LSC Area Percent Report

Data Path : Z:\SVOASRV\HPCHEM1\BNA M\DATA\BM122118\
Data File : BM018372.D
Acq On : 22 Dec 2018 00:18
Operator : JU/SJ
Sample : J6520-01
Misc :
ALS Vial : 12 Sample Multiplier: 1

**Instrument :** BNA_M
**ClientSampleId :** ROLLOFF-165

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_M\METHODS\8270-BM121518.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 | 4.093 | 200 | 205 | 215 | rBV | 31956 | 49172 | 1.17% | 0.087% |
| 2 | 4.675 | 300 | 304 | 311 | rVB | 76063 | 105374 | 2.51% | 0.186% |
| 3 | 5.128 | 375 | 381 | 391 | rBV | 2073860 | 2935980 | 70.07% | 5.180% |
| 4 | 6.698 | 640 | 648 | 661 | rBV | 1947721 | 3351658 | 79.99% | 5.913% |
| 5 | 7.028 | 697 | 704 | 719 | rBV | 2154618 | 3309428 | 78.98% | 5.839% |
| 6 | 7.481 | 775 | 781 | 789 | rVB | 543944 | 832051 | 19.86% | 1.468% |
| 7 | 7.792 | 826 | 834 | 846 | rBV | 1449838 | 2271162 | 54.20% | 4.007% |
| 8 | 8.645 | 971 | 979 | 993 | rBV | 1104897 | 1937316 | 46.24% | 3.418% |
| 9 | 10.251 | 1243 | 1252 | 1258 | rBV | 626889 | 1084981 | 25.89% | 1.914% |
| 10 | 12.751 | 1670 | 1677 | 1685 | rBV | 2051168 | 3109483 | 74.21% | 5.486% |
| 11 | 13.616 | 1813 | 1824 | 1835 | rBV | 245030 | 384204 | 9.17% | 0.678% |
| 12 | 14.045 | 1891 | 1897 | 1904 | rBV7 | 18423 | 43826 | 1.05% | 0.077% |
| 13 | 14.145 | 1907 | 1914 | 1920 | rVV2 | 807183 | 1236981 | 29.52% | 2.182% |
| 14 | 14.210 | 1920 | 1925 | 1931 | rVB | 207783 | 289785 | 6.92% | 0.511% |
| 15 | 14.551 | 1978 | 1983 | 1988 | rBV | 91221 | 133027 | 3.17% | 0.235% |
| 16 | 15.210 | 2089 | 2095 | 2101 | rBV | 191464 | 278374 | 6.64% | 0.491% |
| 17 | 15.504 | 2141 | 2145 | 2152 | rVB2 | 35075 | 51041 | 1.22% | 0.090% |
| 18 | 15.657 | 2165 | 2171 | 2183 | rBV | 1676528 | 2479606 | 59.18% | 4.375% |
| 19 | 15.898 | 2205 | 2212 | 2217 | rBV7 | 29043 | 66818 | 1.59% | 0.118% |
| 20 | 16.574 | 2323 | 2327 | 2332 | rVB2 | 43541 | 65381 | 1.56% | 0.115% |
| 21 | 16.662 | 2335 | 2342 | 2346 | rBV8 | 25530 | 62524 | 1.49% | 0.110% |
| 22 | 16.733 | 2349 | 2354 | 2362 | rVB | 100684 | 165547 | 3.95% | 0.292% |
| 23 | 16.909 | 2378 | 2384 | 2388 | rBV2 | 804482 | 1221586 | 29.15% | 2.155% |
| 24 | 16.956 | 2388 | 2392 | 2398 | rVV | 2164541 | 2903796 | 69.30% | 5.123% |
| 25 | 17.045 | 2399 | 2407 | 2413 | rVV | 486542 | 715068 | 17.07% | 1.262% |
| 26 | 17.115 | 2414 | 2419 | 2428 | rVB2 | 43901 | 90146 | 2.15% | 0.159% |
| 27 | 17.304 | 2446 | 2451 | 2452 | rBV3 | 58566 | 66143 | 1.58% | 0.117% |
| 28 | 17.333 | 2452 | 2456 | 2462 | rVB | 165862 | 268448 | 6.41% | 0.474% |
| 29 | 17.433 | 2467 | 2473 | 2481 | rVV6 | 34173 | 71786 | 1.71% | 0.127% |
| 30 | 17.786 | 2525 | 2533 | 2536 | rBV | 138337 | 206881 | 4.94% | 0.365% |
| 31 | 17.833 | 2536 | 2541 | 2548 | rVB2 | 217236 | 425290 | 10.15% | 0.750% |
| 32 | 17.921 | 2553 | 2556 | 2561 | rVV2 | 77623 | 116900 | 2.79% | 0.206% |
| 33 | 17.986 | 2561 | 2567 | 2571 | rVV2 | 315104 | 518802 | 12.38% | 0.915% |
| 34 | 18.021 | 2571 | 2573 | 2578 | rVB | 90561 | 100502 | 2.40% | 0.177% |

LSC Area Percent Report

Data Path : Z:\SVOASRV\HPCHEM1\BNA M\DATA\BM122118\
Data File : BM018372.D
Acq On : 22 Dec 2018 00:18
Operator : JU/SJ
Sample : J6520-01
Misc :
ALS Vial : 12 Sample Multiplier: 1

**Instrument :** BNA_M
**ClientSampleId :** ROLLOFF-165

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_M\METHODS\8270-BM121518.M
Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 35 | 18.109 | 2583 | 2588 | 2593 | rBV7 | 34787 | 67752 | 1.62% | 0.120% |
| 36 | 18.298 | 2616 | 2620 | 2624 | rBV | 126157 | 170433 | 4.07% | 0.301% |
| 37 | 18.356 | 2625 | 2630 | 2636 | rVB | 129543 | 197119 | 4.70% | 0.348% |
| 38 | 18.545 | 2659 | 2662 | 2667 | rBV4 | 34504 | 47224 | 1.13% | 0.083% |
| 39 | 18.692 | 2683 | 2687 | 2689 | rBV5 | 38851 | 57672 | 1.38% | 0.102% |
| 40 | 18.721 | 2689 | 2692 | 2696 | rVB | 45751 | 65731 | 1.57% | 0.116% |
| 41 | 18.874 | 2713 | 2718 | 2723 | rBV3 | 62950 | 115161 | 2.75% | 0.203% |
| 42 | 18.992 | 2732 | 2738 | 2744 | rVB | 3195333 | 4190045 | 100.00% | 7.392% |
| 43 | 19.092 | 2752 | 2755 | 2758 | rBV | 50092 | 64416 | 1.54% | 0.114% |
| 44 | 19.233 | 2775 | 2779 | 2783 | rVB2 | 69235 | 87627 | 2.09% | 0.155% |
| 45 | 19.356 | 2790 | 2800 | 2809 | rBV | 2525512 | 4164906 | 99.40% | 7.348% |
| 46 | 19.433 | 2810 | 2813 | 2819 | rVB2 | 98775 | 161029 | 3.84% | 0.284% |
| 47 | 19.568 | 2828 | 2836 | 2840 | rBV | 2099814 | 2624040 | 62.63% | 4.629% |
| 48 | 19.609 | 2840 | 2843 | 2849 | rVB2 | 126404 | 171514 | 4.09% | 0.303% |
| 49 | 19.686 | 2851 | 2856 | 2857 | rBV2 | 99257 | 150251 | 3.59% | 0.265% |
| 50 | 19.862 | 2882 | 2886 | 2891 | rVB2 | 309249 | 430900 | 10.28% | 0.760% |
| 51 | 19.962 | 2899 | 2903 | 2907 | rBV | 281083 | 345674 | 8.25% | 0.610% |
| 52 | 20.050 | 2916 | 2918 | 2922 | rVB2 | 82321 | 100000 | 2.39% | 0.176% |
| 53 | 20.156 | 2934 | 2936 | 2940 | rVB | 63802 | 63204 | 1.51% | 0.112% |
| 54 | 20.621 | 3012 | 3015 | 3020 | rVB | 100008 | 130429 | 3.11% | 0.230% |
| 55 | 20.780 | 3039 | 3042 | 3045 | rBV2 | 181735 | 216585 | 5.17% | 0.382% |
| 56 | 20.821 | 3046 | 3049 | 3051 | rVV | 151133 | 174303 | 4.16% | 0.308% |
| 57 | 20.856 | 3051 | 3055 | 3061 | rVV3 | 312224 | 489671 | 11.69% | 0.864% |
| 58 | 21.127 | 3096 | 3101 | 3106 | rBV2 | 1527811 | 3209131 | 76.59% | 5.662% |
| 59 | 21.174 | 3106 | 3109 | 3118 | rVB | 1257819 | 1536772 | 36.68% | 2.711% |
| 60 | 21.291 | 3125 | 3129 | 3133 | rBV | 364055 | 432002 | 10.31% | 0.762% |
| 61 | 22.668 | 3357 | 3363 | 3367 | rBV | 1086359 | 2370091 | 56.56% | 4.181% |
| 62 | 23.121 | 3435 | 3440 | 3447 | rBV | 663538 | 1140000 | 27.21% | 2.011% |
| 63 | 23.215 | 3451 | 3456 | 3463 | rVB | 1053764 | 1792510 | 42.78% | 3.162% |
| 64 | 23.303 | 3467 | 3471 | 3476 | rBV | 627303 | 966280 | 23.06% | 1.705% |

