

## Quantitative Analysis Sample Based Report

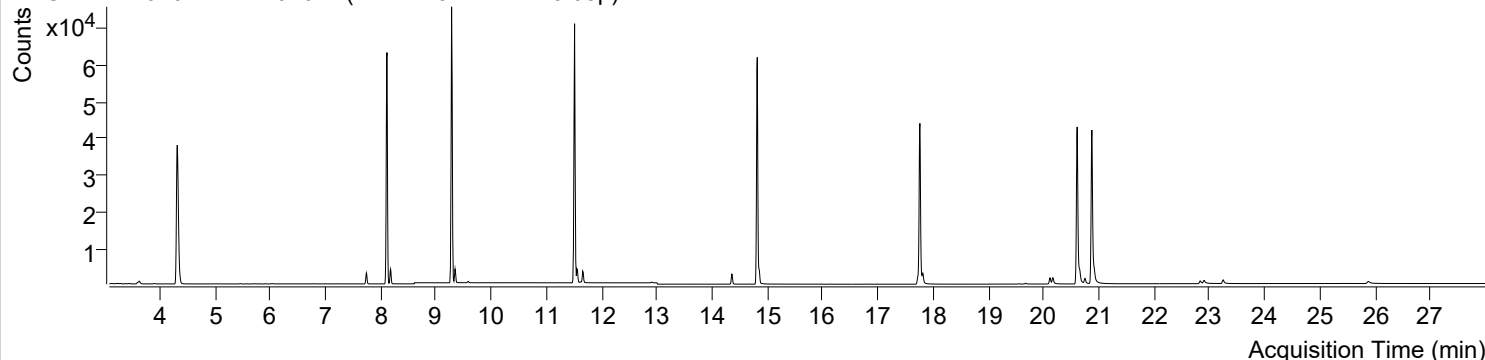


Trusted Answers

Batch Data Path File Name	D:\MassHunter\GCMS\1\data\PAHs\220407-PAHs-Sample\QuantResults\220407-PAHs-Quant.batch.bin		
Analysis Time Stamp	2022-04-13 오후 5:40:30	Analyst Name	DESKTOP-86B7UPG\5975MS
Report Generation Time	2022-04-13 오후 5:40:41	Report Generator Name	DESKTOP-86B7UPG\5975MS
Calibration Last Update	2022-04-13 오후 5:38:35	Batch State	Processed
Analyze Quant Version	10.2	Report Quant Version	10.2
Acq. Date-Time	2022-04-08 오전 12:21:07	Data File	220407-PAHs-026.D
Type	Sample	Name	PAHs-19mix-STD-0.05p
Dil.	1	Acq. Method File	PAHs 19mix-Method

## Sample Chromatogram

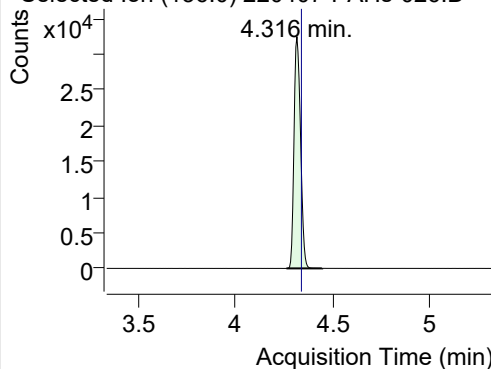
+ TIC SIM 220407-PAHs-026.D (PAHs-19mix-STD-0.05p)



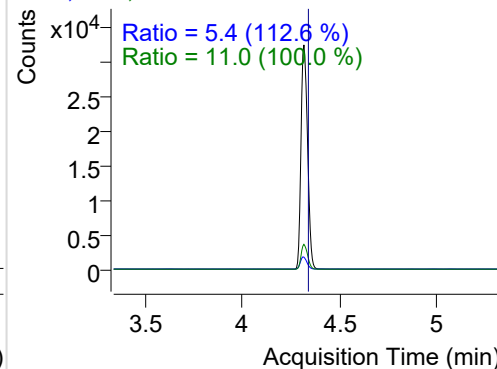
Name	RT	Transition	Resp.	Height	Final Conc. Units	Ratio
IS-D8-Naphthalene	4.316	136.0	75716	32424.48	ND µg/mL	11.0
Naphthalene	4.348	128.0	4510	1966.02	ND µg/mL	14.9
Acenaphthylene	7.739	152.0	3435	2237.50	ND µg/mL	19.7
IS-D10-Acenaphthene	8.112	164.0	47129	31095.49	ND µg/mL	91.3
Acenaphthene	8.177	154.0	2244	1495.64	ND µg/mL	103.3
LSS-D10-Fluorene	9.281	176.0	53007	34882.99	ND µg/mL	87.6
Fluorene	9.344	166.0	2689	1774.06	ND µg/mL	90.4
IS-D10-Phenanthrene	11.508	188.0	82185	58003.79	ND µg/mL	15.0
Phenanthrene	11.550	178.0	3938	2300.00	ND µg/mL	17.6
Anthracene	11.655	178.0	3470	2049.00	ND µg/mL	17.2
Fluoranthene	14.354	202.0	3473	2111.21	ND µg/mL	17.4
LSS-D10-Pyrene	14.814	212.0	71969	46851.26	ND µg/mL	16.9
Pyrene	14.847	202.0	4233	2551.27	ND µg/mL	21.1
Benz(a)anthracene	17.720	228.0	2554	1333.90	ND µg/mL	23.7
IS-D12-Chrysene	17.758	240.0	59759	33394.97	ND µg/mL	19.0
Chrysene	17.812	228.0	3069	1629.09	ND µg/mL	27.0
Benzo(b)fluoranthene	20.111	252.0	2305	1221.34	ND µg/mL	21.5
Benzo(k)fluoranthene	20.166	252.0	2741	1217.56	ND µg/mL	22.9
SS-D12-Benzo(e)pyrene	20.605	264.0	56387	29396.54	ND µg/mL	23.3
Benzo(e)pyrene	20.648	252.0	3248	1640.86	ND µg/mL	16.7
Benzo(a)pyrene	20.746	252.0	1888	930.18	ND µg/mL	20.2
IS-D12-Perylene	20.871	264.0	56389	28995.50	ND µg/mL	21.7
Perylene	20.914	252.0	2711	1338.52	ND µg/mL	23.1
Indeno(1,2,3-c,d)pyrene	22.829	276.0	1409	581.57	ND µg/mL	17.5
Dibenz(a,h)anthracene	22.906	278.0	1375	460.00	ND µg/mL	25.1
Benzo(g,h,i)perylene	23.249	276.0	2111	810.81	ND µg/mL	19.3
Coronene	25.876	300.0	1625	359.46	ND µg/mL	27.2

## IS-D8-Naphthalene

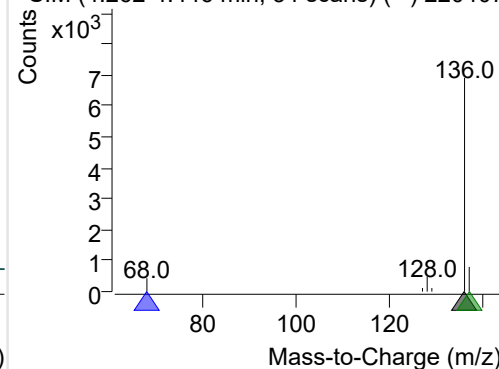
+ Selected Ion (136.0) 220407-PAHs-026.D



136.0, 68.0, 137.0

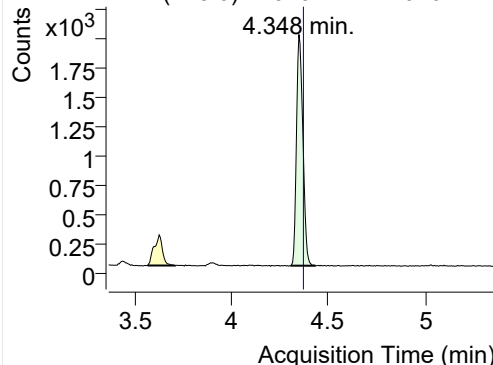


+ SIM (4.262-4.446 min, 34 scans) (\*\*) 220407

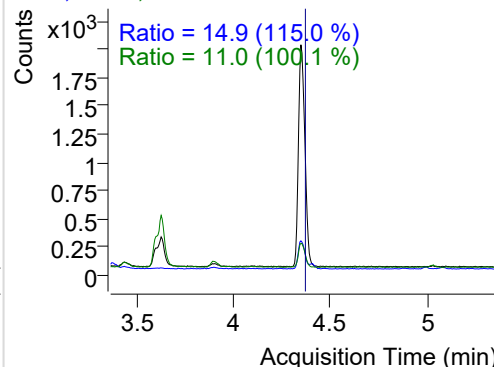


**Naphthalene**

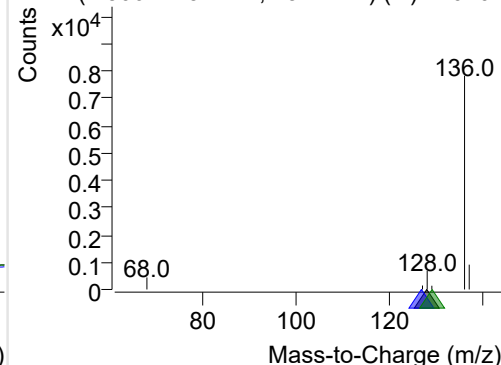
+ Selected Ion (128.0) 220407-PAHs-026.D



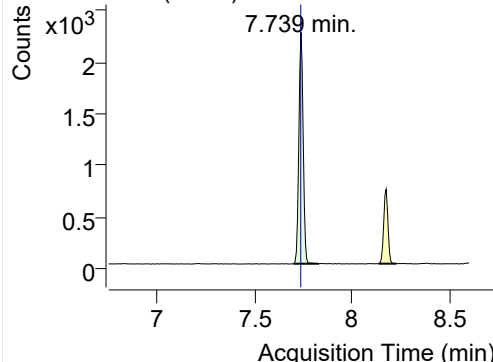
128.0, 127.0, 129.0



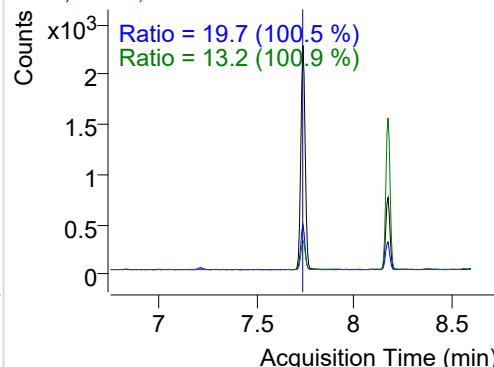
+ SIM (4.306-4.434 min, 23 scans) (\*\*) 220407

**Acenaphthylene**

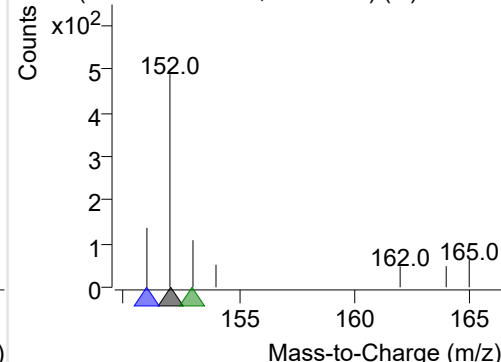
+ Selected Ion (152.0) 220407-PAHs-026.D



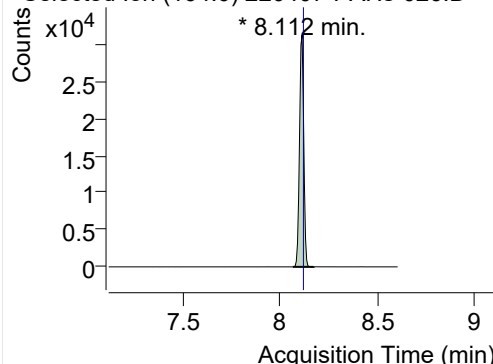
152.0, 151.0, 153.0



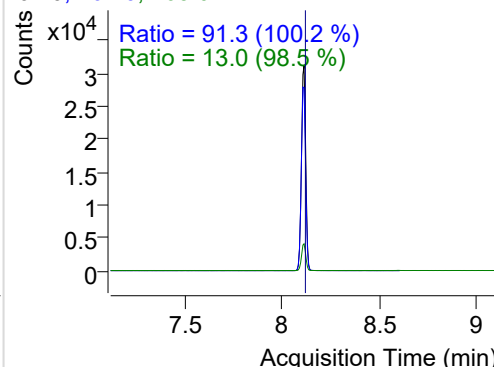
+ SIM (7.700-7.828 min, 22 scans) (\*\*) 220407

**IS-D10-Acenaphthene**

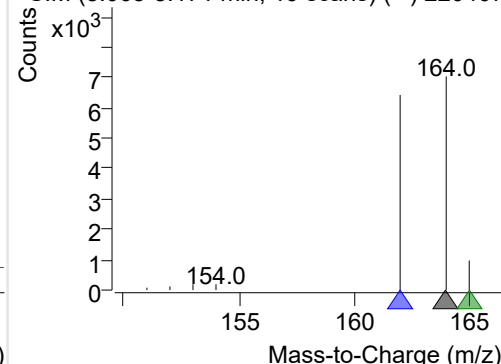
+ Selected Ion (164.0) 220407-PAHs-026.D



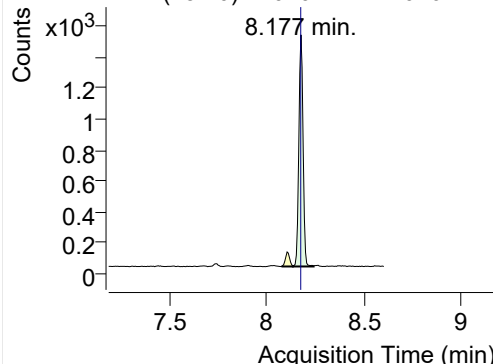
164.0, 162.0, 165.0



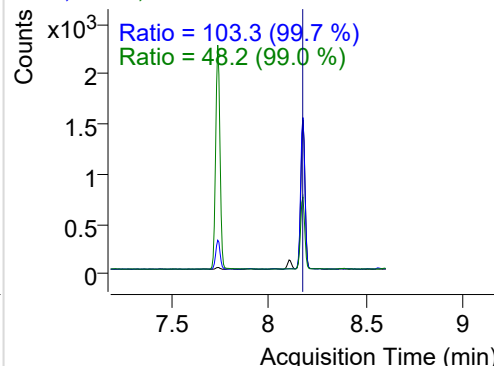
+ SIM (8.065-8.171 min, 19 scans) (\*\*) 220407

**Acenaphthene**

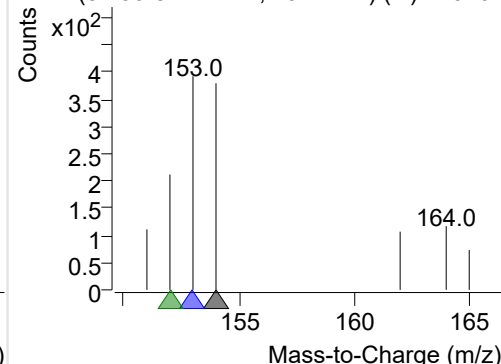
+ Selected Ion (154.0) 220407-PAHs-026.D



154.0, 153.0, 152.0

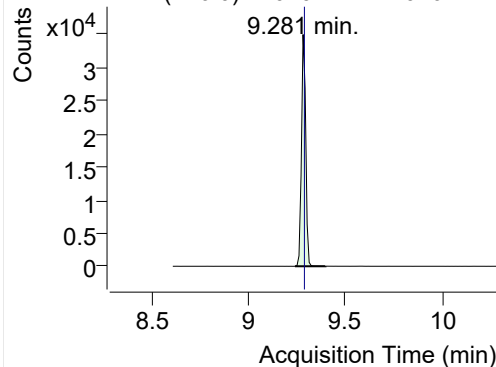


+ SIM (8.136-8.242 min, 19 scans) (\*\*) 220407

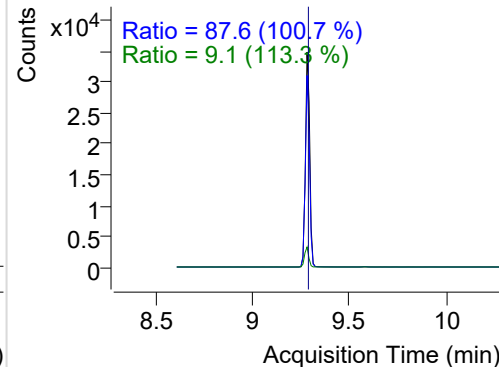


## LSS-D10-Fluorene

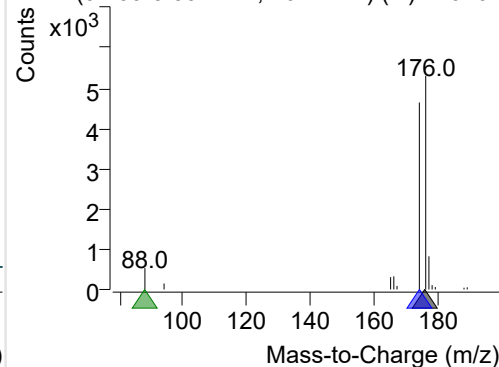
+ Selected Ion (176.0) 220407-PAHs-026.D



176.0, 174.0, 88.0

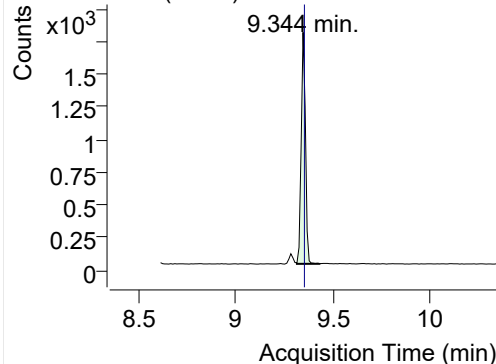


+ SIM (9.239-9.397 min, 16 scans) (\*\*) 220407

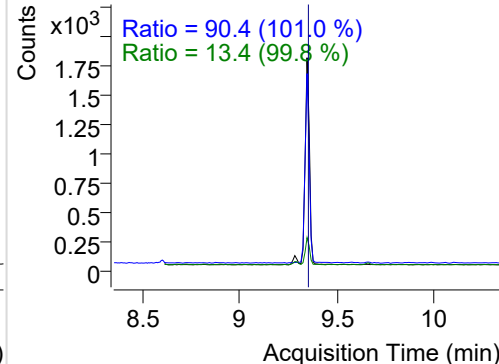


## Fluorene

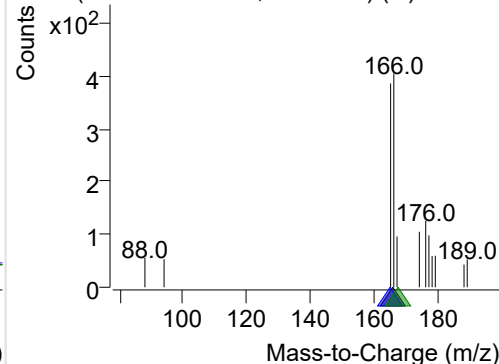
+ Selected Ion (166.0) 220407-PAHs-026.D



166.0, 165.0, 167.0

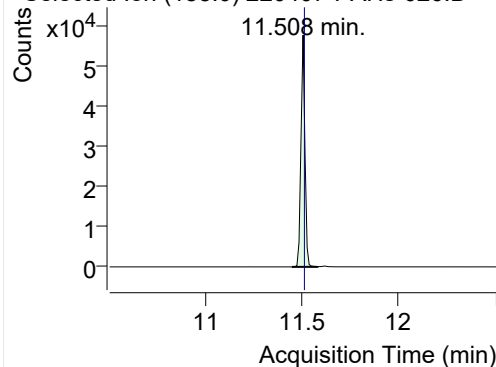


+ SIM (9.313-9.428 min, 12 scans) (\*\*) 220407

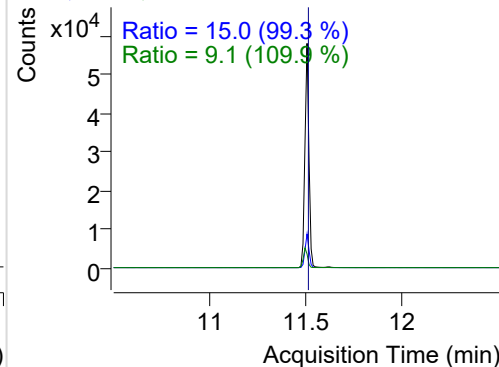


## IS-D10-Phenanthrene

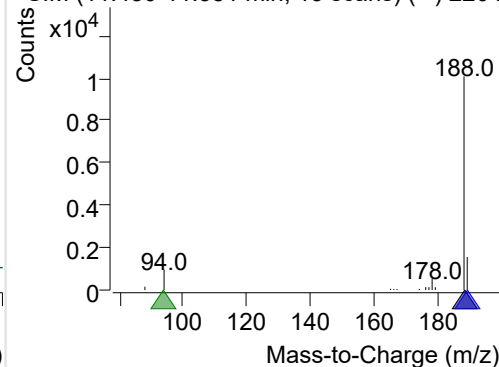
+ Selected Ion (188.0) 220407-PAHs-026.D



188.0, 189.0, 94.0

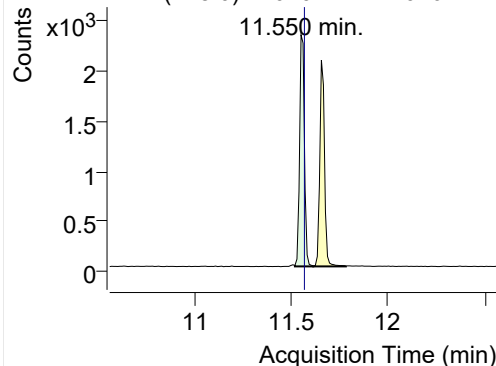


+ SIM (11.450-11.581 min, 13 scans) (\*\*) 2204

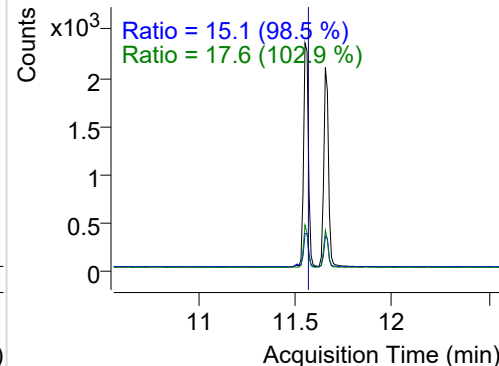


## Phenanthrene

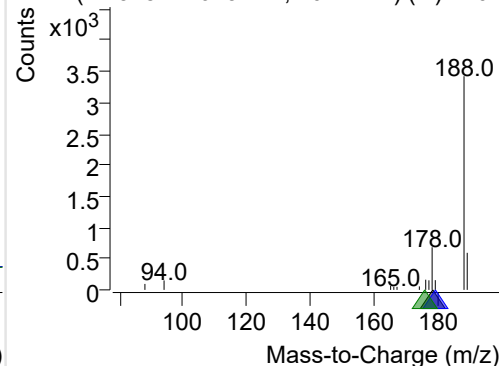
+ Selected Ion (178.0) 220407-PAHs-026.D



178.0, 179.0, 176.0

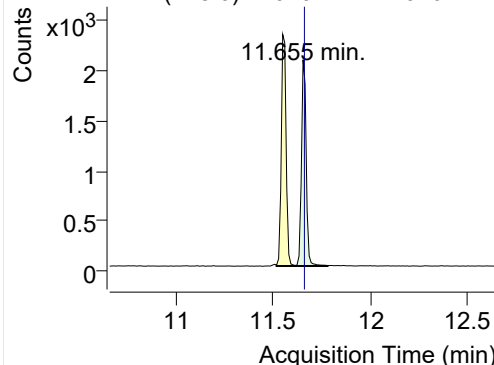


+ SIM (11.518-11.613 min, 10 scans) (\*\*) 2204

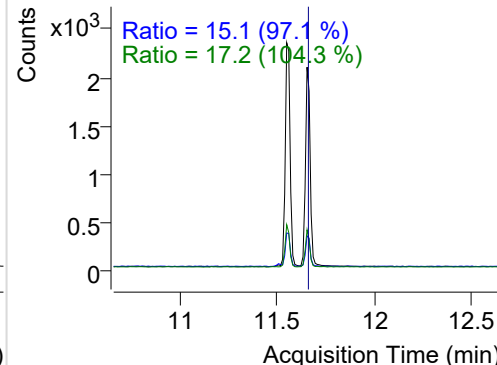


**Anthracene**

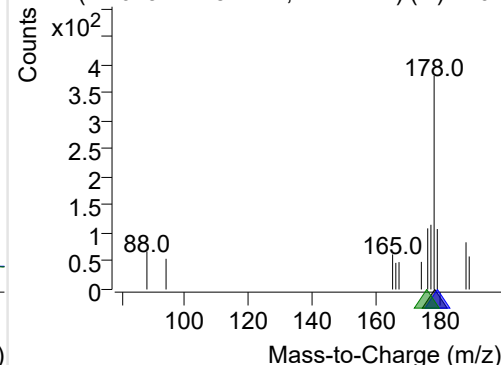
+ Selected Ion (178.0) 220407-PAHs-026.D



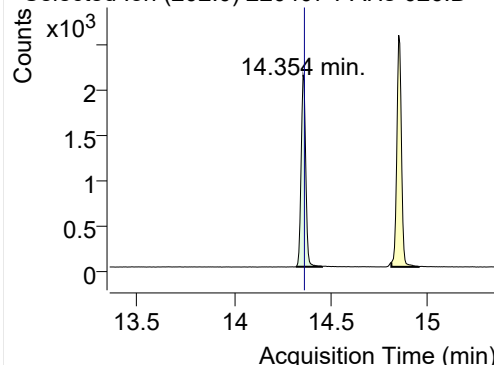
178.0, 179.0, 176.0



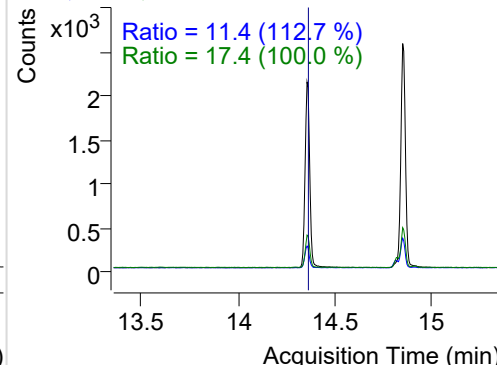
+ SIM (11.613-11.781 min, 17 scans) (\*\*) 2204

**Fluoranthene**

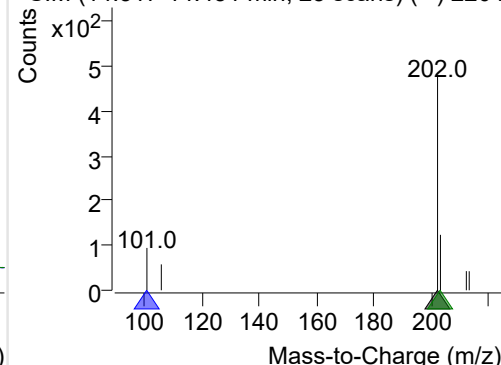
+ Selected Ion (202.0) 220407-PAHs-026.D



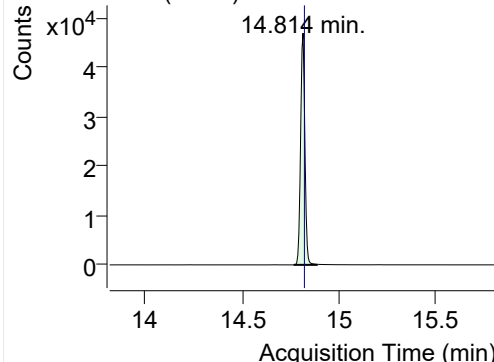
202.0, 101.0, 203.0



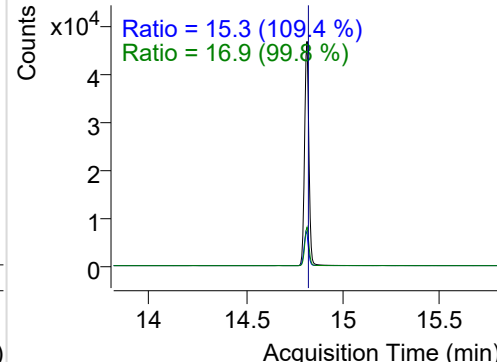
+ SIM (14.317-14.451 min, 25 scans) (\*\*) 2204

**LSS-D10-Pyrene**

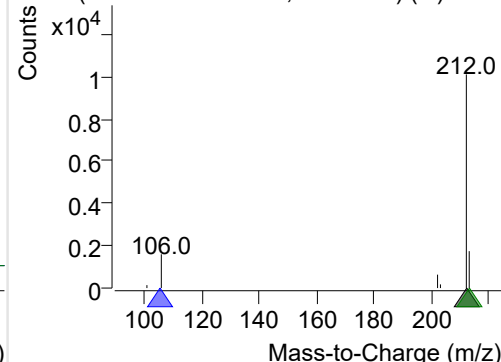
+ Selected Ion (212.0) 220407-PAHs-026.D



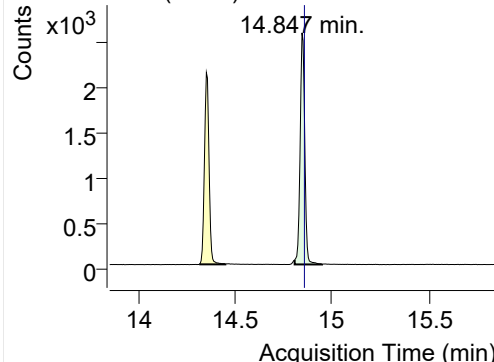
212.0, 106.0, 213.0



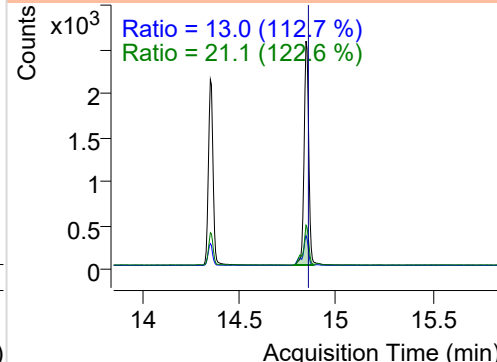
+ SIM (14.766-14.885 min, 22 scans) (\*\*) 2204

**Pyrene**

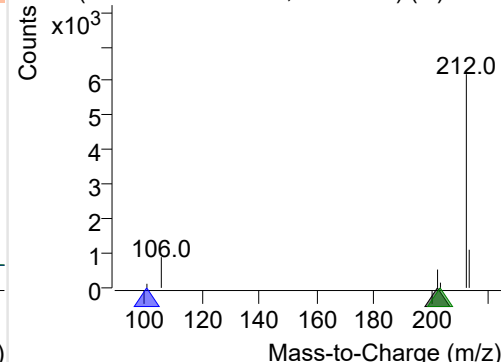
+ Selected Ion (202.0) 220407-PAHs-026.D



202.0, 101.0, 203.0

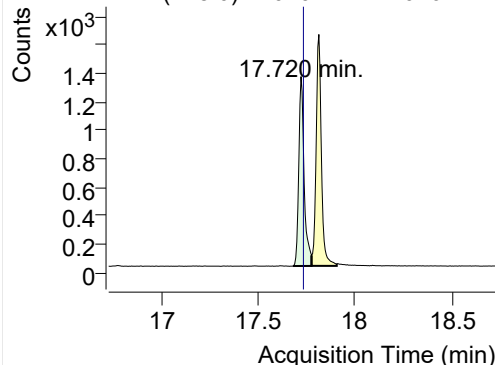


+ SIM (14.809-14.950 min, 27 scans) (\*\*) 2204

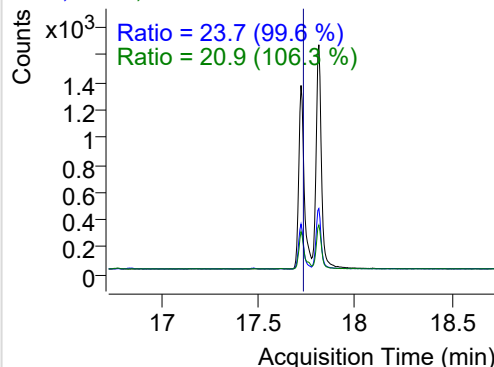


**Benz(a)anthracene**

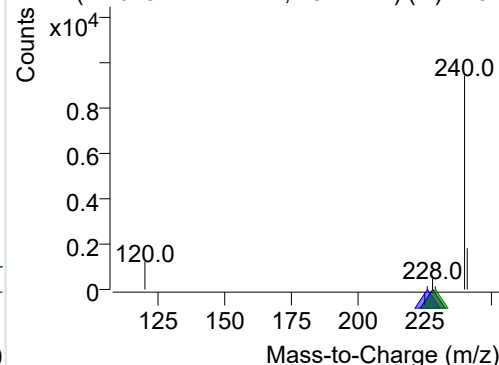
+ Selected Ion (228.0) 220407-PAHs-026.D



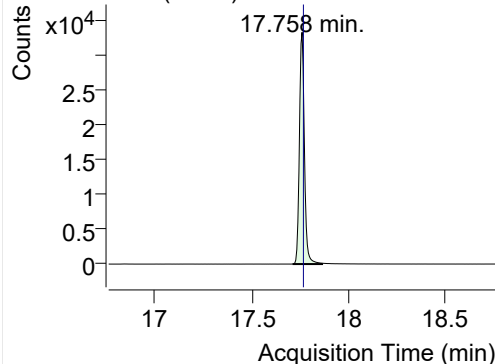
228.0, 226.0, 229.0



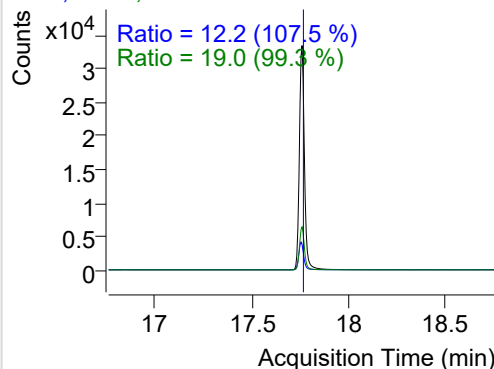
+ SIM (17.678-17.774 min, 18 scans) (\*\*) 2204

**IS-D12-Chrysene**

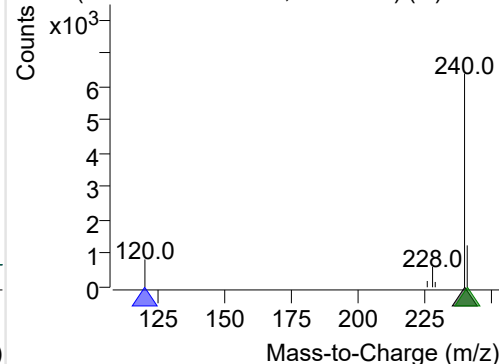
+ Selected Ion (240.0) 220407-PAHs-026.D



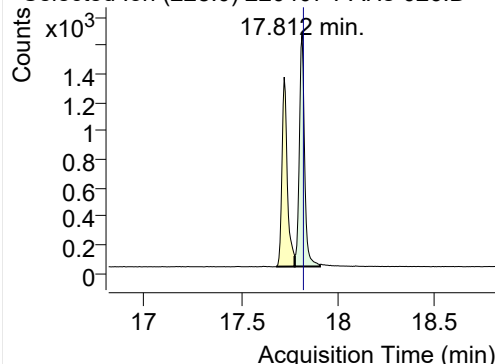
240.0, 120.0, 241.0



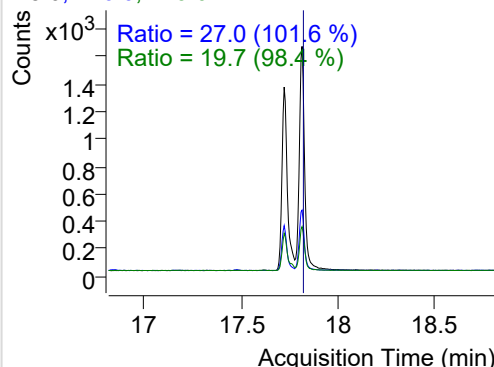
+ SIM (17.709-17.861 min, 29 scans) (\*\*) 2204

**Chrysene**

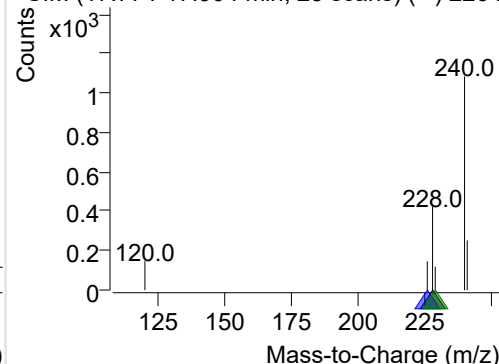
+ Selected Ion (228.0) 220407-PAHs-026.D



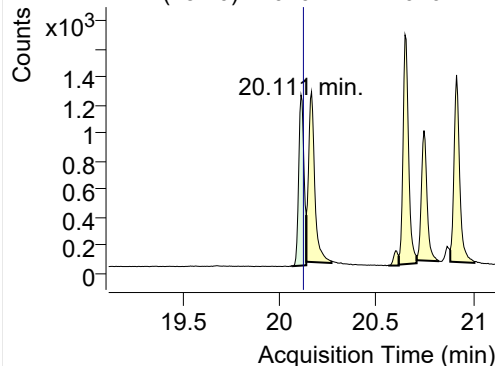
228.0, 226.0, 229.0



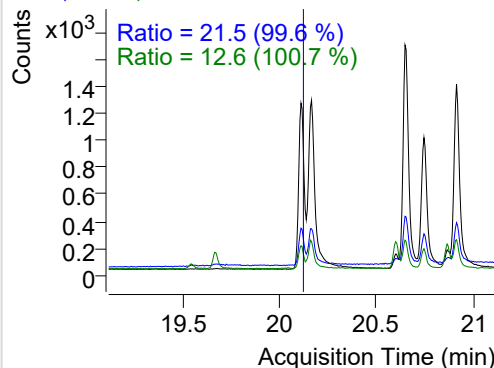
+ SIM (17.774-17.904 min, 25 scans) (\*\*) 2204

**Benzo(b)fluoranthene**

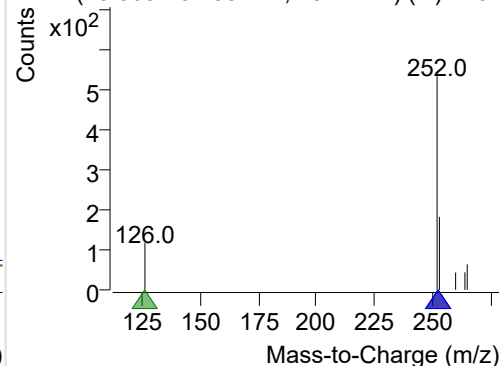
+ Selected Ion (252.0) 220407-PAHs-026.D



252.0, 253.0, 126.0



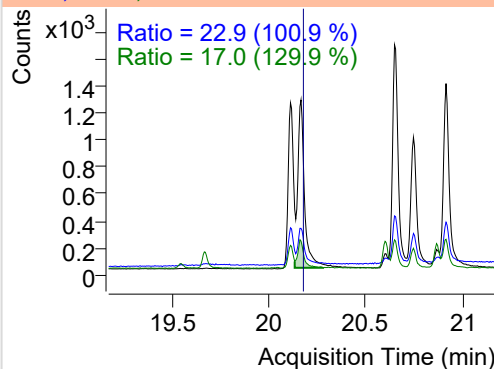
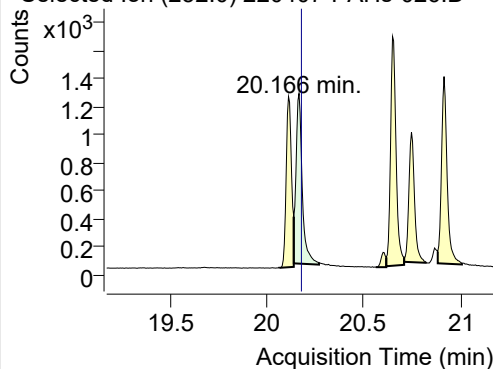
+ SIM (20.063-20.139 min, 15 scans) (\*\*) 2204



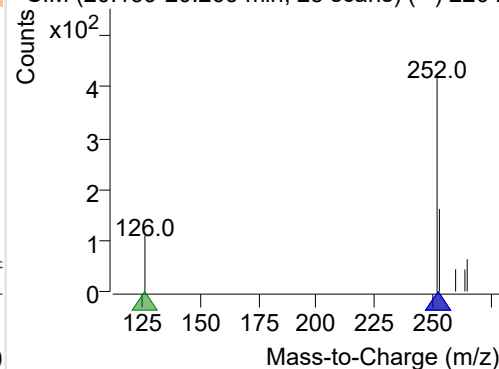
**Benzo(k)fluoranthene**

+ Selected Ion (252.0) 220407-PAHs-026.D

252.0, 253.0, 126.0

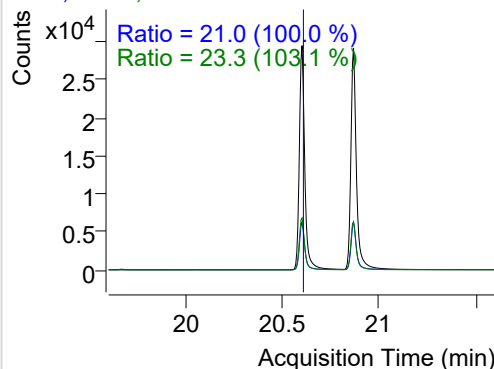
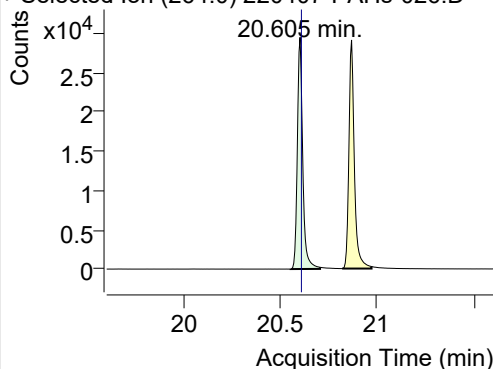


+ SIM (20.139-20.269 min, 25 scans) (\*\*) 2204

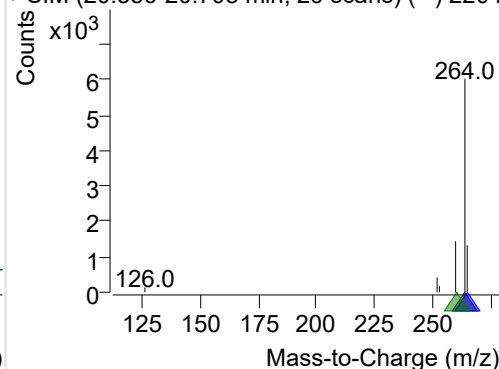
**SS-D12-Benzo(e)pyrene**

+ Selected Ion (264.0) 220407-PAHs-026.D

264.0, 265.0, 260.0

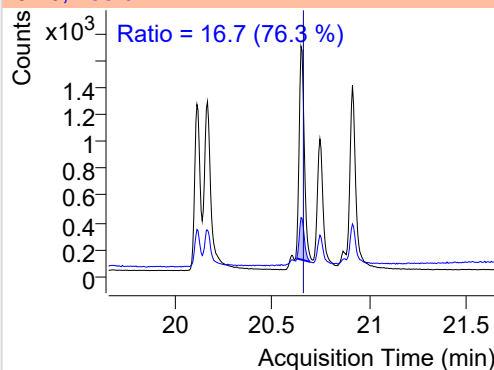
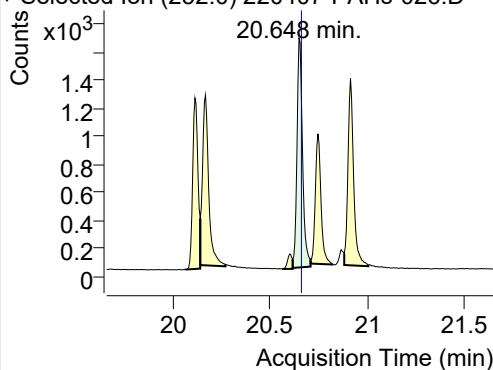


+ SIM (20.556-20.708 min, 29 scans) (\*\*) 2204

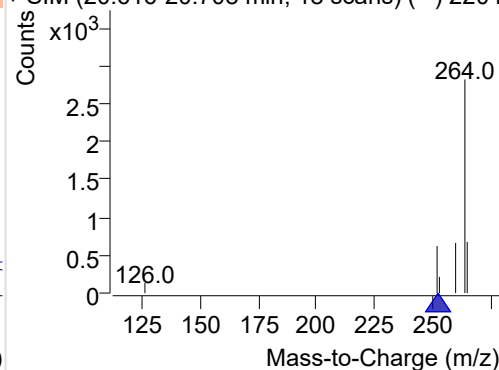
**Benzo(e)pyrene**

+ Selected Ion (252.0) 220407-PAHs-026.D

252.0, 253.0

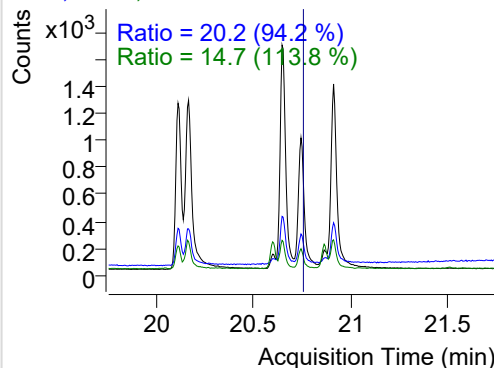
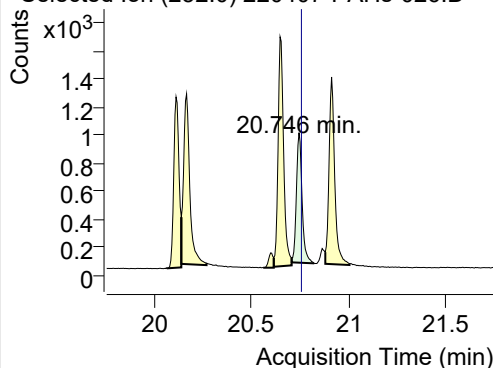


