Electronic Supplementary Material (ESI) for RSC Advances.

Electronic Supplementary Information

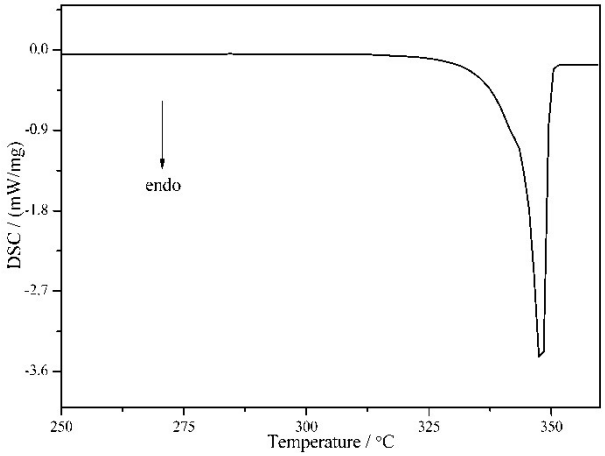


Figure S1. DSC heating curve of BCPPO

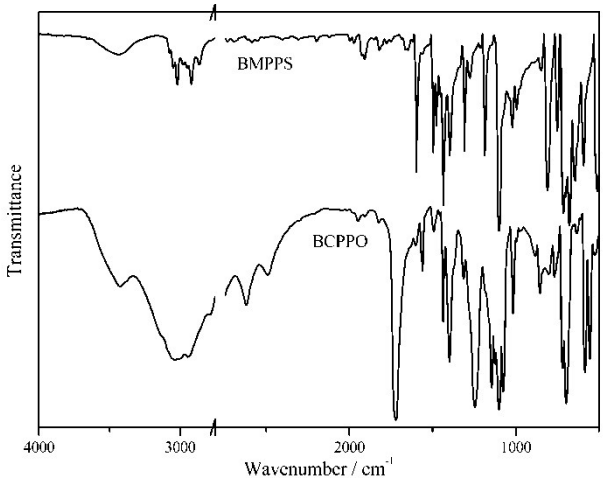


Figure S2. FT-IR spectra of BMPPS and BCPPO

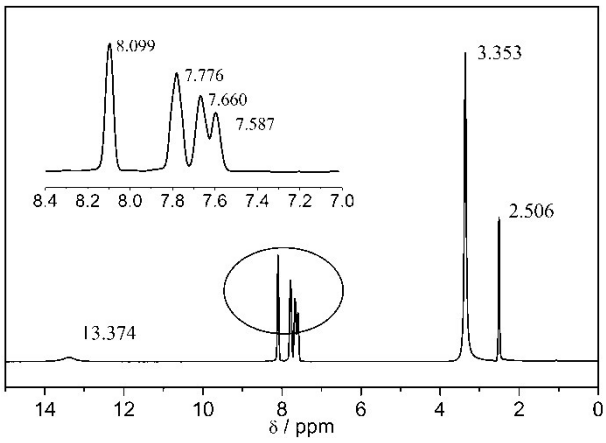


Figure S3. ^{1}H NMR spectrum of BCPPO in DMSO-d_6

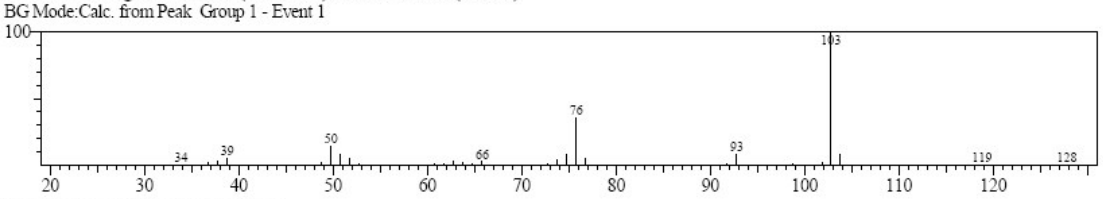
Library

<< Target >>

Line#:1 R.Time:9.415(Scan#:1644) MassPeaks:61

RawMode:Averaged 9.410-9.420(1643-1645) BasePeak:102.80(223245)

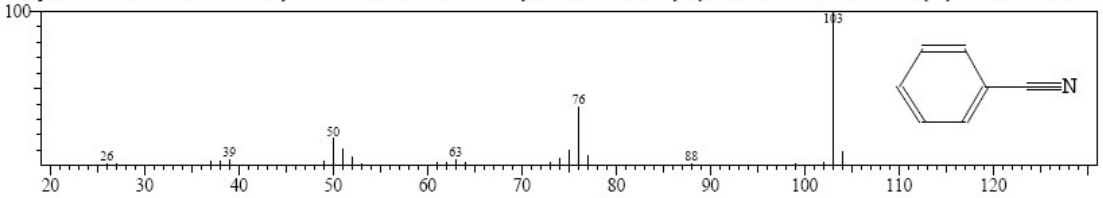
BG Mode:Calc. from Peak Group 1 - Event 1



Hit#:2 Entry:2422 Library:NIST11.lib

SI:95 Formula:C7H5N CAS:100-47-0 MolWeight:103 RetIndex:958

CompName:Benzonitrile $$ Benzene, cyano- $$ Benzoic acid nitrile $$ Cyanobenzene $$ Phenyl cyanide $$ Benzenenitrile $$ Fenylkyanid $$ UN 2224 $$

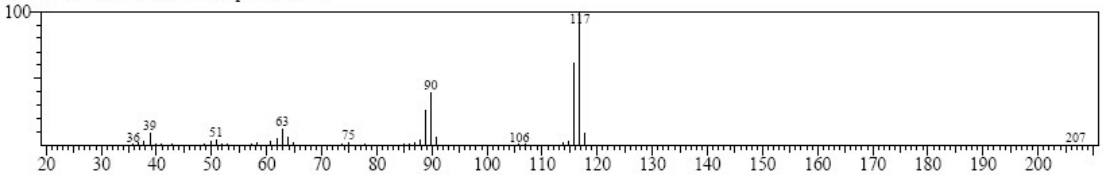


<< Target >>

Line#:2 R.Time:11.750(Scan#:2111) MassPeaks:58

RawMode:Averaged 11.745-11.755(2110-2112) BasePeak:116.80(56187)

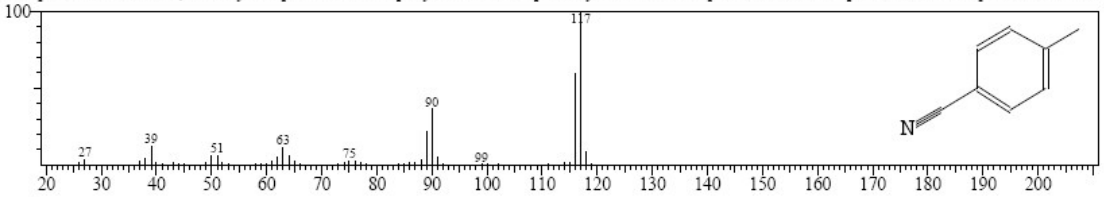
BG Mode:Calc. from Peak Group 1 - Event 1



Hit#:1 Entry:3775 Library:NIST11s.lib

SI:96 Formula:C8H7N CAS:104-85-8 MolWeight:117 RetIndex:1071

CompName:Benzonitrile, 4-methyl- $$ p-Tolunitrile $$ p-Cyanotoluene $$ p-Methylbenzonitrile $$ p-Toluenenitrile $$ p-Toluic nitrile $$ p-Toluonitrile $$

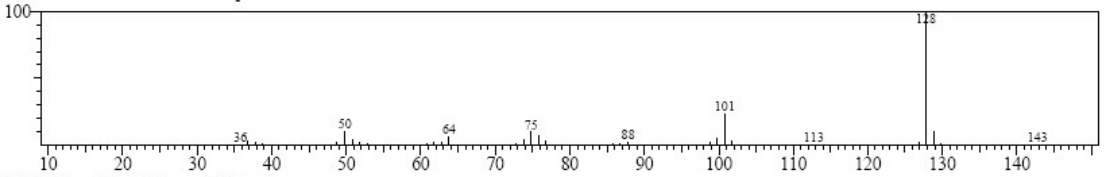


<< Target >>

Line#:3 R.Time:12.745(Scan#:2310) MassPeaks:51

RawMode:Averaged 12.740-12.750(2309-2311) BasePeak:127.80(1022278)

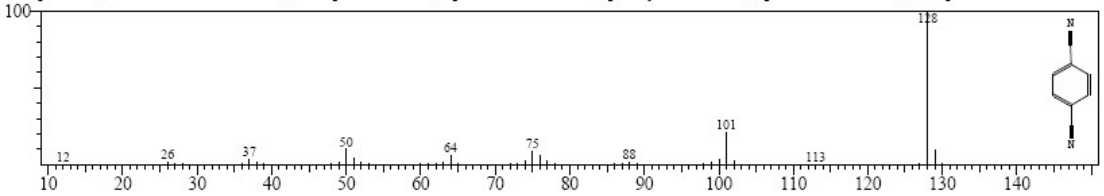
BG Mode:Calc. from Peak Group 1 - Event 1



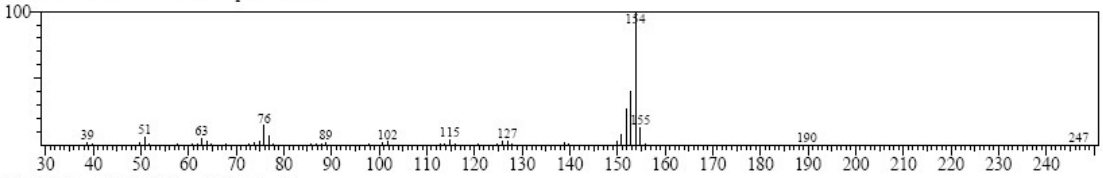
Hit#:1 Entry:7273 Library:NIST11.lib

SI:98 Formula:C8H4N2 CAS:623-26-7 MolWeight:128 RetIndex:1236

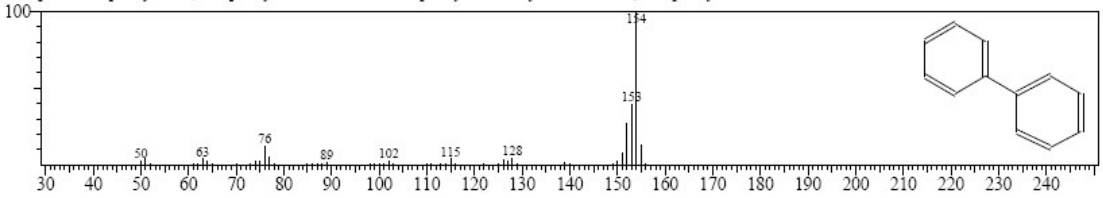
CompName:1,4-Benzenedicarbonitrile $$ Terephthalonitrile $$ p-Benzenedinitrile $$ p-Dicyanobenzene $$ p-Phthalodinitrile $$ Terephthalic acid dinitrile



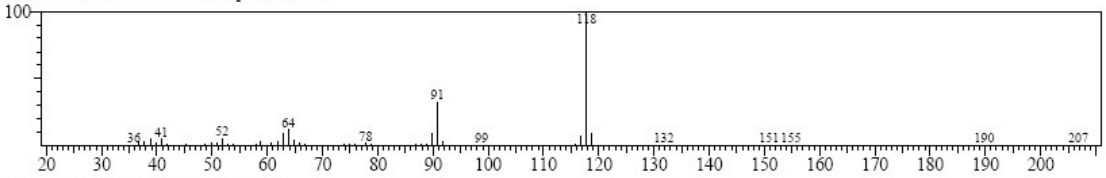
<< Target >>
Line#:4 R.Time:13.465(Scan#:2454) MassPeaks:71
RawMode:Averaged 13.460-13.470(2453-2455) BasePeak:153.80(78720)
BG Mode:Calc. from Peak Group 1 - Event 1



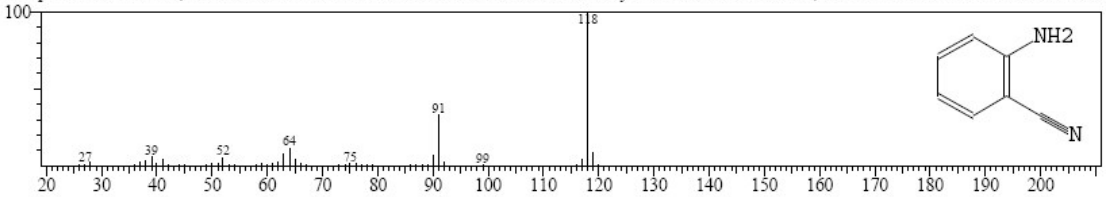
Hit#:1 Entry:10063 Library:NIST11s.lib
SI:97 Formula:C12H10 CAS:92-52-4 MolWeight:154 RetIndex:1367
CompName:Biphenyl $$ 1,1'-Biphenyl $$ Bibenzene $$ Diphenyl $$ Phenylbenzene $$ 1,1'-Diphenyl $$ Lemonene $$ Phenador-X $$ PhPh $$ Xenene $$