Sum of corrected areas: 56681539

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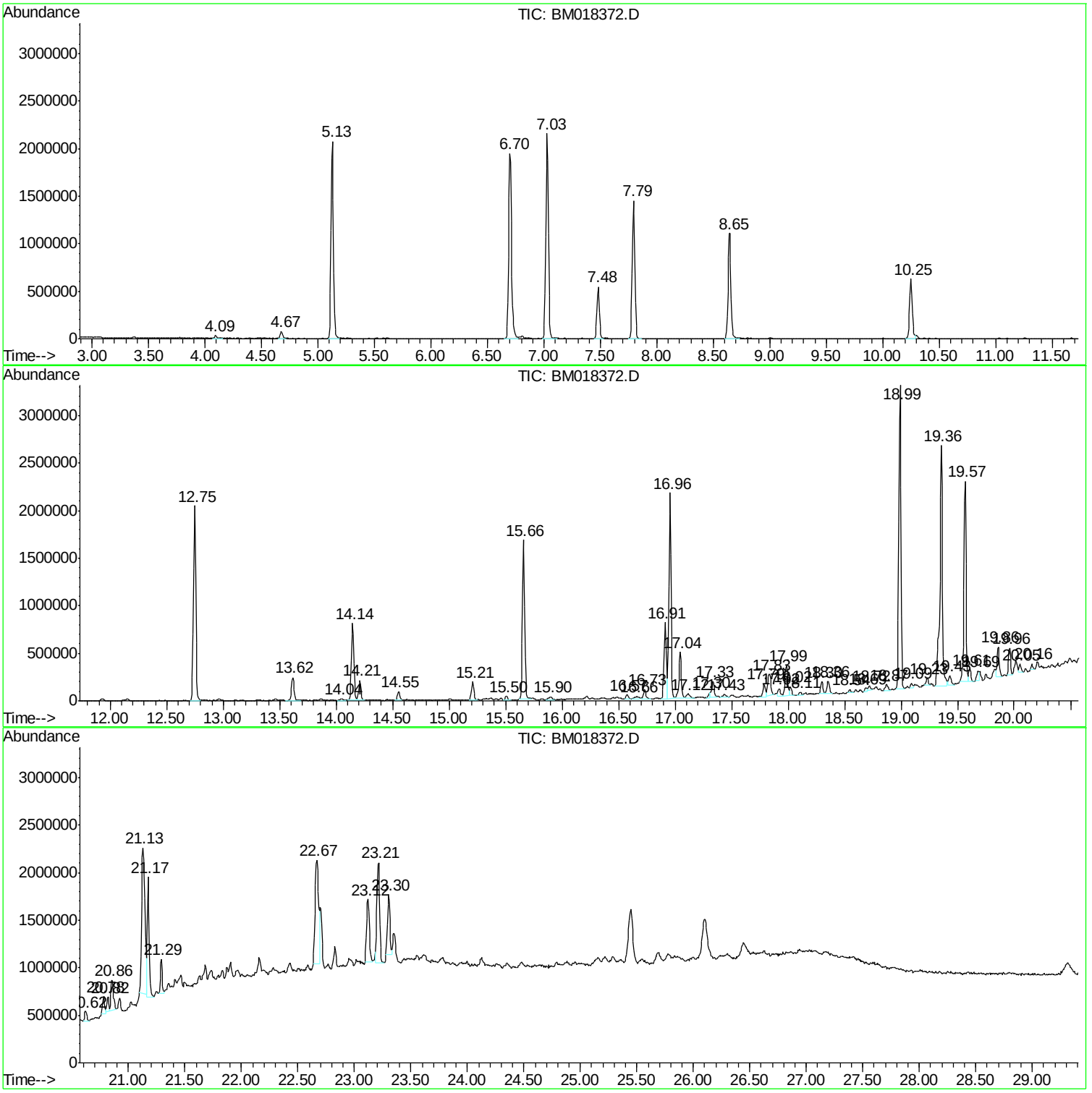
Sample : J6520-01
Misc :
ALS Vial : 12 Sample Multiplier: 1

**Instrument :**
BNA_M
**ClientSampleId :**
ROLLOFF-165

Quant Method : Z:\SVOASRV\HPCHEM1\BNA_M\METHODS\8270-BM121518.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

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



# Library Search Compound Report

Data Path : Z:\SVOASRV\HPCHEM1\BNA M\DATA\BM122118\
Data File : BM018372.D
Acq On : 22 Dec 2018 00:18
Operator : JU/SJ
Sample : J6520-01
Misc :
ALS Vial : 12 Sample Multiplier: 1

**Instrument :** BNA_M
**ClientSampleId :** ROLLOFF-165

Quant Method : Z:\SVOASRV\HPCHEM1\BNA_M\METHODS\8270-BM121518.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

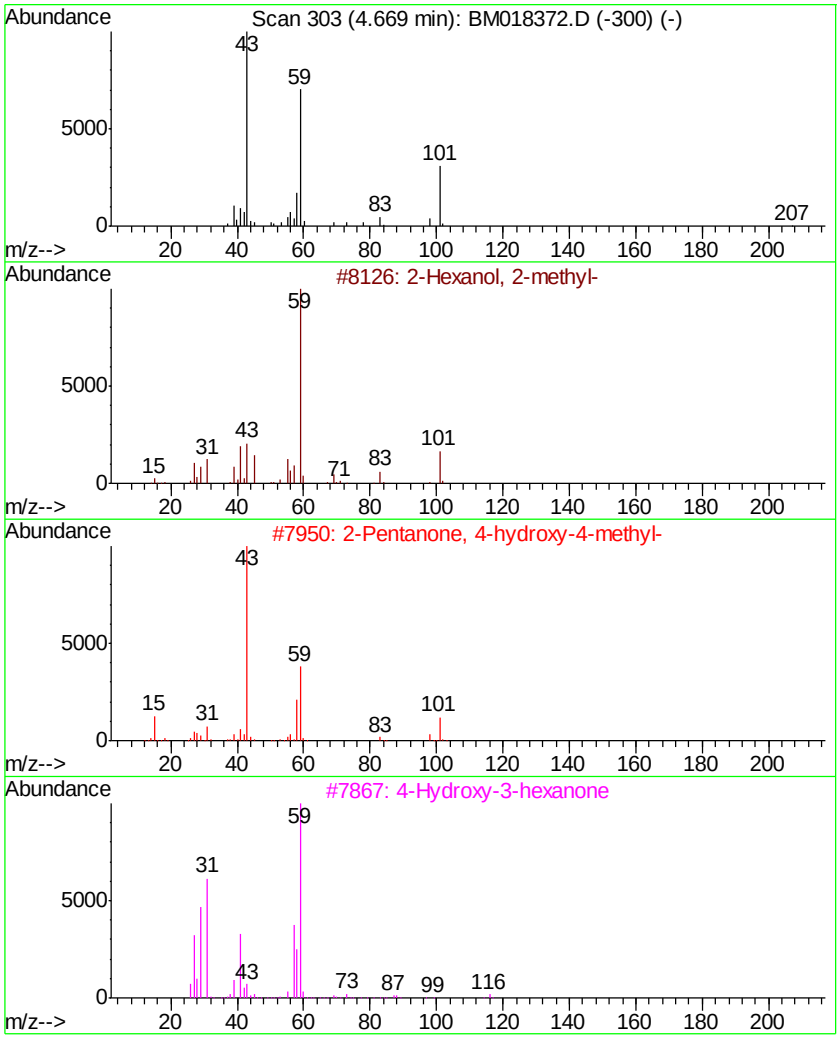
TIC Library : C:\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

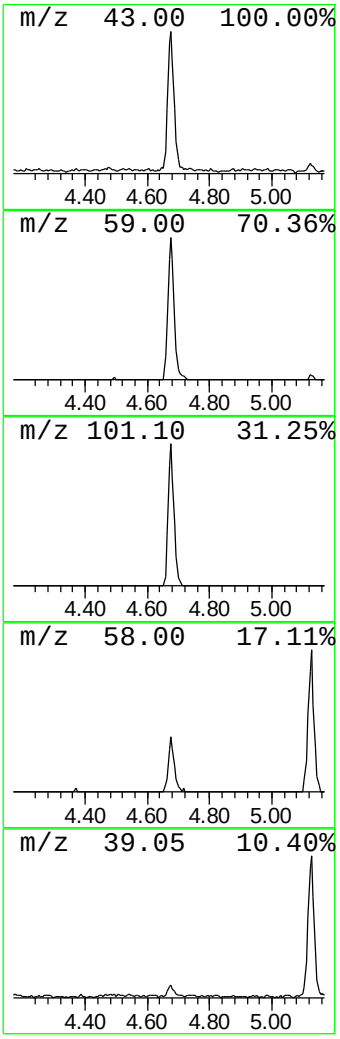
**********

Peak Number 1 2-Hexanol, 2-methyl- Concentration Rank 13

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 4.67 | 2.53 ng | 105374 | 1,4-Dichlorobenzene-d4 | 7.48 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | 2-Hexanol, 2-methyl- | 116 | C7H16O | 000625-23-0 | 50 |
| 2 | 2-Pentanone, 4-hydroxy-4-methyl- | 116 | C6H12O2 | 000123-42-2 | 38 |
| 3 | 4-Hydroxy-3-hexanone | 116 | C6H12O2 | 004984-85-4 | 33 |
| 4 | 3-Hydroxy-3-methyl-2-butanone | 102 | C5H10O2 | 000115-22-0 | 28 |
| 5 | 1,3-Dioxolane-2-methanol, 2,4-di... | 132 | C6H12O3 | 053951-43-2 | 23 |



Library Search Compound Report

Data Path : Z:\SVOASRV\HPCHEM1\BNA M\DATA\BM122118\
Data File : BM018372.D
Acq On : 22 Dec 2018 00:18
Operator : JU/SJ
Sample : J6520-01
Misc :
ALS Vial : 12 Sample Multiplier: 1

**Instrument :** BNA_M
**ClientSampleId :** ROLLOFF-165

Quant Method : Z:\SVOASRV\HPCHEM1\BNA_M\METHODS\8270-BM121518.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

