

Data Path : Z:\SVOASRV\HPCHEM1\BNA G\DATA\BG101619\  
 Data File : BG043254.D  
 Acq On : 16 Oct 2019 20:53  
 Operator : JU  
 Sample : K5350-01  
 Misc :  
 ALS Vial : 10 Sample Multiplier: 1

Instrument :  
 BNA\_G  
 ClientSampleId :  
 VNJ-209

Integration Parameters: rteint.p

Integrator: RTE

Smoothing : ON

Sampling : 1

Start Thrs: 0.2

Stop Thrs : 0

Filtering: 5

Min Area: 3 % of largest Peak

Max Peaks: 100

Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >

Peak separation: 5

Method : Z:\SVOASRV\HPCHEM1\BNA\_G\METHODS\8270-BG092519.M

Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

Signal : TIC

| peak<br># | R.T.<br>min | first<br>scan | max<br>scan | last<br>scan | PK<br>TY | peak<br>height | corr.<br>area | corr.<br>% max. | % of<br>total |
|-----------|-------------|---------------|-------------|--------------|----------|----------------|---------------|-----------------|---------------|
| 1         | 5.633       | 427           | 433         | 454          | rBV      | 762057         | 1340440       | 4.63%           | 0.636%        |
| 2         | 7.225       | 696           | 704         | 723          | rBV      | 798094         | 1546524       | 5.35%           | 0.733%        |
| 3         | 7.589       | 756           | 766         | 778          | rBV      | 851210         | 1501213       | 5.19%           | 0.712%        |
| 4         | 8.053       | 837           | 845         | 857          | rBV      | 176736         | 332450        | 1.15%           | 0.158%        |
| 5         | 8.376       | 891           | 900         | 905          | rBV      | 612475         | 1123351       | 3.88%           | 0.533%        |
| 6         | 9.211       | 1036          | 1042        | 1053         | rVB      | 448386         | 877564        | 3.03%           | 0.416%        |
| 7         | 10.856      | 1310          | 1322        | 1325         | rBV      | 219188         | 448128        | 1.55%           | 0.212%        |
| 8         | 10.915      | 1325          | 1332        | 1344         | rVV      | 3449303        | 7073067       | 24.46%          | 3.354%        |
| 9         | 11.026      | 1344          | 1351        | 1368         | rVB      | 206565         | 454184        | 1.57%           | 0.215%        |
| 10        | 12.513      | 1593          | 1604        | 1617         | rBV      | 1773069        | 3172567       | 10.97%          | 1.504%        |
| 11        | 12.730      | 1629          | 1641        | 1650         | rVB      | 1429191        | 2549318       | 8.81%           | 1.209%        |
| 12        | 13.300      | 1729          | 1738        | 1750         | rBV      | 1316912        | 2119767       | 7.33%           | 1.005%        |
| 13        | 13.512      | 1767          | 1774        | 1786         | rVB      | 889680         | 1429492       | 4.94%           | 0.678%        |
| 14        | 13.711      | 1802          | 1808        | 1820         | rVB      | 323101         | 702889        | 2.43%           | 0.333%        |
| 15        | 13.846      | 1820          | 1831        | 1832         | rBV      | 779728         | 1382352       | 4.78%           | 0.655%        |
| 16        | 13.999      | 1848          | 1857        | 1862         | rBV      | 1006580        | 1876318       | 6.49%           | 0.890%        |
| 17        | 14.052      | 1862          | 1866        | 1873         | rVV      | 398612         | 683888        | 2.36%           | 0.324%        |
| 18        | 14.234      | 1888          | 1897        | 1909         | rBV      | 682955         | 1387219       | 4.80%           | 0.658%        |
| 19        | 14.399      | 1914          | 1925        | 1937         | rBV3     | 325578         | 616412        | 2.13%           | 0.292%        |
| 20        | 14.646      | 1962          | 1967        | 1970         | rBV      | 366121         | 612917        | 2.12%           | 0.291%        |
| 21        | 14.675      | 1970          | 1972        | 1978         | rVV2     | 388728         | 571251        | 1.98%           | 0.271%        |
| 22        | 14.745      | 1978          | 1984        | 1991         | rVV      | 2942996        | 4888539       | 16.90%          | 2.318%        |
| 23        | 14.886      | 2001          | 2008        | 2017         | rBV2     | 165478         | 422267        | 1.46%           | 0.200%        |
| 24        | 14.986      | 2017          | 2025        | 2029         | rBV2     | 187830         | 360586        | 1.25%           | 0.171%        |
| 25        | 15.080      | 2034          | 2041        | 2048         | rVV      | 3255382        | 5461033       | 18.88%          | 2.589%        |
| 26        | 15.151      | 2048          | 2053        | 2060         | rVB      | 283190         | 457990        | 1.58%           | 0.217%        |
| 27        | 15.292      | 2069          | 2077        | 2082         | rBV3     | 253742         | 527267        | 1.82%           | 0.250%        |
| 28        | 15.345      | 2082          | 2086        | 2098         | rVB      | 413788         | 648991        | 2.24%           | 0.308%        |
| 29        | 15.462      | 2098          | 2106        | 2110         | rBV2     | 200270         | 465532        | 1.61%           | 0.221%        |
| 30        | 15.738      | 2144          | 2153        | 2162         | rVV      | 4585735        | 8217461       | 28.41%          | 3.896%        |
| 31        | 15.850      | 2169          | 2172        | 2175         | rVV2     | 284360         | 461094        | 1.59%           | 0.219%        |
| 32        | 15.885      | 2175          | 2178        | 2183         | rVV2     | 501671         | 800483        | 2.77%           | 0.380%        |
| 33        | 15.973      | 2189          | 2193        | 2196         | rVV2     | 348696         | 548251        | 1.90%           | 0.260%        |
| 34        | 16.020      | 2196          | 2201        | 2212         | rVB      | 762882         | 1311788       | 4.54%           | 0.622%        |

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 Misc :  
 ALS Vial : 10 Sample Multiplier: 1

Instrument :  
 BNA\_G  
 ClientSampleId :  
 VNJ-209

Integration Parameters: rteint.p  
 Integrator: RTE  
 Smoothing : ON  
 Sampling : 1  
 Start Thrs: 0.2  
 Stop Thrs : 0

Filtering: 5  
 Min Area: 3 % of largest Peak  
 Max Peaks: 100  
 Peak Location: TOP

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

Method : Z:\SVOASRV\HPCHEM1\BNA\_G\METHODS\8270-BG092519.M  
 Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

|    |        |      |      |      |      |          |          |         |         |
|----|--------|------|------|------|------|----------|----------|---------|---------|
| 35 | 16.167 | 2215 | 2226 | 2234 | rVV2 | 2066902  | 4734081  | 16.37%  | 2.245%  |
| 36 | 16.255 | 2234 | 2241 | 2247 | rVB2 | 168200   | 351190   | 1.21%   | 0.167%  |
| 37 | 16.520 | 2281 | 2286 | 2293 | rVB2 | 194096   | 334924   | 1.16%   | 0.159%  |
| 38 | 16.731 | 2310 | 2322 | 2326 | rBV2 | 639708   | 1448454  | 5.01%   | 0.687%  |
| 39 | 16.778 | 2326 | 2330 | 2336 | rVB  | 283533   | 439340   | 1.52%   | 0.208%  |
| 40 | 16.878 | 2342 | 2347 | 2352 | rVB  | 274787   | 440091   | 1.52%   | 0.209%  |
| 41 | 17.084 | 2378 | 2382 | 2389 | rVB3 | 212946   | 394016   | 1.36%   | 0.187%  |
| 42 | 17.154 | 2389 | 2394 | 2402 | rBV3 | 265368   | 618403   | 2.14%   | 0.293%  |
| 43 | 17.242 | 2404 | 2409 | 2428 | rVB  | 1105434  | 2023684  | 7.00%   | 0.959%  |
| 44 | 17.495 | 2430 | 2452 | 2458 | rBV  | 10210744 | 22467787 | 77.69%  | 10.653% |
| 45 | 17.601 | 2458 | 2470 | 2479 | rVV  | 12559477 | 28921573 | 100.00% | 13.713% |
| 46 | 17.712 | 2484 | 2489 | 2498 | rVB  | 404528   | 753634   | 2.61%   | 0.357%  |
| 47 | 17.854 | 2503 | 2513 | 2525 | rVV  | 5242560  | 10091743 | 34.89%  | 4.785%  |
| 48 | 17.948 | 2525 | 2529 | 2536 | rVV2 | 255375   | 493204   | 1.71%   | 0.234%  |
| 49 | 18.012 | 2536 | 2540 | 2548 | rVV3 | 259596   | 564569   | 1.95%   | 0.268%  |
| 50 | 18.153 | 2559 | 2564 | 2572 | rVB  | 176409   | 387105   | 1.34%   | 0.184%  |
| 51 | 18.306 | 2584 | 2590 | 2594 | rBV  | 1286305  | 1974627  | 6.83%   | 0.936%  |
| 52 | 18.359 | 2594 | 2599 | 2605 | rVB  | 1694918  | 2662463  | 9.21%   | 1.262%  |
| 53 | 18.441 | 2605 | 2613 | 2618 | rBV  | 1957878  | 3246656  | 11.23%  | 1.539%  |
| 54 | 18.506 | 2618 | 2624 | 2627 | rVV4 | 1929995  | 3516166  | 12.16%  | 1.667%  |
| 55 | 18.535 | 2627 | 2629 | 2636 | rVV  | 863776   | 1187665  | 4.11%   | 0.563%  |
| 56 | 18.606 | 2636 | 2641 | 2644 | rVV  | 294986   | 431135   | 1.49%   | 0.204%  |
| 57 | 18.647 | 2644 | 2648 | 2653 | rVB  | 421165   | 603818   | 2.09%   | 0.286%  |
| 58 | 18.799 | 2669 | 2674 | 2679 | rBV  | 770981   | 1100918  | 3.81%   | 0.522%  |
| 59 | 19.040 | 2707 | 2715 | 2719 | rBV3 | 239097   | 388771   | 1.34%   | 0.184%  |
| 60 | 19.093 | 2719 | 2724 | 2727 | rBV  | 274822   | 357482   | 1.24%   | 0.169%  |
| 61 | 19.128 | 2727 | 2730 | 2735 | rVB  | 273610   | 367432   | 1.27%   | 0.174%  |
| 62 | 19.211 | 2739 | 2744 | 2749 | rBV  | 659391   | 1146127  | 3.96%   | 0.543%  |
| 63 | 19.281 | 2750 | 2756 | 2759 | rBV3 | 251412   | 454442   | 1.57%   | 0.215%  |
| 64 | 19.352 | 2764 | 2768 | 2777 | rVB2 | 176670   | 464751   | 1.61%   | 0.220%  |
| 65 | 19.493 | 2783 | 2792 | 2797 | rBV  | 6100427  | 10641091 | 36.79%  | 5.045%  |
| 66 | 19.628 | 2810 | 2815 | 2819 | rBV  | 223815   | 329333   | 1.14%   | 0.156%  |
| 67 | 19.722 | 2825 | 2831 | 2841 | rVB  | 321568   | 669113   | 2.31%   | 0.317%  |
| 68 | 19.816 | 2841 | 2847 | 2848 | rBV  | 1502744  | 1941509  | 6.71%   | 0.921%  |
| 69 | 19.851 | 2848 | 2853 | 2860 | rVV  | 4779878  | 8058023  | 27.86%  | 3.821%  |
| 70 | 19.910 | 2860 | 2863 | 2870 | rVB3 | 422079   | 738966   | 2.56%   | 0.350%  |
| 71 | 20.033 | 2870 | 2884 | 2889 | rBV2 | 2611980  | 4492312  | 15.53%  | 2.130%  |

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Misc :  
ALS Vial : 10 Sample Multiplier: 1

Instrument :  
BNA\_G  
ClientSampleId :  
VNJ-209

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\_G\METHODS\8270-BG092519.M  
Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

|     |        |      |      |      |      |         |         |        |        |
|-----|--------|------|------|------|------|---------|---------|--------|--------|
| 72  | 20.168 | 2899 | 2907 | 2912 | rBV2 | 453002  | 1197173 | 4.14%  | 0.568% |
| 73  | 20.298 | 2923 | 2929 | 2930 | rBV3 | 314428  | 490218  | 1.69%  | 0.232% |
| 74  | 20.333 | 2931 | 2935 | 2943 | rVB  | 1491663 | 2253266 | 7.79%  | 1.068% |
| 75  | 20.433 | 2946 | 2952 | 2956 | rVV  | 1779444 | 2541853 | 8.79%  | 1.205% |
| 76  | 20.492 | 2956 | 2962 | 2966 | rVV2 | 605005  | 1204830 | 4.17%  | 0.571% |
| 77  | 20.574 | 2972 | 2976 | 2981 | rVV4 | 163609  | 343047  | 1.19%  | 0.163% |
| 78  | 20.633 | 2981 | 2986 | 2989 | rVV  | 328992  | 565739  | 1.96%  | 0.268% |
| 79  | 20.674 | 2989 | 2993 | 3005 | rVB2 | 438640  | 908068  | 3.14%  | 0.431% |
| 80  | 21.050 | 3052 | 3057 | 3062 | rBV2 | 223416  | 464663  | 1.61%  | 0.220% |
| 81  | 21.279 | 3092 | 3096 | 3100 | rBV  | 359613  | 555690  | 1.92%  | 0.263% |
| 82  | 21.326 | 3100 | 3104 | 3108 | rVV  | 357030  | 605201  | 2.09%  | 0.287% |
| 83  | 21.373 | 3108 | 3112 | 3117 | rVB2 | 259465  | 433416  | 1.50%  | 0.205% |
| 84  | 21.690 | 3158 | 3166 | 3172 | rVV3 | 2350549 | 5467334 | 18.90% | 2.592% |
| 85  | 21.755 | 3172 | 3177 | 3188 | rVB  | 2412039 | 4192139 | 14.49% | 1.988% |
| 86  | 21.902 | 3197 | 3202 | 3208 | rBV  | 317149  | 574839  | 1.99%  | 0.273% |
| 87  | 22.049 | 3221 | 3227 | 3233 | rVV  | 926484  | 1655730 | 5.72%  | 0.785% |
| 88  | 22.113 | 3233 | 3238 | 3245 | rVB2 | 189459  | 415452  | 1.44%  | 0.197% |
| 89  | 22.436 | 3285 | 3293 | 3298 | rVV  | 319936  | 735765  | 2.54%  | 0.349% |
| 90  | 22.507 | 3300 | 3305 | 3314 | rVB  | 201052  | 379175  | 1.31%  | 0.180% |
| 91  | 22.760 | 3343 | 3348 | 3356 | rVB4 | 235308  | 565240  | 1.95%  | 0.268% |
| 92  | 22.854 | 3357 | 3364 | 3378 | rVB5 | 139479  | 407332  | 1.41%  | 0.193% |
| 93  | 23.917 | 3535 | 3545 | 3551 | rBV  | 723879  | 2429896 | 8.40%  | 1.152% |
| 94  | 24.164 | 3581 | 3587 | 3598 | rVB  | 186784  | 480870  | 1.66%  | 0.228% |
| 95  | 24.640 | 3659 | 3668 | 3681 | rVB  | 392000  | 1216566 | 4.21%  | 0.577% |
| 96  | 24.781 | 3682 | 3692 | 3706 | rVV  | 645665  | 1887957 | 6.53%  | 0.895% |
| 97  | 24.933 | 3709 | 3718 | 3725 | rVV  | 367293  | 1104540 | 3.82%  | 0.524% |
| 98  | 25.010 | 3726 | 3731 | 3745 | rVB2 | 168856  | 555404  | 1.92%  | 0.263% |
| 99  | 28.611 | 4330 | 4344 | 4366 | rVB3 | 209316  | 1094074 | 3.78%  | 0.519% |
| 100 | 29.745 | 4527 | 4537 | 4551 | rVB2 | 135393  | 578767  | 2.00%  | 0.274% |