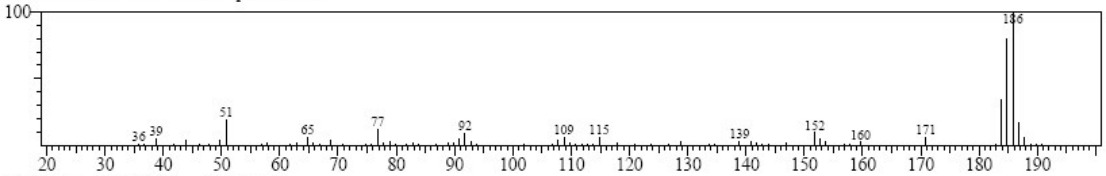
<< Target >>
Line#:5 R.Time:14.985(Scan#:2758) MassPeaks:63
RawMode:Averaged 14.980-14.990(2757-2759) BasePeak:117.80(399030)
BG Mode:Calc. from Peak Group 1 - Event 1



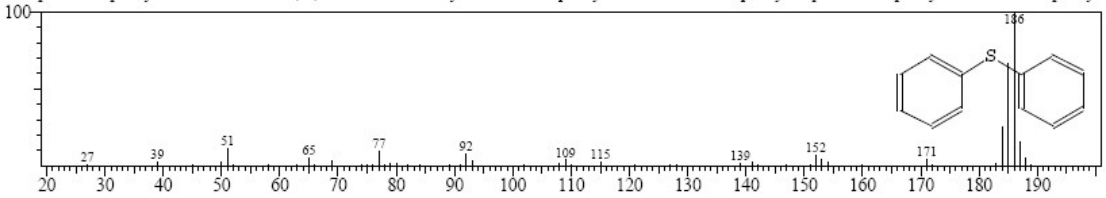
Hit#:1 Entry:5030 Library:NIST11.lib
SI:98 Formula:C7H6N2 CAS:1885-29-6 MolWeight:118 RetIndex:1270
CompName:Benzonitrile, 2-amino- $$ Anthranilonitrile $$ o-Aminobenzonitrile $$ o-Cyanoaniline $$ Benzonitrile, o-amino- $$ 2-Aminobenzonitrile $$ 2-



<< Target >>
Line#:6 R.Time:15.505(Scan#:2862) MassPeaks:88
RawMode:Averaged 15.500-15.510(2861-2863) BasePeak:185.80(14215)
BG Mode:Calc. from Peak Group 1 - Event 1



Hit#:1 Entry:35274 Library:NIST11.lib
SI:91 Formula:C12H10S CAS:139-66-2 MolWeight:186 RetIndex:1618
CompName:Diphenyl sulfide $$ Benzene, 1,1'-thiobis- $$ Phenyl sulfide $$ Diphenyl monosulfide $$ Diphenyl sulphide $$ Diphenyl thioether $$ Diphenyl



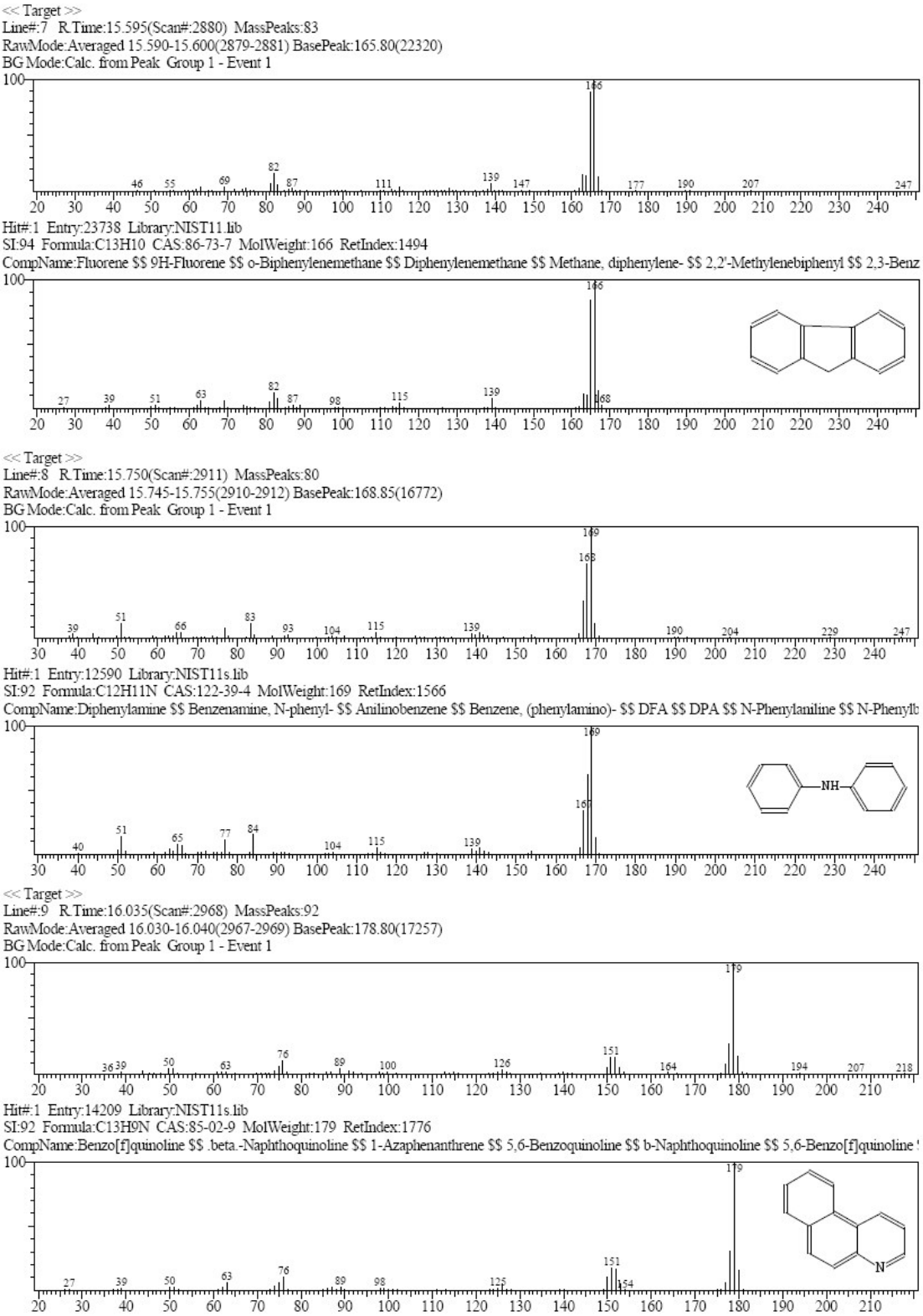


Figure S4. The mass spectra of Pyrolysis product for p-POD fiber at 500 °C

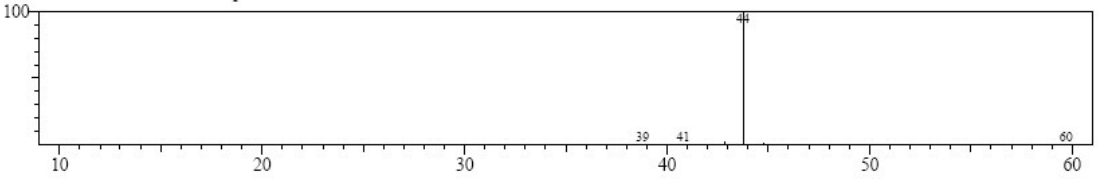
Library

<< Target >>

Line#:1 R.Time:2.160(Scan#:193) MassPeaks:13

RawMode:Averaged 2.155-2.165(192-194) BasePeak:43.75(582159)

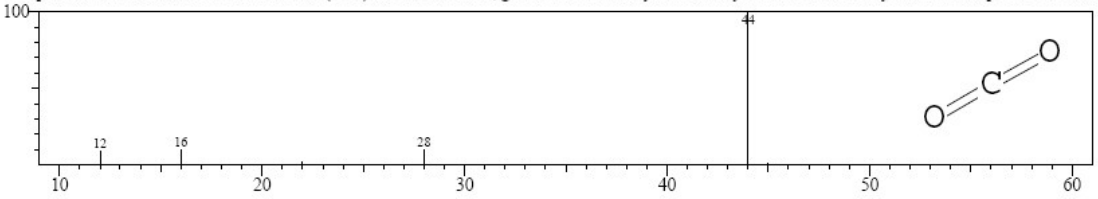
BG Mode:Calc. from Peak Group 1 - Event 1



Hit#:2 Entry:42 Library:NIST11.lib

SI:98 Formula:CO2 CAS:124-38-9 MolWeight:44 RetIndex:0

CompName:Carbon dioxide $$ Carbon oxide (CO2) $$ Carbonic acid, gas $$ Carbonic anhydride $$ Dry ice $$ CO2 $$ Anhydride carbonique $$ Carbonic

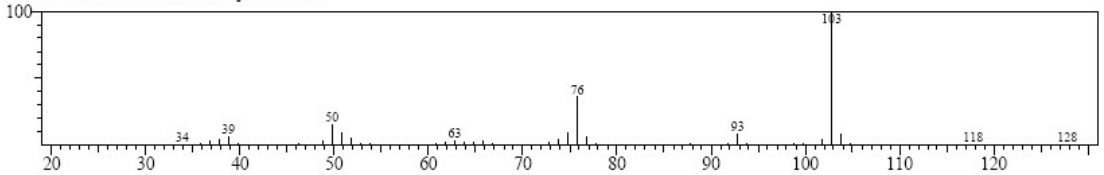


<< Target >>

Line#:2 R.Time:9.160(Scan#:1593) MassPeaks:58

RawMode:Averaged 9.155-9.165(1592-1594) BasePeak:102.80(204871)

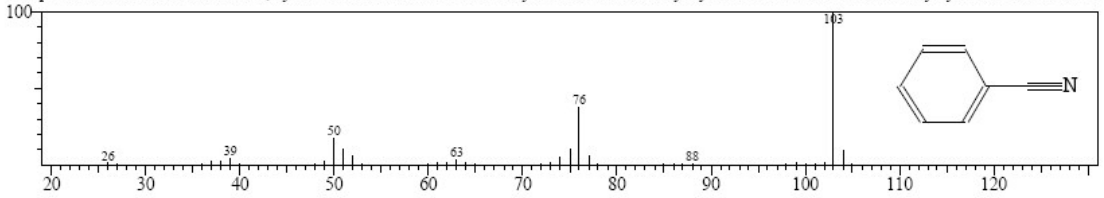
BG Mode:Calc. from Peak Group 1 - Event 1



Hit#:2 Entry:2422 Library:NIST11.lib

SI:95 Formula:C7H5N CAS:100-47-0 MolWeight:103 RetIndex:958

CompName:Benzonitrile $$ Benzene, cyano- $$ Benzoic acid nitrile $$ Cyanobenzene $$ Phenyl cyanide $$ Benzenenitrile $$ Fenylkyanid $$ UN 2224 $$

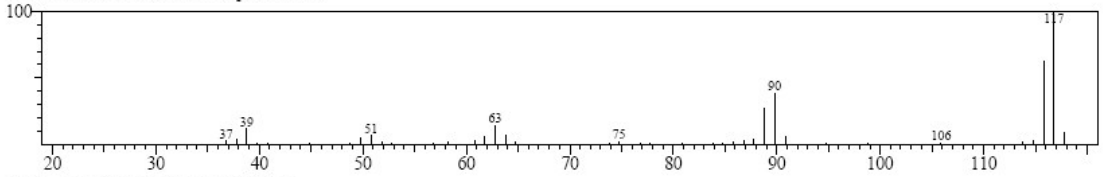


<< Target >>

Line#:3 R.Time:11.865(Scan#:2134) MassPeaks:50

RawMode:Averaged 11.860-11.870(2133-2135) BasePeak:116.80(27174)

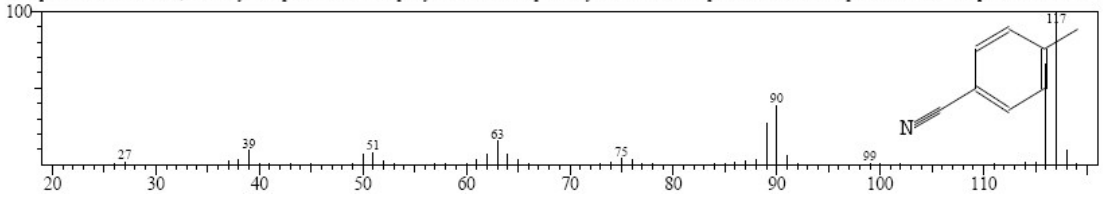
BG Mode:Calc. from Peak Group 1 - Event 1



Hit#:1 Entry:3776 Library:NIST11s.lib

SI:97 Formula:C8H7N CAS:104-85-8 MolWeight:117 RetIndex:1071

CompName:Benzonitrile, 4-methyl- $$ p-Tolunitrile $$ p-Cyanotoluene $$ p-Methylbenzonitrile $$ p-Toluenenitrile $$ p-Toluic nitrile $$ p-Toluonitrile $$