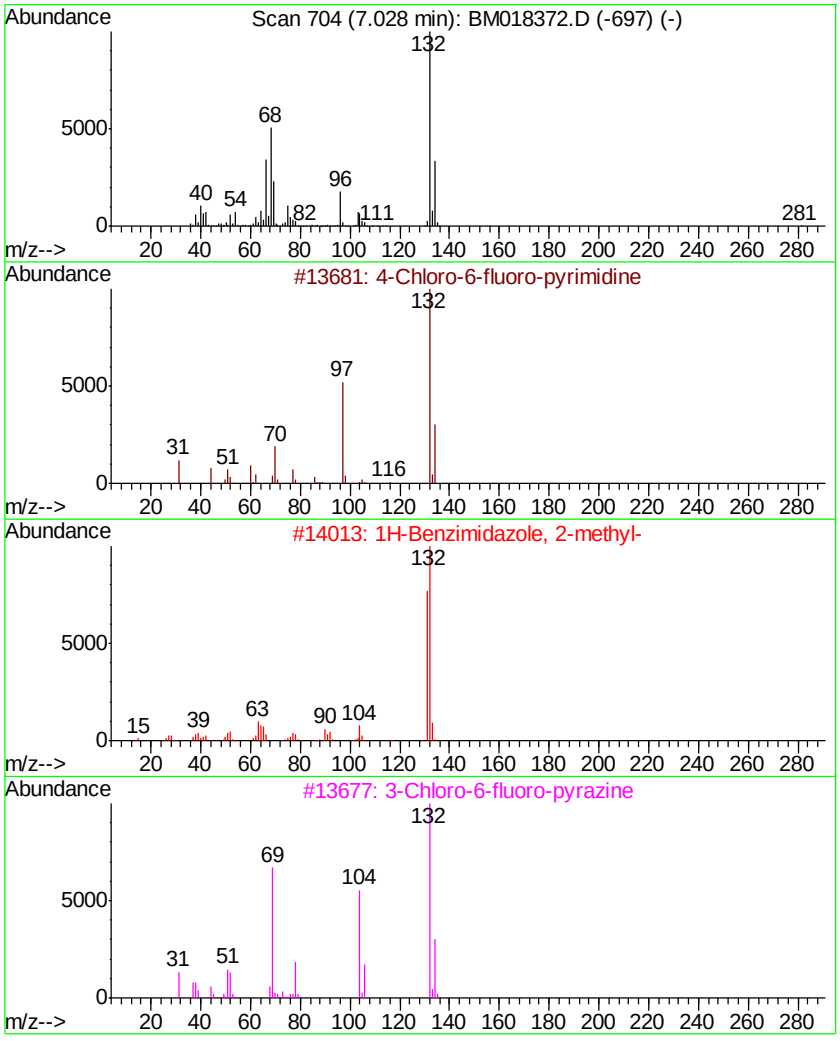
TIC Library : C:\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

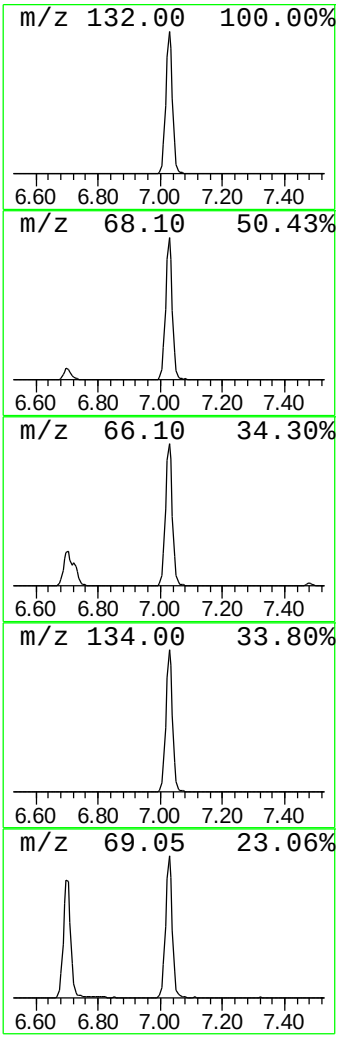
**********

Peak Number 2 unknown7.03 Concentration Rank 1

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 7.03 | 79.55 ng | 3309430 | 1,4-Dichlorobenzene-d4 | 7.48 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | 4-Chloro-6-fluoro-pyrimidine | 132 | C4H2ClFN2 | 051422-01-6 | 27 |
| 2 | 1H-Benzimidazole, 2-methyl- | 132 | C8H8N2 | 000615-15-6 | 22 |
| 3 | 3-Chloro-6-fluoro-pyrazine | 132 | C4H2ClFN2 | 1000146-10-7 | 16 |
| 4 | 2H-Cyclopenta[d]pyridazine, 2-me... | 132 | C8H8N2 | 022291-85-6 | 12 |
| 5 | 5-Fluoro-2-chloropyrimidine | 132 | C4H2ClFN2 | 062802-42-0 | 12 |



Library Search Compound Report

Data Path : Z:\SVOASRV\HPCHEM1\BNA M\DATA\BM122118\
Data File : BM018372.D
Acq On : 22 Dec 2018 00:18
Operator : JU/SJ
Sample : J6520-01
Misc :
ALS Vial : 12 Sample Multiplier: 1

**Instrument :** BNA_M
**ClientSampleId :** ROLLOFF-165

Quant Method : Z:\SVOASRV\HPCHEM1\BNA_M\METHODS\8270-BM121518.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

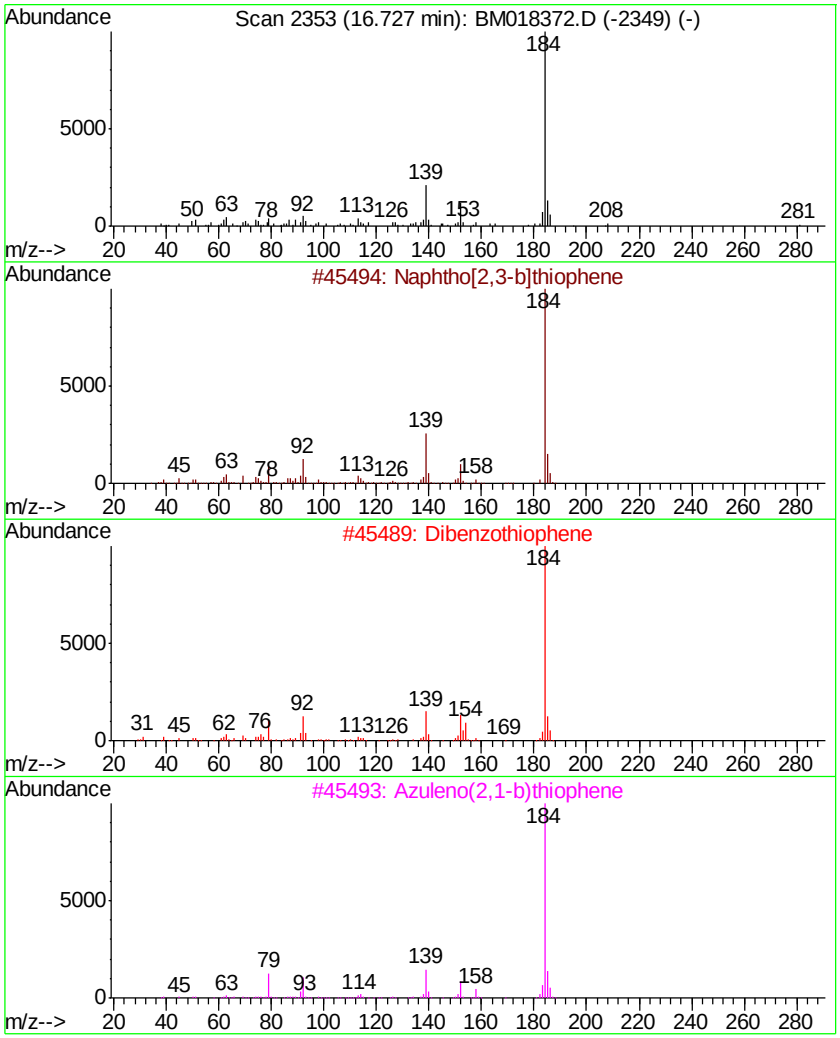
TIC Library : C:\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

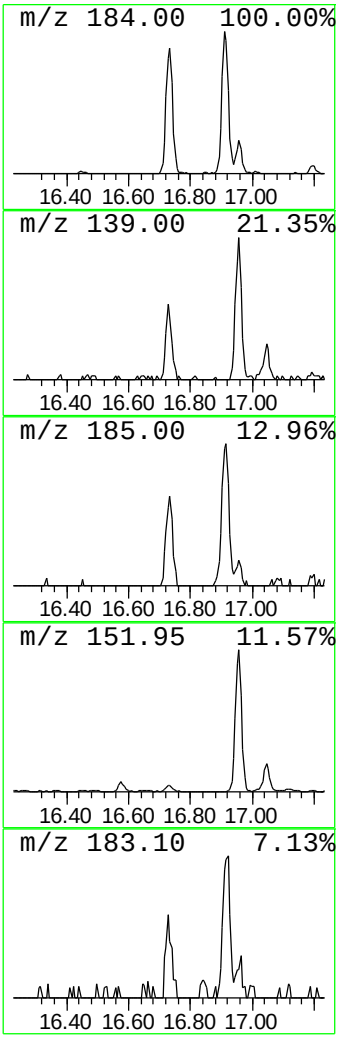
**********

Peak Number 4 Naphtho[2,3-b]thiophene Concentration Rank 10

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 16.73 | 2.71 ng | 165547 | Phenanthrene-d10 | 16.91 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Naphtho[2,3-b]thiophene | 184 | C12H8S | 000268-77-9 | 96 |
| 2 | Dibenzothiophene | 184 | C12H8S | 000132-65-0 | 94 |
| 3 | Azuleno(2,1-b)thiophene | 184 | C12H8S | 000248-13-5 | 86 |
| 4 | Naphthalene, 2-ethenyl-6-methoxy- | 184 | C13H12O | 063444-51-9 | 72 |
| 5 | 2,5-Cyclohexadiene-1,4-dione, 2,... | 184 | C8H8O5 | 000085-23-4 | 59 |



