LSC Area Percent Report

Data Path : Z:\HPCHEM1\BNA F\DATA\BF051415\
Data File : BF079243.D
Acq On : 14 May 2015 20:29
Operator : TP/IZ
Sample : G2246-04 2X
Misc :
ALS Vial : 9 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** SB-12

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:\HPCHEM1\BNA_F\METHODS\8270-BF043015.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 | 1.358 | 12 | 15 | 17 | rVB | 2030088 | 2668621 | 47.27% | 5.858% |
| 2 | 1.484 | 24 | 26 | 39 | rVB | 120213 | 382851 | 6.78% | 0.840% |
| 3 | 1.655 | 39 | 41 | 43 | rVV | 99396 | 145378 | 2.57% | 0.319% |
| 4 | 1.690 | 43 | 44 | 53 | rVV | 282205 | 520725 | 9.22% | 1.143% |
| 5 | 1.815 | 53 | 55 | 85 | rVB | 2874819 | 5645817 | 100.00% | 12.393% |
| 6 | 4.993 | 330 | 333 | 341 | rVB | 99579 | 133831 | 2.37% | 0.294% |
| 7 | 5.507 | 376 | 378 | 381 | rBV | 557589 | 555752 | 9.84% | 1.220% |
| 8 | 6.776 | 487 | 489 | 492 | rBV | 534579 | 601421 | 10.65% | 1.320% |
| 9 | 6.924 | 500 | 502 | 505 | rBV | 665858 | 625478 | 11.08% | 1.373% |
| 10 | 7.210 | 525 | 527 | 530 | rBV | 199508 | 271926 | 4.82% | 0.597% |
| 11 | 7.404 | 542 | 544 | 546 | rBV | 482588 | 489555 | 8.67% | 1.075% |
| 12 | 7.907 | 585 | 588 | 590 | rBV | 434506 | 381713 | 6.76% | 0.838% |
| 13 | 8.787 | 663 | 665 | 667 | rBV | 329853 | 486754 | 8.62% | 1.069% |
| 14 | 8.822 | 667 | 668 | 670 | rVB | 336222 | 239314 | 4.24% | 0.525% |
| 15 | 9.679 | 741 | 743 | 745 | rBV | 153781 | 130354 | 2.31% | 0.286% |
| 16 | 9.793 | 751 | 753 | 756 | rBV | 69970 | 96613 | 1.71% | 0.212% |
| 17 | 10.136 | 781 | 783 | 786 | rBV | 846251 | 766078 | 13.57% | 1.682% |
| 18 | 10.788 | 838 | 840 | 843 | rBV | 114325 | 129454 | 2.29% | 0.284% |
| 19 | 10.971 | 853 | 856 | 858 | rBV | 372480 | 462355 | 8.19% | 1.015% |
| 20 | 11.005 | 858 | 859 | 862 | rVB | 259137 | 211904 | 3.75% | 0.465% |
| 21 | 11.222 | 875 | 878 | 881 | rBV | 174335 | 168701 | 2.99% | 0.370% |
| 22 | 11.645 | 913 | 915 | 917 | rBV | 164291 | 154954 | 2.74% | 0.340% |
| 23 | 11.942 | 939 | 941 | 944 | rVB | 483627 | 568084 | 10.06% | 1.247% |
| 24 | 12.331 | 971 | 975 | 977 | rBV3 | 42159 | 90483 | 1.60% | 0.199% |
| 25 | 12.502 | 986 | 990 | 991 | rBV | 38557 | 71790 | 1.27% | 0.158% |
| 26 | 12.571 | 993 | 996 | 999 | rVB | 113196 | 132823 | 2.35% | 0.292% |
| 27 | 12.639 | 999 | 1002 | 1004 | rBV | 106571 | 131360 | 2.33% | 0.288% |
| 28 | 12.674 | 1004 | 1005 | 1014 | rVB | 85251 | 139651 | 2.47% | 0.307% |
| 29 | 12.811 | 1014 | 1017 | 1018 | rBV | 452700 | 458088 | 8.11% | 1.006% |
| 30 | 12.845 | 1018 | 1020 | 1022 | rVV | 1563887 | 1775704 | 31.45% | 3.898% |
| 31 | 12.902 | 1022 | 1025 | 1027 | rVV | 353087 | 365136 | 6.47% | 0.802% |
| 32 | 13.108 | 1041 | 1043 | 1045 | rVV | 170088 | 156045 | 2.76% | 0.343% |
| 33 | 13.439 | 1068 | 1072 | 1073 | rBV | 240163 | 248242 | 4.40% | 0.545% |
| 34 | 13.474 | 1073 | 1075 | 1078 | rVB | 344884 | 342236 | 6.06% | 0.751% |

LSC Area Percent Report

Data Path : Z:\HPCHEM1\BNA F\DATA\BF051415\
Data File : BF079243.D
Acq On : 14 May 2015 20:29
Operator : TP/IZ
Sample : G2246-04 2X
Misc :
ALS Vial : 9 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** SB-12

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:\HPCHEM1\BNA_F\METHODS\8270-BF043015.M
Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 35 | 13.531 | 1078 | 1080 | 1082 | rBV | 145186 | 144067 | 2.55% | 0.316% |
| 36 | 13.577 | 1082 | 1084 | 1085 | rBV | 274129 | 389797 | 6.90% | 0.856% |
| 37 | 13.817 | 1103 | 1105 | 1109 | rVB2 | 178636 | 278586 | 4.93% | 0.612% |
| 38 | 13.999 | 1117 | 1121 | 1123 | rBV2 | 58155 | 100859 | 1.79% | 0.221% |
| 39 | 14.125 | 1128 | 1132 | 1134 | rBV | 145278 | 205576 | 3.64% | 0.451% |
| 40 | 14.171 | 1134 | 1136 | 1139 | rVV2 | 74660 | 153747 | 2.72% | 0.337% |
| 41 | 14.228 | 1139 | 1141 | 1146 | rVB3 | 112350 | 197019 | 3.49% | 0.432% |
| 42 | 14.319 | 1146 | 1149 | 1152 | rBV | 2288598 | 2356718 | 41.74% | 5.173% |
| 43 | 14.434 | 1157 | 1159 | 1161 | rVB | 95556 | 105790 | 1.87% | 0.232% |
| 44 | 14.502 | 1161 | 1165 | 1166 | rBV2 | 140644 | 194711 | 3.45% | 0.427% |
| 45 | 14.605 | 1170 | 1174 | 1176 | rVV | 1695013 | 2542926 | 45.04% | 5.582% |
| 46 | 14.662 | 1178 | 1179 | 1184 | rVB2 | 104603 | 149621 | 2.65% | 0.328% |
| 47 | 14.754 | 1185 | 1187 | 1189 | rBV | 136623 | 153292 | 2.72% | 0.337% |
| 48 | 14.799 | 1189 | 1191 | 1194 | rVB2 | 620436 | 936873 | 16.59% | 2.057% |
| 49 | 14.880 | 1194 | 1198 | 1200 | rBV2 | 144332 | 267219 | 4.73% | 0.587% |
| 50 | 15.017 | 1205 | 1210 | 1212 | rVB2 | 241456 | 626033 | 11.09% | 1.374% |
| 51 | 15.097 | 1216 | 1217 | 1219 | rVV | 101357 | 101793 | 1.80% | 0.223% |
| 52 | 15.142 | 1219 | 1221 | 1224 | rVV | 283449 | 345223 | 6.11% | 0.758% |
| 53 | 15.257 | 1229 | 1231 | 1233 | rVV | 181921 | 208609 | 3.69% | 0.458% |
| 54 | 15.291 | 1233 | 1234 | 1236 | rVV | 183903 | 201987 | 3.58% | 0.443% |
| 55 | 15.337 | 1236 | 1238 | 1241 | rVB3 | 47836 | 96215 | 1.70% | 0.211% |
| 56 | 15.394 | 1241 | 1243 | 1245 | rBV2 | 37782 | 73217 | 1.30% | 0.161% |
| 57 | 15.645 | 1261 | 1265 | 1269 | rVB2 | 176716 | 297186 | 5.26% | 0.652% |
| 58 | 15.782 | 1274 | 1277 | 1279 | rVV2 | 160468 | 270195 | 4.79% | 0.593% |
| 59 | 15.828 | 1279 | 1281 | 1284 | rVV2 | 192982 | 373696 | 6.62% | 0.820% |
| 60 | 15.885 | 1284 | 1286 | 1287 | rVV2 | 99294 | 170581 | 3.02% | 0.374% |
| 61 | 15.920 | 1287 | 1289 | 1291 | rVB | 167877 | 201048 | 3.56% | 0.441% |
| 62 | 15.988 | 1292 | 1295 | 1301 | rBV3 | 82560 | 205029 | 3.63% | 0.450% |
| 63 | 16.102 | 1301 | 1305 | 1308 | rBV2 | 1100703 | 2260078 | 40.03% | 4.961% |
| 64 | 16.148 | 1308 | 1309 | 1314 | rVB | 1023769 | 1053104 | 18.65% | 2.312% |
| 65 | 16.251 | 1314 | 1318 | 1319 | rBV2 | 75750 | 140442 | 2.49% | 0.308% |
| 66 | 16.297 | 1319 | 1322 | 1324 | rBV3 | 64280 | 114340 | 2.03% | 0.251% |
| 67 | 16.377 | 1326 | 1329 | 1331 | rVV3 | 84214 | 156941 | 2.78% | 0.345% |
| 68 | 16.422 | 1331 | 1333 | 1335 | rVV | 111643 | 151211 | 2.68% | 0.332% |
| 69 | 16.548 | 1341 | 1344 | 1345 | rBV3 | 52566 | 94542 | 1.67% | 0.208% |
| 70 | 16.628 | 1348 | 1351 | 1353 | rVV | 221804 | 281209 | 4.98% | 0.617% |
| 71 | 16.674 | 1353 | 1355 | 1358 | rVV | 107684 | 124389 | 2.20% | 0.273% |

LSC Area Percent Report

Data Path : Z:\HPCHEM1\BNA F\DATA\BF051415\
Data File : BF079243.D
Acq On : 14 May 2015 20:29
Operator : TP/IZ
Sample : G2246-04 2X
Misc :
ALS Vial : 9 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** SB-12

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:\HPCHEM1\BNA_F\METHODS\8270-BF043015.M
Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 72 | 16.754 | 1360 | 1362 | 1363 | rVV | 87415 | 96224 | 1.70% | 0.211% |
| 73 | 16.788 | 1363 | 1365 | 1369 | rVV3 | 84708 | 172708 | 3.06% | 0.379% |
| 74 | 16.903 | 1373 | 1375 | 1379 | rVB2 | 76927 | 113196 | 2.00% | 0.248% |
| 75 | 17.040 | 1384 | 1387 | 1388 | rBV2 | 78794 | 118692 | 2.10% | 0.261% |
| 76 | 17.245 | 1403 | 1405 | 1406 | rBV | 63738 | 90134 | 1.60% | 0.198% |
| 77 | 17.463 | 1421 | 1424 | 1429 | rBV | 913140 | 2080674 | 36.85% | 4.567% |
| 78 | 17.577 | 1433 | 1434 | 1437 | rVB | 148794 | 183756 | 3.25% | 0.403% |
| 79 | 17.714 | 1442 | 1446 | 1447 | rVV2 | 49713 | 89394 | 1.58% | 0.196% |
| 80 | 17.794 | 1450 | 1453 | 1456 | rVV | 610787 | 821375 | 14.55% | 1.803% |
| 81 | 17.863 | 1456 | 1459 | 1462 | rVB | 941218 | 1126214 | 19.95% | 2.472% |
| 82 | 17.931 | 1462 | 1465 | 1466 | rBV | 459695 | 586728 | 10.39% | 1.288% |
| 83 | 17.954 | 1466 | 1467 | 1474 | rVB2 | 207230 | 396421 | 7.02% | 0.870% |
| 84 | 18.114 | 1478 | 1481 | 1482 | rBV2 | 41312 | 85777 | 1.52% | 0.188% |
| 85 | 18.251 | 1489 | 1493 | 1495 | rBV2 | 57114 | 146449 | 2.59% | 0.321% |
| 86 | 18.366 | 1500 | 1503 | 1505 | rVV | 35921 | 73848 | 1.31% | 0.162% |
| 87 | 18.480 | 1511 | 1513 | 1514 | rVV2 | 53891 | 95946 | 1.70% | 0.211% |
| 88 | 18.846 | 1543 | 1545 | 1549 | rVB2 | 49174 | 102064 | 1.81% | 0.224% |
| 89 | 19.051 | 1561 | 1563 | 1570 | rVB5 | 66215 | 209001 | 3.70% | 0.459% |
| 90 | 19.211 | 1572 | 1577 | 1580 | rBV3 | 112187 | 300022 | 5.31% | 0.659% |
| 91 | 19.371 | 1588 | 1591 | 1596 | rVB2 | 404584 | 857417 | 15.19% | 1.882% |
| 92 | 19.451 | 1596 | 1598 | 1603 | rVB | 34529 | 79182 | 1.40% | 0.174% |
| 93 | 19.554 | 1603 | 1607 | 1609 | rBV | 92872 | 228685 | 4.05% | 0.502% |
| 94 | 19.600 | 1609 | 1611 | 1614 | rVB2 | 88402 | 148605 | 2.63% | 0.326% |
| 95 | 19.794 | 1624 | 1628 | 1637 | rVB | 370981 | 774815 | 13.72% | 1.701% |
| 96 | 20.011 | 1645 | 1647 | 1651 | rVB | 88350 | 177052 | 3.14% | 0.389% |
| 97 | 21.954 | 1810 | 1817 | 1825 | rVB2 | 84621 | 382785 | 6.78% | 0.840% |
| 98 | 22.137 | 1827 | 1833 | 1837 | rBV | 71020 | 291326 | 5.16% | 0.640% |
| 99 | 23.029 | 1906 | 1911 | 1913 | rBV | 36601 | 133238 | 2.36% | 0.292% |
| 100 | 23.292 | 1929 | 1934 | 1940 | rBV2 | 32989 | 120005 | 2.13% | 0.263% |