+ SIM (20.616-20.708 min, 18 scans) (\*\*) 2204

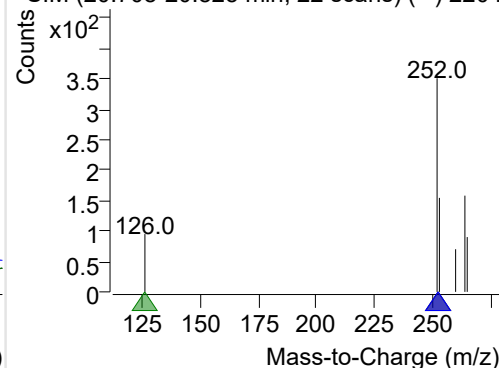
**Benzo(a)pyrene**

+ Selected Ion (252.0) 220407-PAHs-026.D

252.0, 253.0, 126.0

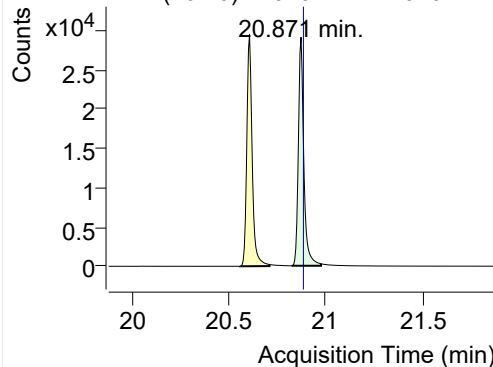


+ SIM (20.708-20.825 min, 22 scans) (\*\*) 2204

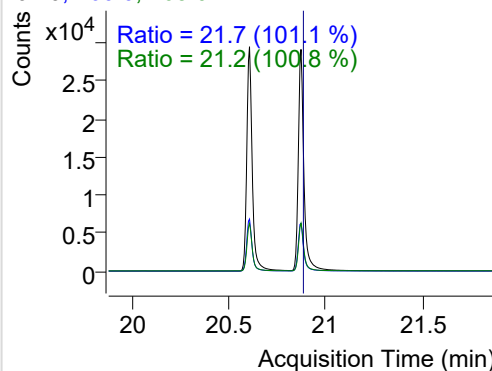


## IS-D12-Perylene

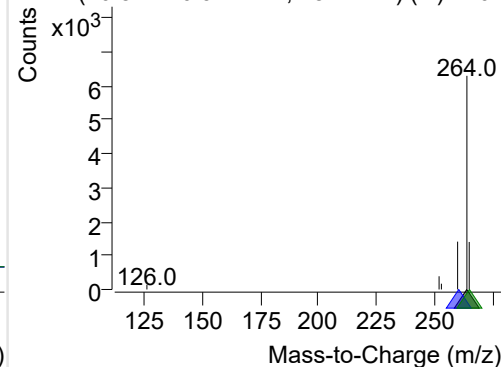
+ Selected Ion (264.0) 220407-PAHs-026.D



264.0, 260.0, 265.0

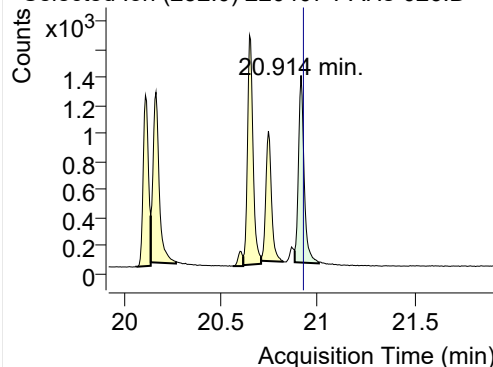


+ SIM (20.822-20.974 min, 28 scans) (\*\*) 2204

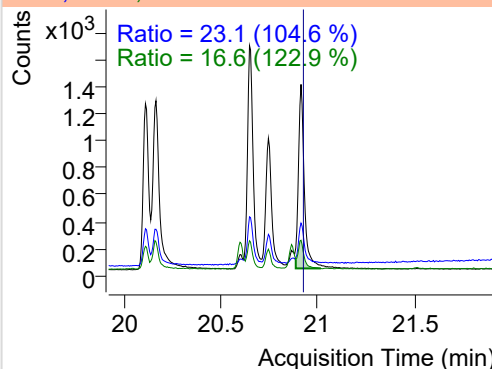


## Perylene

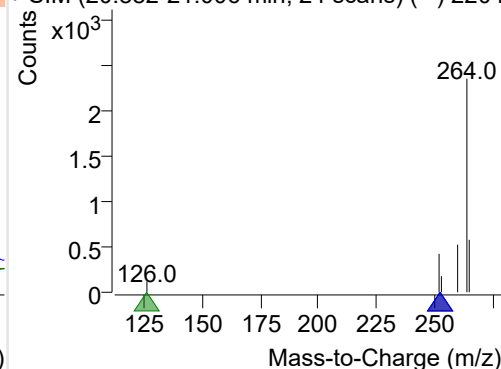
+ Selected Ion (252.0) 220407-PAHs-026.D



252.0, 253.0, 126.0

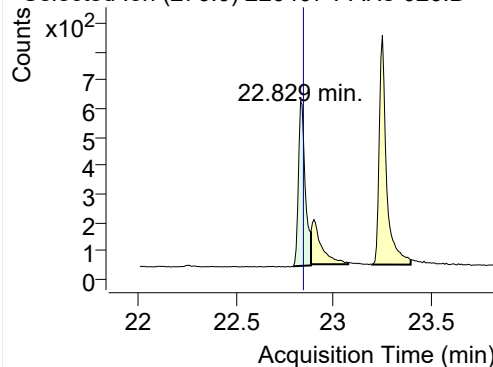


+ SIM (20.882-21.006 min, 24 scans) (\*\*) 2204

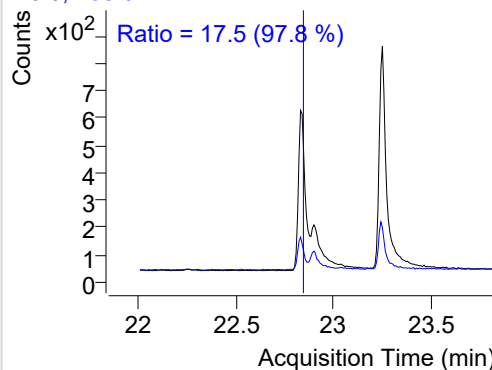


## Indeno(1,2,3-c,d)pyrene

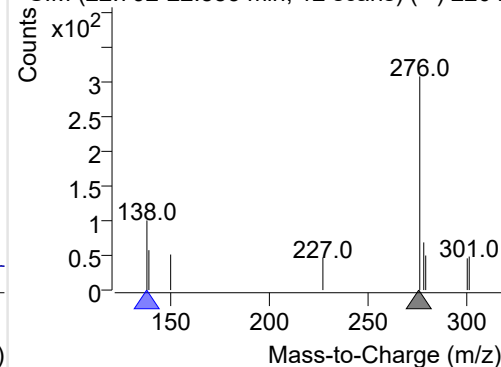
+ Selected Ion (276.0) 220407-PAHs-026.D



276.0, 138.0

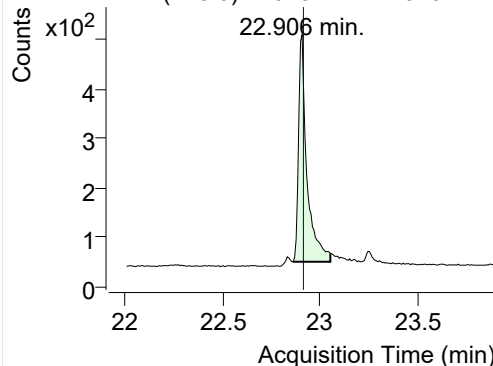


+ SIM (22.792-22.883 min, 12 scans) (\*\*) 2204

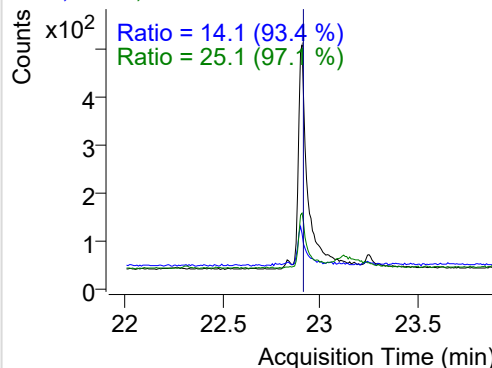


## Dibenz(a,h)anthracene

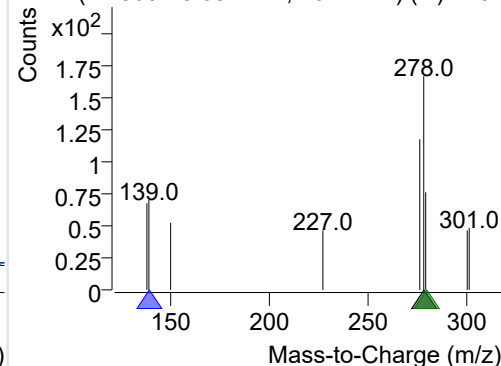
+ Selected Ion (278.0) 220407-PAHs-026.D



278.0, 139.0, 279.0

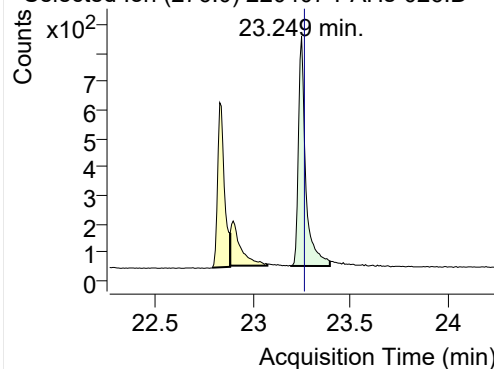


+ SIM (22.860-23.051 min, 26 scans) (\*\*) 2204

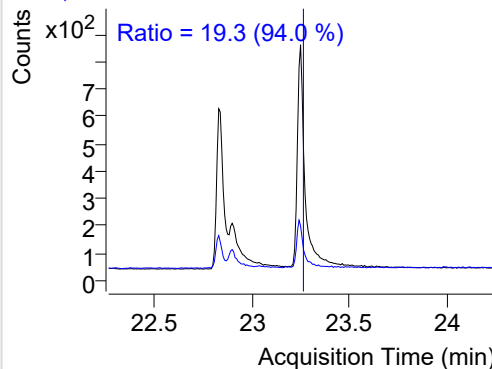


**Benzo(g,h,i)perylene**

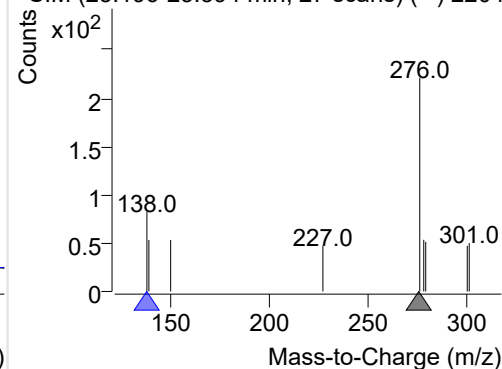
+ Selected Ion (276.0) 220407-PAHs-026.D



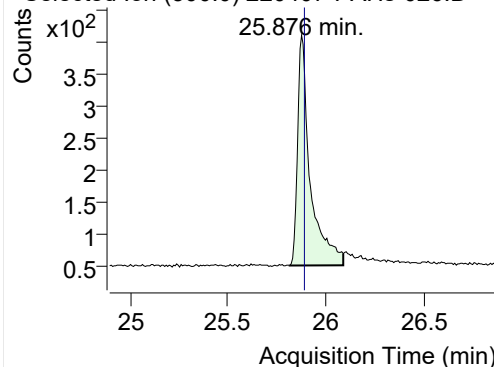
276.0, 138.0



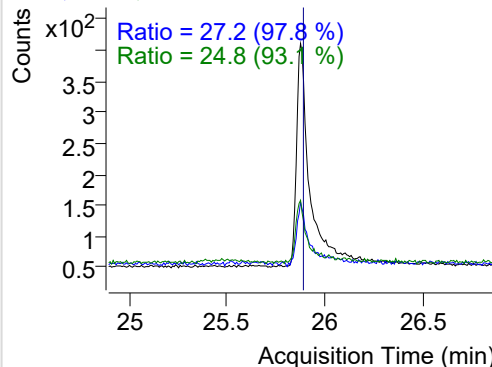
+ SIM (23.196-23.394 min, 27 scans) (\*\*) 2204

**Coronene**

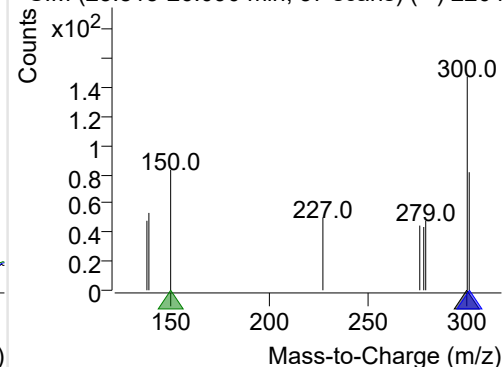
+ Selected Ion (300.0) 220407-PAHs-026.D



300.0, 301.0, 150.0



+ SIM (25.815-26.090 min, 37 scans) (\*\*) 2204





## Quantitative Analysis Sample Based Report

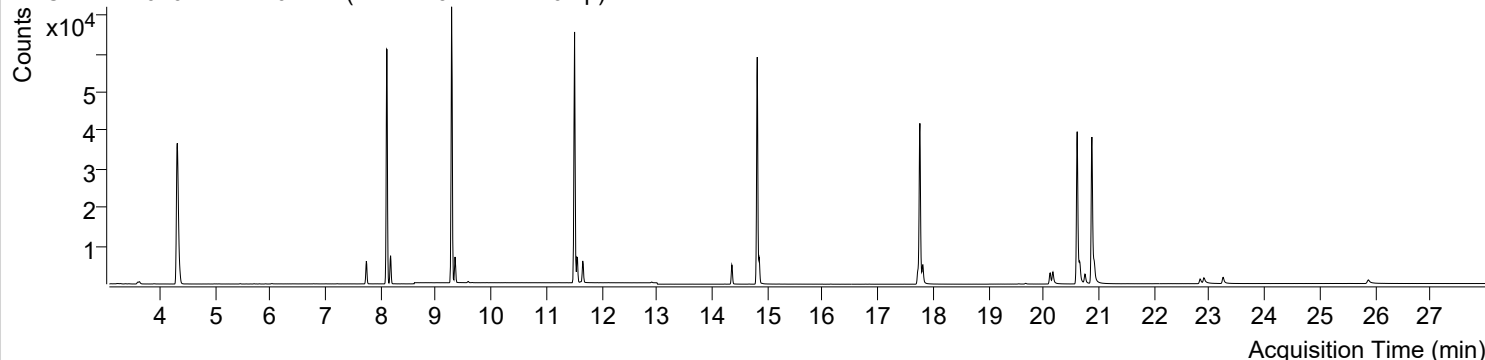


Trusted Answers

Batch Data Path File Name	D:\MassHunter\GCMS\1\data\PAHs\220407-PAHs-Sample\QuantResults\220407-PAHs-Quant.batch.bin		
Analysis Time Stamp	2022-04-13 오후 5:40:30	Analyst Name	DESKTOP-86B7UPG\5975MS
Report Generation Time	2022-04-13 오후 5:40:41	Report Generator Name	DESKTOP-86B7UPG\5975MS
Calibration Last Update	2022-04-13 오후 5:38:35	Batch State	Processed
Analyze Quant Version	10.2	Report Quant Version	10.2
Acq. Date-Time	2022-04-08 오전 12:52:19	Data File	220407-PAHs-027.D
Type	Sample	Name	PAHs-19mix-STD-0.1p
Dil.	1	Acq. Method File	PAHs 19mix-Method

## Sample Chromatogram

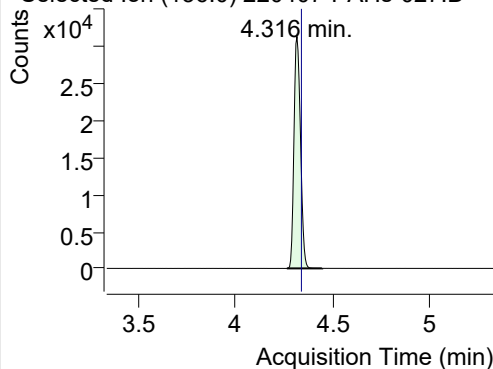
+ TIC SIM 220407-PAHs-027.D (PAHs-19mix-STD-0.1p)



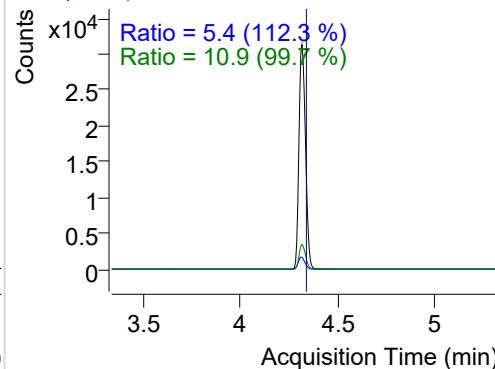
Name	RT	Transition	Resp.	Height	Final Conc. Units	Ratio
IS-D8-Naphthalene	4.316	136.0	72874	31241.52	ND µg/mL	10.9
Naphthalene	4.349	128.0	7871	3321.40	ND µg/mL	14.0
Acenaphthylene	7.739	152.0	6689	4424.89	ND µg/mL	19.9
IS-D10-Acenaphthene	8.112	164.0	45403	29911.80	ND µg/mL	91.8
Acenaphthene	8.177	154.0	4037	2666.40	ND µg/mL	104.0
LSS-D10-Fluorene	9.282	176.0	50441	33291.29	ND µg/mL	87.3
Fluorene	9.345	166.0	4820	3212.64	ND µg/mL	90.9
IS-D10-Phenanthrene	11.508	188.0	78319	53233.15	ND µg/mL	15.1
Phenanthrene	11.560	178.0	7152	4215.39	ND µg/mL	17.6
Anthracene	11.655	178.0	6192	3717.98	ND µg/mL	17.2
Fluoranthene	14.354	202.0	6262	3888.69	ND µg/mL	17.4
LSS-D10-Pyrene	14.815	212.0	67803	44619.19	ND µg/mL	16.9
Pyrene	14.847	202.0	7662	4652.90	ND µg/mL	19.1
Benz(a)anthracene	17.720	228.0	4455	2379.00	ND µg/mL	24.2
IS-D12-Chrysene	17.758	240.0	56638	31682.20	ND µg/mL	19.0
Chrysene	17.812	228.0	5617	2950.04	ND µg/mL	26.7
Benzo(b)fluoranthene	20.117	252.0	4045	2136.92	ND µg/mL	21.1
Benzo(k)fluoranthene	20.166	252.0	5487	2285.95	ND µg/mL	21.7
SS-D12-Benzo(e)pyrene	20.605	264.0	52443	27183.64	ND µg/mL	23.3
Benzo(e)pyrene	20.654	252.0	5408	2823.03	ND µg/mL	23.1
Benzo(a)pyrene	20.746	252.0	2899	1556.65	ND µg/mL	23.9
IS-D12-Perylene	20.871	264.0	52196	26205.50	ND µg/mL	21.9
Perylene	20.914	252.0	4886	2354.78	ND µg/mL	22.6
Indeno(1,2,3-c,d)pyrene	22.829	276.0	2377	979.02	ND µg/mL	17.1
Dibenz(a,h)anthracene	22.898	278.0	2531	781.00	ND µg/mL	23.9
Benzo(g,h,i)perylene	23.249	276.0	3553	1285.52	ND µg/mL	20.3
Coronene	25.876	300.0	2593	606.30	ND µg/mL	28.6

## IS-D8-Naphthalene

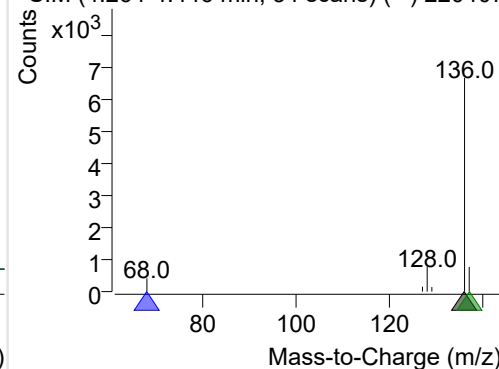
+ Selected Ion (136.0) 220407-PAHs-027.D



136.0, 68.0, 137.0

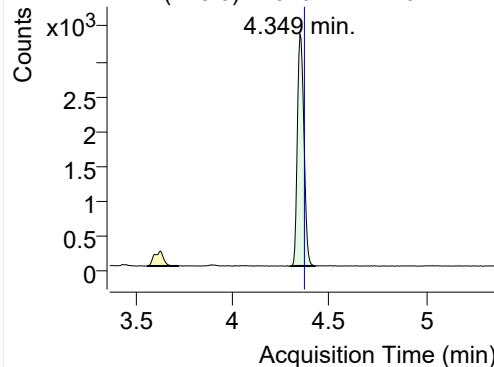


+ SIM (4.264-4.446 min, 34 scans) (\*\*) 220407

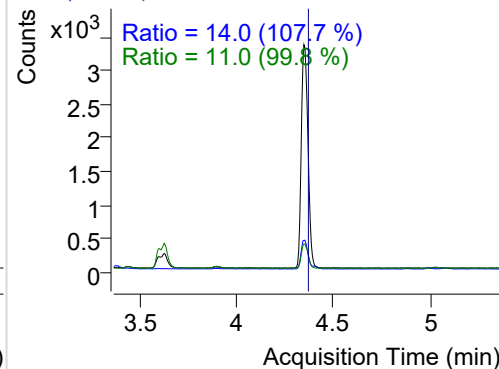


**Naphthalene**

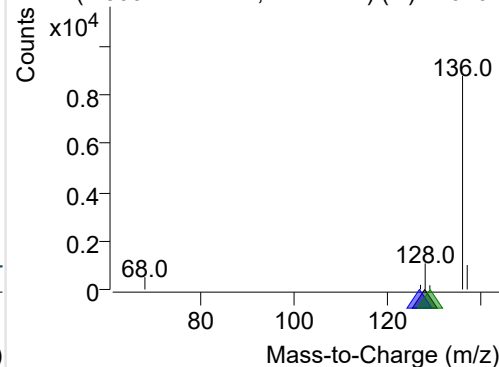
+ Selected Ion (128.0) 220407-PAHs-027.D



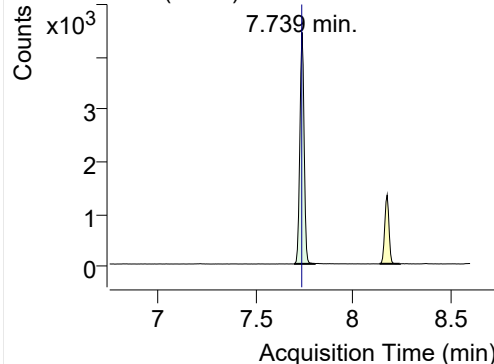
128.0, 127.0, 129.0



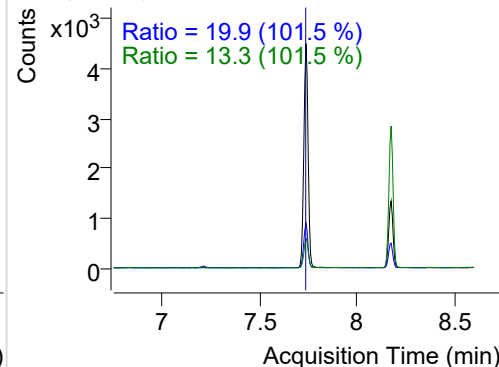
+ SIM (4.300-4.424 min, 24 scans) (\*\*) 220407

**Acenaphthylene**

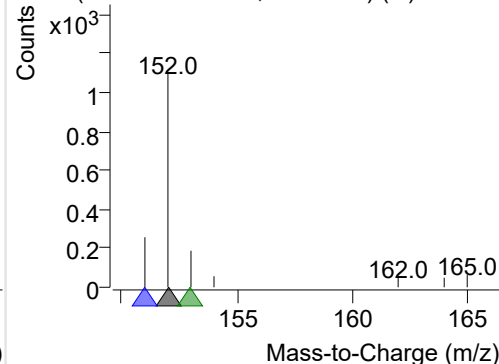
+ Selected Ion (152.0) 220407-PAHs-027.D



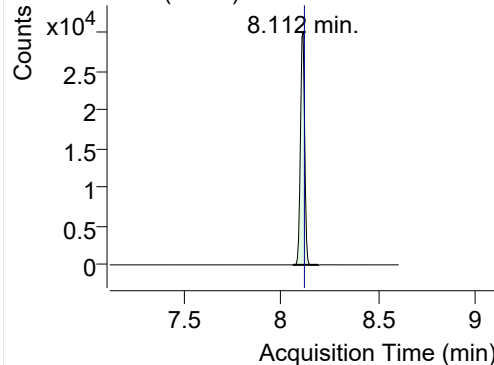
152.0, 151.0, 153.0



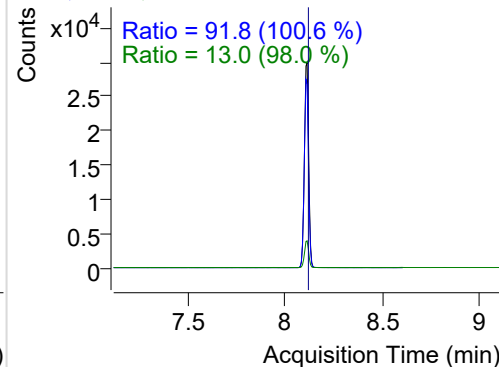
+ SIM (7.699-7.805 min, 18 scans) (\*\*) 220407

**IS-D10-Acenaphthene**

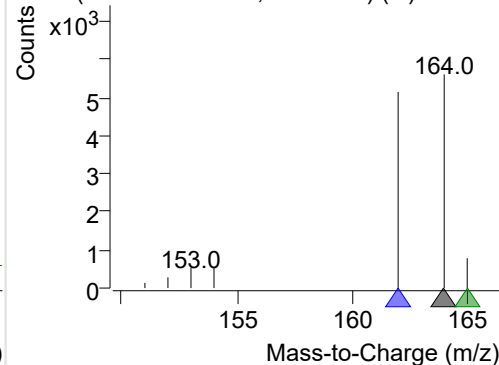
+ Selected Ion (164.0) 220407-PAHs-027.D



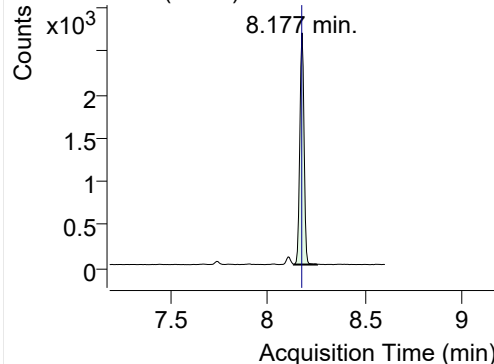
164.0, 162.0, 165.0



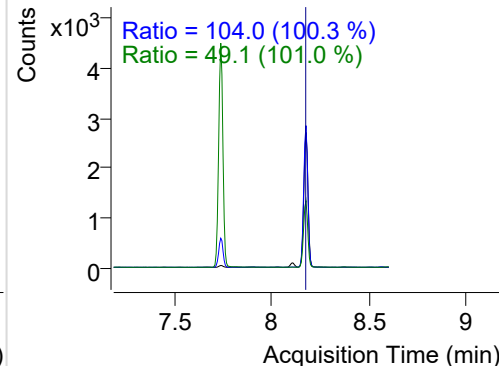
+ SIM (8.059-8.189 min, 23 scans) (\*\*) 220407

**Acenaphthene**

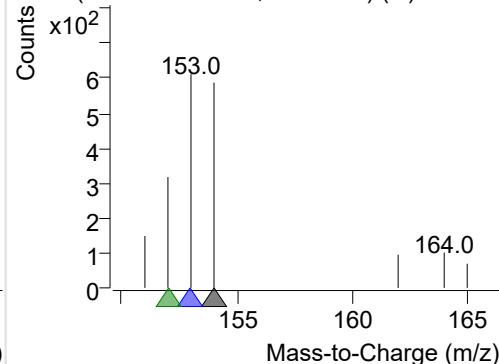
+ Selected Ion (154.0) 220407-PAHs-027.D



154.0, 153.0, 152.0

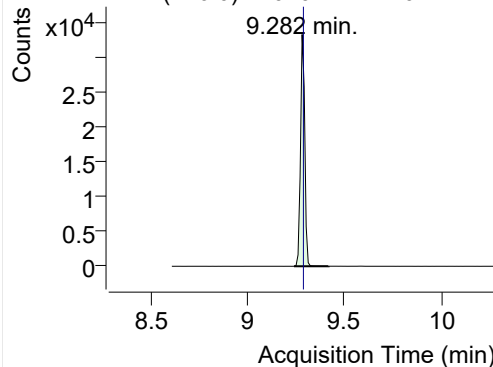


+ SIM (8.136-8.254 min, 21 scans) (\*\*) 220407

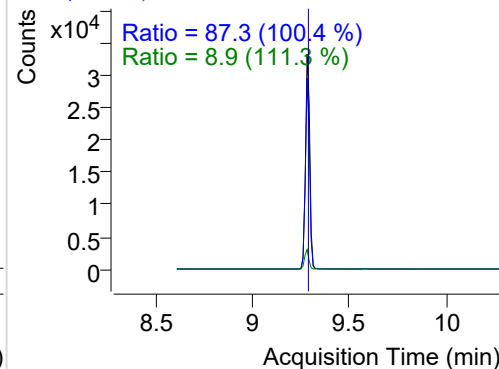


## LSS-D10-Fluorene

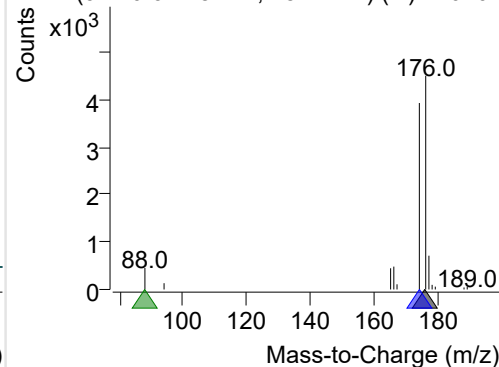
+ Selected Ion (176.0) 220407-PAHs-027.D



176.0, 174.0, 88.0

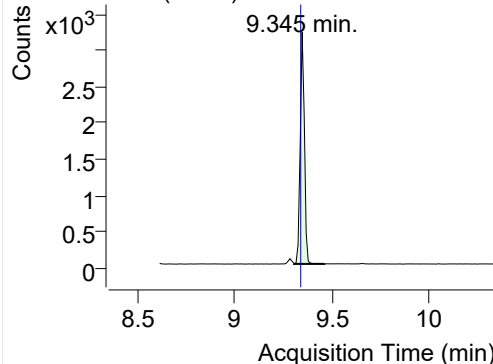


+ SIM (9.240-9.418 min, 18 scans) (\*\*) 220407

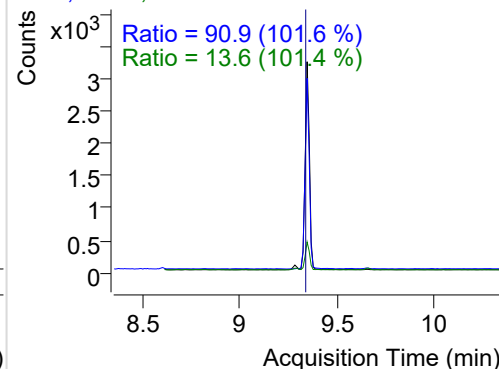


## Fluorene

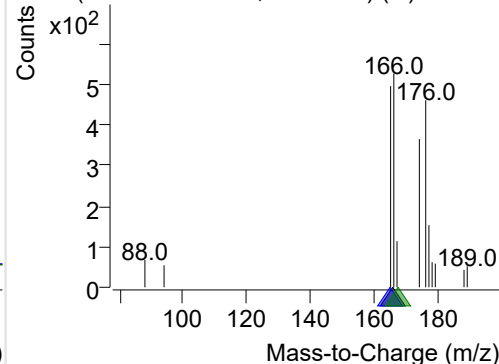
+ Selected Ion (166.0) 220407-PAHs-027.D



166.0, 165.0, 167.0

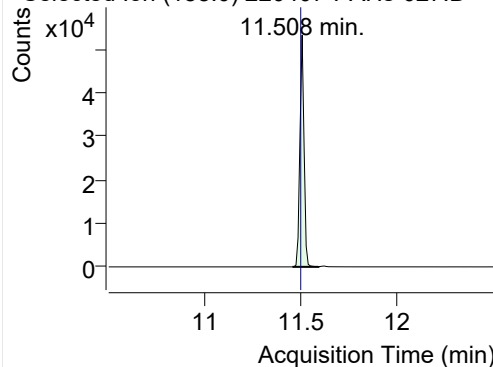


+ SIM (9.303-9.460 min, 16 scans) (\*\*) 220407

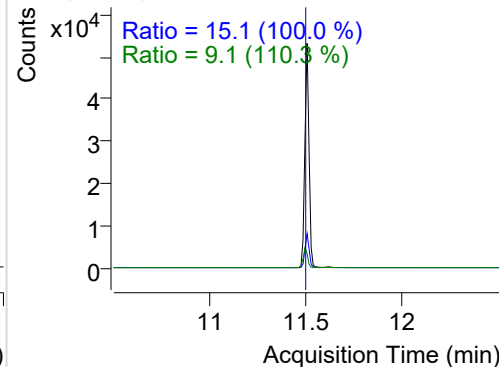


## IS-D10-Phenanthrene

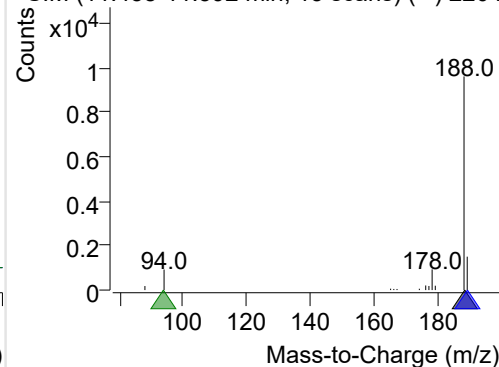
+ Selected Ion (188.0) 220407-PAHs-027.D



188.0, 189.0, 94.0

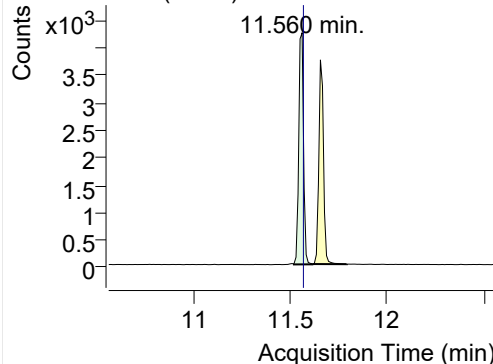


+ SIM (11.458-11.592 min, 13 scans) (\*\*) 2204

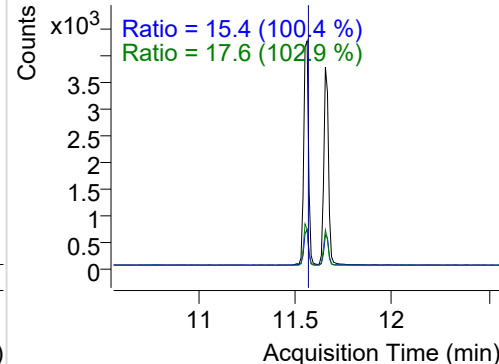


## Phenanthrene

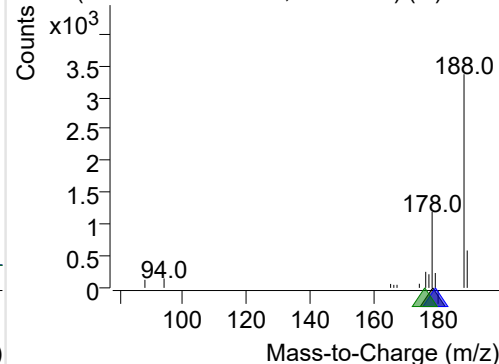
+ Selected Ion (178.0) 220407-PAHs-027.D



178.0, 179.0, 176.0

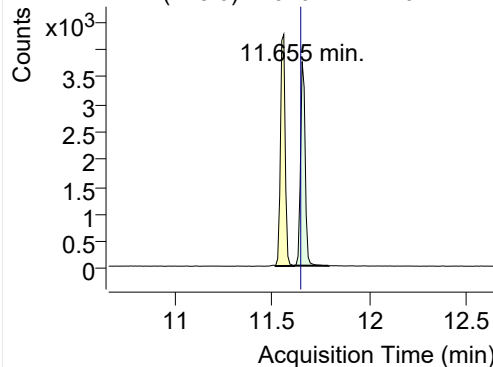


+ SIM (11.518-11.613 min, 10 scans) (\*\*) 2204

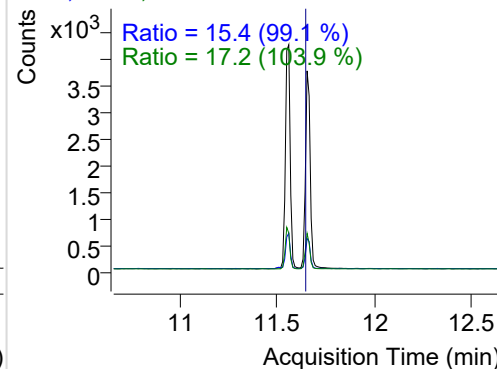


**Anthracene**

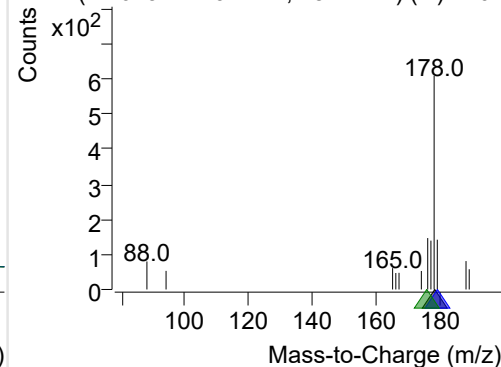
+ Selected Ion (178.0) 220407-PAHs-027.D



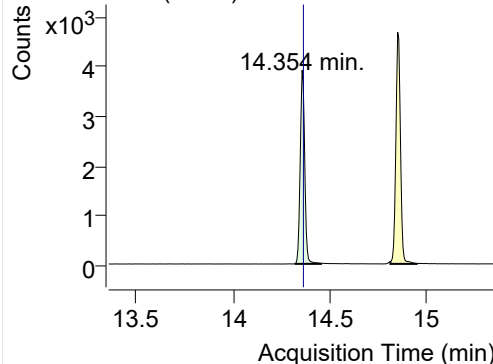
178.0, 179.0, 176.0



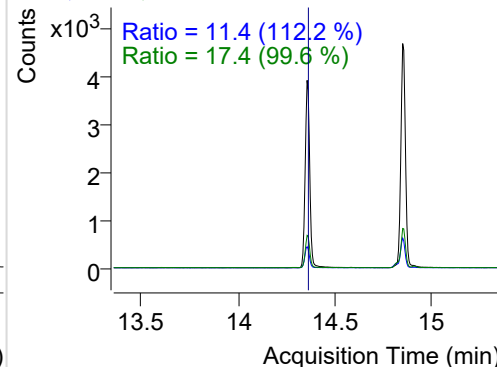
+ SIM (11.613-11.791 min, 18 scans) (\*\*) 2204

**Fluoranthene**

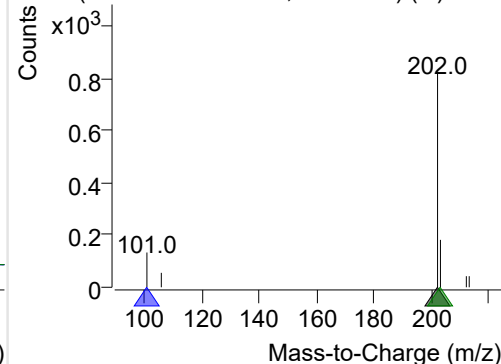
+ Selected Ion (202.0) 220407-PAHs-027.D



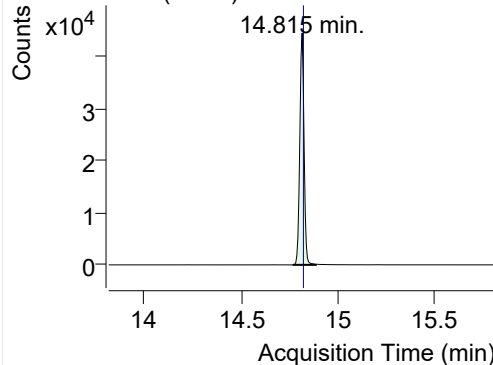
202.0, 101.0, 203.0



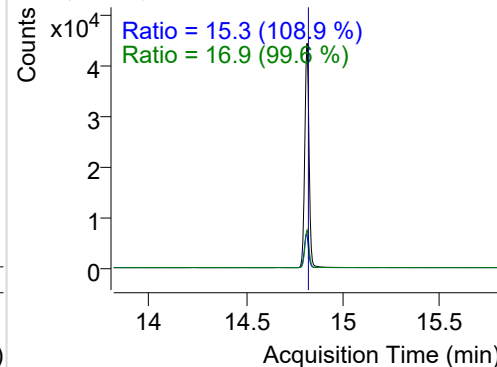
+ SIM (14.316-14.451 min, 25 scans) (\*\*) 2204

**LSS-D10-Pyrene**

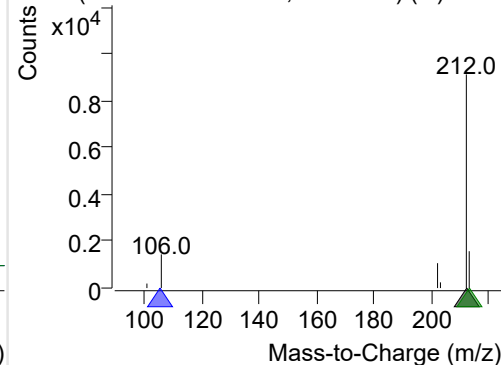
+ Selected Ion (212.0) 220407-PAHs-027.D



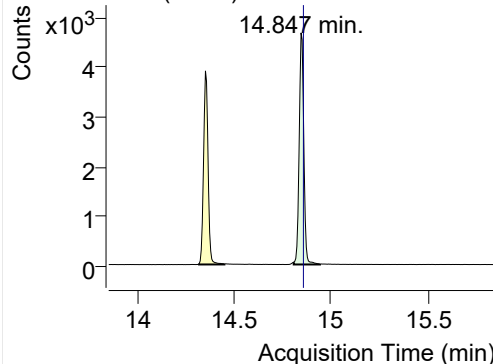
212.0, 106.0, 213.0



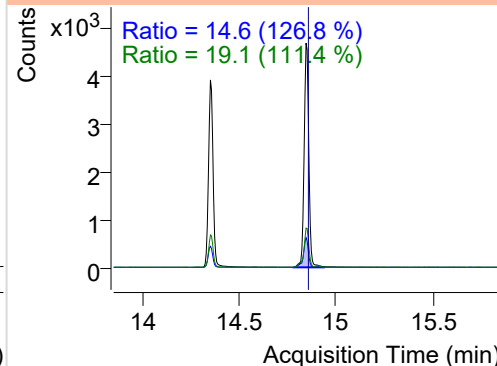
+ SIM (14.766-14.885 min, 23 scans) (\*\*) 2204

**Pyrene**

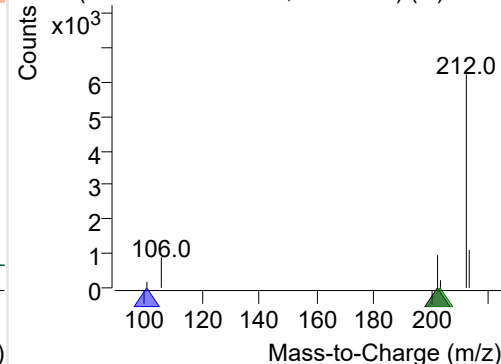
+ Selected Ion (202.0) 220407-PAHs-027.D



202.0, 101.0, 203.0

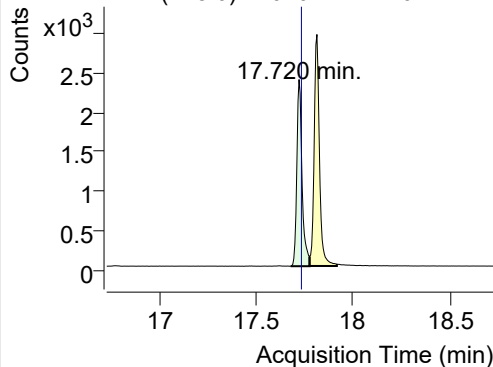


+ SIM (14.809-14.945 min, 26 scans) (\*\*) 2204

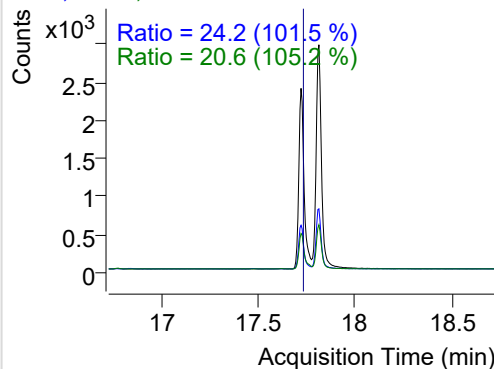


**Benz(a)anthracene**

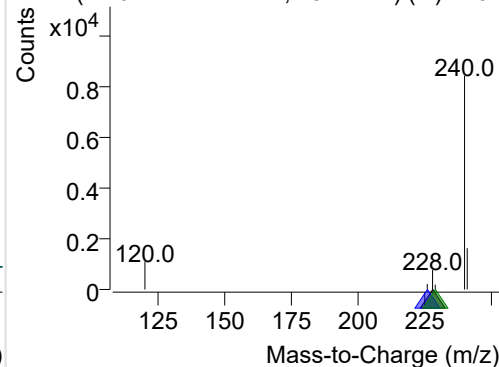
+ Selected Ion (228.0) 220407-PAHs-027.D



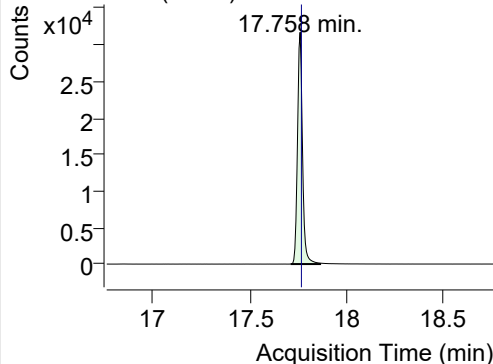
228.0, 226.0, 229.0



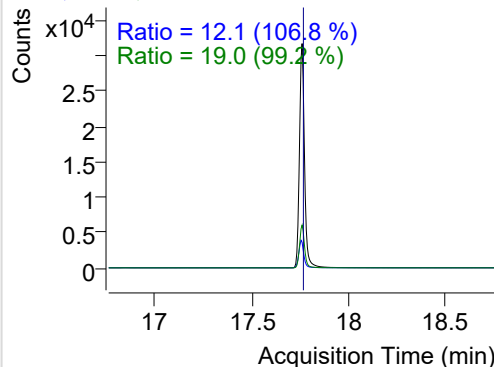
+ SIM (17.677-17.774 min, 19 scans) (\*\*) 2204

**IS-D12-Chrysene**

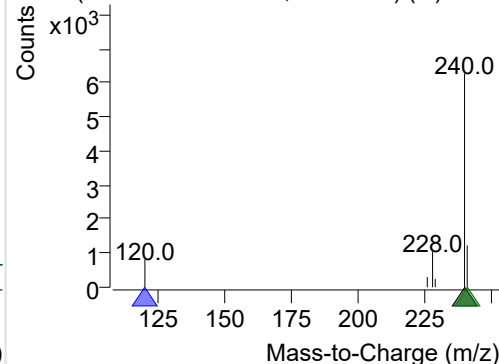
+ Selected Ion (240.0) 220407-PAHs-027.D