# Library Search Compound Report

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Data File : BM018372.D
Acq On : 22 Dec 2018 00:18
Operator : JU/SJ
Sample : J6520-01
Misc :
ALS Vial : 12 Sample Multiplier: 1

**Instrument :** BNA_M
**ClientSampleId :** ROLLOFF-165

Quant Method : Z:\SVOASRV\HPCHEM1\BNA_M\METHODS\8270-BM121518.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

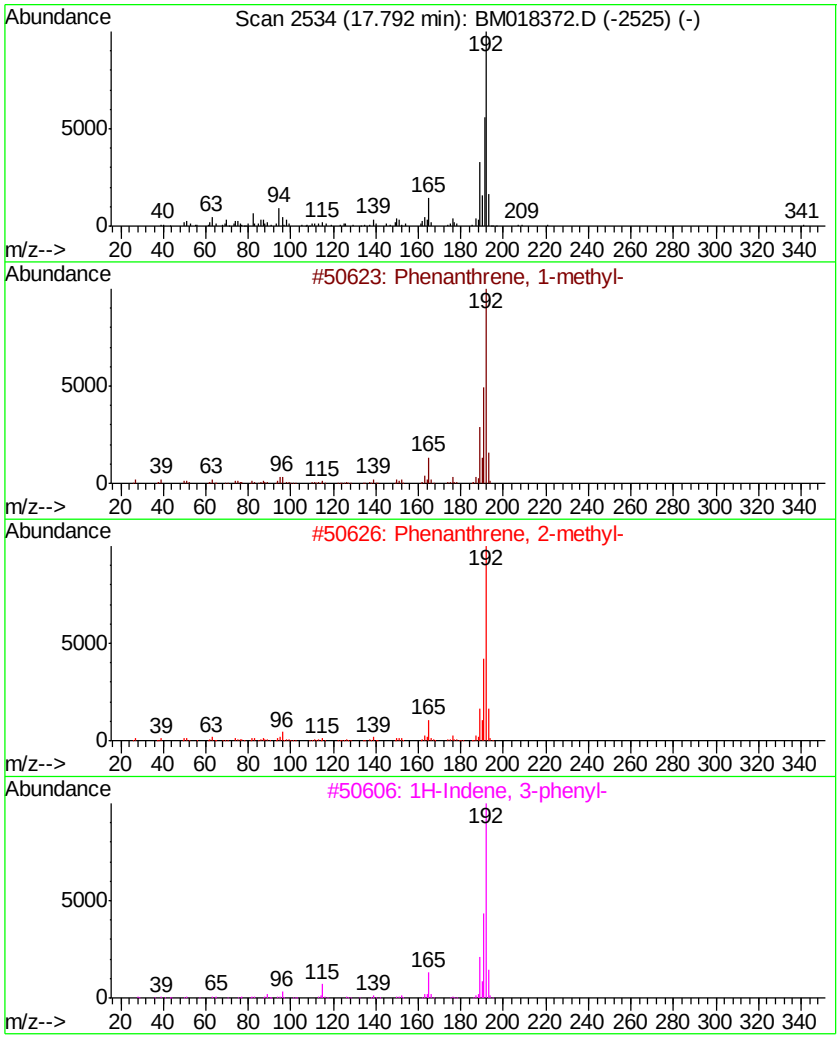
TIC Library : C:\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

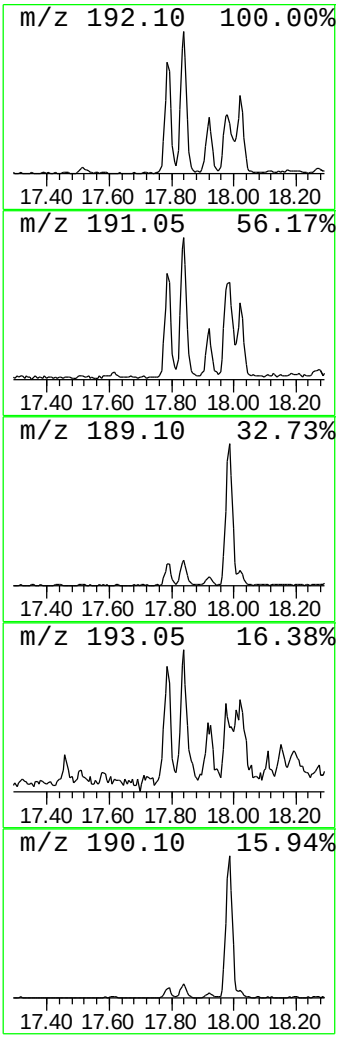
**********

Peak Number 5 Phenanthrene, 1-methyl- Concentration Rank 6

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 17.79 | 3.39 ng | 206881 | Phenanthrene-d10 | 16.91 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Phenanthrene, 1-methyl- | 192 | C15H12 | 000832-69-9 | 96 |
| 2 | Phenanthrene, 2-methyl- | 192 | C15H12 | 002531-84-2 | 95 |
| 3 | 1H-Indene, 3-phenyl- | 192 | C15H12 | 001961-97-3 | 93 |
| 4 | 1H-Indene, 1-phenyl- | 192 | C15H12 | 001961-96-2 | 93 |
| 5 | Anthracene, 1-methyl- | 192 | C15H12 | 000610-48-0 | 91 |



Data Path : Z:\SVOASRV\HPCHEM1\BNA M\DATA\BM122118\
Data File : BM018372.D
Acq On : 22 Dec 2018 00:18
Operator : JU/SJ
Sample : J6520-01
Misc :
ALS Vial : 12 Sample Multiplier: 1

**Instrument :** BNA_M
**ClientSampleId :** ROLLOFF-165

Quant Method : Z:\SVOASRV\HPCHEM1\BNA_M\METHODS\8270-BM121518.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

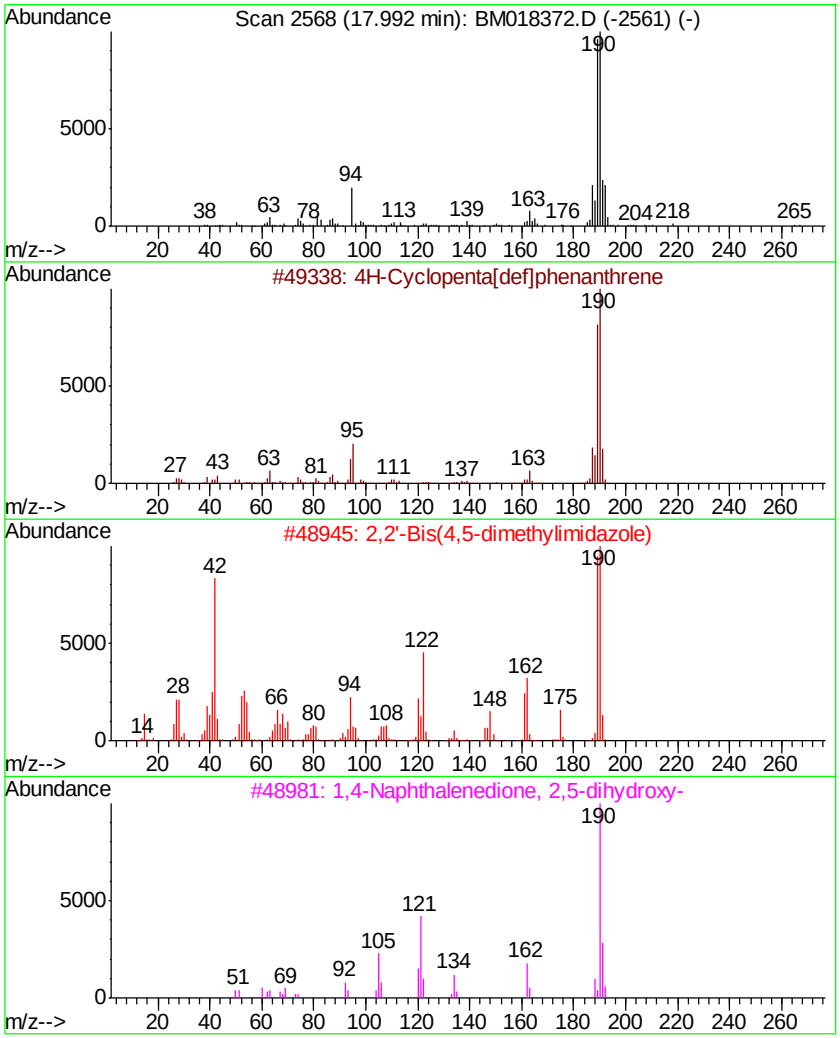
TIC Library : C:\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

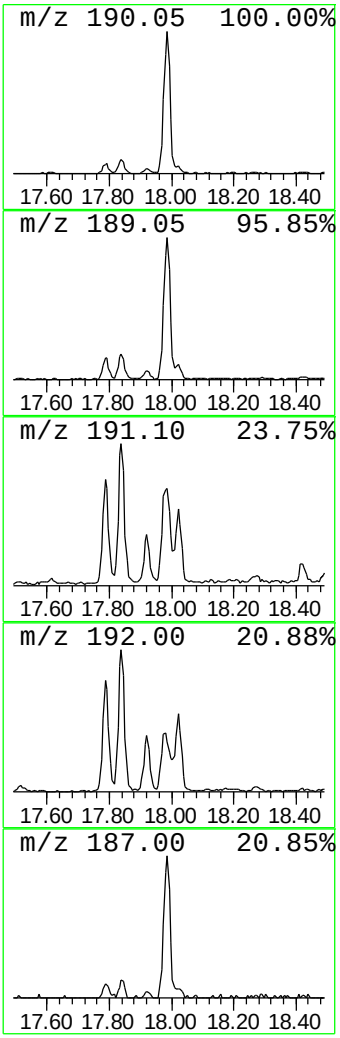
**********

Peak Number 7 4H-Cyclopenta[def]phenanthrene Concentration Rank 4

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 17.99 | 8.49 ng | 518802 | Phenanthrene-d10 | 16.91 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | 4H-Cyclopenta[def]phenanthrene | 190 | C15H10 | 000203-64-5 | 95 |
| 2 | 2,2'-Bis(4,5-dimethylimidazole) | 190 | C10H14N4 | 069286-06-2 | 42 |
| 3 | 1,4-Naphthalenedione, 2,5-dihydr... | 190 | C10H6O4 | 004923-55-1 | 25 |
| 4 | 2-Naphthaldehyde, 1,2,3,4-tetrah... | 190 | C12H14O2 | 002472-02-8 | 18 |
| 5 | Hydrazinecarboxaldehyde, 2-[3-(m... | 190 | C4H6N4OS2 | 038362-25-3 | 14 |