Sum of corrected areas: 45554793

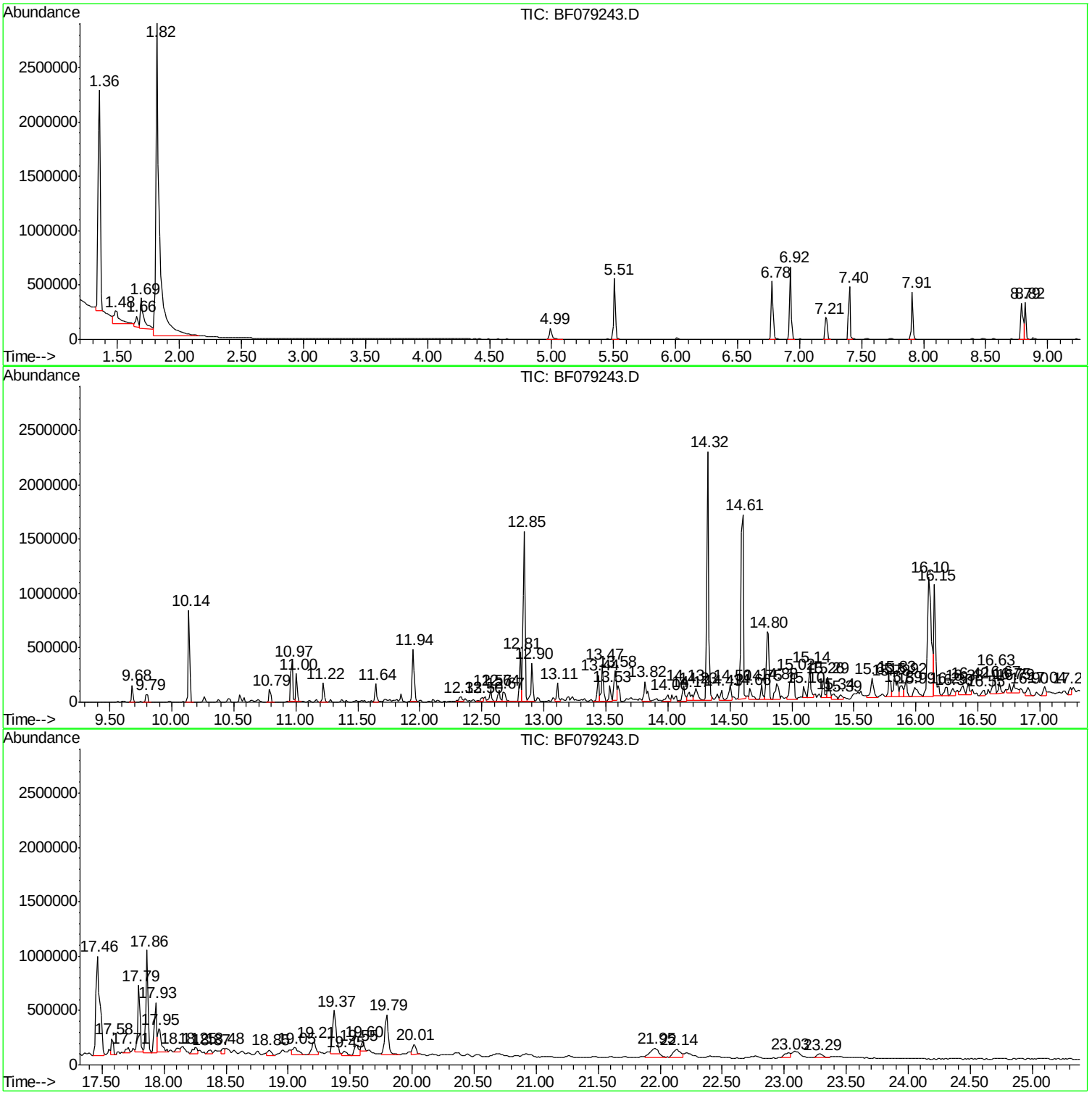
LSC Report - Integrated Chromatogram

Data Path : Z:\HPCHEM1\BNA F\DATA\BF051415\
Data File : BF079243.D
Acq On : 14 May 2015 20:29
Operator : TP/IZ
Sample : G2246-04 2X
Misc :
ALS Vial : 9 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** SB-12

Quant Method : Z:\HPCHEM1\BNA_F\METHODS\8270-BF043015.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

TIC Library : C:\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P



Data Path : Z:\HPCHEM1\BNA F\DATA\BF051415\
Data File : BF079243.D
Acq On : 14 May 2015 20:29
Operator : TP/IZ
Sample : G2246-04 2X
Misc :
ALS Vial : 9 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** SB-12

Quant Method : Z:\HPCHEM1\BNA_F\METHODS\8270-BF043015.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

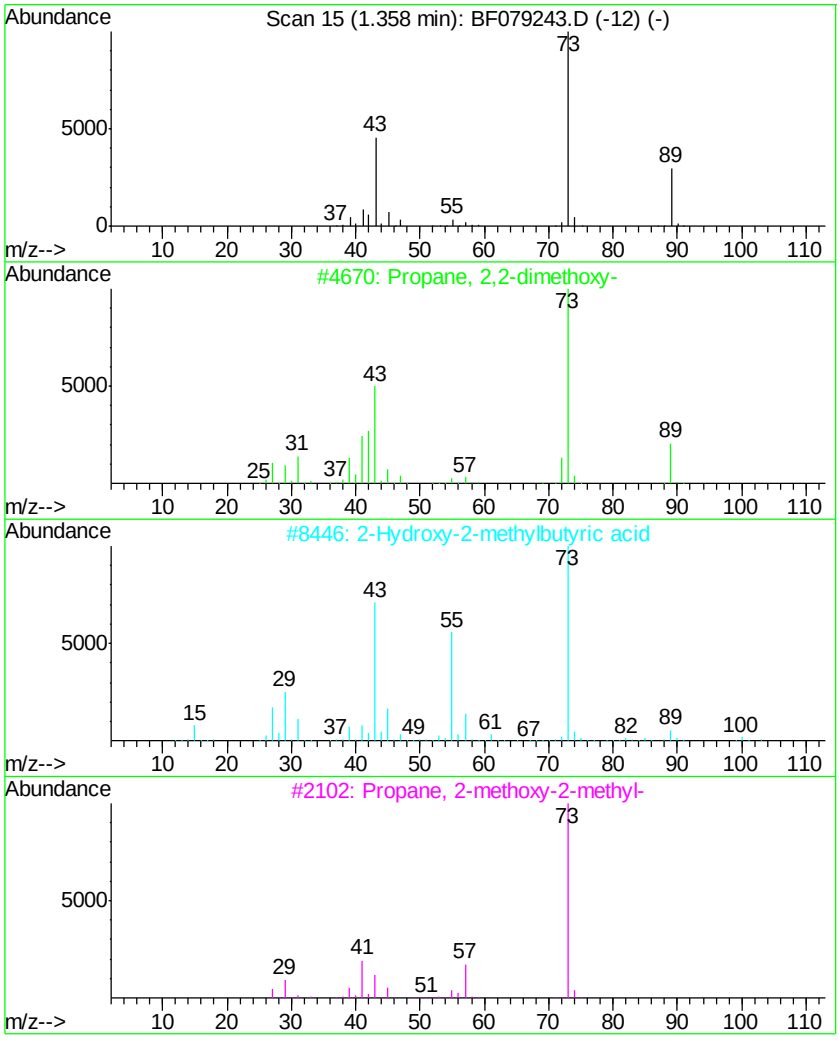
TIC Library : C:\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

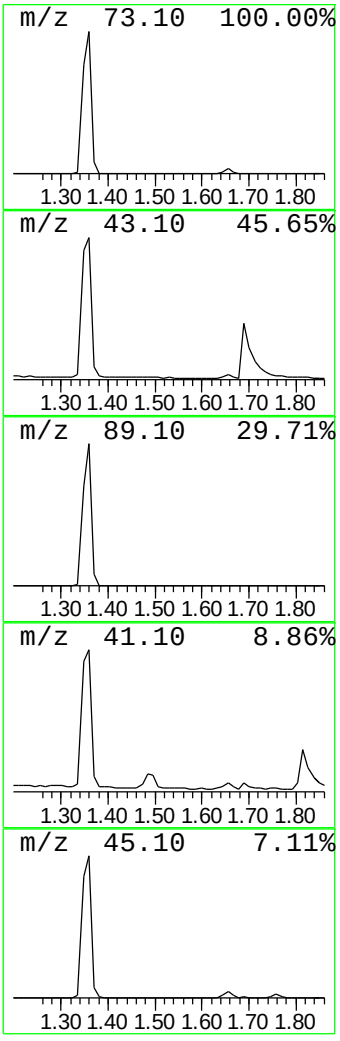
**********

Peak Number 1 unknown1.36 Concentration Rank 2

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 1.36 | 196.28 ng | 2668620 | 1,4-Dichlorobenzene-d4 | 7.22 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Propane, 2,2-dimethoxy- | 104 | C5H12O2 | 000077-76-9 | 38 |
| 2 | 2-Hydroxy-2-methylbutyric acid | 118 | C5H10O3 | 003739-30-8 | 9 |
| 3 | Propane, 2-methoxy-2-methyl- | 88 | C5H12O | 001634-04-4 | 9 |
| 4 | Methane, isothiocyanato- | 73 | C2H3NS | 000556-61-6 | 7 |
| 5 | N-Ethylformamide | 73 | C3H7NO | 000627-45-2 | 5 |



Data Path : Z:\HPCHEM1\BNA F\DATA\BF051415\
Data File : BF079243.D
Acq On : 14 May 2015 20:29
Operator : TP/IZ
Sample : G2246-04 2X
Misc :
ALS Vial : 9 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** SB-12

Quant Method : Z:\HPCHEM1\BNA_F\METHODS\8270-BF043015.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

