LSC Area Percent Report

Data Path : Z:\SVOASRV\HPCHEM1\BNA F\DATA\BF111918\
Data File : BF110851.D
Acq On : 19 Nov 2018 14:24
Operator : JU/SJ
Sample : J5977-12 10X
Misc :
ALS Vial : 11 Sample Multiplier: 1

Instrument : BNA_F
ClientSampleId : MMTW-01(3-5)

Integration Parameters: rteint.p
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 3 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : Z:\SVOASRV\HPCHEM1\BNA_F\METHODS\8270-BF110818.M
Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	5.563	589	591	610	rVB	53162	99472	5.14%	0.455%
2	6.575	759	763	776	rBV	64015	128449	6.64%	0.588%
3	6.710	783	786	792	rBV	123319	135005	6.98%	0.618%
4	6.940	821	825	839	rBV	408421	390323	20.19%	1.787%
5	7.098	848	852	863	rVB	94338	111296	5.76%	0.510%
6	7.510	919	922	934	rBV	48491	82826	4.28%	0.379%
7	8.222	1039	1043	1045	rBV	558102	506552	26.20%	2.319%
8	8.239	1045	1046	1055	rVB	266448	275746	14.26%	1.263%
9	8.939	1161	1165	1173	rBV	141557	158196	8.18%	0.724%
10	9.034	1177	1181	1190	rVV	106043	121442	6.28%	0.556%
11	9.292	1222	1225	1232	rBV	176666	161489	8.35%	0.739%
12	9.398	1240	1243	1248	rVB	54208	47753	2.47%	0.219%
13	9.563	1267	1271	1275	rBV	48138	63993	3.31%	0.293%
14	9.634	1279	1283	1286	rBV	90992	98853	5.11%	0.453%
15	9.663	1286	1288	1291	rVB	48795	39722	2.05%	0.182%
16	9.751	1300	1303	1312	rVB	46203	58090	3.00%	0.266%
17	9.839	1315	1318	1324	rBV	246634	245509	12.70%	1.124%
18	9.981	1339	1342	1345	rVV	660438	571991	29.59%	2.619%
19	10.016	1345	1348	1351	rVV2	75644	78430	4.06%	0.359%
20	10.186	1372	1377	1380	rBV	193986	180563	9.34%	0.827%
21	10.292	1391	1395	1398	rBV	42536	41748	2.16%	0.191%
22	10.439	1417	1420	1424	rBV	42812	45011	2.33%	0.206%
23	10.533	1432	1436	1441	rVB	406608	414669	21.45%	1.899%
24	10.686	1457	1462	1465	rVB	54541	53840	2.78%	0.247%
25	10.775	1470	1477	1483	rBV3	110630	156782	8.11%	0.718%
26	11.080	1521	1529	1531	rBV	90931	113999	5.90%	0.522%
27	11.110	1531	1534	1536	rVV	49957	44125	2.28%	0.202%
28	11.163	1540	1543	1546	rVB	45212	39711	2.05%	0.182%
29	11.286	1560	1564	1567	rBV	95475	83035	4.29%	0.380%
30	11.369	1575	1578	1584	rVB	137730	125767	6.51%	0.576%
31	11.475	1592	1596	1598	rBV	579345	529184	27.37%	2.423%
32	11.504	1598	1601	1604	rVV	2317593	1933379	100.00%	8.853%
33	11.551	1606	1609	1613	rVV	449556	396724	20.52%	1.817%
34	11.710	1632	1636	1640	rVV2	130677	137431	7.11%	0.629%

LSC Area Percent Report

Data Path : Z:\SVOASRV\HPCHEM1\BNA F\DATA\BF111918\
Data File : BF110851.D
Acq On : 19 Nov 2018 14:24
Operator : JU/SJ
Sample : J5977-12 10X
Misc :
ALS Vial : 11 Sample Multiplier: 1

Instrument : BNA_F
ClientSampleId : MMTW-01(3-5)

Integration Parameters: rteint.p
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 3 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : Z:\SVOASRV\HPCHEM1\BNA_F\METHODS\8270-BF110818.M
Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

35	11.763	1643	1645	1647	rVV	66745	49463	2.56%	0.226%
36	11.810	1650	1653	1658	rVV2	71125	81739	4.23%	0.374%
37	11.886	1662	1666	1671	rVB2	39967	56956	2.95%	0.261%
38	11.975	1677	1681	1684	rBV	301470	268004	13.86%	1.227%
39	12.004	1684	1686	1690	rVB	316156	280189	14.49%	1.283%
40	12.051	1691	1694	1697	rBV	99039	96142	4.97%	0.440%
41	12.092	1697	1701	1703	rVV2	443829	489104	25.30%	2.239%
42	12.110	1703	1704	1708	rVB	194105	151204	7.82%	0.692%
43	12.269	1728	1731	1735	rBV	179340	147425	7.63%	0.675%
44	12.310	1735	1738	1742	rVB2	91529	88057	4.55%	0.403%
45	12.527	1771	1775	1777	rBV	156132	155964	8.07%	0.714%
46	12.569	1777	1782	1784	rVV2	85948	136384	7.05%	0.624%
47	12.627	1787	1792	1799	rVB2	100431	153213	7.92%	0.702%
48	12.698	1799	1804	1807	rBV	1580851	1411261	72.99%	6.462%
49	12.757	1811	1814	1817	rVB2	40709	38528	1.99%	0.176%
50	12.792	1817	1820	1825	rBV	204294	176439	9.13%	0.808%
51	12.845	1825	1829	1831	rVV3	71093	82348	4.26%	0.377%
52	12.904	1836	1839	1840	rBV	173195	143436	7.42%	0.657%
53	12.927	1840	1843	1848	rVV	1387011	1303667	67.43%	5.969%
54	12.974	1848	1851	1855	rVB	69268	70556	3.65%	0.323%
55	13.051	1855	1864	1867	rBV2	166280	206658	10.69%	0.946%
56	13.086	1867	1870	1875	rVB2	44735	66753	3.45%	0.306%
57	13.139	1875	1879	1884	rBV2	105474	168306	8.71%	0.771%
58	13.251	1895	1898	1903	rVB	255572	266840	13.80%	1.222%
59	13.322	1907	1910	1912	rVV	164565	166452	8.61%	0.762%
60	13.357	1912	1916	1923	rVV2	161100	206739	10.69%	0.947%
61	13.416	1923	1926	1929	rVV4	24760	38735	2.00%	0.177%
62	13.451	1929	1932	1935	rVV	130821	124636	6.45%	0.571%
63	13.480	1935	1937	1946	rVB	123884	145017	7.50%	0.664%
64	13.733	1976	1980	1983	rBV4	30461	49159	2.54%	0.225%
65	13.769	1983	1986	1989	rVB	85971	81679	4.22%	0.374%
66	13.874	1998	2004	2006	rBV	136945	164550	8.51%	0.753%
67	13.898	2006	2008	2011	rVB	130829	110368	5.71%	0.505%
68	13.933	2011	2014	2020	rBV3	95055	153908	7.96%	0.705%
69	13.980	2020	2022	2028	rVB	100746	88488	4.58%	0.405%
70	14.045	2028	2033	2036	rBV	65842	125405	6.49%	0.574%
71	14.121	2040	2046	2050	rVV2	848485	1352636	69.96%	6.193%

LSC Area Percent Report

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Acq On : 19 Nov 2018 14:24
Operator : JU/SJ
Sample : J5977-12 10X
Misc :
ALS Vial : 11 Sample Multiplier: 1

Instrument : BNA_F
ClientSampleId : MMTW-01(3-5)

Integration Parameters: rteint.p
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 3 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : Z:\SVOASRV\HPCHEM1\BNA_F\METHODS\8270-BF110818.M
Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

72	14.157	2050	2052	2055	rVB	590258	473161	24.47%	2.166%
73	14.233	2063	2065	2068	rBV	61131	63089	3.26%	0.289%
74	14.286	2071	2074	2078	rVV2	125198	146710	7.59%	0.672%
75	14.363	2083	2087	2089	rVB2	47081	54414	2.81%	0.249%
76	14.474	2104	2106	2108	rVV	45311	48479	2.51%	0.222%
77	14.516	2108	2113	2116	rVV	173064	245892	12.72%	1.126%
78	14.551	2116	2119	2121	rVV	111927	117935	6.10%	0.540%
79	14.592	2122	2126	2128	rVV2	76163	110155	5.70%	0.504%
80	14.616	2128	2130	2132	rVV2	73914	71932	3.72%	0.329%
81	14.645	2132	2135	2137	rVV	110326	126985	6.57%	0.581%
82	14.663	2137	2138	2143	rVV2	84820	81634	4.22%	0.374%
83	14.710	2143	2146	2150	rVV3	49931	58362	3.02%	0.267%
84	14.868	2167	2173	2179	rBV8	55667	134506	6.96%	0.616%
85	15.033	2198	2201	2204	rBV2	59367	61273	3.17%	0.281%
86	15.210	2226	2231	2234	rBV	463425	825234	42.68%	3.779%
87	15.316	2246	2249	2254	rBV	127879	148848	7.70%	0.682%
88	15.410	2262	2265	2271	rBV5	26946	52535	2.72%	0.241%
89	15.527	2280	2285	2292	rVB	300486	372944	19.29%	1.708%
90	15.598	2292	2297	2303	rBV	440325	618041	31.97%	2.830%
91	15.657	2303	2307	2311	rVV	319654	429712	22.23%	1.968%
92	15.692	2311	2313	2320	rVB2	124188	159006	8.22%	0.728%
93	15.839	2333	2338	2342	rBV2	33309	61998	3.21%	0.284%
94	16.057	2373	2375	2381	rVB2	28927	40964	2.12%	0.188%
95	16.257	2406	2409	2412	rVB2	37383	47146	2.44%	0.216%
96	17.233	2568	2575	2582	rVB	156859	323129	16.71%	1.480%
97	17.415	2601	2606	2611	rBV	34265	61734	3.19%	0.283%
98	17.480	2613	2617	2624	rVB3	21389	42343	2.19%	0.194%
99	17.715	2650	2657	2667	rBV	97421	223184	11.54%	1.022%
100	17.986	2697	2703	2709	rVB	29680	71029	3.67%	0.325%

Sum of corrected areas: 21839887

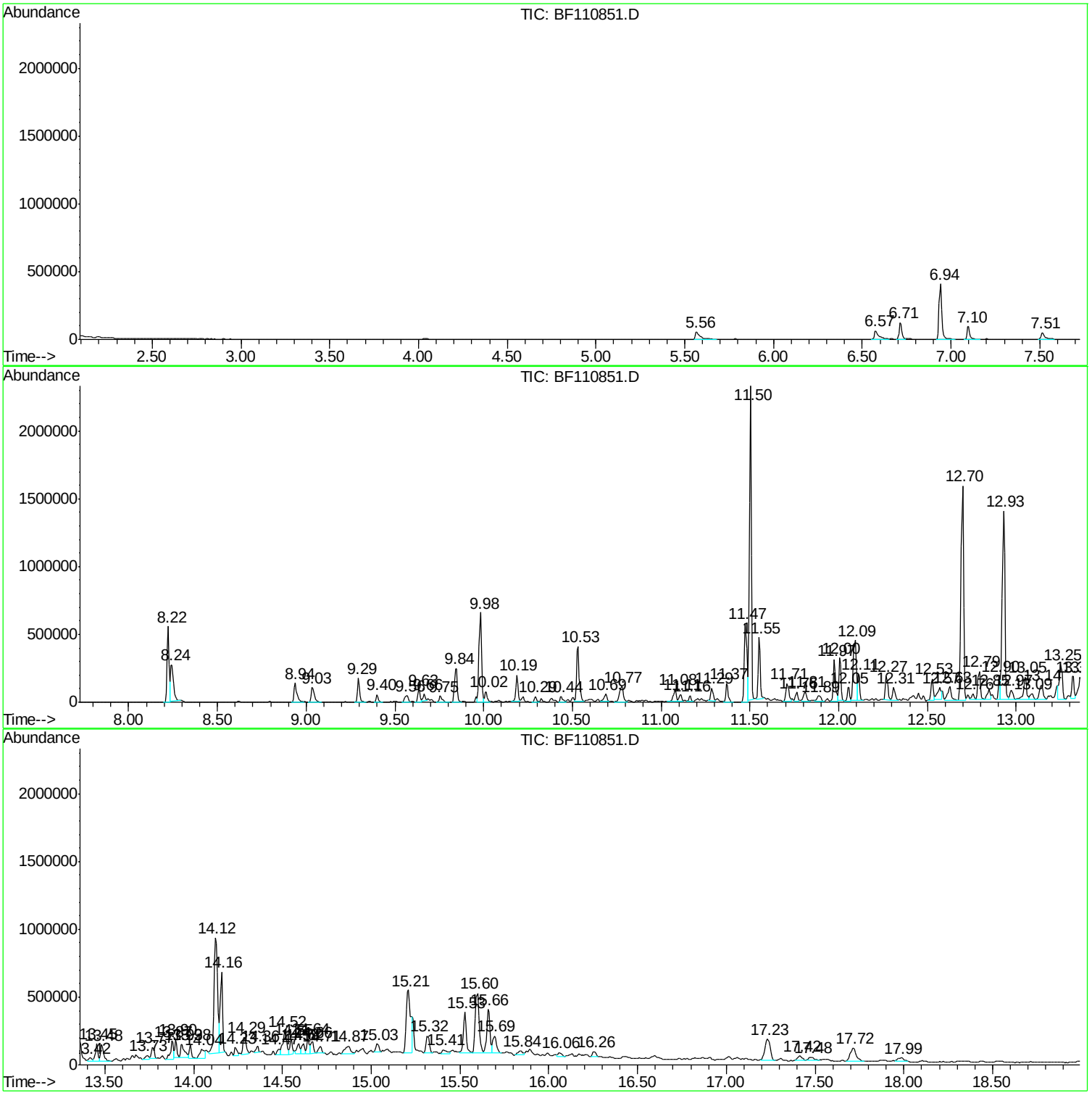
LSC Report - Integrated Chromatogram

Data Path : Z:\SVOASRV\HPCHEM1\BNA F\DATA\BF111918\
Data File : BF110851.D
Acq On : 19 Nov 2018 14:24
Operator : JU/SJ
Sample : J5977-12 10X
Misc :
ALS Vial : 11 Sample Multiplier: 1