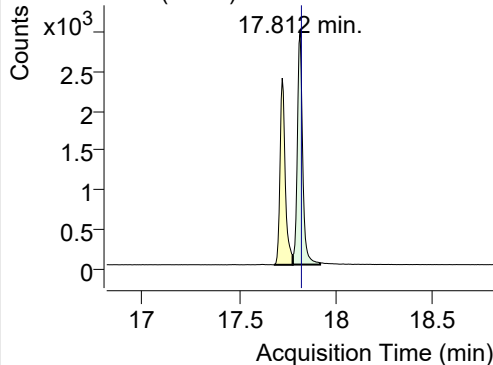
240.0, 120.0, 241.0



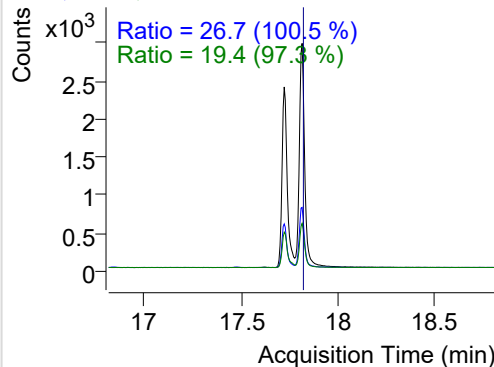
+ SIM (17.710-17.861 min, 28 scans) (\*\*) 2204

**Chrysene**

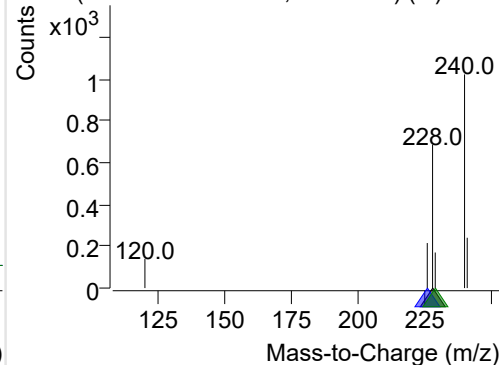
+ Selected Ion (228.0) 220407-PAHs-027.D



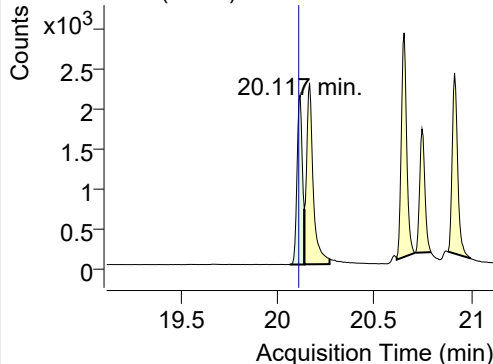
228.0, 226.0, 229.0



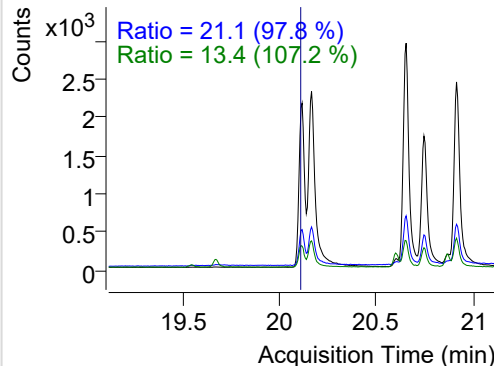
+ SIM (17.774-17.915 min, 27 scans) (\*\*) 2204

**Benzo(b)fluoranthene**

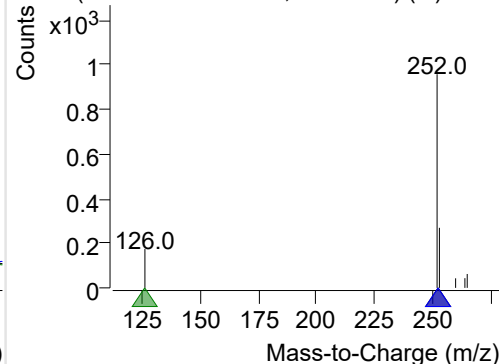
+ Selected Ion (252.0) 220407-PAHs-027.D



252.0, 253.0, 126.0

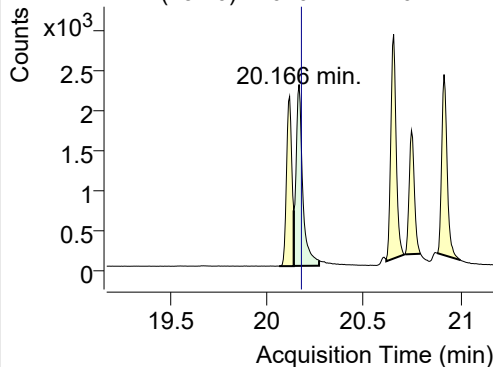


+ SIM (20.063-20.139 min, 14 scans) (\*\*) 2204

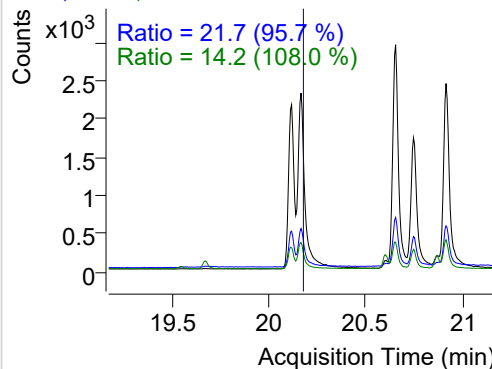


**Benzo(k)fluoranthene**

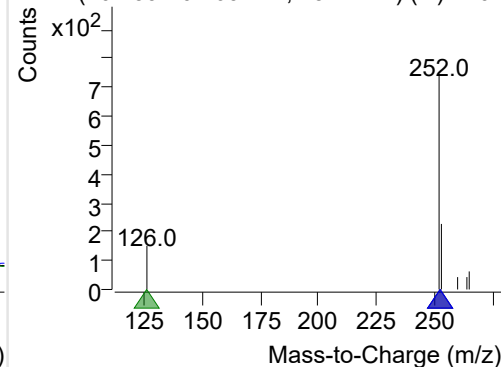
+ Selected Ion (252.0) 220407-PAHs-027.D



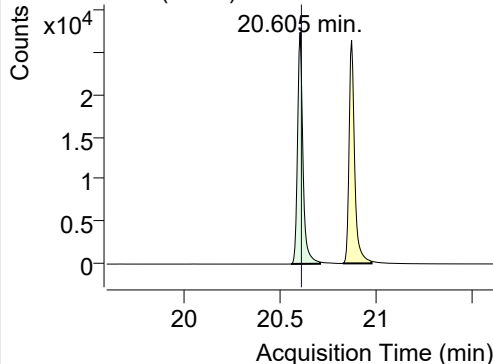
252.0, 253.0, 126.0



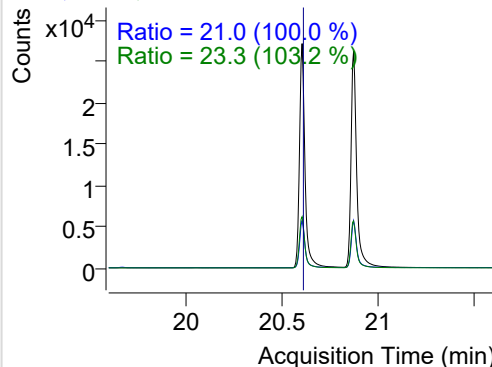
+ SIM (20.139-20.269 min, 25 scans) (\*\*) 2204

**SS-D12-Benzo(e)pyrene**

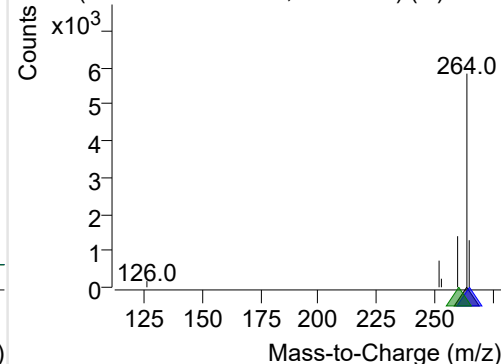
+ Selected Ion (264.0) 220407-PAHs-027.D



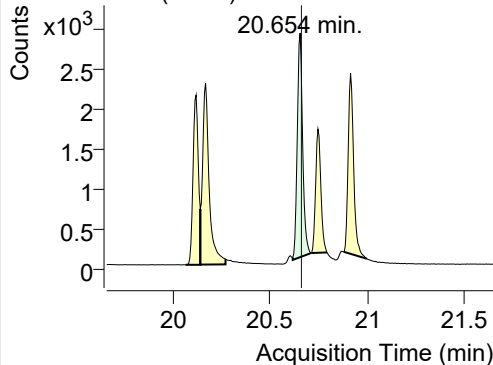
264.0, 265.0, 260.0



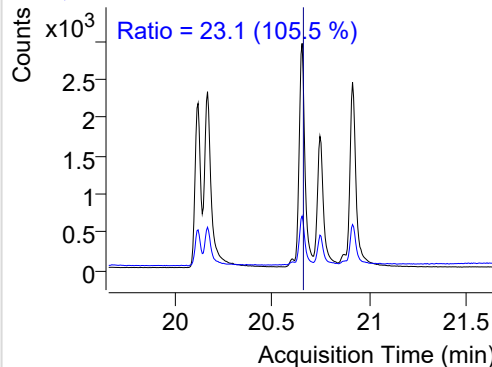
+ SIM (20.558-20.708 min, 28 scans) (\*\*) 2204

**Benzo(e)pyrene**

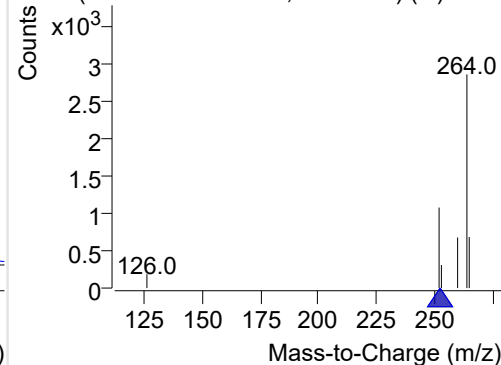
+ Selected Ion (252.0) 220407-PAHs-027.D



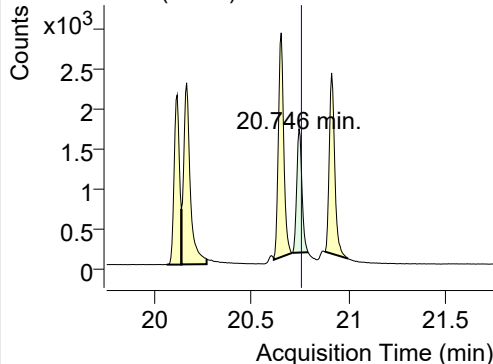
252.0, 253.0



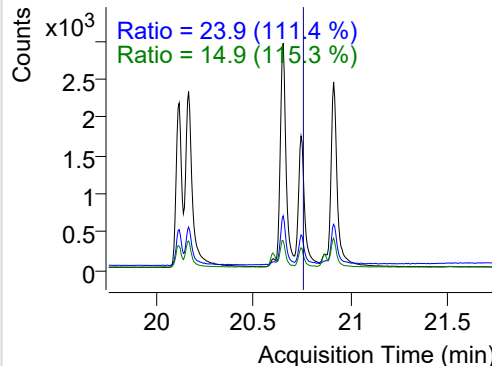
+ SIM (20.616-20.711 min, 18 scans) (\*\*) 2204

**Benzo(a)pyrene**

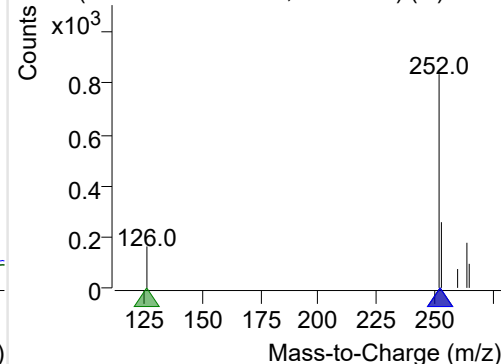
+ Selected Ion (252.0) 220407-PAHs-027.D



252.0, 253.0, 126.0

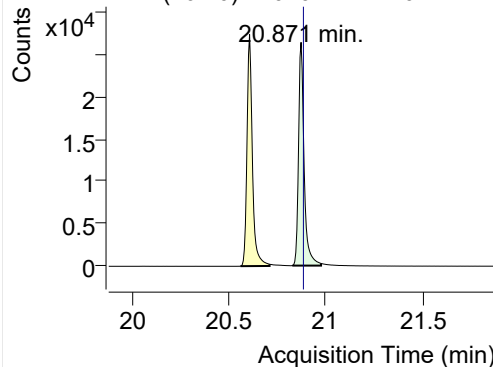


+ SIM (20.714-20.793 min, 14 scans) (\*\*) 2204

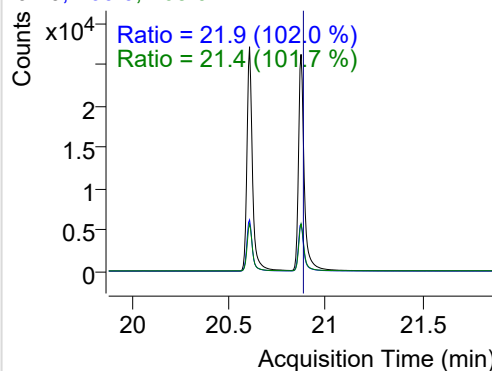


## IS-D12-Perylene

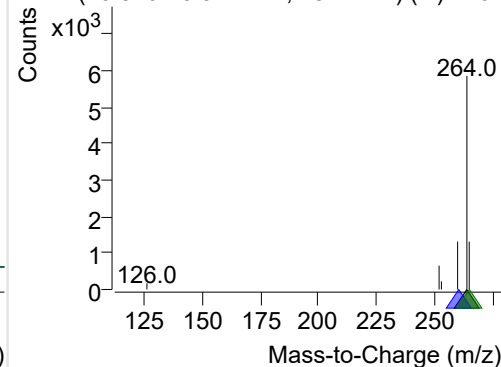
+ Selected Ion (264.0) 220407-PAHs-027.D



264.0, 260.0, 265.0

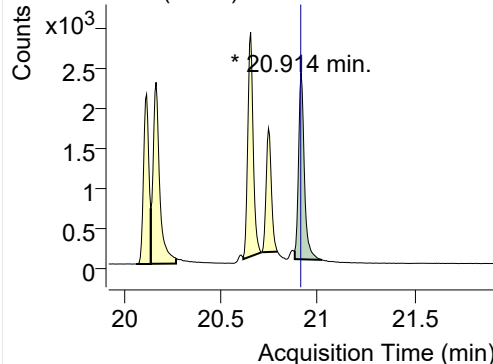


+ SIM (20.826-20.974 min, 28 scans) (\*\*) 2204

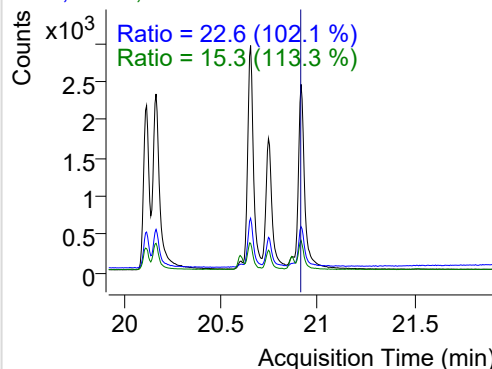


## Perylene

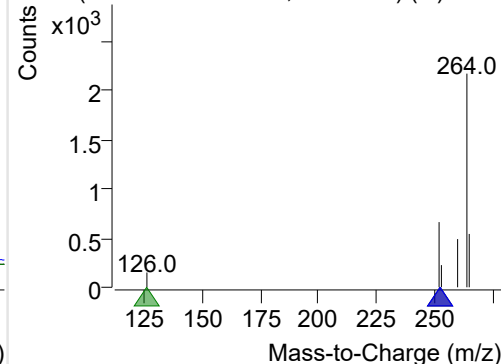
+ Selected Ion (252.0) 220407-PAHs-027.D



252.0, 253.0, 126.0

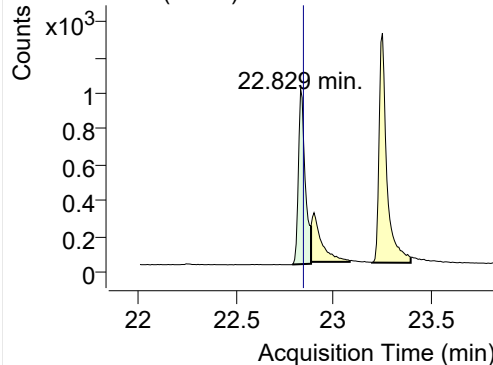


+ SIM (20.882-21.023 min, 27 scans) (\*\*) 2204

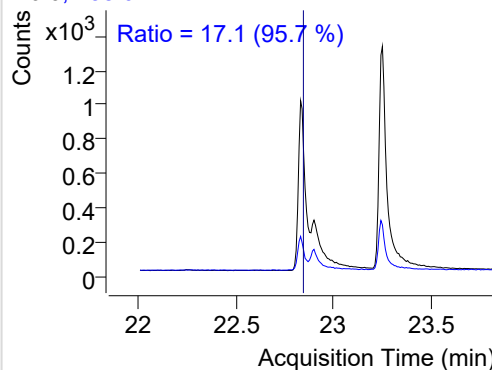


## Indeno(1,2,3-c,d)pyrene

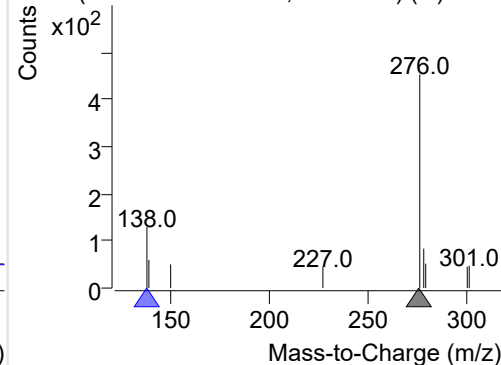
+ Selected Ion (276.0) 220407-PAHs-027.D



276.0, 138.0

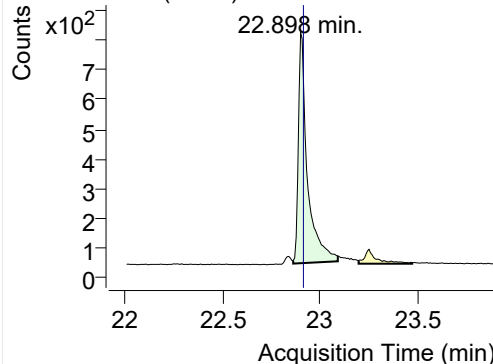


+ SIM (22.786-22.883 min, 13 scans) (\*\*) 2204

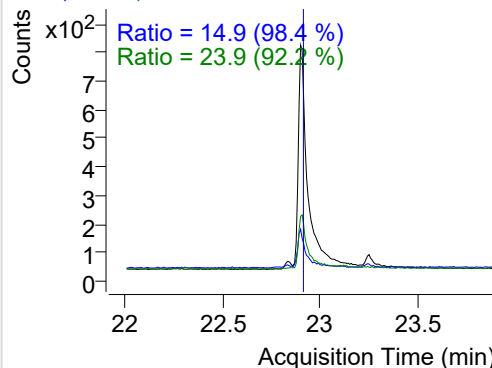


## Dibenz(a,h)anthracene

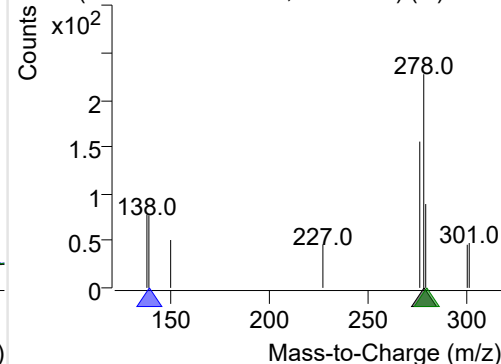
+ Selected Ion (278.0) 220407-PAHs-027.D



278.0, 139.0, 279.0

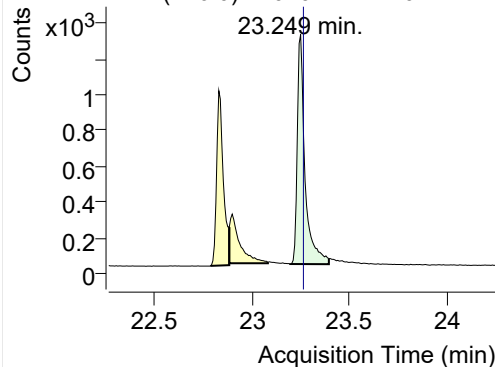


+ SIM (22.860-23.089 min, 31 scans) (\*\*) 2204

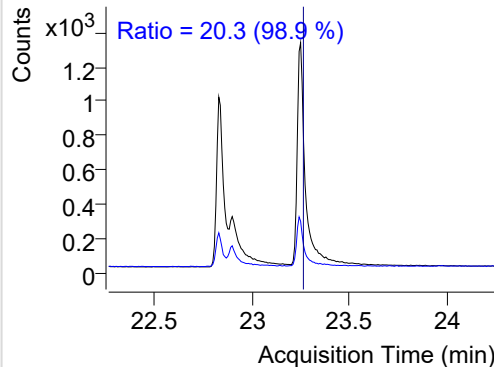


**Benzo(g,h,i)perylene**

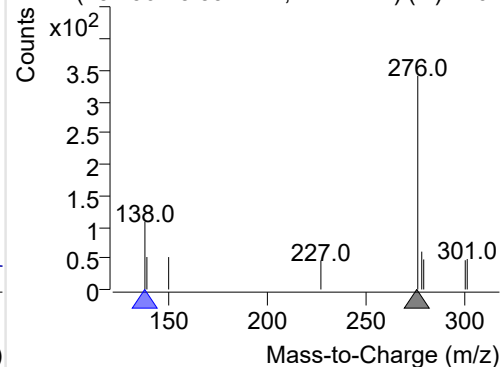
+ Selected Ion (276.0) 220407-PAHs-027.D



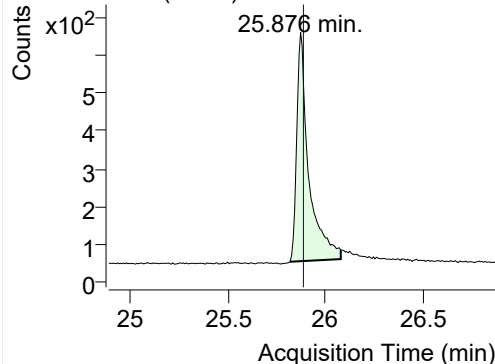
276.0, 138.0



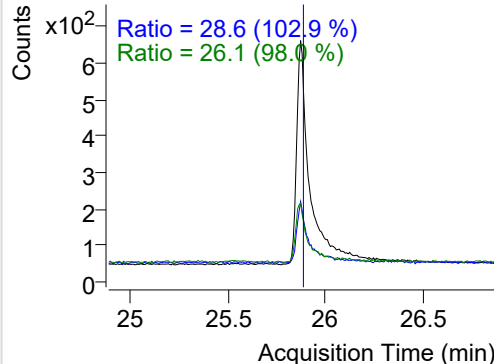
+ SIM (23.196-23.394 min, 27 scans) (\*\*) 2204

**Coronene**

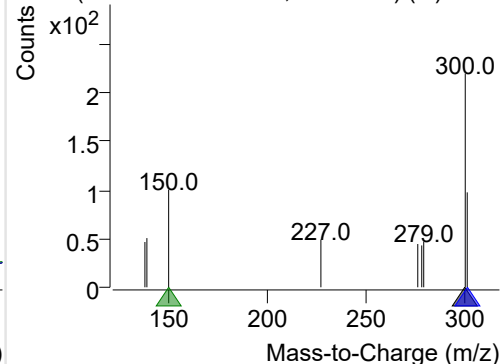
+ Selected Ion (300.0) 220407-PAHs-027.D



300.0, 301.0, 150.0



+ SIM (25.821-26.082 min, 35 scans) (\*\*) 2204





## Quantitative Analysis Sample Based Report

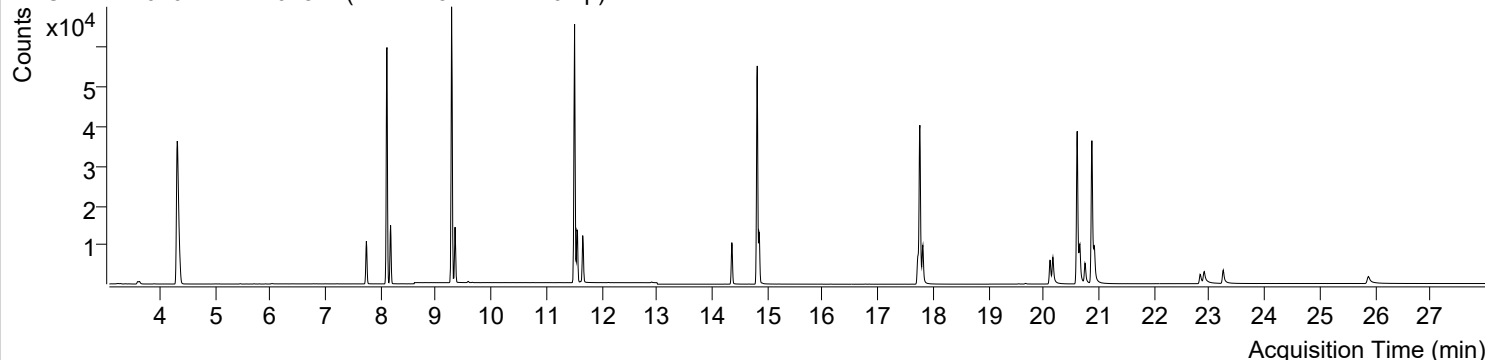


Trusted Answers

Batch Data Path File Name	D:\MassHunter\GCMS\1\data\PAHs\220407-PAHs-Sample\QuantResults\220407-PAHs-Quant.batch.bin		
Analysis Time Stamp	2022-04-13 오후 5:40:30	Analyst Name	DESKTOP-86B7UPG\5975MS
Report Generation Time	2022-04-13 오후 5:40:41	Report Generator Name	DESKTOP-86B7UPG\5975MS
Calibration Last Update	2022-04-13 오후 5:38:35	Batch State	Processed
Analyze Quant Version	10.2	Report Quant Version	10.2
Acq. Date-Time	2022-04-08 오전 1:23:28	Data File	220407-PAHs-028.D
Type	Sample	Name	PAHs-19mix-STD-0.2p
Dil.	1	Acq. Method File	PAHs 19mix-Method

## Sample Chromatogram

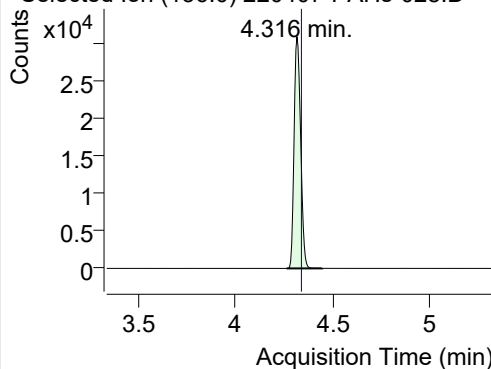
+ TIC SIM 220407-PAHs-028.D (PAHs-19mix-STD-0.2p)



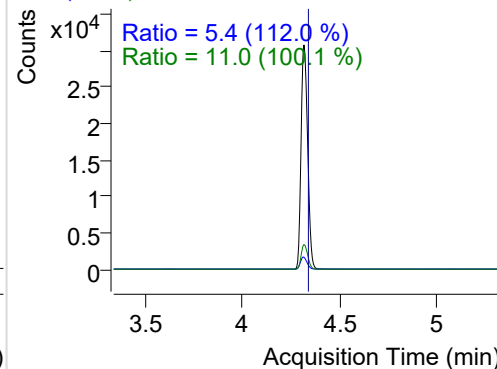
Name	RT	Transition	Resp.	Height	Final Conc. Units	Ratio
IS-D8-Naphthalene	4.316	136.0	71976	30707.00	ND µg/mL	11.0
Naphthalene	4.349	128.0	15536	6588.26	ND µg/mL	13.5
Acenaphthylene	7.739	152.0	12442	8010.64	ND µg/mL	19.8
IS-D10-Acenaphthene	8.112	164.0	44024	29383.70	ND µg/mL	91.2
Acenaphthene	8.177	154.0	8079	5425.48	ND µg/mL	103.8
LSS-D10-Fluorene	9.282	176.0	48424	32186.40	ND µg/mL	87.9
Fluorene	9.345	166.0	9774	6724.23	ND µg/mL	91.1
IS-D10-Phenanthrene	11.508	188.0	78155	53083.77	ND µg/mL	15.2
Phenanthrene	11.560	178.0	14654	8596.79	ND µg/mL	17.7
Anthracene	11.655	178.0	12706	7803.40	ND µg/mL	17.4
Fluoranthene	14.354	202.0	12976	8111.52	ND µg/mL	17.2
LSS-D10-Pyrene	14.814	212.0	65536	41683.05	ND µg/mL	16.9
Pyrene	14.852	202.0	15523	9334.90	ND µg/mL	18.1
Benz(a)anthracene	17.720	228.0	9177	4694.29	ND µg/mL	24.5
IS-D12-Chrysene	17.758	240.0	56381	30148.28	ND µg/mL	19.1
Chrysene	17.812	228.0	11575	6103.98	ND µg/mL	26.9
Benzo(b)fluoranthene	20.112	252.0	8414	4403.17	ND µg/mL	21.6
Benzo(k)fluoranthene	20.166	252.0	12035	4886.35	ND µg/mL	21.8
SS-D12-Benzo(e)pyrene	20.605	264.0	51656	26289.43	ND µg/mL	23.3
Benzo(e)pyrene	20.654	252.0	12035	5982.26	ND µg/mL	21.7
Benzo(a)pyrene	20.746	252.0	7249	3485.80	ND µg/mL	21.5
IS-D12-Perylene	20.871	264.0	51244	24721.36	ND µg/mL	21.8
Perylene	20.914	252.0	10298	4799.96	ND µg/mL	22.0
Indeno(1,2,3-c,d)pyrene	22.829	276.0	4524	1891.31	ND µg/mL	19.3
Dibenz(a,h)anthracene	22.906	278.0	5221	1587.45	ND µg/mL	23.8
Benzo(g,h,i)perylene	23.249	276.0	7326	2693.85	ND µg/mL	20.9
Coronene	25.876	300.0	5459	1151.43	ND µg/mL	26.7

## IS-D8-Naphthalene

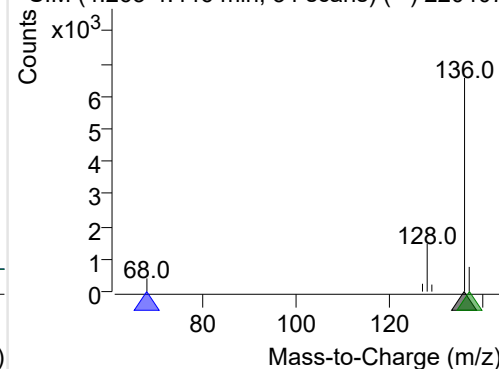
+ Selected Ion (136.0) 220407-PAHs-028.D



136.0, 68.0, 137.0

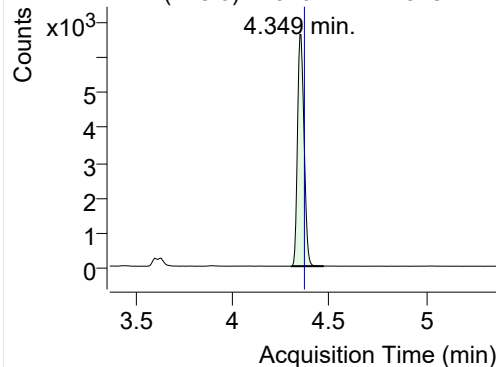


+ SIM (4.263-4.446 min, 34 scans) (\*\*) 220407

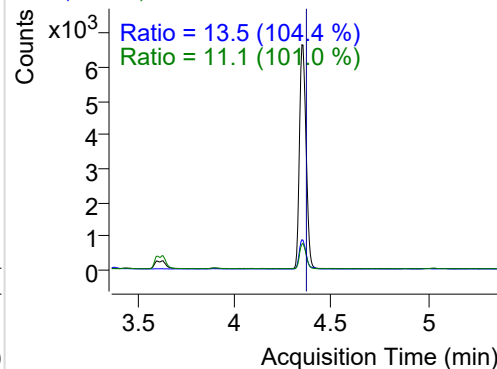


**Naphthalene**

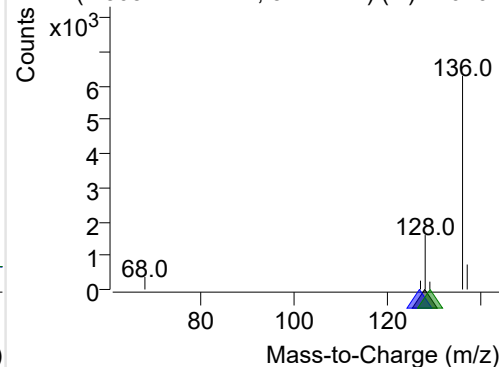
+ Selected Ion (128.0) 220407-PAHs-028.D



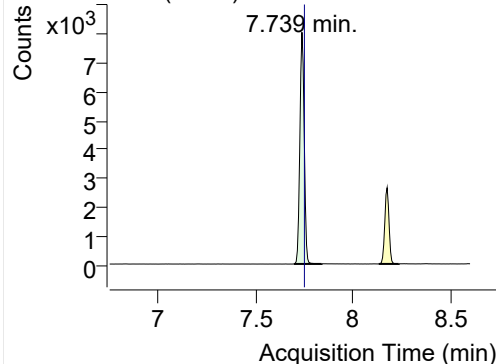
128.0, 127.0, 129.0



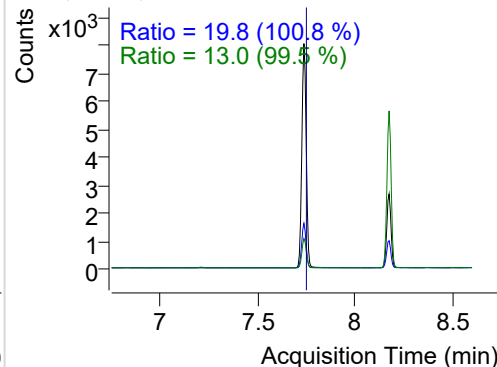
+ SIM (4.305-4.471 min, 31 scans) (\*\*) 220407

**Acenaphthylene**

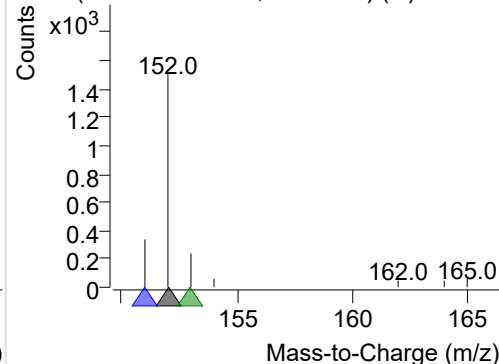
+ Selected Ion (152.0) 220407-PAHs-028.D



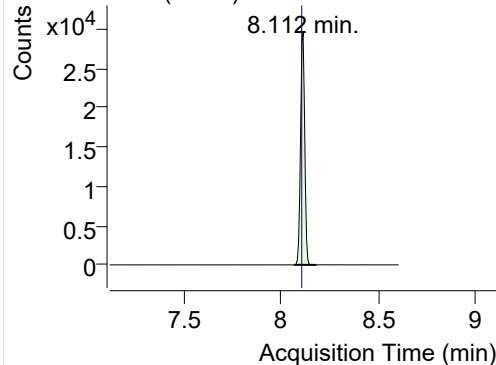
152.0, 151.0, 153.0



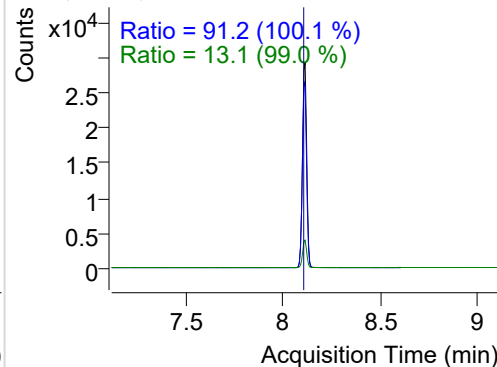
+ SIM (7.698-7.840 min, 24 scans) (\*\*) 220407

**IS-D10-Acenaphthene**

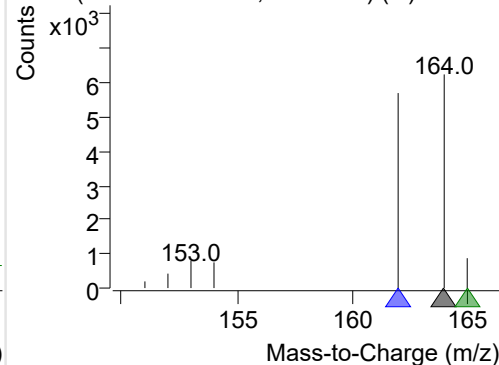
+ Selected Ion (164.0) 220407-PAHs-028.D



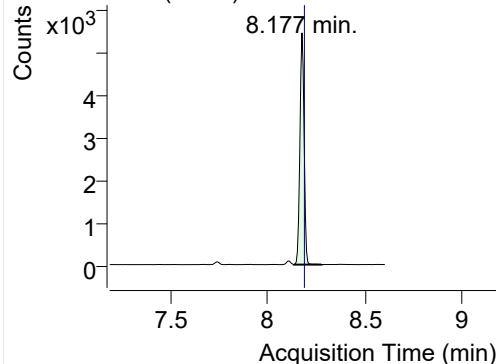
164.0, 162.0, 165.0



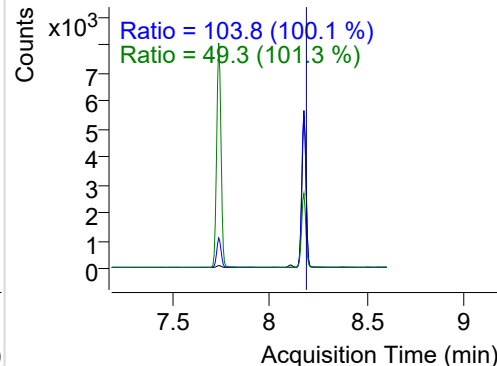
+ SIM (8.065-8.177 min, 20 scans) (\*\*) 220407

**Acenaphthene**

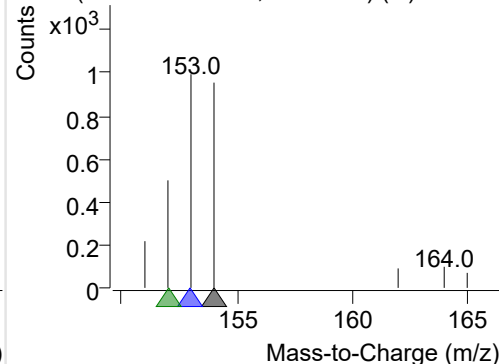
+ Selected Ion (154.0) 220407-PAHs-028.D



154.0, 153.0, 152.0

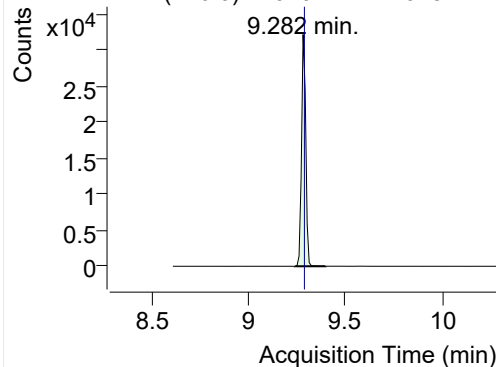


+ SIM (8.136-8.278 min, 25 scans) (\*\*) 220407

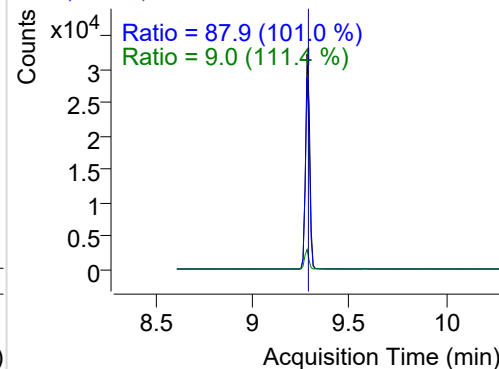


## LSS-D10-Fluorene

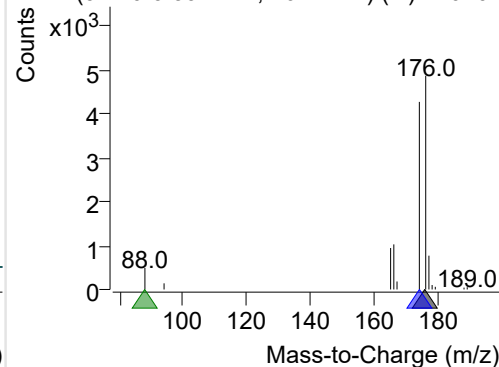
+ Selected Ion (176.0) 220407-PAHs-028.D



176.0, 174.0, 88.0

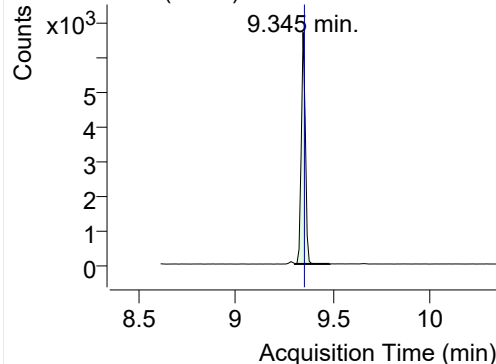


+ SIM (9.240-9.397 min, 16 scans) (\*\*) 220407

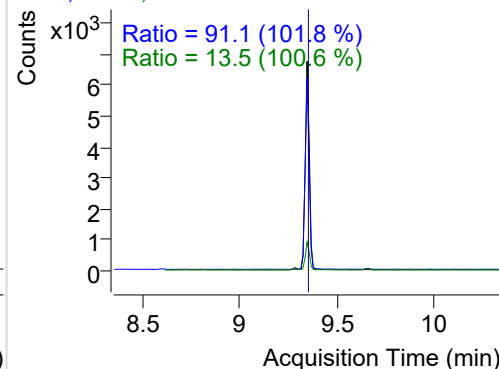


## Fluorene

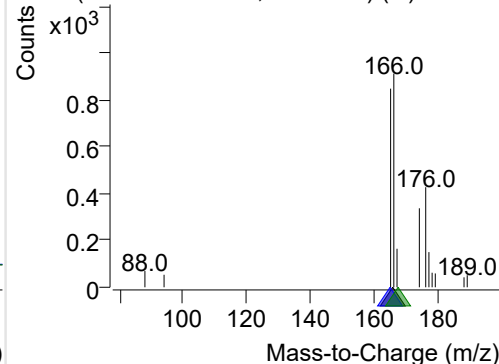
+ Selected Ion (166.0) 220407-PAHs-028.D



166.0, 165.0, 167.0

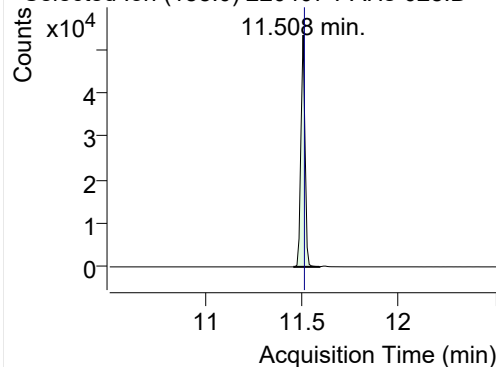


+ SIM (9.303-9.481 min, 18 scans) (\*\*) 220407

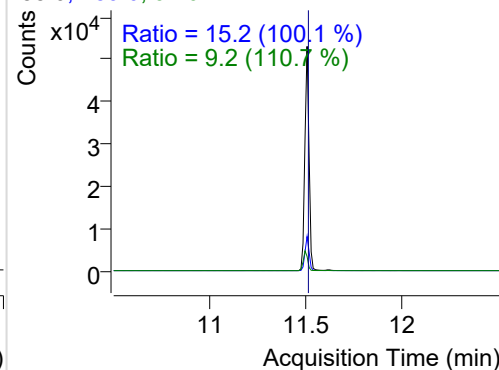


## IS-D10-Phenanthrene

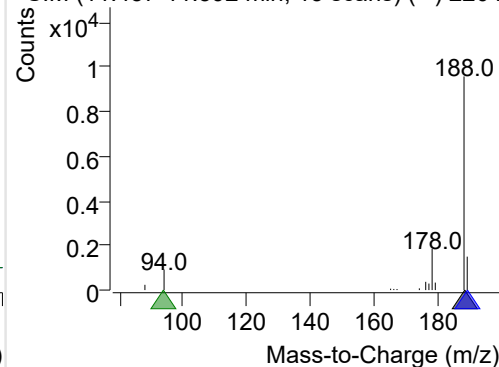
+ Selected Ion (188.0) 220407-PAHs-028.D



188.0, 189.0, 94.0

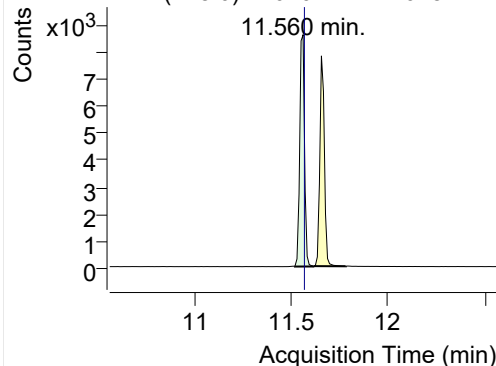


+ SIM (11.457-11.592 min, 13 scans) (\*\*) 2204

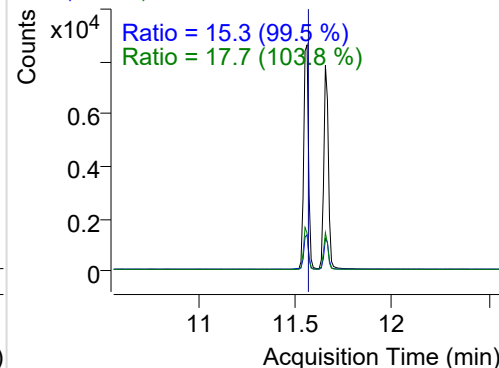


## Phenanthrene

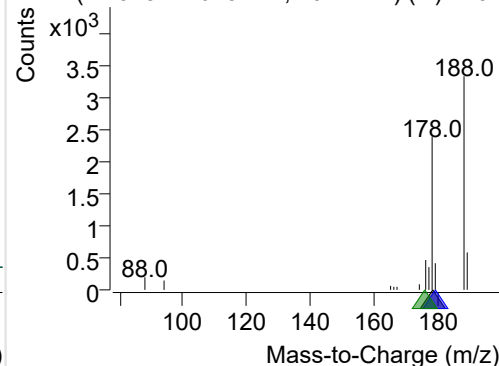
+ Selected Ion (178.0) 220407-PAHs-028.D