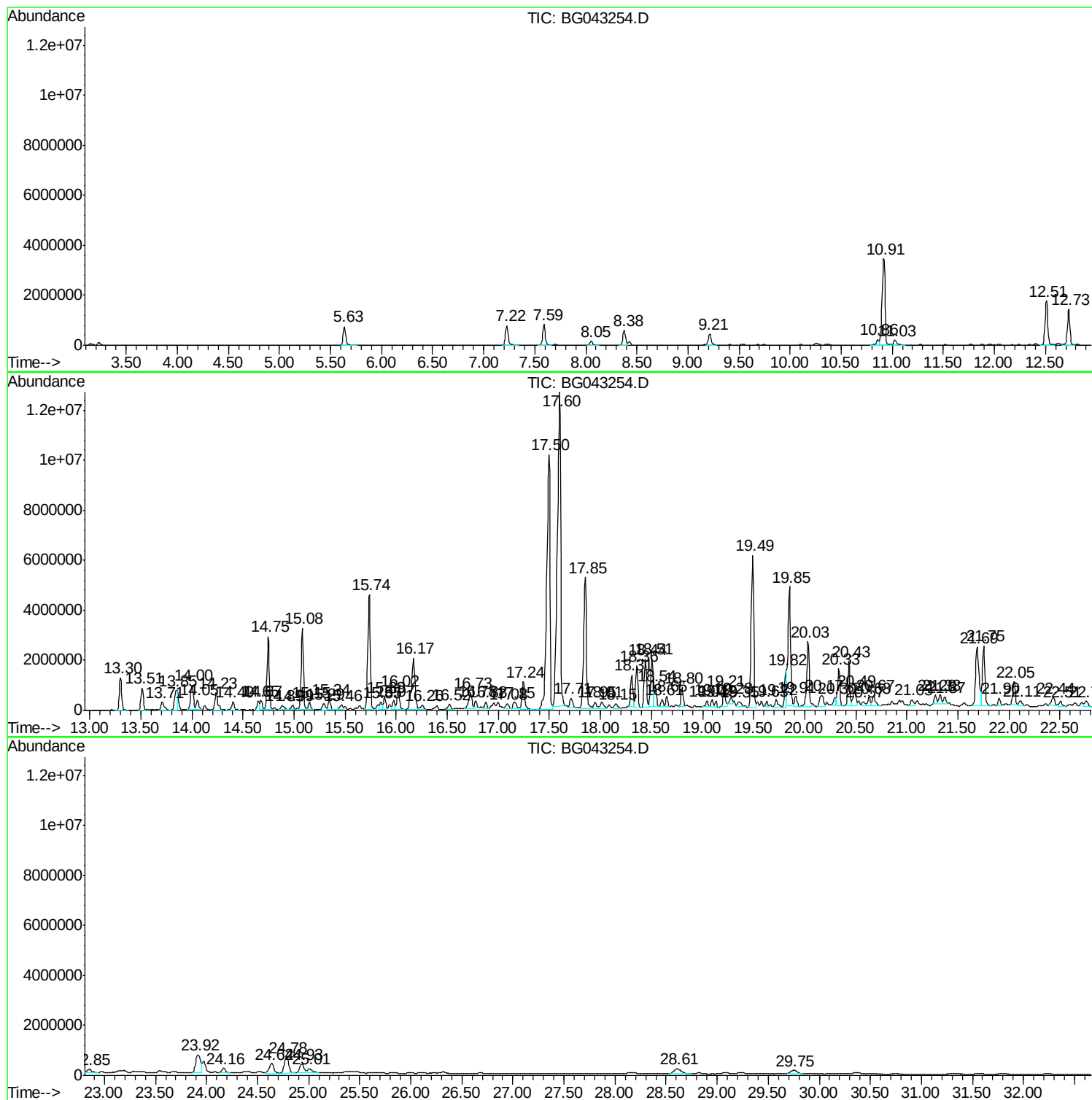
Sum of corrected areas: 210913435

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Misc :  
ALS Vial : 10 Sample Multiplier: 1

Instrument :  
BNA\_G  
ClientSampleId :  
VNJ-209

Quant Method : Z:\SVOASRV\HPCHEM1\BNA G\METHODS\8270-BG092519.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

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



Data Path : Z:\SVOASRV\HPCHEM1\BNA G\DATA\BG101619\  
Data File : BG043254.D  
Acq On : 16 Oct 2019 20:53  
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Misc :  
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Instrument :  
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VNJ-209

Quant Method : Z:\SVOASRV\HPCHEM1\BNA G\METHODS\8270-BG092519.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

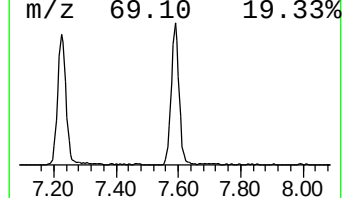
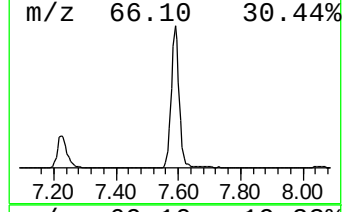
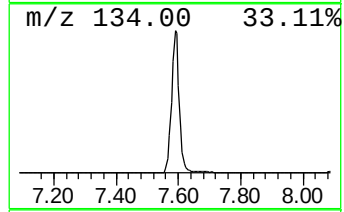
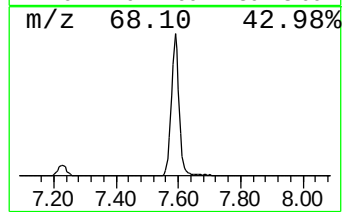
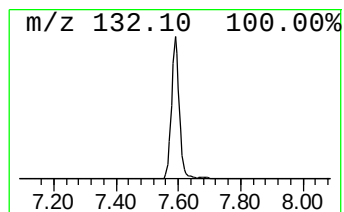
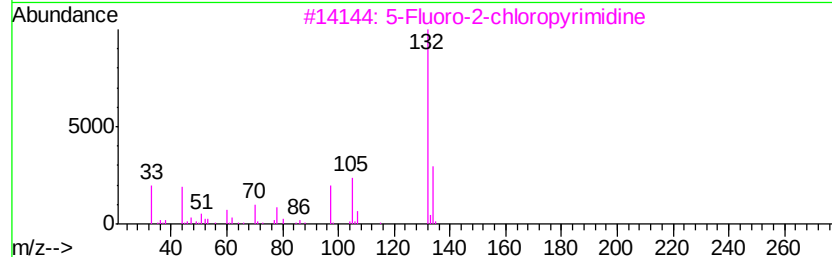
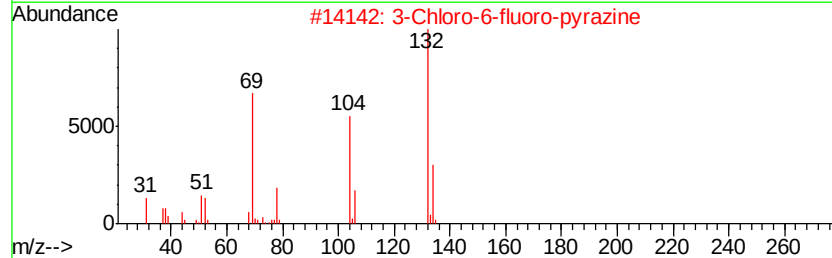
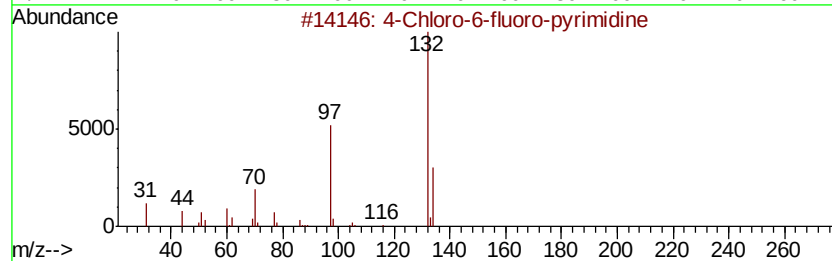
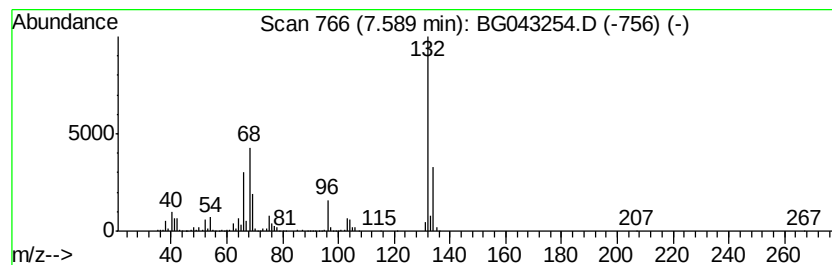
TIC Library : C:\Database\NIST11.L  
TIC Integration Parameters: LSCINT.P

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Peak Number 1 unknown7.59 Concentration Rank 1

| R.T. | EstConc  | Area    | Relative to ISTD       | R.T. |
|------|----------|---------|------------------------|------|
| 7.59 | 90.31 ng | 1501210 | 1,4-Dichlorobenzene-d4 | 8.05 |

| Hit# | of | Tentative ID                     | MW  | MolForm   | CAS#         | Qual |
|------|----|----------------------------------|-----|-----------|--------------|------|
| 1    | 5  | 4-Chloro-6-fluoro-pyrimidine     | 132 | C4H2ClFN2 | 051422-01-6  | 27   |
| 2    |    | 3-Chloro-6-fluoro-pyrazine       | 132 | C4H2ClFN2 | 1000146-10-7 | 27   |
| 3    |    | 5-Fluoro-2-chloropyrimidine      | 132 | C4H2ClFN2 | 062802-42-0  | 27   |
| 4    |    | Imidazole, 4,5-dicyano-1-methyl- | 132 | C6H4N4    | 019485-35-9  | 22   |
| 5    |    | Tranylcypromine-propionyl        | 189 | C12H15NO  | 1000123-86-3 | 12   |



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Quant Method : Z:\SVOASRV\HPCHEM1\BNA G\METHODS\8270-BG092519.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

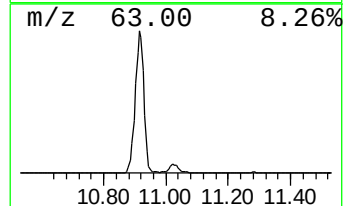
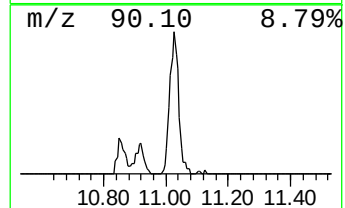
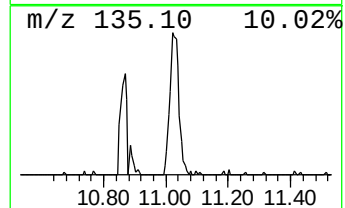
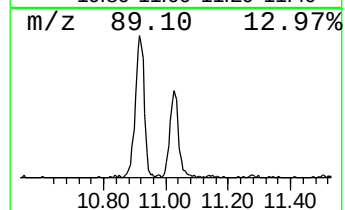
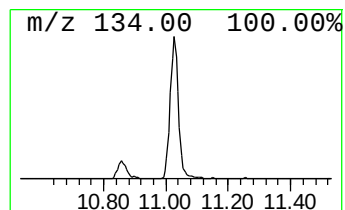
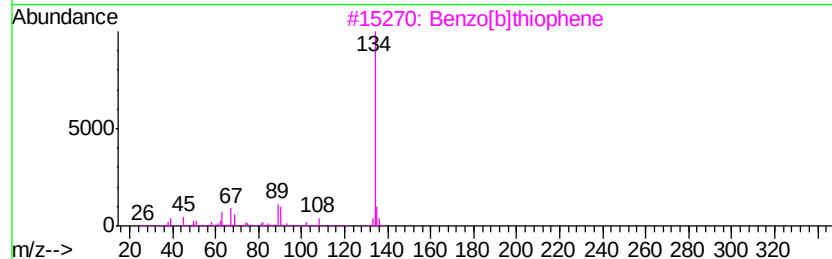
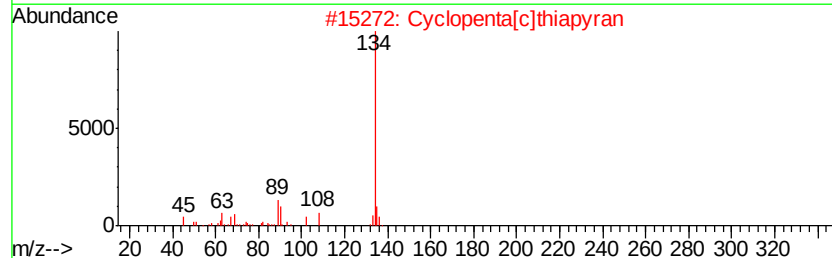
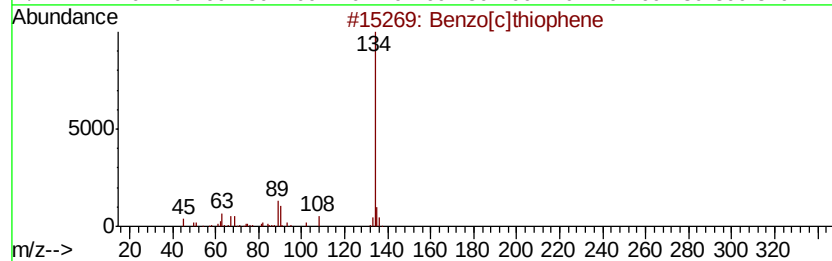
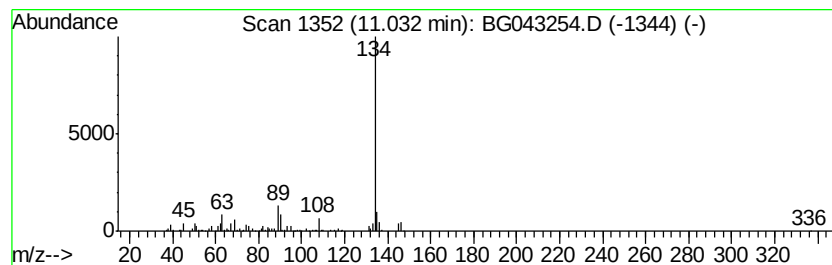
TIC Library : C:\Database\NIST11.L  
TIC Integration Parameters: LSCINT.P

\*\*\*\*\*  
Peak Number 3 Benzo[c]thiophene Concentration Rank 12

| R.T.  | EstConc  | Area   | Relative to ISTD | R.T.  |
|-------|----------|--------|------------------|-------|
| 11.03 | 20.27 ng | 454184 | Naphthalene-d8   | 10.86 |

| Hit# | of | Tentative ID                        | MW  | MolForm    | CAS#        | Qual |
|------|----|-------------------------------------|-----|------------|-------------|------|
| 1    | 5  | Benzo[c]thiophene                   | 134 | C8H6S      | 000270-82-6 | 93   |
| 2    |    | Cyclopenta[c]thiapyran              | 134 | C8H6S      | 000270-63-3 | 93   |
| 3    |    | Benzo[b]thiophene                   | 134 | C8H6S      | 000095-15-8 | 93   |
| 4    |    | Thiazolidin-4-one, 5-benzylideno... | 287 | C13H9N3OS2 | 351062-07-2 | 50   |
| 5    |    | [1]Benzothieno[2',3':3,4]cyclobu... | 246 | C13H10O3S  | 034002-19-2 | 50   |



Data Path : Z:\SVOASRV\HPCHEM1\BNA G\DATA\BG101619\  
Data File : BG043254.D  
Acq On : 16 Oct 2019 20:53  
Operator : JU  
Sample : K5350-01  
Misc :  
ALS Vial : 10 Sample Multiplier: 1