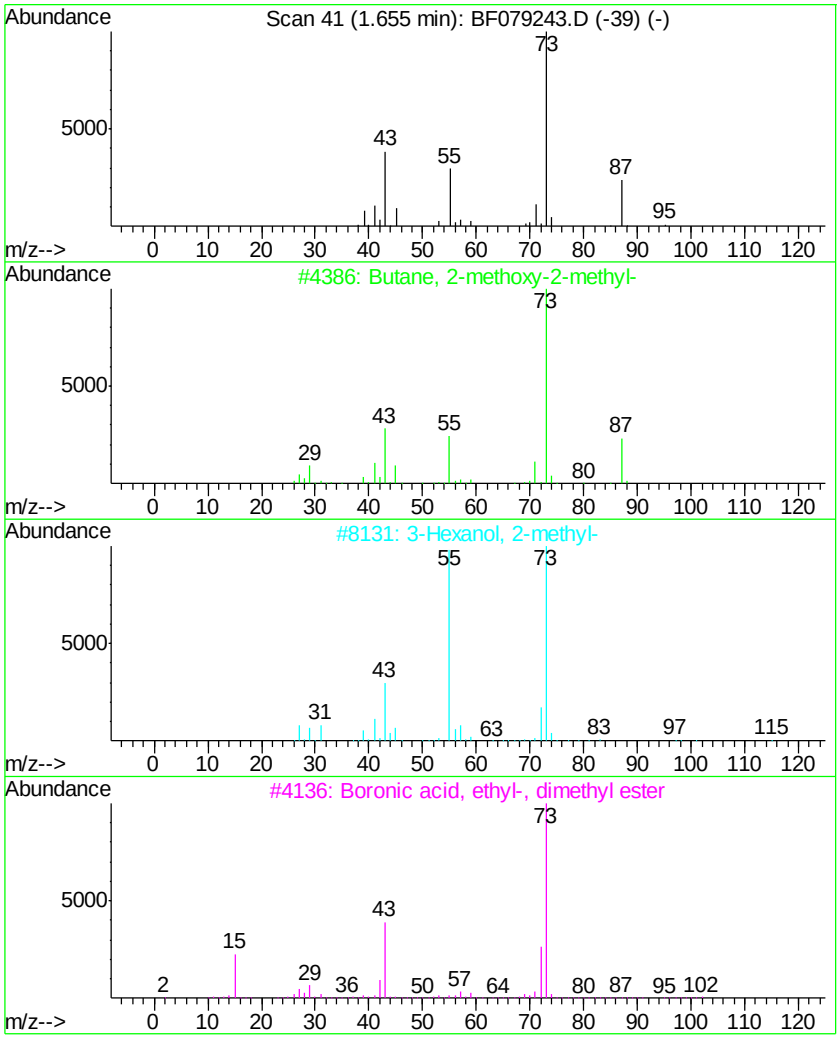
TIC Library : C:\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

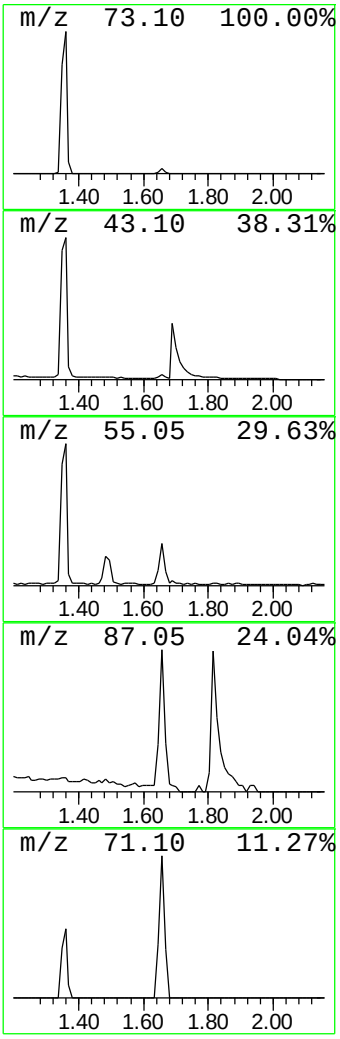
**********

Peak Number 3 Butane, 2-methoxy-2-methyl- Concentration Rank 13

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 1.66 | 10.69 ng | 145378 | 1,4-Dichlorobenzene-d4 | 7.22 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Butane, 2-methoxy-2-methyl- | 102 | C6H14O | 000994-05-8 | 83 |
| 2 | 3-Hexanol, 2-methyl- | 116 | C7H16O | 000617-29-8 | 25 |
| 3 | Boronic acid, ethyl-, dimethyl e... | 102 | C4H11BO2 | 007318-82-3 | 17 |
| 4 | Silane, tetramethyl- | 88 | C4H12Si | 000075-76-3 | 9 |
| 5 | N-Ethylformamide | 73 | C3H7NO | 000627-45-2 | 9 |



Data Path : Z:\HPCHEM1\BNA F\DATA\BF051415\
Data File : BF079243.D
Acq On : 14 May 2015 20:29
Operator : TP/IZ
Sample : G2246-04 2X
Misc :
ALS Vial : 9 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** SB-12

Quant Method : Z:\HPCHEM1\BNA_F\METHODS\8270-BF043015.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

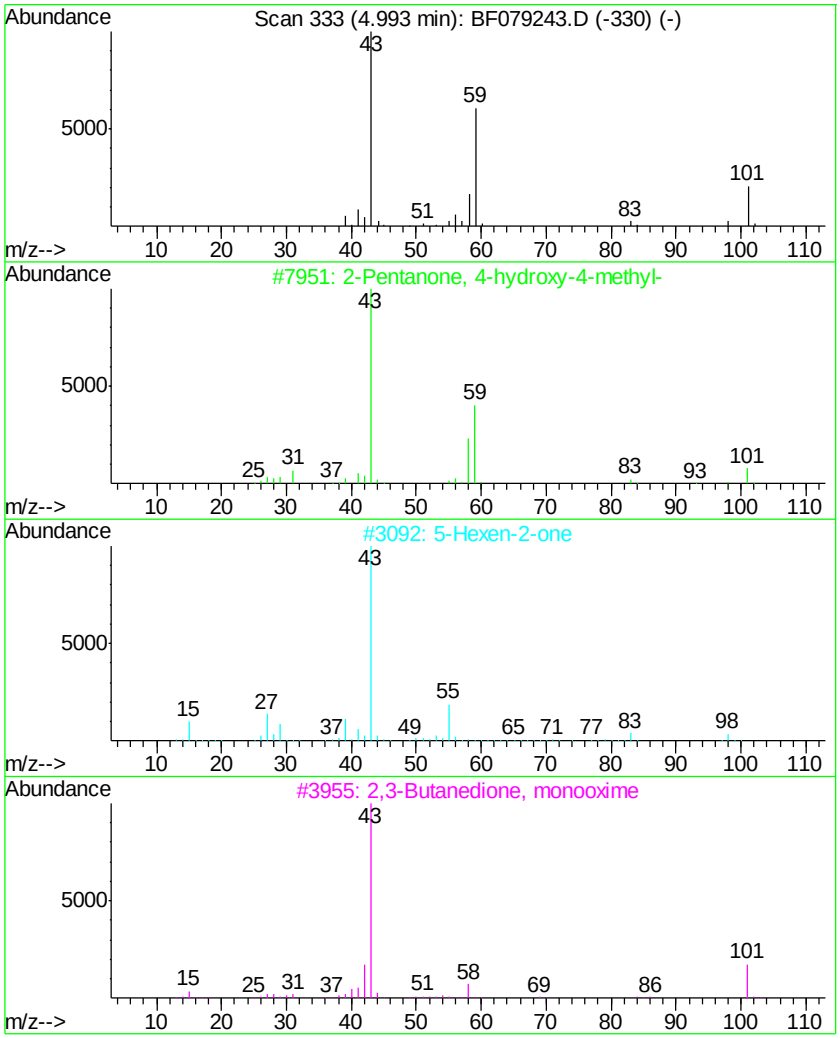
TIC Library : C:\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

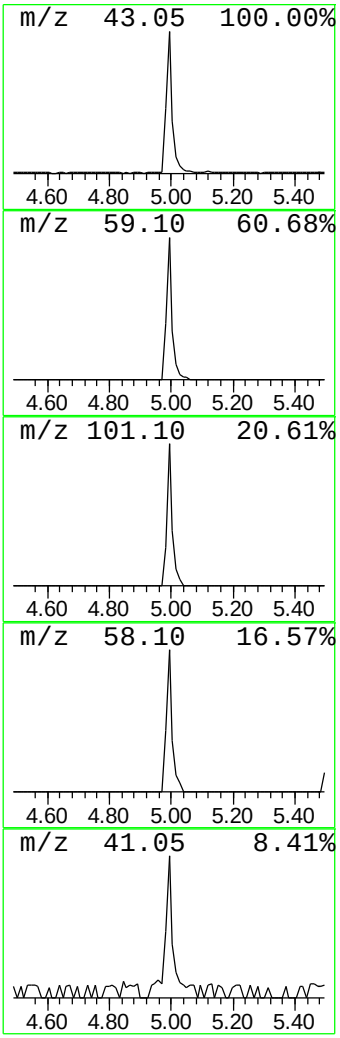
**********

Peak Number 6 2-Pentanone, 4-hydroxy-4-me... Concentration Rank 16

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 4.99 | 9.84 ng | 133831 | 1,4-Dichlorobenzene-d4 | 7.22 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | 2-Pentanone, 4-hydroxy-4-methyl- | 116 | C6H12O2 | 000123-42-2 | 56 |
| 2 | 5-Hexen-2-one | 98 | C6H10O | 000109-49-9 | 9 |
| 3 | 2,3-Butanedione, monooxime | 101 | C4H7NO2 | 000057-71-6 | 9 |
| 4 | Morpholine, 4-methyl- | 101 | C5H11NO | 000109-02-4 | 9 |
| 5 | Acetic acid, 1,1-dimethylethyl e... | 116 | C6H12O2 | 000540-88-5 | 9 |



Data Path : Z:\HPCHEM1\BNA F\DATA\BF051415\
Data File : BF079243.D
Acq On : 14 May 2015 20:29
Operator : TP/IZ
Sample : G2246-04 2X
Misc :
ALS Vial : 9 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** SB-12

Quant Method : Z:\HPCHEM1\BNA_F\METHODS\8270-BF043015.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

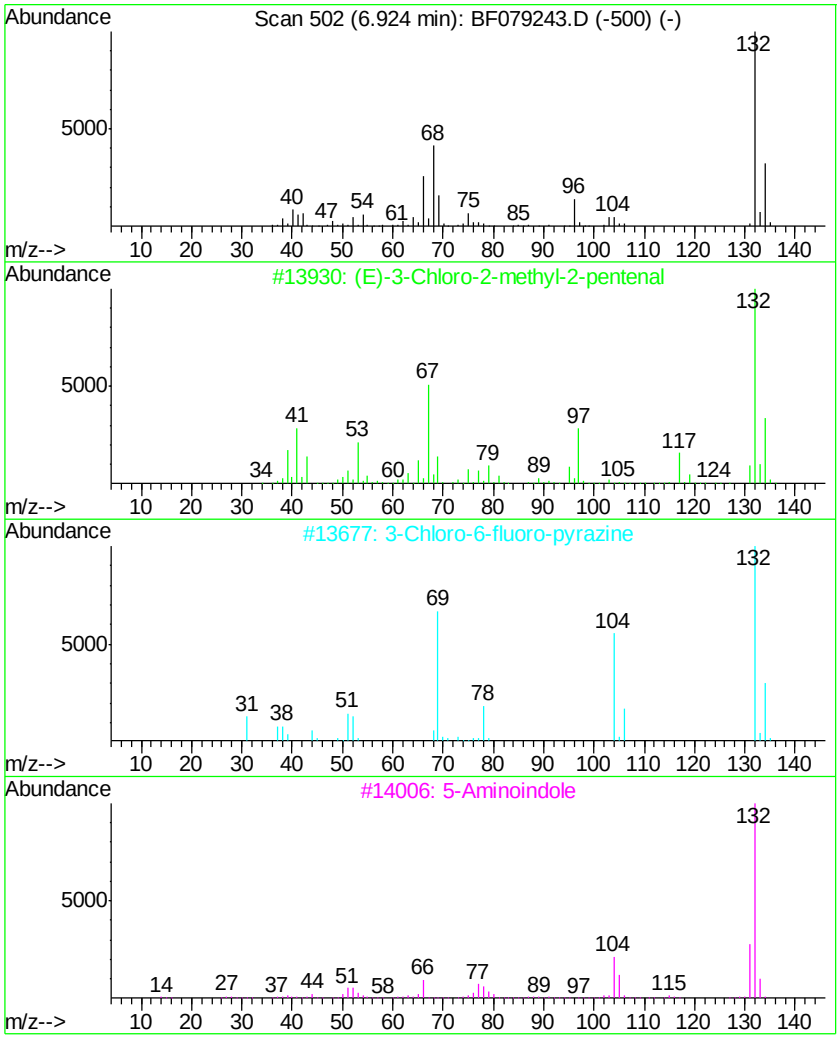
TIC Library : C:\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