178.0, 179.0, 176.0

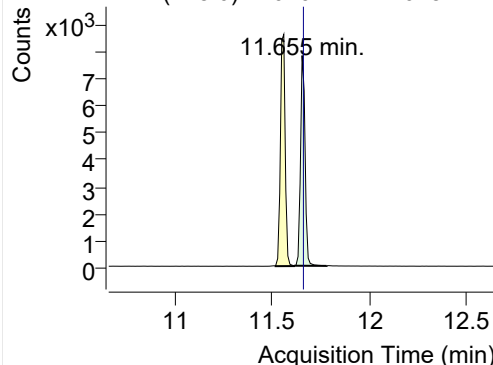


+ SIM (11.518-11.613 min, 10 scans) (\*\*) 2204

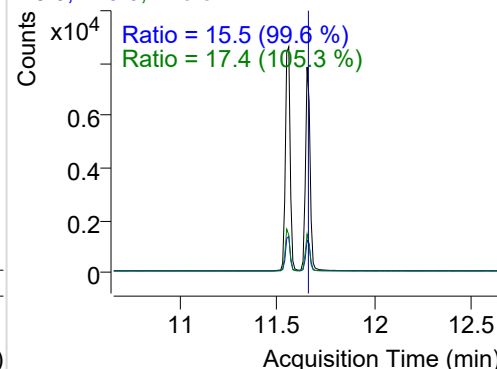


**Anthracene**

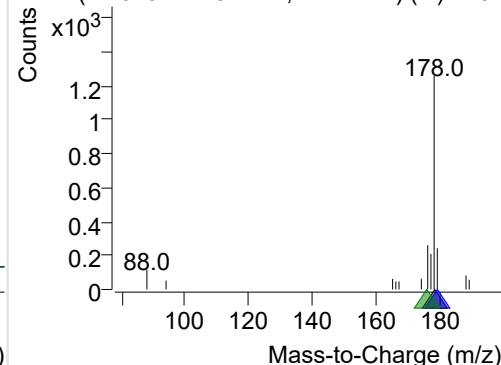
+ Selected Ion (178.0) 220407-PAHs-028.D



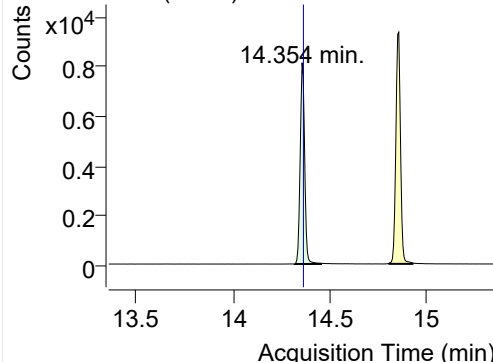
178.0, 179.0, 176.0



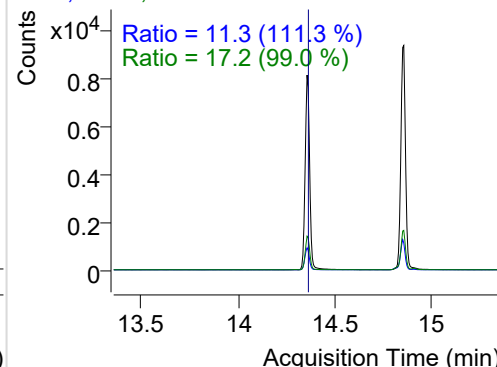
+ SIM (11.613-11.781 min, 17 scans) (\*\*) 2204

**Fluoranthene**

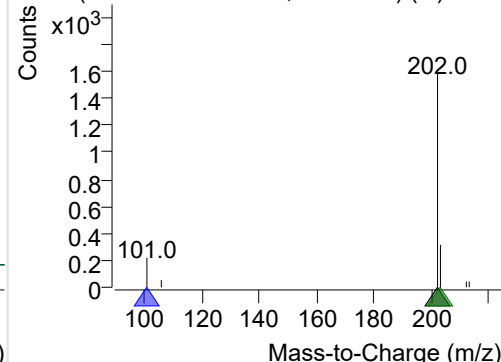
+ Selected Ion (202.0) 220407-PAHs-028.D



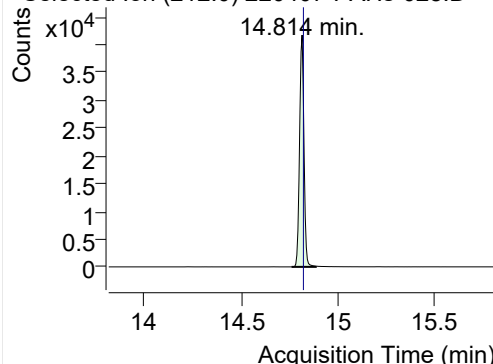
202.0, 101.0, 203.0



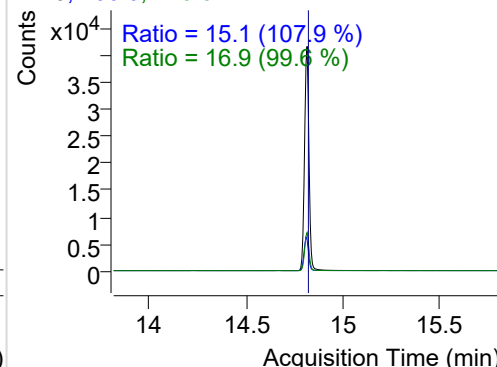
+ SIM (14.316-14.451 min, 26 scans) (\*\*) 2204

**LSS-D10-Pyrene**

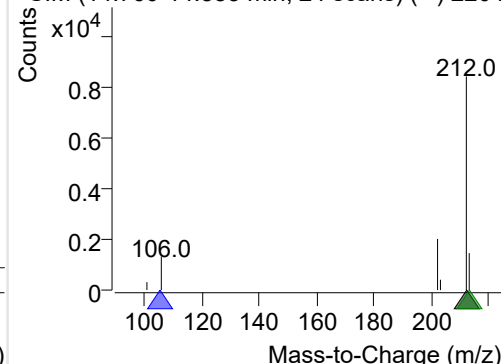
+ Selected Ion (212.0) 220407-PAHs-028.D



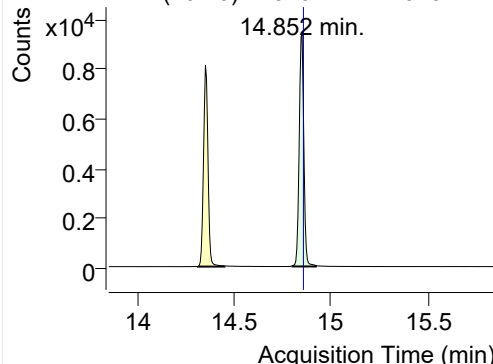
212.0, 106.0, 213.0



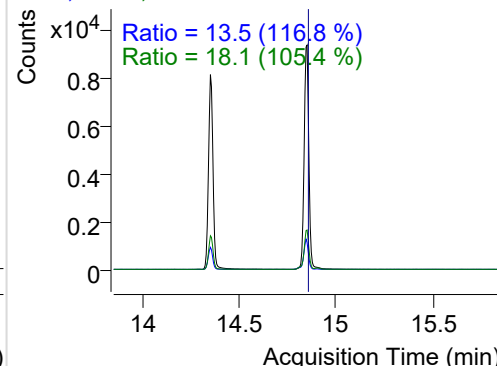
+ SIM (14.760-14.885 min, 24 scans) (\*\*) 2204

**Pyrene**

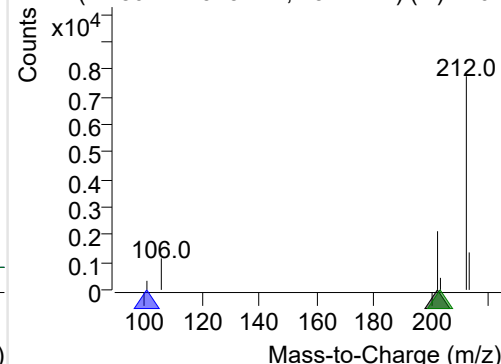
+ Selected Ion (202.0) 220407-PAHs-028.D



202.0, 101.0, 203.0

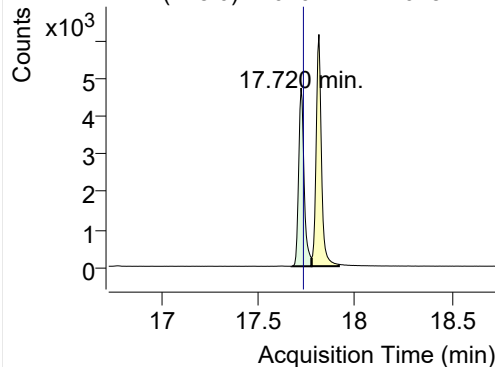


+ SIM (14.804-14.923 min, 23 scans) (\*\*) 2204

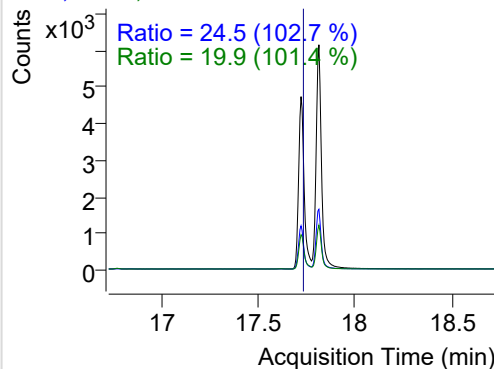


**Benz(a)anthracene**

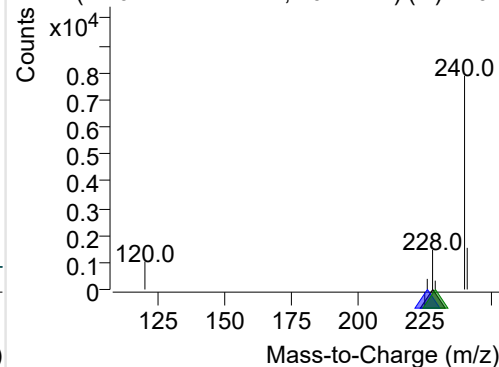
+ Selected Ion (228.0) 220407-PAHs-028.D



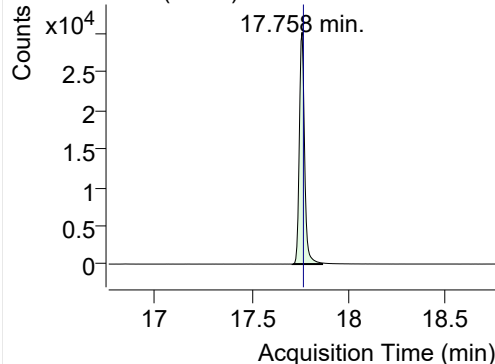
228.0, 226.0, 229.0



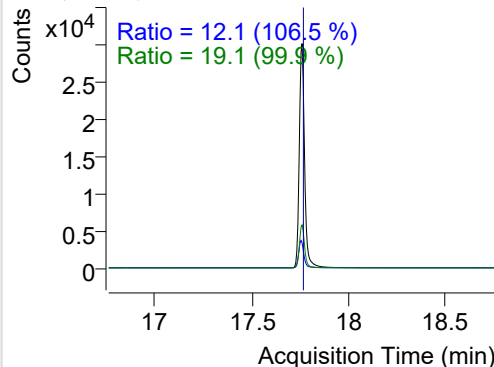
+ SIM (17.671-17.774 min, 20 scans) (\*\*) 2204

**IS-D12-Chrysene**

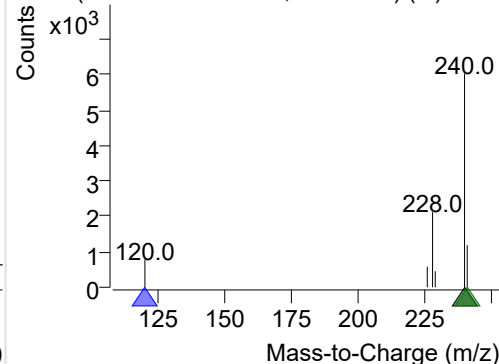
+ Selected Ion (240.0) 220407-PAHs-028.D



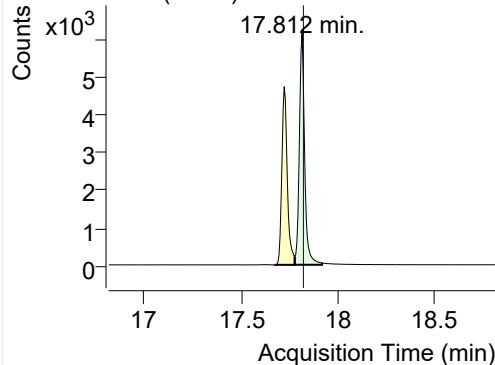
240.0, 120.0, 241.0



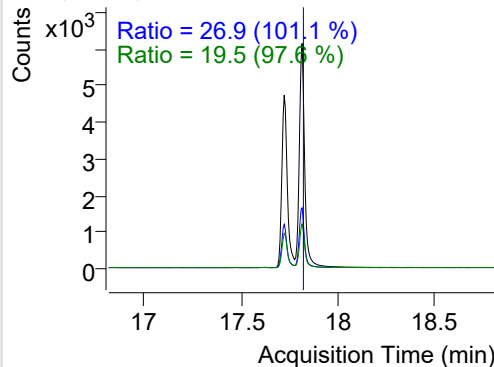
+ SIM (17.709-17.861 min, 29 scans) (\*\*) 2204

**Chrysene**

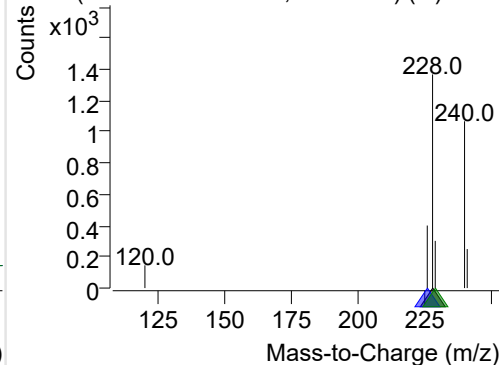
+ Selected Ion (228.0) 220407-PAHs-028.D



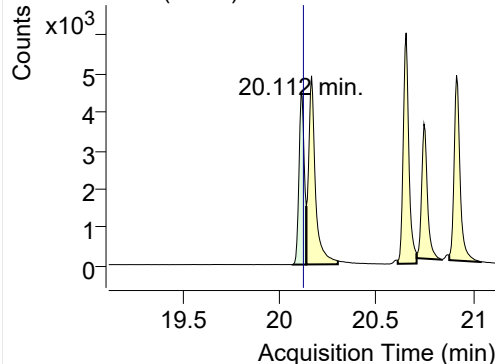
228.0, 226.0, 229.0



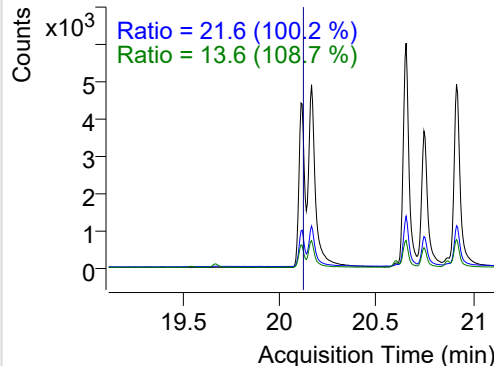
+ SIM (17.774-17.915 min, 27 scans) (\*\*) 2204

**Benzo(b)fluoranthene**

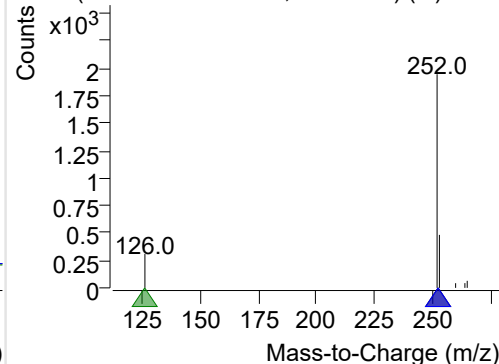
+ Selected Ion (252.0) 220407-PAHs-028.D



252.0, 253.0, 126.0

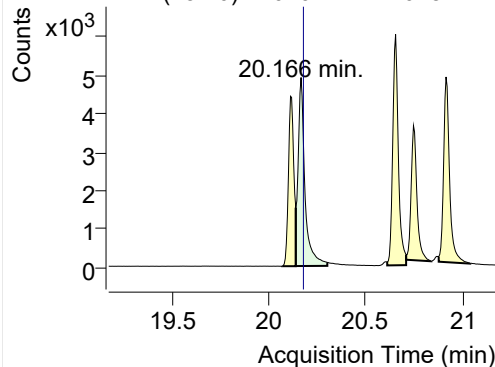


+ SIM (20.068-20.139 min, 14 scans) (\*\*) 2204

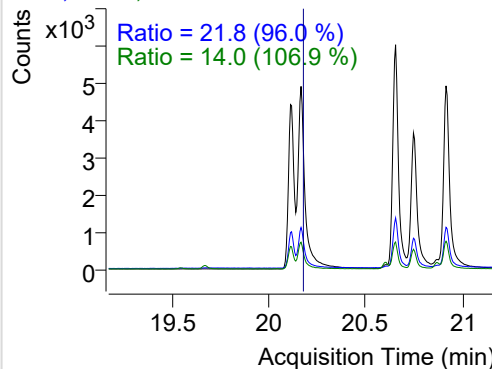


**Benzo(k)fluoranthene**

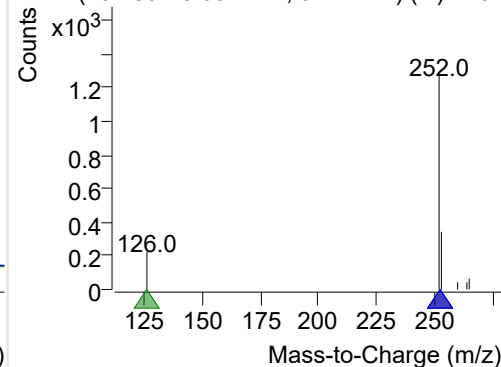
+ Selected Ion (252.0) 220407-PAHs-028.D



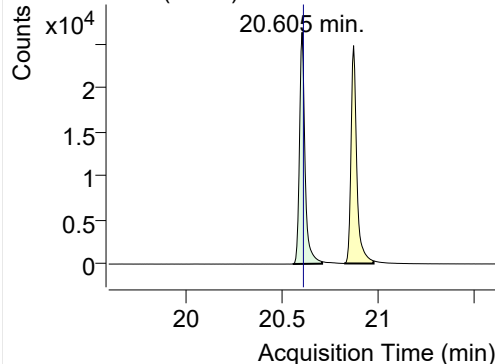
252.0, 253.0, 126.0



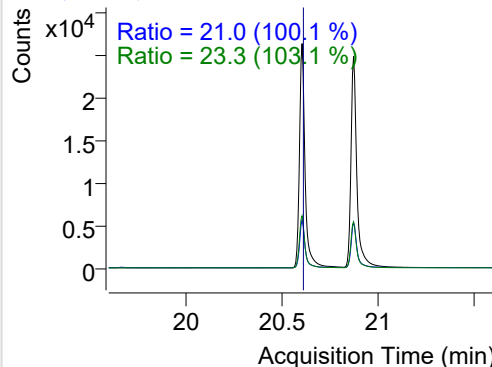
+ SIM (20.139-20.301 min, 31 scans) (\*\*) 2204

**SS-D12-Benzo(e)pyrene**

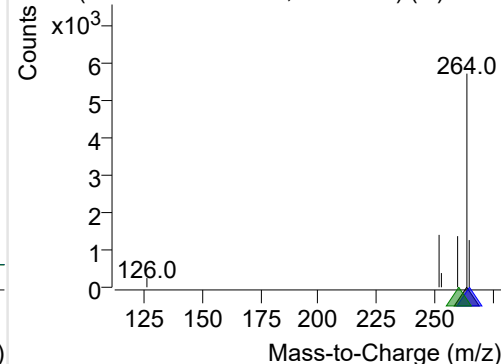
+ Selected Ion (264.0) 220407-PAHs-028.D



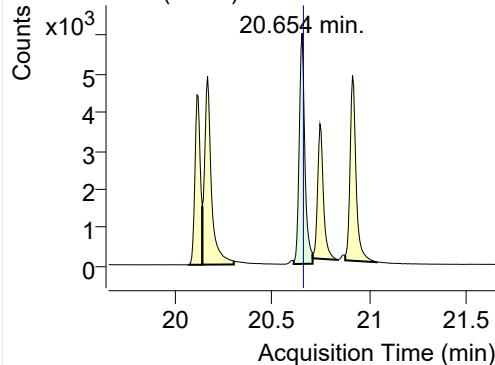
264.0, 265.0, 260.0



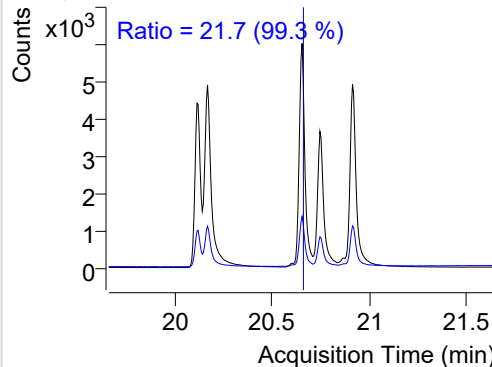
+ SIM (20.557-20.708 min, 28 scans) (\*\*) 2204

**Benzo(e)pyrene**

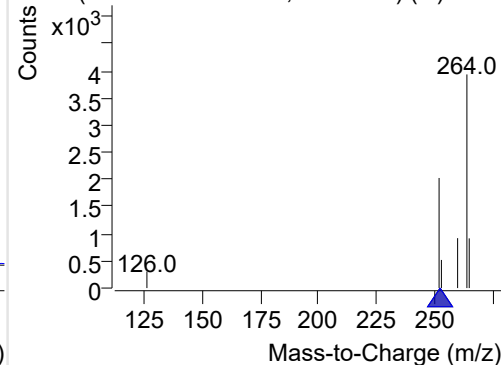
+ Selected Ion (252.0) 220407-PAHs-028.D



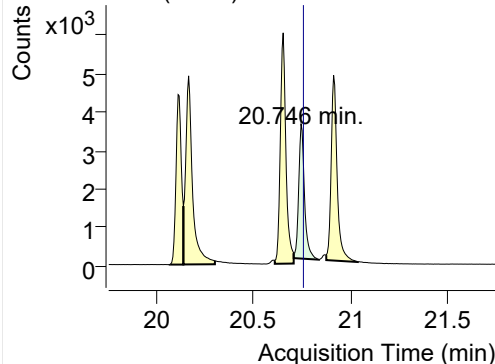
252.0, 253.0



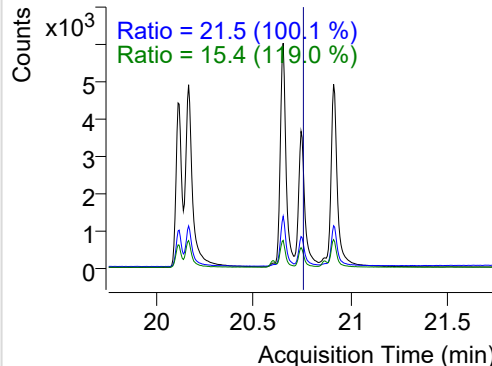
+ SIM (20.611-20.708 min, 19 scans) (\*\*) 2204

**Benzo(a)pyrene**

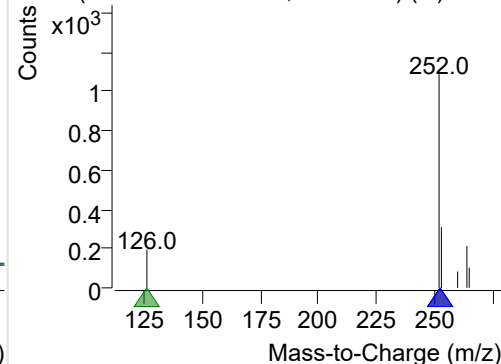
+ Selected Ion (252.0) 220407-PAHs-028.D



252.0, 253.0, 126.0

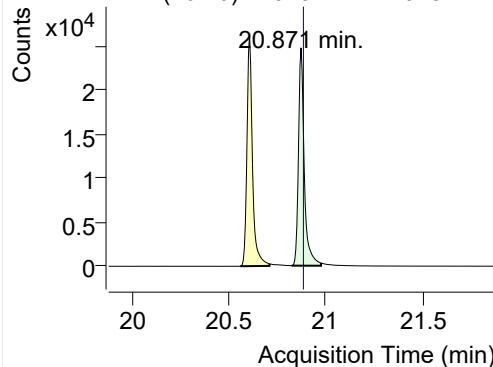


+ SIM (20.708-20.838 min, 25 scans) (\*\*) 2204

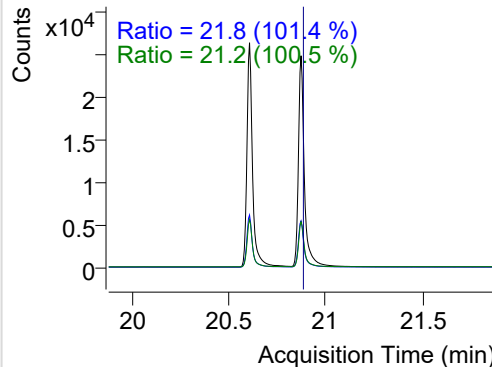


## IS-D12-Perylene

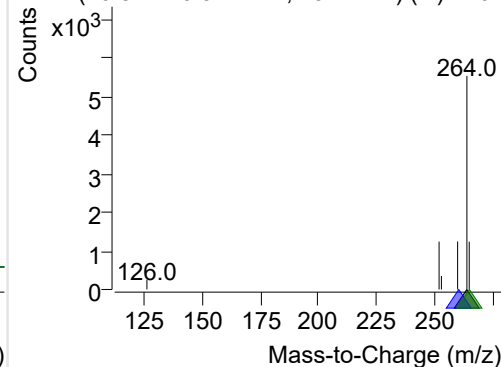
+ Selected Ion (264.0) 220407-PAHs-028.D



264.0, 260.0, 265.0

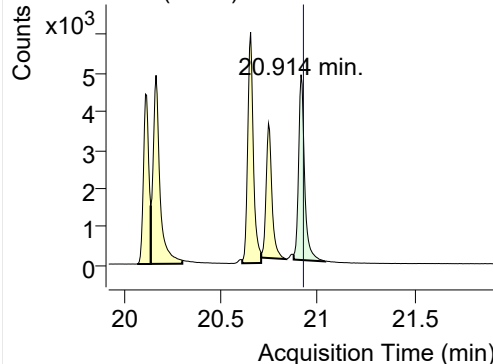


+ SIM (20.822-20.974 min, 29 scans) (\*\*) 2204

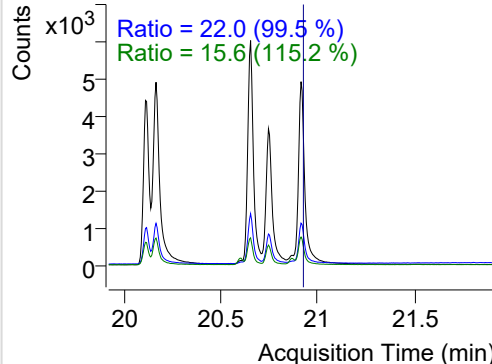


## Perylene

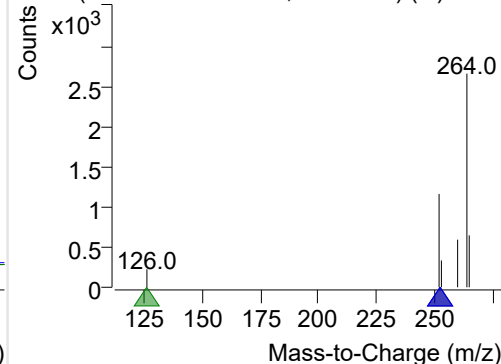
+ Selected Ion (252.0) 220407-PAHs-028.D



252.0, 253.0, 126.0

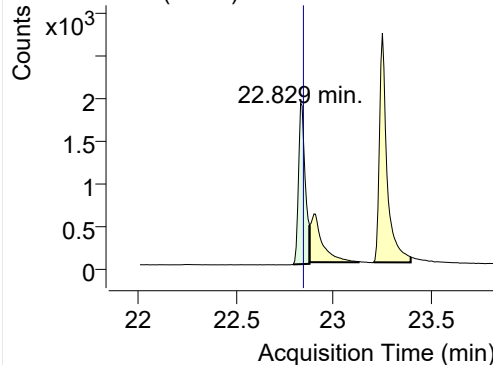


+ SIM (20.876-21.039 min, 31 scans) (\*\*) 2204

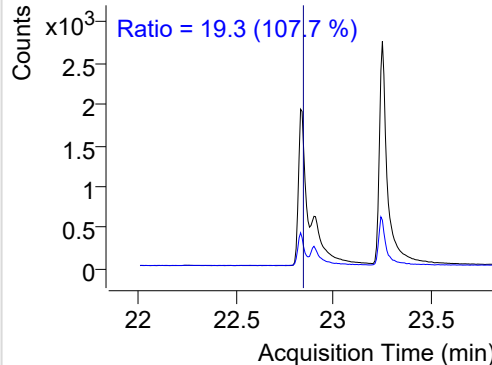


## Indeno(1,2,3-c,d)pyrene

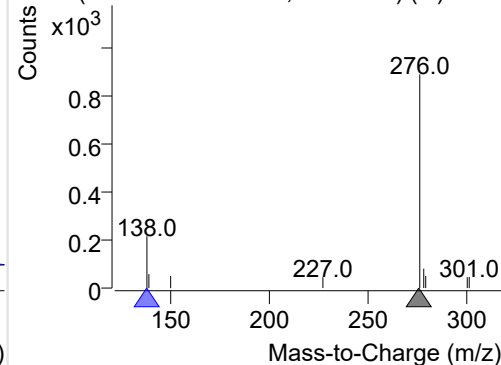
+ Selected Ion (276.0) 220407-PAHs-028.D



276.0, 138.0

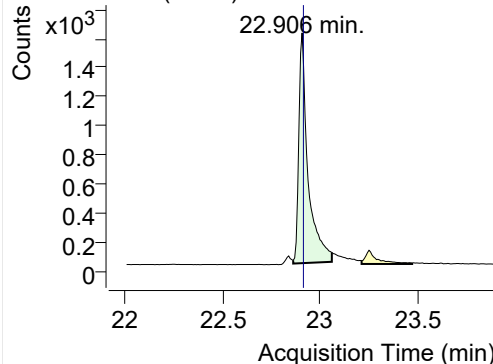


+ SIM (22.790-22.875 min, 12 scans) (\*\*) 2204

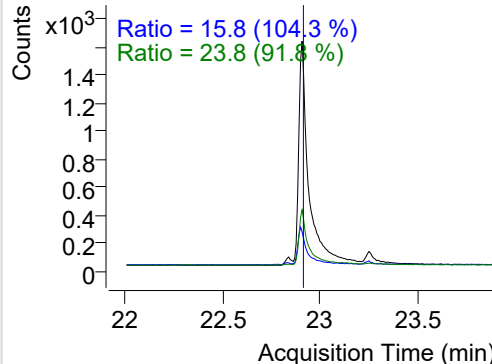


## Dibenz(a,h)anthracene

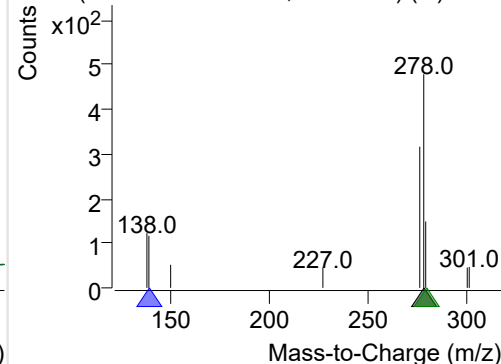
+ Selected Ion (278.0) 220407-PAHs-028.D



278.0, 139.0, 279.0

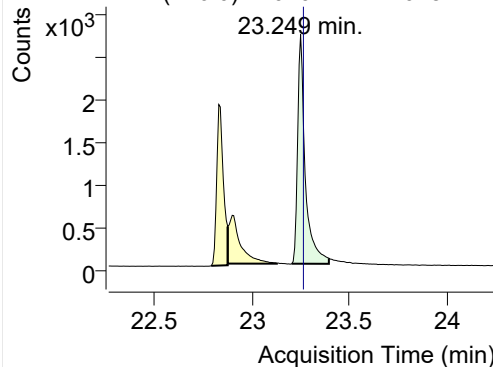


+ SIM (22.860-23.058 min, 27 scans) (\*\*) 2204

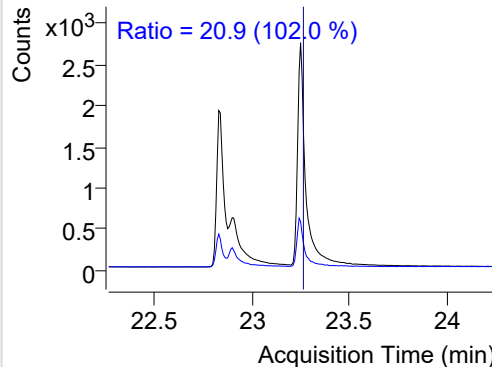


**Benzo(g,h,i)perylene**

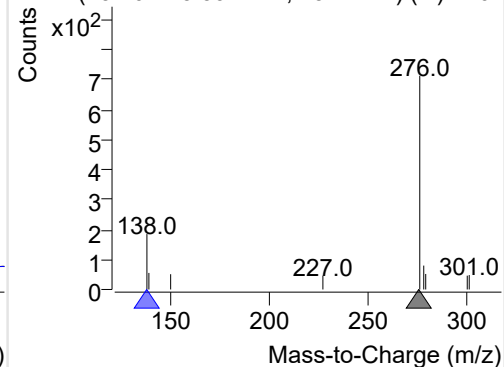
+ Selected Ion (276.0) 220407-PAHs-028.D



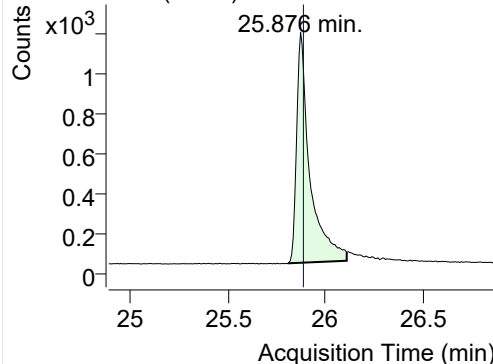
276.0, 138.0



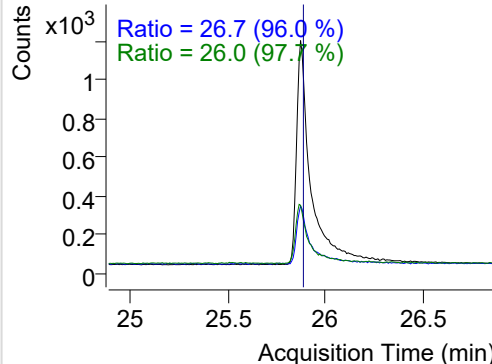
+ SIM (23.204-23.394 min, 25 scans) (\*\*) 2204

**Coronene**

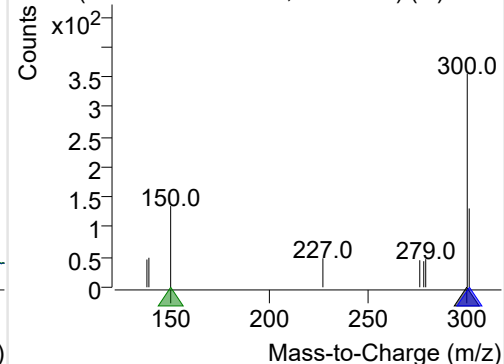
+ Selected Ion (300.0) 220407-PAHs-028.D



300.0, 301.0, 150.0



+ SIM (25.811-26.113 min, 40 scans) (\*\*) 2204





## Quantitative Analysis Sample Based Report

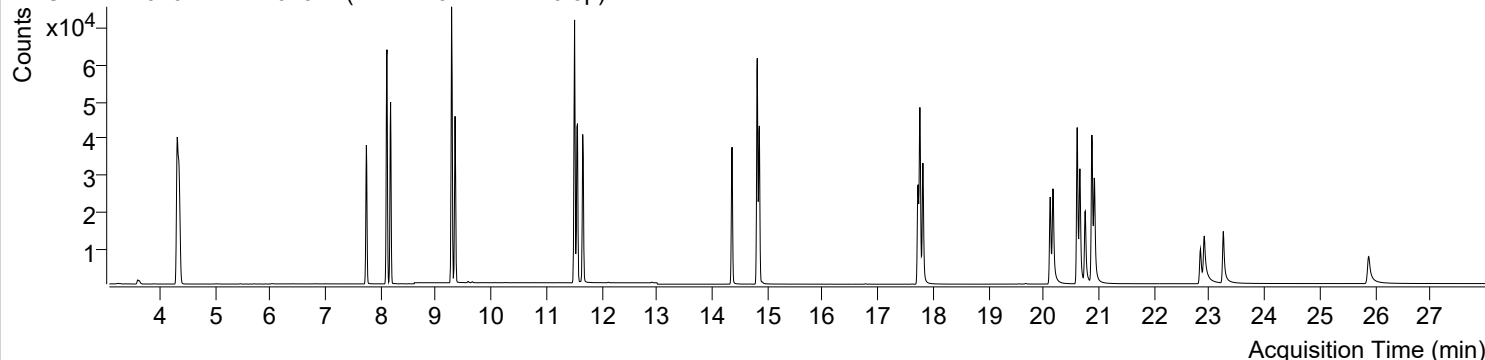


Trusted Answers

Batch Data Path File Name	D:\MassHunter\GCMS\1\data\PAHs\220407-PAHs-Sample\QuantResults\220407-PAHs-Quant.batch.bin		
Analysis Time Stamp	2022-04-13 오후 5:40:30	Analyst Name	DESKTOP-86B7UPG\5975MS
Report Generation Time	2022-04-13 오후 5:40:41	Report Generator Name	DESKTOP-86B7UPG\5975MS
Calibration Last Update	2022-04-13 오후 5:38:35	Batch State	Processed
Analyze Quant Version	10.2	Report Quant Version	10.2
Acq. Date-Time	2022-04-08 오전 1:54:39	Data File	220407-PAHs-029.D
Type	Sample	Name	PAHs-19mix-STD-0.5p
Dil.	1	Acq. Method File	PAHs 19mix-Method

## Sample Chromatogram

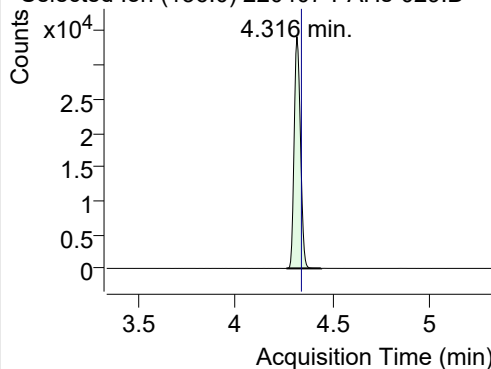
+ TIC SIM 220407-PAHs-029.D (PAHs-19mix-STD-0.5p)



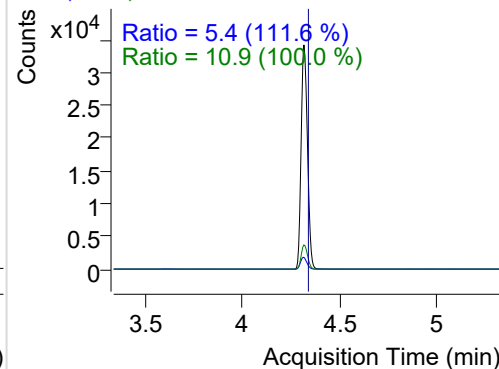
Name	RT	Transition	Resp.	Height	Final Conc. Units	Ratio
IS-D8-Naphthalene	4.316	136.0	76941	34137.93	ND µg/mL	10.9
Naphthalene	4.348	128.0	47831	20953.37	ND µg/mL	13.3
Acenaphthylene	7.739	152.0	41803	28352.09	ND µg/mL	19.6
IS-D10-Acenaphthene	8.112	164.0	47729	31679.26	ND µg/mL	91.3
Acenaphthene	8.177	154.0	26339	18307.79	ND µg/mL	104.7
LSS-D10-Fluorene	9.281	176.0	53137	34944.32	ND µg/mL	88.0
Fluorene	9.344	166.0	32575	22031.25	ND µg/mL	90.2
IS-D10-Phenanthrene	11.508	188.0	85176	58706.26	ND µg/mL	15.1
Phenanthrene	11.560	178.0	48754	29412.62	ND µg/mL	17.4
Anthracene	11.655	178.0	43849	26781.40	ND µg/mL	16.8
Fluoranthene	14.359	202.0	46377	29208.23	ND µg/mL	17.3
LSS-D10-Pyrene	14.814	212.0	72406	46667.56	ND µg/mL	16.9
Pyrene	14.852	202.0	52511	32739.42	ND µg/mL	17.5
Benz(a)anthracene	17.725	228.0	35030	18284.61	ND µg/mL	24.5
IS-D12-Chrysene	17.758	240.0	65150	35108.54	ND µg/mL	19.0
Chrysene	17.812	228.0	40551	21738.40	ND µg/mL	26.8
Benzo(b)fluoranthene	20.117	252.0	33477	17601.37	ND µg/mL	21.7
Benzo(k)fluoranthene	20.166	252.0	46216	19055.70	ND µg/mL	22.0
SS-D12-Benzo(e)pyrene	20.605	264.0	57624	29293.03	ND µg/mL	23.0
Benzo(e)pyrene	20.654	252.0	42137	21373.53	ND µg/mL	21.9
Benzo(a)pyrene	20.752	252.0	33098	14292.40	ND µg/mL	20.6
IS-D12-Perylene	20.871	264.0	60631	27671.89	ND µg/mL	21.2
Perylene	20.914	252.0	40435	17988.55	ND µg/mL	20.8
Indeno(1,2,3-c,d)pyrene	22.837	276.0	19118	7765.50	ND µg/mL	18.0
Dibenz(a,h)anthracene	22.906	278.0	22740	6790.35	ND µg/mL	24.2
Benzo(g,h,i)perylene	23.249	276.0	31321	11345.14	ND µg/mL	20.2
Coronene	25.883	300.0	22009	4871.26	ND µg/mL	25.7

## IS-D8-Naphthalene

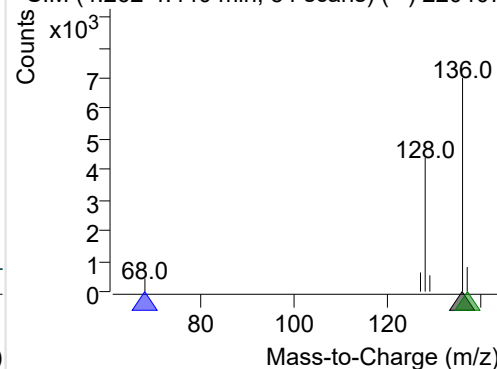
+ Selected Ion (136.0) 220407-PAHs-029.D



136.0, 68.0, 137.0

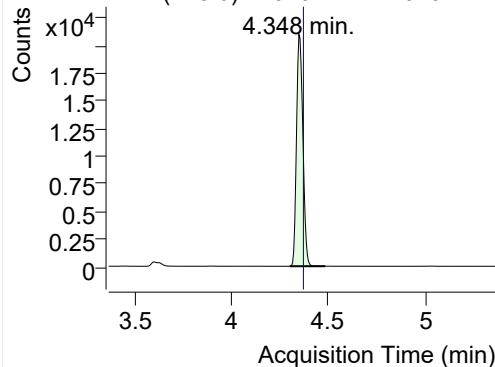


+ SIM (4.262-4.440 min, 34 scans) (\*\*) 220407

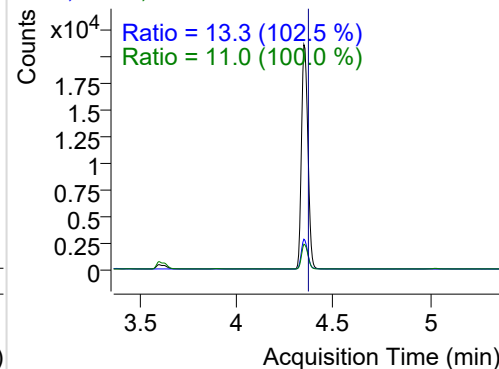


**Naphthalene**

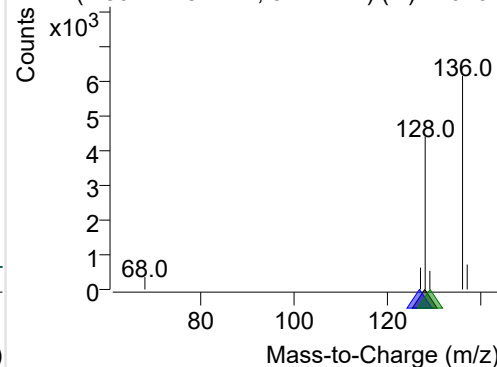
+ Selected Ion (128.0) 220407-PAHs-029.D



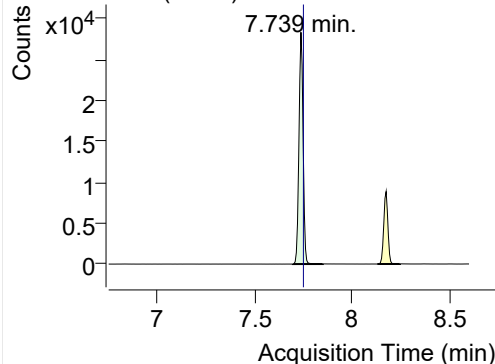
128.0, 127.0, 129.0



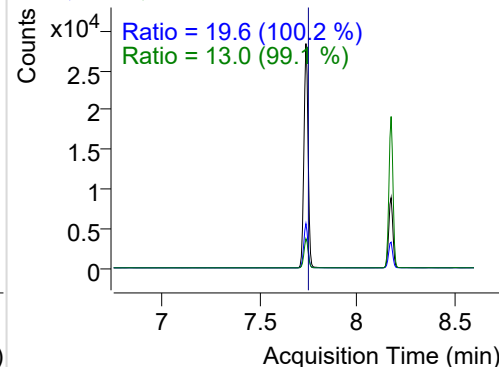
+ SIM (4.301-4.484 min, 34 scans) (\*\*) 220407

**Acenaphthylene**

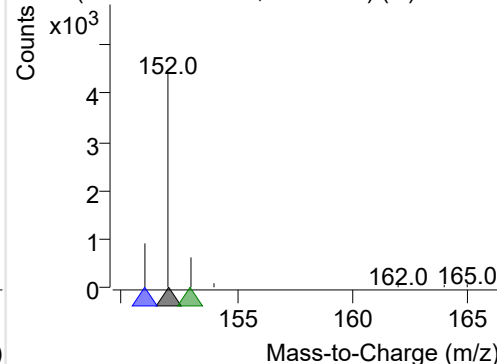
+ Selected Ion (152.0) 220407-PAHs-029.D