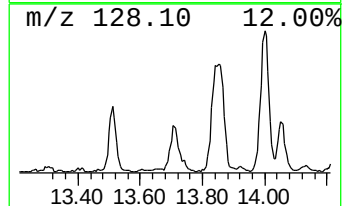
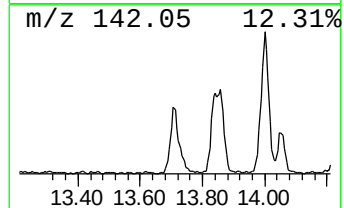
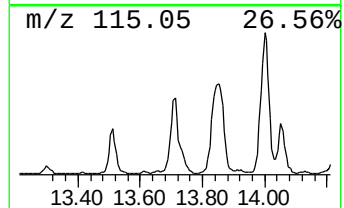
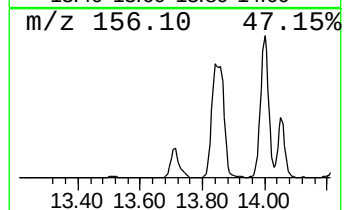
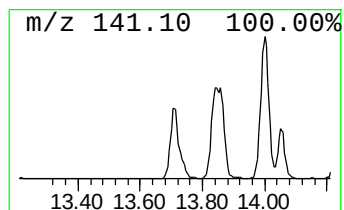
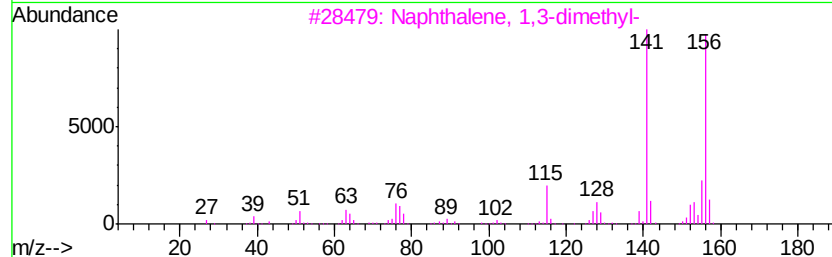
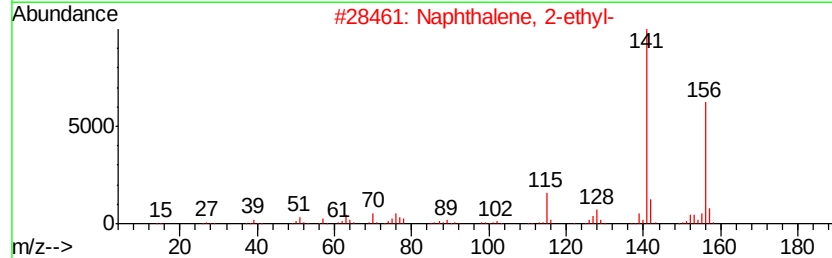
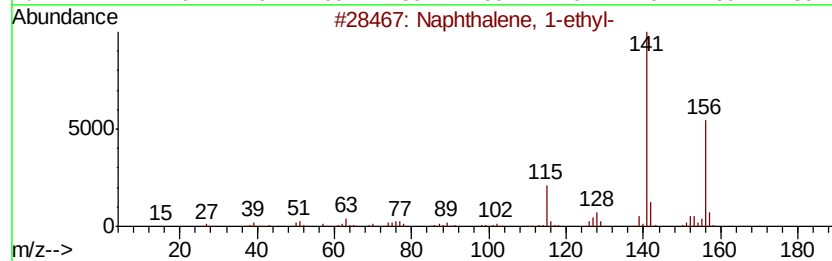
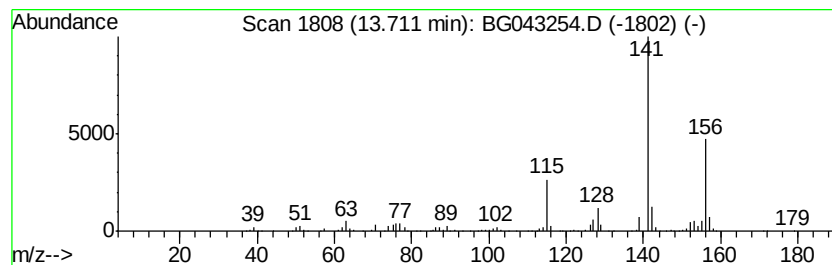
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VNJ-209

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Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

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

\*\*\*\*\*  
Peak Number 4 Naphthalene, 1-ethyl- Concentration Rank 8

| R.T.    | EstConc  | Area                                | Relative to ISTD | R.T.           |
|---------|----------|-------------------------------------|------------------|----------------|
| 13.71   | 24.61 ng | 702889                              | Acenaphthene-d10 | 14.67          |
| Hit# of | 5        | Tentative ID                        | MW MolForm       | CAS# Qual      |
| 1       |          | Naphthalene, 1-ethyl-               | 156 C12H12       | 001127-76-0 97 |
| 2       |          | Naphthalene, 2-ethyl-               | 156 C12H12       | 000939-27-5 93 |
| 3       |          | Naphthalene, 1,3-dimethyl-          | 156 C12H12       | 000575-41-7 91 |
| 4       |          | 2-Thiophenecarboxylic acid, 5-et... | 156 C7H8O2S      | 023229-72-3 64 |
| 5       |          | 2,5-Dimethoxyfluorobenzene          | 156 C8H9FO2      | 082830-49-7 53 |





Data Path : Z:\SVOASRV\HPCHEM1\BNA G\DATA\BG101619\  
Data File : BG043254.D  
Acq On : 16 Oct 2019 20:53  
Operator : JU  
Sample : K5350-01  
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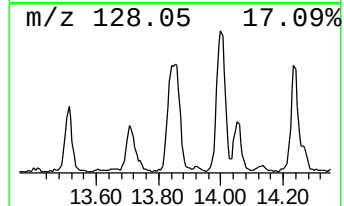
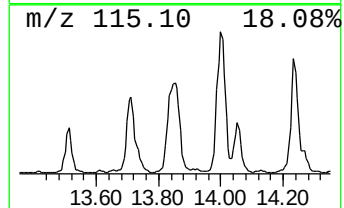
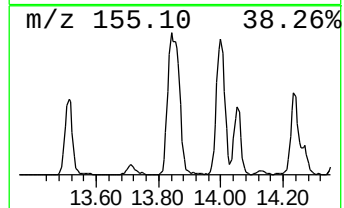
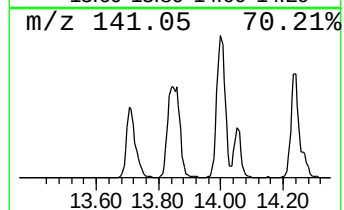
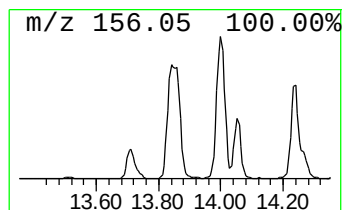
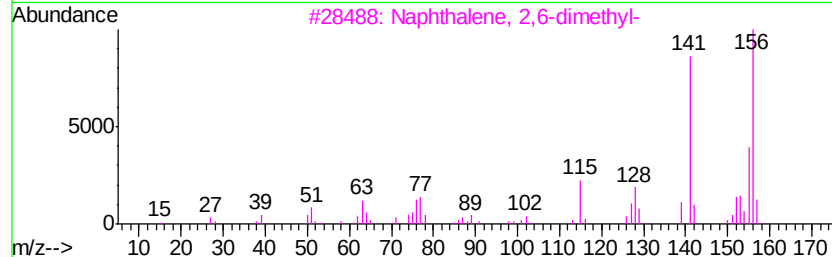
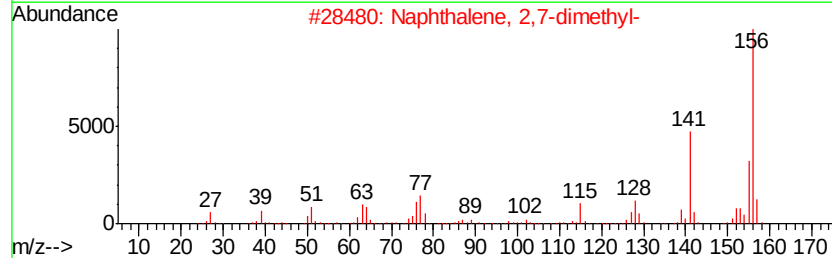
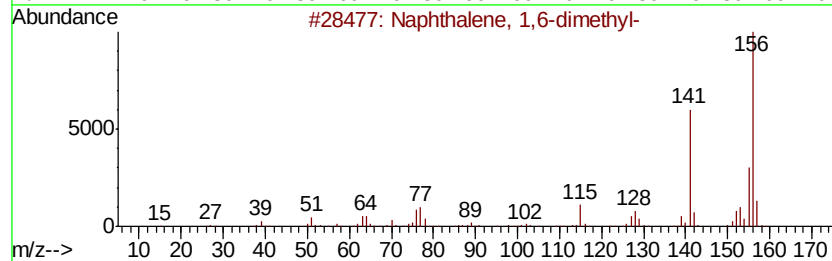
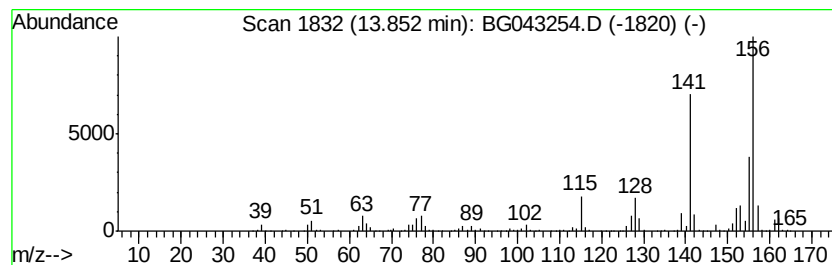
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Quant Method : Z:\SVOASRV\HPCHEM1\BNA G\METHODS\8270-BG092519.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

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

\*\*\*\*\*  
Peak Number 5 Naphthalene, 1,6-dimethyl- Concentration Rank 5

| R.T.    | EstConc  | Area                       | Relative to ISTD | R.T.           |
|---------|----------|----------------------------|------------------|----------------|
| 13.85   | 48.40 ng | 1382350                    | Acenaphthene-d10 | 14.67          |
| Hit# of | 5        | Tentative ID               | MW MolForm       | CAS# Qual      |
| 1       |          | Naphthalene, 1,6-dimethyl- | 156 C12H12       | 000575-43-9 96 |
| 2       |          | Naphthalene, 2,7-dimethyl- | 156 C12H12       | 000582-16-1 96 |
| 3       |          | Naphthalene, 2,6-dimethyl- | 156 C12H12       | 000581-42-0 96 |
| 4       |          | Naphthalene, 1,5-dimethyl- | 156 C12H12       | 000571-61-9 95 |
| 5       |          | Naphthalene, 1,4-dimethyl- | 156 C12H12       | 000571-58-4 94 |





Data Path : Z:\SVOASRV\HPCHEM1\BNA G\DATA\BG101619\  
Data File : BG043254.D  
Acq On : 16 Oct 2019 20:53  
Operator : JU  
Sample : K5350-01  
Misc :  
ALS Vial : 10 Sample Multiplier: 1

Instrument :  
BNA\_G  
ClientSampleId :  
VNJ-209

Quant Method : Z:\SVOASRV\HPCHEM1\BNA G\METHODS\8270-BG092519.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

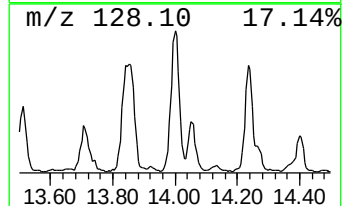
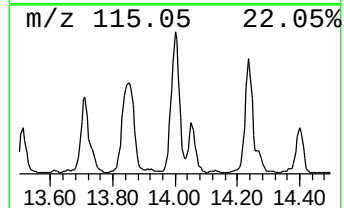
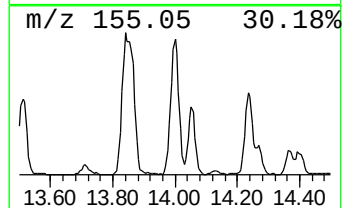
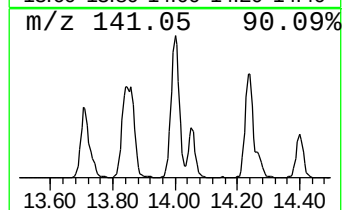
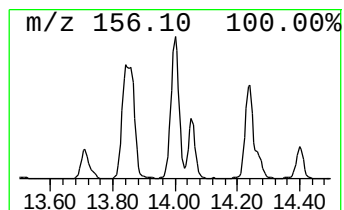
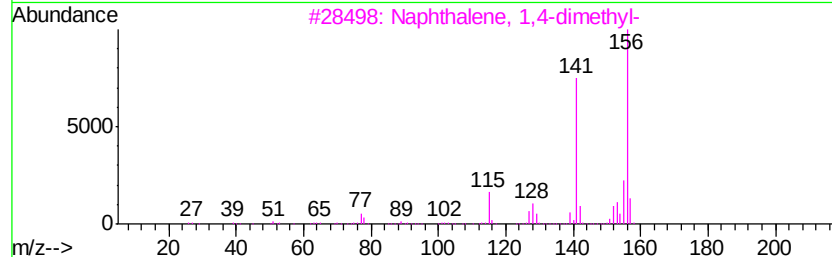
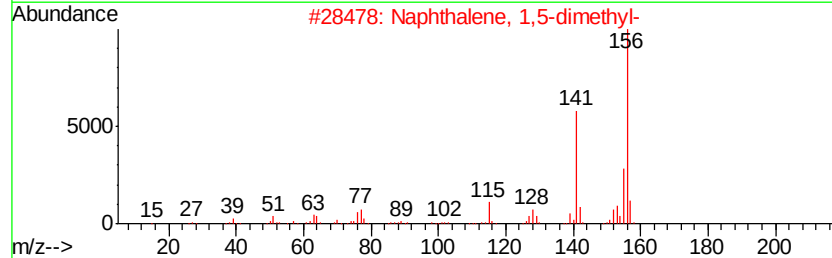
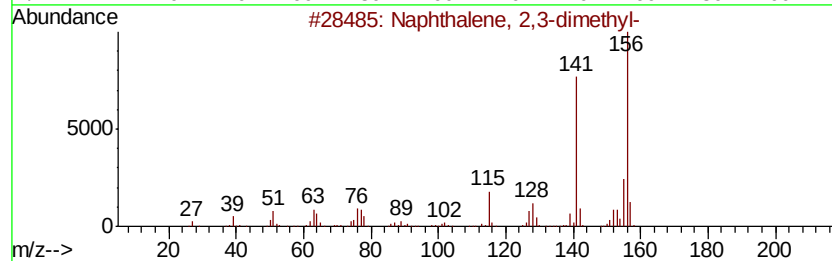
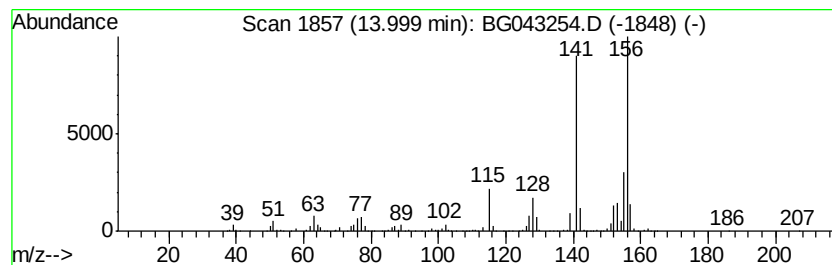
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TIC Integration Parameters: LSCINT.P

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Peak Number 6 Naphthalene, 2,3-dimethyl- Concentration Rank 3

| R.T.  | EstConc  | Area    | Relative to ISTD | R.T.  |
|-------|----------|---------|------------------|-------|
| 14.00 | 65.69 ng | 1876320 | Acenaphthene-d10 | 14.67 |

| Hit# | of | Tentative ID               | MW  | MolForm | CAS#        | Qual |
|------|----|----------------------------|-----|---------|-------------|------|
| 1    | 5  | Naphthalene, 2,3-dimethyl- | 156 | C12H12  | 000581-40-8 | 97   |
| 2    |    | Naphthalene, 1,5-dimethyl- | 156 | C12H12  | 000571-61-9 | 97   |
| 3    |    | Naphthalene, 1,4-dimethyl- | 156 | C12H12  | 000571-58-4 | 97   |
| 4    |    | Naphthalene, 1,3-dimethyl- | 156 | C12H12  | 000575-41-7 | 96   |
| 5    |    | Naphthalene, 1,6-dimethyl- | 156 | C12H12  | 000575-43-9 | 96   |