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Operator : JU/SJ
Sample : J6520-01
Misc :
ALS Vial : 12 Sample Multiplier: 1

**Instrument :** BNA_M
**ClientSampleId :** ROLLOFF-165

Quant Method : Z:\SVOASRV\HPCHEM1\BNA_M\METHODS\8270-BM121518.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

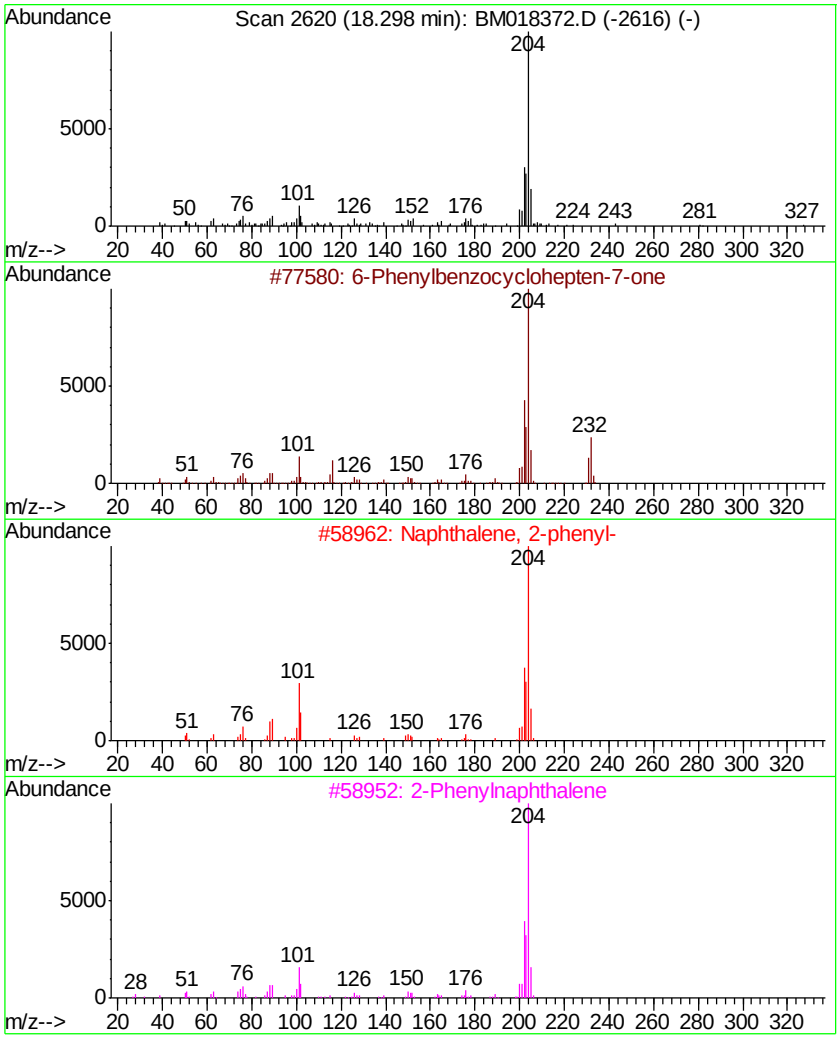
TIC Library : C:\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

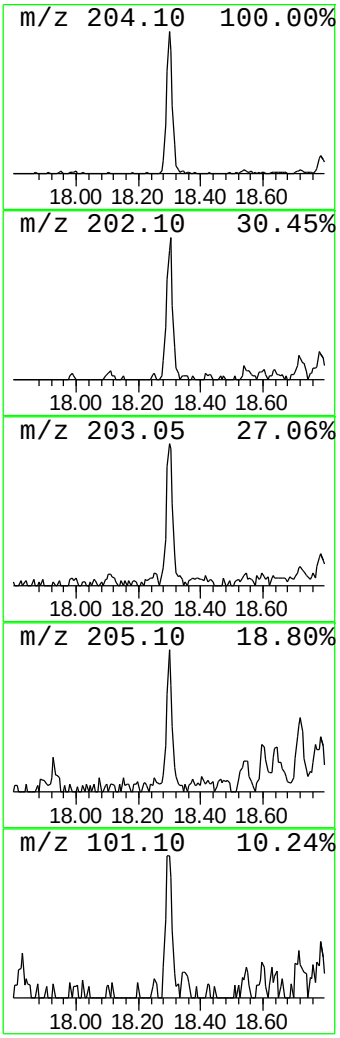
**********

Peak Number 8 6-Phenylbenzocyclohepten-7-one Concentration Rank 9

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 18.30 | 2.79 ng | 170433 | Phenanthrene-d10 | 16.91 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | 6-Phenylbenzocyclohepten-7-one | 232 | C17H12O | 093327-56-1 | 90 |
| 2 | Naphthalene, 2-phenyl- | 204 | C16H12 | 000612-94-2 | 81 |
| 3 | 2-Phenylnaphthalene | 204 | C16H12 | 035465-71-5 | 81 |
| 4 | Tricyclo[8.2.2.2(4,7)]hexadeca-2... | 204 | C16H12 | 006572-60-7 | 68 |
| 5 | 9,10-di(Chloromethyl)anthracene | 274 | C16H12Cl2 | 010387-13-0 | 58 |



Library Search Compound Report

Data Path : Z:\SVOASRV\HPCHEM1\BNA M\DATA\BM122118\
Data File : BM018372.D
Acq On : 22 Dec 2018 00:18
Operator : JU/SJ
Sample : J6520-01
Misc :
ALS Vial : 12 Sample Multiplier: 1

**Instrument :** BNA_M
**ClientSampleId :** ROLLOFF-165

Quant Method : Z:\SVOASRV\HPCHEM1\BNA_M\METHODS\8270-BM121518.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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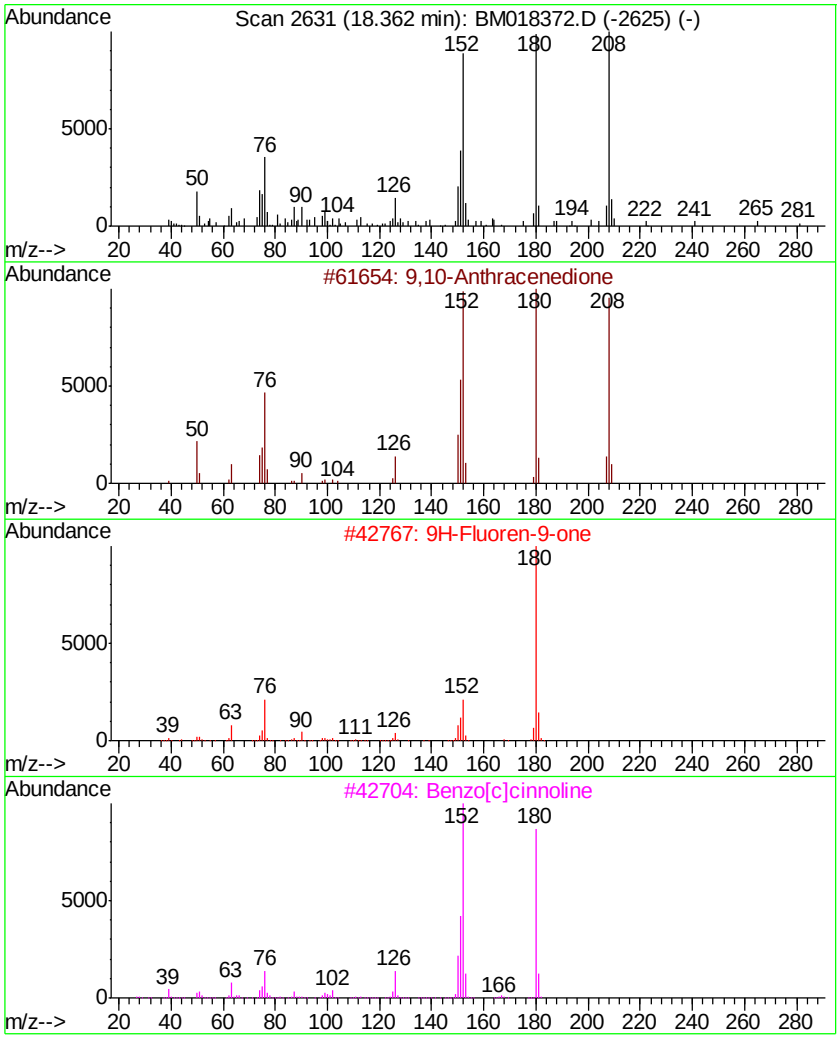
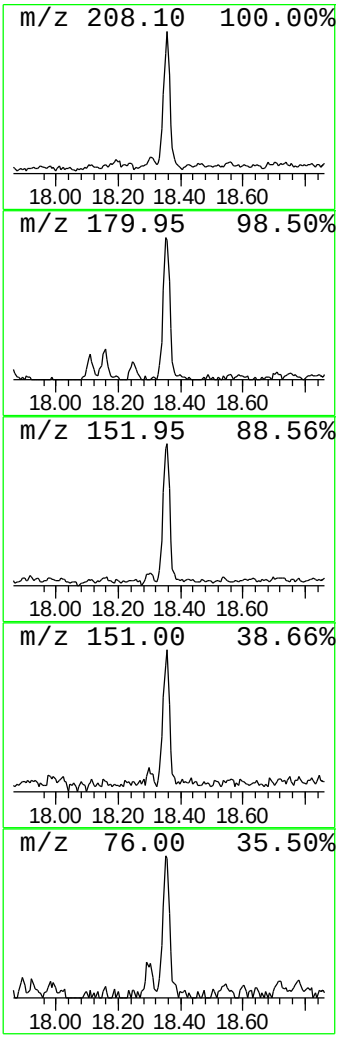
Peak Number 9 9,10-Anthracenedione Concentration Rank 7