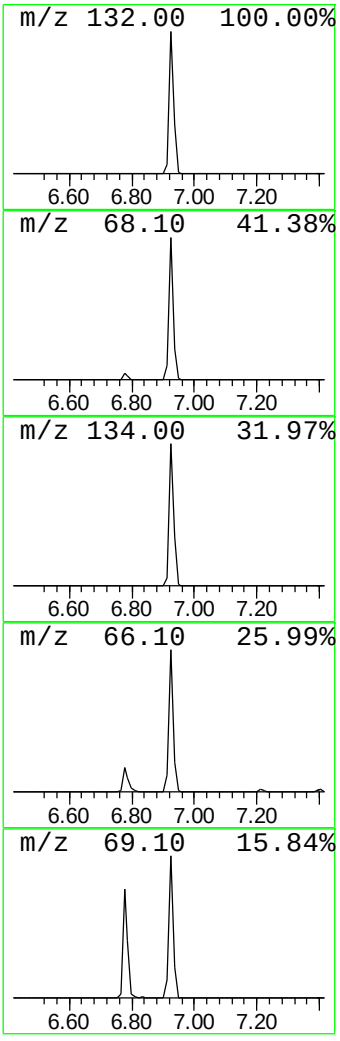
**********

Peak Number 7 unknown6.92 Concentration Rank 3

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 6.92 | 46.00 ng | 625478 | 1,4-Dichlorobenzene-d4 | 7.22 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | (E)-3-Chloro-2-methyl-2-pentenal | 132 | C6H9ClO | 031357-76-3 | 27 |
| 2 | 3-Chloro-6-fluoro-pyrazine | 132 | C4H2ClFN2 | 1000146-10-7 | 27 |
| 3 | 5-Aminoindole | 132 | C8H8N2 | 005192-03-0 | 12 |
| 4 | Tranylcypromine-propionyl | 189 | C12H15NO | 1000123-86-3 | 10 |
| 5 | Bicyclo[4.2.0]octa-1,3,5-triene,... | 132 | C10H12 | 028749-81-7 | 9 |



Data Path : Z:\HPCHEM1\BNA F\DATA\BF051415\
Data File : BF079243.D
Acq On : 14 May 2015 20:29
Operator : TP/IZ
Sample : G2246-04 2X
Misc :
ALS Vial : 9 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** SB-12

Quant Method : Z:\HPCHEM1\BNA_F\METHODS\8270-BF043015.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

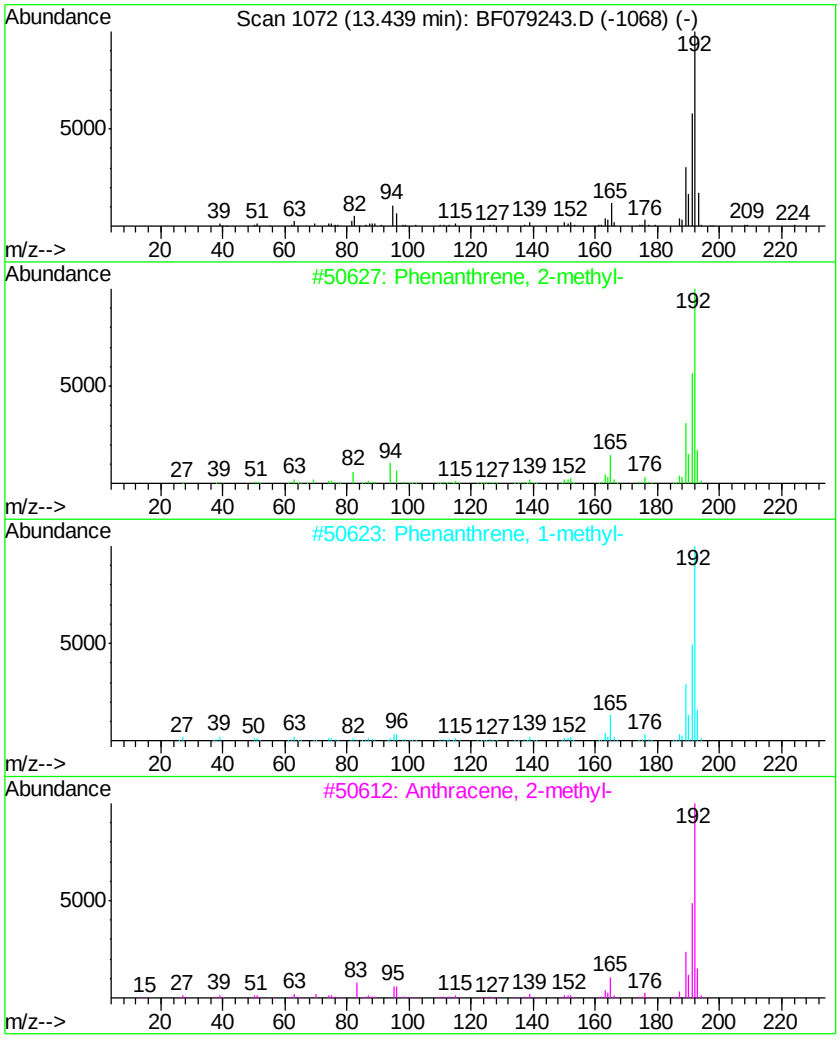
TIC Library : C:\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

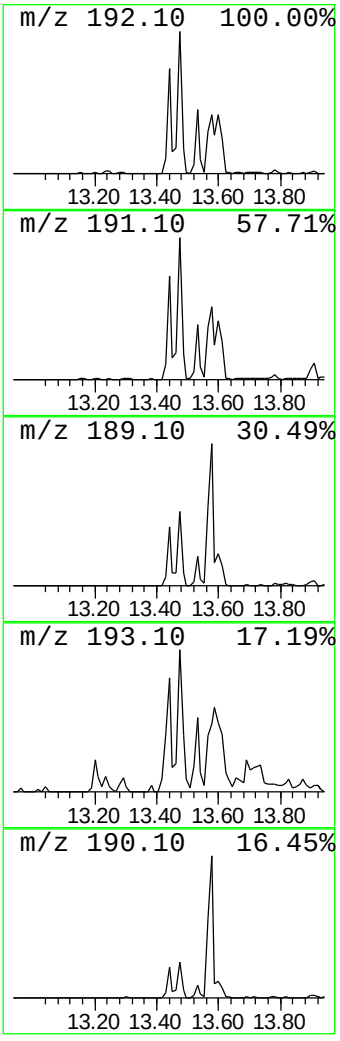
**********

Peak Number 9 Phenanthrene, 2-methyl- Concentration Rank 12

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 13.44 | 10.84 ng | 248242 | Phenanthrene-d10 | 12.81 |

| 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, 9-methyl- | 192 | C15H12 | 000779-02-2 | 91 |
| 5 | Anthracene, 1-methyl- | 192 | C15H12 | 000610-48-0 | 91 |



Data Path : Z:\HPCHEM1\BNA F\DATA\BF051415\
Data File : BF079243.D
Acq On : 14 May 2015 20:29
Operator : TP/IZ
Sample : G2246-04 2X
Misc :
ALS Vial : 9 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** SB-12

Quant Method : Z:\HPCHEM1\BNA_F\METHODS\8270-BF043015.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

TIC Library : C:\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

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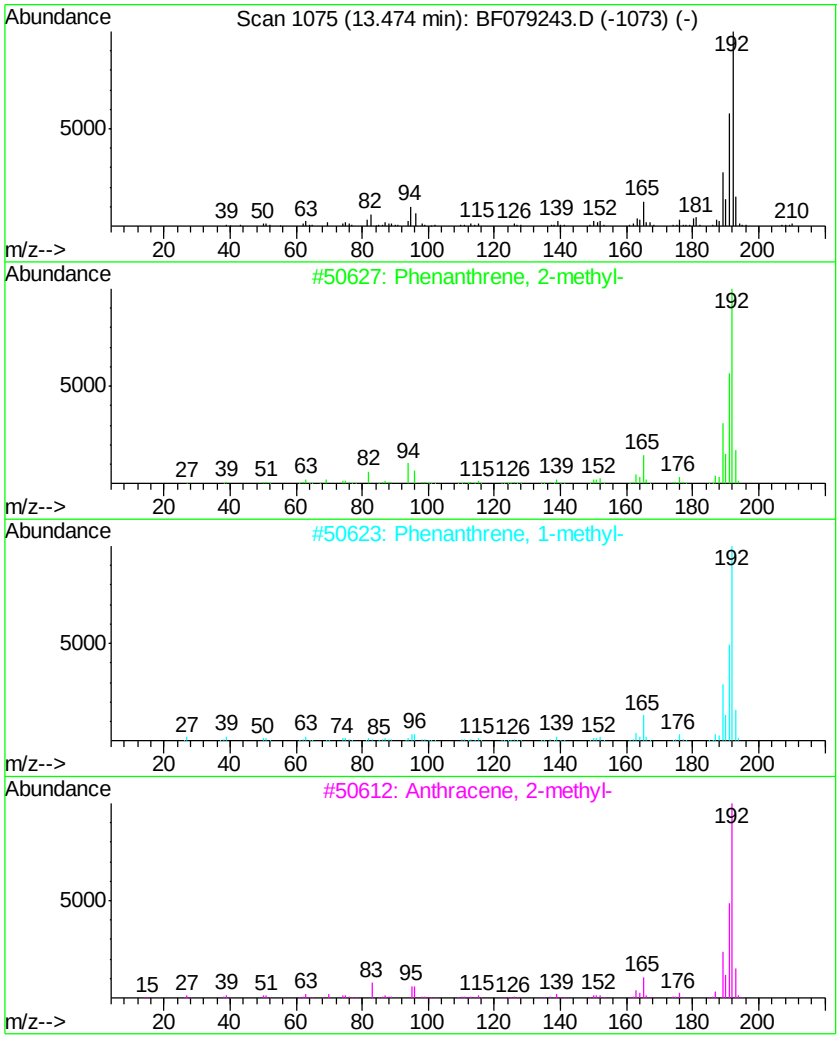
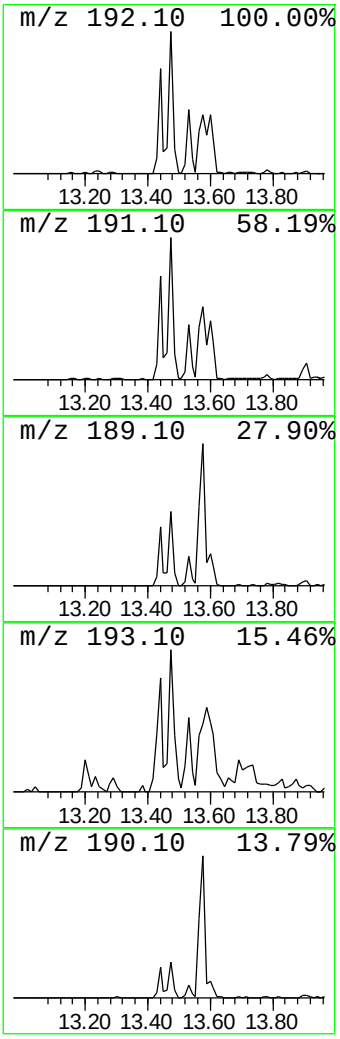
Peak Number 10 Phenanthrene, 1-methyl- Concentration Rank 9

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 13.47 | 14.94 ng | 342236 | Phenanthrene-d10 | 12.81 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Phenanthrene, 2-methyl- | 192 | C15H12 | 002531-84-2 | 98 |
| 2 | Phenanthrene, 1-methyl- | 192 | C15H12 | 000832-69-9 | 97 |
| 3 | Anthracene, 2-methyl- | 192 | C15H12 | 000613-12-7 | 96 |
| 4 | Anthracene, 9-methyl- | 192 | C15H12 | 000779-02-2 | 95 |
| 5 | 5H-Dibenzo[a,d]cycloheptene | 192 | C15H12 | 000256-81-5 | 94 |