Instrument : BNA_F
ClientSampleId : MMTW-01(3-5)

Quant Method : Z:\SVOASRV\HPCHEM1\BNA_F\METHODS\8270-BF110818.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P



Library Search Compound Report

Data Path : Z:\SVOASRV\HPCHEM1\BNA F\DATA\BF111918\
Data File : BF110851.D
Acq On : 19 Nov 2018 14:24
Operator : JU/SJ
Sample : J5977-12 10X
Misc :
ALS Vial : 11 Sample Multiplier: 1

Instrument : BNA_F
ClientSampleId : MMTW-01(3-5)

Quant Method : Z:\SVOASRV\HPCHEM1\BNA_F\METHODS\8270-BF110818.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

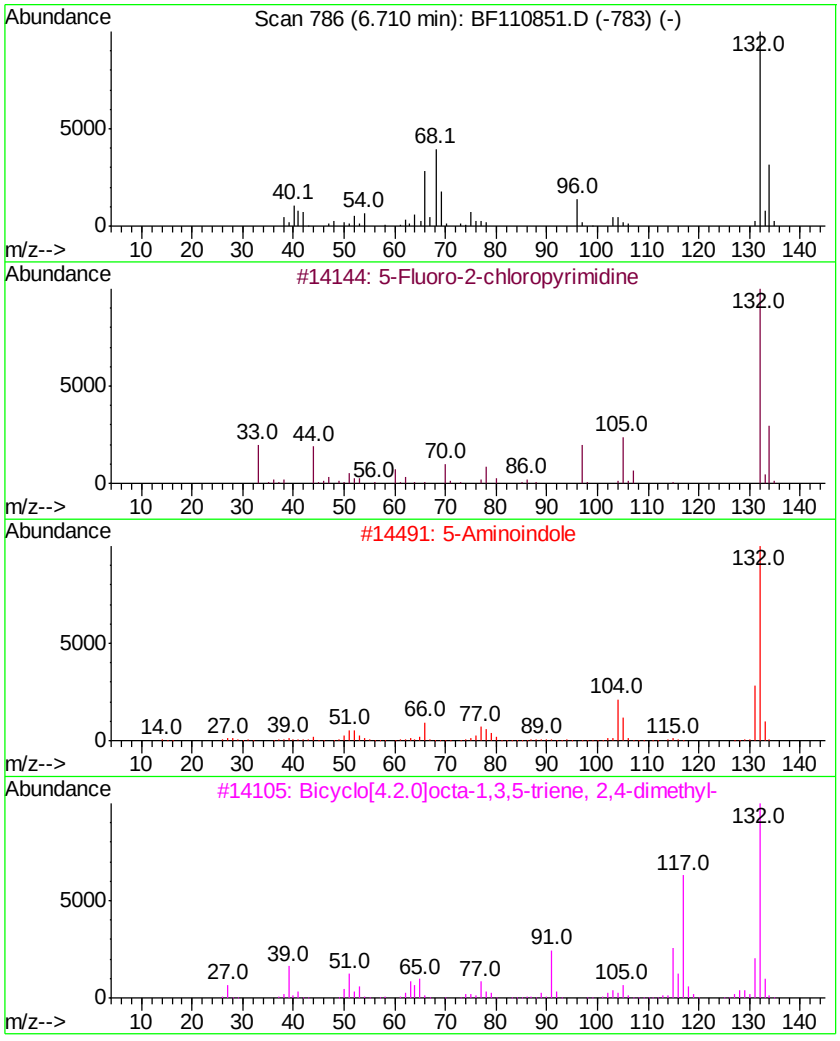
TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

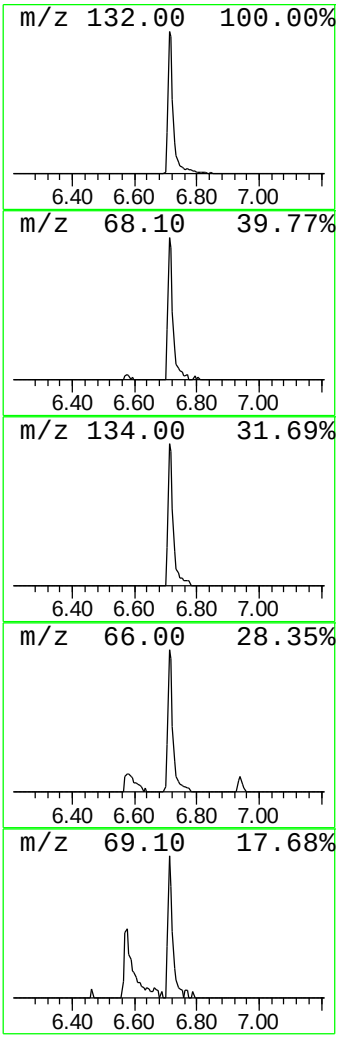
****

Peak Number 1 unknown6.71 Concentration Rank 6

R.T.	EstConc	Area	Relative to ISTD	R.T.
6.71	6.92 ng	135005	1,4-Dichlorobenzene-d4	6.94

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	5-Fluoro-2-chloropyrimidine	132	C4H2ClFN2	062802-42-0	12
2	5-Aminoindole	132	C8H8N2	005192-03-0	10
3	Bicyclo[4.2.0]octa-1,3,5-triene,...	132	C10H12	028749-81-7	9
4	Benzene, 1-ethenyl-3,5-dimethyl-	132	C10H12	005379-20-4	9
5	(E)-3-Chloro-2-methyl-2-pentenal	132	C6H9ClO	031357-76-3	9





Data Path : Z:\SVOASRV\HPCHEM1\BNA F\DATA\BF111918\
Data File : BF110851.D
Acq On : 19 Nov 2018 14:24
Operator : JU/SJ
Sample : J5977-12 10X
Misc :
ALS Vial : 11 Sample Multiplier: 1

Instrument : BNA_F
ClientSampleId : MMTW-01(3-5)

Quant Method : Z:\SVOASRV\HPCHEM1\BNA_F\METHODS\8270-BF110818.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

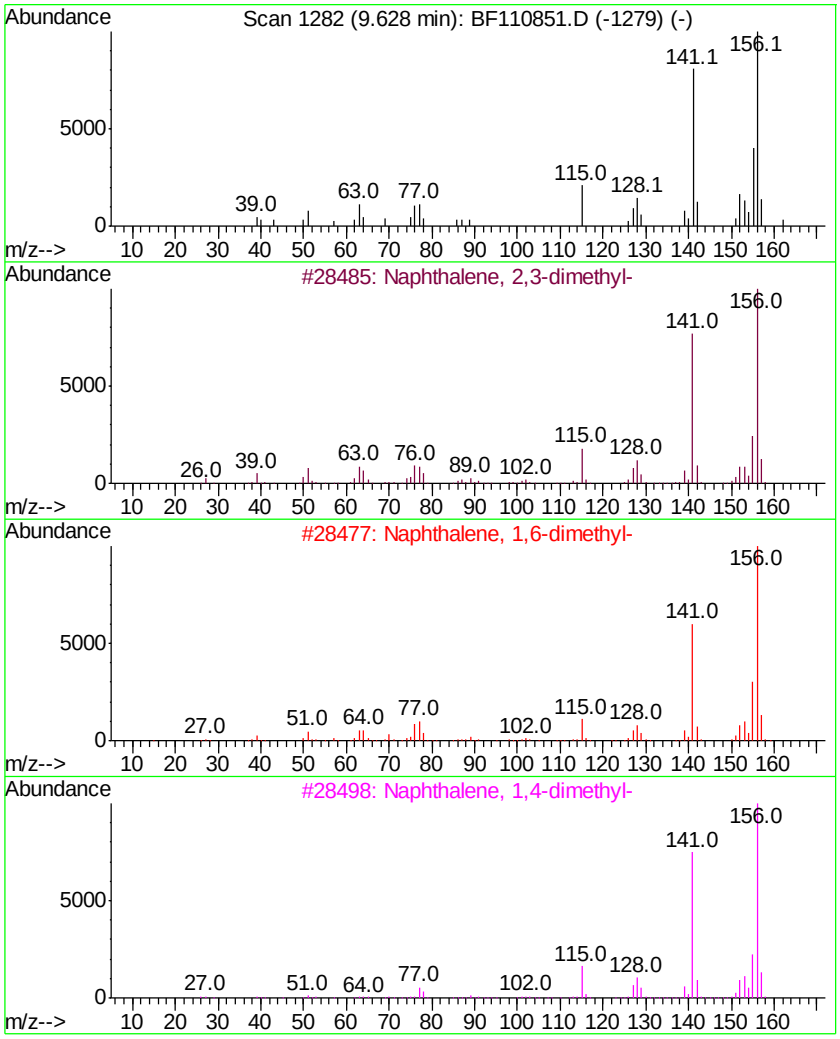
TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

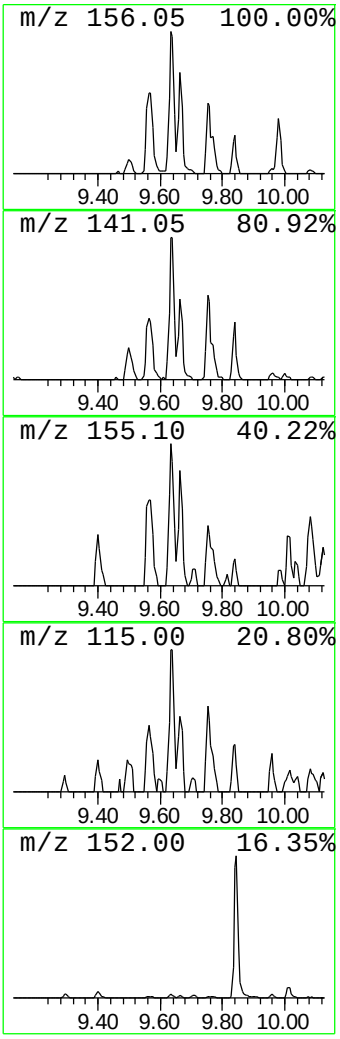
****

Peak Number 3 Naphthalene, 2,3-dimethyl- Concentration Rank 19

R.T.	EstConc	Area	Relative to ISTD	R.T.
9.63	3.46 ng	98853	Acenaphthene-d10	9.98

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Naphthalene, 2,3-dimethyl-	156	C12H12	000581-40-8	97
2	Naphthalene, 1,6-dimethyl-	156	C12H12	000575-43-9	97
3	Naphthalene, 1,4-dimethyl-	156	C12H12	000571-58-4	97
4	Naphthalene, 2,7-dimethyl-	156	C12H12	000582-16-1	97
5	Naphthalene, 2,6-dimethyl-	156	C12H12	000581-42-0	97





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Instrument : BNA_F
ClientSampleId : MMTW-01(3-5)

Quant Method : Z:\SVOASRV\HPCHEM1\BNA_F\METHODS\8270-BF110818.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

