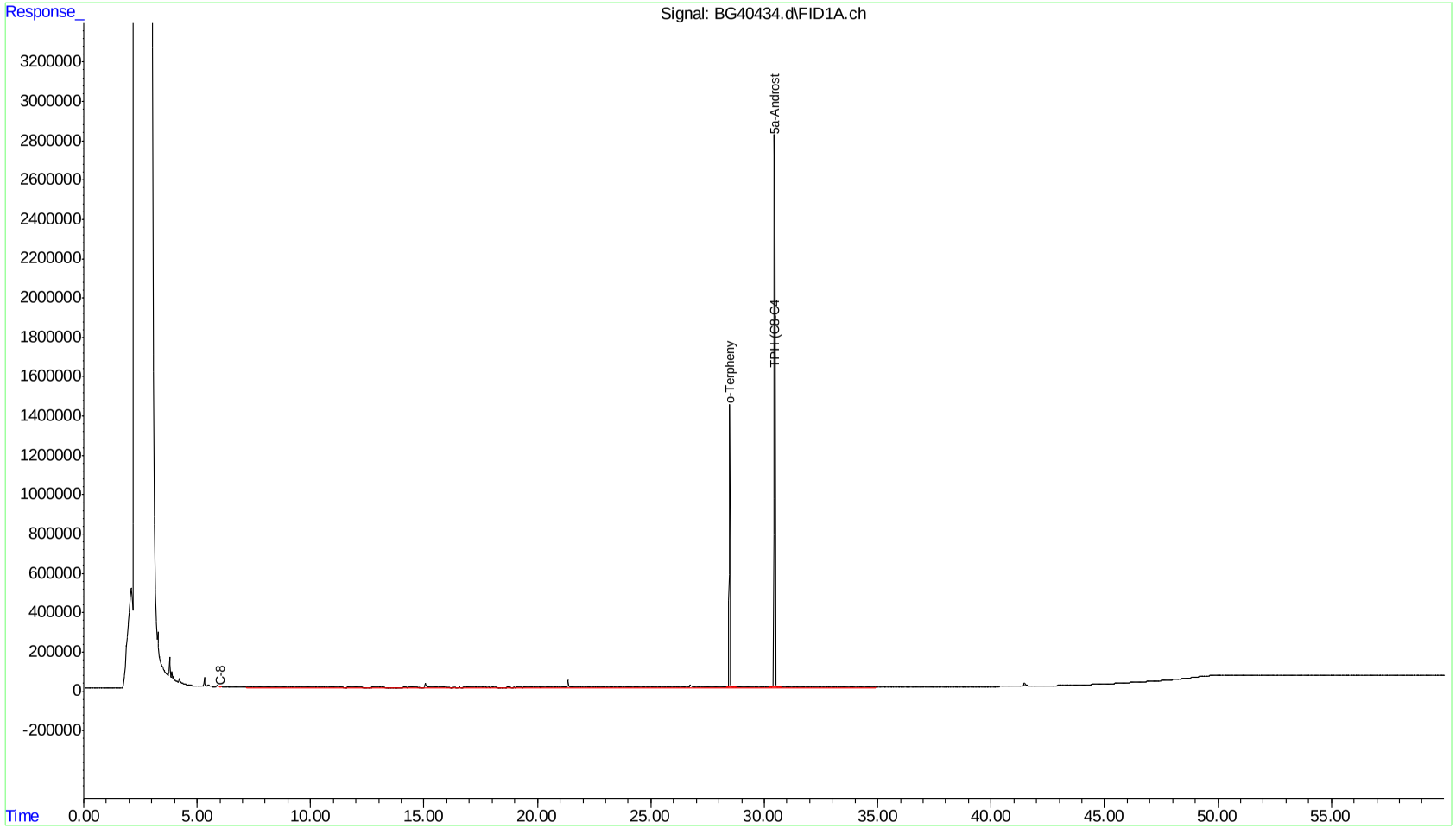
(f)=RT Delta > 1/2 Window (m)=manual int.