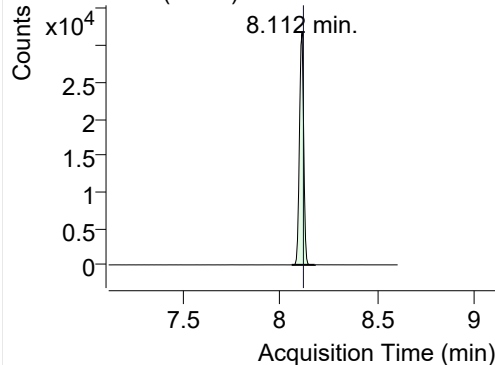
152.0, 151.0, 153.0



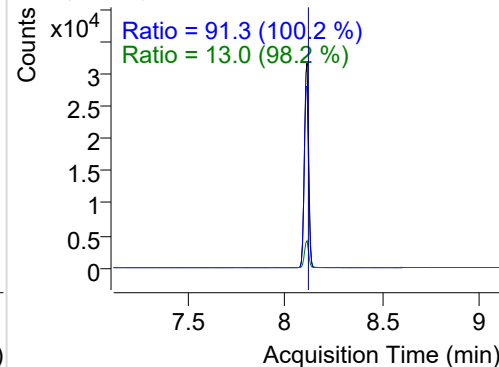
+ SIM (7.698-7.852 min, 27 scans) (\*\*) 220407

**IS-D10-Acenaphthene**

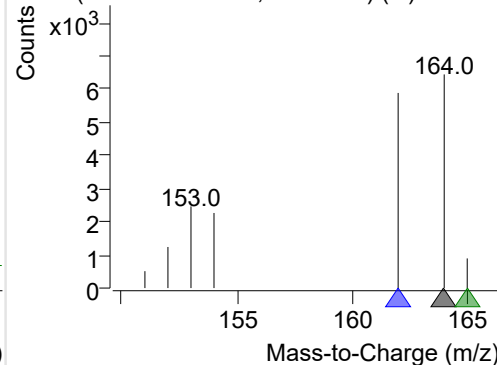
+ Selected Ion (164.0) 220407-PAHs-029.D



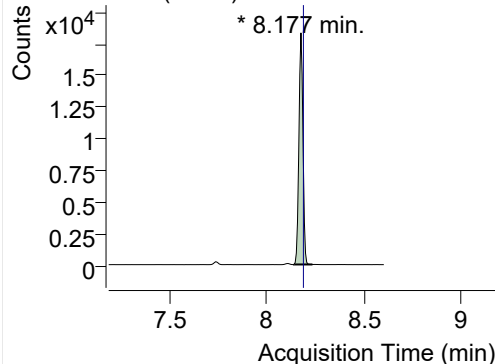
164.0, 162.0, 165.0



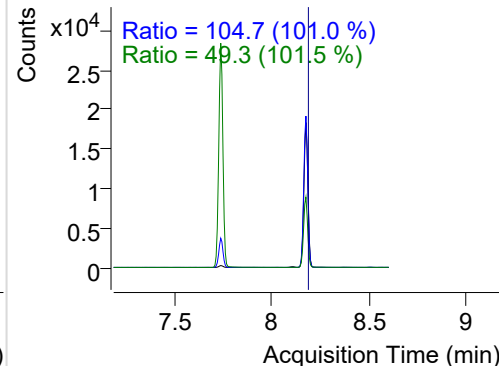
+ SIM (8.059-8.177 min, 21 scans) (\*\*) 220407

**Acenaphthene**

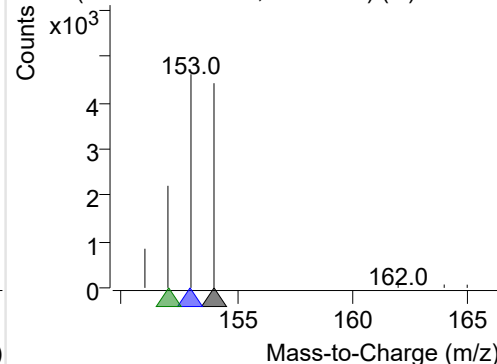
+ Selected Ion (154.0) 220407-PAHs-029.D



154.0, 153.0, 152.0

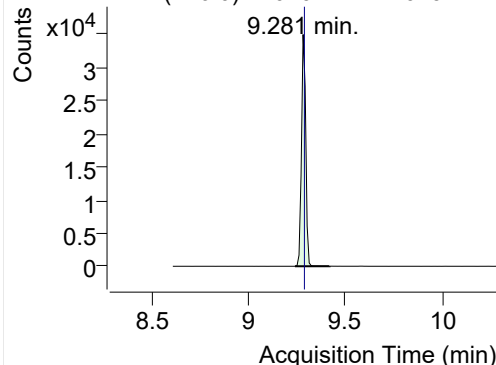


+ SIM (8.142-8.236 min, 17 scans) (\*\*) 220407

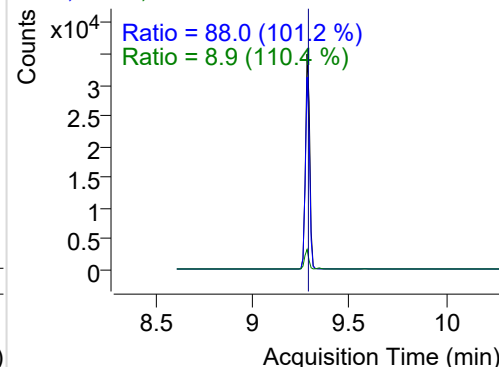


## LSS-D10-Fluorene

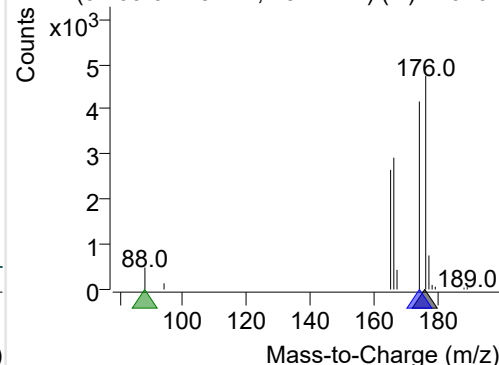
+ Selected Ion (176.0) 220407-PAHs-029.D



176.0, 174.0, 88.0

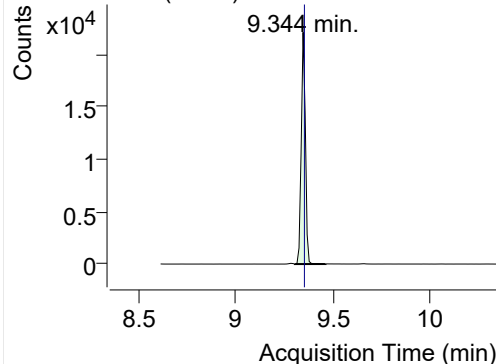


+ SIM (9.239-9.418 min, 18 scans) (\*\*) 220407

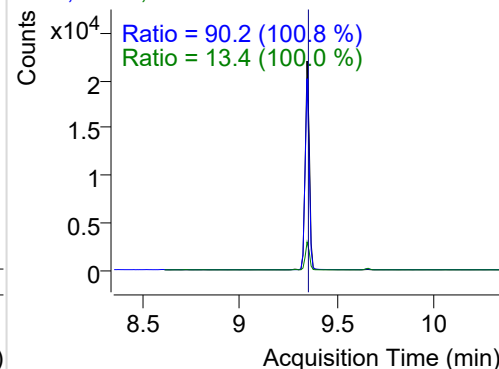


## Fluorene

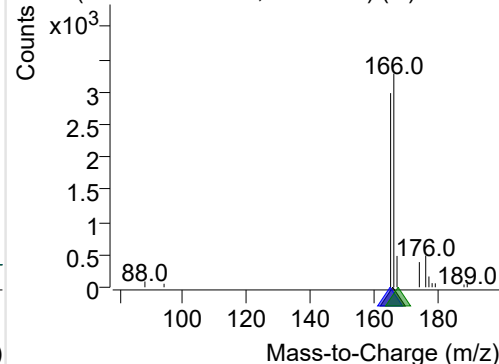
+ Selected Ion (166.0) 220407-PAHs-029.D



166.0, 165.0, 167.0

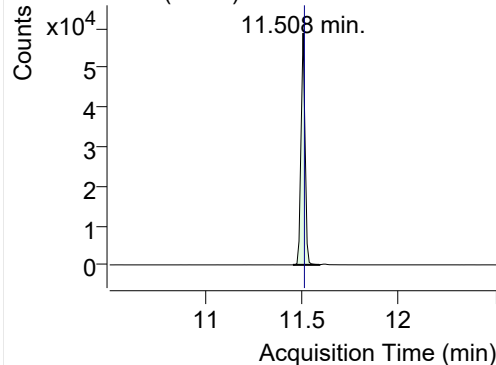


+ SIM (9.302-9.460 min, 16 scans) (\*\*) 220407

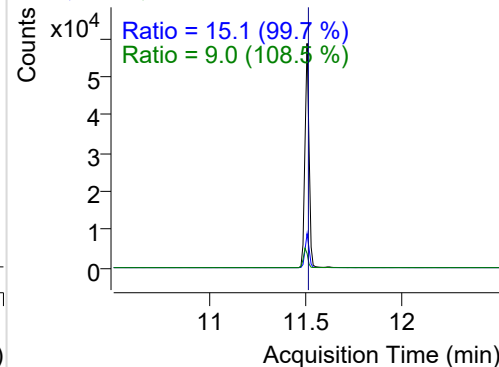


## IS-D10-Phenanthrene

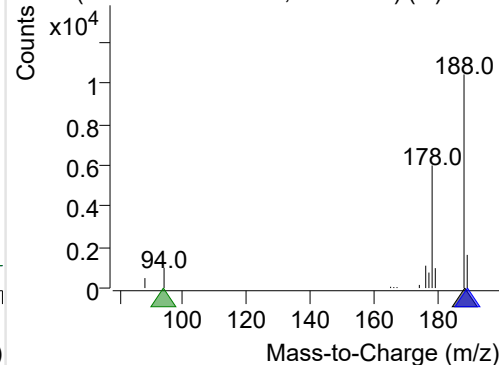
+ Selected Ion (188.0) 220407-PAHs-029.D



188.0, 189.0, 94.0

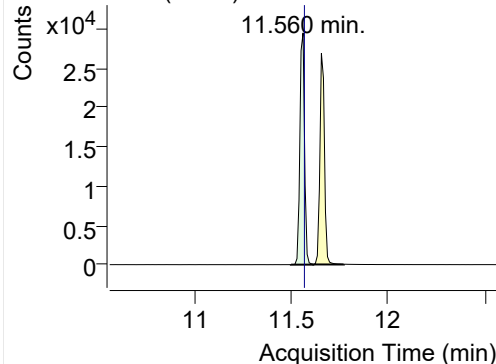


+ SIM (11.455-11.592 min, 13 scans) (\*\*) 2204

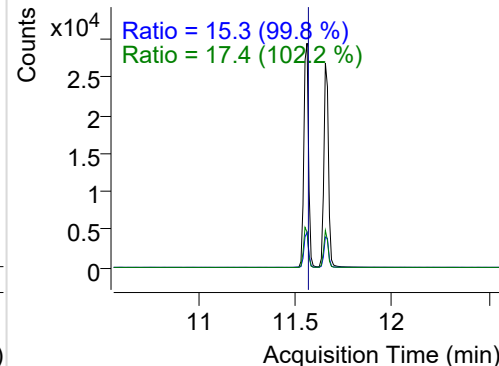


## Phenanthrene

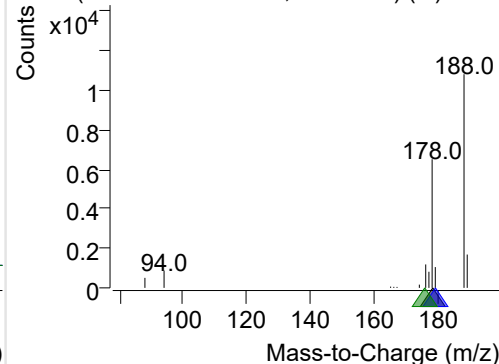
+ Selected Ion (178.0) 220407-PAHs-029.D



178.0, 179.0, 176.0

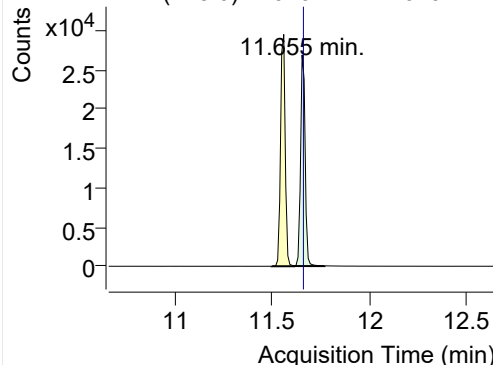


+ SIM (11.497-11.613 min, 12 scans) (\*\*) 2204

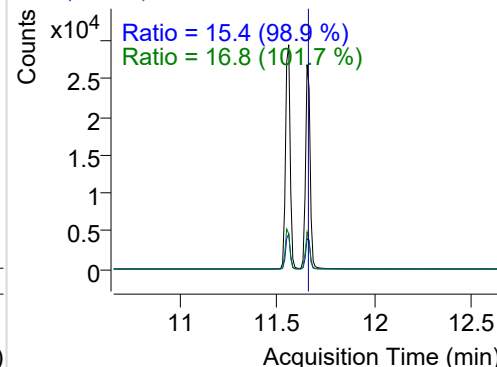


**Anthracene**

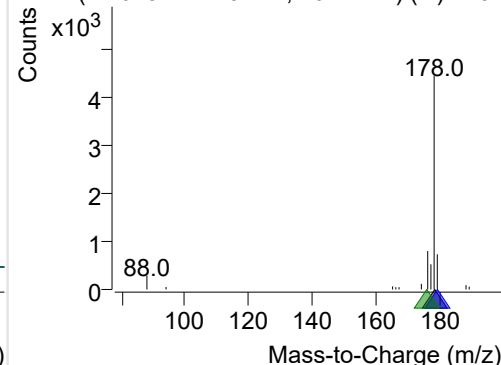
+ Selected Ion (178.0) 220407-PAHs-029.D



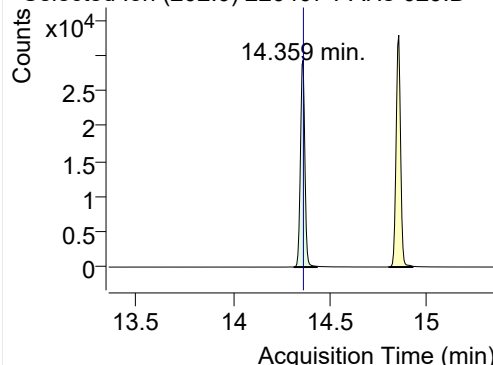
178.0, 179.0, 176.0



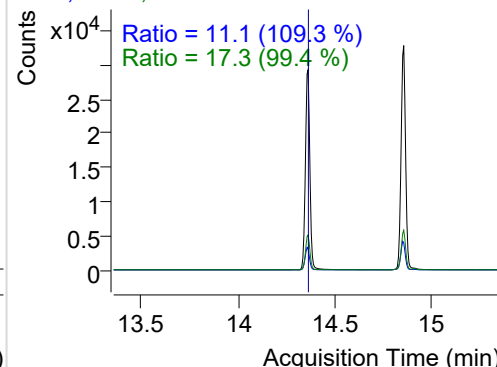
+ SIM (11.613-11.770 min, 16 scans) (\*\*) 2204

**Fluoranthene**

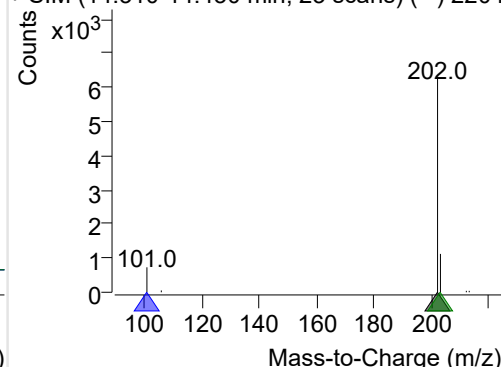
+ Selected Ion (202.0) 220407-PAHs-029.D



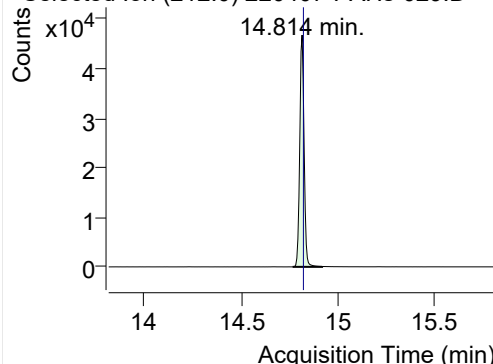
202.0, 101.0, 203.0



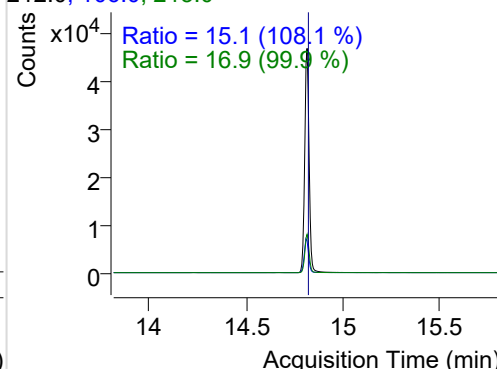
+ SIM (14.310-14.430 min, 23 scans) (\*\*) 2204

**LSS-D10-Pyrene**

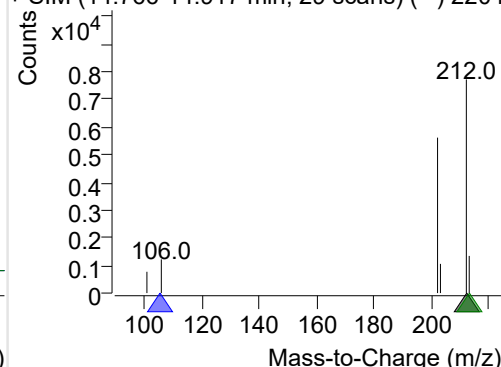
+ Selected Ion (212.0) 220407-PAHs-029.D



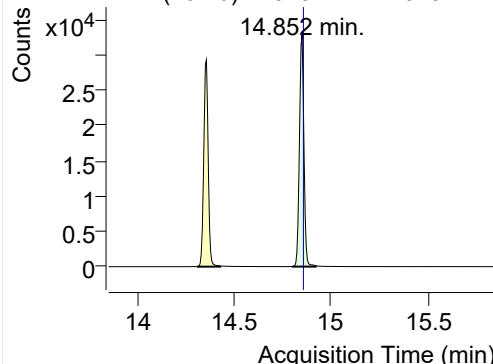
212.0, 106.0, 213.0



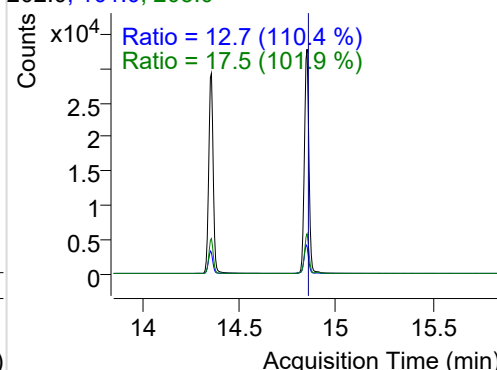
+ SIM (14.766-14.917 min, 29 scans) (\*\*) 2204

**Pyrene**

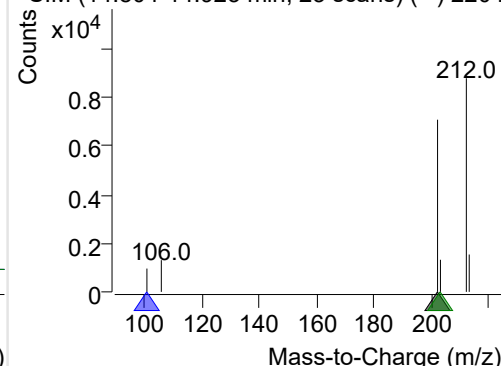
+ Selected Ion (202.0) 220407-PAHs-029.D



202.0, 101.0, 203.0

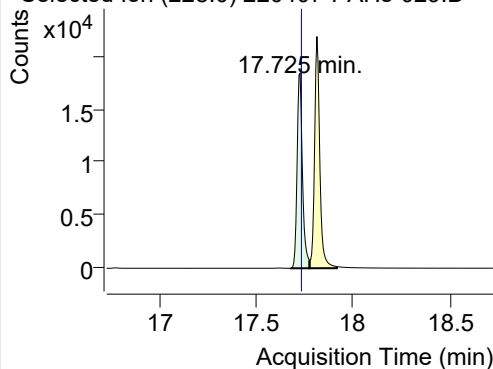


+ SIM (14.804-14.923 min, 23 scans) (\*\*) 2204

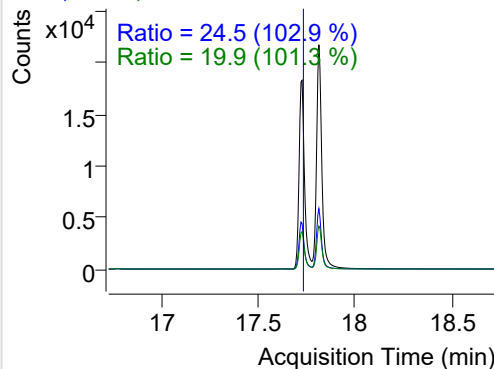


**Benz(a)anthracene**

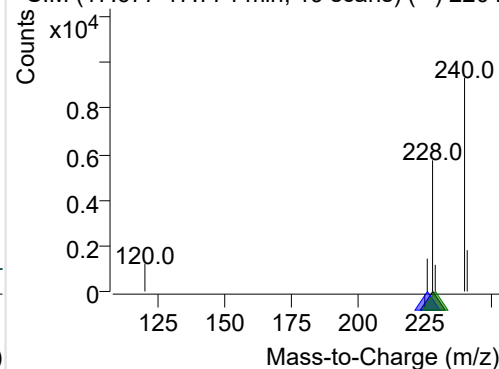
+ Selected Ion (228.0) 220407-PAHs-029.D



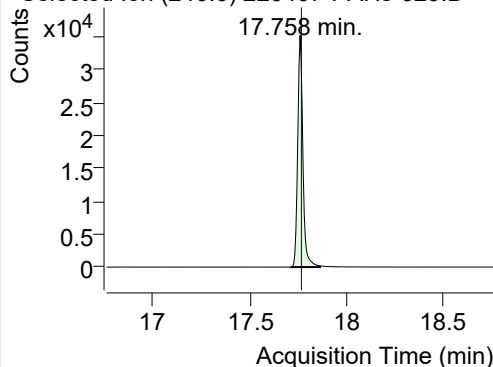
228.0, 226.0, 229.0



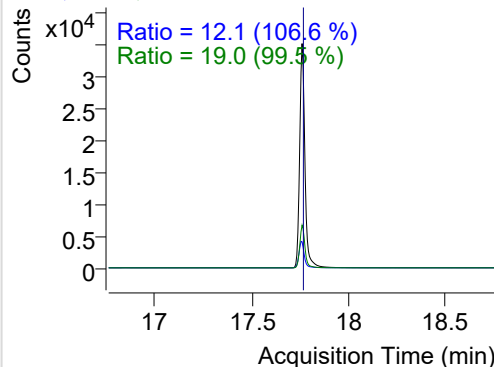
+ SIM (17.677-17.774 min, 19 scans) (\*\*) 2204

**IS-D12-Chrysene**

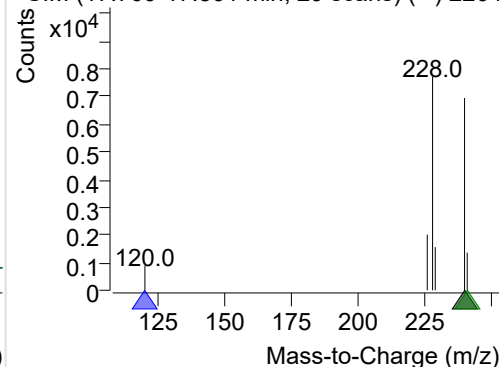
+ Selected Ion (240.0) 220407-PAHs-029.D



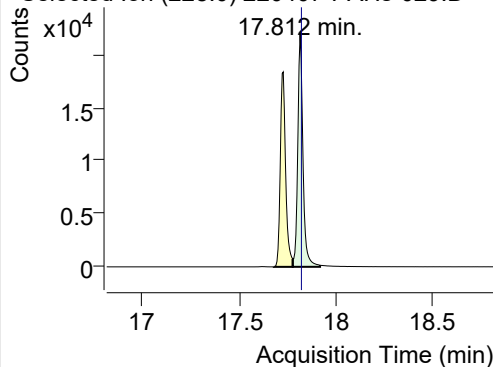
240.0, 120.0, 241.0



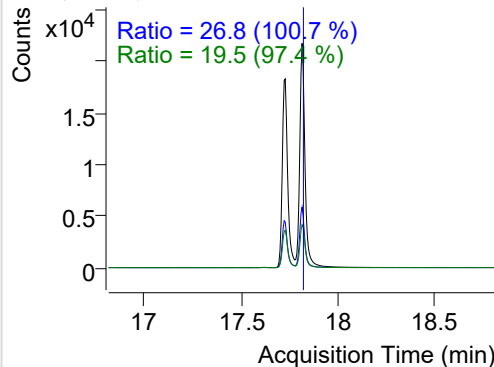
+ SIM (17.709-17.861 min, 29 scans) (\*\*) 2204

**Chrysene**

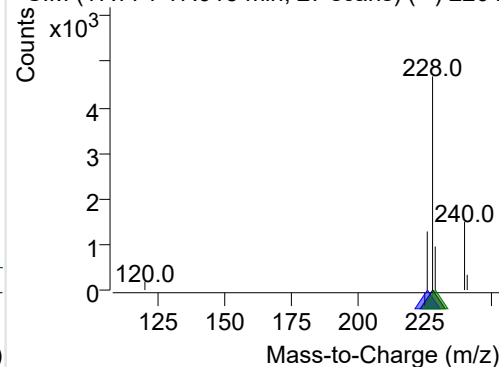
+ Selected Ion (228.0) 220407-PAHs-029.D



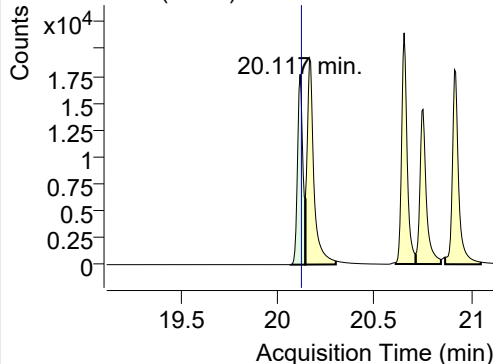
228.0, 226.0, 229.0



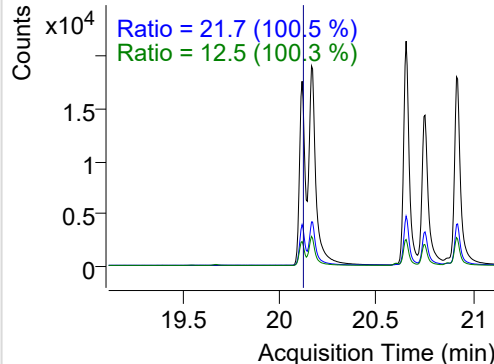
+ SIM (17.774-17.915 min, 27 scans) (\*\*) 2204

**Benzo(b)fluoranthene**

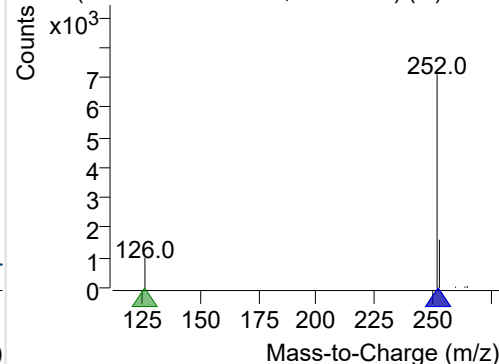
+ Selected Ion (252.0) 220407-PAHs-029.D



252.0, 253.0, 126.0

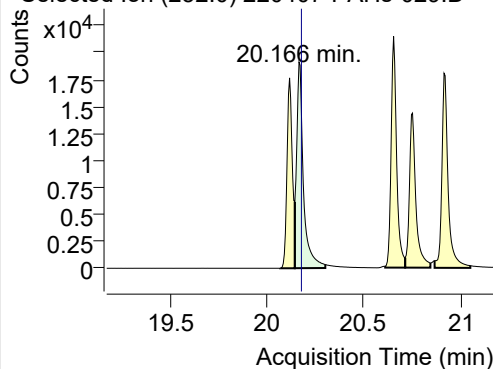


+ SIM (20.068-20.144 min, 15 scans) (\*\*) 2204

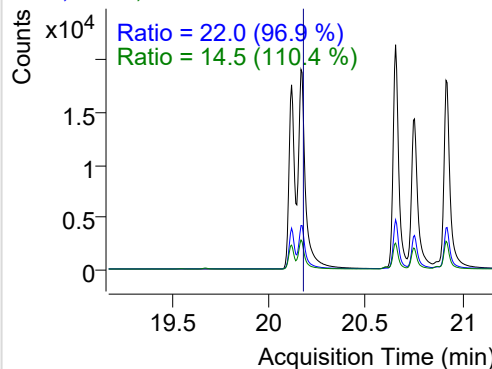


**Benzo(k)fluoranthene**

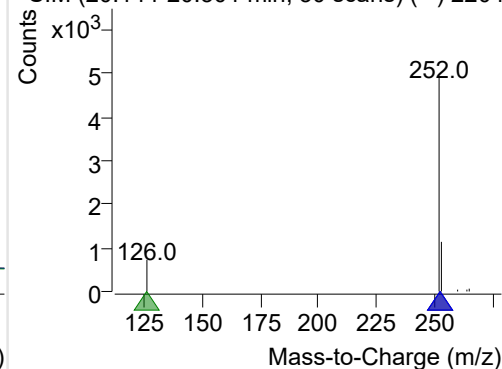
+ Selected Ion (252.0) 220407-PAHs-029.D



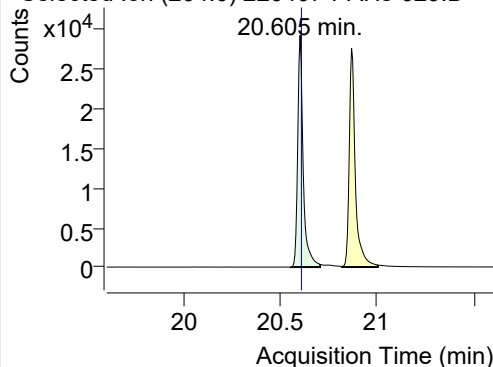
252.0, 253.0, 126.0



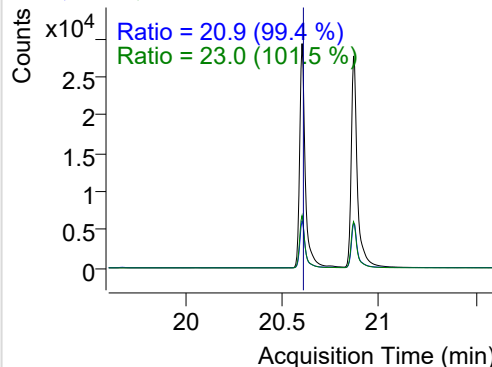
+ SIM (20.144-20.301 min, 30 scans) (\*\*) 2204

**SS-D12-Benzo(e)pyrene**

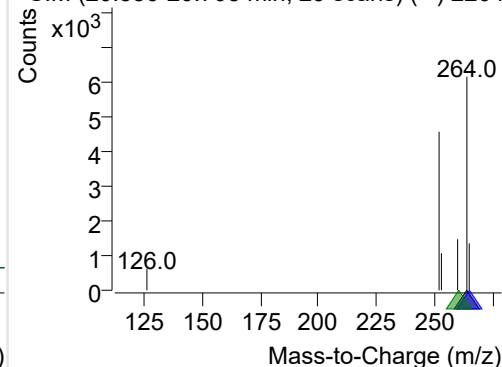
+ Selected Ion (264.0) 220407-PAHs-029.D



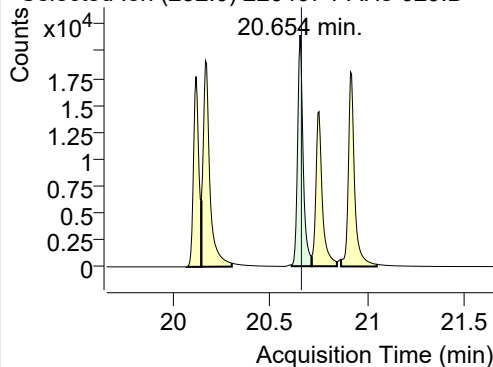
264.0, 265.0, 260.0



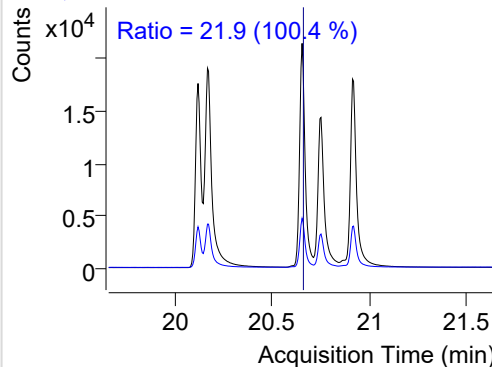
+ SIM (20.556-20.708 min, 29 scans) (\*\*) 2204

**Benzo(e)pyrene**

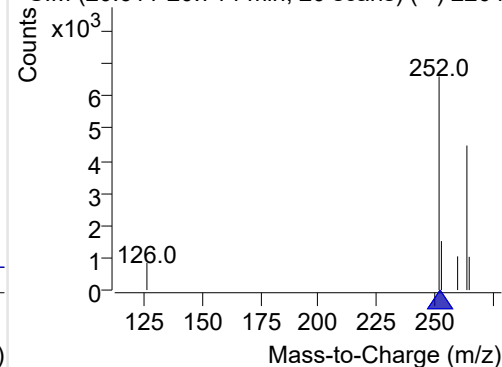
+ Selected Ion (252.0) 220407-PAHs-029.D



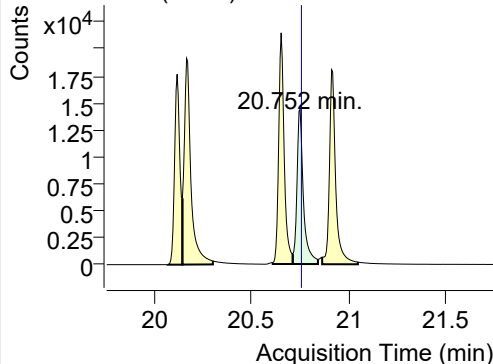
252.0, 253.0



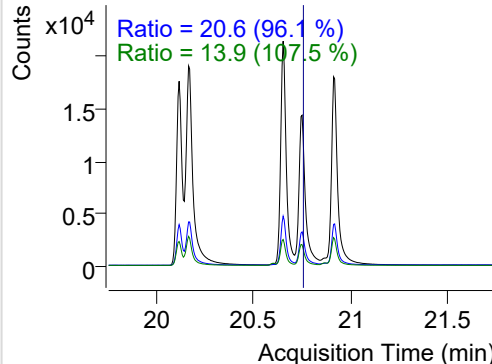
+ SIM (20.611-20.714 min, 20 scans) (\*\*) 2204

**Benzo(a)pyrene**

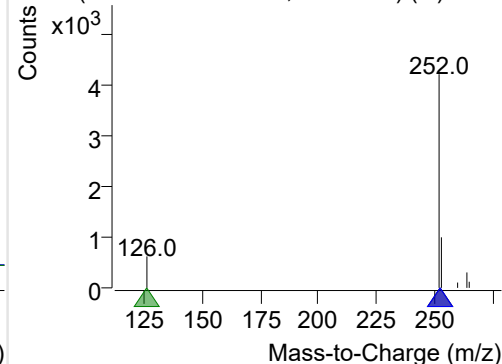
+ Selected Ion (252.0) 220407-PAHs-029.D



252.0, 253.0, 126.0

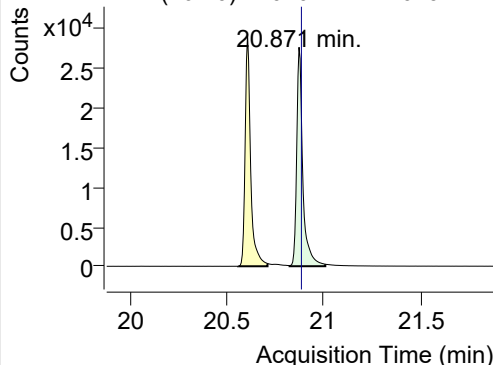


+ SIM (20.714-20.844 min, 25 scans) (\*\*) 2204

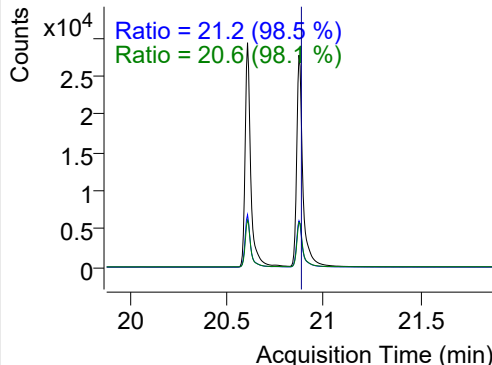


## IS-D12-Perylene

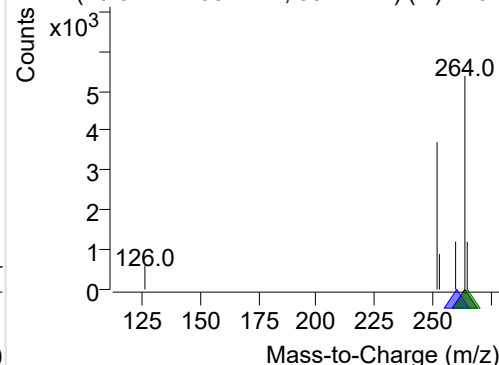
+ Selected Ion (264.0) 220407-PAHs-029.D



264.0, 260.0, 265.0

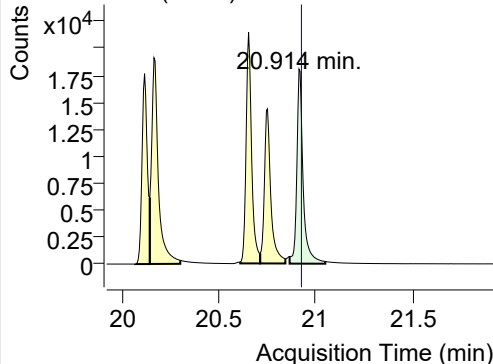


+ SIM (20.822-21.007 min, 35 scans) (\*\*) 2204

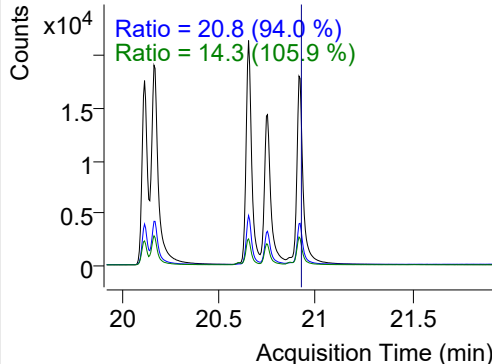


## Perylene

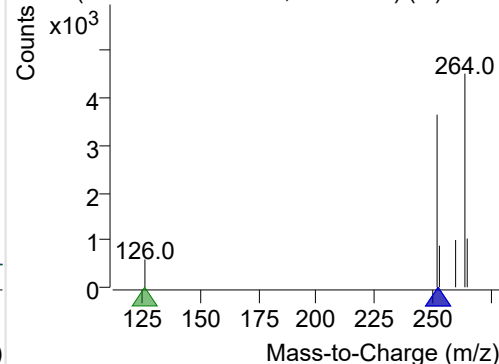
+ Selected Ion (252.0) 220407-PAHs-029.D



252.0, 253.0, 126.0

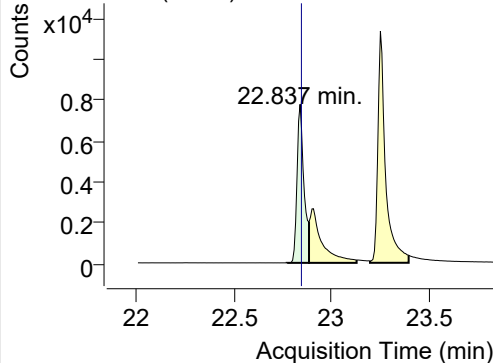


+ SIM (20.865-21.050 min, 35 scans) (\*\*) 2204

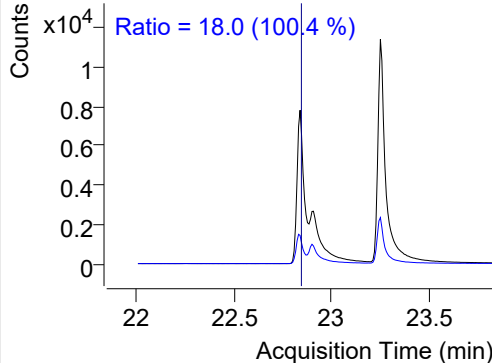


## Indeno(1,2,3-c,d)pyrene

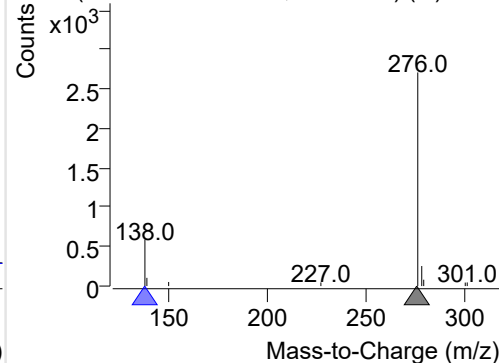
+ Selected Ion (276.0) 220407-PAHs-029.D



276.0, 138.0

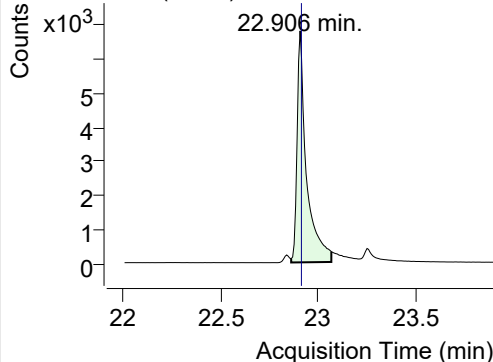


+ SIM (22.768-22.883 min, 16 scans) (\*\*) 2204

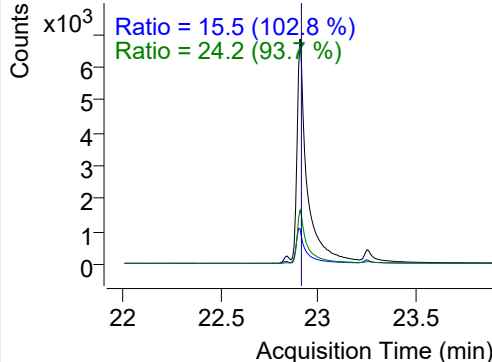


## Dibenz(a,h)anthracene

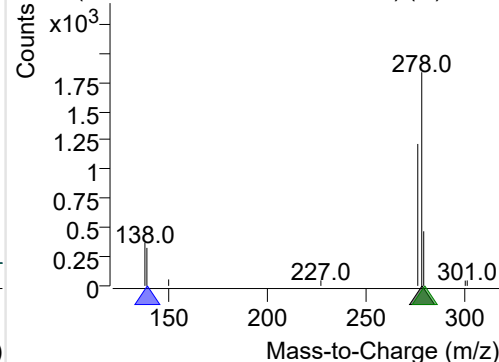
+ Selected Ion (278.0) 220407-PAHs-029.D



278.0, 139.0, 279.0

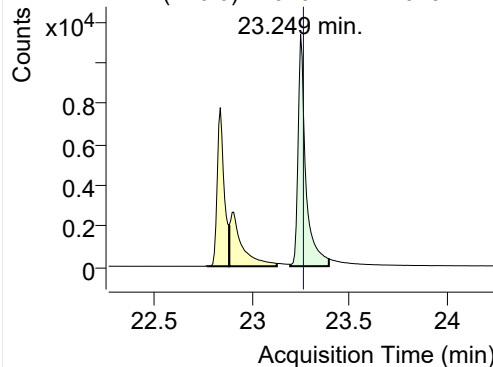


+ SIM (22.860-23.066 min, 28 scans) (\*\*) 2204

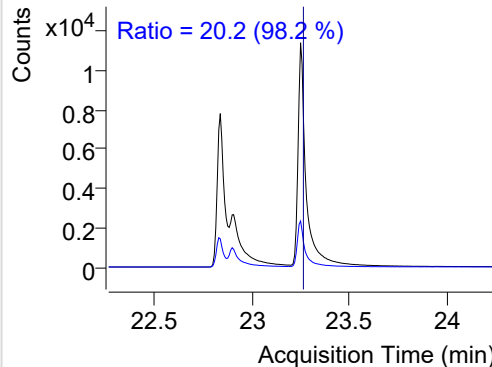


**Benzo(g,h,i)perylene**

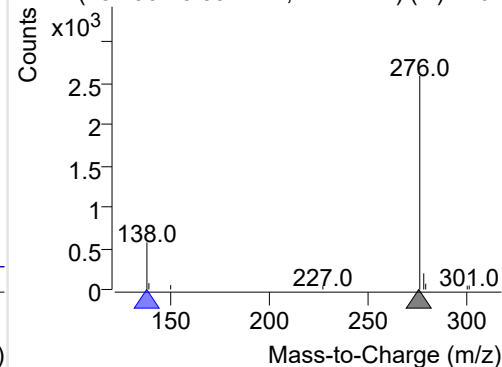
+ Selected Ion (276.0) 220407-PAHs-029.D



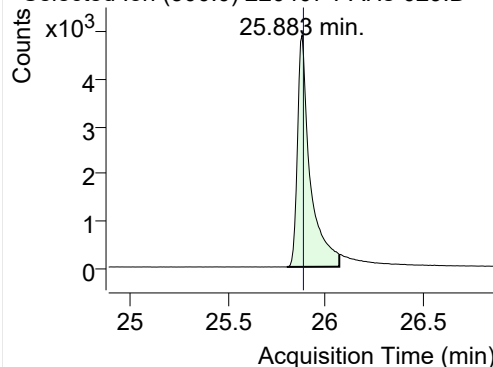
276.0, 138.0



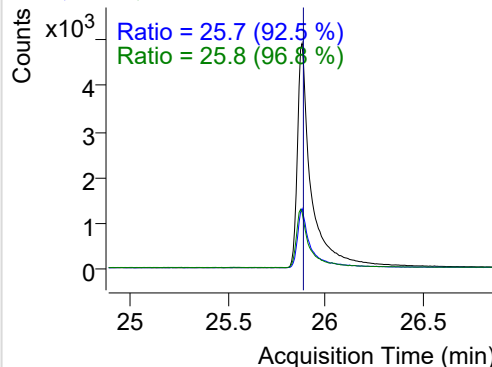
+ SIM (23.196-23.394 min, 27 scans) (\*\*) 2204

**Coronene**

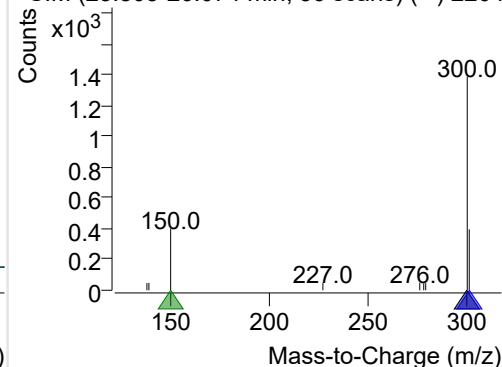
+ Selected Ion (300.0) 220407-PAHs-029.D