Data Path : Z:\SVOASRV\HPCHEM1\BNA G\DATA\BG101619\  
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Acq On : 16 Oct 2019 20:53  
Operator : JU  
Sample : K5350-01  
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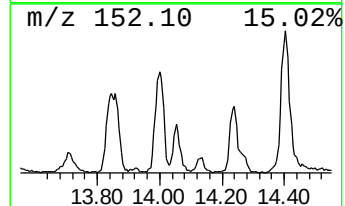
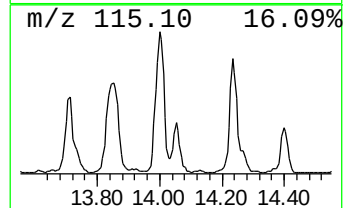
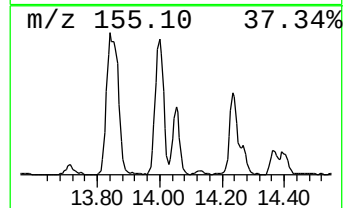
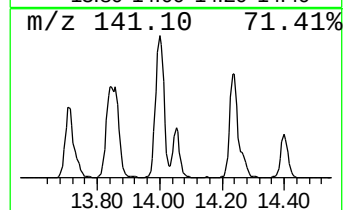
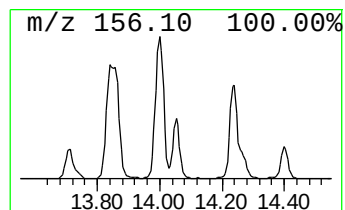
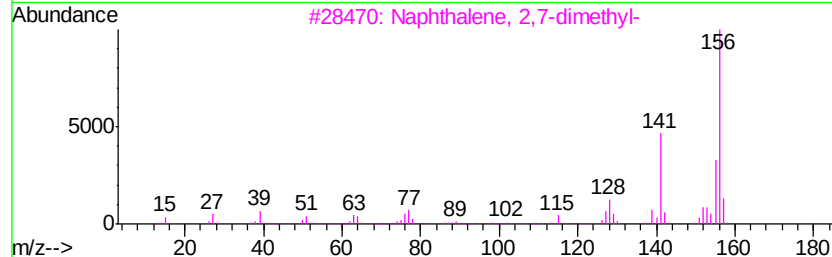
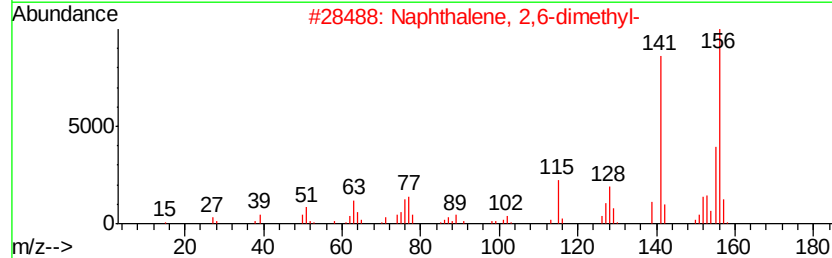
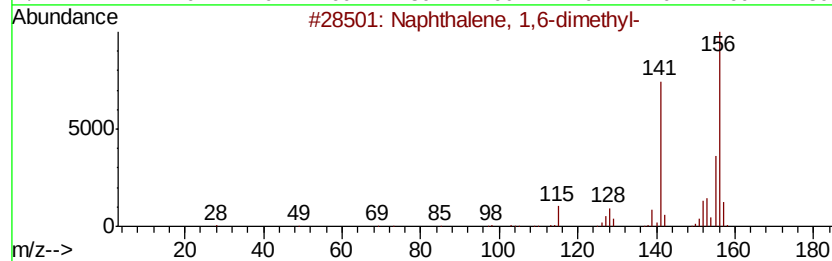
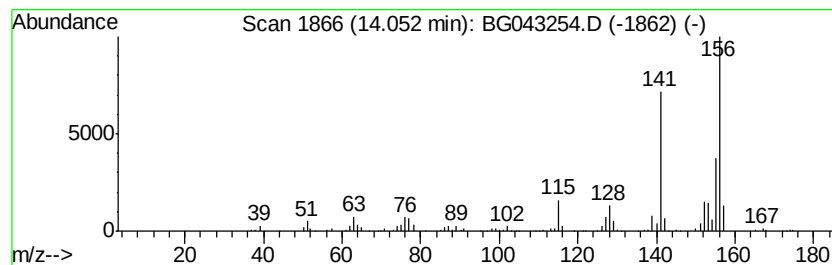
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ClientSampleId :  
VNJ-209

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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 7 Naphthalene, 2,6-dimethyl- Concentration Rank 9

| R.T.    | EstConc  | Area                       | Relative to ISTD | R.T.           |
|---------|----------|----------------------------|------------------|----------------|
| 14.05   | 23.94 ng | 683888                     | Acenaphthene-d10 | 14.67          |
| Hit# of | 5        | Tentative ID               | MW MolForm       | CAS# Qual      |
| 1       |          | Naphthalene, 1,6-dimethyl- | 156 C12H12       | 000575-43-9 96 |
| 2       |          | Naphthalene, 2,6-dimethyl- | 156 C12H12       | 000581-42-0 96 |
| 3       |          | Naphthalene, 2,7-dimethyl- | 156 C12H12       | 000582-16-1 95 |
| 4       |          | Naphthalene, 1,4-dimethyl- | 156 C12H12       | 000571-58-4 95 |
| 5       |          | Naphthalene, 1,5-dimethyl- | 156 C12H12       | 000571-61-9 94 |



Data Path : Z:\SVOASRV\HPCHEM1\BNA G\DATA\BG101619\  
Data File : BG043254.D  
Acq On : 16 Oct 2019 20:53  
Operator : JU  
Sample : K5350-01  
Misc :  
ALS Vial : 10 Sample Multiplier: 1

Instrument :  
BNA\_G  
ClientSampleId :  
VNJ-209

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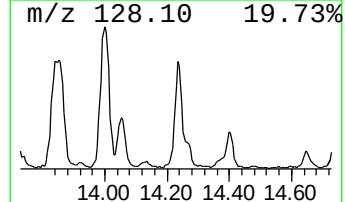
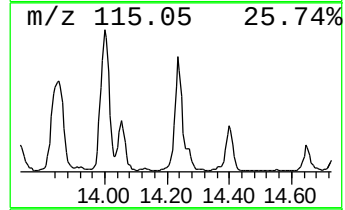
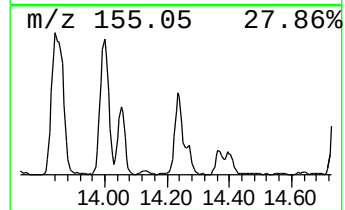
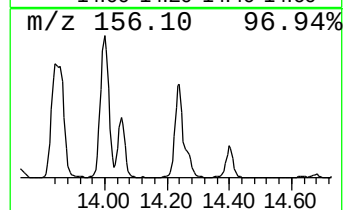
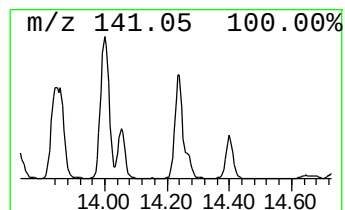
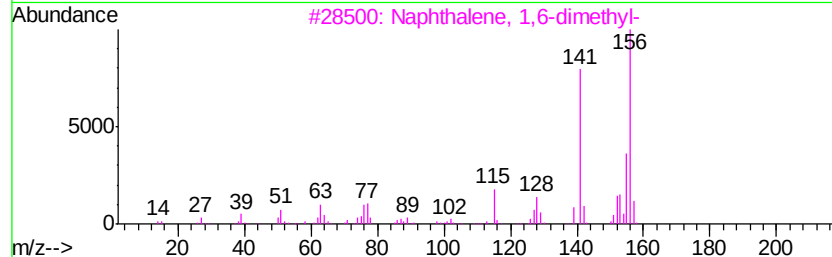
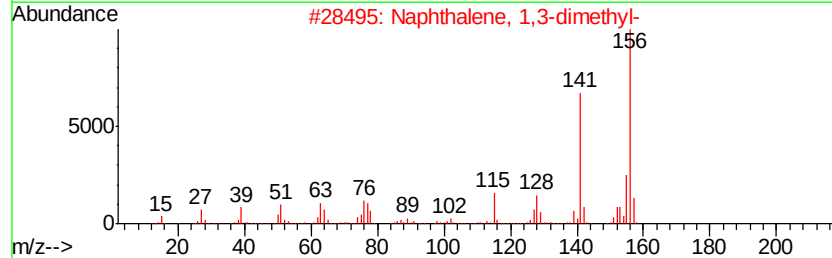
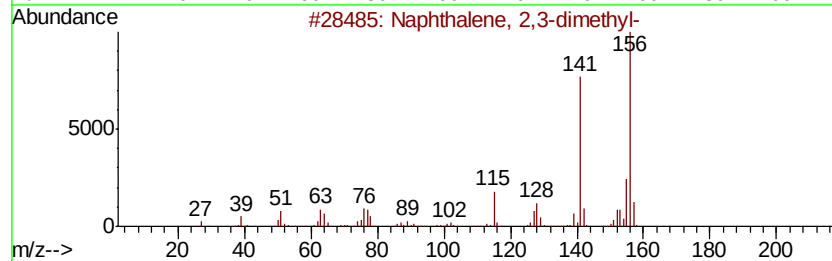
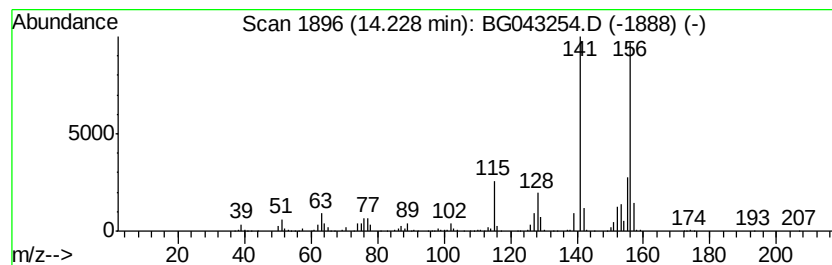
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TIC Integration Parameters: LSCINT.P

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Peak Number 8 Naphthalene, 1,3-dimethyl- Concentration Rank 4

| R.T.  | EstConc  | Area    | Relative to ISTD | R.T.  |
|-------|----------|---------|------------------|-------|
| 14.23 | 48.57 ng | 1387220 | Acenaphthene-d10 | 14.67 |

| Hit# | of | Tentative ID               | MW  | MolForm | CAS#        | Qual |
|------|----|----------------------------|-----|---------|-------------|------|
| 1    | 5  | Naphthalene, 2,3-dimethyl- | 156 | C12H12  | 000581-40-8 | 97   |
| 2    |    | Naphthalene, 1,3-dimethyl- | 156 | C12H12  | 000575-41-7 | 97   |
| 3    |    | Naphthalene, 1,6-dimethyl- | 156 | C12H12  | 000575-43-9 | 96   |
| 4    |    | Naphthalene, 1,4-dimethyl- | 156 | C12H12  | 000571-58-4 | 95   |
| 5    |    | Naphthalene, 1,5-dimethyl- | 156 | C12H12  | 000571-61-9 | 94   |



Data Path : Z:\SVOASRV\HPCHEM1\BNA G\DATA\BG101619\  
Data File : BG043254.D  
Acq On : 16 Oct 2019 20:53  
Operator : JU  
Sample : K5350-01  
Misc :  
ALS Vial : 10 Sample Multiplier: 1

Instrument :  
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ClientSampleId :  
VNJ-209

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Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

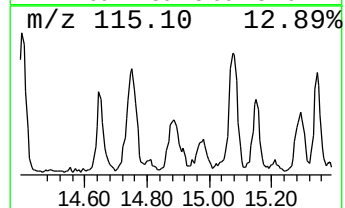
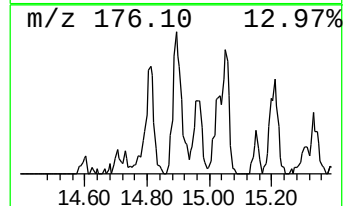
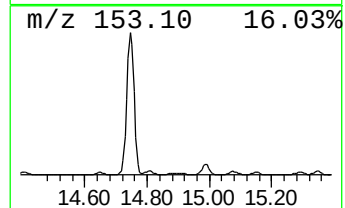
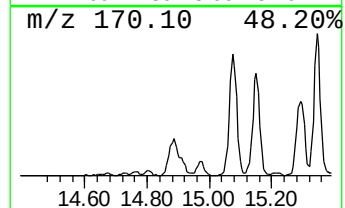
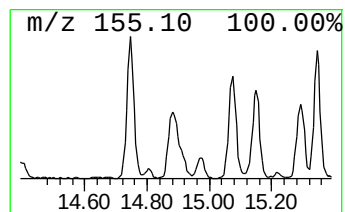
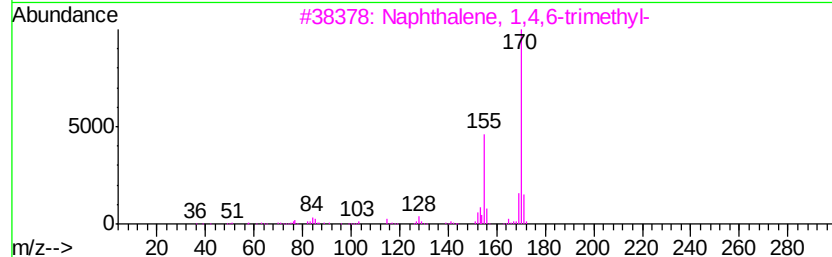
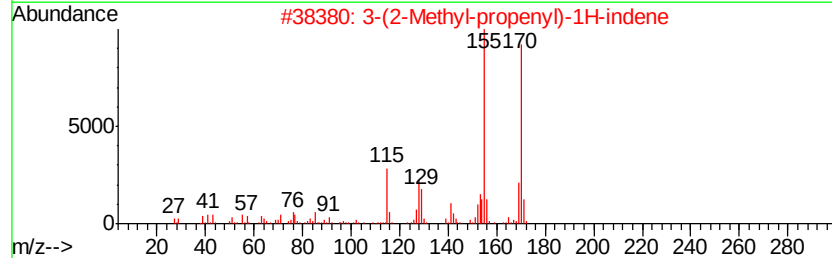
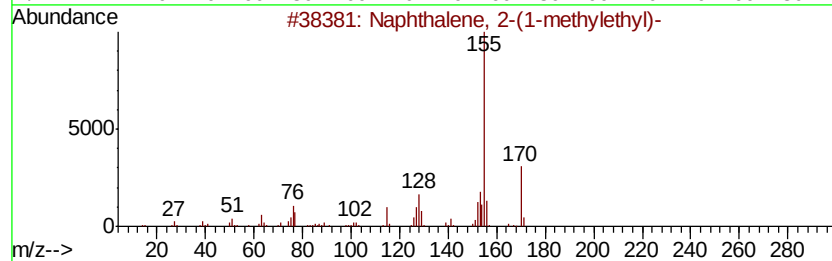
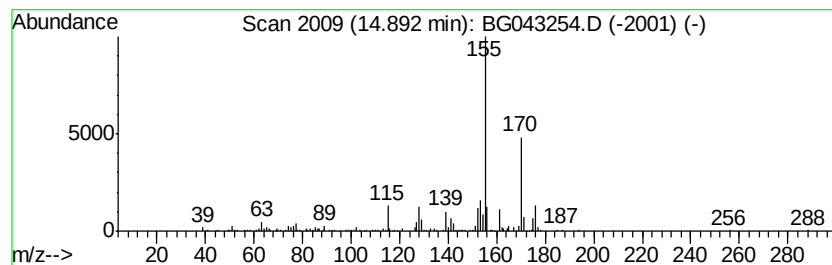
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TIC Integration Parameters: LSCINT.P

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Peak Number 9 Naphthalene, 2-(1-methyleth... Concentration Rank 18

| R.T.  | EstConc  | Area   | Relative to ISTD | R.T.  |
|-------|----------|--------|------------------|-------|
| 14.89 | 14.78 ng | 422267 | Acenaphthene-d10 | 14.67 |

| Hit# | of | Tentative ID                    | MW  | MolForm | CAS#         | Qual |
|------|----|---------------------------------|-----|---------|--------------|------|
| 1    | 5  | Naphthalene, 2-(1-methylethyl)- | 170 | C13H14  | 002027-17-0  | 91   |
| 2    |    | 3-(2-Methyl-propenyl)-1H-indene | 170 | C13H14  | 1000187-78-5 | 81   |
| 3    |    | Naphthalene, 1,4,6-trimethyl-   | 170 | C13H14  | 002131-42-2  | 64   |
| 4    |    | 4,6,8-Trimethylazulene          | 170 | C13H14  | 000941-81-1  | 64   |
| 5    |    | Naphthalene, 2,3,6-trimethyl-   | 170 | C13H14  | 000829-26-5  | 64   |



Data Path : Z:\SVOASRV\HPCHEM1\BNA G\DATA\BG101619\  
Data File : BG043254.D  
Acq On : 16 Oct 2019 20:53  
Operator : JU  
Sample : K5350-01  
Misc :  
ALS Vial : 10 Sample Multiplier: 1

Instrument :  
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ClientSampleId :  
VNJ-209

Quant Method : Z:\SVOASRV\HPCHEM1\BNA G\METHODS\8270-BG092519.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