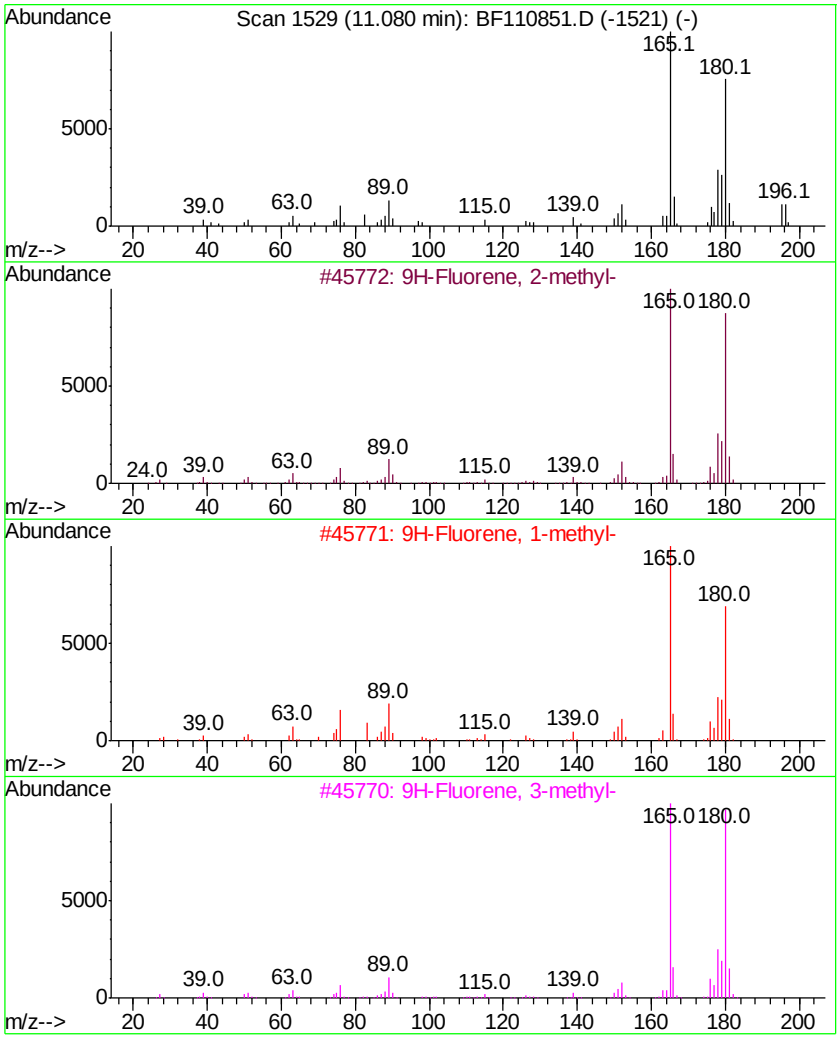
TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

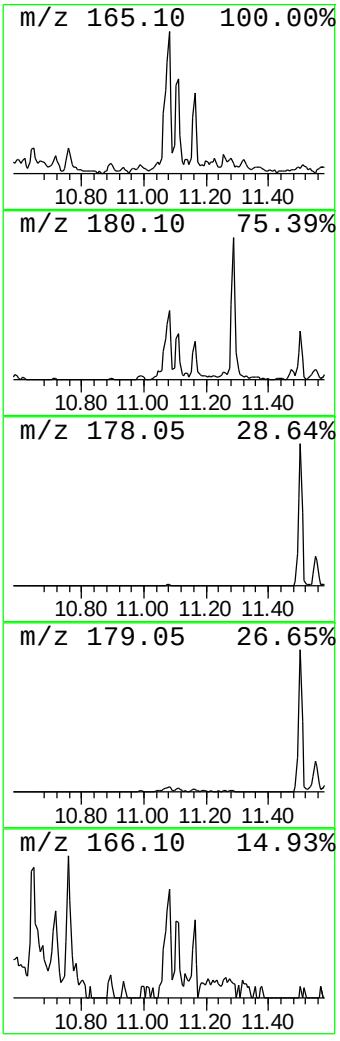
****

Peak Number 4 9H-Fluorene, 2-methyl- Concentration Rank 15

R.T.	EstConc	Area	Relative to ISTD	R.T.
11.08	4.31 ng	113999	Phenanthrene-d10	11.47

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	9H-Fluorene, 2-methyl-	180	C14H12	001430-97-3	98
2	9H-Fluorene, 1-methyl-	180	C14H12	001730-37-6	97
3	9H-Fluorene, 3-methyl-	180	C14H12	002523-39-9	96
4	4a,9a-Methano-9H-fluorene	180	C14H12	019540-84-2	92
5	9H-Fluorene, 9-methyl-	180	C14H12	002523-37-7	76





Data Path : Z:\SVOASRV\HPCHEM1\BNA F\DATA\BF111918\
Data File : BF110851.D
Acq On : 19 Nov 2018 14:24
Operator : JU/SJ
Sample : J5977-12 10X
Misc :
ALS Vial : 11 Sample Multiplier: 1

Instrument : BNA_F
ClientSampleId : MMTW-01(3-5)

Quant Method : Z:\SVOASRV\HPCHEM1\BNA_F\METHODS\8270-BF110818.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

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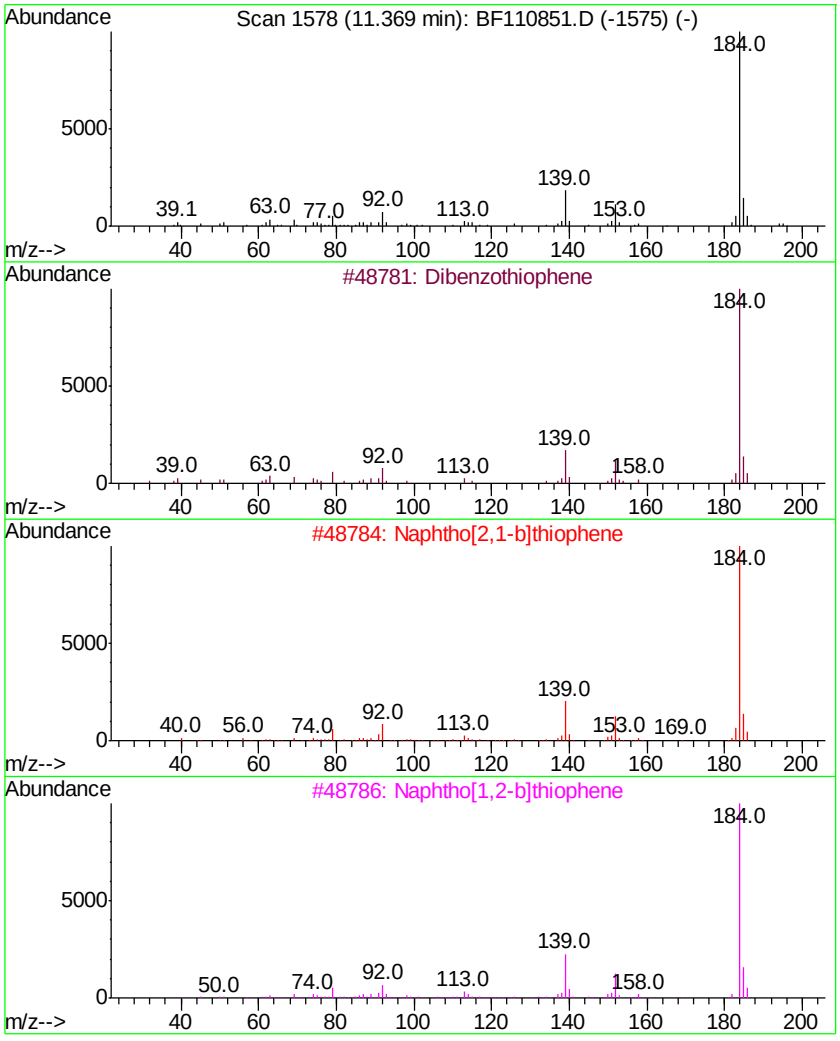
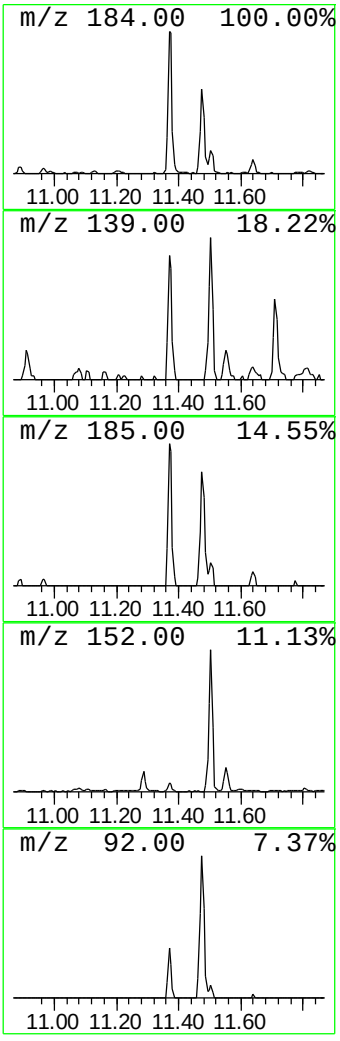
Peak Number 5 Dibenzothiophene Concentration Rank 14

R.T.	EstConc	Area	Relative to ISTD	R.T.
11.37	4.75 ng	125767	Phenanthrene-d10	11.47

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Dibenzothiophene	184	C12H8S	000132-65-0	97
2	Naphtho[2,1-b]thiophene	184	C12H8S	000233-02-3	95
3	Naphtho[1,2-b]thiophene	184	C12H8S	000234-41-3	95
4	Naphtho[2,3-b]thiophene	184	C12H8S	000268-77-9	95
5	Azuleno(2,1-b)thiophene	184	C12H8S	000248-13-5	91





Data Path : Z:\SVOASRV\HPCHEM1\BNA F\DATA\BF111918\
Data File : BF110851.D
Acq On : 19 Nov 2018 14:24
Operator : JU/SJ
Sample : J5977-12 10X
Misc :
ALS Vial : 11 Sample Multiplier: 1

Instrument : BNA_F
ClientSampleId : MMTW-01(3-5)

Quant Method : Z:\SVOASRV\HPCHEM1\BNA_F\METHODS\8270-BF110818.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

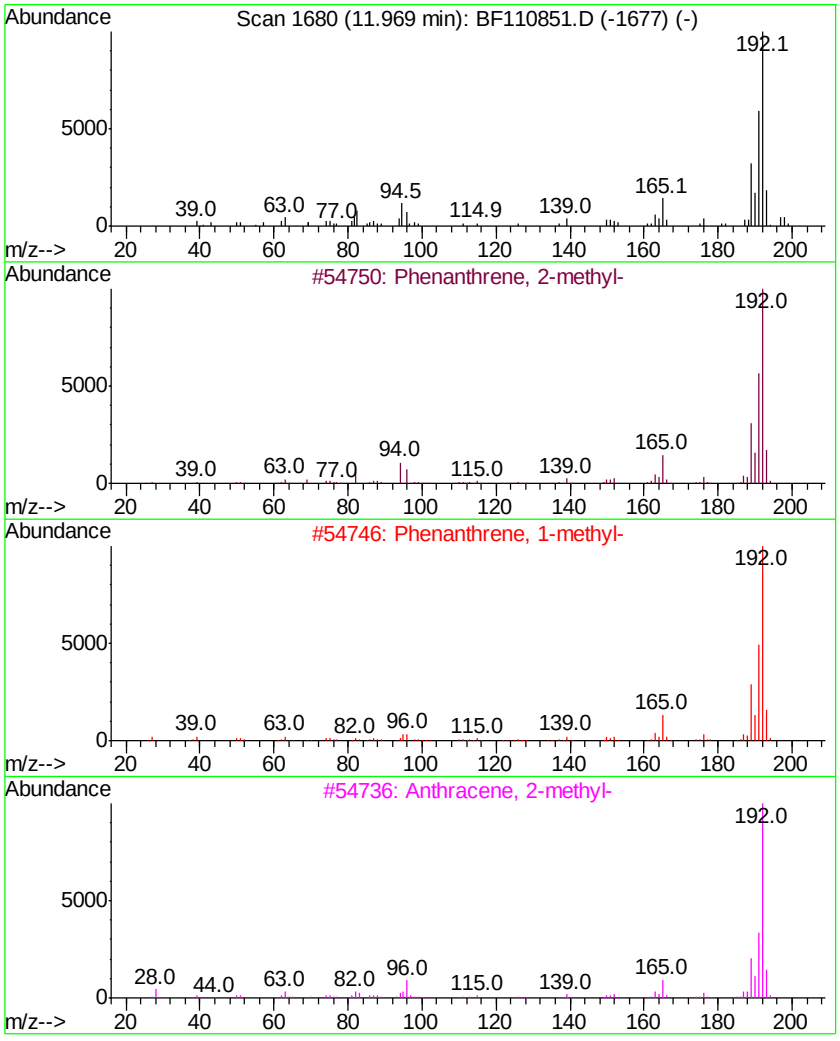
TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