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 18.36 | 3.23 ng | 197119 | Phenanthrene-d10 | 16.91 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | 9,10-Anthracenedione | 208 | C14H8O2 | 000084-65-1 | 94 |
| 2 | 9H-Fluoren-9-one | 180 | C13H8O | 000486-25-9 | 86 |
| 3 | Benzo[c]cinnoline | 180 | C12H8N2 | 000230-17-1 | 58 |
| 4 | 1,4-Anthracenedione | 208 | C14H8O2 | 000635-12-1 | 55 |
| 5 | 5,6-Dimethyl-1,10-phenanthroline | 208 | C14H12N2 | 003002-81-1 | 53 |



# Library Search Compound Report

Data Path : Z:\SVOASRV\HPCHEM1\BNA M\DATA\BM122118\
Data File : BM018372.D
Acq On : 22 Dec 2018 00:18
Operator : JU/SJ
Sample : J6520-01
Misc :
ALS Vial : 12 Sample Multiplier: 1

**Instrument :** BNA_M
**ClientSampleId :** ROLLOFF-165

Quant Method : Z:\SVOASRV\HPCHEM1\BNA_M\METHODS\8270-BM121518.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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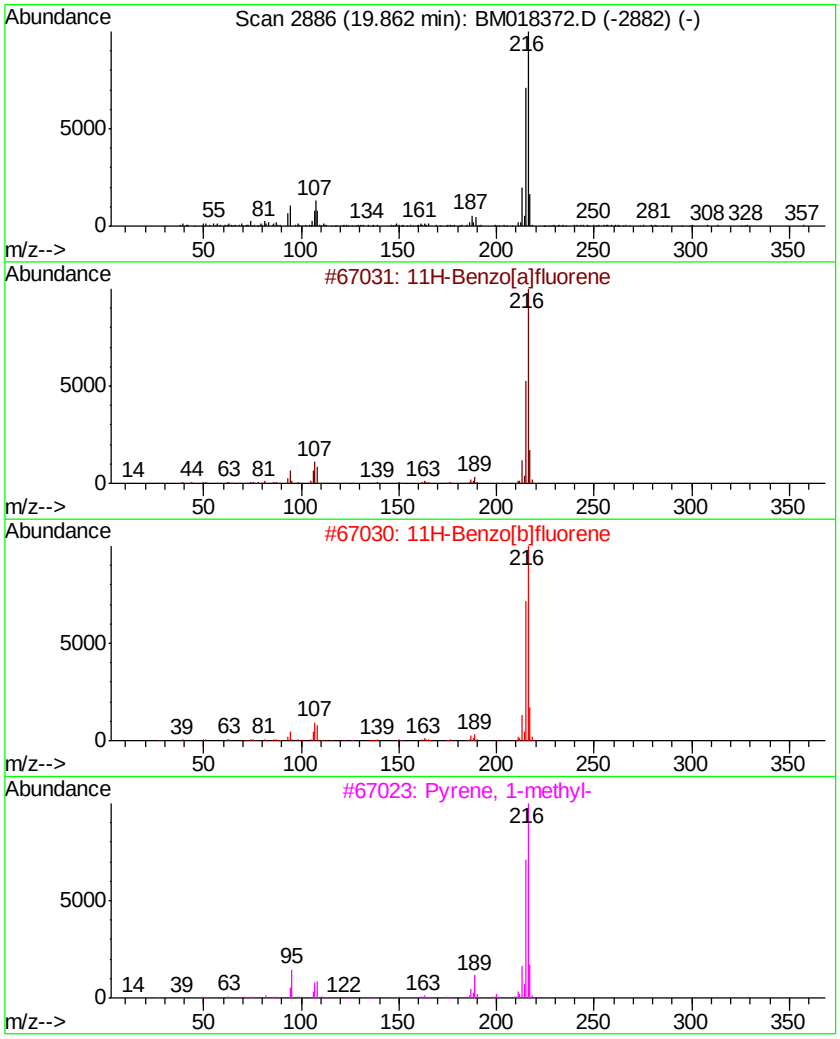
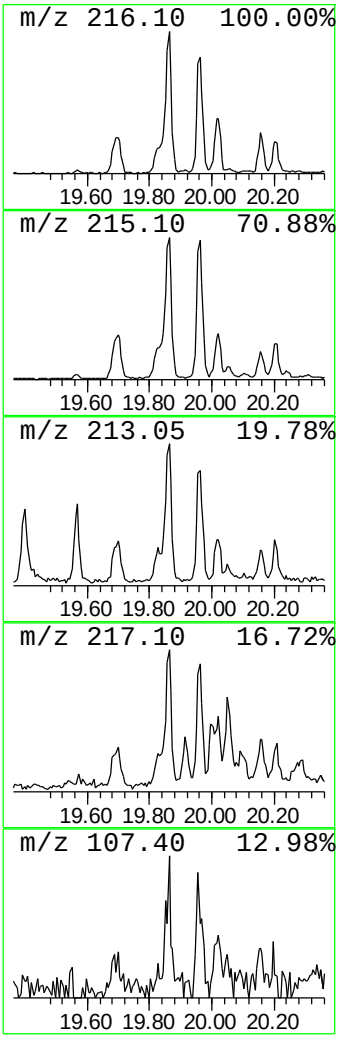
Peak Number 10 11H-Benzo[a]fluorene Concentration Rank 12

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 19.86 | 2.69 ng | 430900 | Chrysene-d12 | 21.14 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | 11H-Benzo[a]fluorene | 216 | C17H12 | 000238-84-6 | 97 |
| 2 | 11H-Benzo[b]fluorene | 216 | C17H12 | 000243-17-4 | 93 |
| 3 | Pyrene, 1-methyl- | 216 | C17H12 | 002381-21-7 | 80 |
| 4 | Fluoranthene, 2-methyl- | 216 | C17H12 | 033543-31-6 | 68 |
| 5 | Pyrene, 4-methyl- | 216 | C17H12 | 003353-12-6 | 58 |



# Library Search Compound Report

Data Path : Z:\SVOASRV\HPCHEM1\BNA M\DATA\BM122118\
Data File : BM018372.D
Acq On : 22 Dec 2018 00:18
Operator : JU/SJ
Sample : J6520-01
Misc :
ALS Vial : 12 Sample Multiplier: 1

**Instrument :** BNA_M
**ClientSampleId :** ROLLOFF-165

Quant Method : Z:\SVOASRV\HPCHEM1\BNA_M\METHODS\8270-BM121518.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

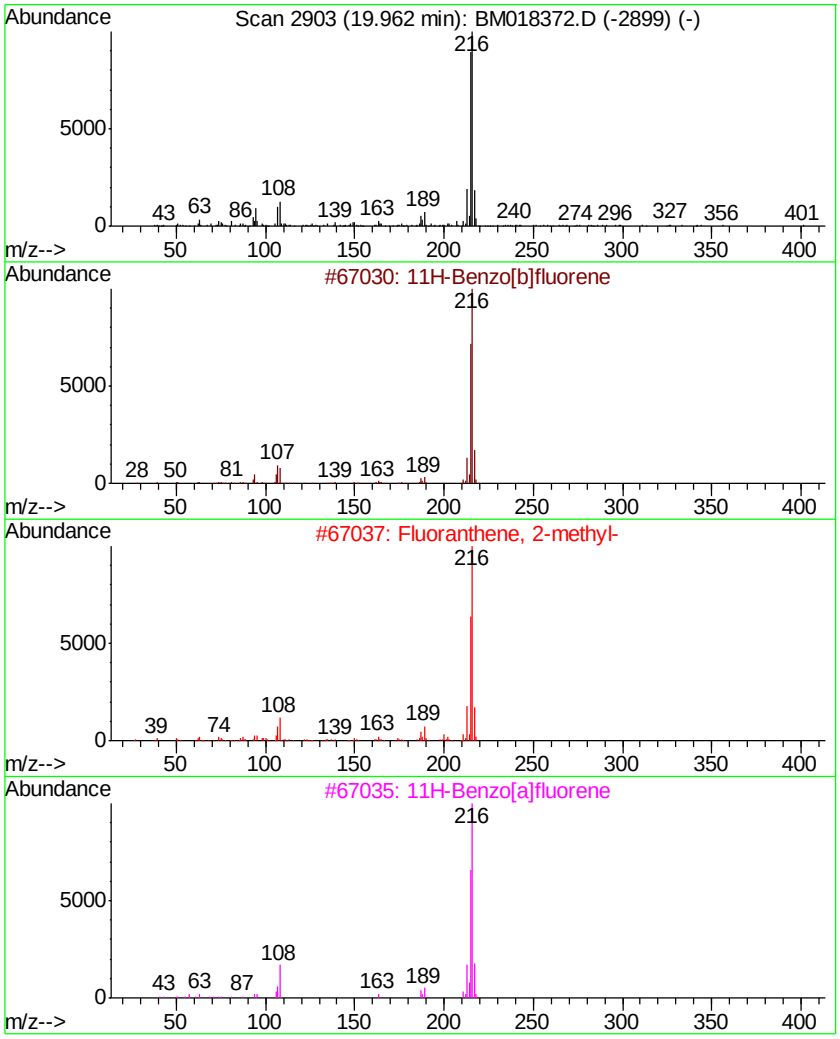
TIC Library : C:\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