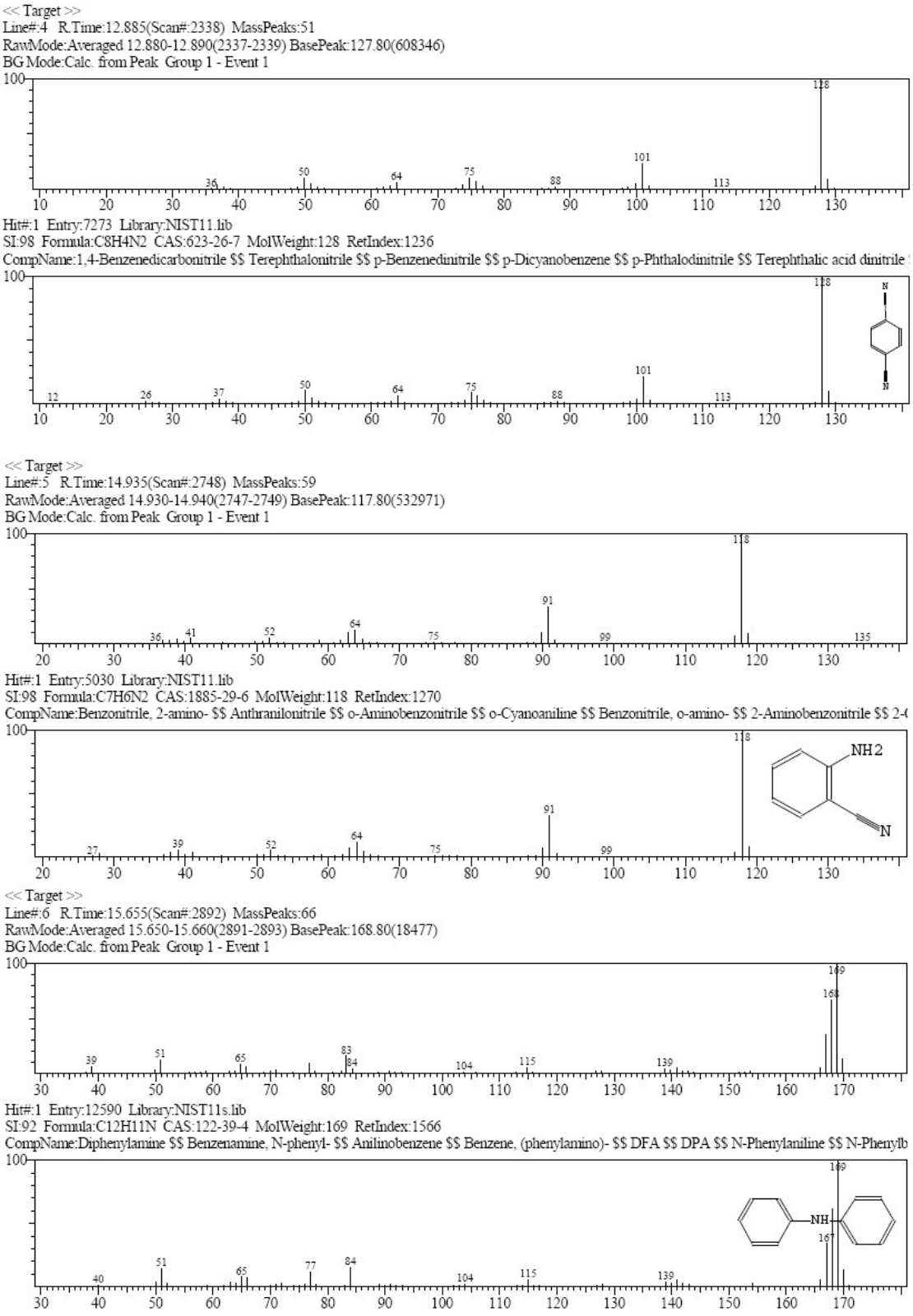
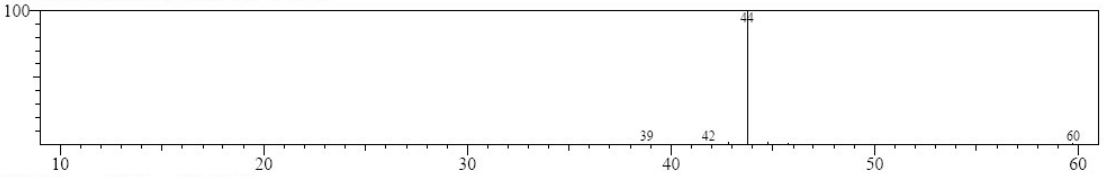


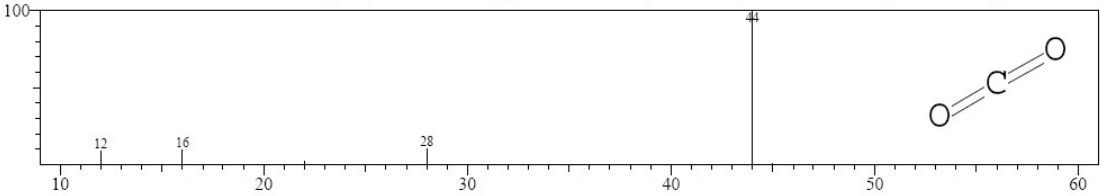
Figure S5. The mass spectra of Pyrolysis product for p-POD fiber at 550 °C

Library

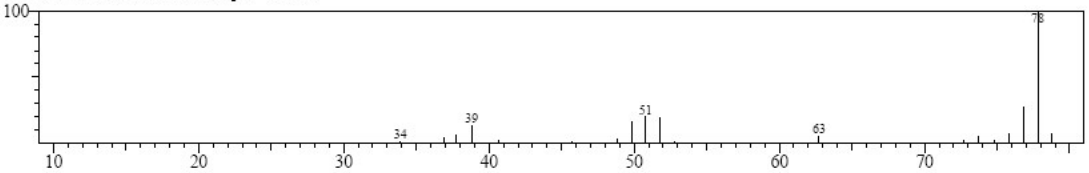
<< Target >>
Line#:1 R.Time:1.865(Scan#:134) MassPeaks:9
RawMode:Averaged 1.860-1.870(133-135) BasePeak:43.75(804287)
BG Mode:Calc. from Peak Group 1 - Event 1



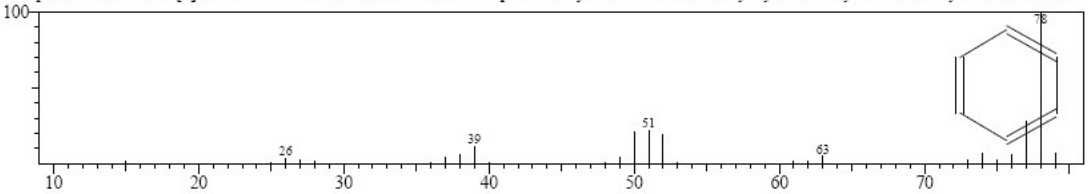
Hit#:2 Entry:42 Library:NIST11.lib
SI:99 Formula:CO2 CAS:124-38-9 MolWeight:44 RetIndex:0
CompName:Carbon dioxide $$ Carbon oxide (CO2) $$ Carbonic acid, gas $$ Carbonic anhydride $$ Dry ice $$ CO2 $$ Anhydride carbonique $$ Carbonic



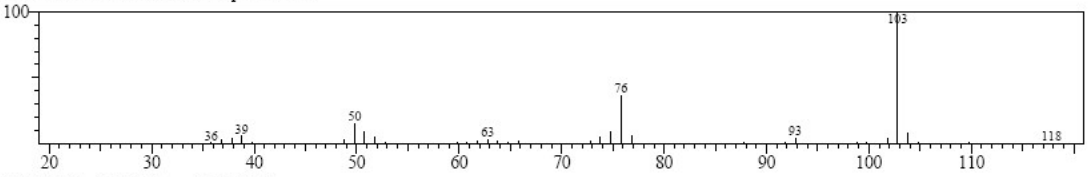
<< Target >>
Line#:2 R.Time:4.070(Scan#:575) MassPeaks:19
RawMode:Averaged 4.065-4.075(574-576) BasePeak:77.80(13006)
BG Mode:Calc. from Peak Group 1 - Event 1



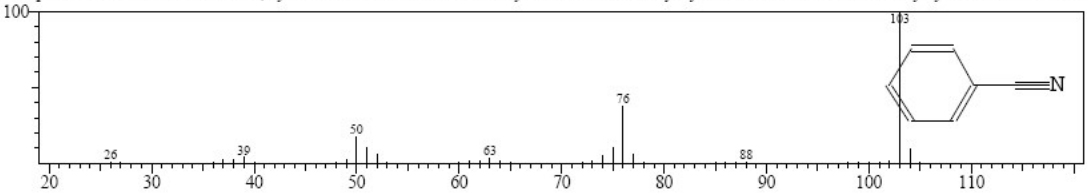
Hit#:1 Entry:478 Library:NIST11.lib
SI:97 Formula:C6H6 CAS:71-43-2 MolWeight:78 RetIndex:680
CompName:Benzene $$ [6]Annulene $$ Benzol $$ Benzole $$ Coal naphtha $$ Cyclohexatriene $$ Phenyl hydride $$ Pyrobenzol $$ Pyrobenzole $$ Benz



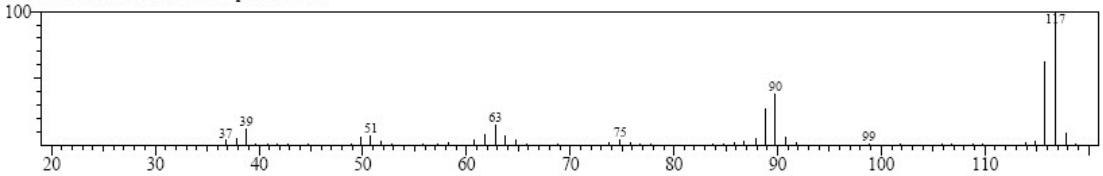
<< Target >>
Line#:3 R.Time:9.230(Scan#:1607) MassPeaks:51
RawMode:Averaged 9.225-9.235(1606-1608) BasePeak:102.80(181417)
BG Mode:Calc. from Peak Group 1 - Event 1



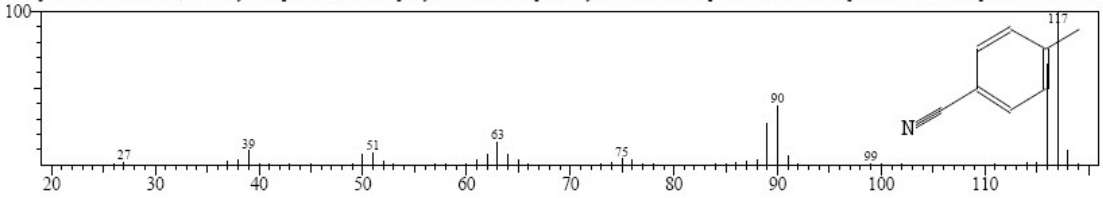
Hit#:1 Entry:2422 Library:NIST11.lib
SI:97 Formula:C7H5N CAS:100-47-0 MolWeight:103 RetIndex:958
CompName:Benzonitrile $$ Benzene, cyano- $$ Benzoic acid nitrile $$ Cyanobenzene $$ Phenyl cyanide $$ Benzenenitrile $$ Fenylkyanid $$ UN 2224 $$



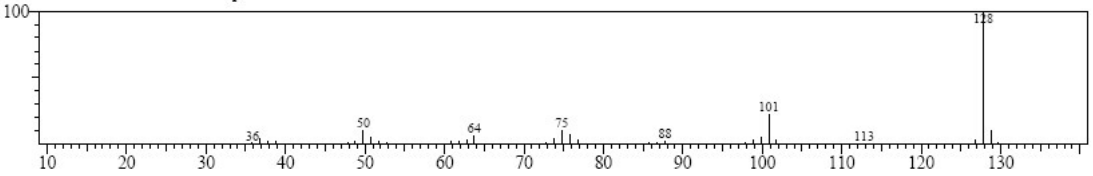
<< Target >>
Line#:4 R.Time:11.865(Scan#:2134) MassPeaks:51
RawMode:Averaged 11.860-11.870(2133-2135) BasePeak:116.80(33530)
BG Mode:Calc. from Peak Group 1 - Event 1



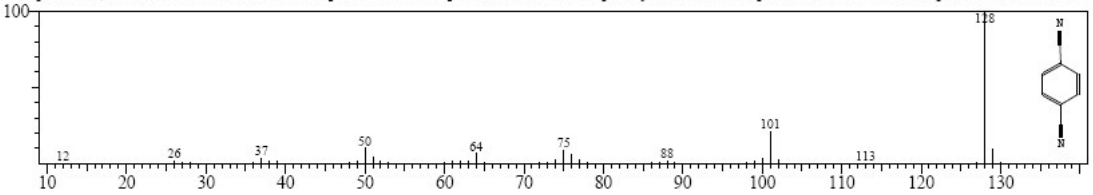
Hit#:1 Entry:3776 Library:NIST11s.lib
SI:98 Formula:C8H7N CAS:104-85-8 MolWeight:117 RetIndex:1071
CompName:Benzonitrile, 4-methyl- $$ p-Tolunitrile $$ p-Cyanotoluene $$ p-Methylbenzonitrile $$ p-Toluenenitrile $$ p-Toluic nitrile $$ p-Toluonitrile $$