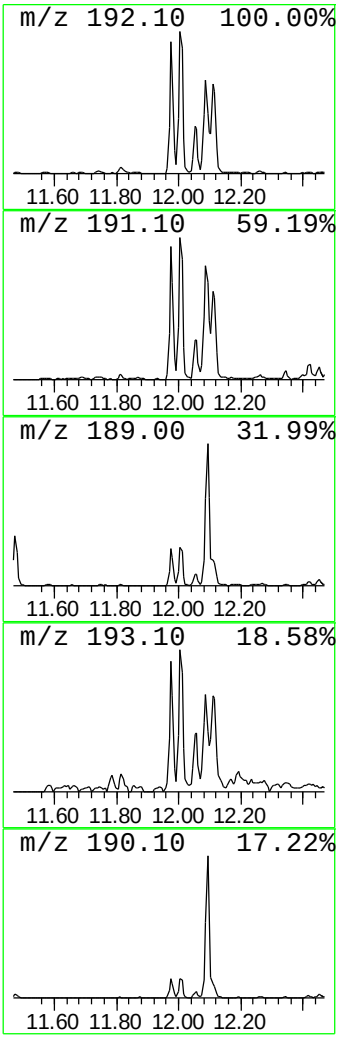
****

Peak Number 6 Phenanthrene, 1-methyl- Concentration Rank 4

R.T.	EstConc	Area	Relative to ISTD	R.T.
11.97	10.13 ng	268004	Phenanthrene-d10	11.47

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Phenanthrene, 2-methyl-	192	C15H12	002531-84-2	93
2	Phenanthrene, 1-methyl-	192	C15H12	000832-69-9	93
3	Anthracene, 2-methyl-	192	C15H12	000613-12-7	93
4	Anthracene, 1-methyl-	192	C15H12	000610-48-0	93
5	Anthracene, 9-methyl-	192	C15H12	000779-02-2	91





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Acq On : 19 Nov 2018 14:24
Operator : JU/SJ
Sample : J5977-12 10X
Misc :
ALS Vial : 11 Sample Multiplier: 1

Instrument : BNA_F
ClientSampleId : MMTW-01(3-5)

Quant Method : Z:\SVOASRV\HPCHEM1\BNA_F\METHODS\8270-BF110818.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

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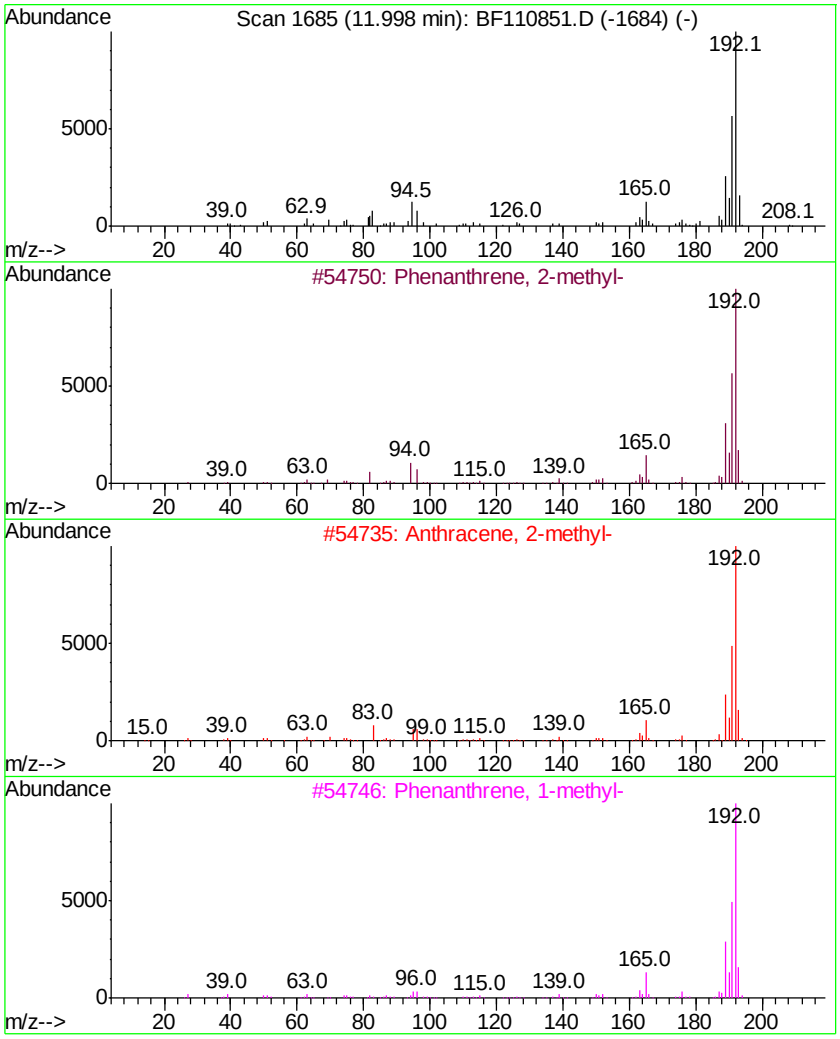
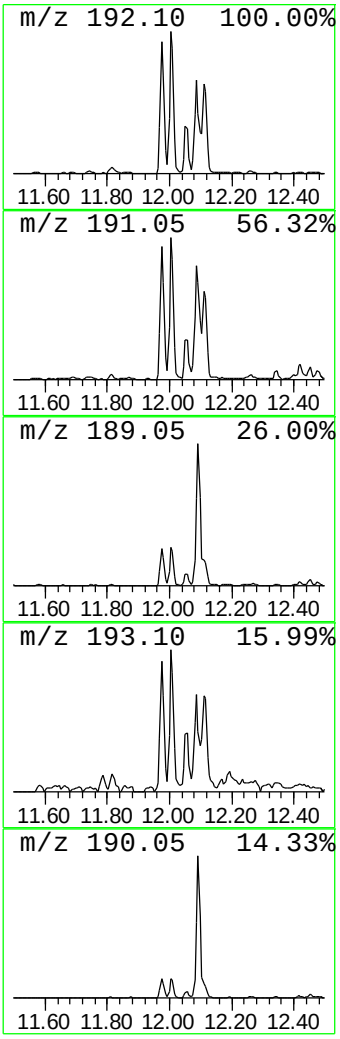
Peak Number 7 Phenanthrene, 2-methyl- Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	R.T.
12.00	10.59 ng	280189	Phenanthrene-d10	11.47

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Phenanthrene, 2-methyl-	192	C15H12	002531-84-2	98
2	Anthracene, 2-methyl-	192	C15H12	000613-12-7	96
3	Phenanthrene, 1-methyl-	192	C15H12	000832-69-9	95
4	1H-Cyclopropa[l]phenanthrene,1a,...	192	C15H12	000949-41-7	95
5	Anthracene, 1-methyl-	192	C15H12	000610-48-0	95





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Sample : J5977-12 10X
Misc :
ALS Vial : 11 Sample Multiplier: 1

Instrument : BNA_F
ClientSampleId : MMTW-01(3-5)

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Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

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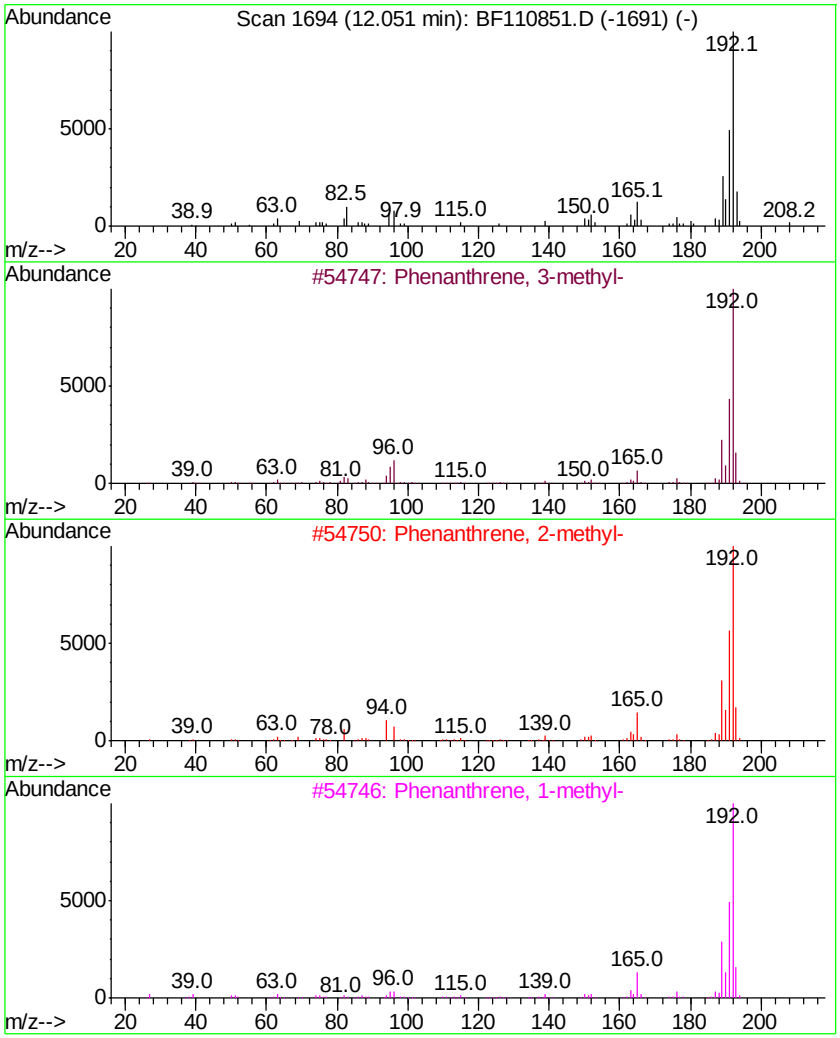
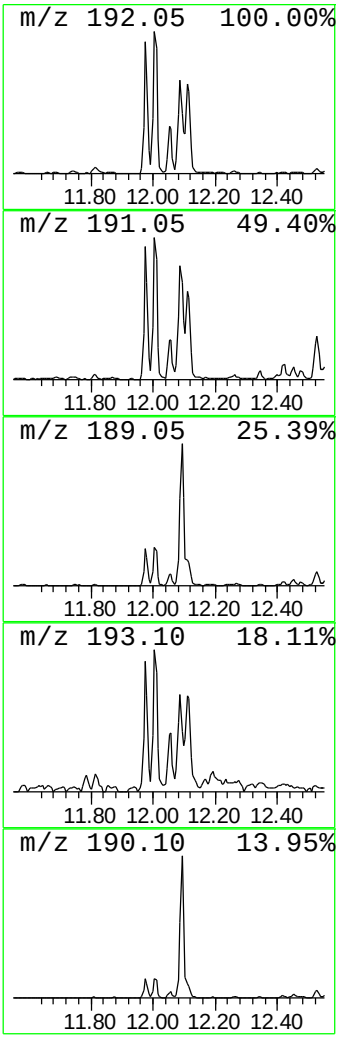
Peak Number 8 Phenanthrene, 3-methyl- Concentration Rank 18

R.T.	EstConc	Area	Relative to ISTD	R.T.
12.05	3.63 ng	96142	Phenanthrene-d10	11.47

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Phenanthrene, 3-methyl-	192	C15H12	000832-71-3	95
2	Phenanthrene, 2-methyl-	192	C15H12	002531-84-2	95
3	Phenanthrene, 1-methyl-	192	C15H12	000832-69-9	94
4	Anthracene, 2-methyl-	192	C15H12	000613-12-7	94
5	Anthracene, 1-methyl-	192	C15H12	000610-48-0	94





Library Search Compound Report

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Sample : J5977-12 10X
Misc :
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Instrument : BNA_F
ClientSampleId : MMTW-01(3-5)

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Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