300.0, 301.0, 150.0



+ SIM (25.805-26.074 min, 36 scans) (\*\*) 2204





## Quantitative Analysis Sample Based Report

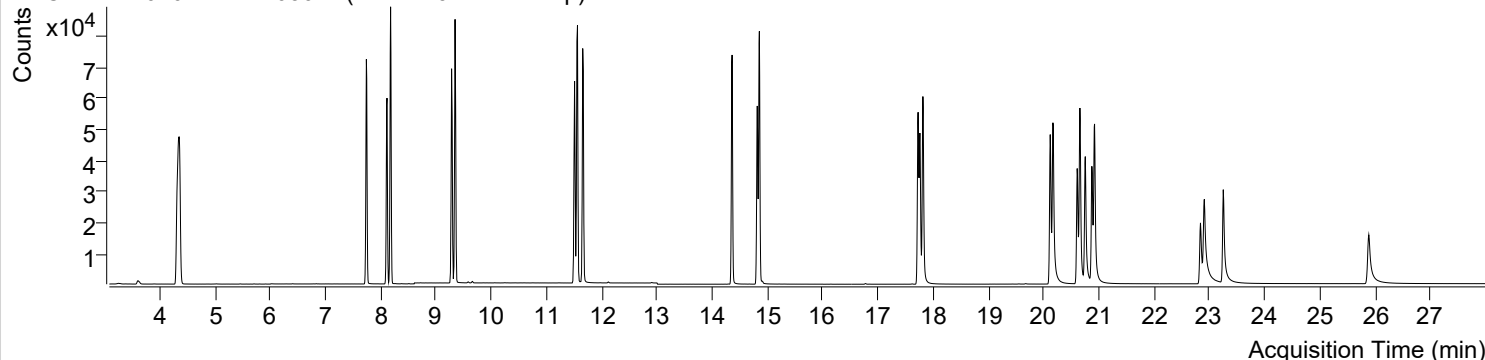


Trusted Answers

Batch Data Path File Name	D:\MassHunter\GCMS\1\data\PAHs\220407-PAHs-Sample\QuantResults\220407-PAHs-Quant.batch.bin		
Analysis Time Stamp	2022-04-13 오후 5:40:30	Analyst Name	DESKTOP-86B7UPG\5975MS
Report Generation Time	2022-04-13 오후 5:40:41	Report Generator Name	DESKTOP-86B7UPG\5975MS
Calibration Last Update	2022-04-13 오후 5:38:35	Batch State	Processed
Analyze Quant Version	10.2	Report Quant Version	10.2
Acq. Date-Time	2022-04-08 오전 2:25:47	Data File	220407-PAHs-030.D
Type	Sample	Name	PAHs-19mix-STD-1p
Dil.	1	Acq. Method File	PAHs 19mix-Method

## Sample Chromatogram

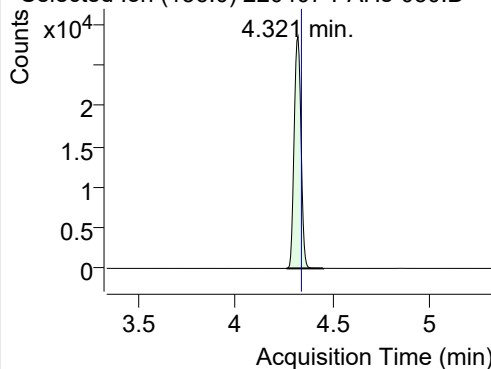
+ TIC SIM 220407-PAHs-030.D (PAHs-19mix-STD-1p)



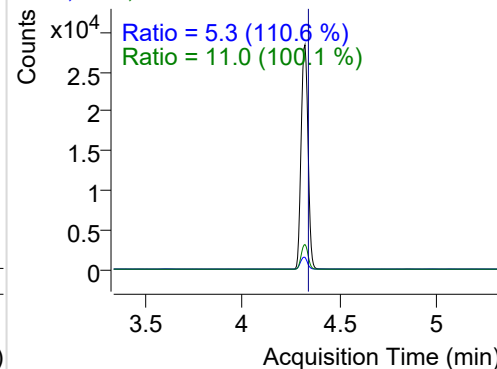
Name	RT	Transition	Resp.	Height	Final Conc. Units	Ratio
IS-D8-Naphthalene	4.321	136.0	69886	28385.38	ND µg/mL	11.0
Naphthalene	4.354	128.0	85893	35291.69	ND µg/mL	13.1
Acenaphthylene	7.739	152.0	79940	54103.35	ND µg/mL	19.5
IS-D10-Acenaphthene	8.112	164.0	43029	29638.54	ND µg/mL	91.2
Acenaphthene	8.177	154.0	47871	32916.25	ND µg/mL	104.5
LSS-D10-Fluorene	9.281	176.0	49004	31895.96	ND µg/mL	87.8
Fluorene	9.344	166.0	60594	41373.27	ND µg/mL	89.7
IS-D10-Phenanthrene	11.508	188.0	79156	53136.97	ND µg/mL	15.0
Phenanthrene	11.560	178.0	90635	55901.89	ND µg/mL	17.6
Anthracene	11.655	178.0	83827	49948.41	ND µg/mL	16.5
Fluoranthene	14.359	202.0	90431	57606.20	ND µg/mL	17.3
LSS-D10-Pyrene	14.814	212.0	67128	43283.86	ND µg/mL	16.9
Pyrene	14.852	202.0	98395	62129.00	ND µg/mL	17.3
Benz(a)anthracene	17.725	228.0	70336	38099.36	ND µg/mL	24.5
IS-D12-Chrysene	17.758	240.0	62008	33554.64	ND µg/mL	19.0
Chrysene	17.812	228.0	77690	40265.04	ND µg/mL	26.8
Benzo(b)fluoranthene	20.117	252.0	66158	35746.67	ND µg/mL	21.6
Benzo(k)fluoranthene	20.166	252.0	92274	38163.35	ND µg/mL	21.6
SS-D12-Benzo(e)pyrene	20.605	264.0	53529	25393.91	ND µg/mL	23.4
Benzo(e)pyrene	20.654	252.0	80188	39942.99	ND µg/mL	21.7
Benzo(a)pyrene	20.752	252.0	67959	29889.24	ND µg/mL	19.6
IS-D12-Perylene	20.871	264.0	55337	25053.12	ND µg/mL	21.6
Perylene	20.920	252.0	76641	34611.29	ND µg/mL	20.8
Indeno(1,2,3-c,d)pyrene	22.837	276.0	39281	16013.75	ND µg/mL	17.6
Dibenz(a,h)anthracene	22.906	278.0	48848	13955.14	ND µg/mL	23.2
Benzo(g,h,i)perylene	23.249	276.0	64567	24130.94	ND µg/mL	20.5
Coronene	25.883	300.0	44742	10404.61	ND µg/mL	25.6

## IS-D8-Naphthalene

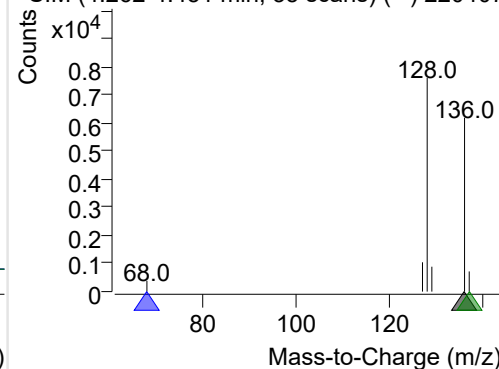
+ Selected Ion (136.0) 220407-PAHs-030.D



136.0, 68.0, 137.0

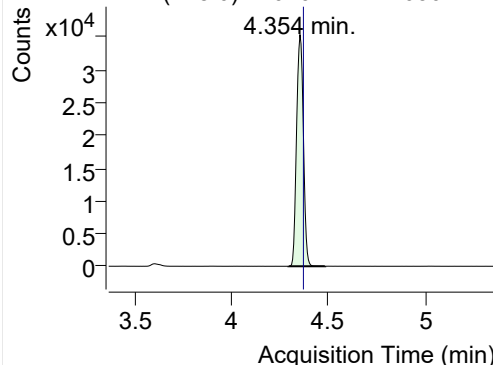


+ SIM (4.262-4.451 min, 35 scans) (\*\*) 220407

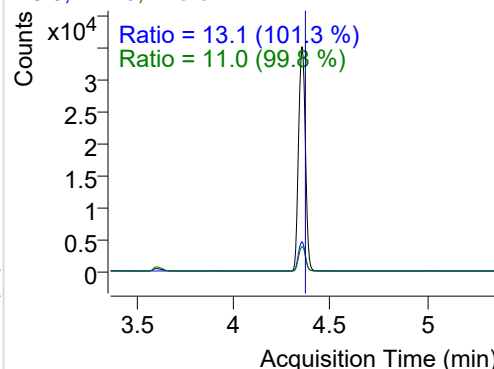


**Naphthalene**

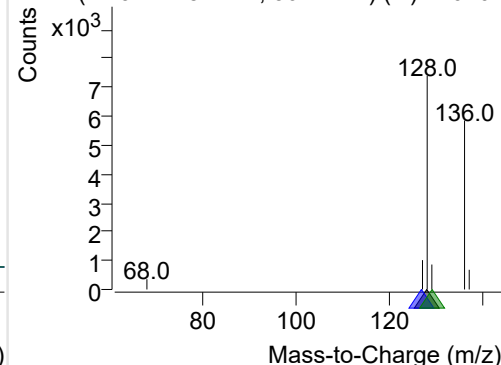
+ Selected Ion (128.0) 220407-PAHs-030.D



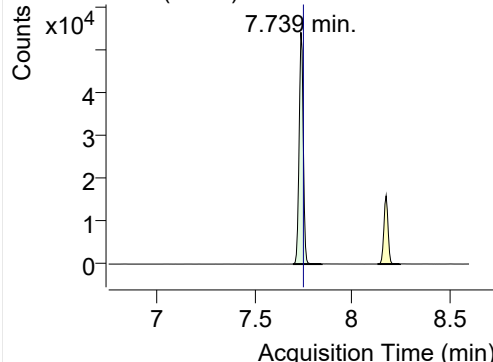
128.0, 127.0, 129.0



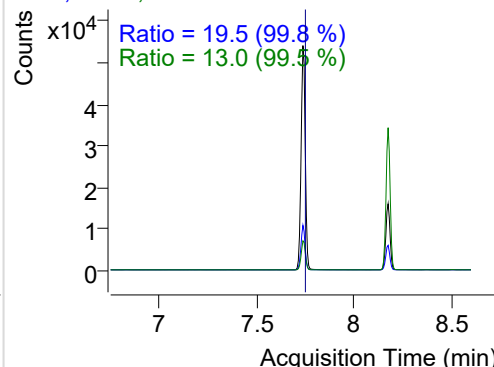
+ SIM (4.294-4.484 min, 36 scans) (\*\*) 220407

**Acenaphthylene**

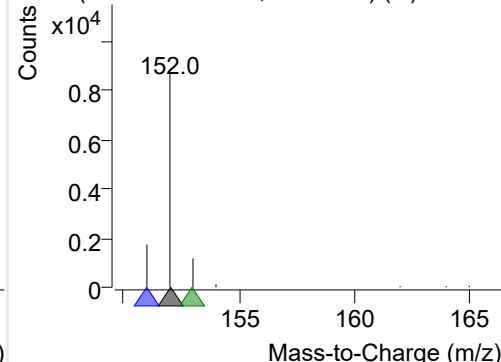
+ Selected Ion (152.0) 220407-PAHs-030.D



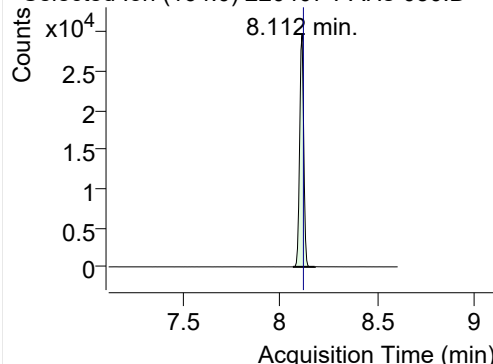
152.0, 151.0, 153.0



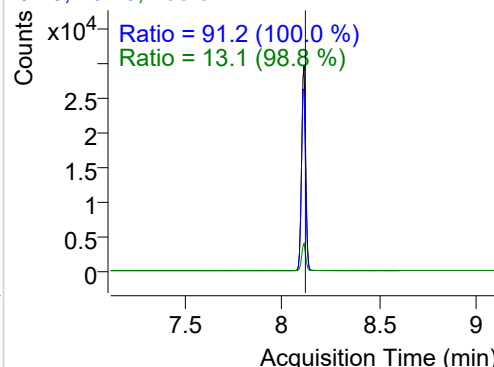
+ SIM (7.698-7.846 min, 26 scans) (\*\*) 220407

**IS-D10-Acenaphthene**

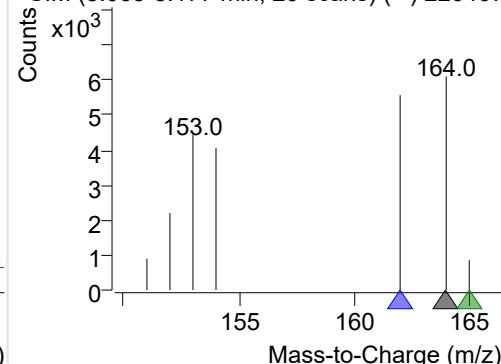
+ Selected Ion (164.0) 220407-PAHs-030.D



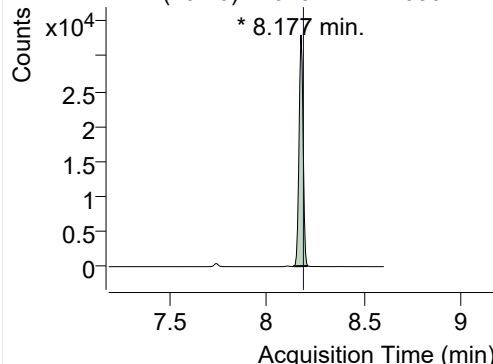
164.0, 162.0, 165.0



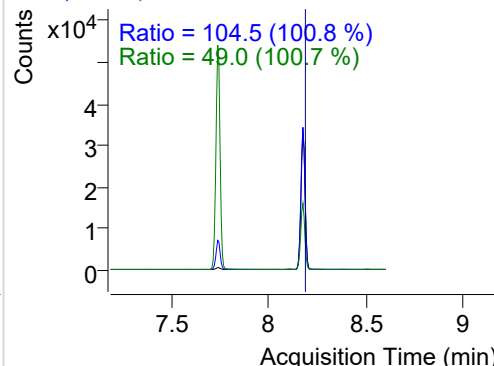
+ SIM (8.065-8.177 min, 20 scans) (\*\*) 220407

**Acenaphthene**

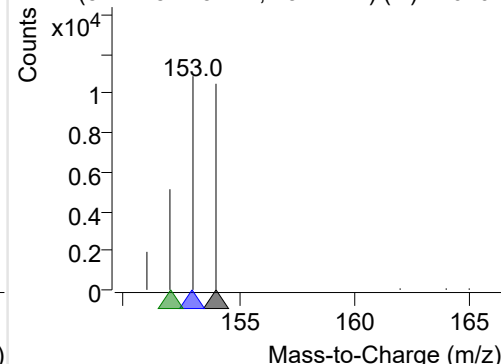
+ Selected Ion (154.0) 220407-PAHs-030.D



154.0, 153.0, 152.0

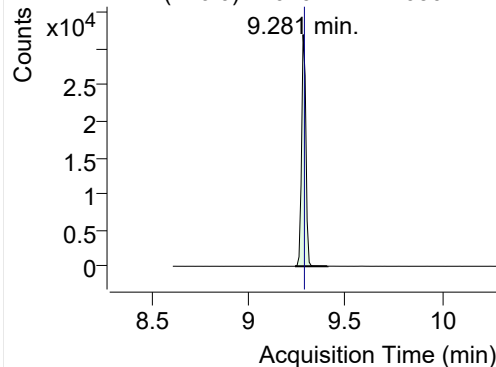


+ SIM (8.142-8.213 min, 13 scans) (\*\*) 220407

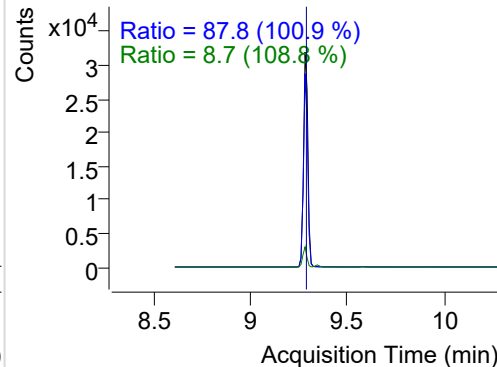


## LSS-D10-Fluorene

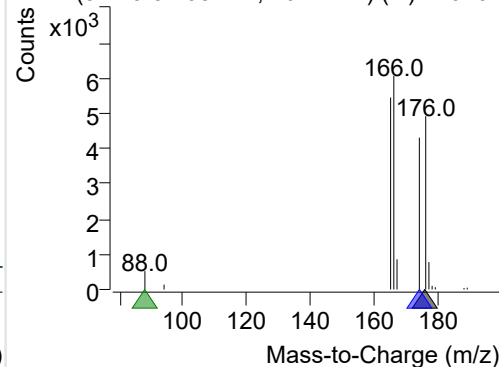
+ Selected Ion (176.0) 220407-PAHs-030.D



176.0, 174.0, 88.0

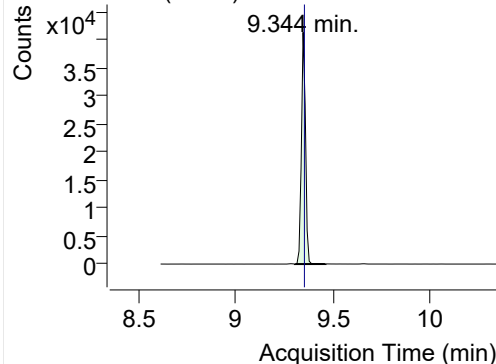


+ SIM (9.240-9.408 min, 16 scans) (\*\*) 220407

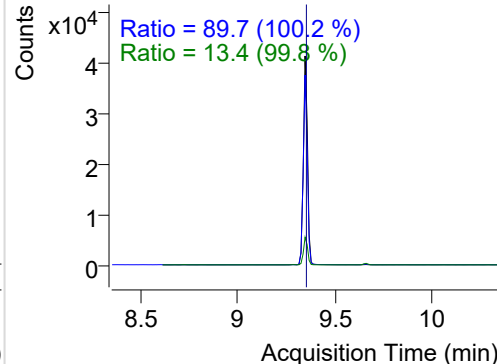


## Fluorene

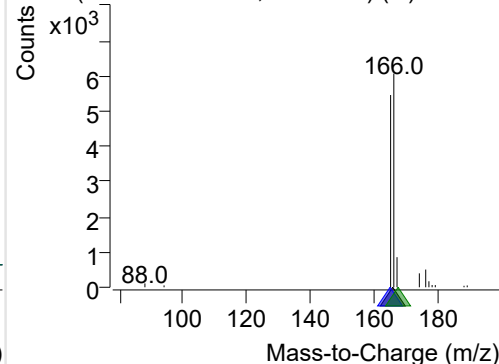
+ Selected Ion (166.0) 220407-PAHs-030.D



166.0, 165.0, 167.0

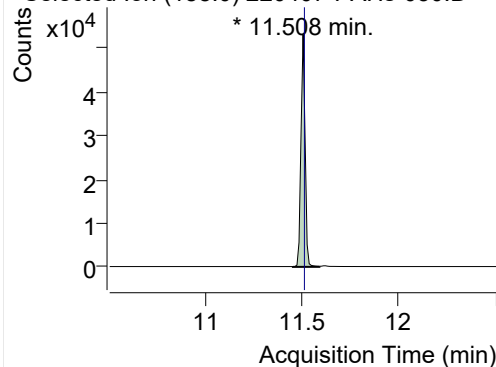


+ SIM (9.302-9.460 min, 16 scans) (\*\*) 220407

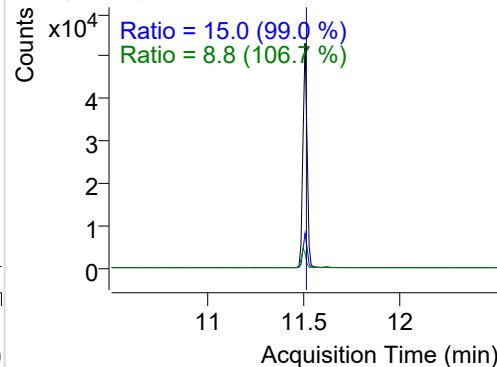


## IS-D10-Phenanthrene

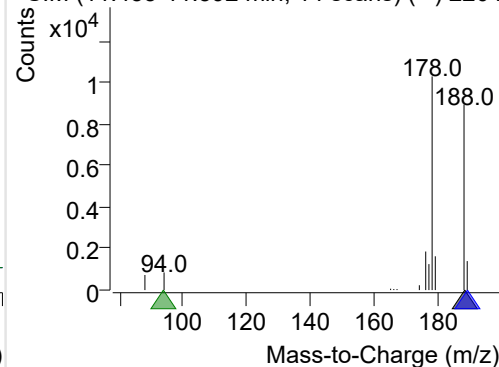
+ Selected Ion (188.0) 220407-PAHs-030.D



188.0, 189.0, 94.0

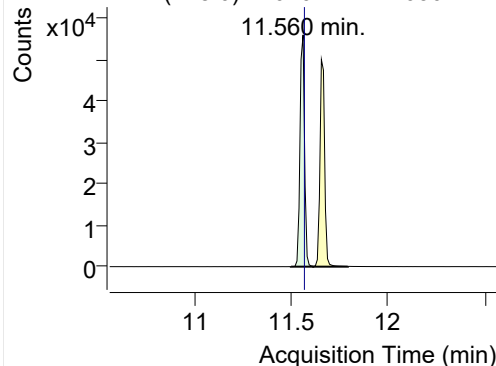


+ SIM (11.455-11.592 min, 14 scans) (\*\*) 2204

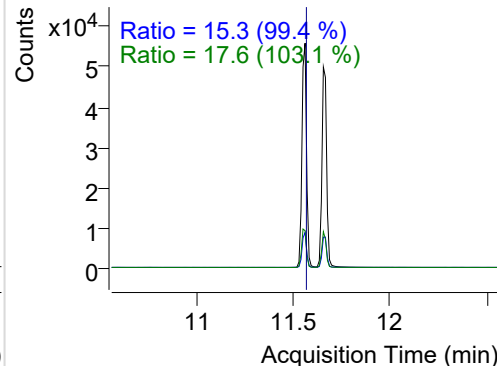


## Phenanthrene

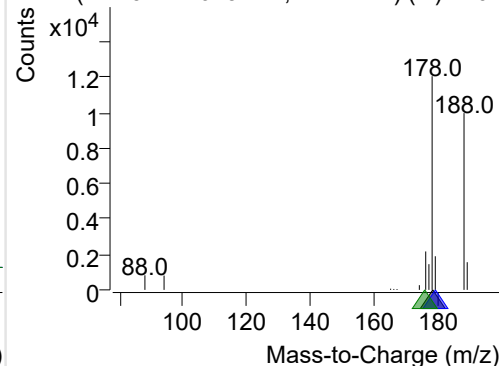
+ Selected Ion (178.0) 220407-PAHs-030.D



178.0, 179.0, 176.0

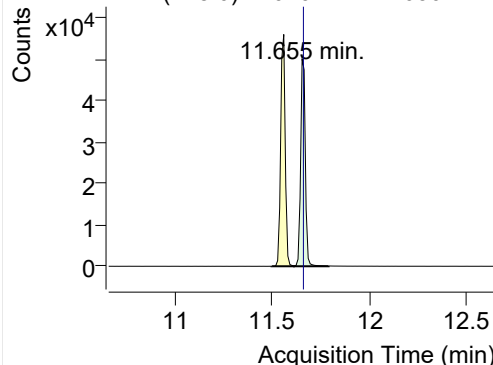


+ SIM (11.497-11.613 min, 12 scans) (\*\*) 2204

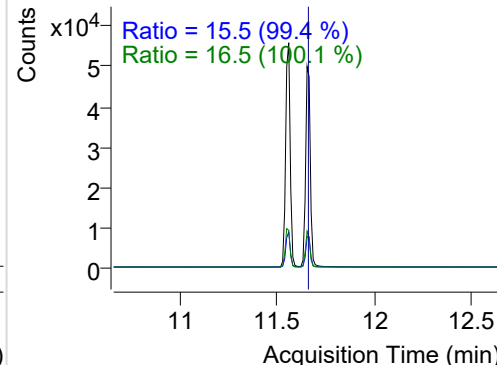


**Anthracene**

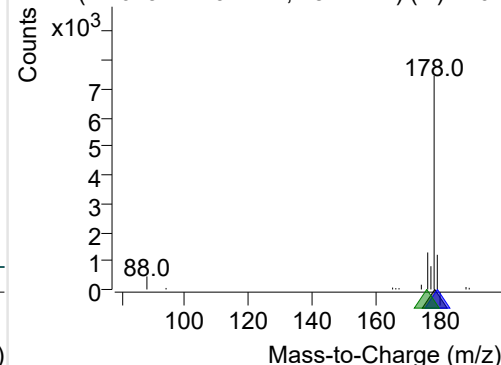
+ Selected Ion (178.0) 220407-PAHs-030.D



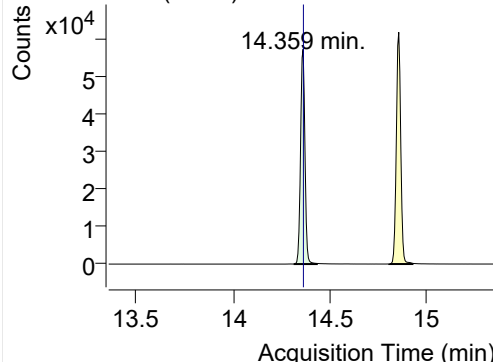
178.0, 179.0, 176.0



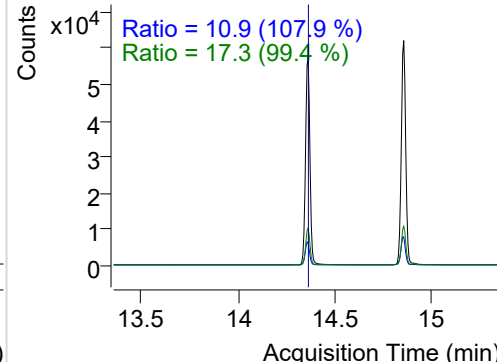
+ SIM (11.613-11.791 min, 18 scans) (\*\*) 2204

**Fluoranthene**

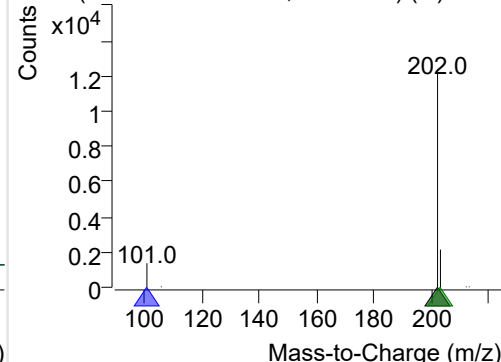
+ Selected Ion (202.0) 220407-PAHs-030.D



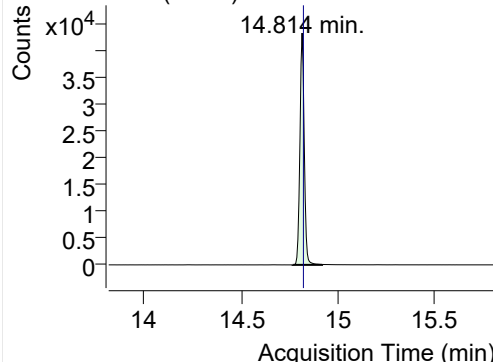
202.0, 101.0, 203.0



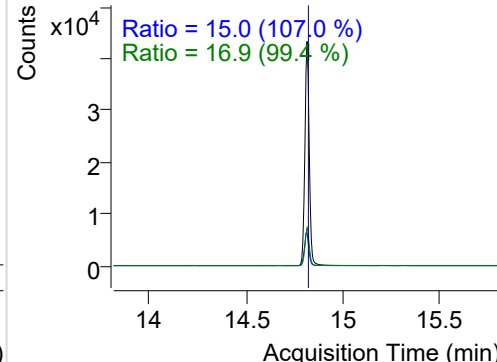
+ SIM (14.310-14.430 min, 23 scans) (\*\*) 2204

**LSS-D10-Pyrene**

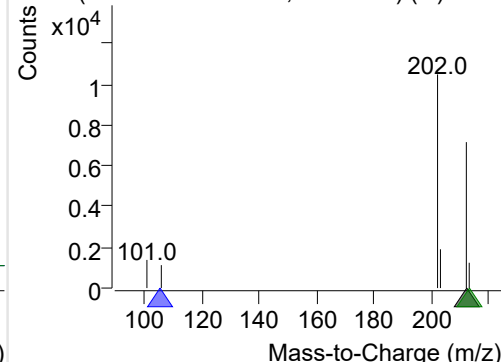
+ Selected Ion (212.0) 220407-PAHs-030.D



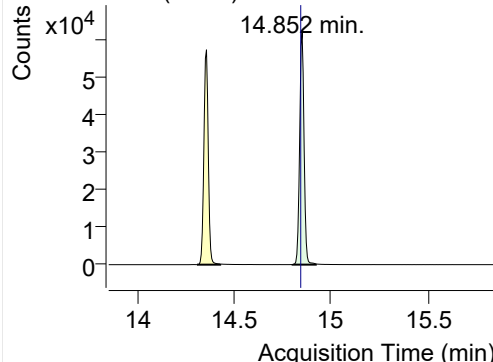
212.0, 106.0, 213.0



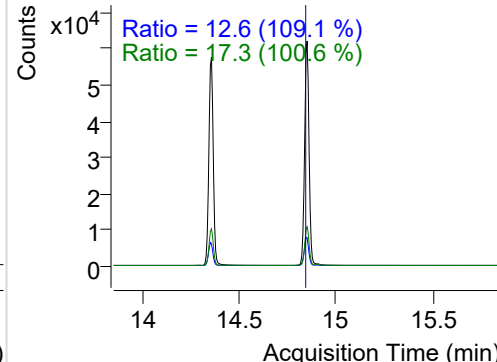
+ SIM (14.766-14.917 min, 29 scans) (\*\*) 2204

**Pyrene**

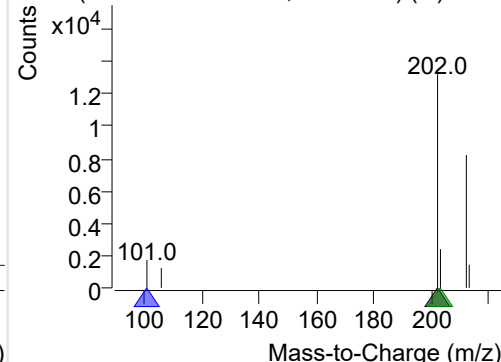
+ Selected Ion (202.0) 220407-PAHs-030.D



202.0, 101.0, 203.0

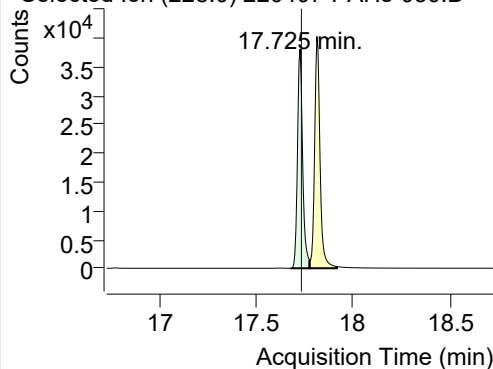


+ SIM (14.804-14.923 min, 23 scans) (\*\*) 2204

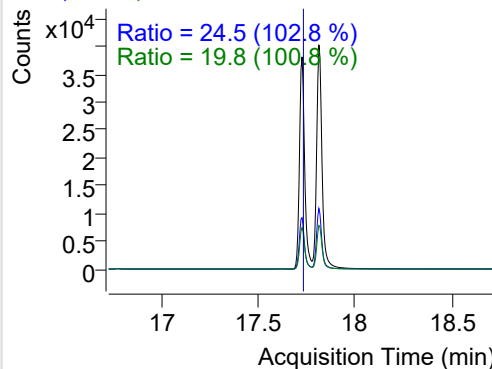


**Benz(a)anthracene**

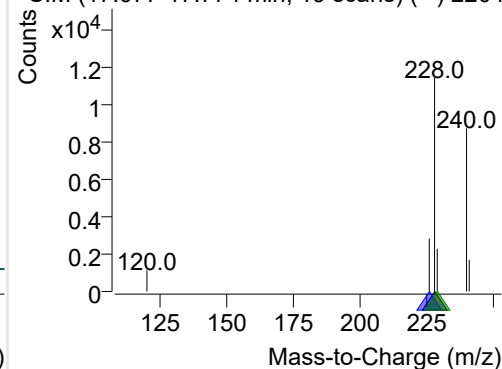
+ Selected Ion (228.0) 220407-PAHs-030.D



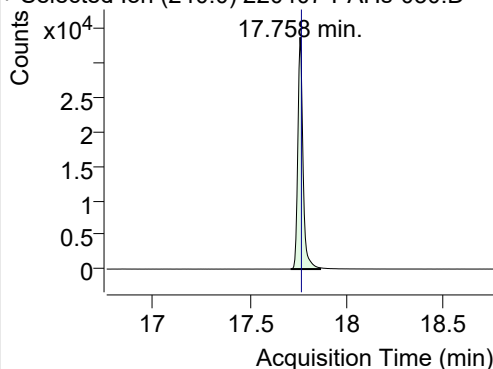
228.0, 226.0, 229.0



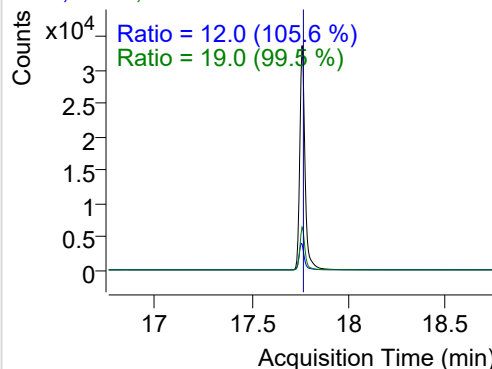
+ SIM (17.677-17.774 min, 19 scans) (\*\*) 2204

**IS-D12-Chrysene**

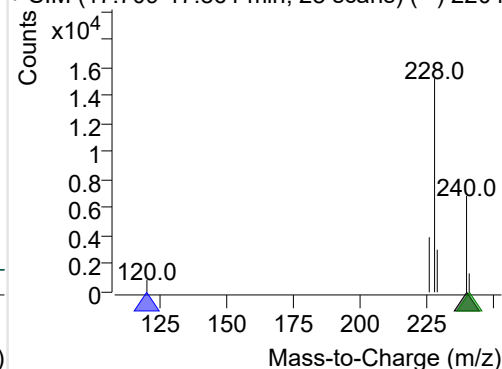
+ Selected Ion (240.0) 220407-PAHs-030.D



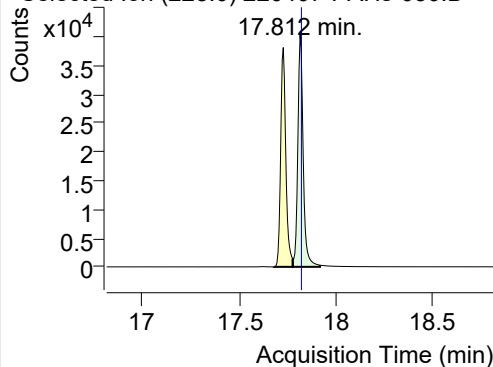
240.0, 120.0, 241.0



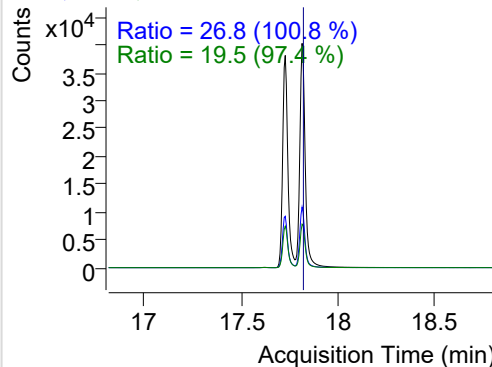
+ SIM (17.709-17.861 min, 28 scans) (\*\*) 2204

**Chrysene**

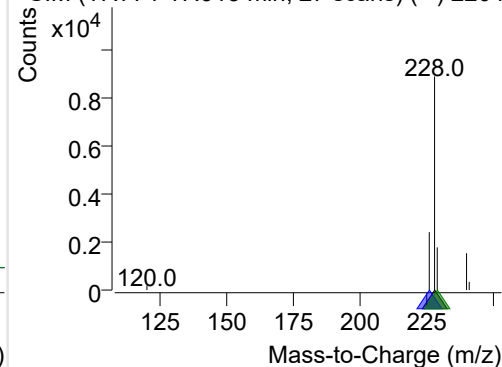
+ Selected Ion (228.0) 220407-PAHs-030.D



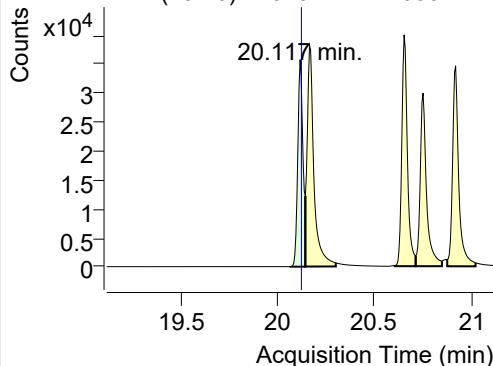
228.0, 226.0, 229.0



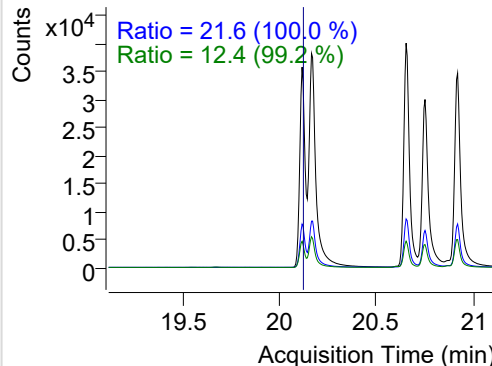
+ SIM (17.774-17.915 min, 27 scans) (\*\*) 2204

**Benzo(b)fluoranthene**

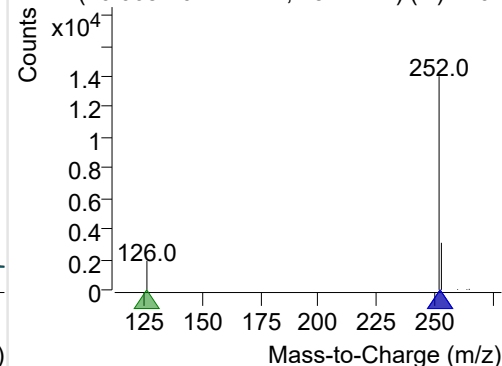
+ Selected Ion (252.0) 220407-PAHs-030.D



252.0, 253.0, 126.0

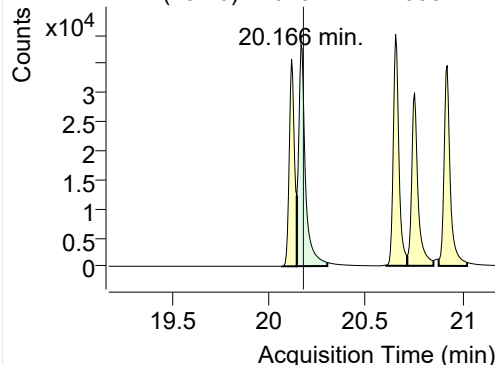


+ SIM (20.068-20.144 min, 15 scans) (\*\*) 2204

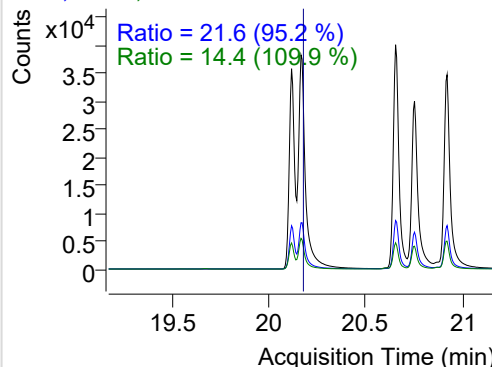


**Benzo(k)fluoranthene**

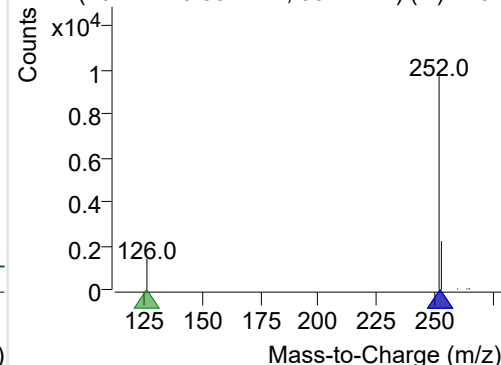
+ Selected Ion (252.0) 220407-PAHs-030.D



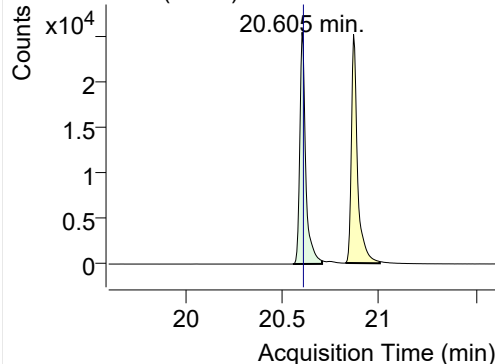
252.0, 253.0, 126.0



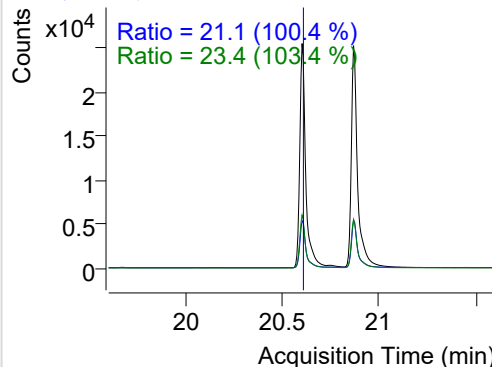
+ SIM (20.144-20.301 min, 30 scans) (\*\*) 2204

**SS-D12-Benzo(e)pyrene**

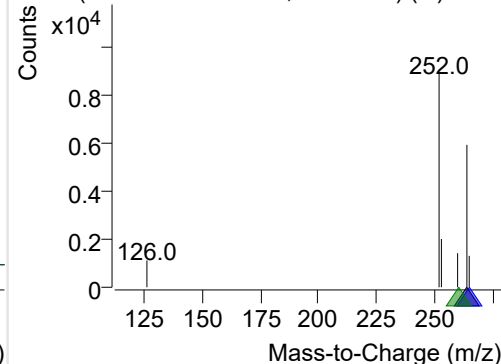
+ Selected Ion (264.0) 220407-PAHs-030.D



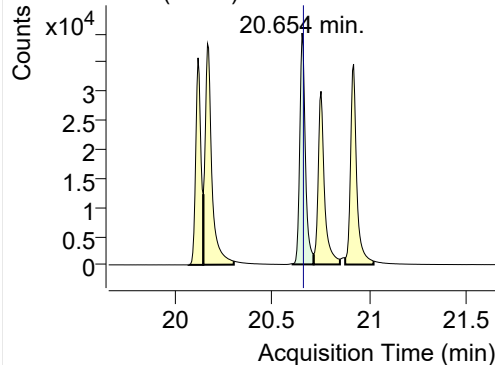
264.0, 265.0, 260.0



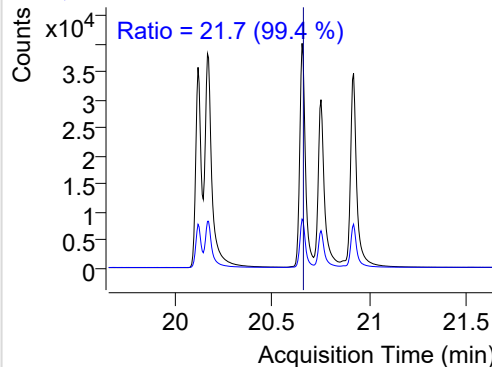
+ SIM (20.558-20.708 min, 28 scans) (\*\*) 2204

**Benzo(e)pyrene**

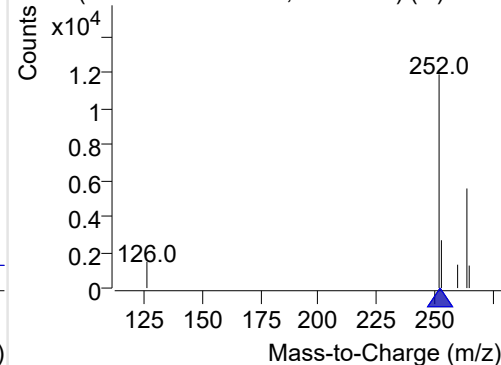
+ Selected Ion (252.0) 220407-PAHs-030.D



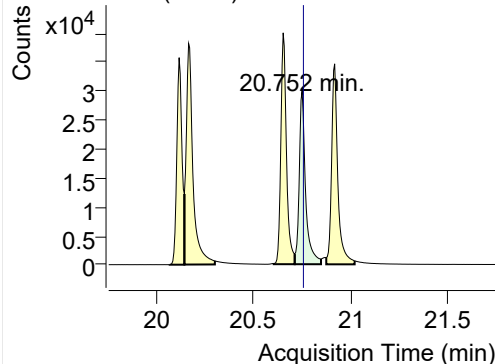
252.0, 253.0



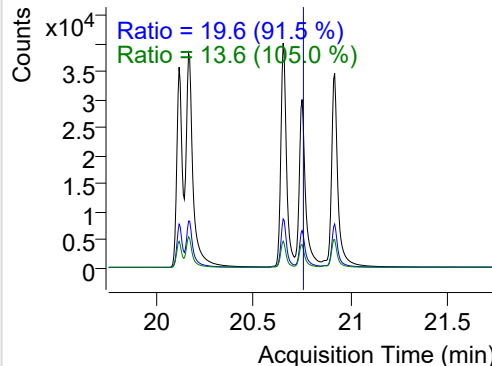
+ SIM (20.605-20.714 min, 21 scans) (\*\*) 2204

**Benzo(a)pyrene**

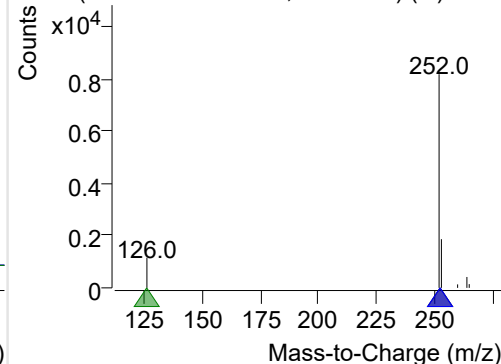
+ Selected Ion (252.0) 220407-PAHs-030.D