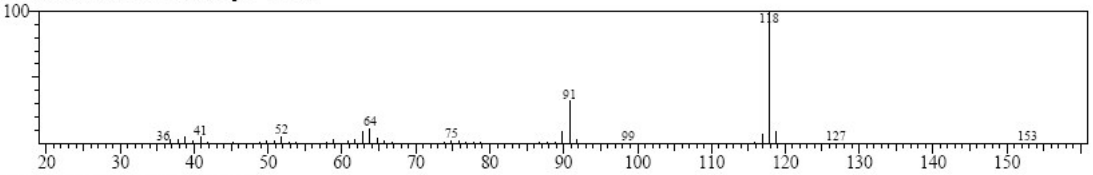
<< Target >>
Line#:5 R.Time:12.825(Scan#:2326) MassPeaks:59
RawMode:Averaged 12.820-12.830(2325-2327) BasePeak:127.80(632652)
BG Mode:Calc. from Peak Group 1 - Event 1



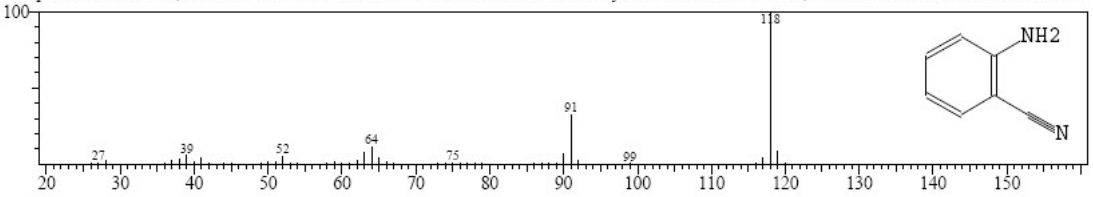
Hit#:1 Entry:7273 Library:NIST11.lib
SI:98 Formula:C8H4N2 CAS:623-26-7 MolWeight:128 RetIndex:1236
CompName:1,4-Benzenedicarbonitrile $$ Terephthalonitrile $$ p-Benzenedinitrile $$ p-Dicyanobenzene $$ p-Phthalodinitrile $$ Terephthalic acid dinitrile



<< Target >>
Line#:6 R.Time:14.875(Scan#:2736) MassPeaks:66
RawMode:Averaged 14.870-14.880(2735-2737) BasePeak:117.80(520444)
BG Mode:Calc. from Peak Group 1 - Event 1



Hit#:1 Entry:5030 Library:NIST11.lib
SI:98 Formula:C7H6N2 CAS:1885-29-6 MolWeight:118 RetIndex:1270
CompName:Benzonitrile, 2-amino- $$ Anthranilonitrile $$ o-Aminobenzonitrile $$ o-Cyanoaniline $$ Benzonitrile, o-amino- $$ 2-Aminobenzonitrile $$ 2-



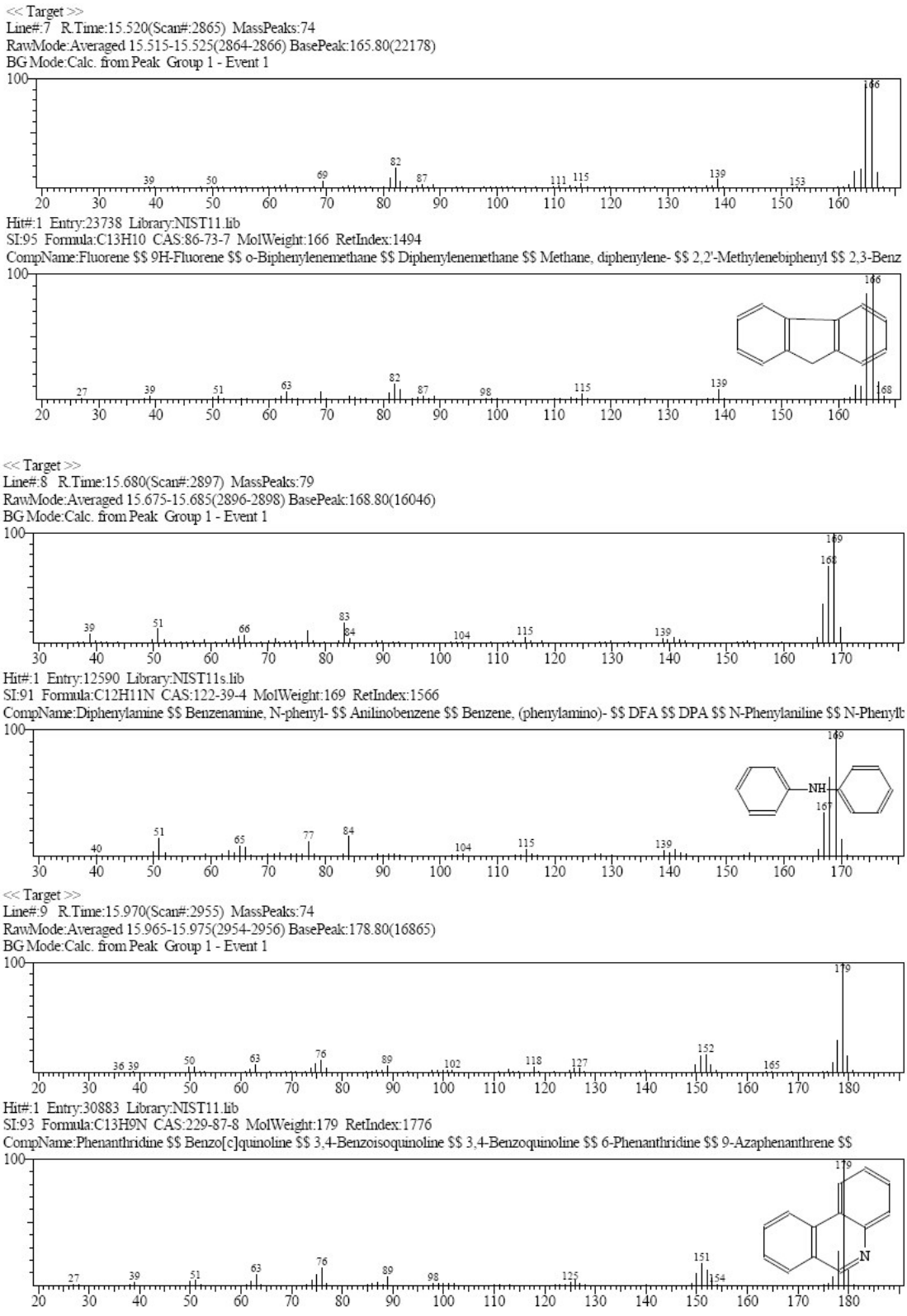


Figure S6. The mass spectra of Pyrolysis product for p-POD fiber at 600 °C

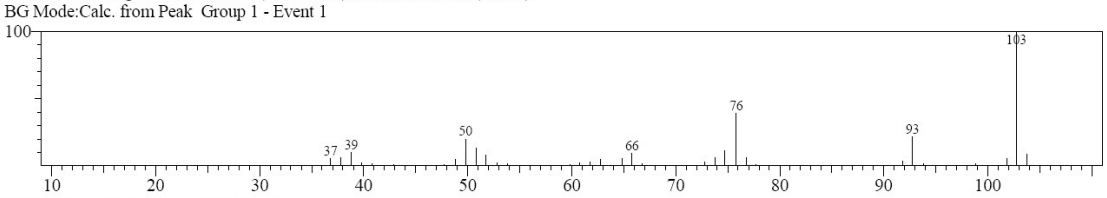
Library

<< Target >>

Line#:1 R.Time:10.320(Scan#:1825) MassPeaks:35

RawMode:Averaged 10.315-10.325(1824-1826) BasePeak:102.75(20438)

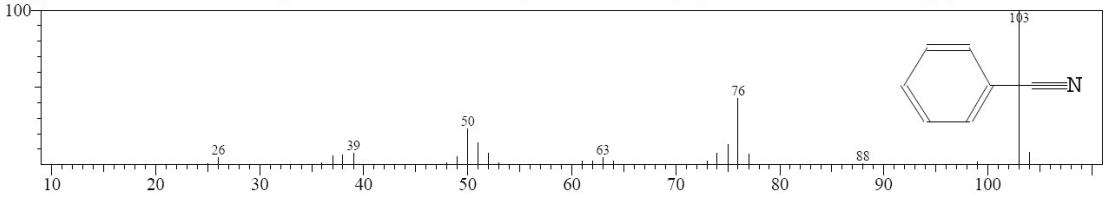
BG Mode:Calc. from Peak Group 1 - Event 1



Hit#:2 Entry:2211 Library:NIST11s.lib

SI:89 Formula:C7H5N CAS:100-47-0 MolWeight:103 RetIndex:958

CompName:Benzonitrile $$ Benzene, cyano- $$ Benzoic acid nitrile $$ Cyanobenzene $$ Phenyl cyanide $$ Benzenenitrile $$ Fenylkyanid $$ UN 2224 $$

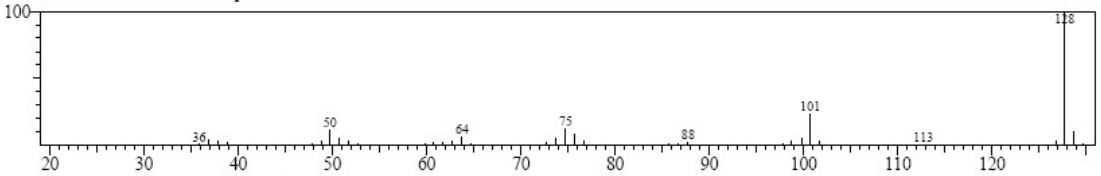


<< Target >>

Line#:2 R.Time:13.105(Scan#:2382) MassPeaks:55

RawMode:Averaged 13.100-13.110(2381-2383) BasePeak:127.70(577786)

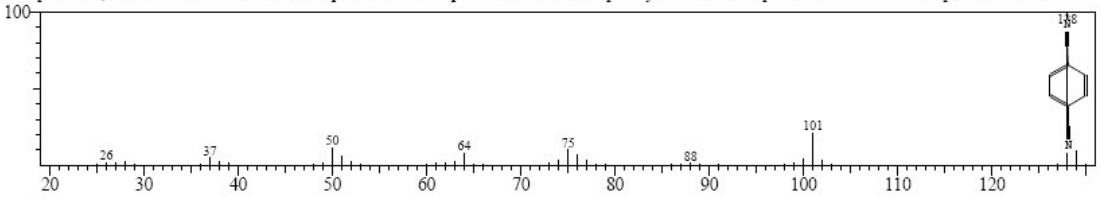
BG Mode:Calc. from Peak Group 1 - Event 1



Hit#:1 Entry:5143 Library:NIST11s.lib

SI:98 Formula:C8H4N2 CAS:623-26-7 MolWeight:128 RetIndex:1236

CompName:1,4-Benzenedicarbonitrile $$ Terephthalonitrile $$ p-Benzenedinitrile $$ p-Dicyanobenzene $$ p-Phthalodinitrile $$ Terephthalic acid dinitrile

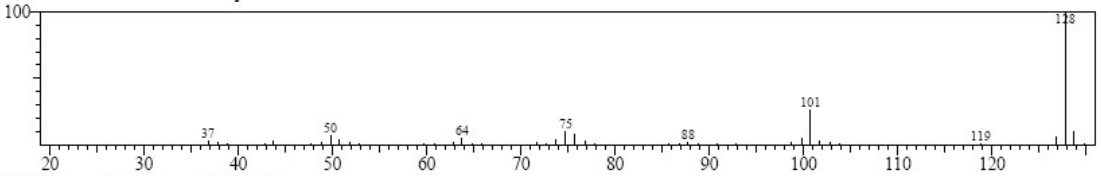


<< Target >>

Line#:3 R.Time:13.250(Scan#:2411) MassPeaks:52

RawMode:Averaged 13.245-13.255(2410-2412) BasePeak:127.75(29971)

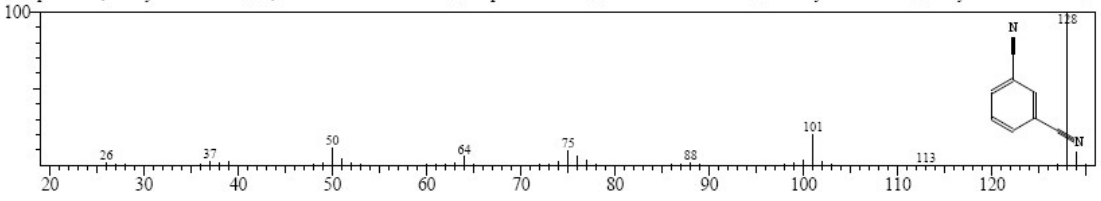
BG Mode:Calc. from Peak Group 1 - Event 1