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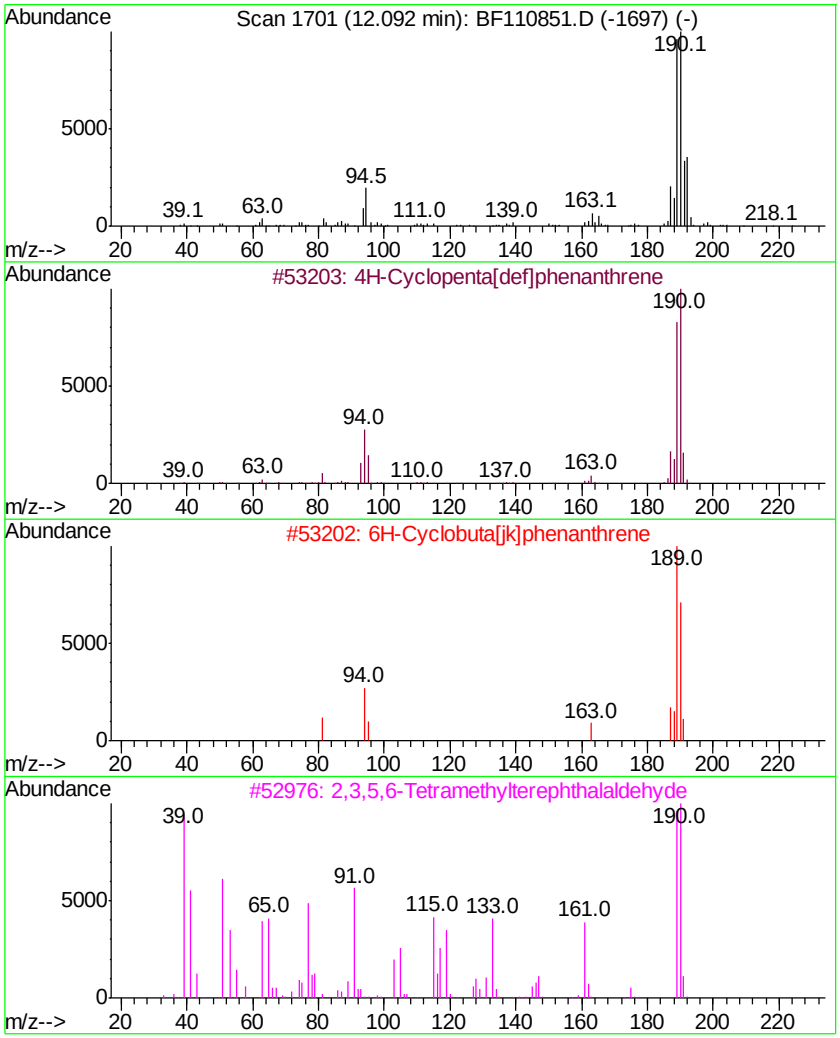
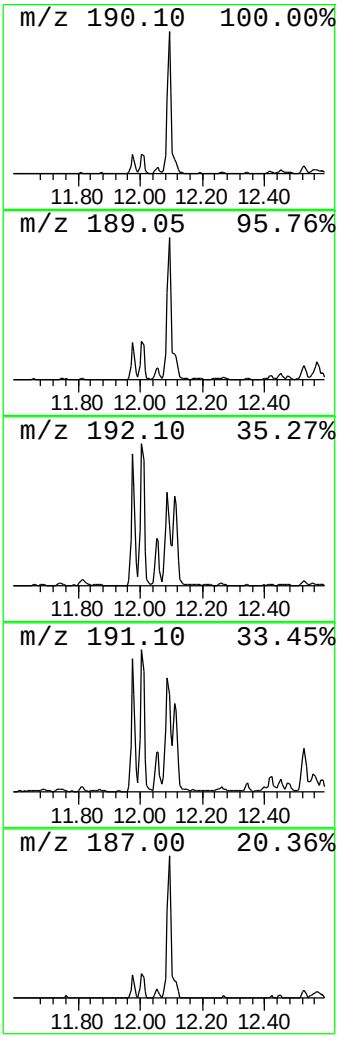
Peak Number 9 4H-Cyclopenta[def]phenanthrene Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
12.09	18.49 ng	489104	Phenanthrene-d10	11.47

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	4H-Cyclopenta[def]phenanthrene	190	C15H10	000203-64-5	93
2	6H-Cyclobuta[jk]phenanthrene	190	C15H10	083469-43-6	72
3	2,3,5,6-Tetramethylterephthalald...	190	C12H14O2	007072-01-7	50
4	2,2'-Bis(4,5-dimethylimidazole)	190	C10H14N4	069286-06-2	45
5	1,1'-Biphenyl, 4,4'-difluoro-	190	C12H8F2	000398-23-2	23





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Instrument : BNA_F
ClientSampleId : MMTW-01(3-5)

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Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

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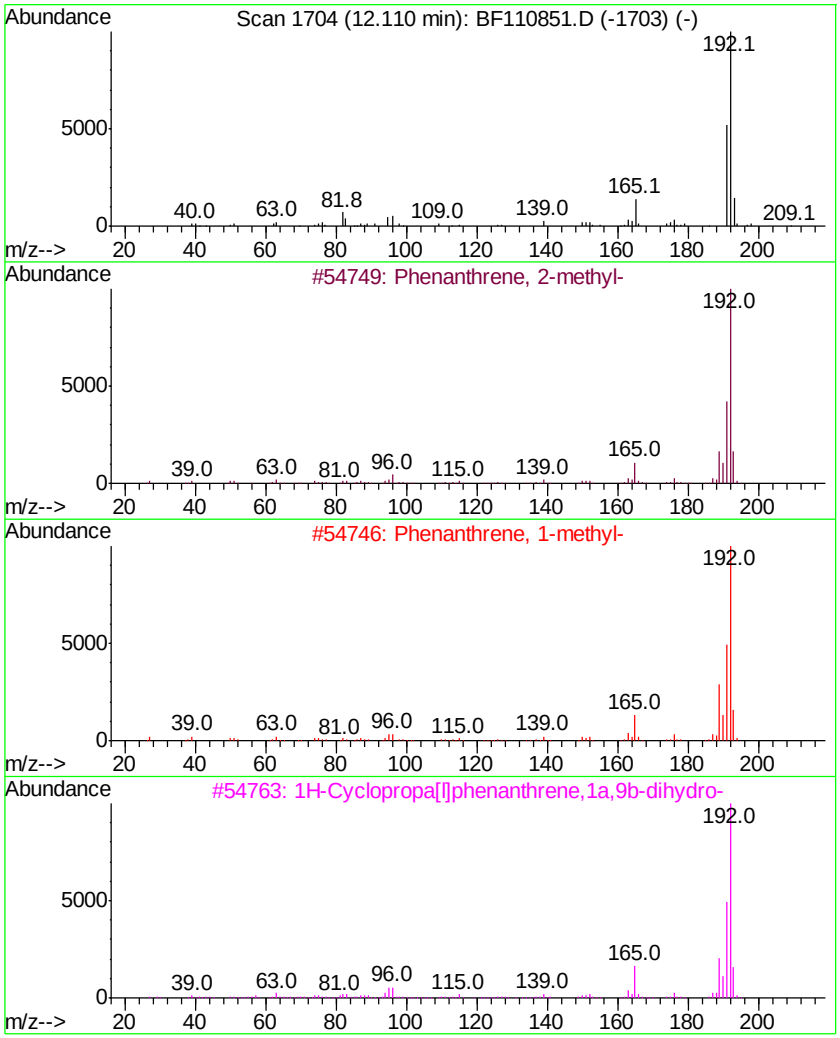
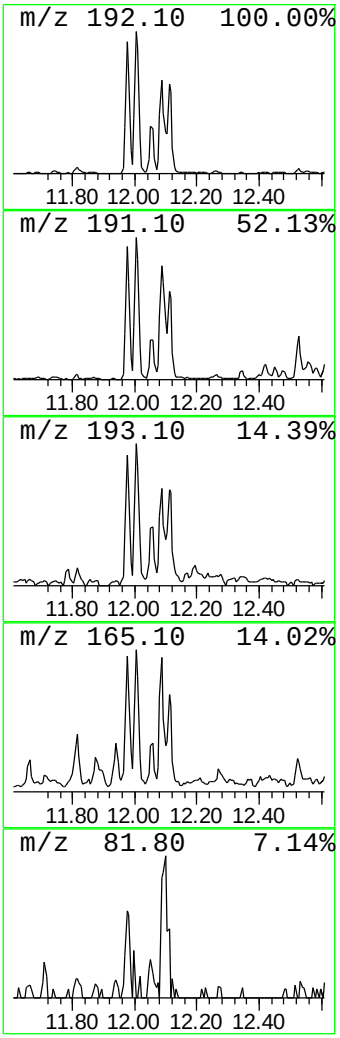
Peak Number 10 1H-Cyclopropa[l]phenanthren... Concentration Rank 10

R.T.	EstConc	Area	Relative to ISTD	R.T.
12.11	5.71 ng	151204	Phenanthrene-d10	11.47

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Phenanthrene, 2-methyl-	192	C15H12	002531-84-2	94
2	Phenanthrene, 1-methyl-	192	C15H12	000832-69-9	94
3	1H-Cyclopropa[l]phenanthrene,1a,...	192	C15H12	000949-41-7	94
4	Anthracene, 2-methyl-	192	C15H12	000613-12-7	94
5	Anthracene, 9-methyl-	192	C15H12	000779-02-2	90





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Sample : J5977-12 10X
Misc :
ALS Vial : 11 Sample Multiplier: 1

Instrument : BNA_F
ClientSampleId : MMTW-01(3-5)

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Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

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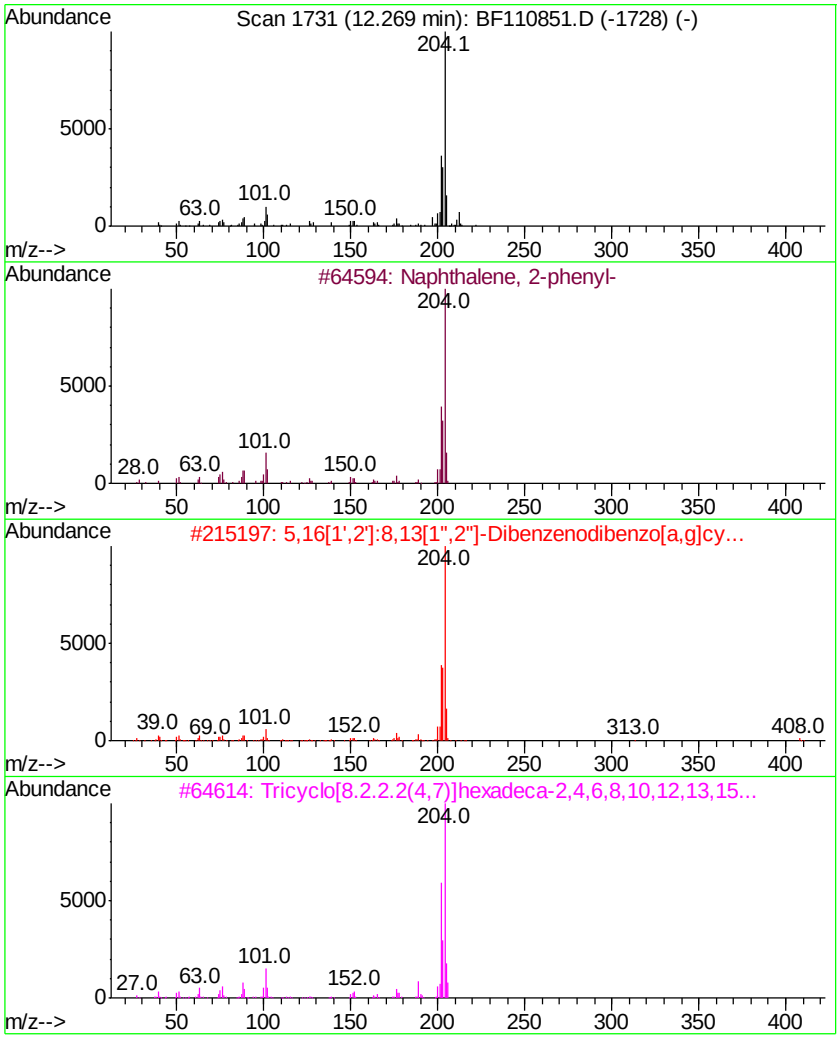
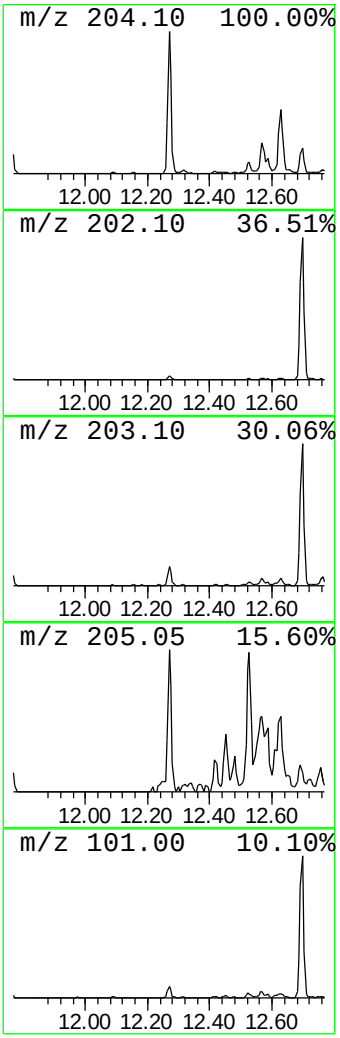
Peak Number 11 Naphthalene, 2-phenyl- Concentration Rank 12