252.0, 253.0, 126.0

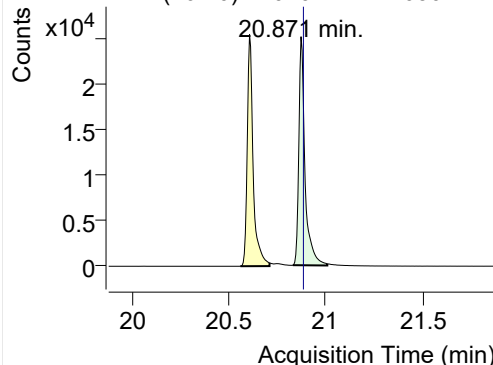


+ SIM (20.714-20.849 min, 26 scans) (\*\*) 2204

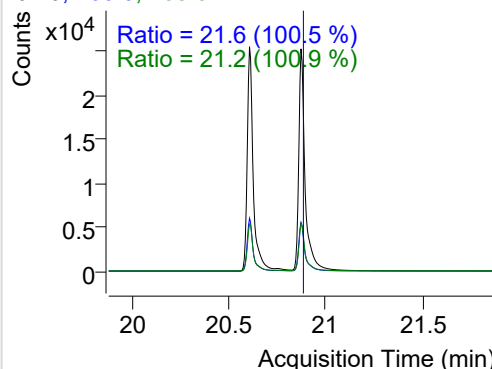


## IS-D12-Perylene

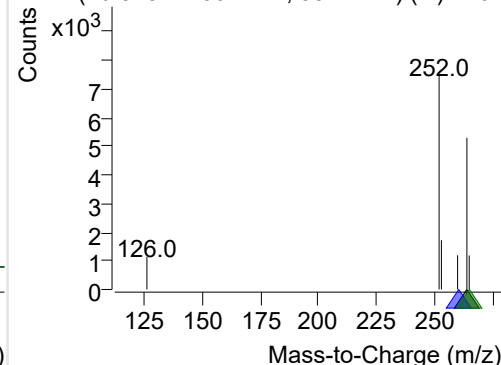
+ Selected Ion (264.0) 220407-PAHs-030.D



264.0, 260.0, 265.0

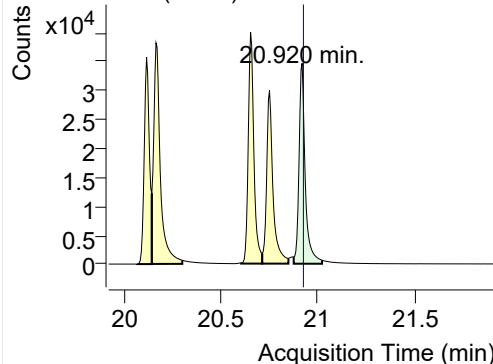


+ SIM (20.828-21.007 min, 33 scans) (\*\*) 2204

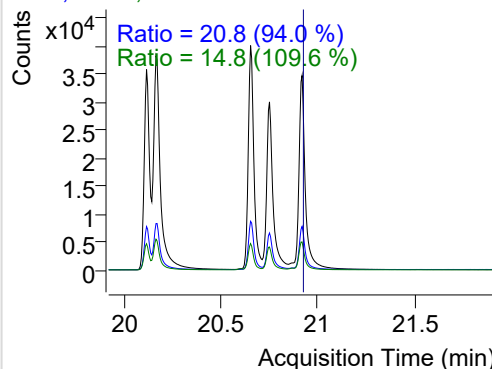


## Perylene

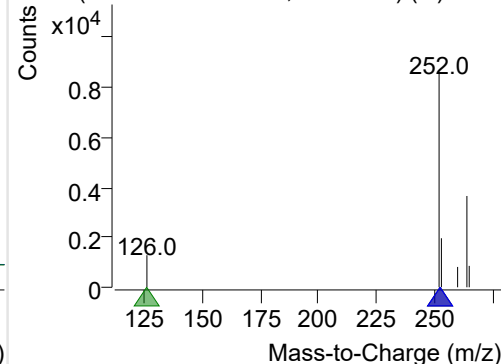
+ Selected Ion (252.0) 220407-PAHs-030.D



252.0, 253.0, 126.0

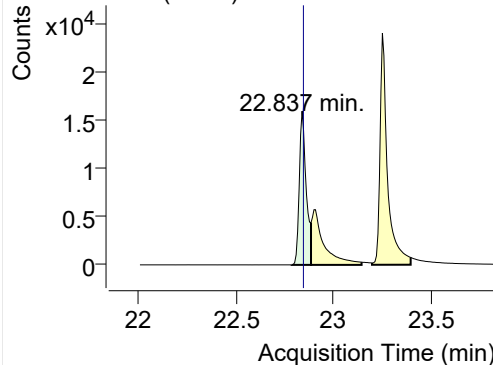


+ SIM (20.876-21.023 min, 28 scans) (\*\*) 2204

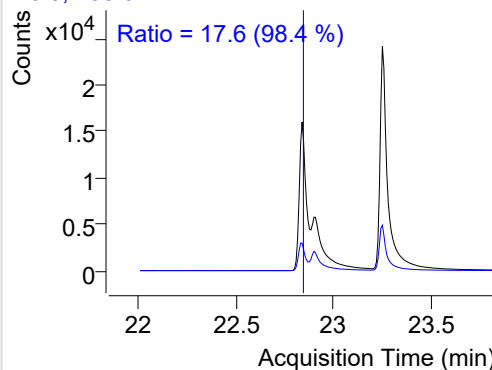


## Indeno(1,2,3-c,d)pyrene

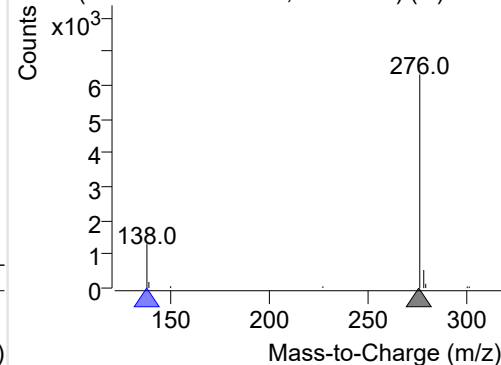
+ Selected Ion (276.0) 220407-PAHs-030.D



276.0, 138.0

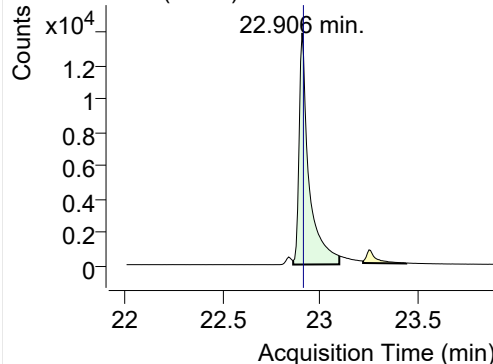


+ SIM (22.783-22.883 min, 14 scans) (\*\*) 2204

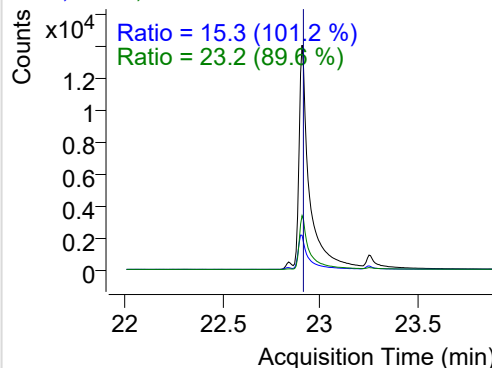


## Dibenz(a,h)anthracene

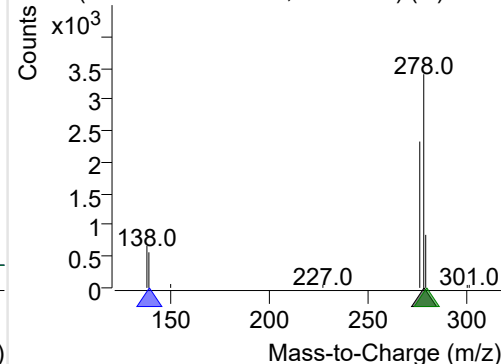
+ Selected Ion (278.0) 220407-PAHs-030.D



278.0, 139.0, 279.0

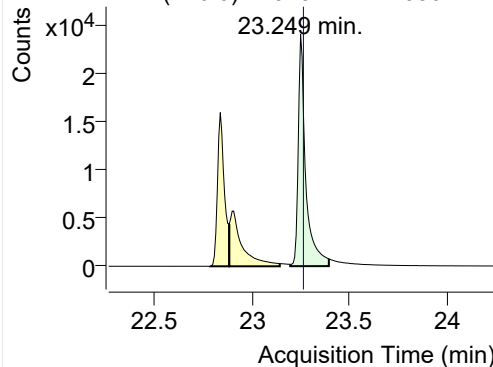


+ SIM (22.860-23.097 min, 32 scans) (\*\*) 2204

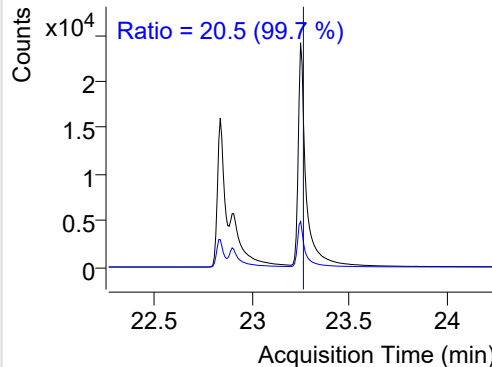


**Benzo(g,h,i)perylene**

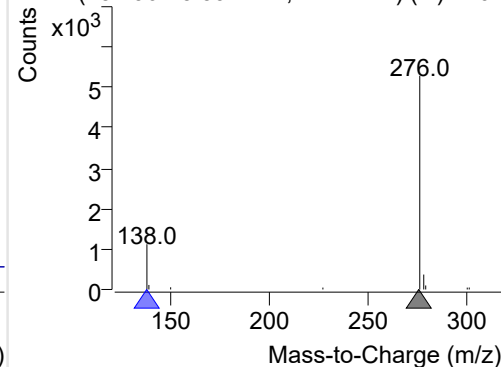
+ Selected Ion (276.0) 220407-PAHs-030.D



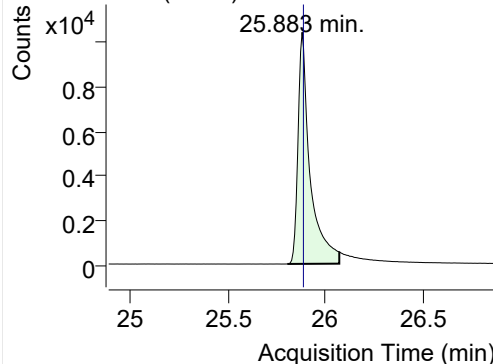
276.0, 138.0



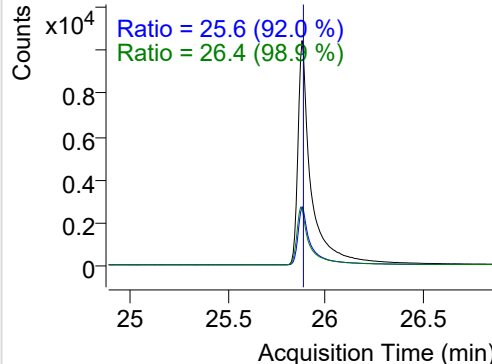
+ SIM (23.196-23.394 min, 27 scans) (\*\*) 2204

**Coronene**

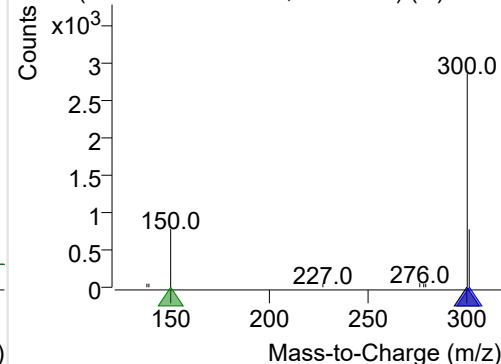
+ Selected Ion (300.0) 220407-PAHs-030.D



300.0, 301.0, 150.0



+ SIM (25.808-26.074 min, 35 scans) (\*\*) 2204





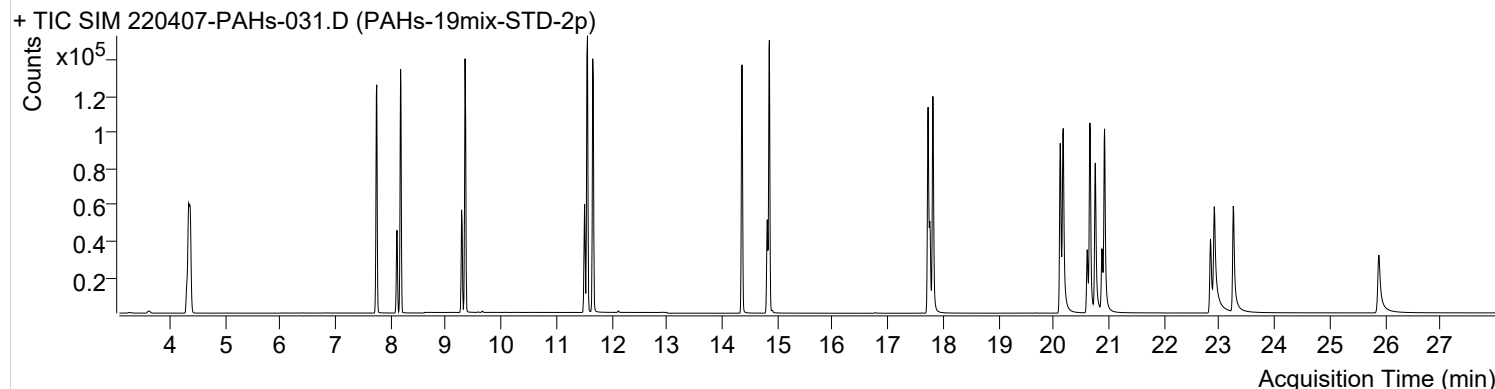
## Quantitative Analysis Sample Based Report



Trusted Answers

Batch Data Path File Name	D:\MassHunter\GCMS\1\data\PAHs\220407-PAHs-Sample\QuantResults\220407-PAHs-Quant.batch.bin		
Analysis Time Stamp	2022-04-13 오후 5:40:30	Analyst Name	DESKTOP-86B7UPG\5975MS
Report Generation Time	2022-04-13 오후 5:40:41	Report Generator Name	DESKTOP-86B7UPG\5975MS
Calibration Last Update	2022-04-13 오후 5:38:35	Batch State	Processed
Analyze Quant Version	10.2	Report Quant Version	10.2
Acq. Date-Time	2022-04-08 오전 2:57:01	Data File	220407-PAHs-031.D
Type	Sample	Name	PAHs-19mix-STD-2p
Dil.	1	Acq. Method File	PAHs 19mix-Method

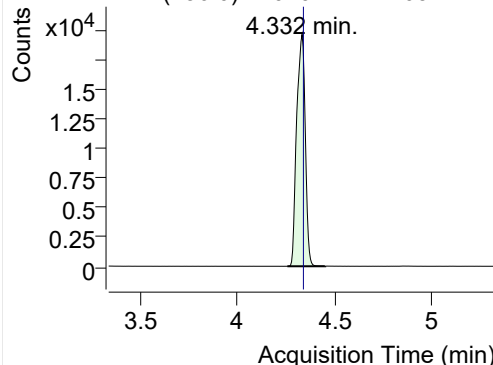
## Sample Chromatogram



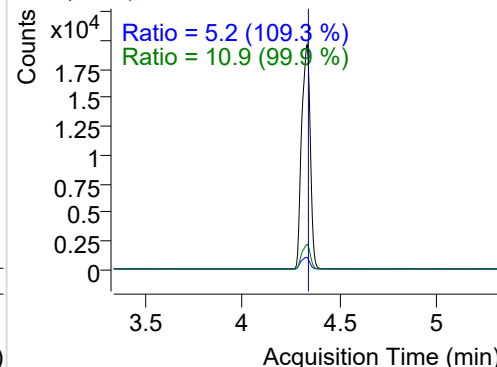
Name	RT	Transition	Resp.	Height	Final Conc. Units	Ratio
IS-D8-Naphthalene	4.332	136.0	60398	19608.97	ND µg/mL	10.9
Naphthalene	4.365	128.0	142107	45891.66	ND µg/mL	13.1
Acenaphthylene	7.745	152.0	147018	94598.24	ND µg/mL	19.6
IS-D10-Acenaphthene	8.112	164.0	34796	22448.07	ND µg/mL	90.1
Acenaphthene	8.177	154.0	76166	49166.26	ND µg/mL	103.8
LSS-D10-Fluorene	9.281	176.0	41729	25910.30	ND µg/mL	88.5
Fluorene	9.344	166.0	104493	67928.99	ND µg/mL	89.8
IS-D10-Phenanthrene	11.508	188.0	71358	48463.29	ND µg/mL	15.6
Phenanthrene	11.560	178.0	168514	102996.9	ND µg/mL	17.4
Anthracene	11.655	178.0	156294	92588.02	ND µg/mL	16.8
Fluoranthene	14.359	202.0	174566	107083.6	ND µg/mL	17.3
LSS-D10-Pyrene	14.814	212.0	61705	38731.82	ND µg/mL	16.9
Pyrene	14.852	202.0	180374	115523.7	ND µg/mL	17.3
Benz(a)anthracene	17.725	228.0	138796	78574.00	ND µg/mL	24.5
IS-D12-Chrysene	17.758	240.0	60698	31643.39	ND µg/mL	19.1
Chrysene	17.812	228.0	148425	80635.36	ND µg/mL	26.7
Benzo(b)fluoranthene	20.117	252.0	130303	69520.92	ND µg/mL	21.6
Benzo(k)fluoranthene	20.171	252.0	176949	74989.25	ND µg/mL	21.9
SS-D12-Benzo(e)pyrene	20.605	264.0	50540	23869.78	ND µg/mL	23.4
Benzo(e)pyrene	20.654	252.0	152122	75754.91	ND µg/mL	21.7
Benzo(a)pyrene	20.751	252.0	133787	60730.24	ND µg/mL	21.3
IS-D12-Perylene	20.871	264.0	53139	22508.86	ND µg/mL	21.9
Perylene	20.920	252.0	148958	71088.73	ND µg/mL	21.5
Indeno(1,2,3-c,d)pytene	22.837	276.0	73258	33028.87	ND µg/mL	19.9
Dibenz(a,h)anthracene	22.905	278.0	93880	29911.00	ND µg/mL	25.0
Benzo(g,h,i)perylene	23.249	276.0	120142	46049.23	ND µg/mL	21.7
Coronene	25.883	300.0	82443	20984.43	ND µg/mL	27.7

## IS-D8-Naphthalene

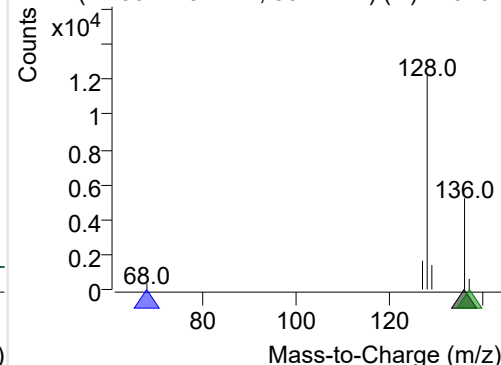
+ Selected Ion (136.0) 220407-PAHs-031.D



136.0, 68.0, 137.0

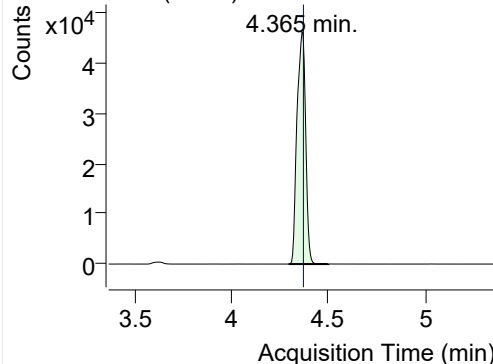


+ SIM (4.256-4.451 min, 36 scans) (\*\*) 220407

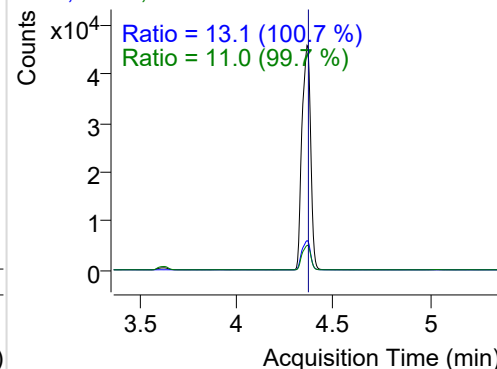


## Naphthalene

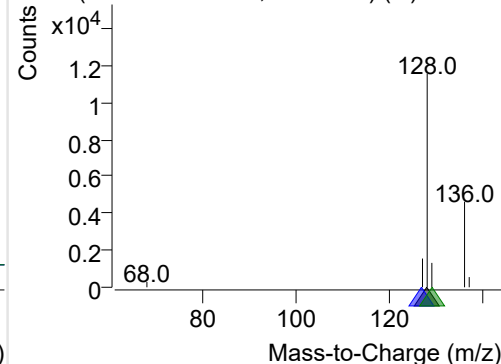
+ Selected Ion (128.0) 220407-PAHs-031.D



128.0, 127.0, 129.0

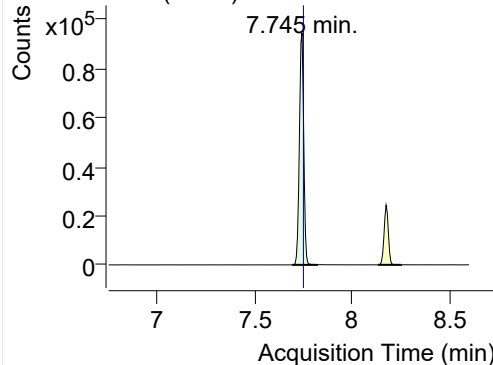


+ SIM (4.295-4.500 min, 38 scans) (\*\*) 220407

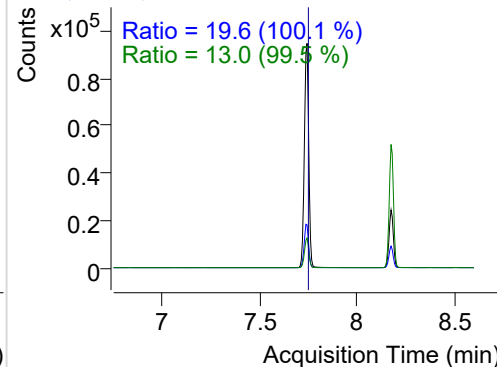


## Acenaphthylene

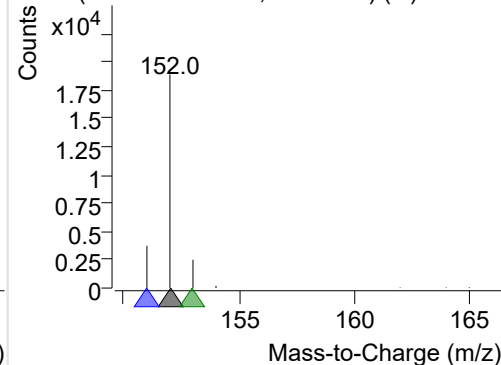
+ Selected Ion (152.0) 220407-PAHs-031.D



152.0, 151.0, 153.0

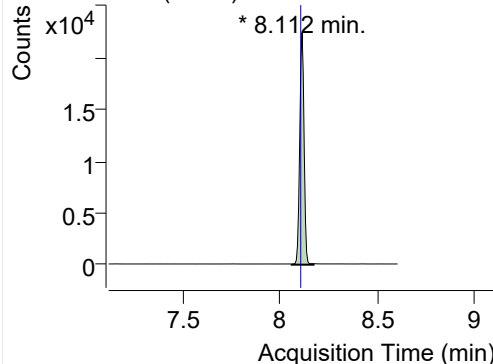


+ SIM (7.694-7.822 min, 22 scans) (\*\*) 220407

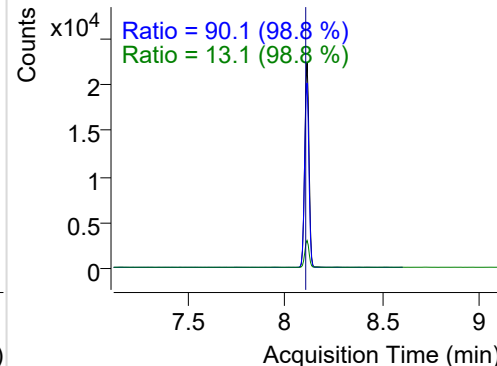


## IS-D10-Acenaphthene

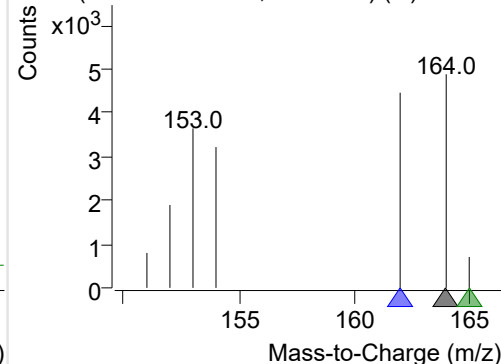
+ Selected Ion (164.0) 220407-PAHs-031.D



164.0, 162.0, 165.0

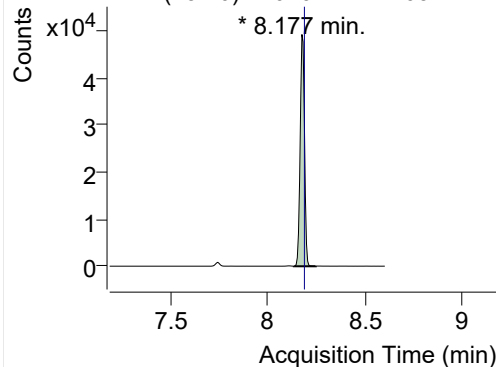


+ SIM (8.059-8.171 min, 20 scans) (\*\*) 220407

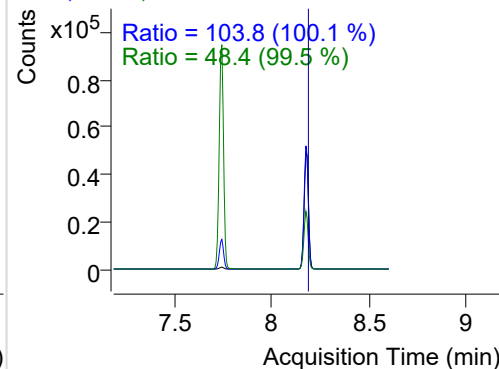


**Acenaphthene**

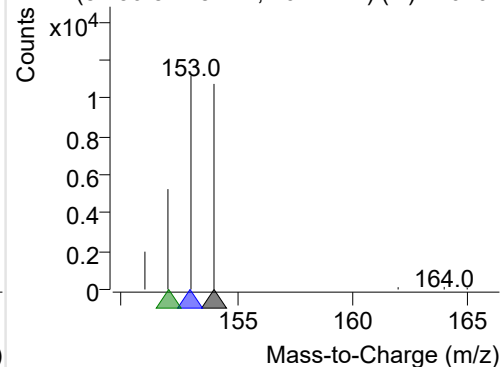
+ Selected Ion (154.0) 220407-PAHs-031.D



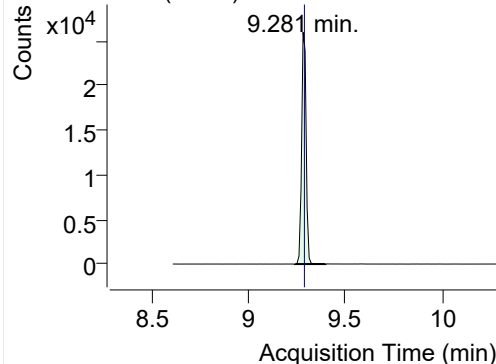
154.0, 153.0, 152.0



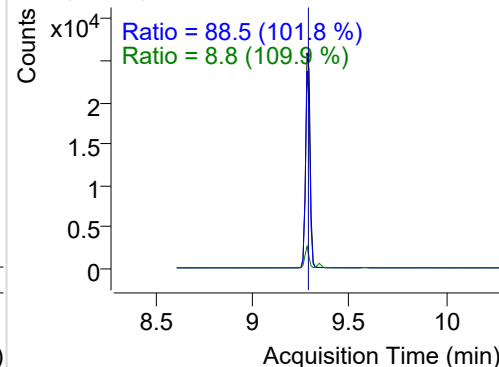
+ SIM (8.136-8.248 min, 20 scans) (\*\*) 220407

**LSS-D10-Fluorene**

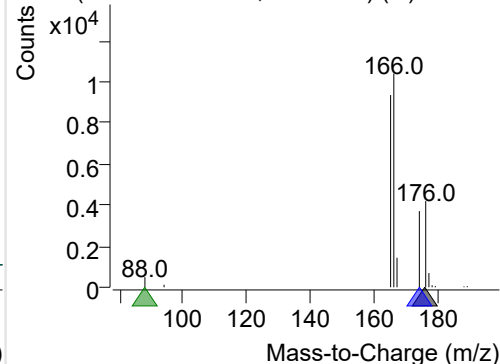
+ Selected Ion (176.0) 220407-PAHs-031.D



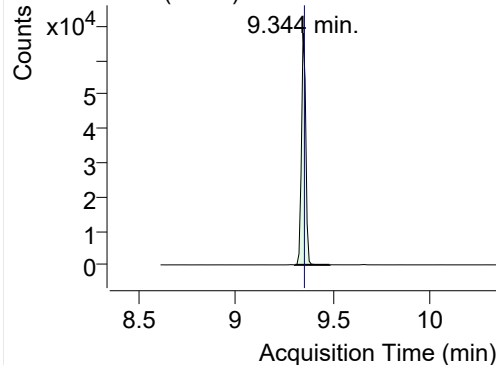
176.0, 174.0, 88.0



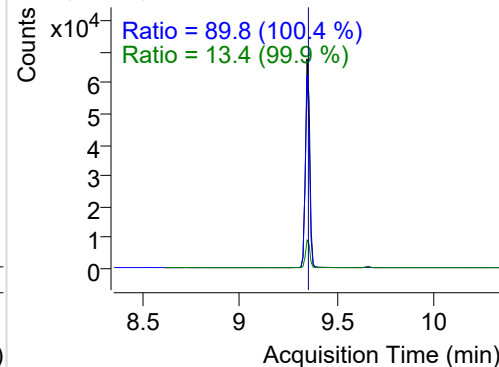
+ SIM (9.239-9.397 min, 16 scans) (\*\*) 220407

**Fluorene**

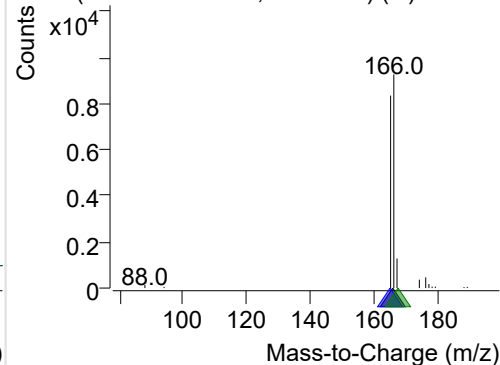
+ Selected Ion (166.0) 220407-PAHs-031.D



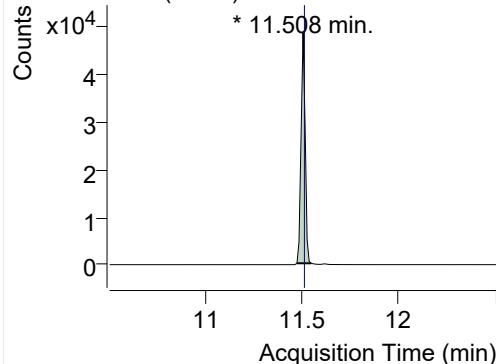
166.0, 165.0, 167.0



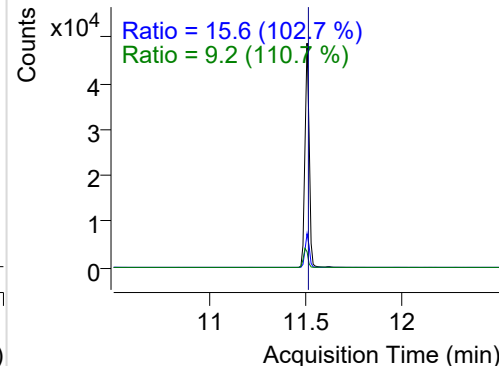
+ SIM (9.302-9.481 min, 18 scans) (\*\*) 220407

**IS-D10-Phenanthrene**

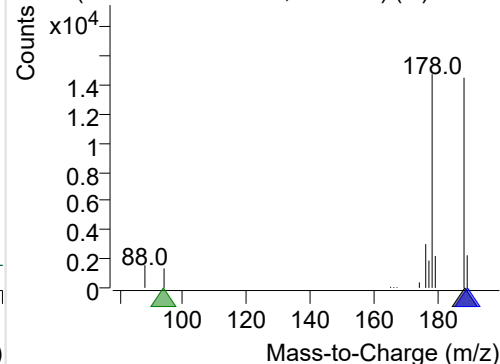
+ Selected Ion (188.0) 220407-PAHs-031.D



188.0, 189.0, 94.0

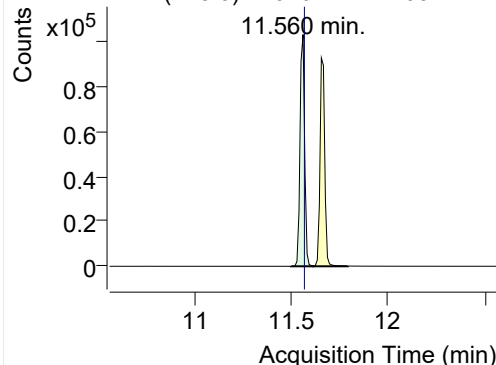


+ SIM (11.476-11.550 min, 8 scans) (\*\*) 220407

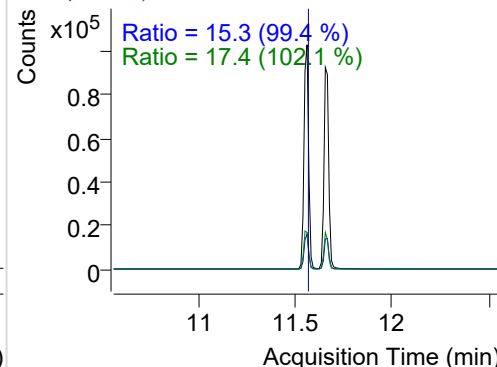


**Phenanthrene**

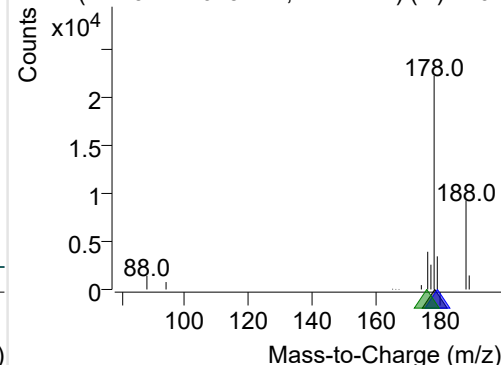
+ Selected Ion (178.0) 220407-PAHs-031.D



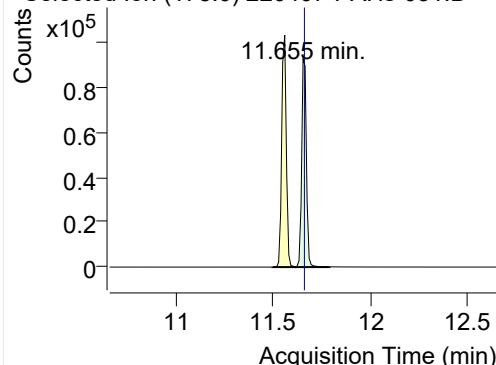
178.0, 179.0, 176.0



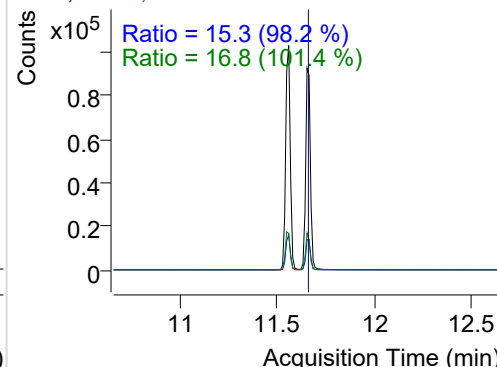
+ SIM (11.497-11.613 min, 12 scans) (\*\*) 2204

**Anthracene**

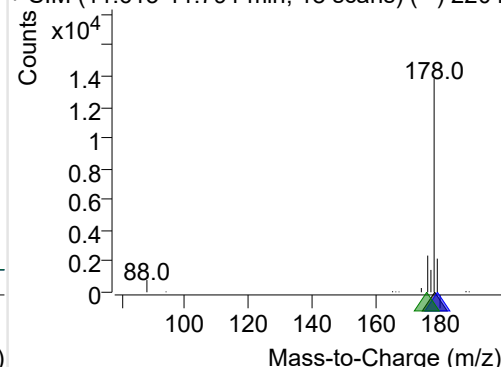
+ Selected Ion (178.0) 220407-PAHs-031.D



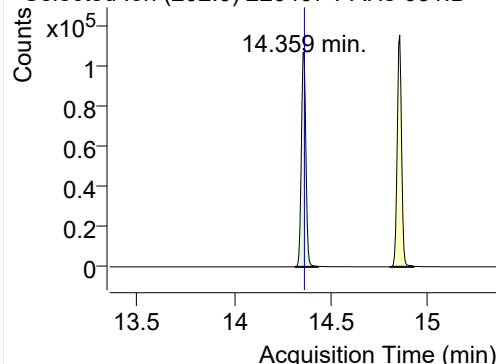
178.0, 179.0, 176.0



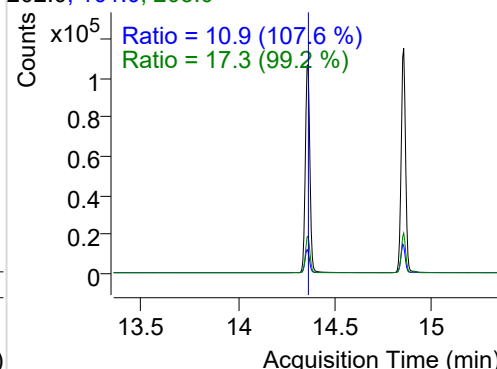
+ SIM (11.613-11.791 min, 18 scans) (\*\*) 2204

**Fluoranthene**

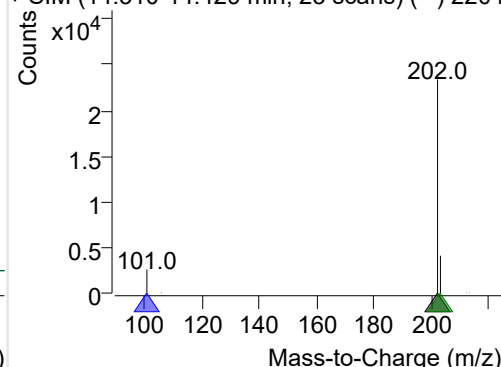
+ Selected Ion (202.0) 220407-PAHs-031.D



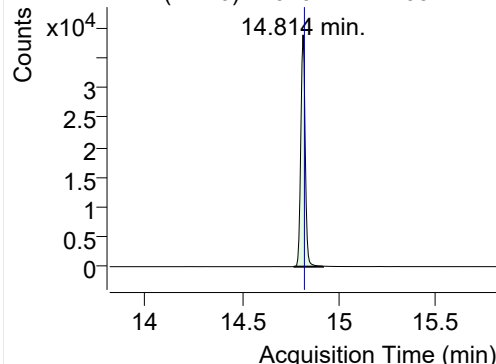
202.0, 101.0, 203.0



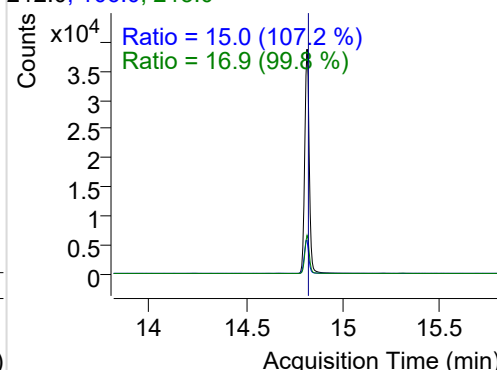
+ SIM (14.310-14.429 min, 23 scans) (\*\*) 2204

**LSS-D10-Pyrene**

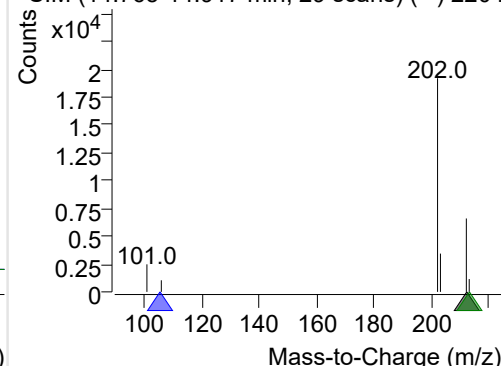
+ Selected Ion (212.0) 220407-PAHs-031.D



212.0, 106.0, 213.0

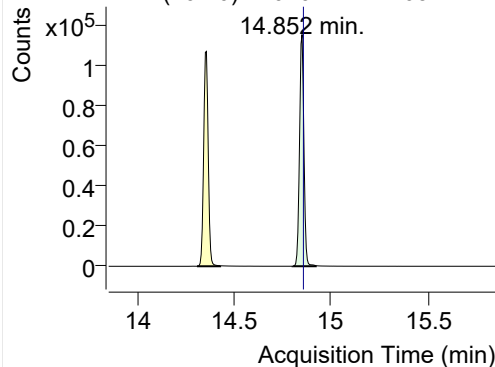


+ SIM (14.765-14.917 min, 29 scans) (\*\*) 2204

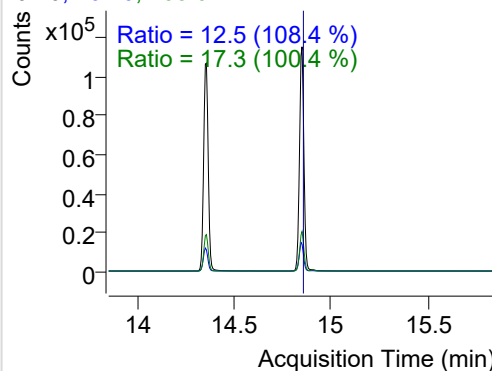


**Pyrene**

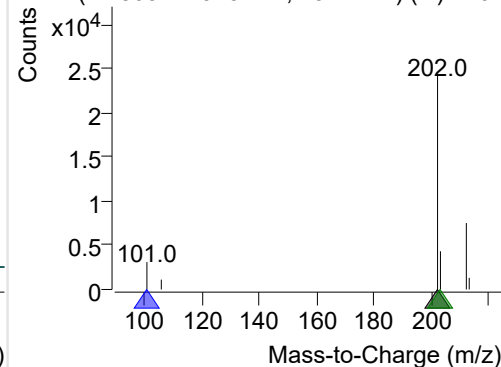
+ Selected Ion (202.0) 220407-PAHs-031.D



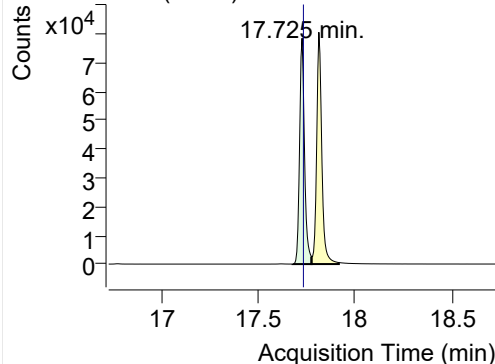
202.0, 101.0, 203.0



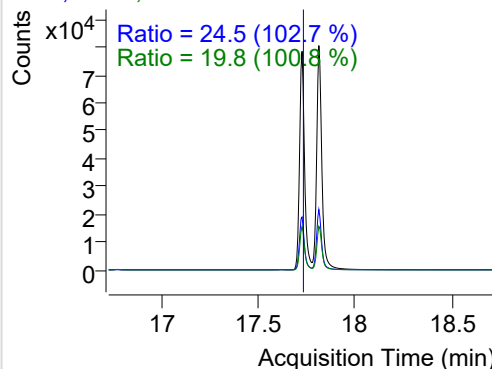
+ SIM (14.803-14.923 min, 23 scans) (\*\*) 2204

**Benz(a)anthracene**

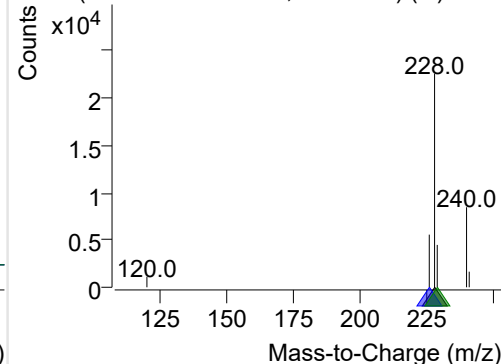
+ Selected Ion (228.0) 220407-PAHs-031.D



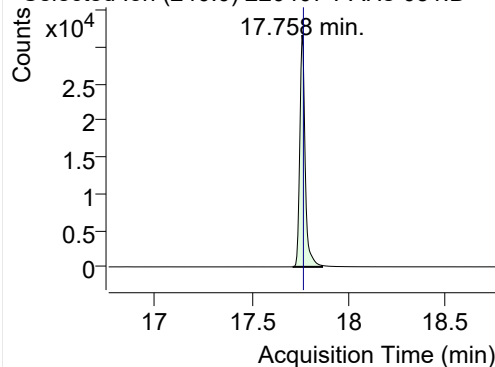
228.0, 226.0, 229.0



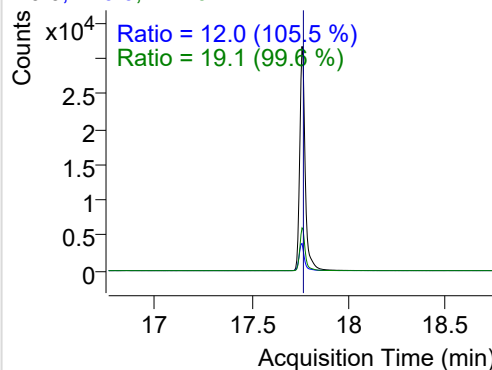
+ SIM (17.676-17.774 min, 19 scans) (\*\*) 2204

**IS-D12-Chrysene**

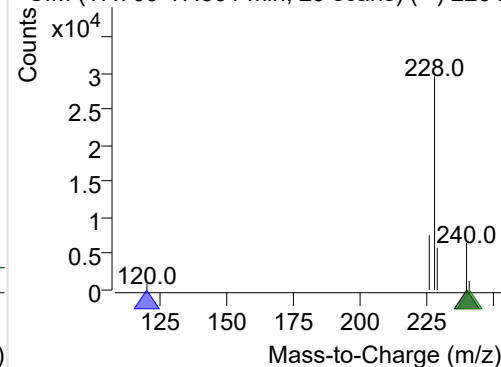
+ Selected Ion (240.0) 220407-PAHs-031.D