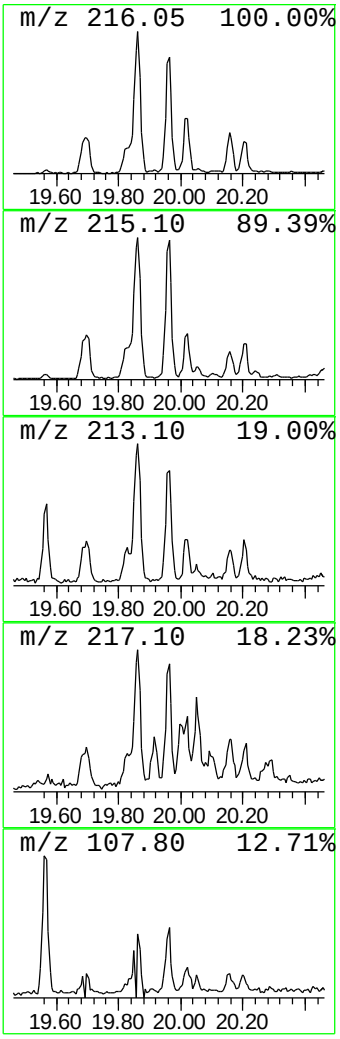
**********

Peak Number 11 11H-Benzo[b]fluorene Concentration Rank 14

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 19.96 | 2.15 ng | 345674 | Chrysene-d12 | 21.14 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | 11H-Benzo[b]fluorene | 216 | C17H12 | 000243-17-4 | 93 |
| 2 | Fluoranthene, 2-methyl- | 216 | C17H12 | 033543-31-6 | 91 |
| 3 | 11H-Benzo[a]fluorene | 216 | C17H12 | 000238-84-6 | 91 |
| 4 | Pyrene, 1-methyl- | 216 | C17H12 | 002381-21-7 | 86 |
| 5 | 7H-Benzo[c]fluorene | 216 | C17H12 | 000205-12-9 | 72 |



Data Path : Z:\SVOASRV\HPCHEM1\BNA M\DATA\BM122118\
Data File : BM018372.D
Acq On : 22 Dec 2018 00:18
Operator : JU/SJ
Sample : J6520-01
Misc :
ALS Vial : 12 Sample Multiplier: 1

**Instrument :** BNA_M
**ClientSampleId :** ROLLOFF-165

Quant Method : Z:\SVOASRV\HPCHEM1\BNA_M\METHODS\8270-BM121518.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

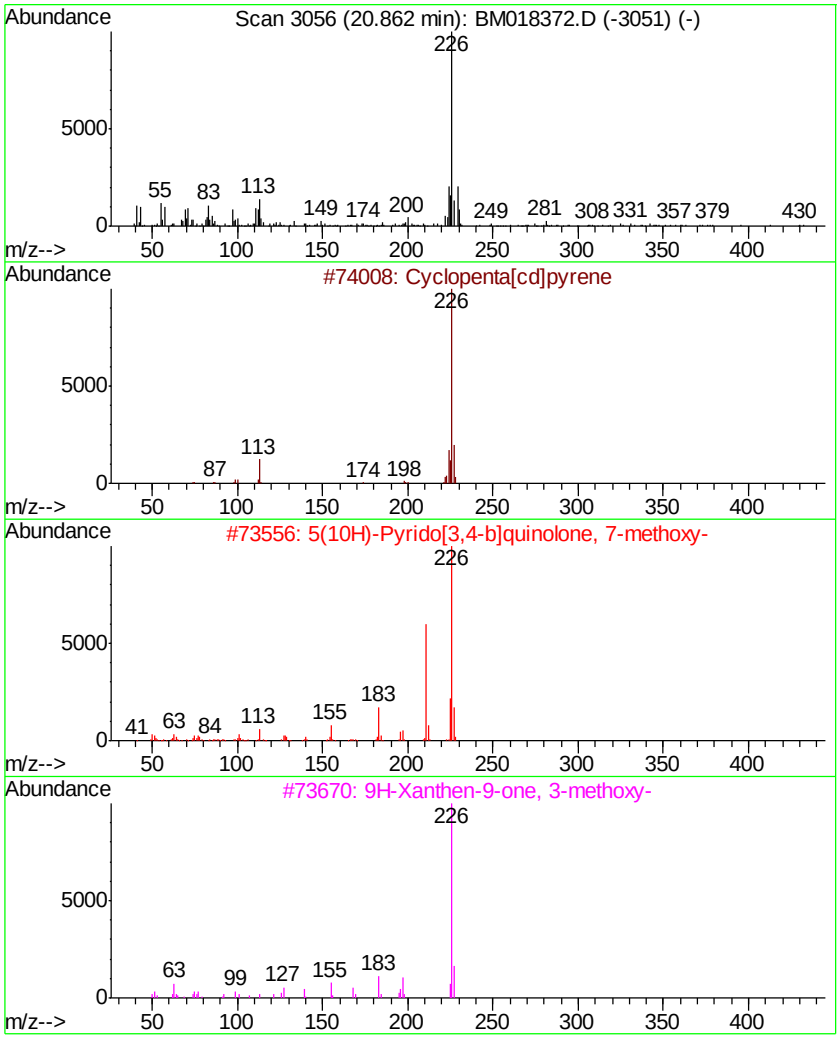
TIC Library : C:\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

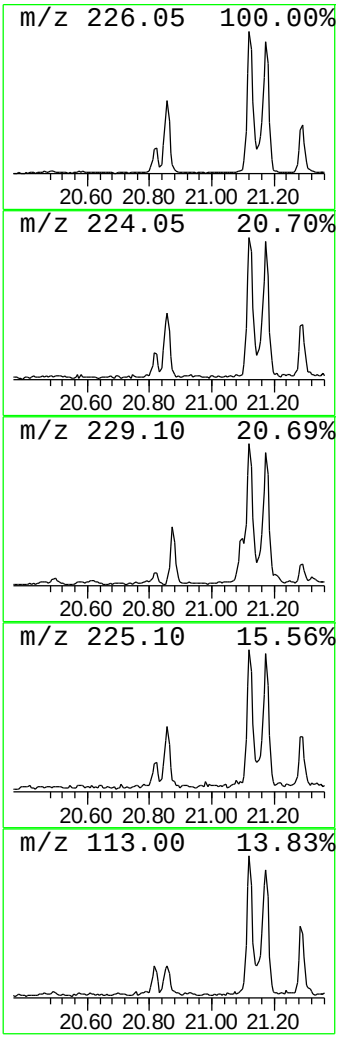
**********

Peak Number 12 Cyclopenta[cd]pyrene Concentration Rank 8

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 20.86 | 3.05 ng | 489671 | Chrysene-d12 | 21.14 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Cyclopenta[cd]pyrene | 226 | C18H10 | 027208-37-3 | 52 |
| 2 | 5(10H)-Pyrido[3,4-b]quinolone, 7... | 226 | C13H10N2O2 | 1000256-99-5 | 47 |
| 3 | 9H-Xanthen-9-one, 3-methoxy- | 226 | C14H10O3 | 003722-52-9 | 43 |
| 4 | Benzene, [4-(3-ethynylphenyl)-1,... | 226 | C18H10 | 1000115-87-3 | 43 |
| 5 | 1,3-Diamino-5,6-dihydro-9-methyl... | 226 | C13H14N4 | 037436-39-8 | 38 |



Data Path : Z:\SVOASRV\HPCHEM1\BNA M\DATA\BM122118\
Data File : BM018372.D
Acq On : 22 Dec 2018 00:18
Operator : JU/SJ
Sample : J6520-01
Misc :
ALS Vial : 12 Sample Multiplier: 1

**Instrument :** BNA_M
**ClientSampleId :** ROLLOFF-165

Quant Method : Z:\SVOASRV\HPCHEM1\BNA_M\METHODS\8270-BM121518.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

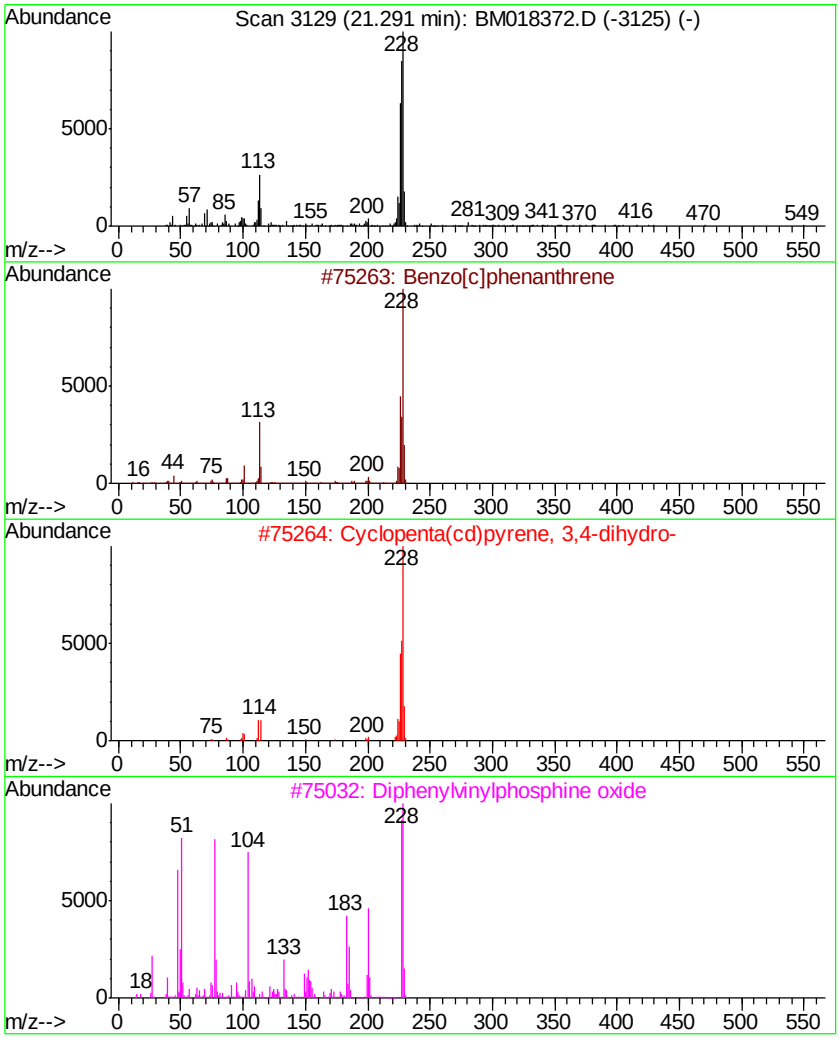
TIC Library : C:\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