Hit#:1 Entry:5145 Library:NIST11s.lib

SI:95 Formula:C8H4N2 CAS:626-17-5 MolWeight:128 RetIndex:1236

CompName:1,3-Dicyanobenzene $$ 1,3-Benzenedicarbonitrile $$ Isophthalonitrile $$ m-Benzenedinitrile $$ m-Dicyanobenzene $$ 3-Cyanobenzonitrile $$



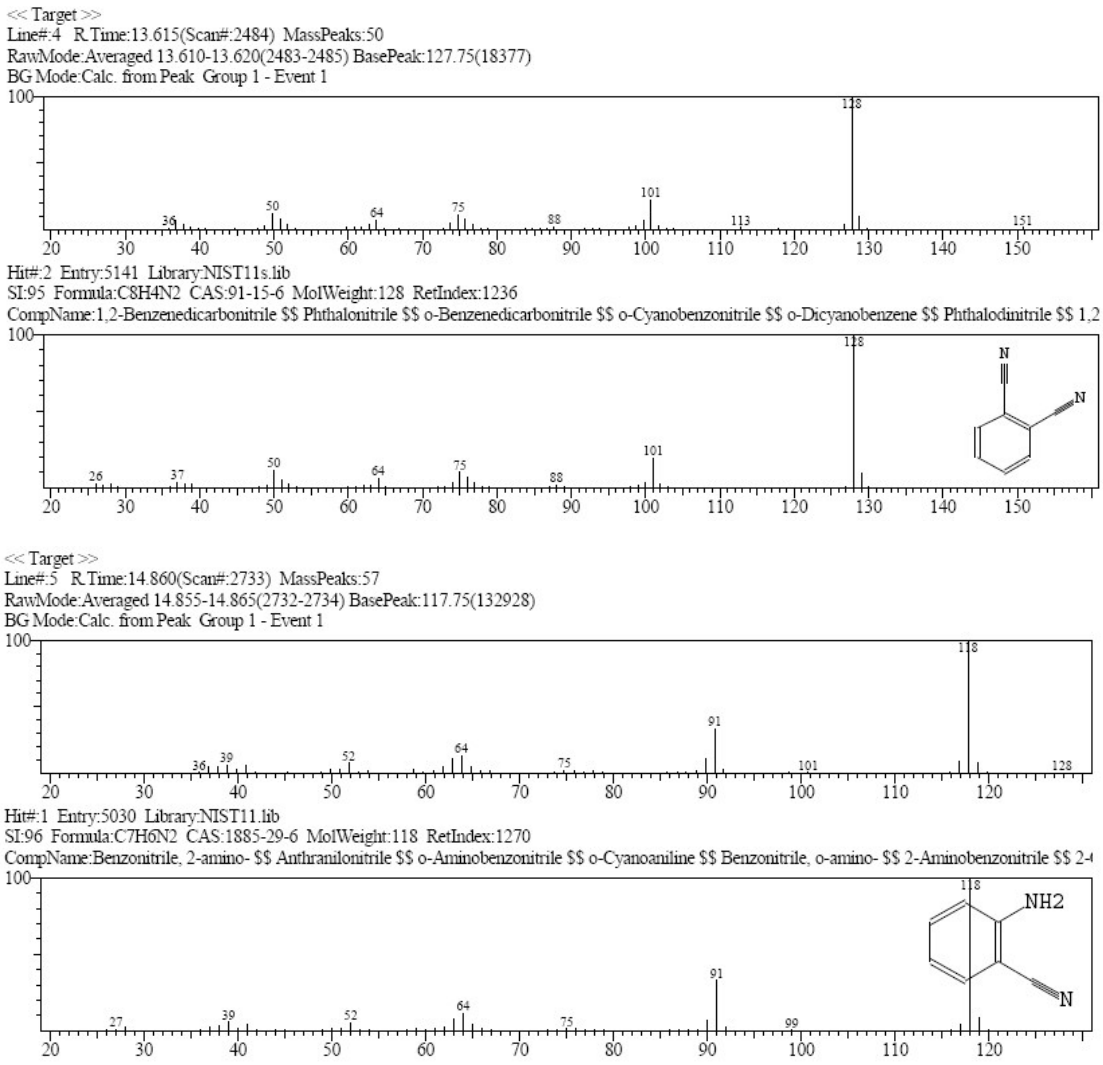
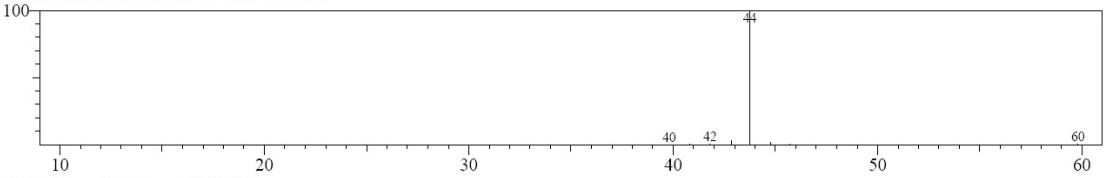


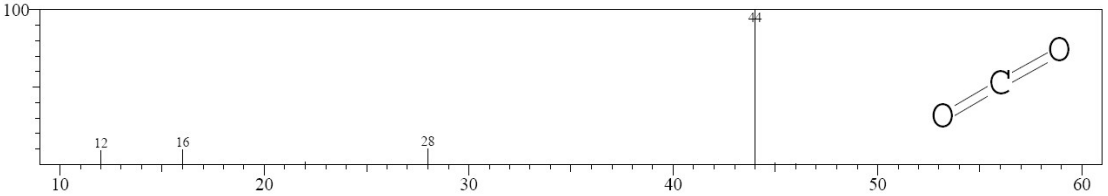
Figure S7. The mass spectra of Pyrolysis product for pho-POD-15 fiber at 500 °C

Library

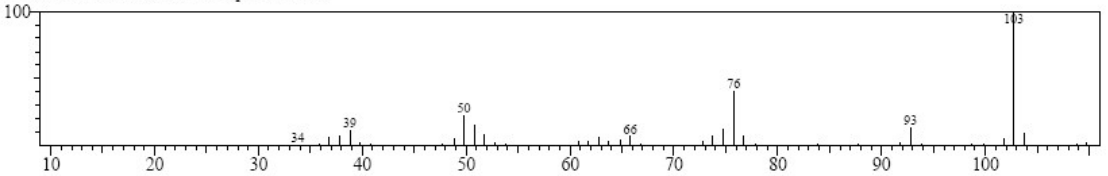
<< Target >>
Line#:1 R.Time:2.005(Scan#:162) MassPeaks:8
RawMode:Averaged 2.000-2.010(161-163) BasePeak:43.75(193022)
BG Mode:Calc. from Peak Group 1 - Event 1



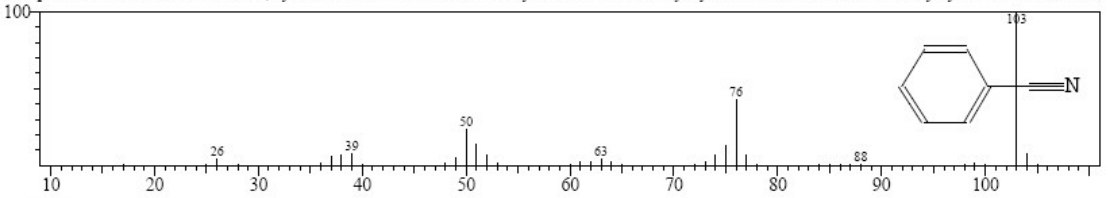
Hit#:2 Entry:42 Library:NIST11.lib
SI:98 Formula:CO2 CAS:124-38-9 MolWeight:44 RetIndex:0
CompName:Carbon dioxide $$ Carbon oxide (CO2) $$ Carbonic acid, gas $$ Carbonic anhydride $$ Dry ice $$ CO2 $$ Anhydride carbonique $$ Carbonic



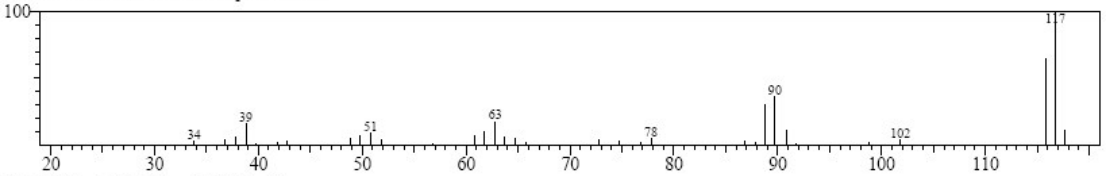
<< Target >>
Line#:2 R.Time:9.290(Scan#:1619) MassPeaks:48
RawMode:Averaged 9.285-9.295(1618-1620) BasePeak:102.75(46004)
BG Mode:Calc. from Peak Group 1 - Event 1



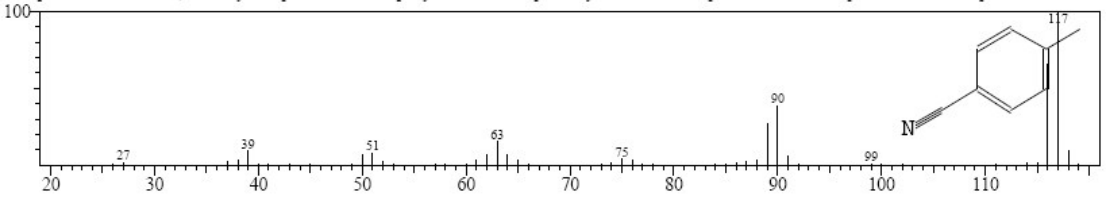
Hit#:1 Entry:2211 Library:NIST11s.lib
SI:92 Formula:C7H5N CAS:100-47-0 MolWeight:103 RetIndex:958
CompName:Benzonitrile $$ Benzene, cyano- $$ Benzoic acid nitrile $$ Cyanobenzene $$ Phenyl cyanide $$ Benzenenitrile $$ Fenylkyanid $$ UN 2224 $$



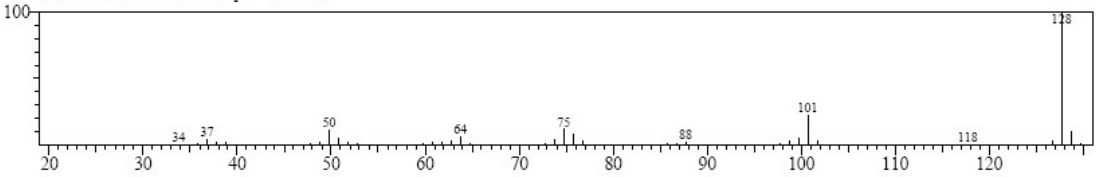
<< Target >>
Line#:3 R.Time:11.865(Scan#:2134) MassPeaks:35
RawMode:Averaged 11.860-11.870(2133-2135) BasePeak:116.75(6095)
BG Mode:Calc. from Peak Group 1 - Event 1



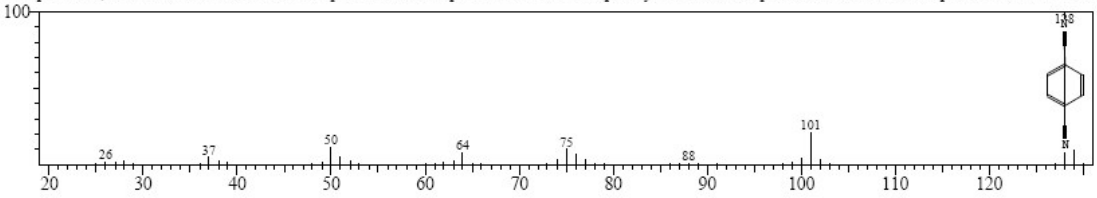
Hit#:1 Entry:3776 Library:NIST11s.lib
SI:94 Formula:C8H7N CAS:104-85-8 MolWeight:117 RetIndex:1071
CompName:Benzonitrile, 4-methyl- $$ p-Tolunitrile $$ p-Cyanotoluene $$ p-Methylbenzonitrile $$ p-Toluenenitrile $$ p-Toluic nitrile $$ p-Toluonitrile $$



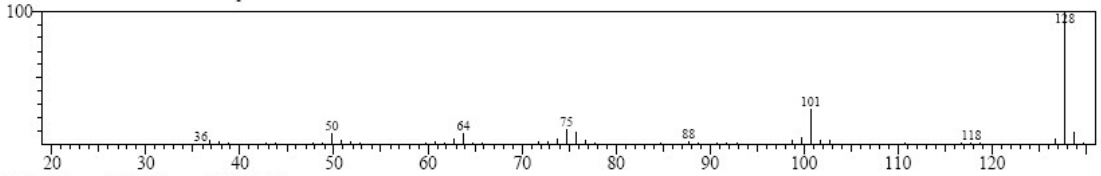
<< Target >>
Line#:4 R.Time:13.100(Scan#:2381) MassPeaks:59
RawMode:Averaged 13.095-13.105(2380-2382) BasePeak:127.70(560661)
BG Mode:Calc. from Peak Group 1 - Event 1