Data Path : Z:\HPCHEM1\BNA F\DATA\BF051415\
Data File : BF079243.D
Acq On : 14 May 2015 20:29
Operator : TP/IZ
Sample : G2246-04 2X
Misc :
ALS Vial : 9 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** SB-12

Quant Method : Z:\HPCHEM1\BNA_F\METHODS\8270-BF043015.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

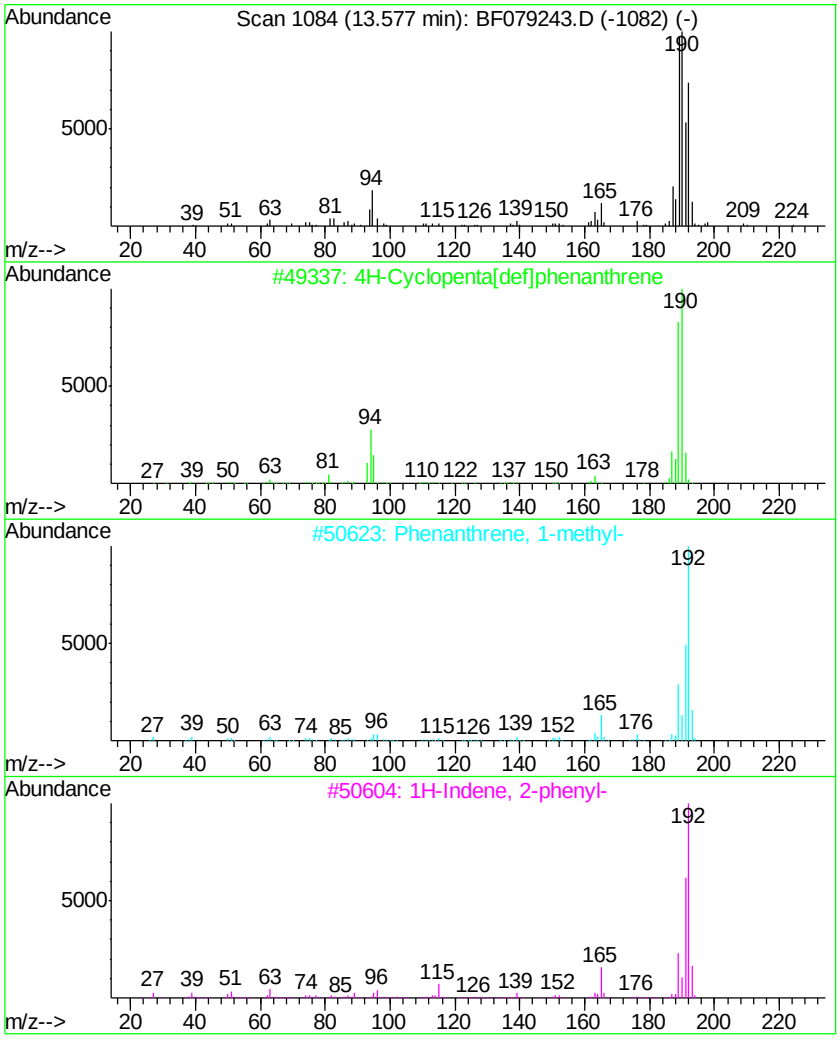
TIC Library : C:\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

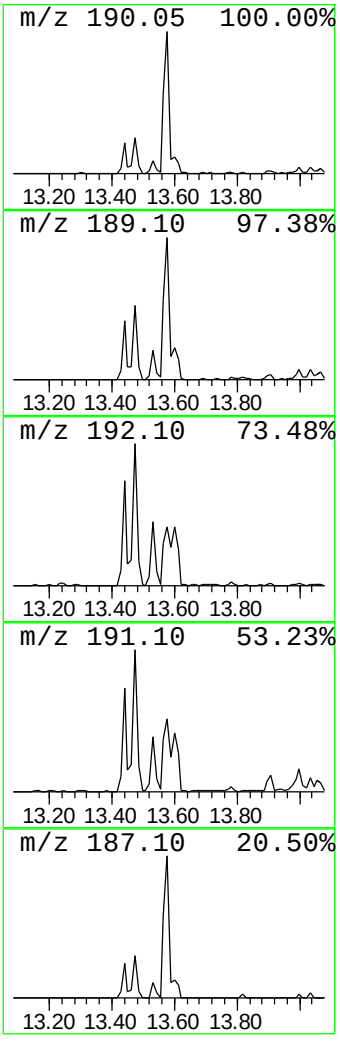
**********

Peak Number 11 4H-Cyclopenta[def]phenanthrene Concentration Rank 8

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 13.58 | 17.02 ng | 389797 | Phenanthrene-d10 | 12.81 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | 4H-Cyclopenta[def]phenanthrene | 190 | C15H10 | 000203-64-5 | 90 |
| 2 | Phenanthrene, 1-methyl- | 192 | C15H12 | 000832-69-9 | 80 |
| 3 | 1H-Indene, 2-phenyl- | 192 | C15H12 | 004505-48-0 | 42 |
| 4 | Anthracene, 2-methyl- | 192 | C15H12 | 000613-12-7 | 42 |
| 5 | Phenanthrene, 4-methyl- | 192 | C15H12 | 000832-64-4 | 42 |



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Data File : BF079243.D
Acq On : 14 May 2015 20:29
Operator : TP/IZ
Sample : G2246-04 2X
Misc :
ALS Vial : 9 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** SB-12

Quant Method : Z:\HPCHEM1\BNA_F\METHODS\8270-BF043015.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

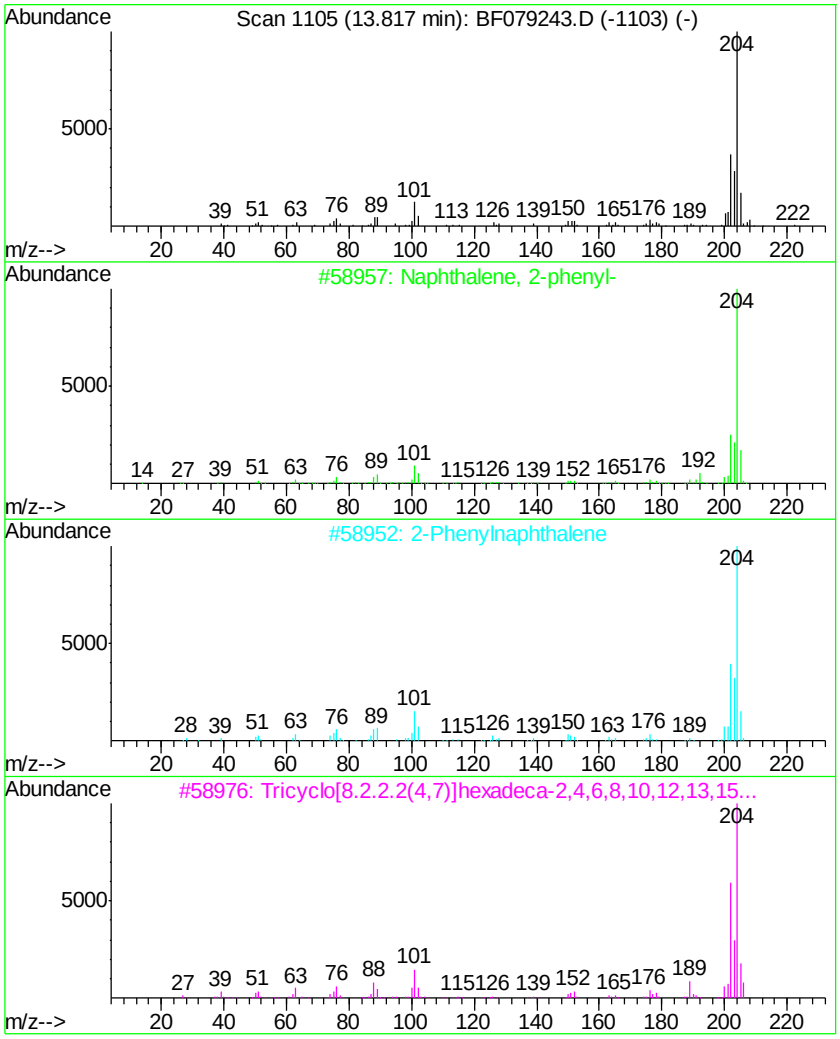
TIC Library : C:\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

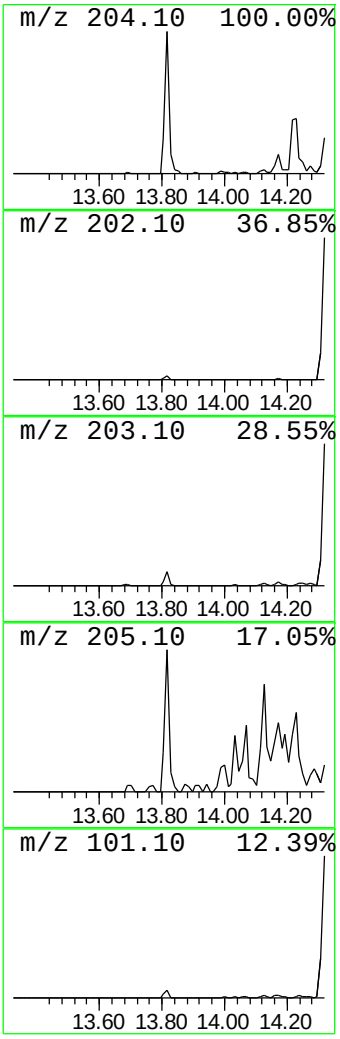
**********

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

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 13.82 | 12.16 ng | 278586 | Phenanthrene-d10 | 12.81 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Naphthalene, 2-phenyl- | 204 | C16H12 | 000612-94-2 | 95 |
| 2 | 2-Phenylnaphthalene | 204 | C16H12 | 035465-71-5 | 93 |
| 3 | Tricyclo[8.2.2.2(4,7)]hexadeca-2... | 204 | C16H12 | 006572-60-7 | 90 |
| 4 | 5,16[1',2']:8,13[1'',2'']-Dibenz... | 408 | C32H24 | 005672-97-9 | 87 |
| 5 | Pyrazol-5-ol, 3-(3,4-methylenedi... | 204 | C10H8N2O3 | 1000271-76-1 | 58 |



Data Path : Z:\HPCHEM1\BNA F\DATA\BF051415\
Data File : BF079243.D
Acq On : 14 May 2015 20:29
Operator : TP/IZ
Sample : G2246-04 2X
Misc :
ALS Vial : 9 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** SB-12

Quant Method : Z:\HPCHEM1\BNA_F\METHODS\8270-BF043015.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

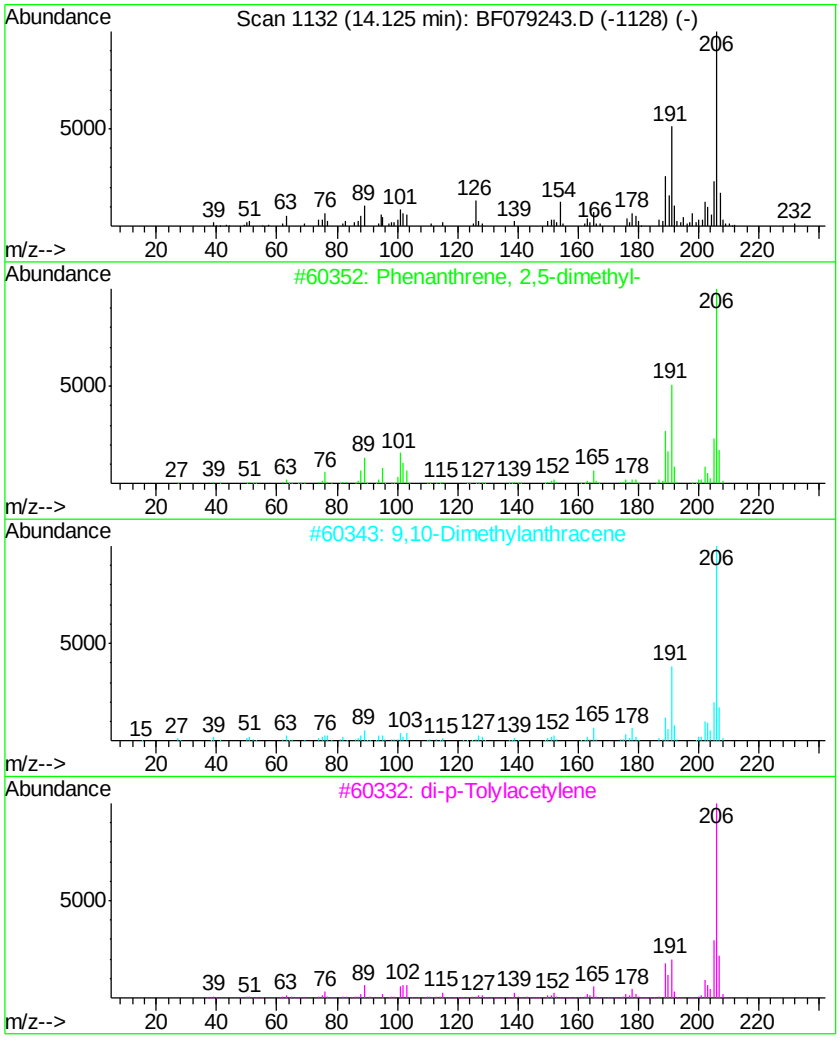
TIC Library : C:\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