R.T.	EstConc	Area	Relative to ISTD	R.T.
12.27	5.57 ng	147425	Phenanthrene-d10	11.47

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Naphthalene, 2-phenyl-	204	C16H12	000612-94-2	95
2	5,16[1',2']:8,13[1'',2'']-Dibenz...	408	C32H24	005672-97-9	86
3	Tricyclo[8.2.2.2(4,7)]hexadeca-2...	204	C16H12	006572-60-7	74
4	9,10-Bis(bromomethyl)anthracene	362	C16H12Br2	034373-96-1	64
5	Naphthalene, 1-phenyl-	204	C16H12	000605-02-7	60





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Misc :
ALS Vial : 11 Sample Multiplier: 1

Instrument : BNA_F
ClientSampleId : MMTW-01(3-5)

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Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

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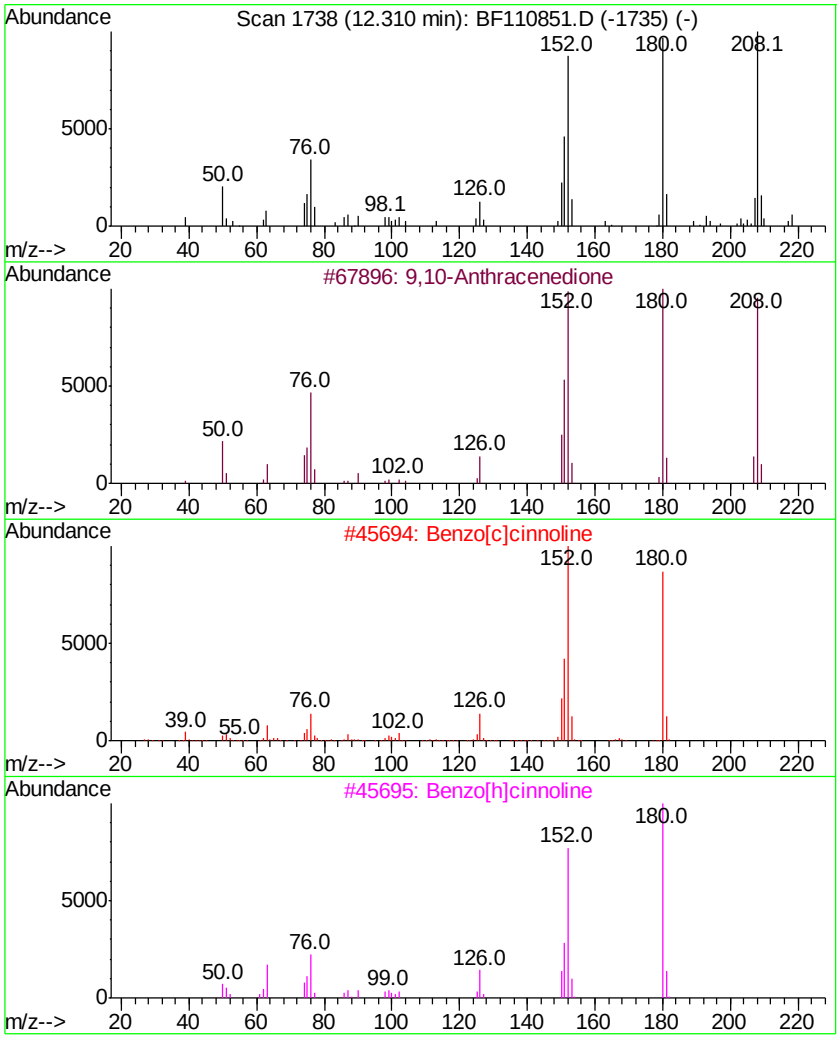
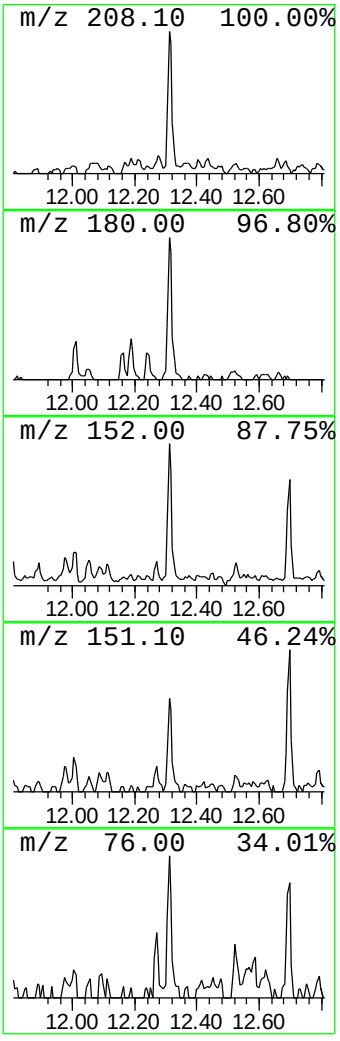
Peak Number 12 9,10-Anthracenedione Concentration Rank 20

R.T.	EstConc	Area	Relative to ISTD	R.T.
12.31	3.33 ng	88057	Phenanthrene-d10	11.47

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	9,10-Anthracenedione	208	C14H8O2	000084-65-1	99
2	Benzo[c]cinnoline	180	C12H8N2	000230-17-1	91
3	Benzo[h]cinnoline	180	C12H8N2	000230-31-9	86
4	1H-Phenalen-1-one	180	C13H8O	000548-39-0	64
5	9H-Fluoren-9-one	180	C13H8O	000486-25-9	53





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Sample : J5977-12 10X
Misc :
ALS Vial : 11 Sample Multiplier: 1

Instrument : BNA_F
ClientSampleId : MMTW-01(3-5)

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Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

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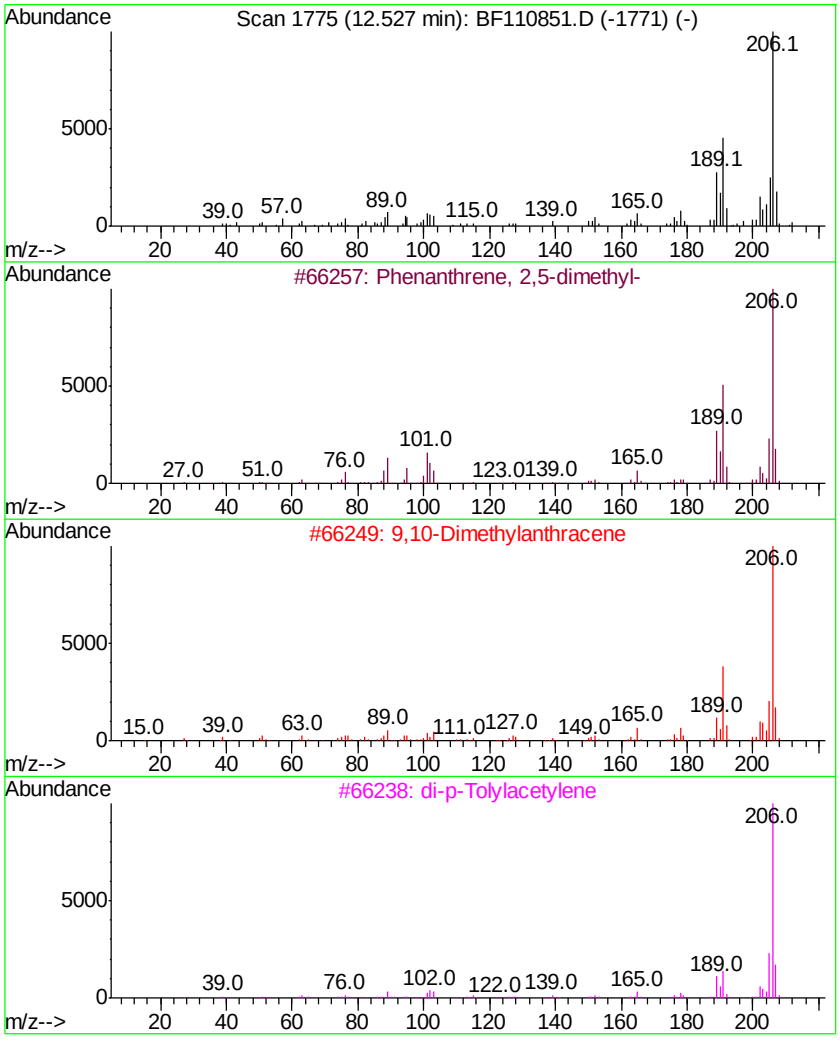
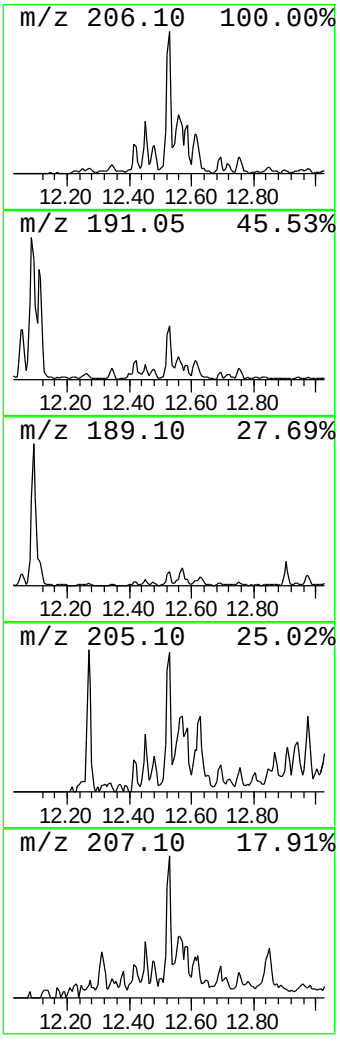
Peak Number 13 Phenanthrene, 2,5-dimethyl- Concentration Rank 8

R.T.	EstConc	Area	Relative to ISTD	R.T.
12.53	5.89 ng	155964	Phenanthrene-d10	11.47

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Phenanthrene, 2,5-dimethyl-	206	C16H14	003674-66-6	97
2	9,10-Dimethylanthracene	206	C16H14	000781-43-1	96
3	di-p-Tolylacetylene	206	C16H14	002789-88-0	94
4	Phenanthrene, 3,6-dimethyl-	206	C16H14	001576-67-6	93
5	Phenanthrene, 1,7-dimethyl-	206	C16H14	000483-87-4	90





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Sample : J5977-12 10X
Misc :
ALS Vial : 11 Sample Multiplier: 1

Instrument : BNA_F
ClientSampleId : MMTW-01(3-5)

Quant Method : Z:\SVOASRV\HPCHEM1\BNA_F\METHODS\8270-BF110818.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