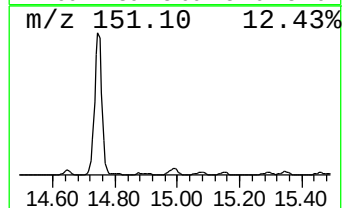
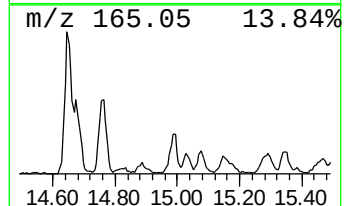
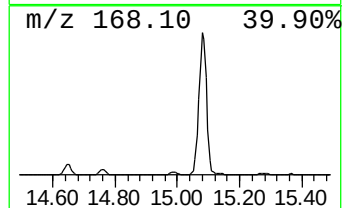
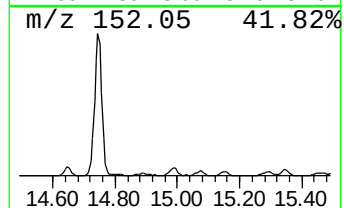
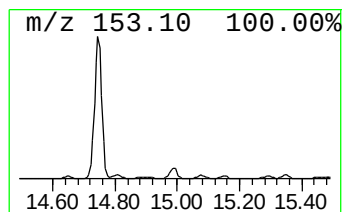
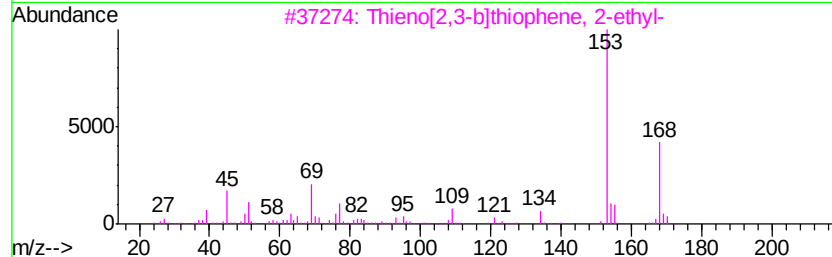
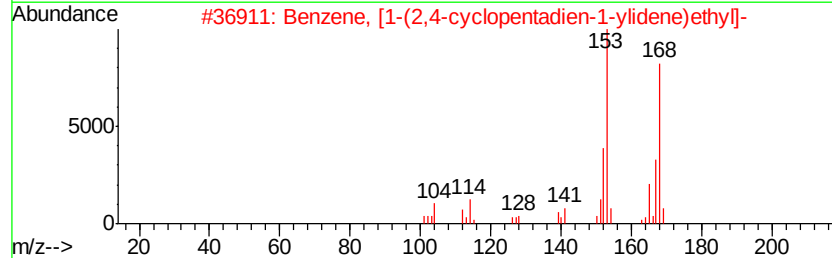
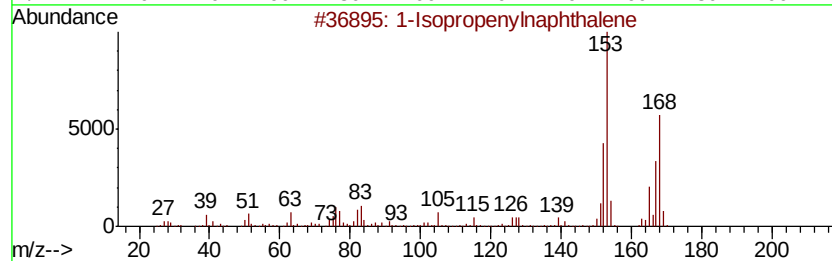
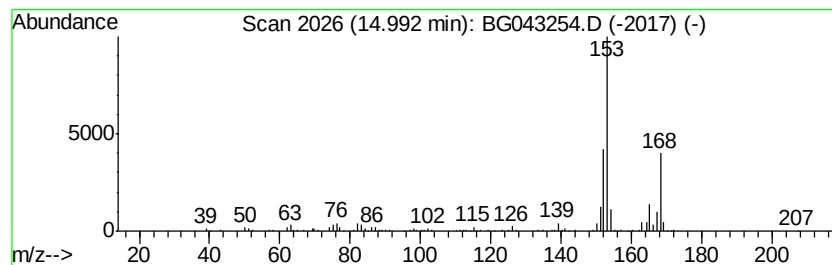
TIC Library : C:\Database\NIST11.L  
TIC Integration Parameters: LSCINT.P

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Peak Number 10 1-Isopropenylnaphthalene Concentration Rank 19

| R.T.  | EstConc  | Area   | Relative to ISTD | R.T.  |
|-------|----------|--------|------------------|-------|
| 14.99 | 12.62 ng | 360586 | Acenaphthene-d10 | 14.67 |

| Hit# | of | Tentative ID                        | MW  | MolForm | CAS#        | Qual |
|------|----|-------------------------------------|-----|---------|-------------|------|
| 1    | 5  | 1-Isopropenylnaphthalene            | 168 | C13H12  | 001855-47-6 | 87   |
| 2    |    | Benzene, [1-(2,4-cyclopentadien-... | 168 | C13H12  | 002320-32-3 | 64   |
| 3    |    | Thieno[2,3-b]thiophene, 2-ethyl-    | 168 | C8H8S2  | 005912-01-6 | 59   |
| 4    |    | Ethanone, 1-(2,3,4-trihydroxyphe... | 168 | C8H8O4  | 000528-21-2 | 58   |
| 5    |    | Acetophenone, 3'-fluoro-4'-methoxy- | 168 | C9H9FO2 | 000455-91-4 | 53   |



Data Path : Z:\SVOASRV\HPCHEM1\BNA G\DATA\BG101619\  
Data File : BG043254.D  
Acq On : 16 Oct 2019 20:53  
Operator : JU  
Sample : K5350-01  
Misc :  
ALS Vial : 10 Sample Multiplier: 1

Instrument :  
BNA\_G  
ClientSampleId :  
VNJ-209

Quant Method : Z:\SVOASRV\HPCHEM1\BNA G\METHODS\8270-BG092519.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

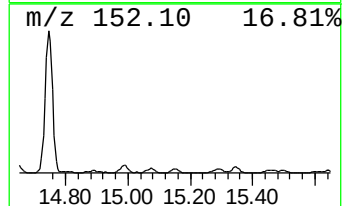
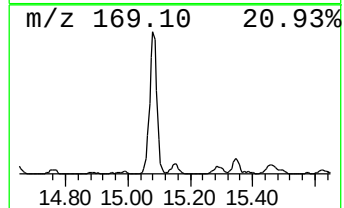
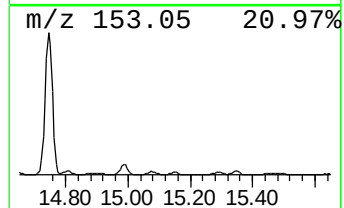
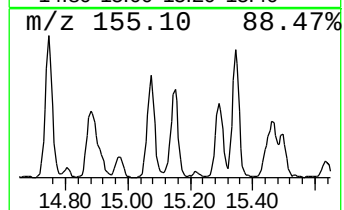
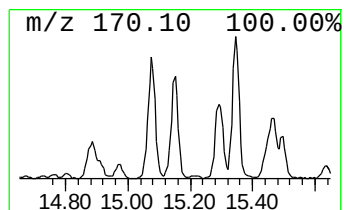
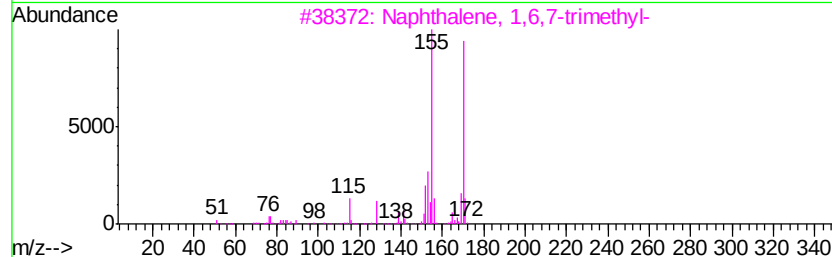
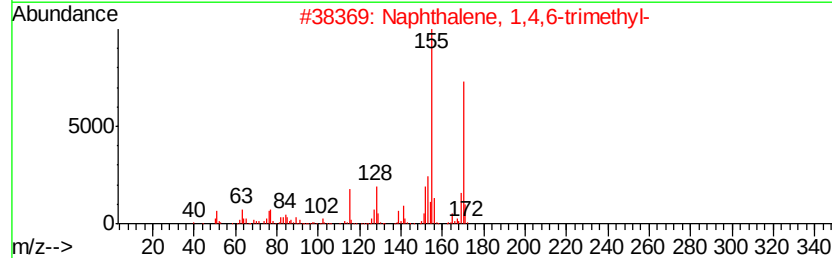
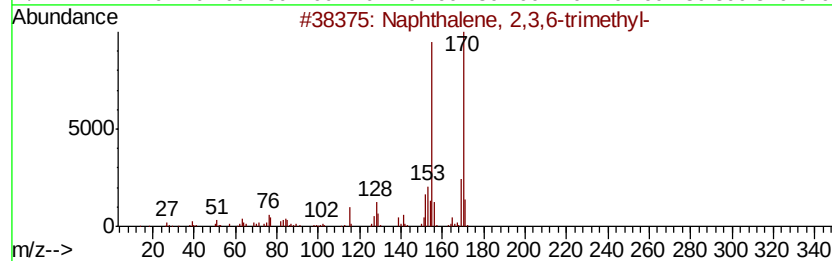
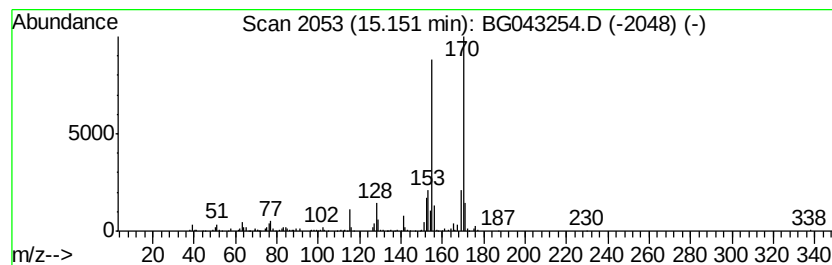
TIC Library : C:\Database\NIST11.L  
TIC Integration Parameters: LSCINT.P

\*\*\*\*\*  
Peak Number 11 Naphthalene, 2,3,6-trimethyl- Concentration Rank 17

| R.T.  | EstConc  | Area   | Relative to ISTD | R.T.  |
|-------|----------|--------|------------------|-------|
| 15.15 | 16.03 ng | 457990 | Acenaphthene-d10 | 14.67 |

| Hit# | of | Tentative ID                  | MW  | MolForm | CAS#        | Qual |
|------|----|-------------------------------|-----|---------|-------------|------|
| 1    | 5  | Naphthalene, 2,3,6-trimethyl- | 170 | C13H14  | 000829-26-5 | 98   |
| 2    |    | Naphthalene, 1,4,6-trimethyl- | 170 | C13H14  | 002131-42-2 | 97   |
| 3    |    | Naphthalene, 1,6,7-trimethyl- | 170 | C13H14  | 002245-38-7 | 96   |
| 4    |    | 4,6,8-Trimethylazulene        | 170 | C13H14  | 000941-81-1 | 94   |
| 5    |    | Naphthalene, 1,4,5-trimethyl- | 170 | C13H14  | 002131-41-1 | 93   |



Data Path : Z:\SVOASRV\HPCHEM1\BNA G\DATA\BG101619\  
Data File : BG043254.D  
Acq On : 16 Oct 2019 20:53  
Operator : JU  
Sample : K5350-01  
Misc :  
ALS Vial : 10 Sample Multiplier: 1

Instrument :  
BNA\_G  
ClientSampleId :  
VNJ-209

Quant Method : Z:\SVOASRV\HPCHEM1\BNA G\METHODS\8270-BG092519.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

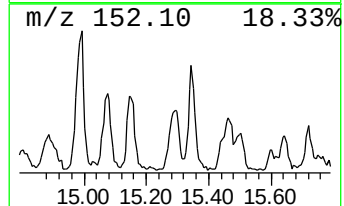
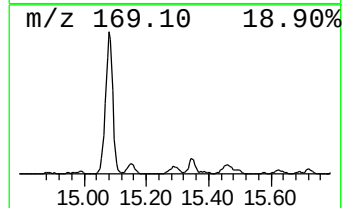
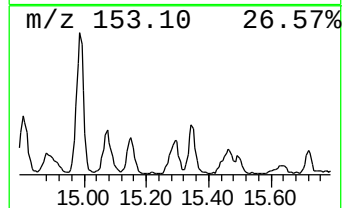
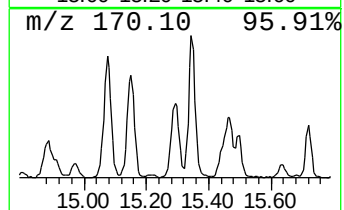
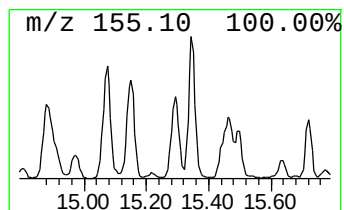
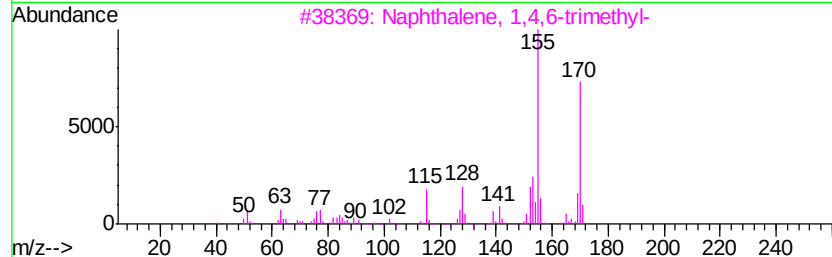
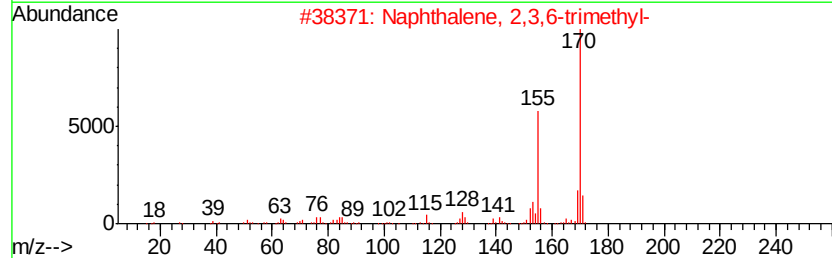
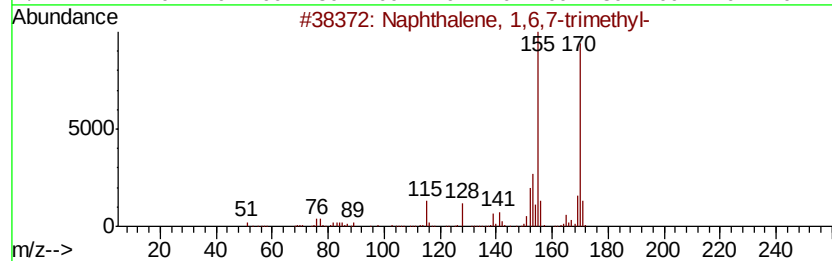
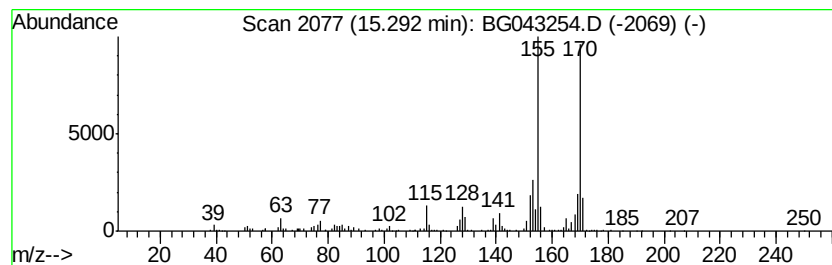
TIC Library : C:\Database\NIST11.L  
TIC Integration Parameters: LSCINT.P

\*\*\*\*\*  
Peak Number 12 Naphthalene, 1,6,7-trimethyl- Concentration Rank 14

| R.T.  | EstConc  | Area   | Relative to ISTD | R.T.  |
|-------|----------|--------|------------------|-------|
| 15.29 | 18.46 ng | 527267 | Acenaphthene-d10 | 14.67 |

| Hit# | of | Tentative ID                  | MW  | MolForm | CAS#        | Qual |
|------|----|-------------------------------|-----|---------|-------------|------|
| 1    | 5  | Naphthalene, 1,6,7-trimethyl- | 170 | C13H14  | 002245-38-7 | 98   |
| 2    |    | Naphthalene, 2,3,6-trimethyl- | 170 | C13H14  | 000829-26-5 | 97   |
| 3    |    | Naphthalene, 1,4,6-trimethyl- | 170 | C13H14  | 002131-42-2 | 97   |
| 4    |    | Naphthalene, 1,4,5-trimethyl- | 170 | C13H14  | 002131-41-1 | 95   |
| 5    |    | 4,6,8-Trimethylazulene        | 170 | C13H14  | 000941-81-1 | 94   |





Data Path : Z:\SVOASRV\HPCHEM1\BNA G\DATA\BG101619\  
Data File : BG043254.D  
Acq On : 16 Oct 2019 20:53  
Operator : JU  
Sample : K5350-01  
Misc :  
ALS Vial : 10 Sample Multiplier: 1

Instrument :  
BNA\_G  
ClientSampleId :  
VNJ-209

Quant Method : Z:\SVOASRV\HPCHEM1\BNA G\METHODS\8270-BG092519.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