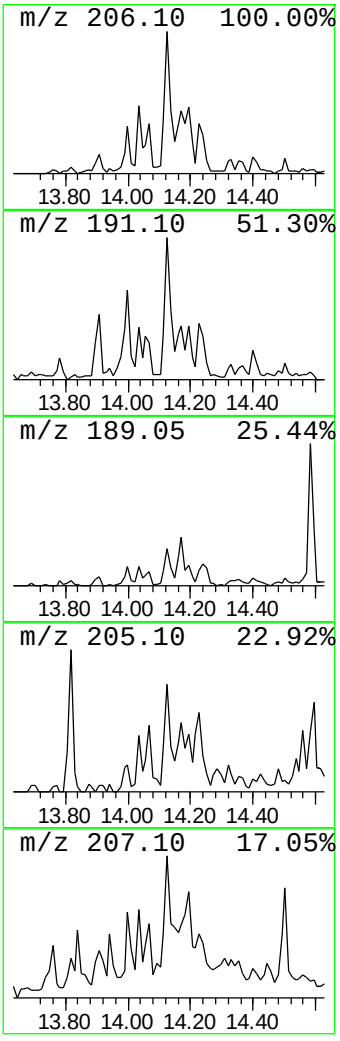
**********

Peak Number 13 Phenanthrene, 2,5-dimethyl- Concentration Rank 17

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 14.13 | 8.98 ng | 205576 | Phenanthrene-d10 | 12.81 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Phenanthrene, 2,5-dimethyl- | 206 | C16H14 | 003674-66-6 | 96 |
| 2 | 9,10-Dimethylanthracene | 206 | C16H14 | 000781-43-1 | 96 |
| 3 | di-p-Tolylacetylene | 206 | C16H14 | 002789-88-0 | 95 |
| 4 | Anthracene, 1,4-dimethyl- | 206 | C16H14 | 000781-92-0 | 93 |
| 5 | Phenanthrene, 2,3-dimethyl- | 206 | C16H14 | 003674-65-5 | 93 |



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Data File : BF079243.D
Acq On : 14 May 2015 20:29
Operator : TP/IZ
Sample : G2246-04 2X
Misc :
ALS Vial : 9 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** SB-12

Quant Method : Z:\HPCHEM1\BNA_F\METHODS\8270-BF043015.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

TIC Library : C:\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

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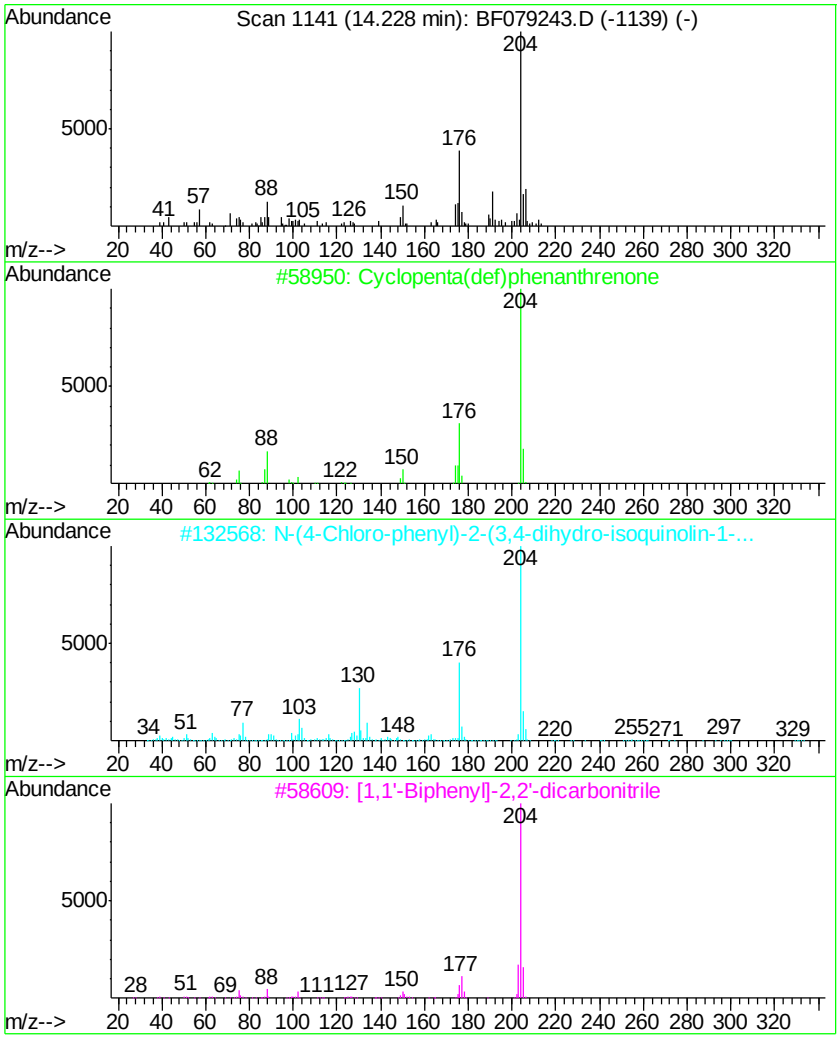
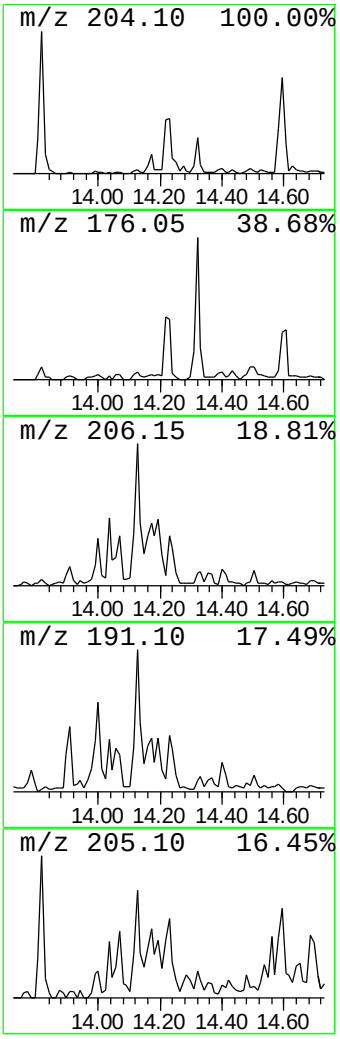
Peak Number 14 Cyclopenta(def)phenanthrenone Concentration Rank 18

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 14.23 | 8.60 ng | 197019 | Phenanthrene-d10 | 12.81 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Cyclopenta(def)phenanthrenone | 204 | C15H8O | 005737-13-3 | 93 |
| 2 | N-(4-Chloro-phenyl)-2-(3,4-dihyd... | 330 | C17H15ClN2OS | 1000296-34-3 | 53 |
| 3 | [1,1'-Biphenyl]-2,2'-dicarbonitrile | 204 | C14H8N2 | 004341-02-0 | 50 |
| 4 | [1,1'-Biphenyl]-4,4'-dicarbonitrile | 204 | C14H8N2 | 001591-30-6 | 50 |
| 5 | Propanedinitrile, 2,2'-(2,5-cycl... | 204 | C12H4N4 | 001518-16-7 | 43 |



Data Path : Z:\HPCHEM1\BNA F\DATA\BF051415\
Data File : BF079243.D
Acq On : 14 May 2015 20:29
Operator : TP/IZ
Sample : G2246-04 2X
Misc :
ALS Vial : 9 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** SB-12

Quant Method : Z:\HPCHEM1\BNA_F\METHODS\8270-BF043015.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

TIC Library : C:\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

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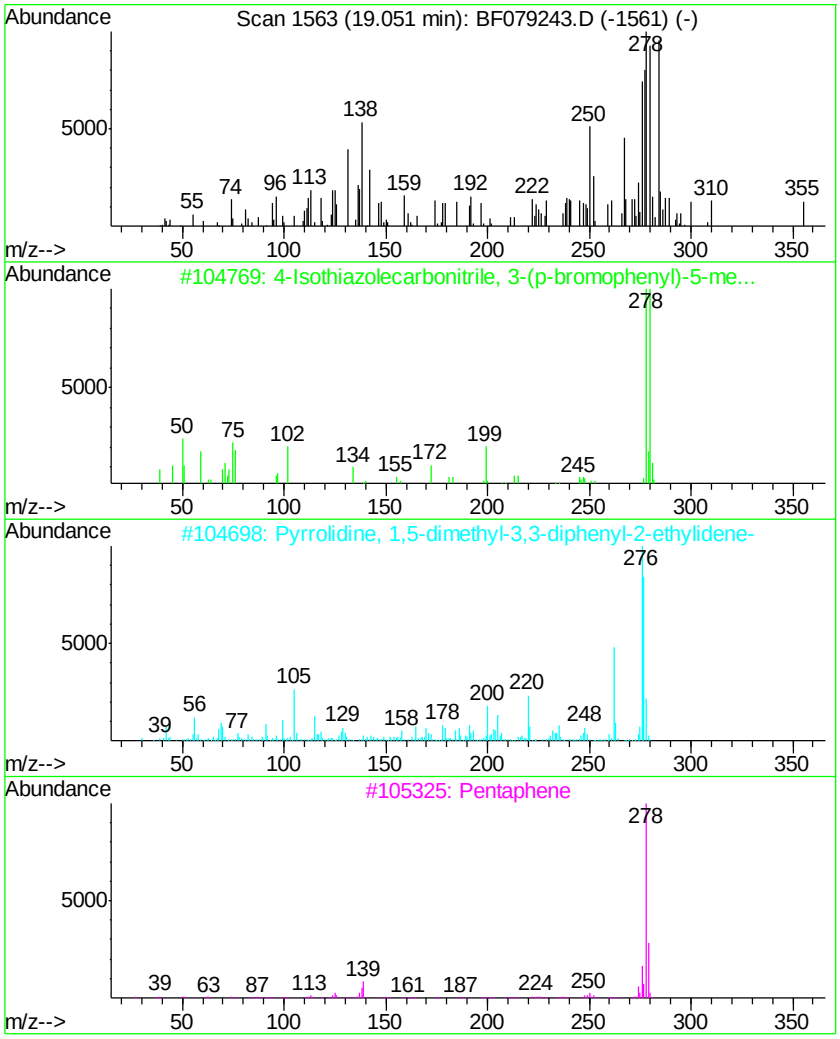
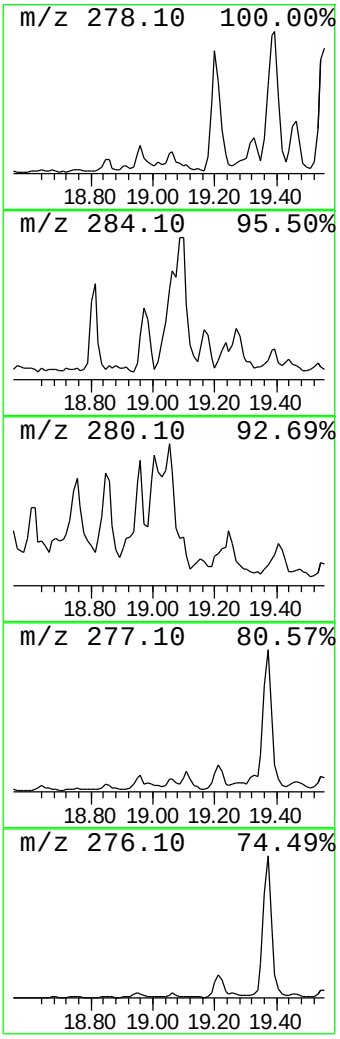
Peak Number 16 unknown19.05 Concentration Rank 20