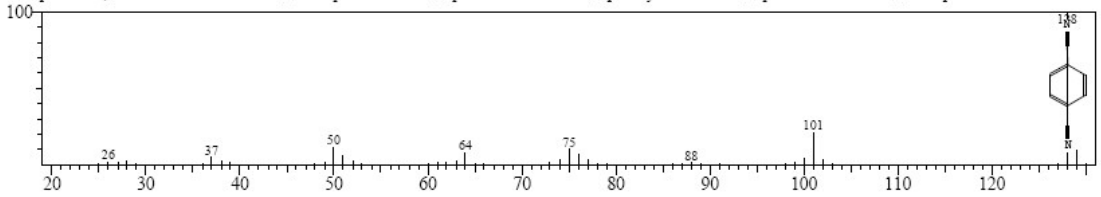
Hit#:1 Entry:5143 Library:NIST11s.lib
SI:98 Formula:C8H4N2 CAS:623-26-7 MolWeight:128 RetIndex:1236
CompName:1,4-Benzenedicarbonitrile $$ Terephthalonitrile $$ p-Benzenedinitrile $$ p-Dicyanobenzene $$ p-Phthalodinitrile $$ Terephthalic acid dinitrile



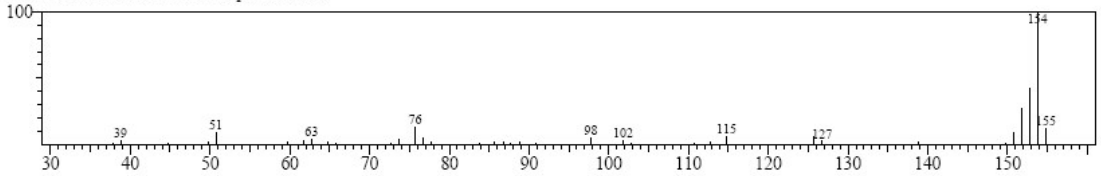
<< Target >>
Line#:5 R.Time:13.250(Scan#:2411) MassPeaks:54
RawMode:Averaged 13.245-13.255(2410-2412) BasePeak:127.75(28829)
BG Mode:Calc. from Peak Group 1 - Event 1



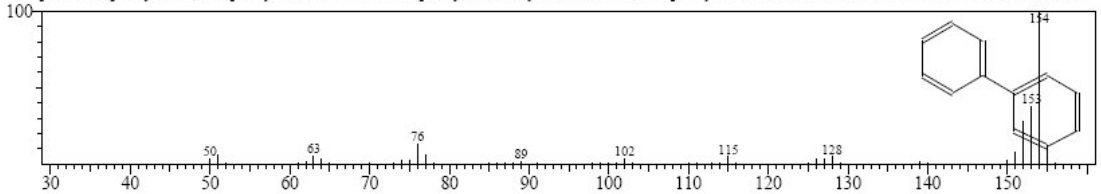
Hit#:1 Entry:5143 Library:NIST11s.lib
SI:95 Formula:C8H4N2 CAS:623-26-7 MolWeight:128 RetIndex:1236
CompName:1,4-Benzenedicarbonitrile $$ Terephthalonitrile $$ p-Benzenedinitrile $$ p-Dicyanobenzene $$ p-Phthalodinitrile $$ Terephthalic acid dinitrile



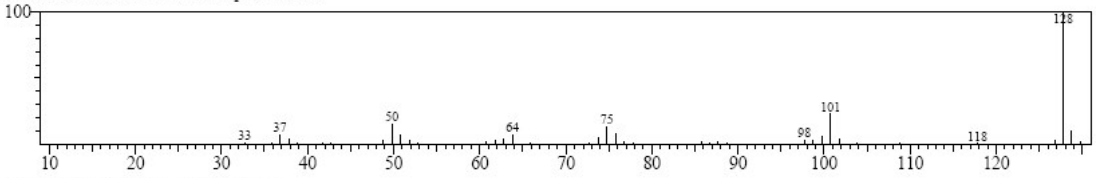
<< Target >>
Line#:6 R.Time:13.520(Scan#:2465) MassPeaks:41
RawMode:Averaged 13.515-13.525(2464-2466) BasePeak:153.75(9101)
BG Mode:Calc. from Peak Group 1 - Event 1



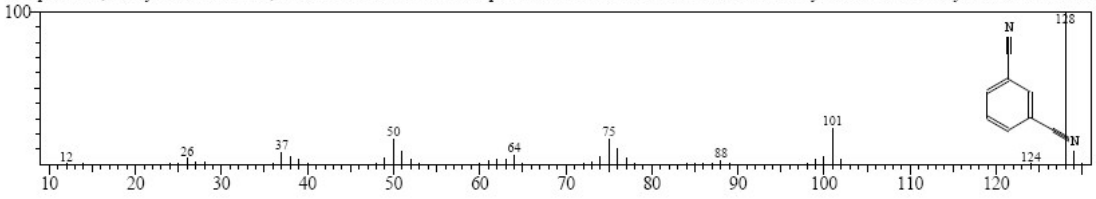
Hit#:1 Entry:10064 Library:NIST11s.lib
SI:93 Formula:C12H10 CAS:92-52-4 MolWeight:154 RetIndex:1367
CompName:Biphenyl $$ 1,1'-Biphenyl $$ Bibenzene $$ Diphenyl $$ Phenylbenzene $$ 1,1'-Diphenyl $$ Lemonene $$ Phenador-X $$ PhPh $$ Xenene $$



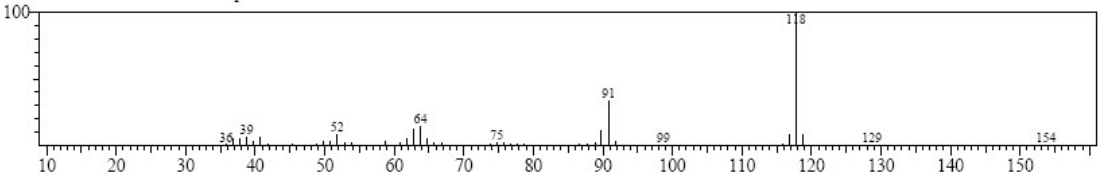
<< Target >>
Line#:7 R.Time:13.630(Scan#:2487) MassPeaks:42
RawMode:Averaged 13.625-13.635(2486-2488) BasePeak:127.75(10643)
BG Mode:Calc. from Peak Group 1 - Event 1



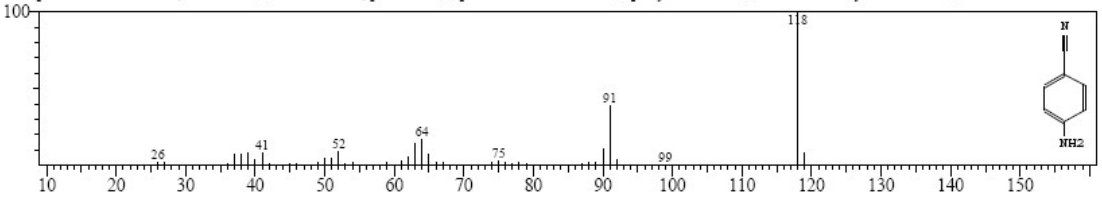
Hit#:1 Entry:7274 Library:NIST11.lib
SI:95 Formula:C8H4N2 CAS:626-17-5 MolWeight:128 RetIndex:1236
CompName:1,3-Dicyanobenzene $$ 1,3-Benzenedicarbonitrile $$ Isophthalonitrile $$ m-Benzenedinitrile $$ m-Dicyanobenzene $$ 3-Cyanobenzonitrile $$



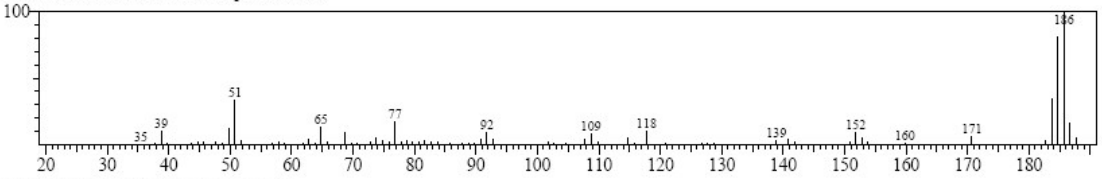
<< Target >>
Line#:8 R.Time:14.870(Scan#:2735) MassPeaks:58
RawMode:Averaged 14.865-14.875(2734-2736) BasePeak:117.75(113163)
BG Mode:Calc. from Peak Group 1 - Event 1



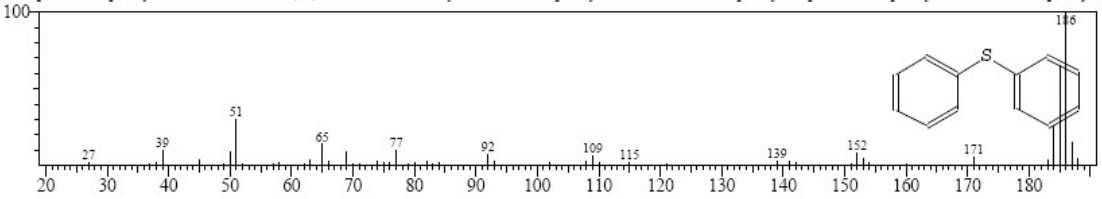
Hit#:3 Entry:3904 Library:NIST11s.lib
SI:95 Formula:C7H6N2 CAS:873-74-5 MolWeight:118 RetIndex:1270
CompName:Benzonitrile, 4-amino- $$ Benzonitrile, p-amino- $$ p-Aminobenzonitrile $$ p-Cyanoaniline $$ 1-Amino-4-cyanobenzene $$ 4-Aminobenzonitr



<< Target >>
Line#:9 R.Time:15.450(Scan#:2851) MassPeaks:87
RawMode:Averaged 15.445-15.455(2850-2852) BasePeak:185.70(19981)
BG Mode:Calc. from Peak Group 1 - Event 1



Hit#:1 Entry:15449 Library:NIST11s.lib
SI:93 Formula:C12H10S CAS:139-66-2 MolWeight:186 RetIndex:1618
CompName:Diphenyl sulfide $$ Benzene, 1,1'-thiobis- $$ Phenyl sulfide $$ Diphenyl monosulfide $$ Diphenyl sulphide $$ Diphenyl thioether $$ Diphenyls



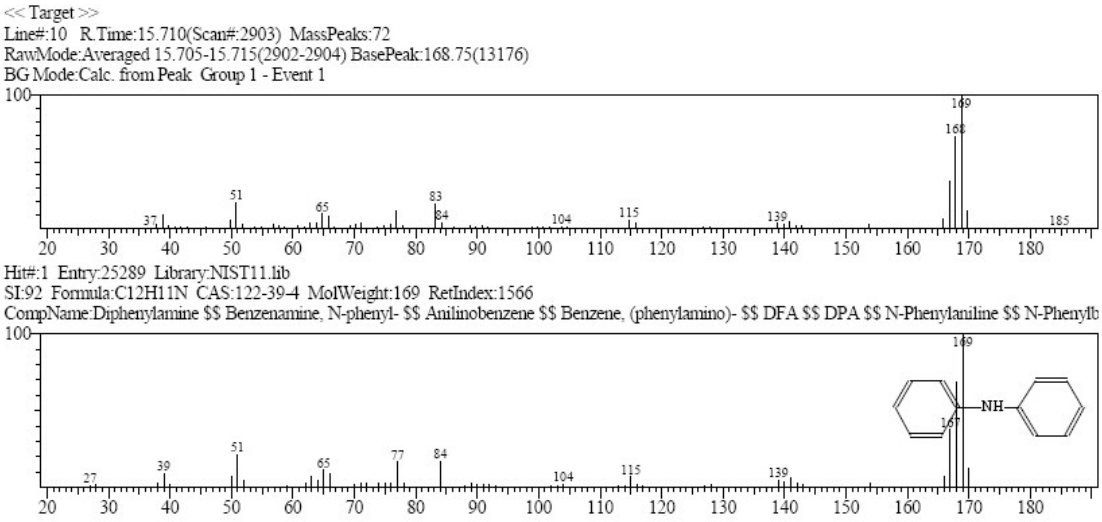


Figure S8. The mass spectra of Pyrolysis product for pho-POD-15 fiber at 550 °C

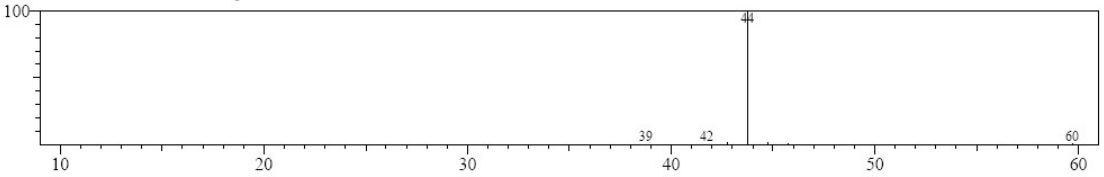
Library

<< Target >>

Line#:1 R.Time:1.795(Scan#:120) MassPeaks:15

RawMode:Averaged 1.790-1.800(119-121) BasePeak:43.75(2293484)