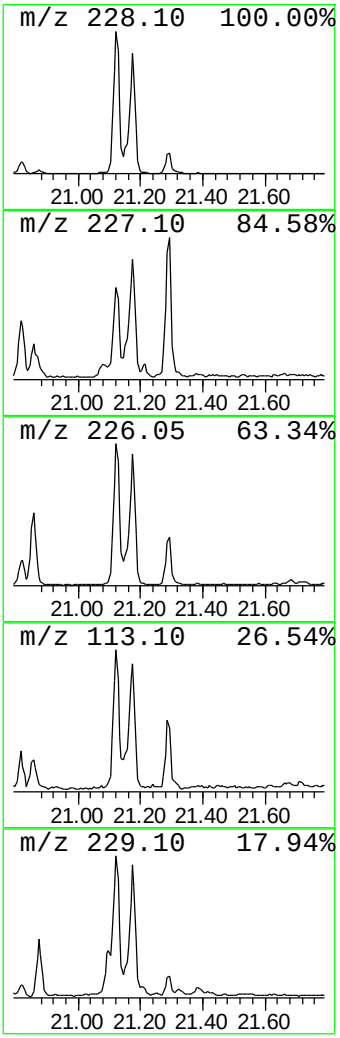
**********

Peak Number 13 Benzo[c]phenanthrene Concentration Rank 11

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 21.29 | 2.69 ng | 432002 | Chrysene-d12 | 21.14 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Benzo[c]phenanthrene | 228 | C18H12 | 000195-19-7 | 55 |
| 2 | Cyclopenta(cd)pyrene, 3,4-dihydro- | 228 | C18H12 | 025732-74-5 | 55 |
| 3 | Diphenylvinylphosphine oxide | 228 | C14H13OP | 002096-78-8 | 49 |
| 4 | Pyrazole-4-carboxaldehyde-, 3,5-... | 228 | C14H16N2O | 1000272-54-8 | 47 |
| 5 | Isothiazol-5-amine, 4-bromo-3-ch... | 226 | C4H4BrClN2S | 1000272-59-9 | 47 |



# Library Search Compound Report

Data Path : Z:\SVOASRV\HPCHEM1\BNA M\DATA\BM122118\
Data File : BM018372.D
Acq On : 22 Dec 2018 00:18
Operator : JU/SJ
Sample : J6520-01
Misc :
ALS Vial : 12 Sample Multiplier: 1

**Instrument :** BNA_M
**ClientSampleId :** ROLLOFF-165

Quant Method : Z:\SVOASRV\HPCHEM1\BNA_M\METHODS\8270-BM121518.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

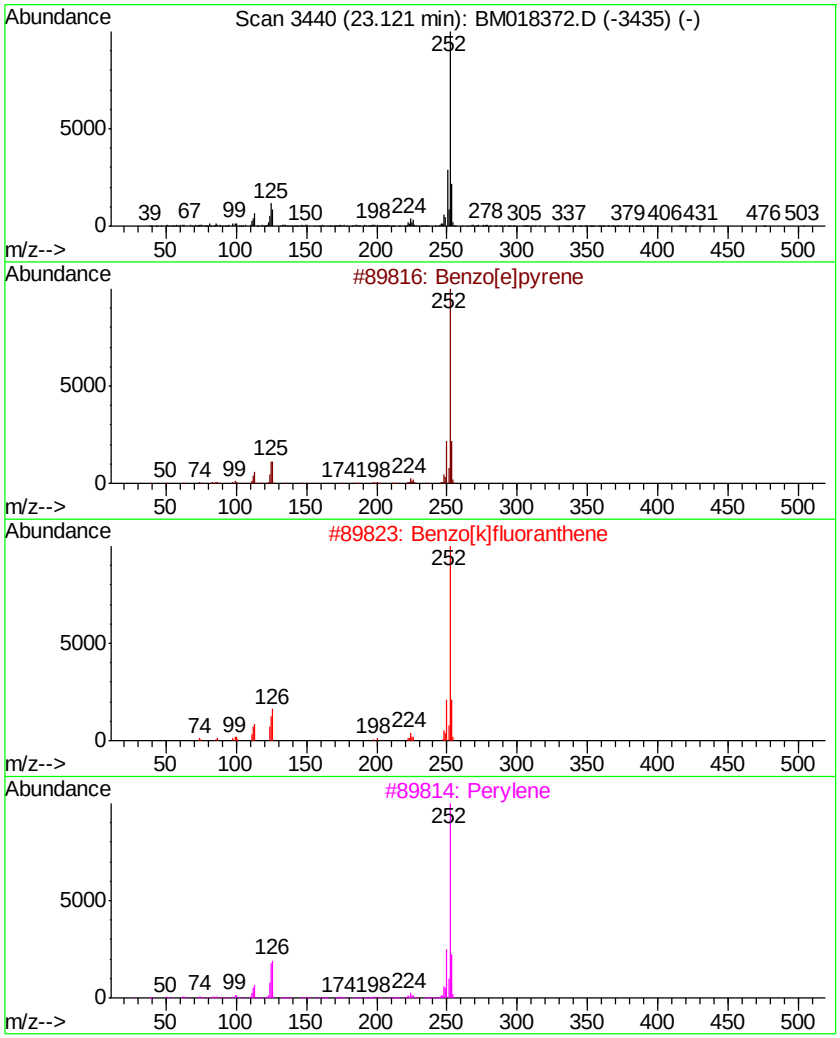
TIC Library : C:\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

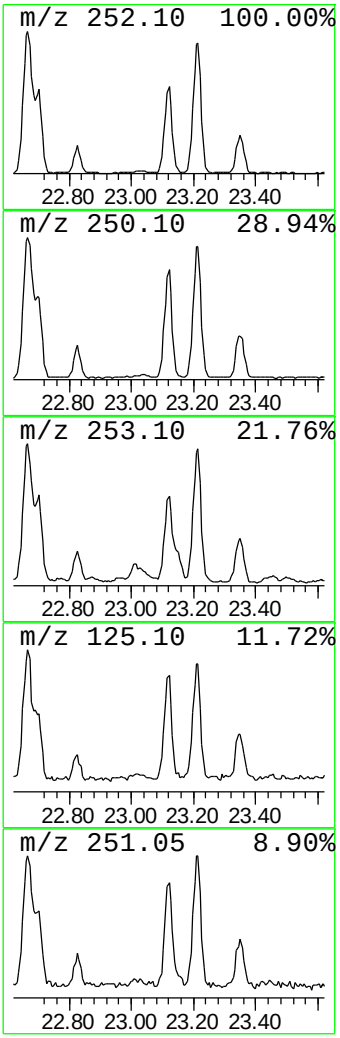
**********

Peak Number 14 Benzo[e]pyrene Concentration Rank 3

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 23.12 | 23.60 ng | 1140000 | Perylene-d12 | 23.30 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Benzo[e]pyrene | 252 | C20H12 | 000192-97-2 | 97 |
| 2 | Benzo[k]fluoranthene | 252 | C20H12 | 000207-08-9 | 96 |
| 3 | Perylene | 252 | C20H12 | 000198-55-0 | 94 |
| 4 | Benz[e]acephenanthrylene | 252 | C20H12 | 000205-99-2 | 93 |
| 5 | Benzo[a]pyrene | 252 | C20H12 | 000050-32-8 | 91 |



Tentatively Identified Compound (LSC) summary

Data Path : Z:\SVOASRV\HPCHEM1\BNA_M\DATA\BM122118\
Data File : BM018372.D
Acq On : 22 Dec 2018 00:18
Operator : JU/SJ
Sample : J6520-01
Misc :
ALS Vial : 12 Sample Multiplier: 1

**Instrument :** BNA_M
**ClientSampleId :** ROLLOFF-165

Quant Method : Z:\SVOASRV\HPCHEM1\BNA_M\METHODS\8270-BM121518.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 |
| 2-Hexanol, 2-methyl- | 4.67 | 2.5 | ng | 105374 | 1 | 7.48 | 832051 | 20.0 |
| unknown7.03 | 7.03 | 79.5 | ng | 3309430 | 1 | 7.48 | 832051 | 20.0 |
| Naphtho[2,3-b]thi... | 16.73 | 2.7 | ng | 165547 | 4 | 16.91 | 1221590 | 20.0 |
| Phenanthrene, 1-m... | 17.79 | 3.4 | ng | 206881 | 4 | 16.91 | 1221590 | 20.0 |
| 4H-Cyclopenta[def... | 17.99 | 8.5 | ng | 518802 | 4 | 16.91 | 1221590 | 20.0 |
| 6-Phenylbenzocycl... | 18.30 | 2.8 | ng | 170433 | 4 | 16.91 | 1221590 | 20.0 |
| 9,10-Anthracenedione | 18.36 | 3.2 | ng | 197119 | 4 | 16.91 | 1221590 | 20.0 |
| 11H-Benzo[a]fluorene | 19.86 | 2.7 | ng | 430900 | 5 | 21.14 | 3209130 | 20.0 |
| 11H-Benzo[b]fluorene | 19.96 | 2.1 | ng | 345674 | 5 | 21.14 | 3209130 | 20.0 |
| Cyclopenta[cd]pyrene | 20.86 | 3.0 | ng | 489671 | 5 | 21.14 | 3209130 | 20.0 |
| Benzo[c]phenanthrene | 21.29 | 2.7 | ng | 432002 | 5 | 21.14 | 3209130 | 20.0 |
| Benzo[e]pyrene | 23.12 | 23.6 | ng | 1140000 | 6 | 23.30 | 966280 | 20.0 |