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 19.05 | 7.12 ng | 209001 | Perylene-d12 | 17.93 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | 4-Isothiazolecarbonitrile, 3-(p-... | 278 | C11H7BrN2S | 019762-79-9 | 18 |
| 2 | Pyrrolidine, 1,5-dimethyl-3,3-di... | 277 | C20H23N | 030223-73-5 | 14 |
| 3 | Pentaphene | 278 | C22H14 | 000222-93-5 | 11 |
| 4 | Indeno[1,2,3-cd]pyrene | 276 | C22H12 | 000193-39-5 | 11 |
| 5 | Indeno[1,2,3-cd]fluoranthene | 276 | C22H12 | 000193-43-1 | 11 |



Data Path : Z:\HPCHEM1\BNA F\DATA\BF051415\
Data File : BF079243.D
Acq On : 14 May 2015 20:29
Operator : TP/IZ
Sample : G2246-04 2X
Misc :
ALS Vial : 9 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** SB-12

Quant Method : Z:\HPCHEM1\BNA_F\METHODS\8270-BF043015.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

TIC Library : C:\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

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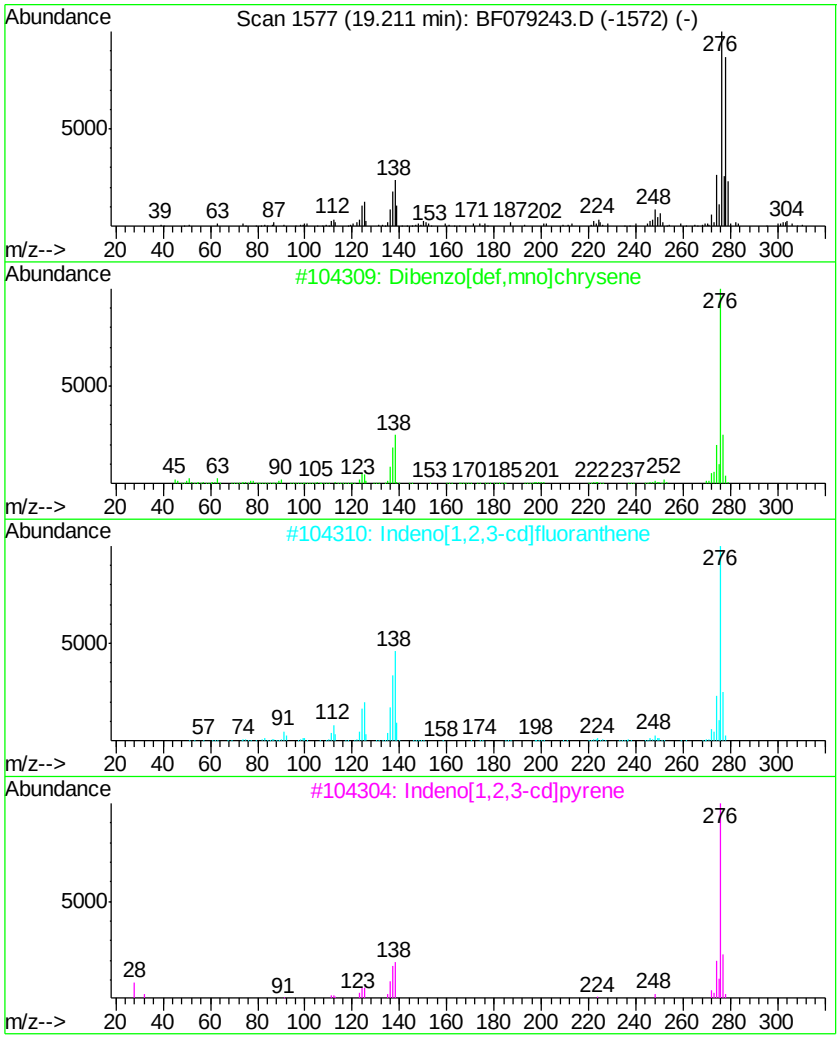
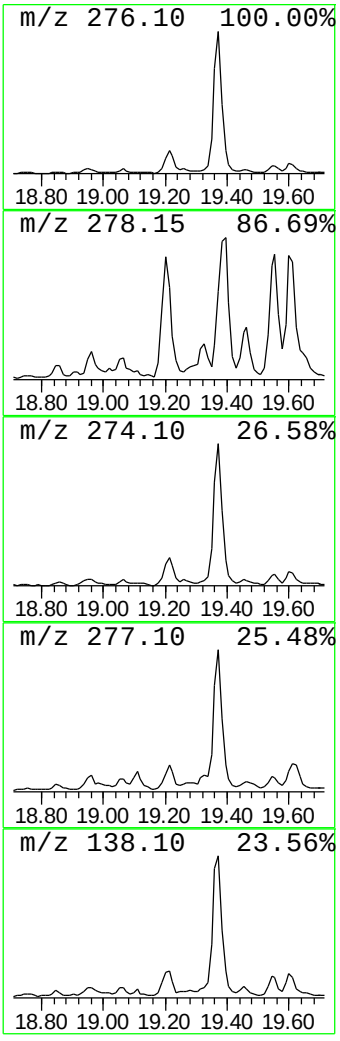
Peak Number 17 Dibenzo[def,mno]chrysene Concentration Rank 14

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 19.21 | 10.23 ng | 300022 | Perylene-d12 | 17.93 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Dibenzo[def,mno]chrysene | 276 | C22H12 | 000191-26-4 | 89 |
| 2 | Indeno[1,2,3-cd]fluoranthene | 276 | C22H12 | 000193-43-1 | 64 |
| 3 | Indeno[1,2,3-cd]pyrene | 276 | C22H12 | 000193-39-5 | 64 |
| 4 | Benzo[ghi]perylene | 276 | C22H12 | 000191-24-2 | 50 |
| 5 | Phenol, 2-(4-chlorophenyliminome... | 276 | C13H9ClN2O3 | 1000262-90-3 | 43 |



Data Path : Z:\HPCHEM1\BNA F\DATA\BF051415\
Data File : BF079243.D
Acq On : 14 May 2015 20:29
Operator : TP/IZ
Sample : G2246-04 2X
Misc :
ALS Vial : 9 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** SB-12

Quant Method : Z:\HPCHEM1\BNA_F\METHODS\8270-BF043015.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

TIC Library : C:\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

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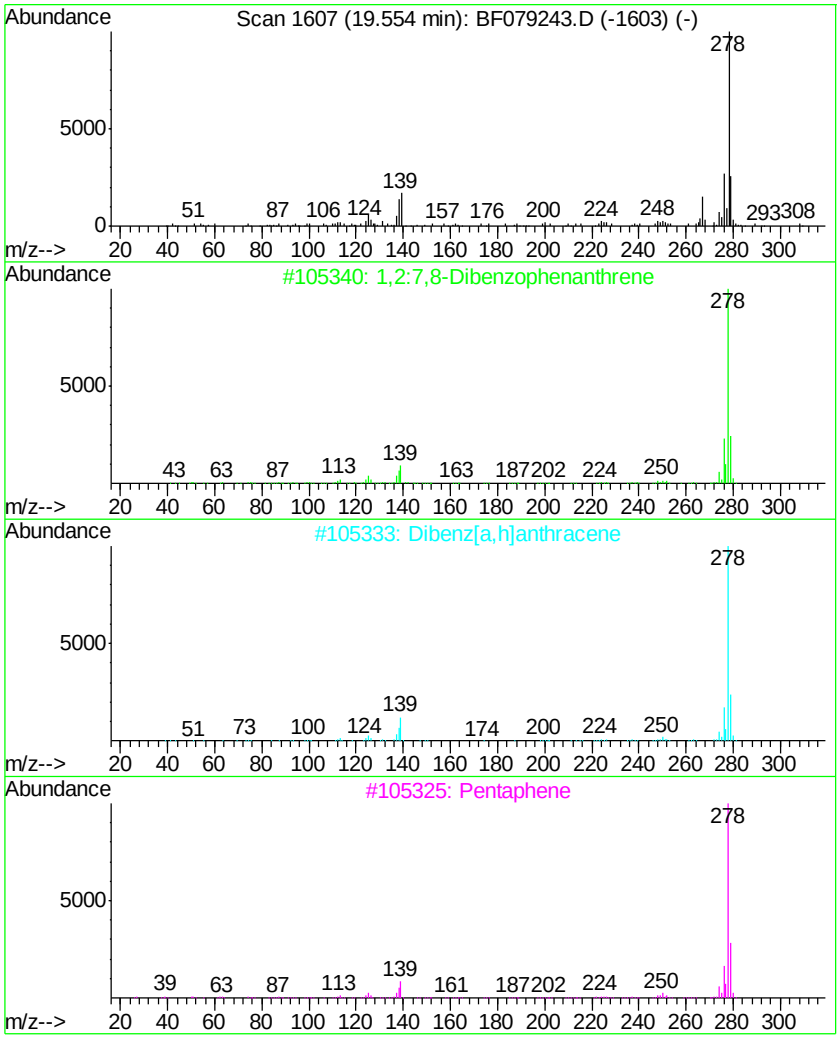
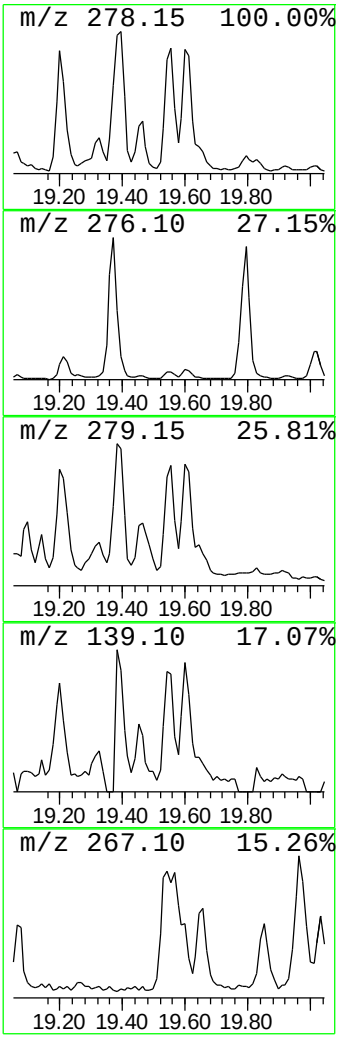
Peak Number 18 1,2:7,8-Dibenzophenanthrene Concentration Rank 19

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 19.55 | 7.80 ng | 228685 | Perylene-d12 | 17.93 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | 1,2:7,8-Dibenzophenanthrene | 278 | C22H14 | 000213-46-7 | 97 |
| 2 | Dibenz[a,h]anthracene | 278 | C22H14 | 000053-70-3 | 97 |
| 3 | Pentaphene | 278 | C22H14 | 000222-93-5 | 95 |
| 4 | Benzo[b]chrysene | 278 | C22H14 | 000214-17-5 | 95 |
| 5 | Benzo[b]triphenylene | 278 | C22H14 | 000215-58-7 | 93 |



Data Path : Z:\HPCHEM1\BNA F\DATA\BF051415\
Data File : BF079243.D
Acq On : 14 May 2015 20:29
Operator : TP/IZ
Sample : G2246-04 2X
Misc :
ALS Vial : 9 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** SB-12

Quant Method : Z:\HPCHEM1\BNA_F\METHODS\8270-BF043015.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