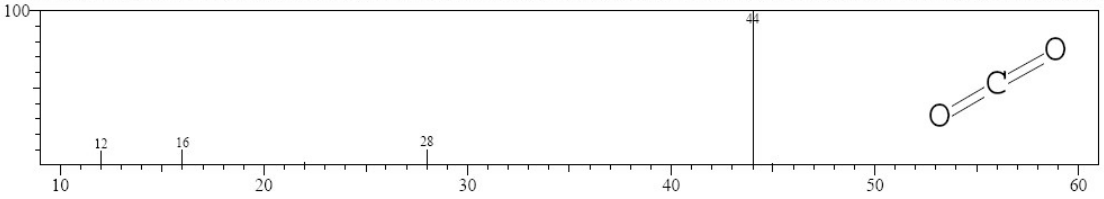
BG Mode:Calc. from Peak Group 1 - Event 1



Hit#:2 Entry:42 Library:NIST11.lib

SI:99 Formula:CO2 CAS:124-38-9 MolWeight:44 RetIndex:0

CompName:Carbon dioxide $$ Carbon oxide (CO2) $$ Carbonic acid, gas $$ Carbonic anhydride $$ Dry ice $$ CO2 $$ Anhydride carbonique $$ Carbonic

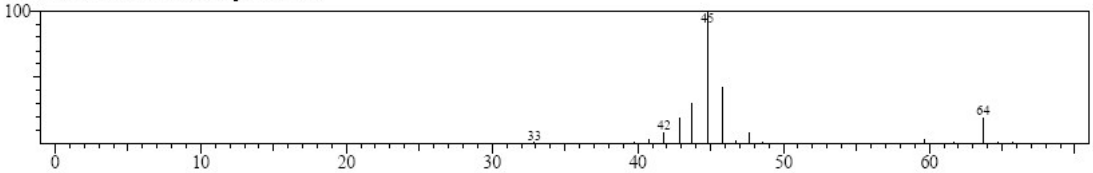


<< Target >>

Line#:2 R.Time:1.900(Scan#:141) MassPeaks:18

RawMode:Averaged 1.895-1.905(140-142) BasePeak:44.80(39571)

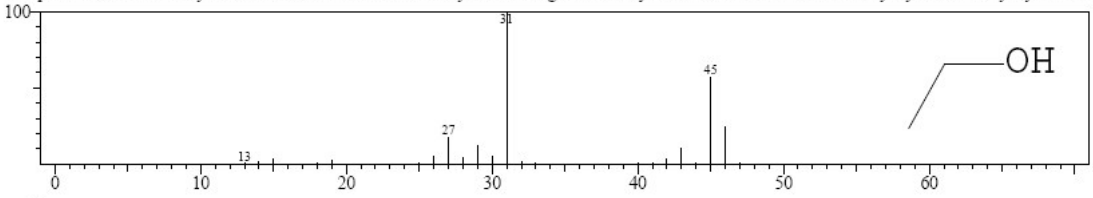
BG Mode:Calc. from Peak Group 1 - Event 1



Hit#:1 Entry:48 Library:NIST11s.lib

SI:88 Formula:C2H6O CAS:64-17-5 MolWeight:46 RetIndex:463

CompName:Ethanol $$ Ethyl alcohol $$ Alcohol $$ Alcohol anhydrous $$ Algrain $$ Anhydrol $$ Denatured ethanol $$ Ethyl hydrate $$ Ethyl hydroxide

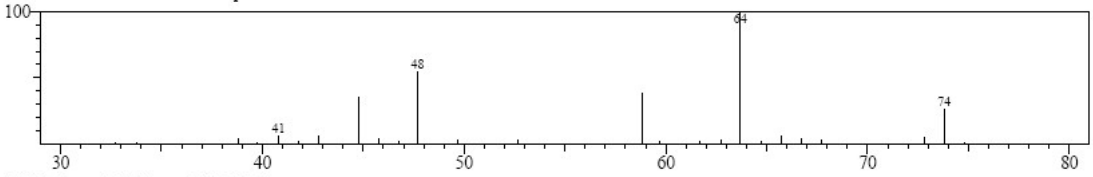


<< Target >>

Line#:3 R.Time:1.970(Scan#:155) MassPeaks:25

RawMode:Averaged 1.965-1.975(154-156) BasePeak:63.70(12018)

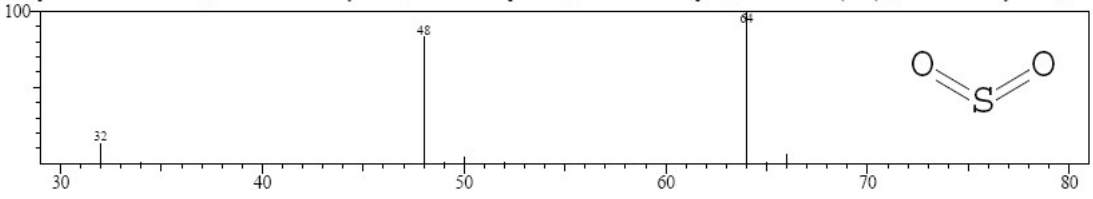
BG Mode:Calc. from Peak Group 1 - Event 1



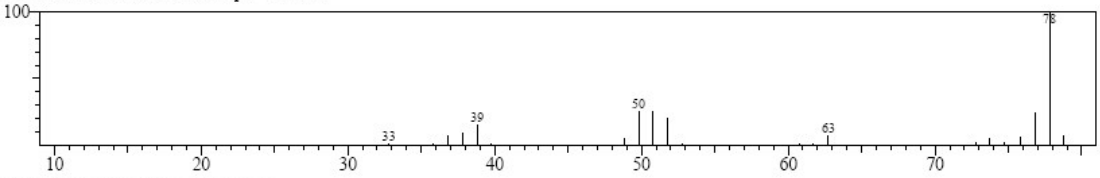
Hit#:9 Entry:186 Library:NIST11s.lib

SI:69 Formula:O2S CAS:7446-09-5 MolWeight:64 RetIndex:0

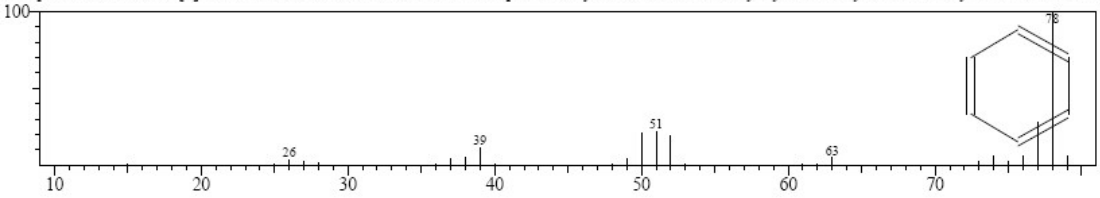
CompName:Sulfur dioxide $$ Sulfurous acid anhydride $$ Fermenicide powder $$ Fermenticide liquid $$ Sulfur oxide (SO2) $$ Sulfurous anhydride $$ Su



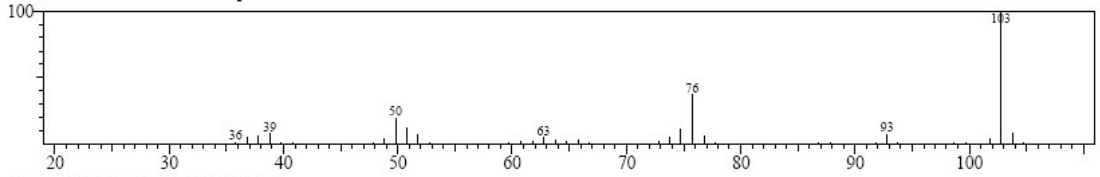
<< Target >>
Line#:4 R.Time:3.370(Scan#:435) MassPeaks:21
RawMode:Averaged 3.365-3.375(434-436) BasePeak:77.80(24643)
BG Mode:Calc. from Peak Group 1 - Event 1



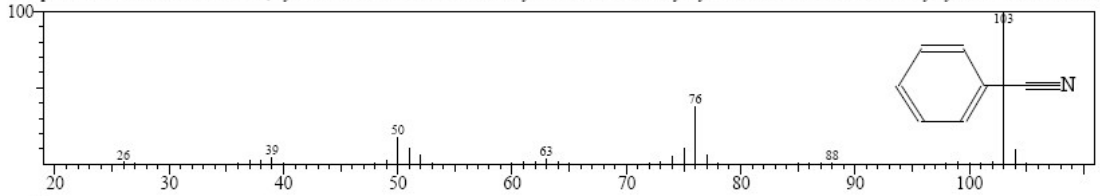
Hit#:1 Entry:478 Library:NIST11.lib
SI:97 Formula:C6H6 CAS:71-43-2 MolWeight:78 RetIndex:680
CompName:Benzene $$ [6]Annulene $$ Benzol $$ Benzole $$ Coal naphtha $$ Cyclohexatriene $$ Phenyl hydride $$ Pyrobenzol $$ Pyrobenzole $$ Benz



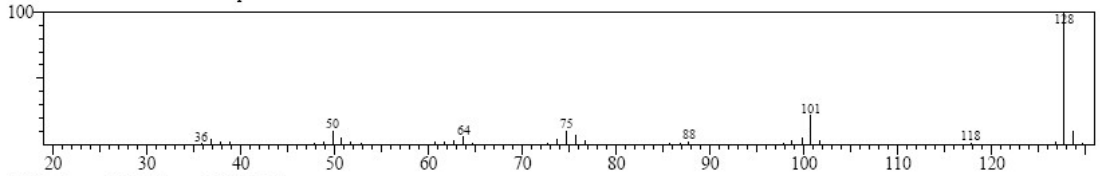
<< Target >>
Line#:5 R.Time:8.930(Scan#:1547) MassPeaks:48
RawMode:Averaged 8.925-8.935(1546-1548) BasePeak:102.75(153679)
BG Mode:Calc. from Peak Group 1 - Event 1



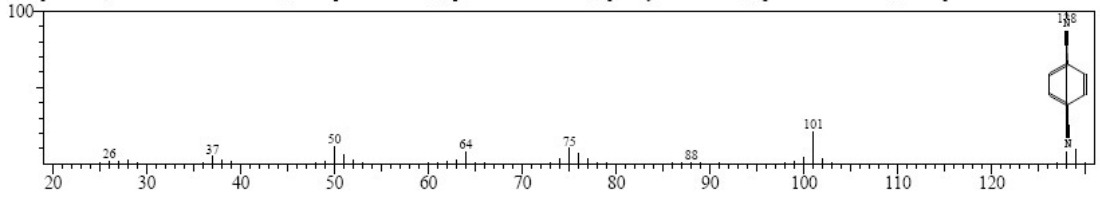
Hit#:1 Entry:2422 Library:NIST11.lib
SI:95 Formula:C7H5N CAS:100-47-0 MolWeight:103 RetIndex:958
CompName:Benzonitrile $$ Benzene, cyano- $$ Benzoic acid nitrile $$ Cyanobenzene $$ Phenyl cyanide $$ Benzenenitrile $$ Fenylkyanid $$ UN 2224 $$



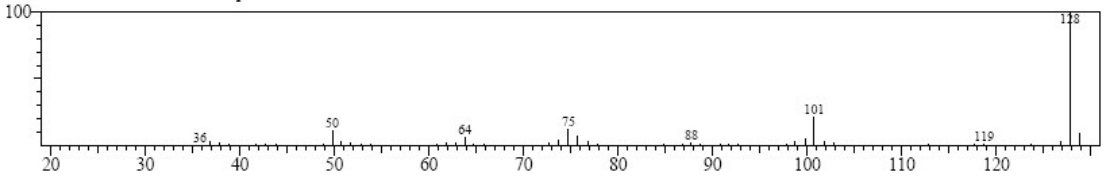
<< Target >>
Line#:6 R.Time:13.120(Scan#:2385) MassPeaks:67
RawMode:Averaged 13.115-13.125(2384-2386) BasePeak:127.70(710599)
BG Mode:Calc. from Peak Group 1 - Event 1



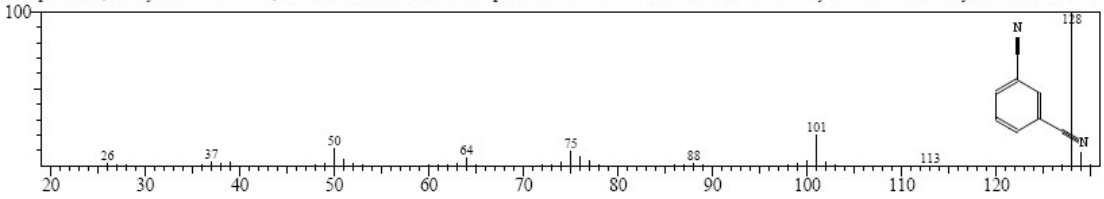
Hit#:2 Entry:5143 Library:NIST11s.lib
SI:98 Formula:C8H4N2 CAS:623-26-7 MolWeight:128 RetIndex:1236
CompName:1,4-Benzenedicarbonitrile $$ Terephthalonitrile $$ p-Benzenedinitrile $$ p-Dicyanobenzene $$ p-Phthalodinitrile $$ Terephthalic acid dinitrile