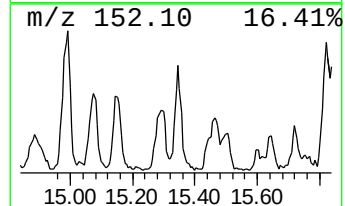
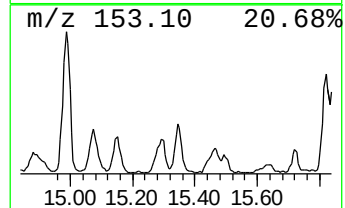
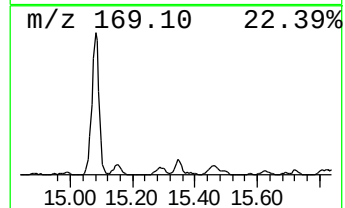
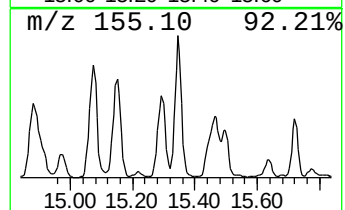
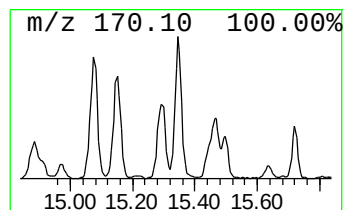
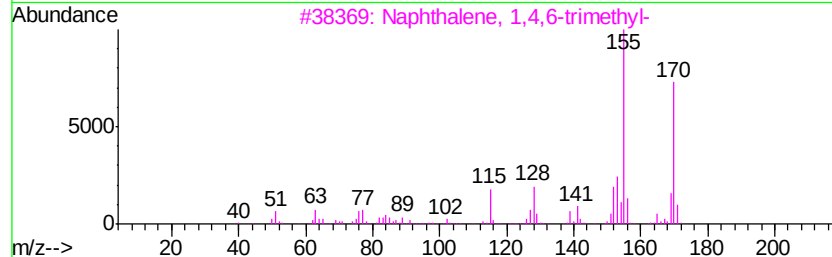
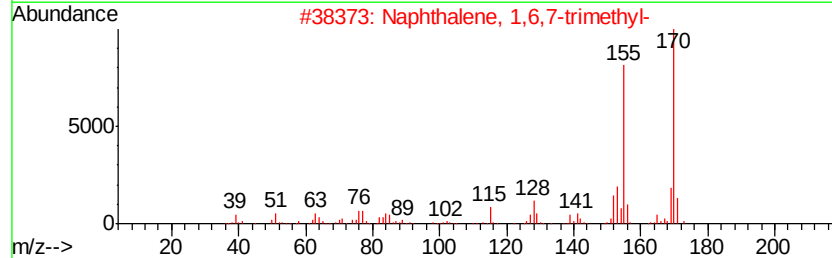
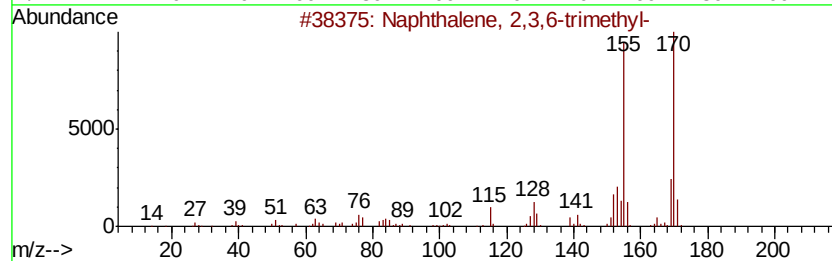
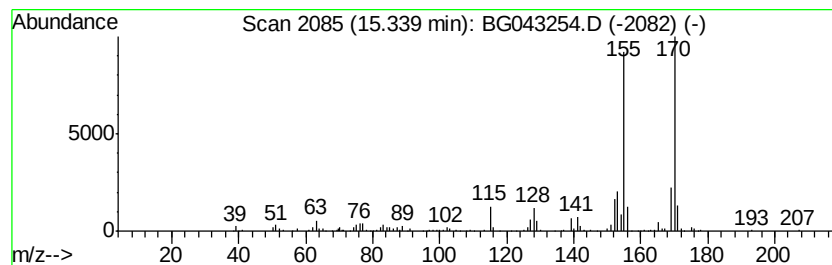
TIC Library : C:\Database\NIST11.L  
TIC Integration Parameters: LSCINT.P

\*\*\*\*\*  
Peak Number 13 Naphthalene, 1,4,5-trimethyl- Concentration Rank 10

| R.T.  | EstConc  | Area   | Relative to ISTD | R.T.  |
|-------|----------|--------|------------------|-------|
| 15.34 | 22.72 ng | 648991 | Acenaphthene-d10 | 14.67 |

| Hit# | of | Tentative ID                    | MW  | MolForm | CAS#         | Qual |
|------|----|---------------------------------|-----|---------|--------------|------|
| 1    | 5  | Naphthalene, 2,3,6-trimethyl-   | 170 | C13H14  | 000829-26-5  | 98   |
| 2    |    | Naphthalene, 1,6,7-trimethyl-   | 170 | C13H14  | 002245-38-7  | 97   |
| 3    |    | Naphthalene, 1,4,6-trimethyl-   | 170 | C13H14  | 002131-42-2  | 95   |
| 4    |    | Naphthalene, 1,4,5-trimethyl-   | 170 | C13H14  | 002131-41-1  | 93   |
| 5    |    | 3-(2-Methyl-propenyl)-1H-indene | 170 | C13H14  | 1000187-78-5 | 90   |



Data Path : Z:\SVOASRV\HPCHEM1\BNA G\DATA\BG101619\  
Data File : BG043254.D  
Acq On : 16 Oct 2019 20:53  
Operator : JU  
Sample : K5350-01  
Misc :  
ALS Vial : 10 Sample Multiplier: 1

Instrument :  
BNA\_G  
ClientSampleId :  
VNJ-209

Quant Method : Z:\SVOASRV\HPCHEM1\BNA G\METHODS\8270-BG092519.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

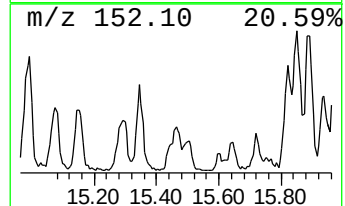
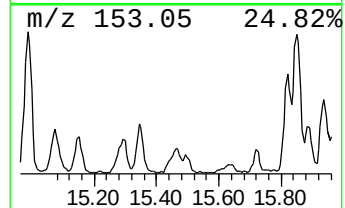
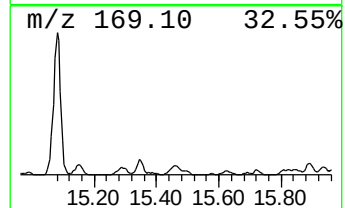
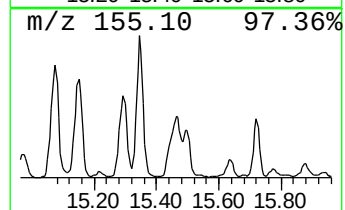
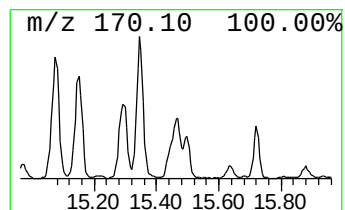
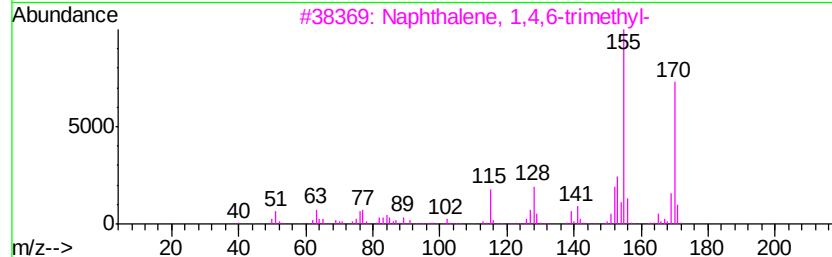
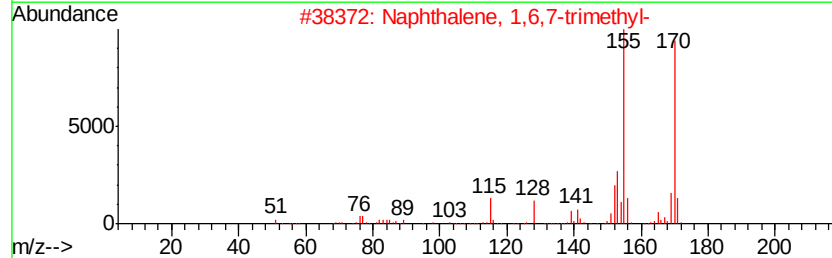
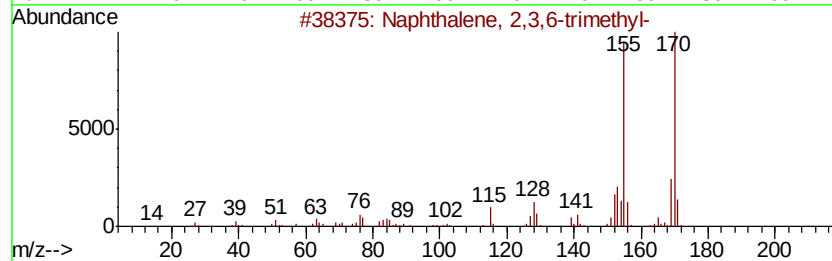
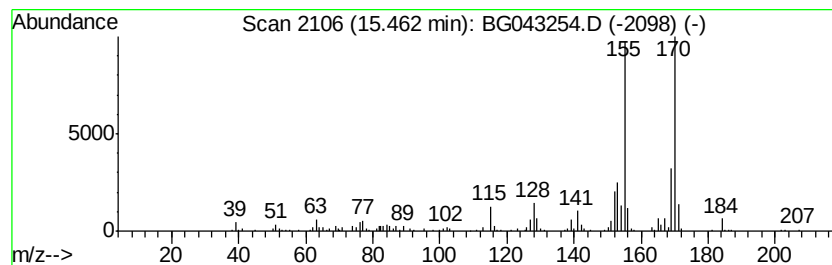
TIC Library : C:\Database\NIST11.L  
TIC Integration Parameters: LSCINT.P

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Peak Number 14 Naphthalene, 1,4,6-trimethyl- Concentration Rank 15

| R.T.  | EstConc  | Area   | Relative to ISTD | R.T.  |
|-------|----------|--------|------------------|-------|
| 15.46 | 16.30 ng | 465532 | Acenaphthene-d10 | 14.67 |

| Hit# | of | Tentative ID                  | MW  | MolForm | CAS#        | Qual |
|------|----|-------------------------------|-----|---------|-------------|------|
| 1    | 5  | Naphthalene, 2,3,6-trimethyl- | 170 | C13H14  | 000829-26-5 | 98   |
| 2    |    | Naphthalene, 1,6,7-trimethyl- | 170 | C13H14  | 002245-38-7 | 98   |
| 3    |    | Naphthalene, 1,4,6-trimethyl- | 170 | C13H14  | 002131-42-2 | 96   |
| 4    |    | Naphthalene, 1,4,5-trimethyl- | 170 | C13H14  | 002131-41-1 | 96   |
| 5    |    | 4,6,8-Trimethylazulene        | 170 | C13H14  | 000941-81-1 | 93   |



Data Path : Z:\SVOASRV\HPCHEM1\BNA G\DATA\BG101619\  
Data File : BG043254.D  
Acq On : 16 Oct 2019 20:53  
Operator : JU  
Sample : K5350-01  
Misc :  
ALS Vial : 10 Sample Multiplier: 1

Instrument :  
BNA\_G  
ClientSampleId :  
VNJ-209

Quant Method : Z:\SVOASRV\HPCHEM1\BNA G\METHODS\8270-BG092519.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

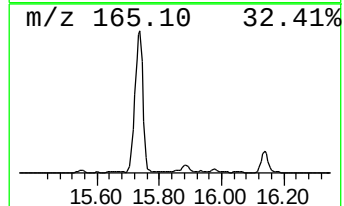
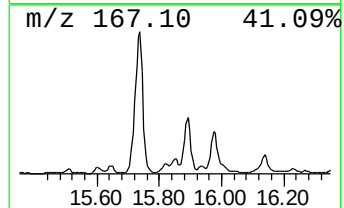
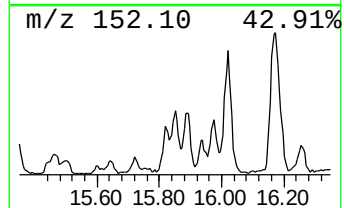
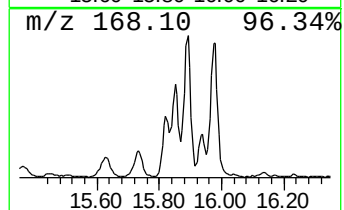
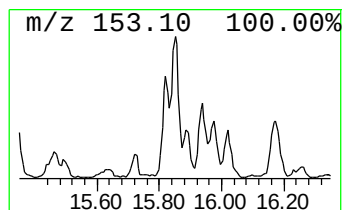
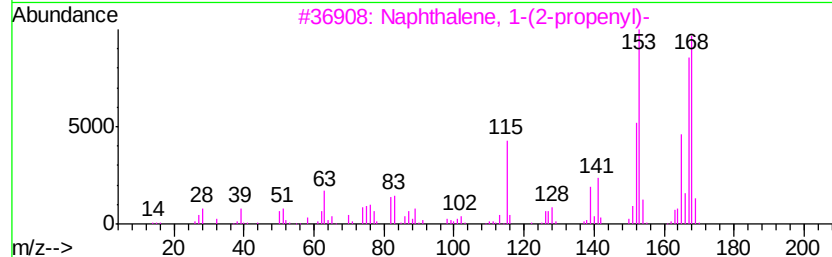
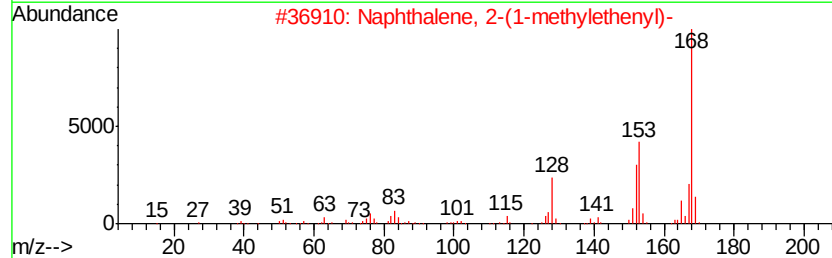
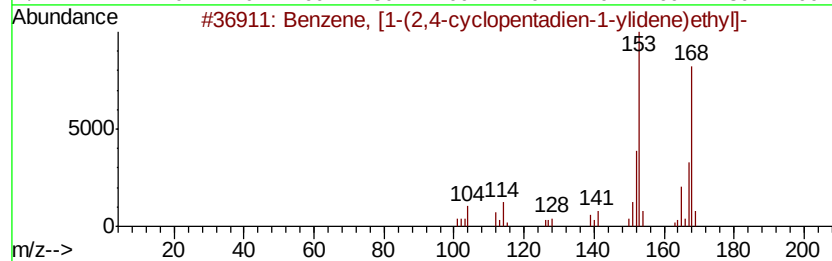
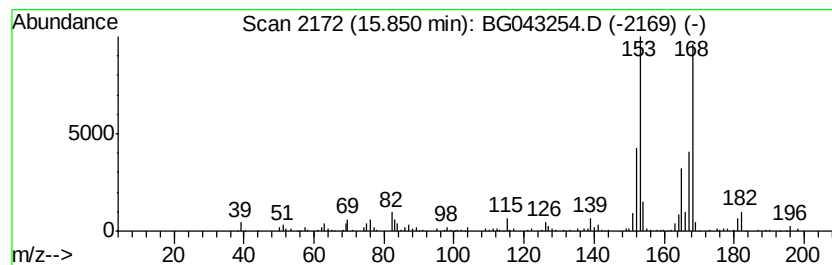
TIC Library : C:\Database\NIST11.L  
TIC Integration Parameters: LSCINT.P