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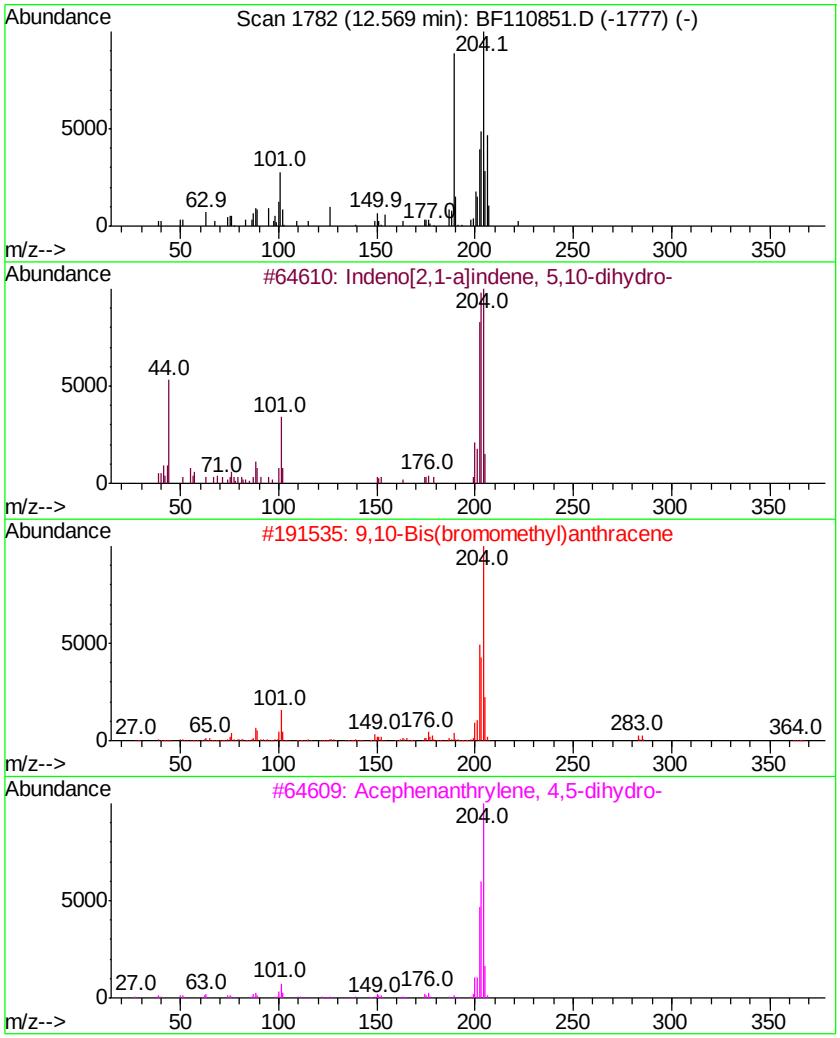
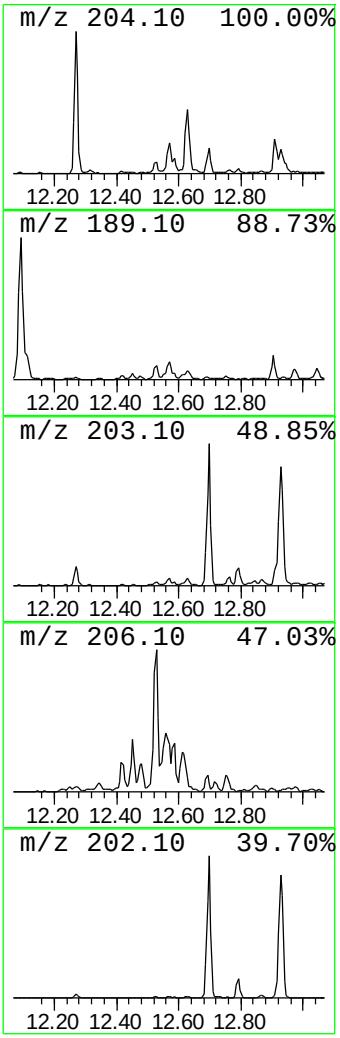
Peak Number 14 Indeno[2,1-a]indene, 5,10-d... Concentration Rank 13

R.T.	EstConc	Area	Relative to ISTD	R.T.
12.57	5.15 ng	136384	Phenanthrene-d10	11.47

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Indeno[2,1-a]indene, 5,10-dihydro-	204	C16H12	006543-29-9	52
2	9,10-Bis(bromomethyl)anthracene	362	C16H12Br2	034373-96-1	47
3	Acephenanthrylene, 4,5-dihydro-	204	C16H12	006232-48-0	41
4	5H-Dibenzo[a,d]cycloheptene, 5-m...	204	C16H12	002975-79-3	38
5	(7-Isopropylidenebicyclo[2.2.1]h...	204	C13H16O2	1000211-02-2	35





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Sample : J5977-12 10X
Misc :
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Instrument : BNA_F
ClientSampleId : MMTW-01(3-5)

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Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

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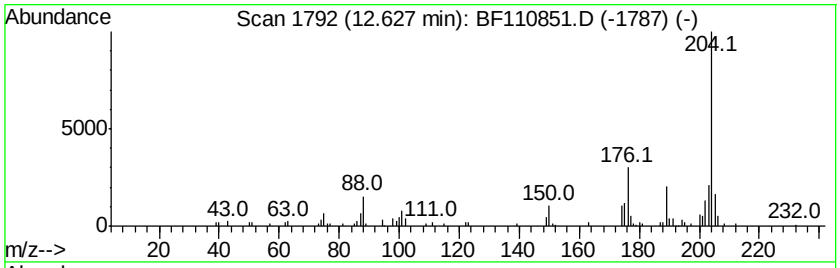
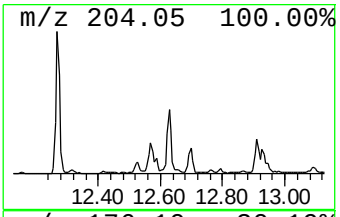
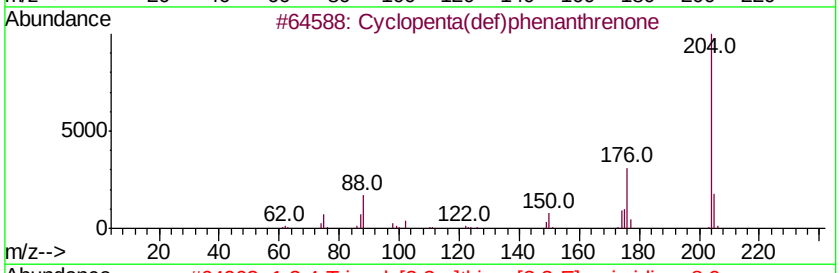
Peak Number 15 Cyclopenta(def)phenanthrenone Concentration Rank 9

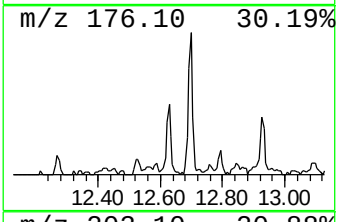
R.T.	EstConc	Area	Relative to ISTD	R.T.
12.63	5.79 ng	153213	Phenanthrene-d10	11.47

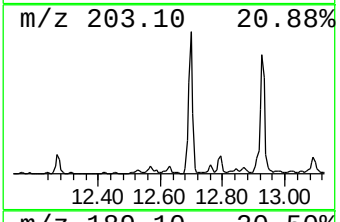
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cyclopenta(def)phenanthrenone	204	C15H8O	005737-13-3	96
2	1,2,4-Triazolo[2,3-c]thieno[3,2-...	204	C9H8N4S	113246-88-1	64
3	Naphthalene, 2-phenyl-	204	C16H12	000612-94-2	53
4	[1,1'-Biphenyl]-2,2'-dicarbonitrile	204	C14H8N2	004341-02-0	50
5	9-Acridinecarbonitrile	204	C14H8N2	005326-19-2	50

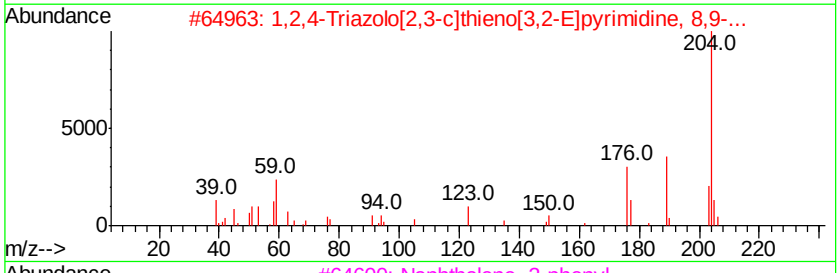


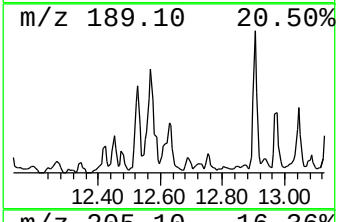


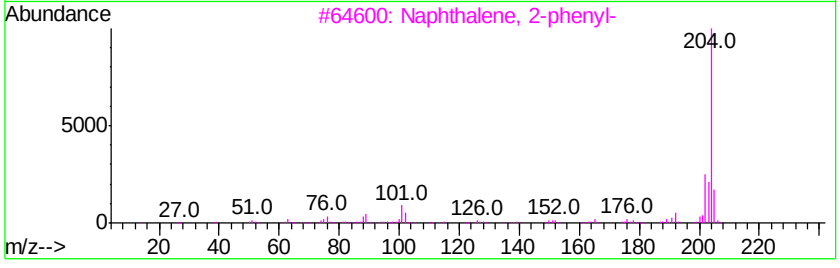


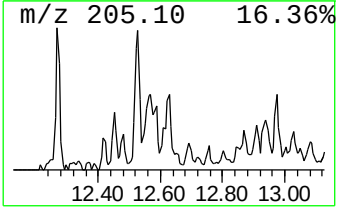












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Operator : JU/SJ
Sample : J5977-12 10X
Misc :
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Instrument : BNA_F
ClientSampleId : MMTW-01(3-5)

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Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

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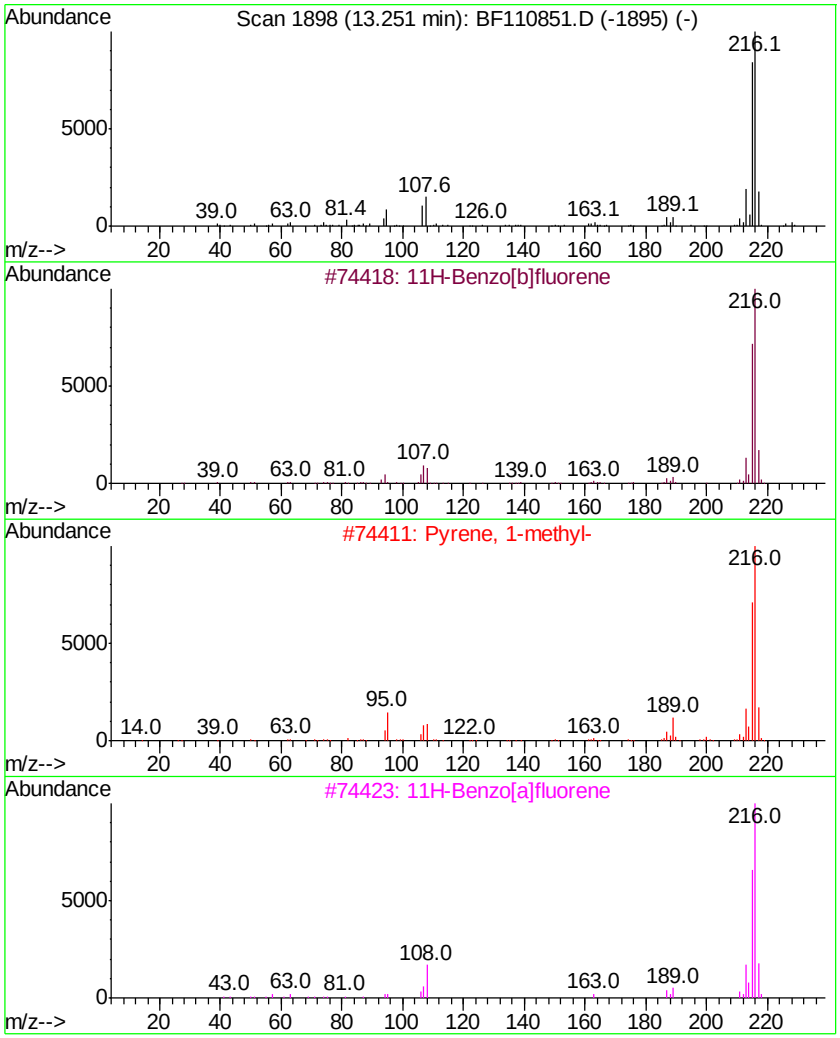
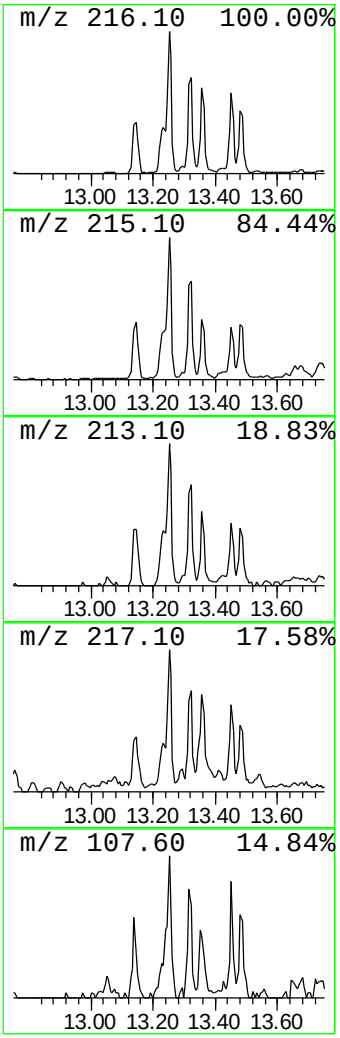
Peak Number 17 11H-Benzo[b]fluorene Concentration Rank 16