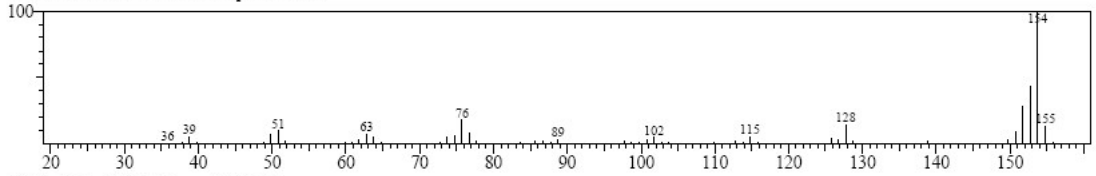
<< Target >>
Line#:7 R.Time:13.335(Scan#:2428) MassPeaks:53
RawMode:Averaged 13.330-13.340(2427-2429) BasePeak:127.75(19133)
BG Mode:Calc. from Peak Group 1 - Event 1



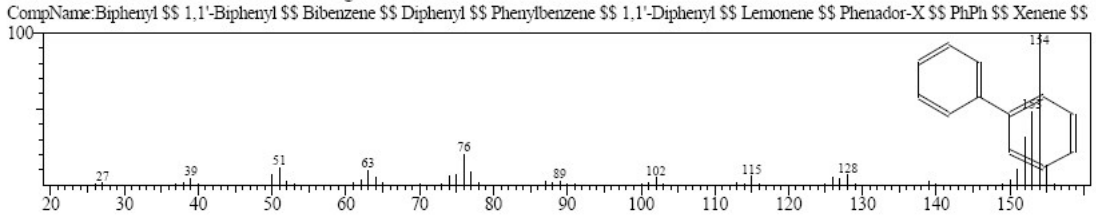
Hit#:1 Entry:5145 Library:NIST11s.lib
SI:95 Formula:C8H4N2 CAS:626-17-5 MolWeight:128 RetIndex:1236
CompName:1,3-Dicyanobenzene $$ 1,3-Benzenedicarbonitrile $$ Isophthalonitrile $$ m-Benzenedinitrile $$ m-Dicyanobenzene $$ 3-Cyanobenzonitrile $$



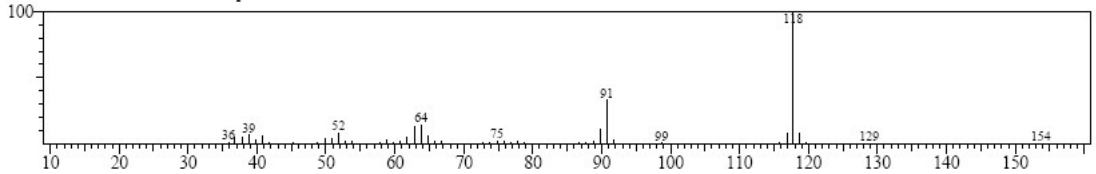
<< Target >>
Line#:8 R.Time:13.485(Scan#:2458) MassPeaks:73
RawMode:Averaged 13.480-13.490(2457-2459) BasePeak:153.75(50259)
BG Mode:Calc. from Peak Group 1 - Event 1



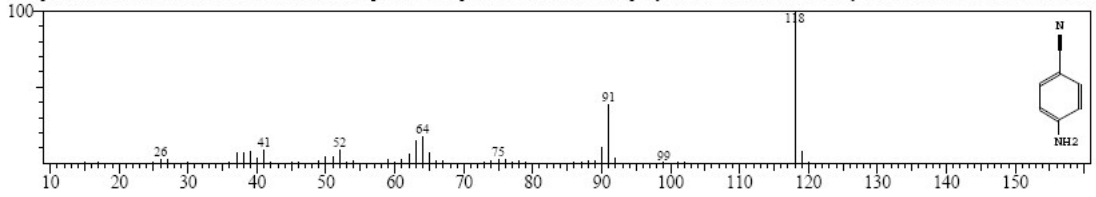
Hit#:1 Entry:17755 Library:NIST11.lib
SI:96 Formula:C12H10 CAS:92-52-4 MolWeight:154 RetIndex:1367
CompName:Biphenyl $$ 1,1'-Biphenyl $$ Bibenzene $$ Diphenyl $$ Phenylbenzene $$ 1,1'-Diphenyl $$ Lemonene $$ Phenador-X $$ PhPh $$ Xenene $$



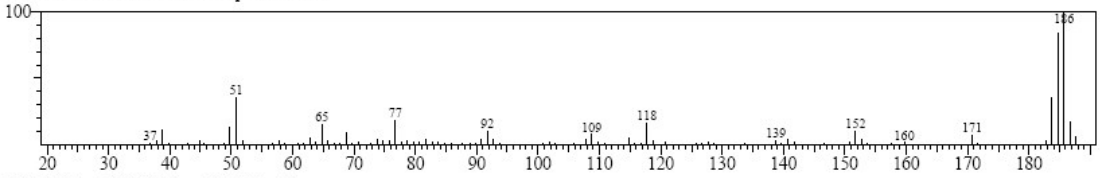
<< Target >>
Line#:9 R.Time:14.905(Scan#:2742) MassPeaks:58
RawMode:Averaged 14.900-14.910(2741-2743) BasePeak:117.75(122244)
BG Mode:Calc. from Peak Group 1 - Event 1



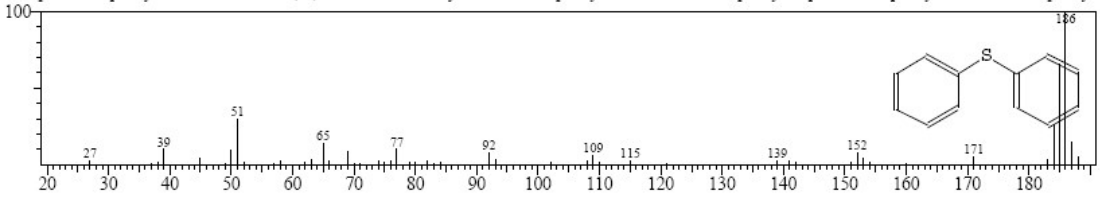
Hit#:1 Entry:3904 Library:NIST11s.lib
SI:95 Formula:C7H6N2 CAS:873-74-5 MolWeight:118 RetIndex:1270
CompName:Benzonitrile, 4-amino- $$ Benzonitrile, p-amino- $$ p-Aminobenzonitrile $$ p-Cyanoaniline $$ 1-Amino-4-cyanobenzene $$ 4-Aminobenzonitı



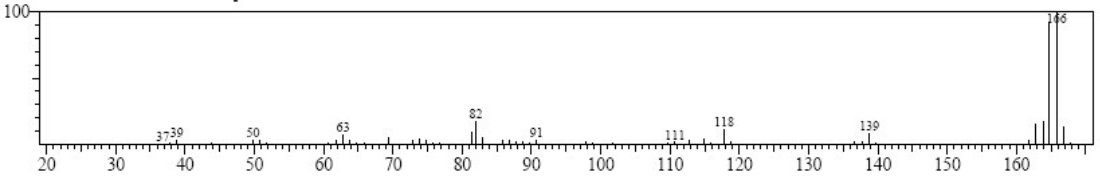
<< Target >>
Line#:10 R.Time:15.450(Scan#:2851) MassPeaks:90
RawMode:Averaged 15.445-15.455(2850-2852) BasePeak:185.70(20733)
BG Mode:Calc. from Peak Group 1 - Event 1



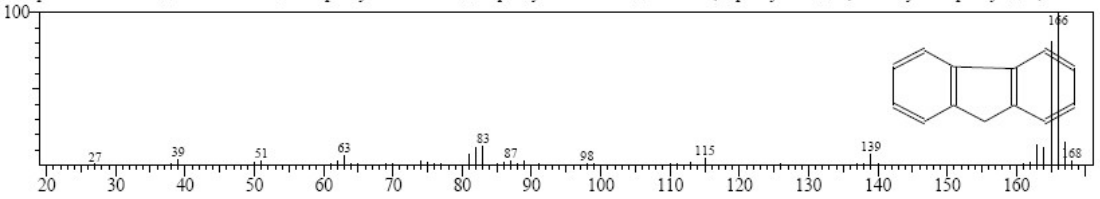
Hit#:1 Entry:15449 Library:NIST11s.lib
SI:92 Formula:C12H10S CAS:139-66-2 MolWeight:186 RetIndex:1618
CompName:Diphenyl sulfide $$ Benzene, 1,1'-thiobis- $$ Phenyl sulfide $$ Diphenyl monosulfide $$ Diphenyl sulphide $$ Diphenyl thioether $$ Diphenyl



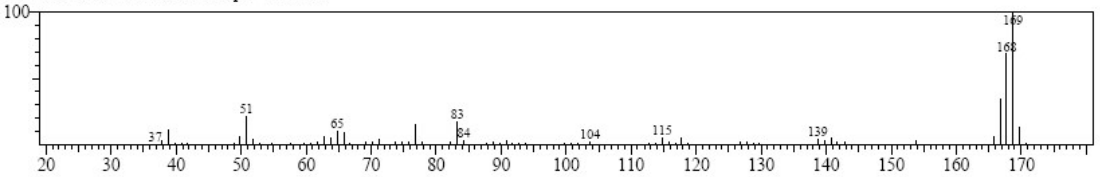
<< Target >>
Line#:11 R.Time:15.535(Scan#:2868) MassPeaks:72
RawMode:Averaged 15.530-15.540(2867-2869) BasePeak:165.80(18366)
BG Mode:Calc. from Peak Group 1 - Event 1



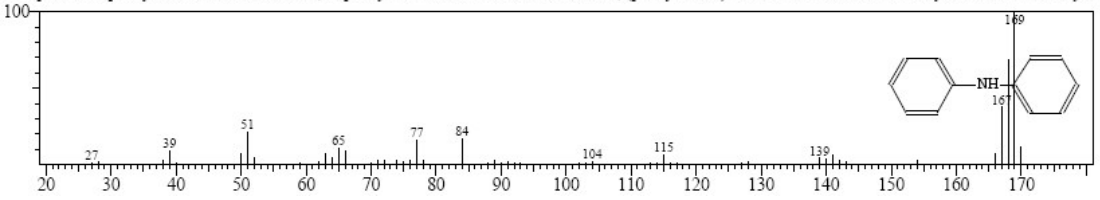
Hit#:1 Entry:12125 Library:NIST11s.lib
SI:92 Formula:C13H10 CAS:86-73-7 MolWeight:166 RetIndex:1494
CompName:Fluorene $$ 9H-Fluorene $$ o-Biphenylenemethane $$ Diphenylenemethane $$ Methane, diphenylene- $$ 2,2'-Methylenebiphenyl $$ 2,3-Benz



<< Target >>
Line#:12 R.Time:15.705(Scan#:2902) MassPeaks:76
RawMode:Averaged 15.700-15.710(2901-2903) BasePeak:168.75(21717)
BG Mode:Calc. from Peak Group 1 - Event 1



Hit#:1 Entry:25289 Library:NIST11.lib
SI:92 Formula:C12H11N CAS:122-39-4 MolWeight:169 RetIndex:1566
CompName:Diphenylamine $$ Benzenamine, N-phenyl- $$ Anilinobenzene $$ Benzene, (phenylamino)- $$ DFA $$ DPA $$ N-Phenylaniline $$ N-Phenylb



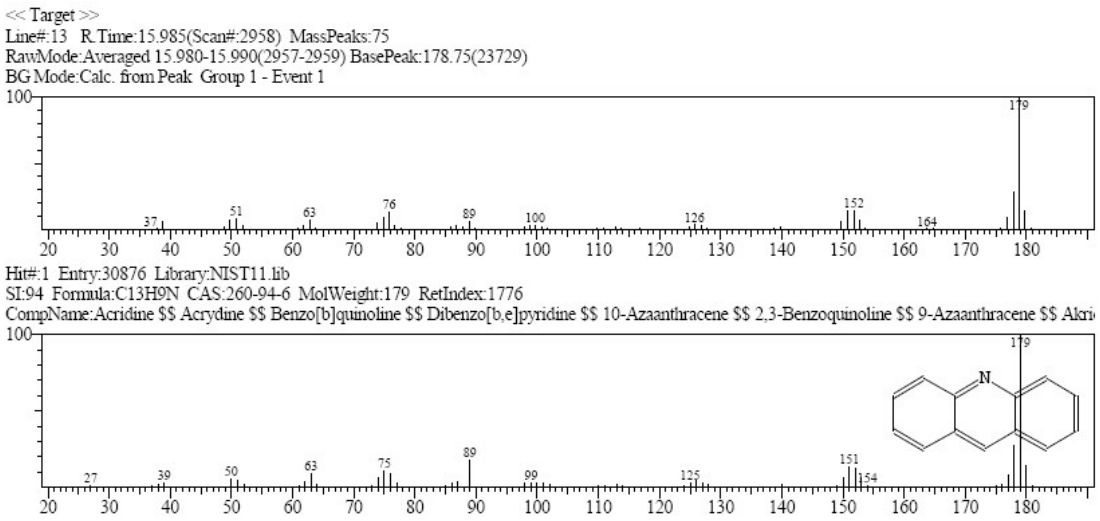


Figure S9. The mass spectra of Pyrolysis product for pho-POD-15 fiber at 600 °