\*\*\*\*\*  
Peak Number 15 Benzene, [1-(2,4-cyclopenta... Concentration Rank 16

| R.T.  | EstConc  | Area   | Relative to ISTD | R.T.  |
|-------|----------|--------|------------------|-------|
| 15.85 | 16.14 ng | 461094 | Acenaphthene-d10 | 14.67 |

| Hit# | of | Tentative ID                        | MW  | MolForm | CAS#        | Qual |
|------|----|-------------------------------------|-----|---------|-------------|------|
| 1    | 5  | Benzene, [1-(2,4-cyclopentadien-... | 168 | C13H12  | 002320-32-3 | 80   |
| 2    |    | Naphthalene, 2-(1-methylethenyl)-   | 168 | C13H12  | 003710-23-4 | 50   |
| 3    |    | Naphthalene, 1-(2-propenyl)-        | 168 | C13H12  | 002489-86-3 | 42   |
| 4    |    | 1-Isopropenyl naphthalene           | 168 | C13H12  | 001855-47-6 | 42   |
| 5    |    | 1,1'-Biphenyl, 3-methyl-            | 168 | C13H12  | 000643-93-6 | 38   |



Data Path : Z:\SVOASRV\HPCHEM1\BNA G\DATA\BG101619\  
Data File : BG043254.D  
Acq On : 16 Oct 2019 20:53  
Operator : JU  
Sample : K5350-01  
Misc :  
ALS Vial : 10 Sample Multiplier: 1

Instrument :  
BNA\_G  
ClientSampleId :  
VNJ-209

Quant Method : Z:\SVOASRV\HPCHEM1\BNA G\METHODS\8270-BG092519.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

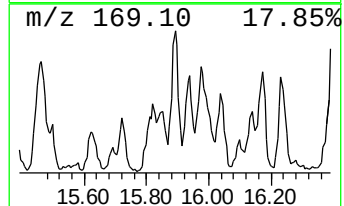
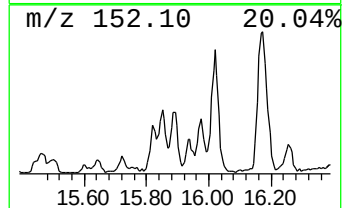
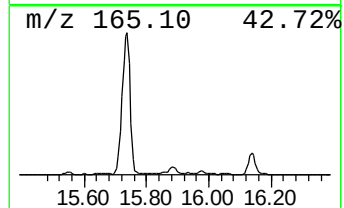
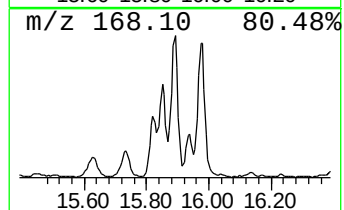
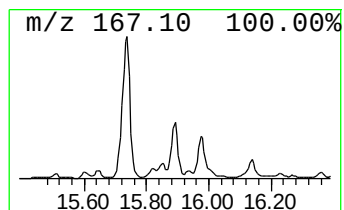
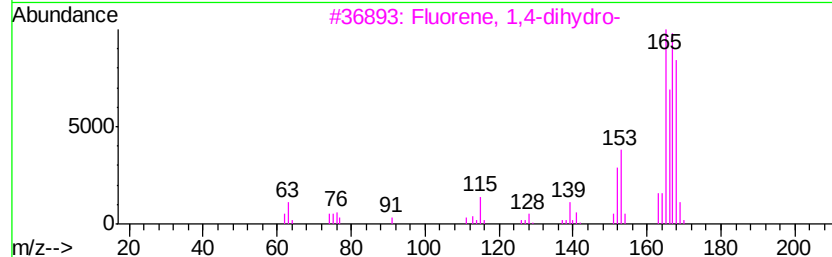
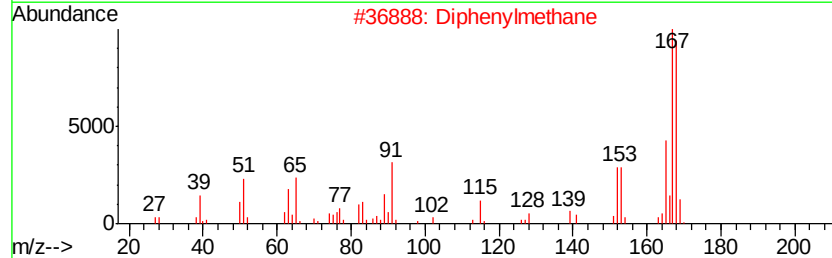
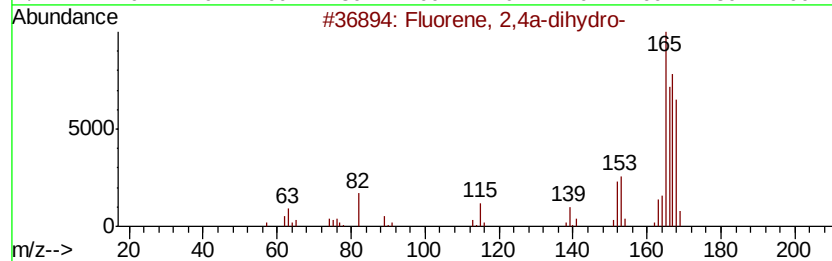
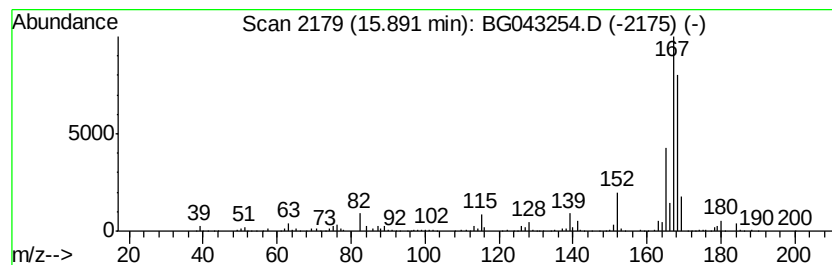
TIC Library : C:\Database\NIST11.L  
TIC Integration Parameters: LSCINT.P

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Peak Number 16 Fluorene, 2,4a-dihydro- Concentration Rank 7

| R.T.  | EstConc  | Area   | Relative to ISTD | R.T.  |
|-------|----------|--------|------------------|-------|
| 15.89 | 28.03 ng | 800483 | Acenaphthene-d10 | 14.67 |

| Hit# | of | Tentative ID                 | MW  | MolForm | CAS#        | Qual |
|------|----|------------------------------|-----|---------|-------------|------|
| 1    | 5  | Fluorene, 2,4a-dihydro-      | 168 | C13H12  | 059247-36-8 | 86   |
| 2    |    | Diphenylmethane              | 168 | C13H12  | 000101-81-5 | 68   |
| 3    |    | Fluorene, 1,4-dihydro-       | 168 | C13H12  | 041593-21-9 | 58   |
| 4    |    | 1,1'-Biphenyl, 2-methyl-     | 168 | C13H12  | 000643-58-3 | 53   |
| 5    |    | Naphthalene, 1-(2-propenyl)- | 168 | C13H12  | 002489-86-3 | 49   |



Data Path : Z:\SVOASRV\HPCHEM1\BNA G\DATA\BG101619\  
Data File : BG043254.D  
Acq On : 16 Oct 2019 20:53  
Operator : JU  
Sample : K5350-01  
Misc :  
ALS Vial : 10 Sample Multiplier: 1

Instrument :  
BNA\_G  
ClientSampleId :  
VNJ-209

Quant Method : Z:\SVOASRV\HPCHEM1\BNA G\METHODS\8270-BG092519.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

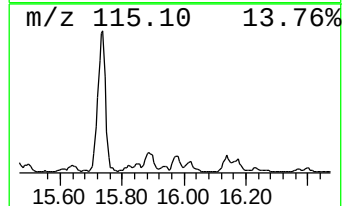
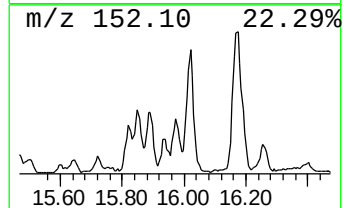
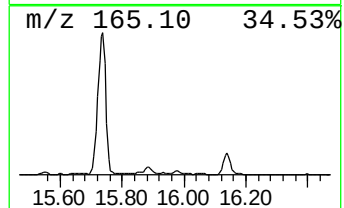
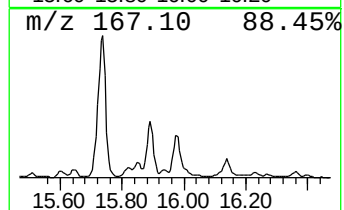
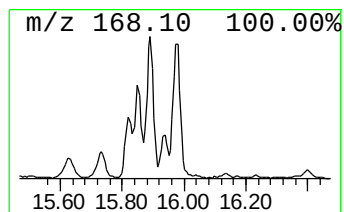
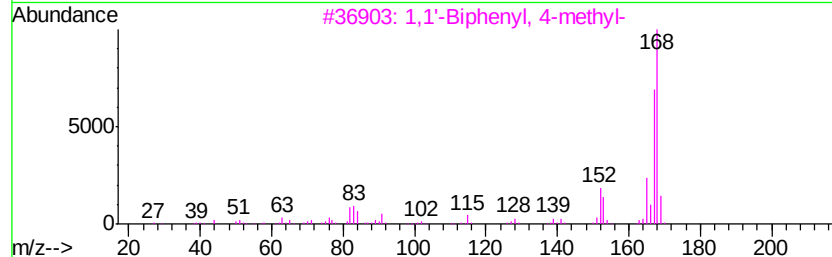
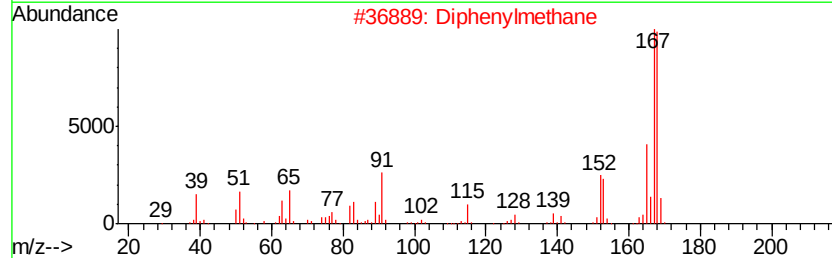
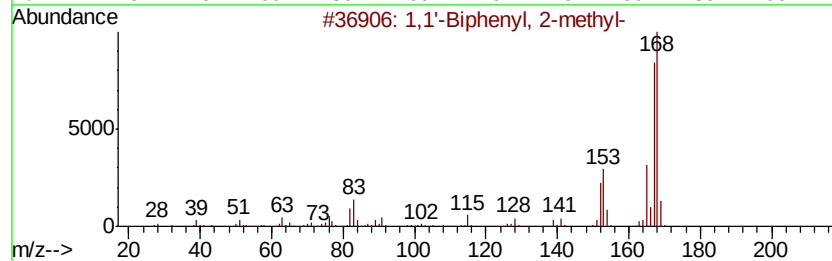
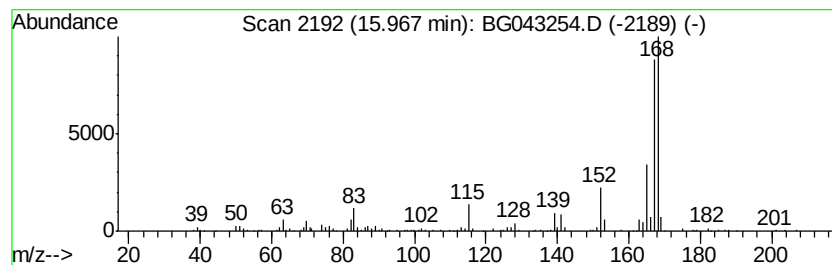
TIC Library : C:\Database\NIST11.L  
TIC Integration Parameters: LSCINT.P

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Peak Number 17 1,1'-Biphenyl, 2-methyl- Concentration Rank 13

| R.T.  | EstConc  | Area   | Relative to ISTD | R.T.  |
|-------|----------|--------|------------------|-------|
| 15.97 | 19.19 ng | 548251 | Acenaphthene-d10 | 14.67 |

| Hit# | of | Tentative ID                        | MW  | MolForm | CAS#        | Qual |
|------|----|-------------------------------------|-----|---------|-------------|------|
| 1    | 5  | 1,1'-Biphenyl, 2-methyl-            | 168 | C13H12  | 000643-58-3 | 87   |
| 2    |    | Diphenylmethane                     | 168 | C13H12  | 000101-81-5 | 83   |
| 3    |    | 1,1'-Biphenyl, 4-methyl-            | 168 | C13H12  | 000644-08-6 | 72   |
| 4    |    | Benzeneethanol, .alpha.,.alpha.,... | 350 | C26H22O | 000981-24-8 | 64   |
| 5    |    | Naphthalene, 1-(2-propenyl)-        | 168 | C13H12  | 002489-86-3 | 58   |



Data Path : Z:\SVOASRV\HPCHEM1\BNA G\DATA\BG101619\  
Data File : BG043254.D  
Acq On : 16 Oct 2019 20:53  
Operator : JU  
Sample : K5350-01  
Misc :  
ALS Vial : 10 Sample Multiplier: 1

Instrument :  
BNA\_G  
ClientSampleId :  
VNJ-209

Quant Method : Z:\SVOASRV\HPCHEM1\BNA G\METHODS\8270-BG092519.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

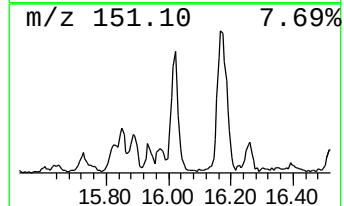
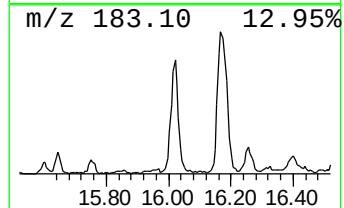
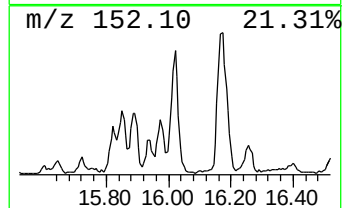
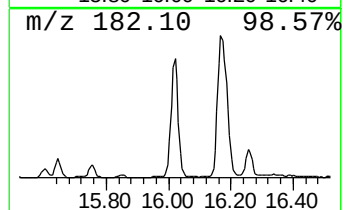
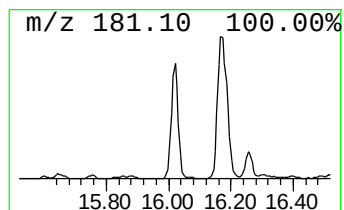
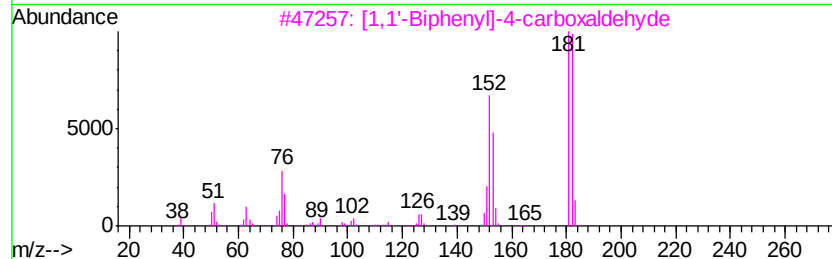
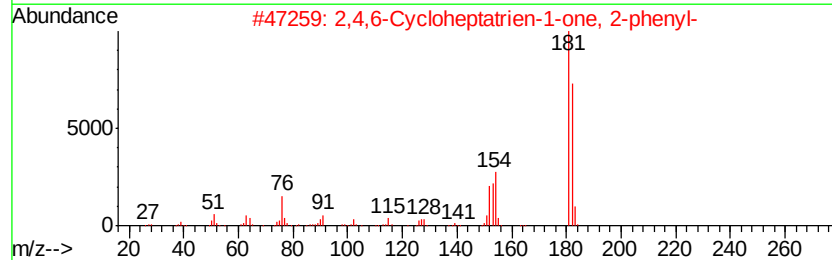
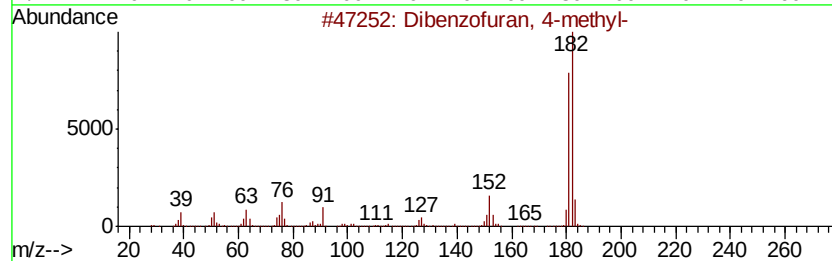
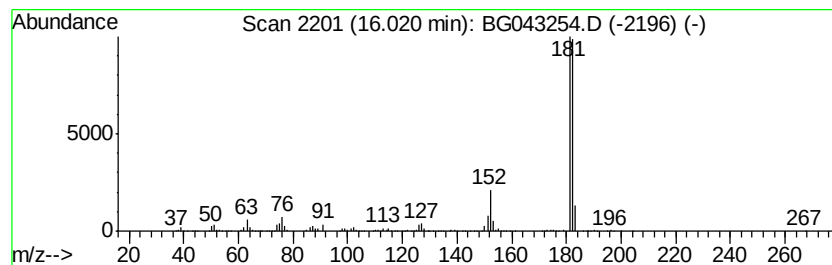
TIC Library : C:\Database\NIST11.L  
TIC Integration Parameters: LSCINT.P