TIC Library : C:\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

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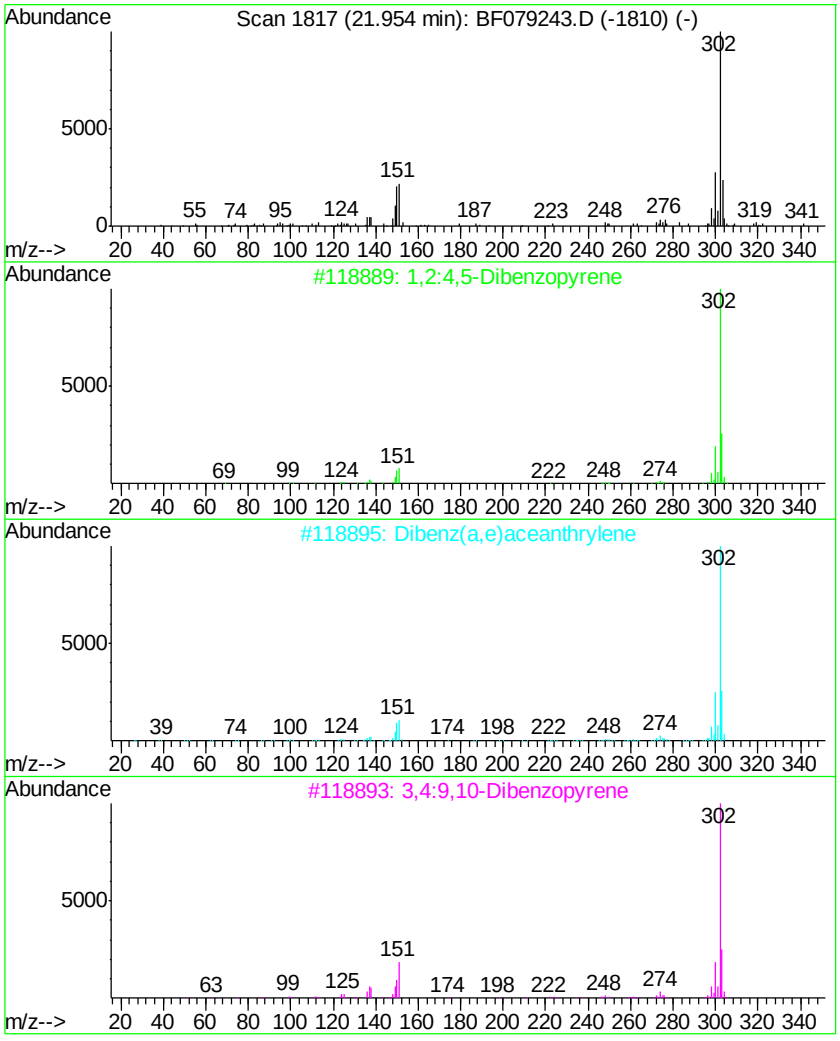
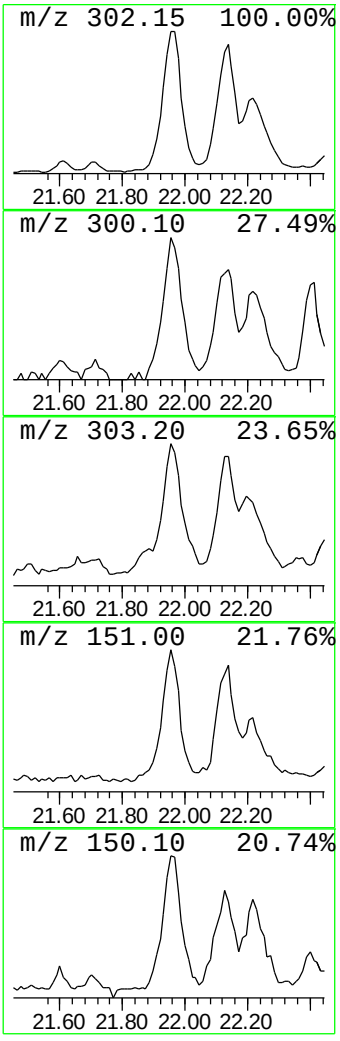
Peak Number 19 1,2:4,5-Dibenzopyrene Concentration Rank 10

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 21.95 | 13.05 ng | 382785 | Perylene-d12 | 17.93 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | 1,2:4,5-Dibenzopyrene | 302 | C24H14 | 000192-65-4 | 98 |
| 2 | Dibenz(a,e)aceanthrylene | 302 | C24H14 | 005385-75-1 | 98 |
| 3 | 3,4:9,10-Dibenzopyrene | 302 | C24H14 | 000189-55-9 | 98 |
| 4 | 3,4:8,9-Dibenzopyrene | 302 | C24H14 | 000189-64-0 | 94 |
| 5 | Indeno[1,2,3-fg]naphthacene | 302 | C24H14 | 000203-11-2 | 90 |



Data Path : Z:\HPCHEM1\BNA F\DATA\BF051415\
Data File : BF079243.D
Acq On : 14 May 2015 20:29
Operator : TP/IZ
Sample : G2246-04 2X
Misc :
ALS Vial : 9 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** SB-12

Quant Method : Z:\HPCHEM1\BNA_F\METHODS\8270-BF043015.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

TIC Library : C:\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

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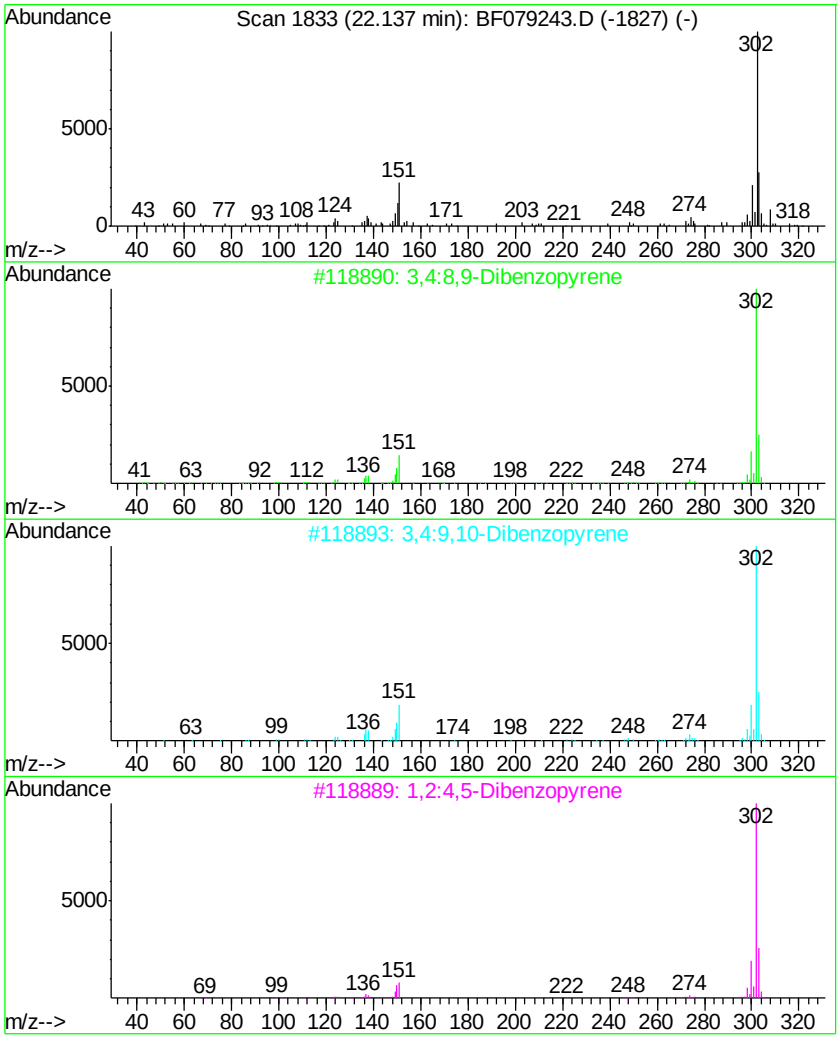
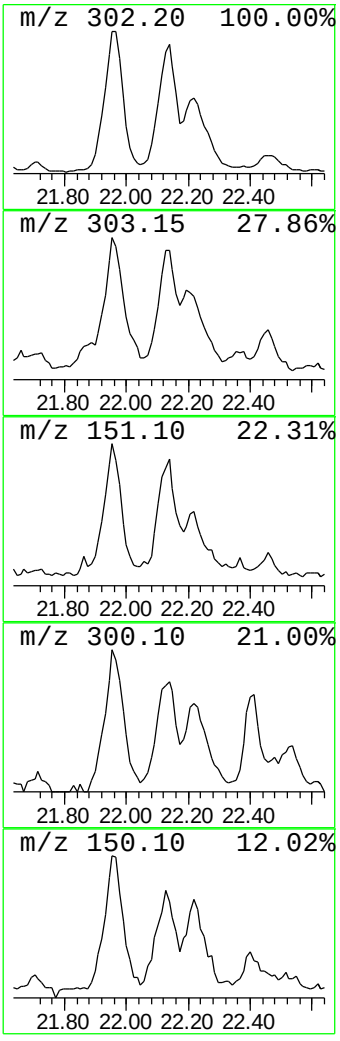
Peak Number 20 3,4:8,9-Dibenzopyrene Concentration Rank 15

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 22.14 | 9.93 ng | 291326 | Perylene-d12 | 17.93 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | 3,4:8,9-Dibenzopyrene | 302 | C24H14 | 000189-64-0 | 96 |
| 2 | 3,4:9,10-Dibenzopyrene | 302 | C24H14 | 000189-55-9 | 96 |
| 3 | 1,2:4,5-Dibenzopyrene | 302 | C24H14 | 000192-65-4 | 93 |
| 4 | Dibenz(a,e)aceanthrylene | 302 | C24H14 | 005385-75-1 | 89 |
| 5 | Dibenzo[fg,op]naphthacene | 302 | C24H14 | 000192-51-8 | 76 |



# Tentatively Identified Compound (LSC) summary

Data Path : Z:\HPCHEM1\BNA_F\DATA\BF051415\
Data File : BF079243.D
Acq On : 14 May 2015 20:29
Operator : TP/IZ
Sample : G2246-04 2X
Misc :
ALS Vial : 9 Sample Multiplier: 1

**Instrument :** BNA_F
**ClientSampleId :** SB-12

Quant Method : Z:\HPCHEM1\BNA_F\METHODS\8270-BF043015.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

TIC Library : C:\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

| | | | | | Internal Standard | | | |
|---|---|---|---|---|---|---|---|---|
| TIC Top Hit name | RT | EstConc | Units | Response | # | RT | Resp | Conc |
| unknown1.36 | 1.36 | 196.3 | ng | 2668620 | 1 | 7.22 | 271926 | 20.0 |
| Butane, 2-methoxy... | 1.66 | 10.7 | ng | 145378 | 1 | 7.22 | 271926 | 20.0 |
| 2-Pentanone, 4-hy... | 4.99 | 9.8 | ng | 133831 | 1 | 7.22 | 271926 | 20.0 |
| unknown6.92 | 6.92 | 46.0 | ng | 625478 | 1 | 7.22 | 271926 | 20.0 |
| Phenanthrene, 2-m... | 13.44 | 10.8 | ng | 248242 | 4 | 12.81 | 458088 | 20.0 |
| Phenanthrene, 1-m... | 13.47 | 14.9 | ng | 342236 | 4 | 12.81 | 458088 | 20.0 |
| 4H-Cyclopenta[def... | 13.58 | 17.0 | ng | 389797 | 4 | 12.81 | 458088 | 20.0 |
| Naphthalene, 2-ph... | 13.82 | 12.2 | ng | 278586 | 4 | 12.81 | 458088 | 20.0 |
| Phenanthrene, 2,5... | 14.13 | 9.0 | ng | 205576 | 4 | 12.81 | 458088 | 20.0 |
| Cyclopenta(def)ph... | 14.23 | 8.6 | ng | 197019 | 4 | 12.81 | 458088 | 20.0 |
| unknown19.05 | 19.05 | 7.1 | ng | 209001 | 6 | 17.93 | 586728 | 20.0 |
| Dibenzo[def,mno]c... | 19.21 | 10.2 | ng | 300022 | 6 | 17.93 | 586728 | 20.0 |
| 1,2:7,8-Dibenzoph... | 19.55 | 7.8 | ng | 228685 | 6 | 17.93 | 586728 | 20.0 |
| 1,2:4,5-Dibenzopy... | 21.95 | 13.1 | ng | 382785 | 6 | 17.93 | 586728 | 20.0 |
| 3,4:8,9-Dibenzopy... | 22.14 | 9.9 | ng | 291326 | 6 | 17.93 | 586728 | 20.0 |