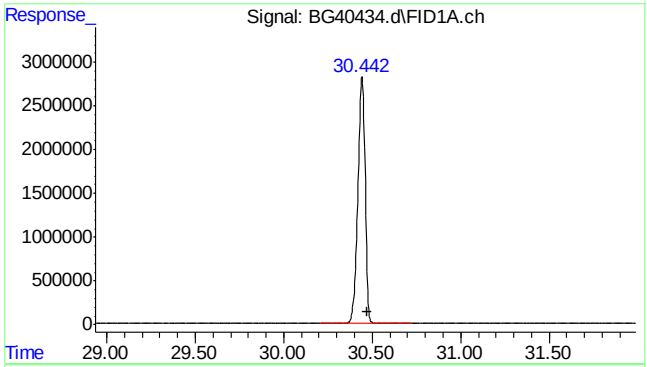
9.2.1
9

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\BG130625\
Data File : BG40434.d
Signal(s) : FID1A.ch
Acq On : 25 Jun 2013 3:50 pm
Operator : danielb
Sample : op33685-mb
Misc : op33685,gbg1529,5,,,2,1
ALS Vial : 4 Sample Multiplier: 1

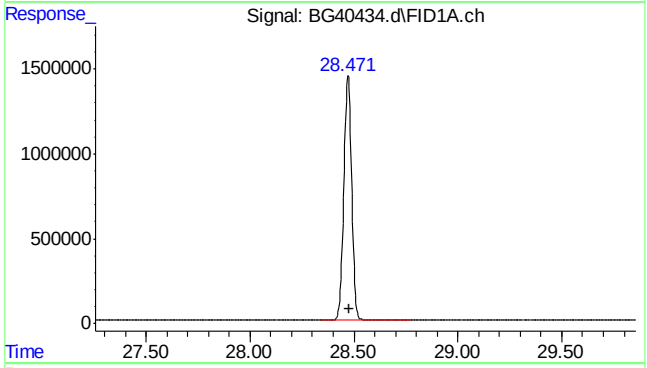
Quant Time: Jul 23 12:44:34 2013
Quant Method : G:\1\METHODS\BG120629ALK.m
Quant Title : n-C8 - n-C40 normal alkanes w/ isoprenoids





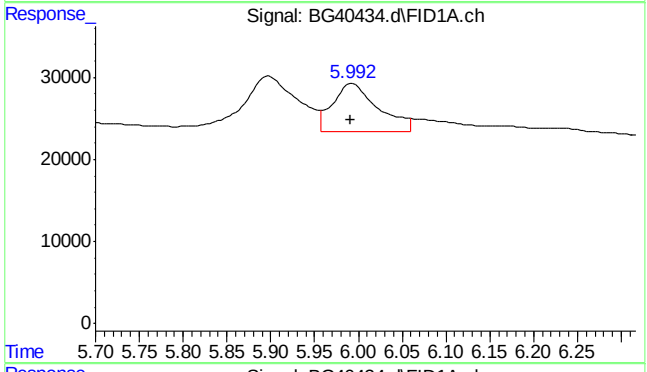
#1 5a-Androstane

R.T.: 30.443 min
Delta R.T.: -0.030 min
Response: 80090482
Conc: 50.00 µg/mL



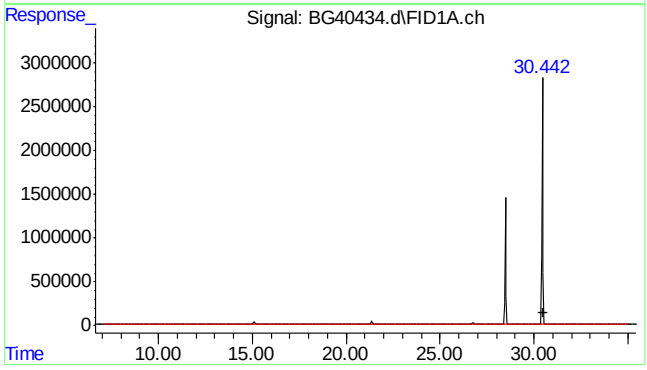
#2 o-Terphenyl

R.T.: 28.473 min
Delta R.T.: -0.008 min
Response: 37738874
Conc: 24.39 µg/mL



#3 C-8

R.T.: 5.992 min
Delta R.T.: 0.000 min
Response: 211536
Conc: 0.17 µg/mL m



#41 TPH (C8-C40)

R.T.: 30.469 min
Delta R.T.: 0.000 min
Response: 16221659
Conc: 10.38 µg/mL m