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Peak Number 18 Dibenzofuran, 4-methyl- Concentration Rank 6

| R.T.  | EstConc  | Area    | Relative to ISTD | R.T.  |
|-------|----------|---------|------------------|-------|
| 16.02 | 45.93 ng | 1311790 | Acenaphthene-d10 | 14.67 |

| Hit# | of | Tentative ID                        | MW  | MolForm  | CAS#         | Qual |
|------|----|-------------------------------------|-----|----------|--------------|------|
| 1    | 5  | Dibenzofuran, 4-methyl-             | 182 | C13H10O  | 007320-53-8  | 90   |
| 2    |    | 2,4,6-Cycloheptatrien-1-one, 2-p... | 182 | C13H10O  | 014562-09-5  | 83   |
| 3    |    | [1,1'-Biphenyl]-4-carboxaldehyde    | 182 | C13H10O  | 003218-36-8  | 78   |
| 4    |    | 9H-Fluoren-9-ol                     | 182 | C13H10O  | 001689-64-1  | 78   |
| 5    |    | Norharmene, N-methyl-               | 182 | C12H10N2 | 1000374-78-6 | 72   |



Data Path : Z:\SVOASRV\HPCHEM1\BNA G\DATA\BG101619\  
Data File : BG043254.D  
Acq On : 16 Oct 2019 20:53  
Operator : JU  
Sample : K5350-01  
Misc :  
ALS Vial : 10 Sample Multiplier: 1

Instrument :  
BNA\_G  
ClientSampleId :  
VNJ-209

Quant Method : Z:\SVOASRV\HPCHEM1\BNA G\METHODS\8270-BG092519.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

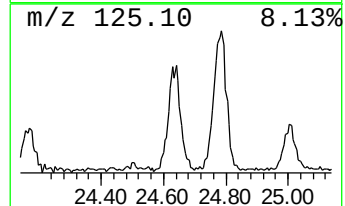
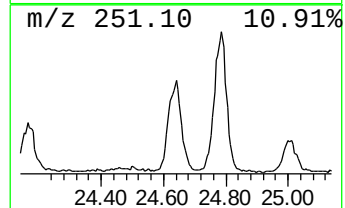
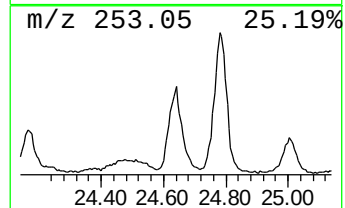
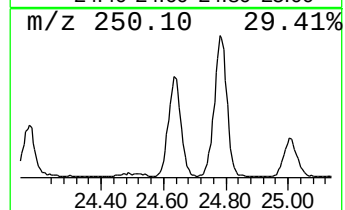
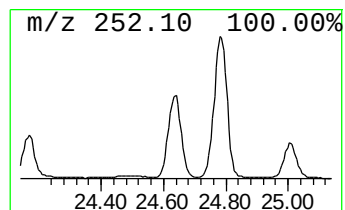
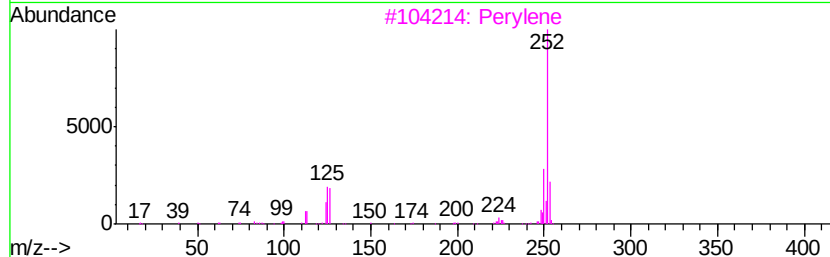
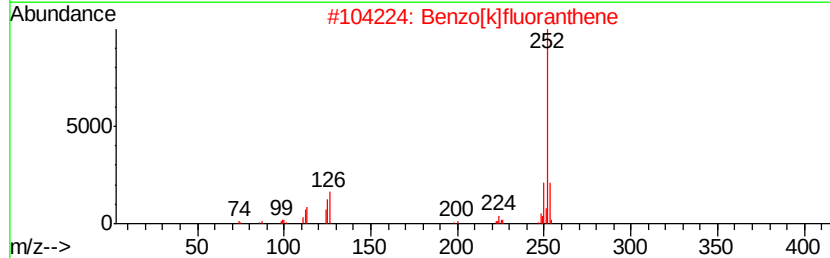
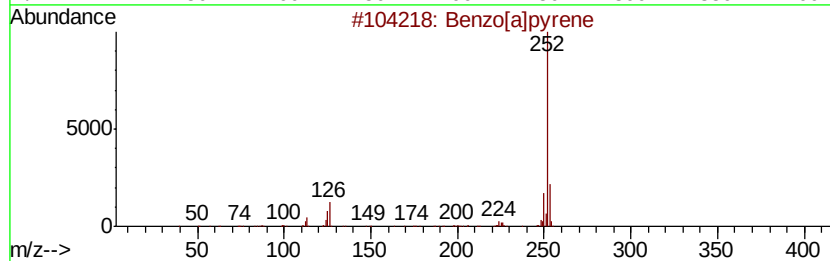
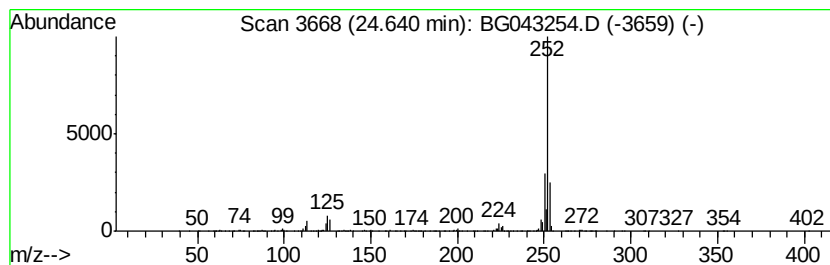
TIC Library : C:\Database\NIST11.L  
TIC Integration Parameters: LSCINT.P

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Peak Number 19 Benzo[e]pyrene Concentration Rank 11

| R.T.  | EstConc  | Area    | Relative to ISTD | R.T.  |
|-------|----------|---------|------------------|-------|
| 24.64 | 22.03 ng | 1216570 | Perylene-d12     | 24.93 |

| Hit# | of | Tentative ID             | MW  | MolForm | CAS#        | Qual |
|------|----|--------------------------|-----|---------|-------------|------|
| 1    | 5  | Benzo[a]pyrene           | 252 | C20H12  | 000050-32-8 | 96   |
| 2    |    | Benzo[k]fluoranthene     | 252 | C20H12  | 000207-08-9 | 95   |
| 3    |    | Perylene                 | 252 | C20H12  | 000198-55-0 | 93   |
| 4    |    | Benzo[f]pyrene           | 252 | C20H12  | 000192-97-2 | 93   |
| 5    |    | Benz[e]acephenanthrylene | 252 | C20H12  | 000205-99-2 | 91   |



Data Path : Z:\SVOASRV\HPCHEM1\BNA G\DATA\BG101619\  
Data File : BG043254.D  
Acq On : 16 Oct 2019 20:53  
Operator : JU  
Sample : K5350-01  
Misc :  
ALS Vial : 10 Sample Multiplier: 1

Instrument :  
BNA\_G  
ClientSampleId :  
VNJ-209

Quant Method : Z:\SVOASRV\HPCHEM1\BNA G\METHODS\8270-BG092519.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

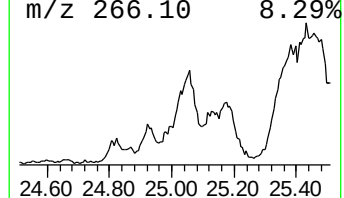
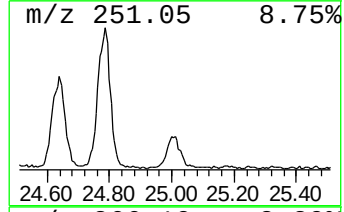
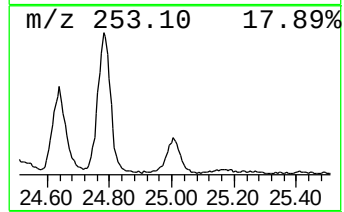
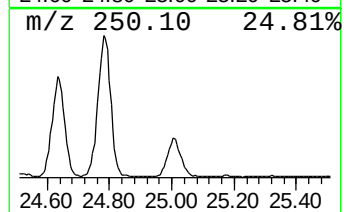
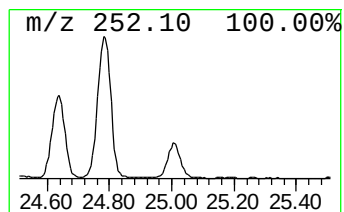
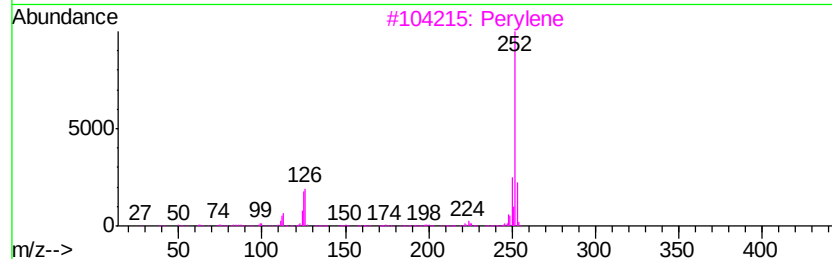
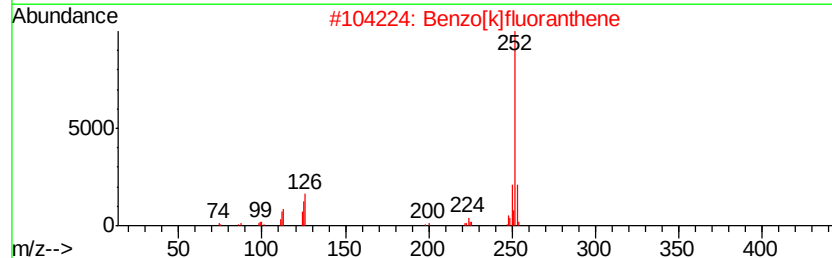
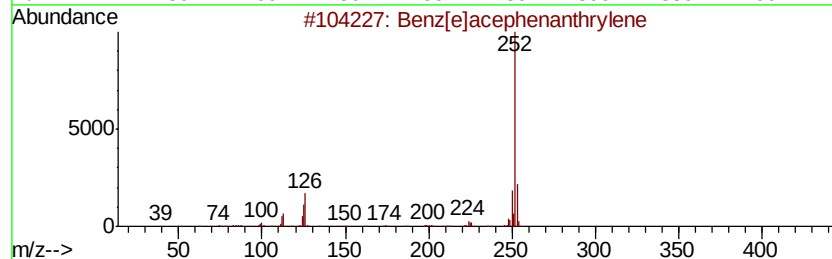
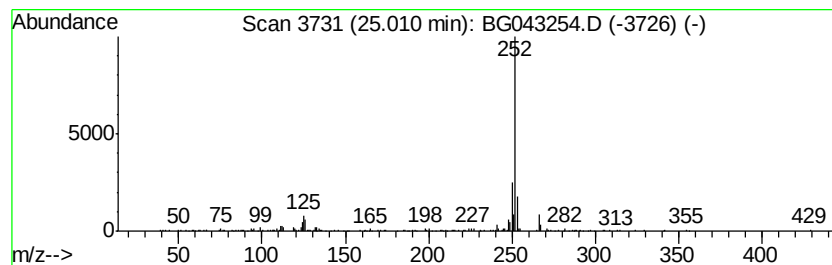
TIC Library : C:\Database\NIST11.L  
TIC Integration Parameters: LSCINT.P

\*\*\*\*\*  
Peak Number 20 Perylene Concentration Rank 20

| R.T.  | EstConc  | Area   | Relative to ISTD | R.T.  |
|-------|----------|--------|------------------|-------|
| 25.01 | 10.06 ng | 555404 | Perylene-d12     | 24.93 |

| Hit# | of | Tentative ID                        | MW  | MolForm  | CAS#        | Qual |
|------|----|-------------------------------------|-----|----------|-------------|------|
| 1    | 5  | Benz[e]acephenanthrylene            | 252 | C20H12   | 000205-99-2 | 64   |
| 2    |    | Benzo[k]fluoranthene                | 252 | C20H12   | 000207-08-9 | 62   |
| 3    |    | Perylene                            | 252 | C20H12   | 000198-55-0 | 53   |
| 4    |    | 2-[3-Methoxyphenyl]-4H-1-benzopy... | 252 | C16H12O3 | 053906-83-5 | 52   |
| 5    |    | 4H-1-Benzopyran-4-one, 8-methoxy... | 252 | C16H12O3 | 026964-26-1 | 52   |





Data Path : Z:\SVOASRV\HPCHEM1\BNA\_G\DATA\BG101619\  
 Data File : BG043254.D  
 Acq On : 16 Oct 2019 20:53  
 Operator : JU  
 Sample : K5350-01  
 Misc :  
 ALS Vial : 10 Sample Multiplier: 1

Instrument :  
 BNA\_G  
 ClientSampleId :  
 VNJ-209

Quant Method : Z:\SVOASRV\HPCHEM1\BNA\_G\METHODS\8270-BG092519.M  
 Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

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

| TIC Top Hit name      | RT    | EstConc | Units | Response | --Internal Standard-- |       |         |      |
|-----------------------|-------|---------|-------|----------|-----------------------|-------|---------|------|
|                       |       |         |       |          | #                     | RT    | Resp    | Conc |
| unknown               | 7.59  | 90.3    | ng    | 1501210  | 1                     | 8.05  | 332450  | 20.0 |
| Benzo[c]thiophene     | 11.03 | 20.3    | ng    | 454184   | 2                     | 10.86 | 448128  | 20.0 |
| Naphthalene, 1-et...  | 13.71 | 24.6    | ng    | 702889   | 3                     | 14.67 | 571251  | 20.0 |
| Naphthalene, 1,6-...  | 13.85 | 48.4    | ng    | 1382350  | 3                     | 14.67 | 571251  | 20.0 |
| Naphthalene, 2,3-...  | 14.00 | 65.7    | ng    | 1876320  | 3                     | 14.67 | 571251  | 20.0 |
| Naphthalene, 2,6-...  | 14.05 | 23.9    | ng    | 683888   | 3                     | 14.67 | 571251  | 20.0 |
| Naphthalene, 1,3-...  | 14.23 | 48.6    | ng    | 1387220  | 3                     | 14.67 | 571251  | 20.0 |
| Naphthalene, 2-(1...  | 14.89 | 14.8    | ng    | 422267   | 3                     | 14.67 | 571251  | 20.0 |
| 1-Isopropenyl naph... | 14.99 | 12.6    | ng    | 360586   | 3                     | 14.67 | 571251  | 20.0 |
| Naphthalene, 2,3,...  | 15.15 | 16.0    | ng    | 457990   | 3                     | 14.67 | 571251  | 20.0 |
| Naphthalene, 1,6,...  | 15.29 | 18.5    | ng    | 527267   | 3                     | 14.67 | 571251  | 20.0 |
| Naphthalene, 1,4,...  | 15.34 | 22.7    | ng    | 648991   | 3                     | 14.67 | 571251  | 20.0 |
| Naphthalene, 1,4,...  | 15.46 | 16.3    | ng    | 465532   | 3                     | 14.67 | 571251  | 20.0 |
| Benzene, [1-(2,4-...  | 15.85 | 16.1    | ng    | 461094   | 3                     | 14.67 | 571251  | 20.0 |
| Fluorene, 2,4a-di...  | 15.89 | 28.0    | ng    | 800483   | 3                     | 14.67 | 571251  | 20.0 |
| 1,1'-Biphenyl, 2-...  | 15.97 | 19.2    | ng    | 548251   | 3                     | 14.67 | 571251  | 20.0 |
| Dibenzofuran, 4-m...  | 16.02 | 45.9    | ng    | 1311790  | 3                     | 14.67 | 571251  | 20.0 |
| Benzo[e]pyrene        | 24.64 | 22.0    | ng    | 1216570  | 6                     | 24.93 | 1104540 | 20.0 |
| Perylene              | 25.01 | 10.1    | ng    | 555404   | 6                     | 24.93 | 1104540 | 20.0 |