R.T.	EstConc	Area	Relative to ISTD	R.T.
13.25	3.95 ng	266840	Chrysene-d12	14.13

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	11H-Benzo[b]fluorene	216	C17H12	000243-17-4	95
2	Pyrene, 1-methyl-	216	C17H12	002381-21-7	90
3	11H-Benzo[a]fluorene	216	C17H12	000238-84-6	87
4	Pyrene, 2-methyl-	216	C17H12	003442-78-2	81
5	Fluoranthene, 2-methyl-	216	C17H12	033543-31-6	80





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Data File : BF110851.D
Acq On : 19 Nov 2018 14:24
Operator : JU/SJ
Sample : J5977-12 10X
Misc :
ALS Vial : 11 Sample Multiplier: 1

Instrument : BNA_F
ClientSampleId : MMTW-01(3-5)

Quant Method : Z:\SVOASRV\HPCHEM1\BNA_F\METHODS\8270-BF110818.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

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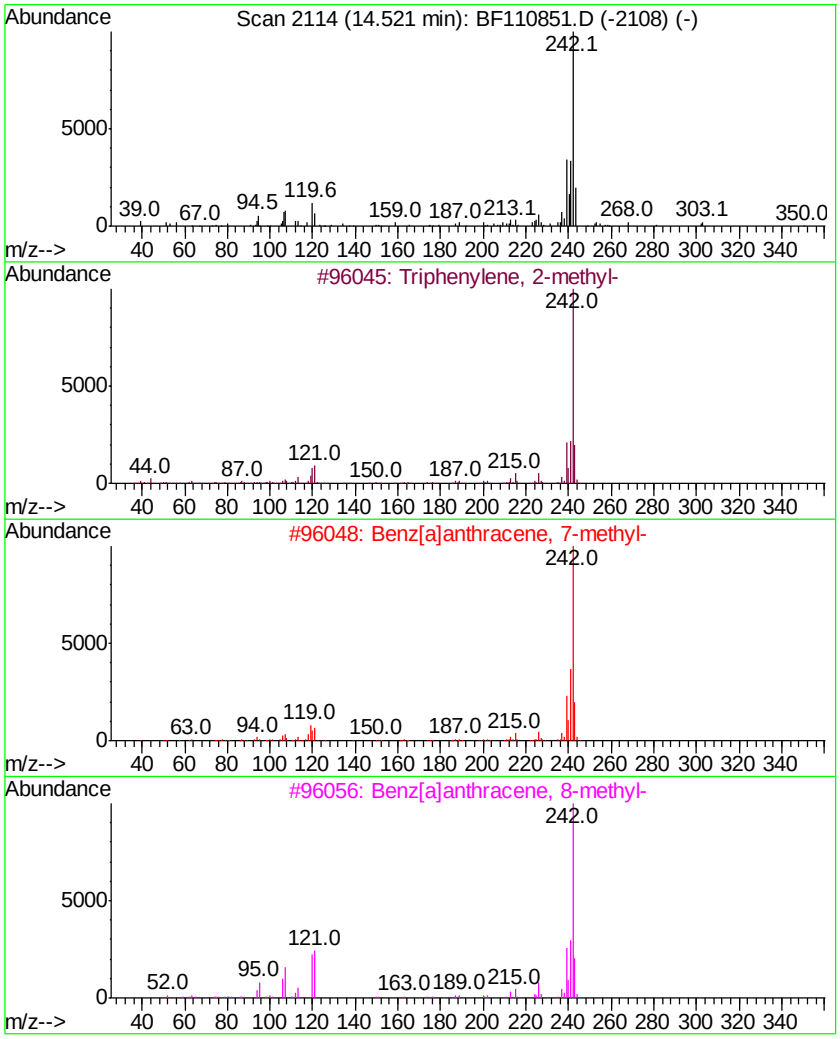
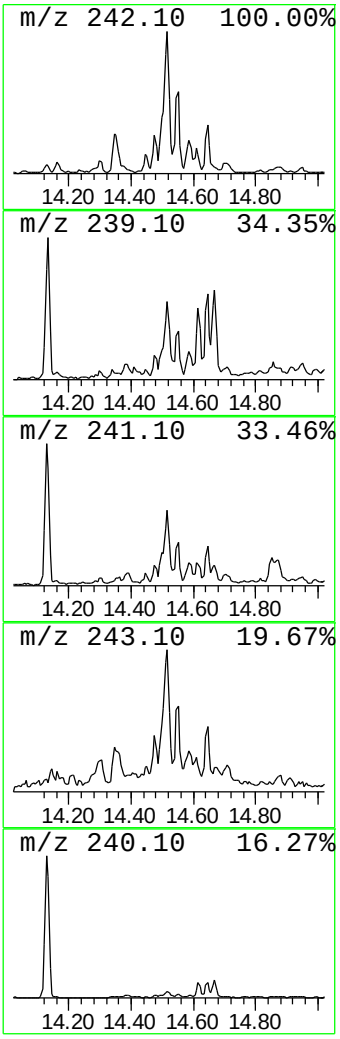
Peak Number 18 Triphenylene, 2-methyl- Concentration Rank 17

R.T.	EstConc	Area	Relative to ISTD	R.T.
14.52	3.64 ng	245892	Chrysene-d12	14.13

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Triphenylene, 2-methyl-	242	C19H14	001705-84-6	90
2	Benz[a]anthracene, 7-methyl-	242	C19H14	002541-69-7	90
3	Benz[a]anthracene, 8-methyl-	242	C19H14	002381-31-9	89
4	Chrysene, 1-methyl-	242	C19H14	003351-28-8	89
5	1H-Benz[f]indene, 2-phenyl-	242	C19H14	1000305-22-4	89





Data Path : Z:\SVOASRV\HPCHEM1\BNA F\DATA\BF111918\
Data File : BF110851.D
Acq On : 19 Nov 2018 14:24
Operator : JU/SJ
Sample : J5977-12 10X
Misc :
ALS Vial : 11 Sample Multiplier: 1

Instrument : BNA_F
ClientSampleId : MMTW-01(3-5)

Quant Method : Z:\SVOASRV\HPCHEM1\BNA_F\METHODS\8270-BF110818.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

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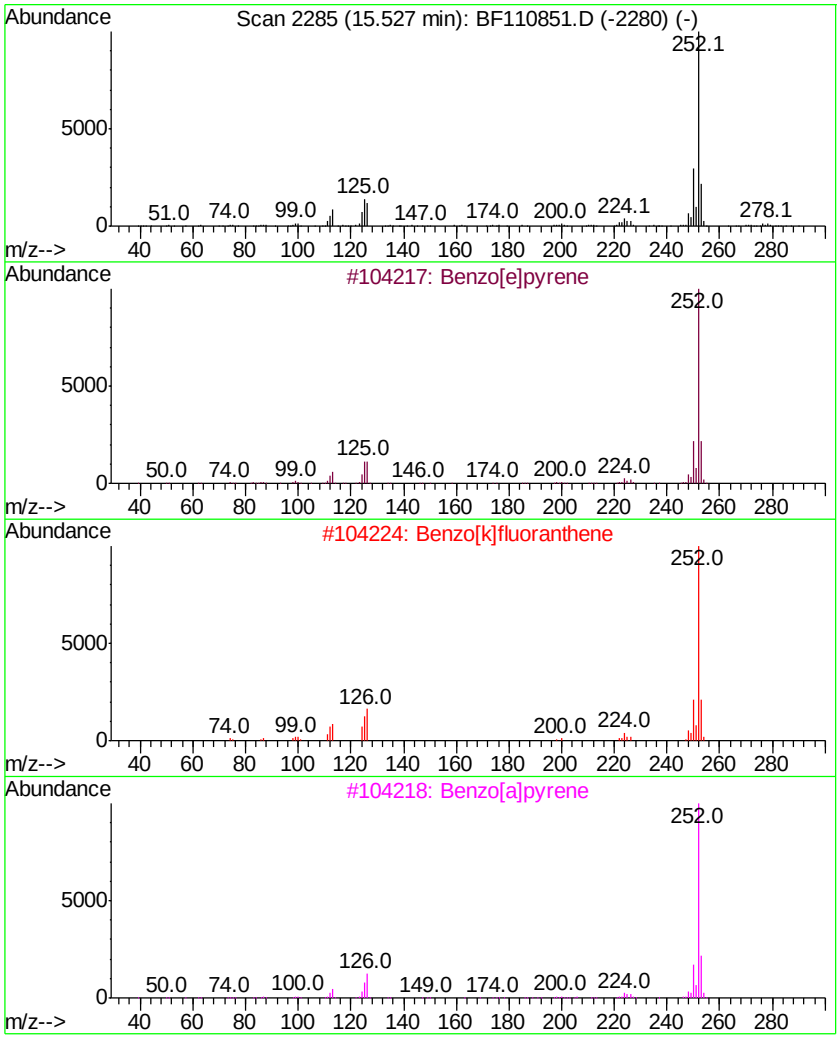
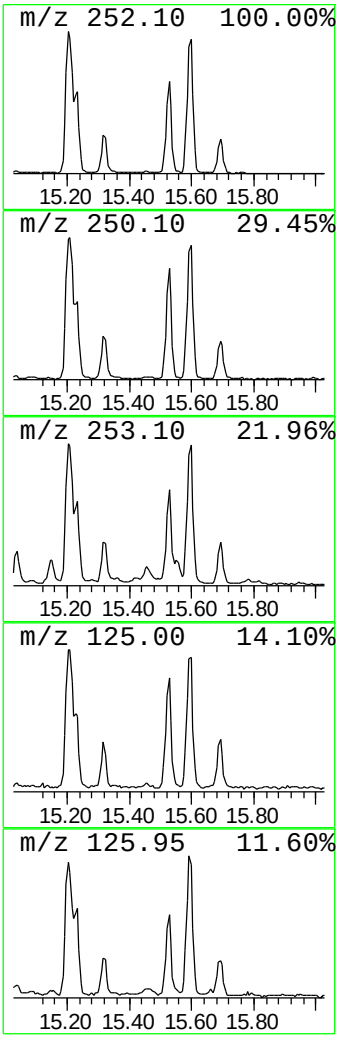
Peak Number 20 Benzo[e]pyrene Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
15.53	17.36 ng	372944	Perylene-d12	15.66

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzo[e]pyrene	252	C20H12	000192-97-2	99
2	Benzo[k]fluoranthene	252	C20H12	000207-08-9	97
3	Benzo[a]pyrene	252	C20H12	000050-32-8	96
4	Benz[e]acephenanthrylene	252	C20H12	000205-99-2	94
5	Perylene	252	C20H12	000198-55-0	93





Tentatively Identified Compound (LSC) summary

Data Path : Z:\SVOASRV\HPCHEM1\BNA_F\DATA\BF111918\
Data File : BF110851.D
Acq On : 19 Nov 2018 14:24
Operator : JU/SJ
Sample : J5977-12 10X
Misc :
ALS Vial : 11 Sample Multiplier: 1

Instrument : BNA_F
ClientSampleId : MMTW-01(3-5)

Quant Method : Z:\SVOASRV\HPCHEM1\BNA_F\METHODS\8270-BF110818.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

					Internal Standard			
TIC Top Hit name	RT	EstConc	Units	Response	#	RT	Resp	Conc
unknown6.71	6.71	6.9	ng	135005	1	6.94	390323	20.0
Naphthalene, 2,3-...	9.63	3.5	ng	98853	3	9.98	571991	20.0
9H-Fluorene, 2-me...	11.08	4.3	ng	113999	4	11.47	529184	20.0
Dibenzothiophene	11.37	4.8	ng	125767	4	11.47	529184	20.0
Phenanthrene, 1-m...	11.97	10.1	ng	268004	4	11.47	529184	20.0
Phenanthrene, 2-m...	12.00	10.6	ng	280189	4	11.47	529184	20.0
Phenanthrene, 3-m...	12.05	3.6	ng	96142	4	11.47	529184	20.0
4H-Cyclopenta[def...	12.09	18.5	ng	489104	4	11.47	529184	20.0
1H-Cyclopropa[l]p...	12.11	5.7	ng	151204	4	11.47	529184	20.0
Naphthalene, 2-ph...	12.27	5.6	ng	147425	4	11.47	529184	20.0
9,10-Anthracenedione	12.31	3.3	ng	88057	4	11.47	529184	20.0
Phenanthrene, 2,5...	12.53	5.9	ng	155964	4	11.47	529184	20.0
Indeno[2,1-a]inde...	12.57	5.2	ng	136384	4	11.47	529184	20.0
Cyclopenta(def)ph...	12.63	5.8	ng	153213	4	11.47	529184	20.0
11H-Benzo[b]fluorene	13.25	4.0	ng	266840	5	14.13	1352640	20.0
Triphenylene, 2-m...	14.52	3.6	ng	245892	5	14.13	1352640	20.0
Benzo[e]pyrene	15.53	17.4	ng	372944	6	15.66	429712	20.0