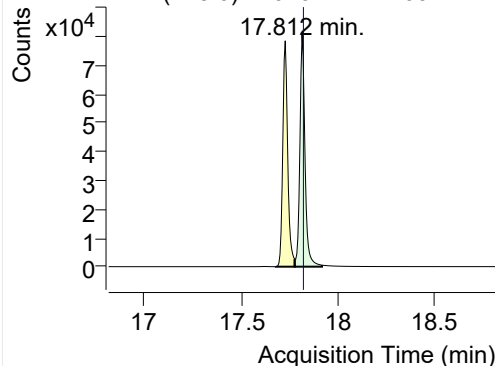
240.0, 120.0, 241.0



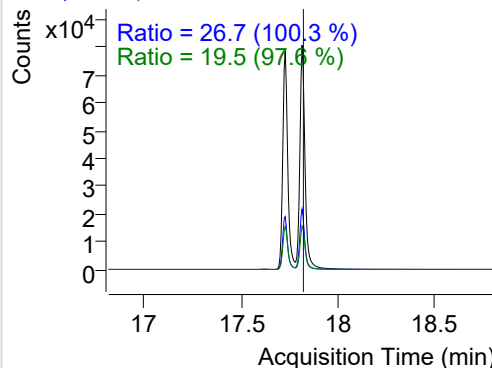
+ SIM (17.709-17.861 min, 29 scans) (\*\*) 2204

**Chrysene**

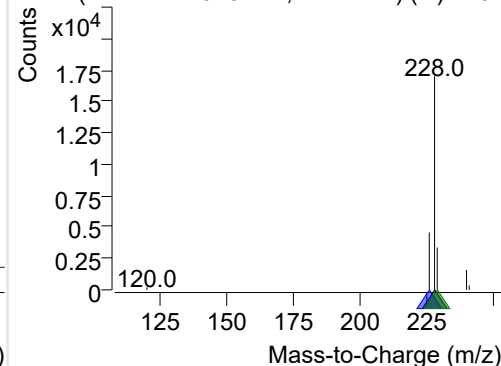
+ Selected Ion (228.0) 220407-PAHs-031.D



228.0, 226.0, 229.0

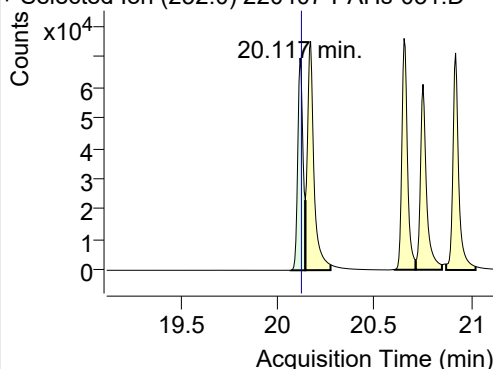


+ SIM (17.774-17.915 min, 27 scans) (\*\*) 2204

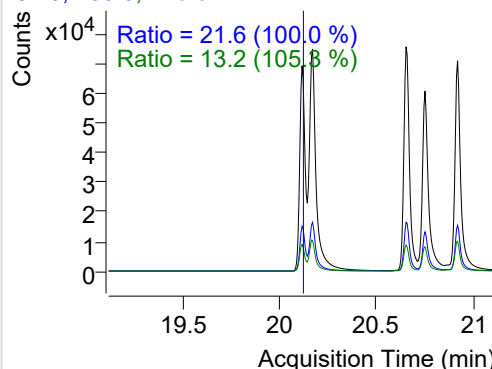


**Benzo(b)fluoranthene**

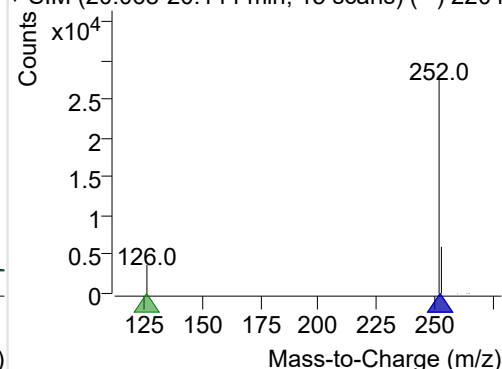
+ Selected Ion (252.0) 220407-PAHs-031.D



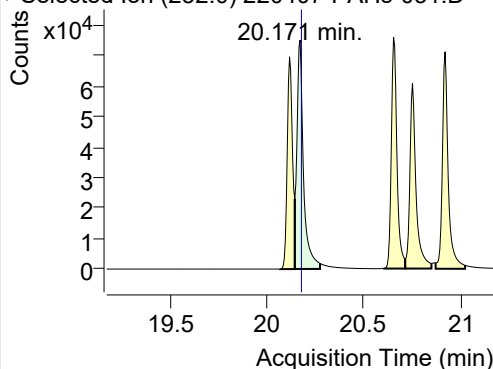
252.0, 253.0, 126.0



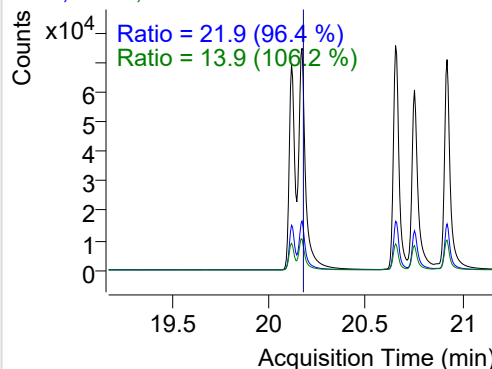
+ SIM (20.068-20.144 min, 15 scans) (\*\*) 2204

**Benzo(k)fluoranthene**

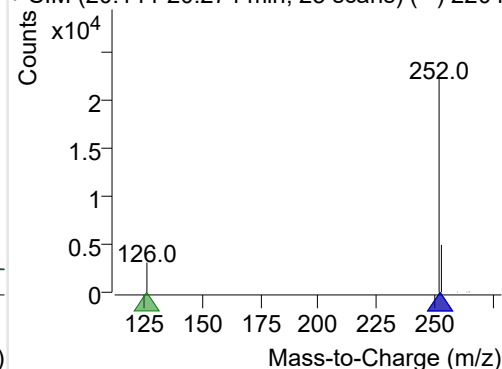
+ Selected Ion (252.0) 220407-PAHs-031.D



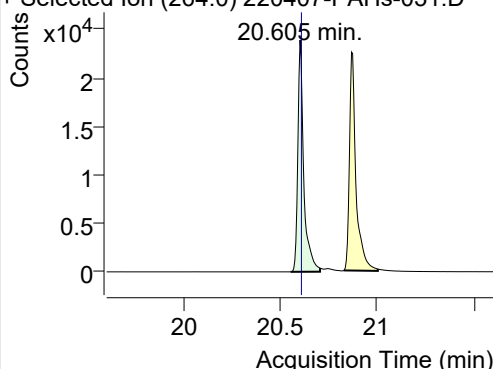
252.0, 253.0, 126.0



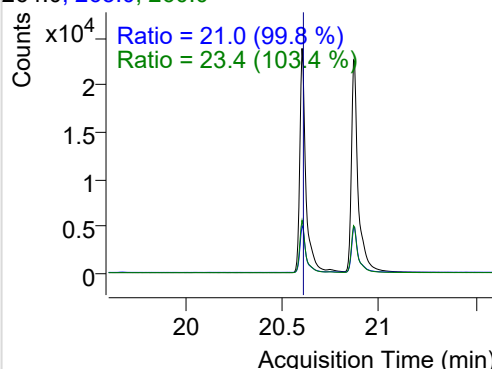
+ SIM (20.144-20.274 min, 25 scans) (\*\*) 2204

**SS-D12-Benzo(e)pyrene**

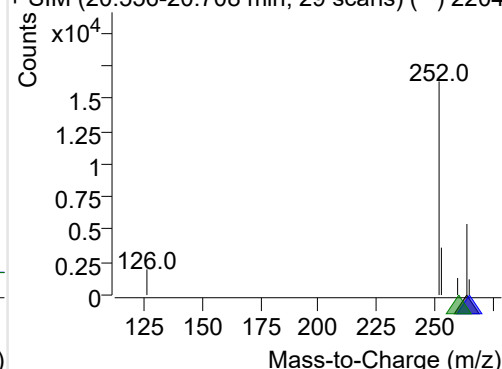
+ Selected Ion (264.0) 220407-PAHs-031.D



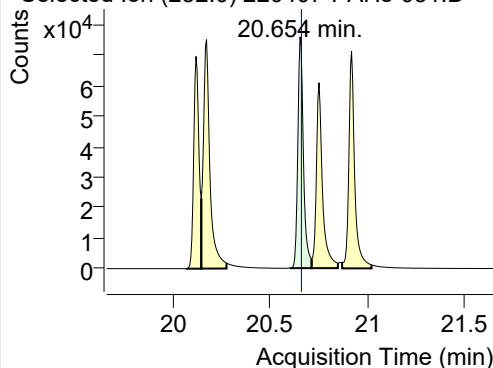
264.0, 265.0, 260.0



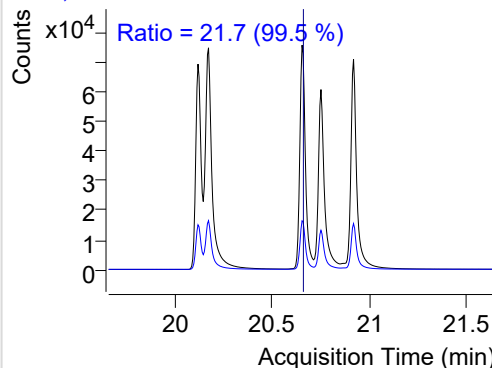
+ SIM (20.556-20.708 min, 29 scans) (\*\*) 2204

**Benzo(e)pyrene**

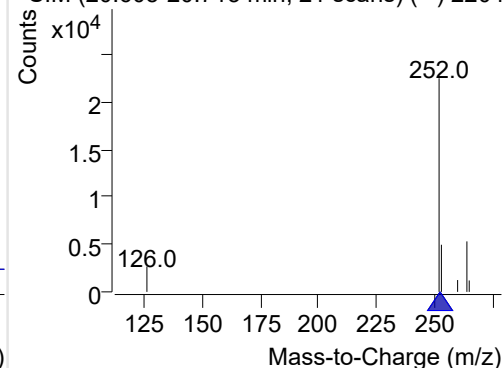
+ Selected Ion (252.0) 220407-PAHs-031.D



252.0, 253.0

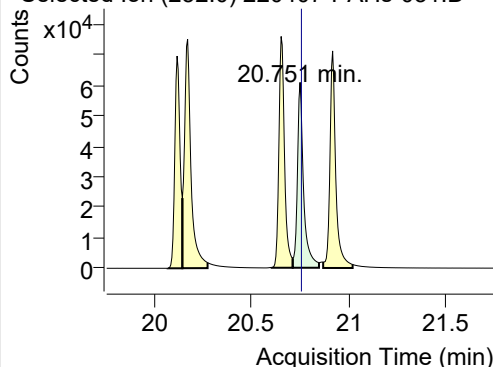


+ SIM (20.605-20.713 min, 21 scans) (\*\*) 2204

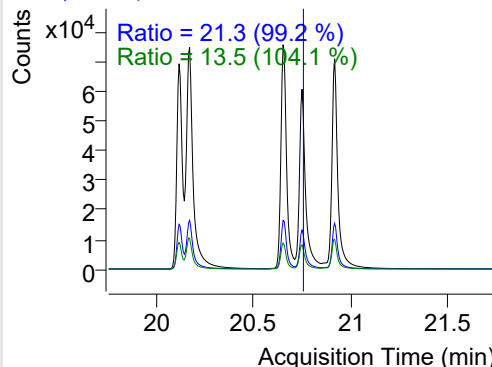


**Benzo(a)pyrene**

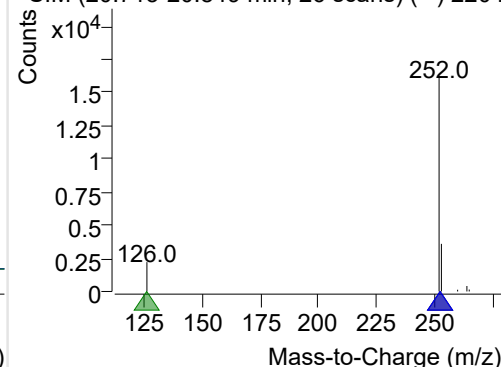
+ Selected Ion (252.0) 220407-PAHs-031.D



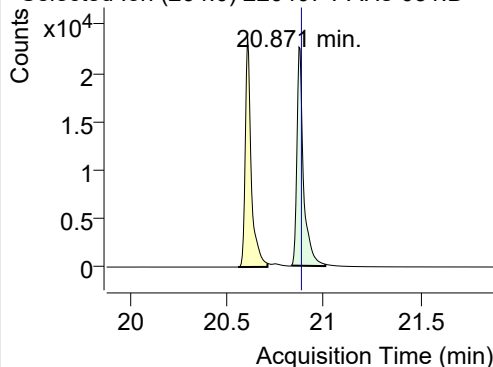
252.0, 253.0, 126.0



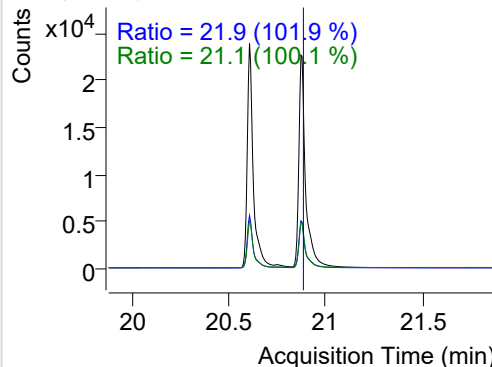
+ SIM (20.713-20.849 min, 26 scans) (\*\*) 2204

**IS-D12-Perylene**

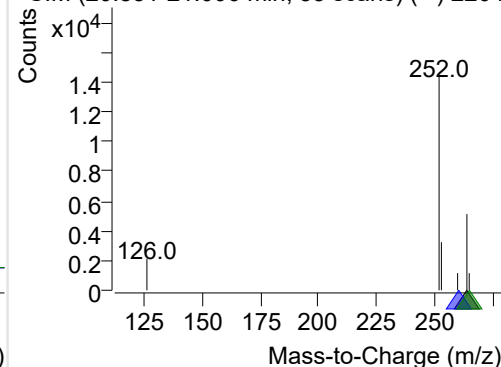
+ Selected Ion (264.0) 220407-PAHs-031.D



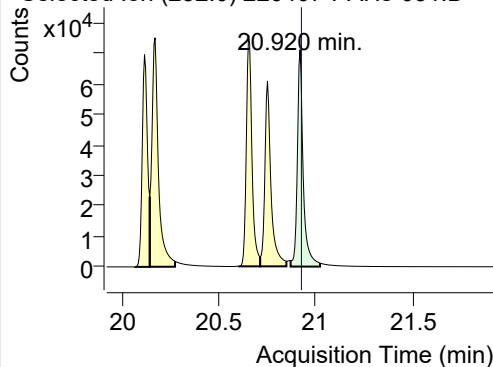
264.0, 260.0, 265.0



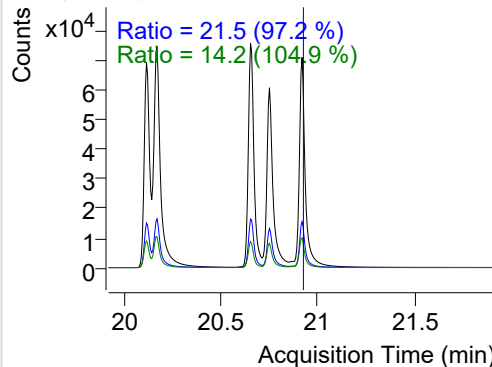
+ SIM (20.831-21.006 min, 33 scans) (\*\*) 2204

**Perylene**

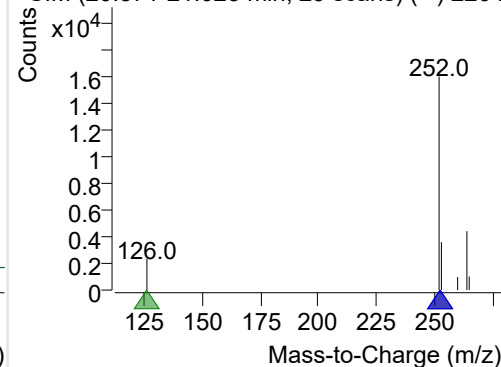
+ Selected Ion (252.0) 220407-PAHs-031.D



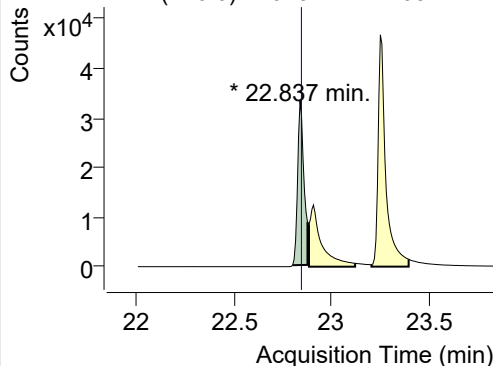
252.0, 253.0, 126.0



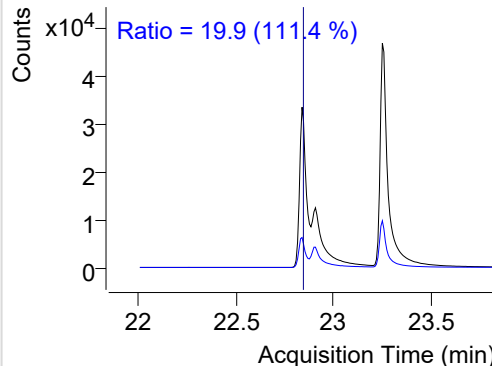
+ SIM (20.871-21.023 min, 29 scans) (\*\*) 2204

**Indeno(1,2,3-c,d)pyrene**

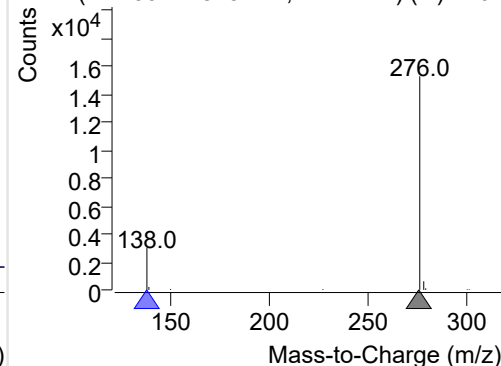
+ Selected Ion (276.0) 220407-PAHs-031.D



276.0, 138.0

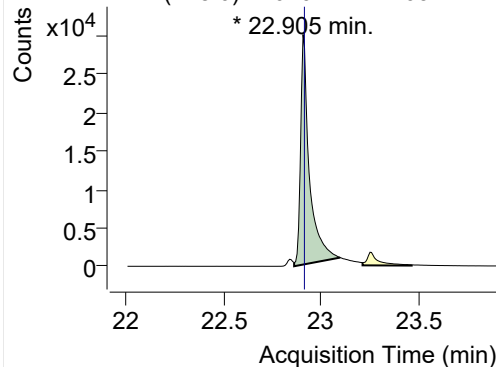


+ SIM (22.799-22.875 min, 11 scans) (\*\*) 2204

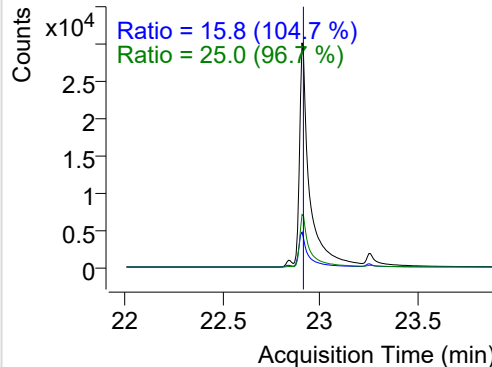


**Dibenz(a,h)anthracene**

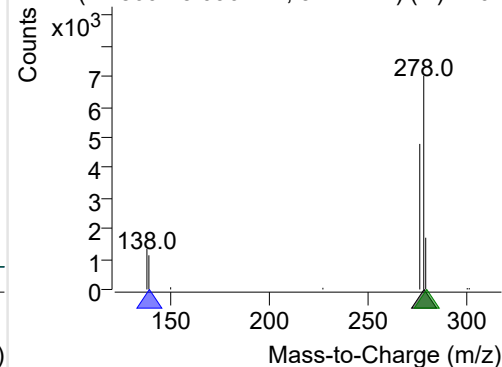
+ Selected Ion (278.0) 220407-PAHs-031.D



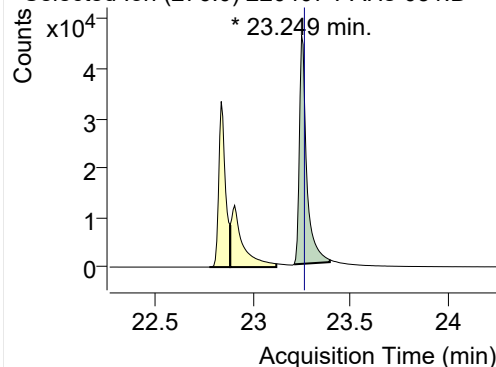
278.0, 139.0, 279.0



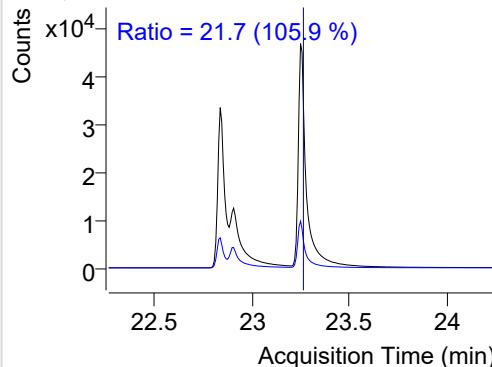
+ SIM (22.860-23.096 min, 32 scans) (\*\*) 2204

**Benzo(g,h,i)perylene**

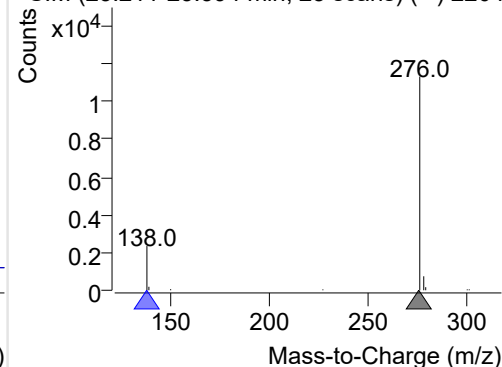
+ Selected Ion (276.0) 220407-PAHs-031.D



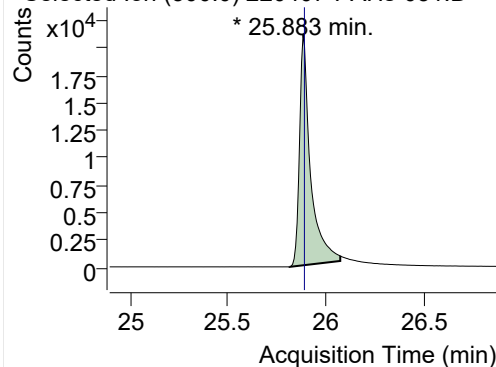
276.0, 138.0



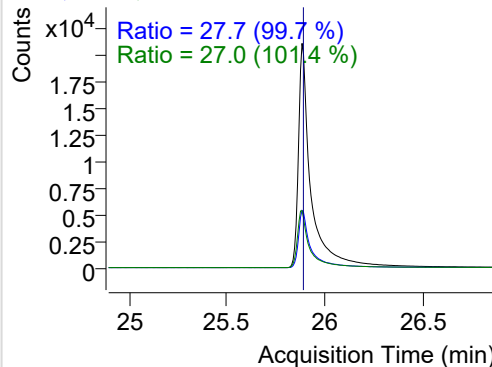
+ SIM (23.211-23.394 min, 25 scans) (\*\*) 2204

**Coronene**

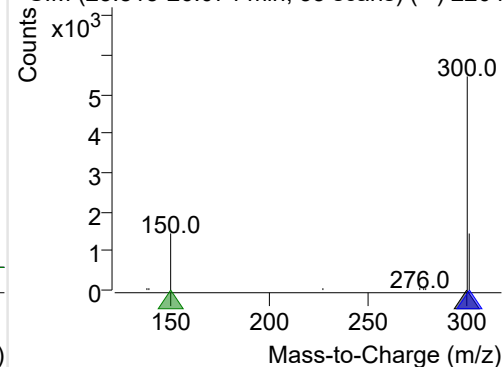
+ Selected Ion (300.0) 220407-PAHs-031.D



300.0, 301.0, 150.0



+ SIM (25.815-26.074 min, 35 scans) (\*\*) 2204





## Quantitative Analysis Sample Based Report

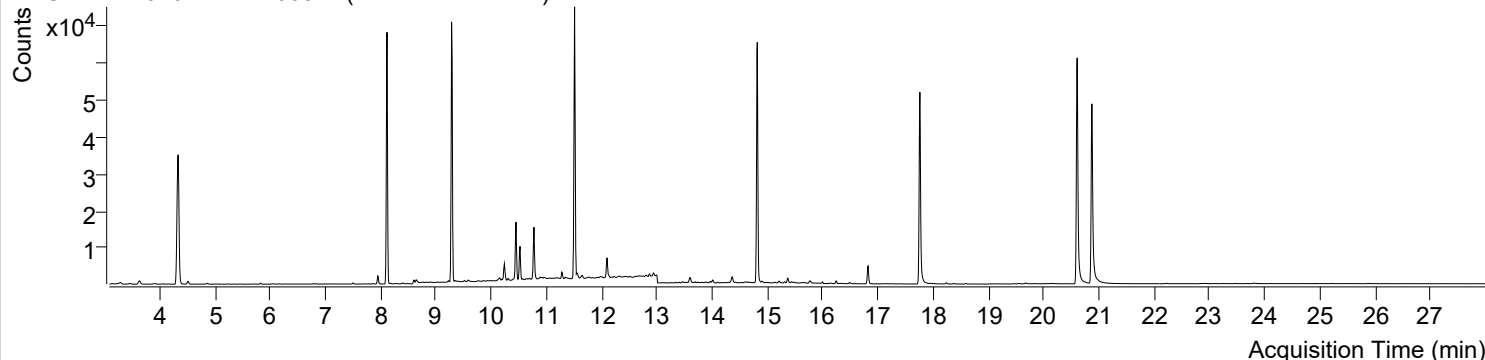


Trusted Answers

Batch Data Path File Name	D:\MassHunter\GCMS\1\data\PAHs\220407-PAHs-Sample\QuantResults\220407-PAHs-Quant.batch.bin		
Analysis Time Stamp	2022-04-13 오후 5:40:30	Analyst Name	DESKTOP-86B7UPG\5975MS
Report Generation Time	2022-04-13 오후 5:40:41	Report Generator Name	DESKTOP-86B7UPG\5975MS
Calibration Last Update	2022-04-13 오후 5:38:35	Batch State	Processed
Analyze Quant Version	10.2	Report Quant Version	10.2
Acq. Date-Time	2022-04-08 오전 3:59:23	Data File	220407-PAHs-033.D
Type	Sample	Name	Method blank-PM
Dil.	1	Acq. Method File	PAHs 19mix-Method

## Sample Chromatogram

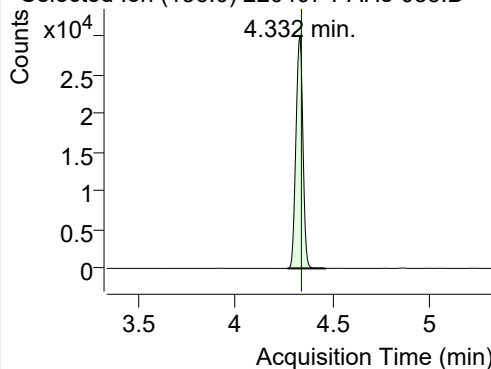
+ TIC SIM 220407-PAHs-033.D (Method blank-PM)



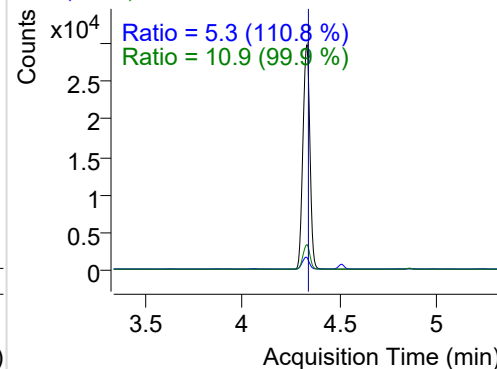
Name	RT	Transition	Resp.	Height	Final Conc. Units	Ratio
IS-D8-Naphthalene	4.332	136.0	74549	29874.01	ND µg/mL	10.9
Naphthalene	4.365	128.0	722	289.17	ND µg/mL	21.1
Acenaphthylene	7.739	152.0	19	15.05	ND µg/mL	
IS-D10-Acenaphthene	8.112	164.0	48268	33115.07	ND µg/mL	91.3
Acenaphthene	8.177	154.0	50	35.26	ND µg/mL	149.6
LSS-D10-Fluorene	9.281	176.0	52142	32348.12	ND µg/mL	87.2
Fluorene	9.344	166.0	221	142.55	ND µg/mL	89.7
IS-D10-Phenanthrene	11.508	188.0	88649	59336.31	ND µg/mL	15.1
Phenanthrene	11.560	178.0	1379	852.57	ND µg/mL	18.0
Anthracene	11.644	178.0	305	187.59	ND µg/mL	24.3
Fluoranthene	14.354	202.0	831	472.61	ND µg/mL	32.2
LSS-D10-Pyrene	14.814	212.0	77555	49117.86	ND µg/mL	17.0
Pyrene	14.852	202.0	772	376.96	ND µg/mL	45.9
Benz(a)anthracene	17.758	228.0	260	100.62	ND µg/mL	13.8
IS-D12-Chrysene	17.758	240.0	72433	39431.62	ND µg/mL	19.0
Chrysene	17.812	228.0	164	64.68	ND µg/mL	25.6
Benzo(b)fluoranthene	20.160	252.0	150	46.00	ND µg/mL	22.6
Benzo(k)fluoranthene	20.160	252.0	150	46.00	ND µg/mL	22.6
SS-D12-Benzo(e)pyrene	20.605	264.0	85658	41955.22	ND µg/mL	22.3
Benzo(e)pyrene	20.648	252.0	106	47.09	ND µg/mL	
Benzo(a)pyrene	20.752	252.0	77	31.58	ND µg/mL	
IS-D12-Perylene	20.871	264.0	70525	33452.18	ND µg/mL	21.4
Perylene	20.914	252.0	115	38.38	ND µg/mL	
Indeno(1,2,3-c,d)pyrene	22.829	276.0	191	33.90	ND µg/mL	24.1
Dibenz(a,h)anthracene	22.906	278.0	210	45.13	ND µg/mL	22.3
Benzo(g,h,i)perylene	23.249	276.0	102	27.77	ND µg/mL	19.0
Coronene	25.876	300.0	189	32.28	ND µg/mL	25.2

## IS-D8-Naphthalene

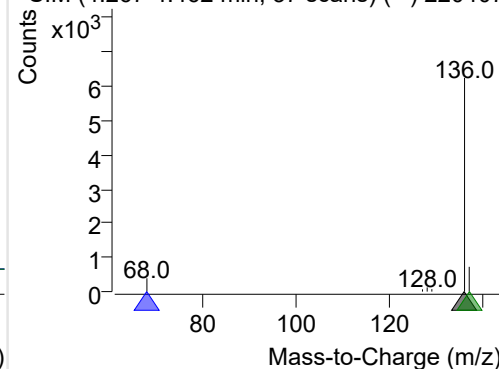
+ Selected Ion (136.0) 220407-PAHs-033.D



136.0, 68.0, 137.0

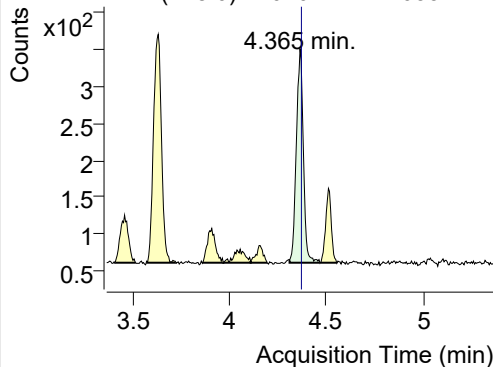


+ SIM (4.267-4.462 min, 37 scans) (\*\*) 220407

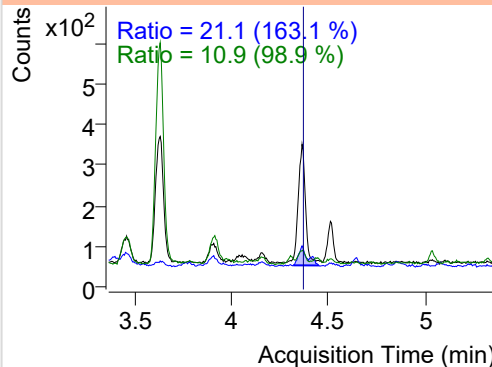


**Naphthalene**

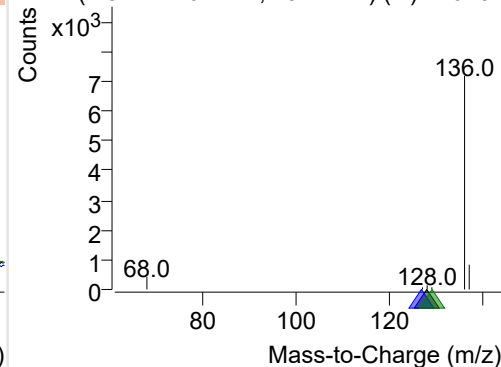
+ Selected Ion (128.0) 220407-PAHs-033.D



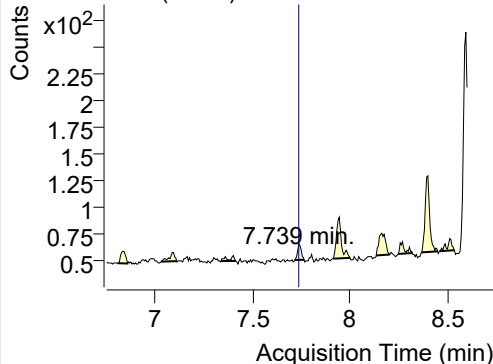
128.0, 127.0, 129.0



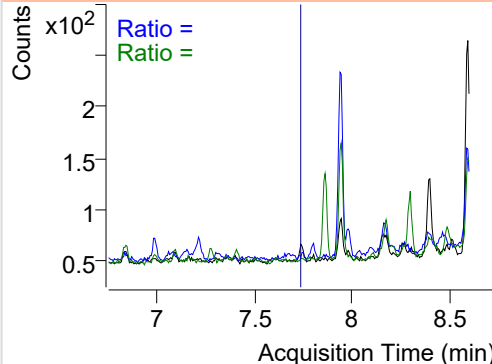
+ SIM (4.311-4.467 min, 29 scans) (\*\*) 220407

**Acenaphthylene**

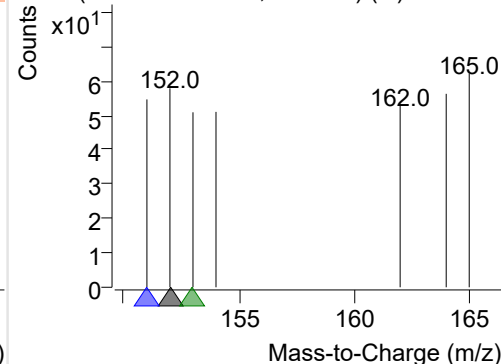
+ Selected Ion (152.0) 220407-PAHs-033.D



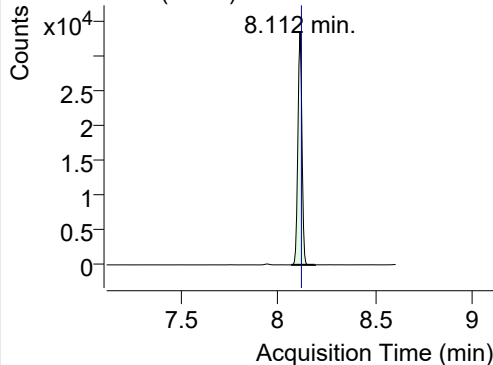
152.0, 151.0, 153.0



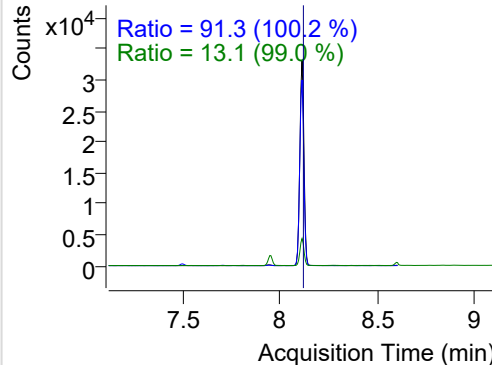
+ SIM (7.718-7.766 min, 8 scans) (\*\*) 220407-I

**IS-D10-Acenaphthene**

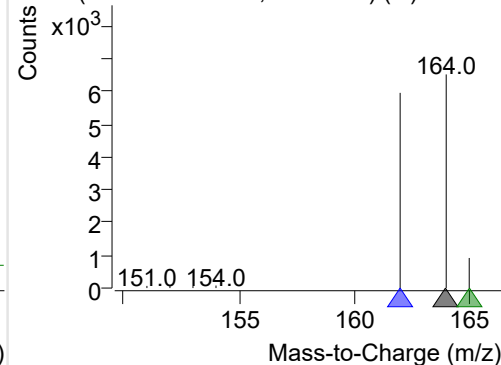
+ Selected Ion (164.0) 220407-PAHs-033.D



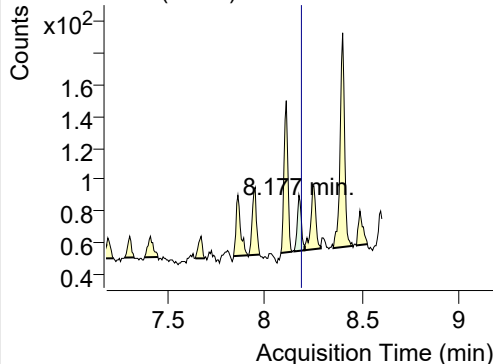
164.0, 162.0, 165.0



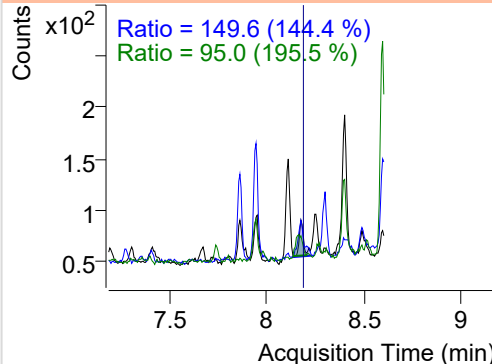
+ SIM (8.066-8.189 min, 21 scans) (\*\*) 220407

**Acenaphthene**

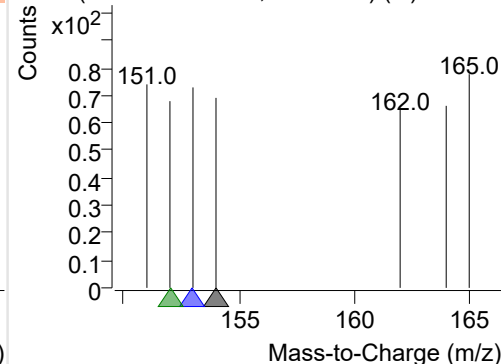
+ Selected Ion (154.0) 220407-PAHs-033.D



154.0, 153.0, 152.0

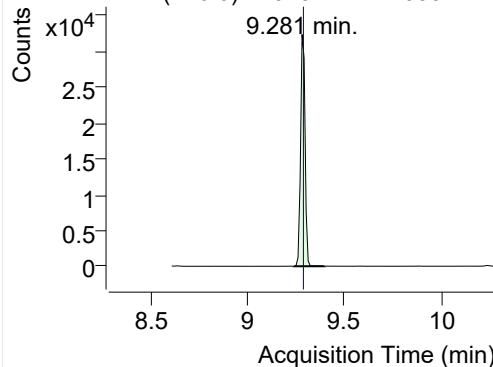


+ SIM (8.154-8.207 min, 10 scans) (\*\*) 220407

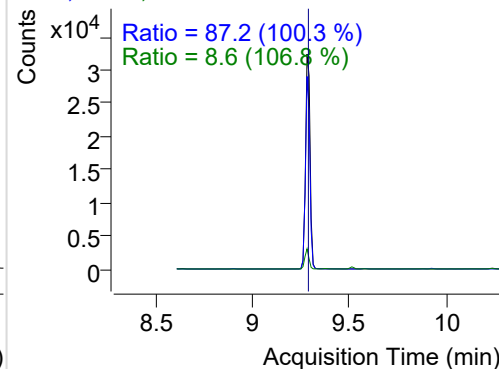


## LSS-D10-Fluorene

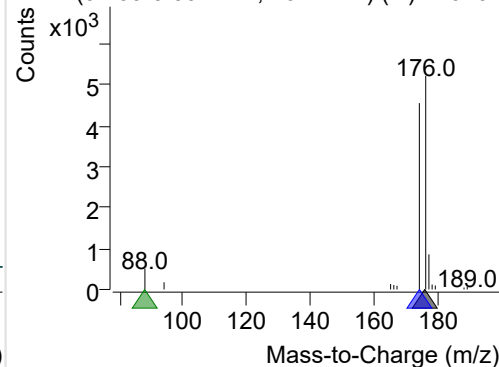
+ Selected Ion (176.0) 220407-PAHs-033.D



176.0, 174.0, 88.0

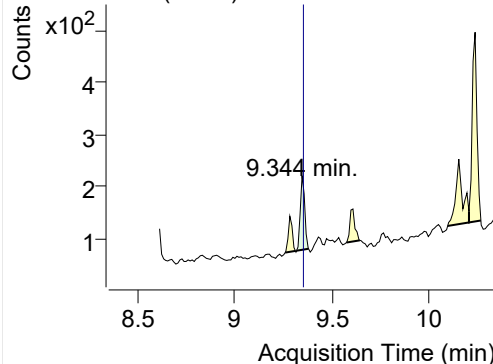


+ SIM (9.239-9.397 min, 16 scans) (\*\*) 220407

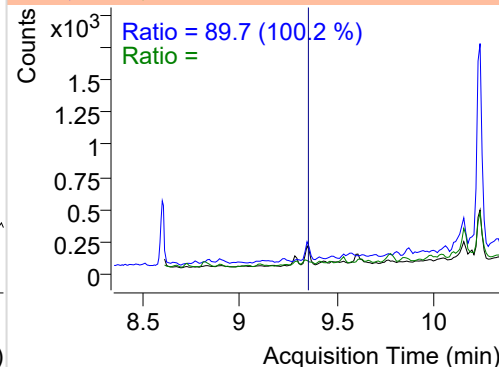


## Fluorene

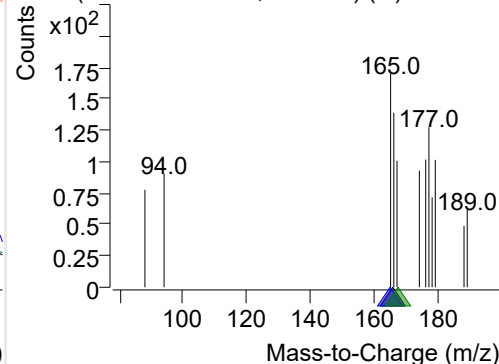
+ Selected Ion (166.0) 220407-PAHs-033.D



166.0, 165.0, 167.0

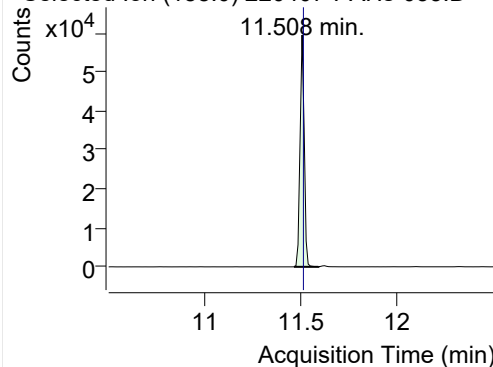


+ SIM (9.316-9.378 min, 6 scans) (\*\*) 220407-I

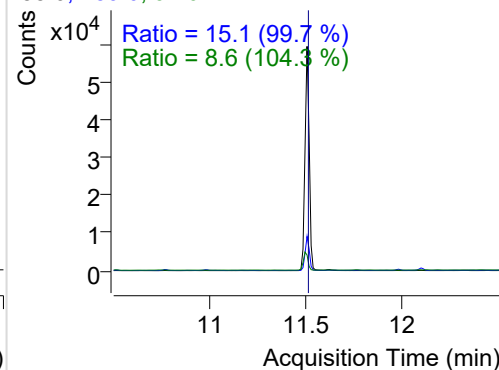


## IS-D10-Phenanthrene

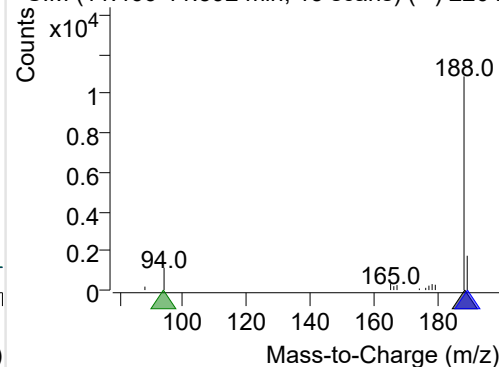
+ Selected Ion (188.0) 220407-PAHs-033.D



188.0, 189.0, 94.0

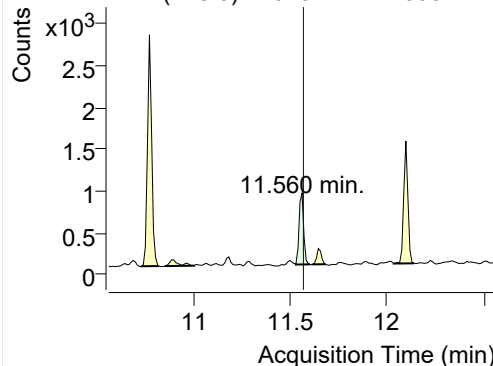


+ SIM (11.466-11.592 min, 13 scans) (\*\*) 2204

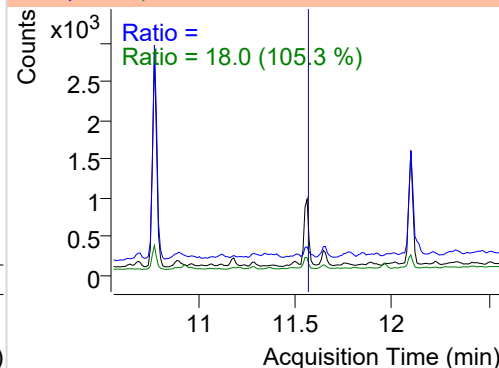


## Phenanthrene

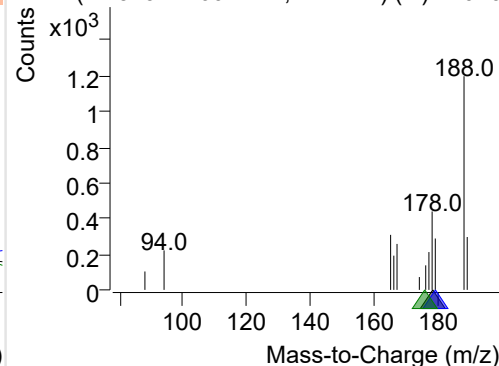
+ Selected Ion (178.0) 220407-PAHs-033.D



178.0, 179.0, 176.0

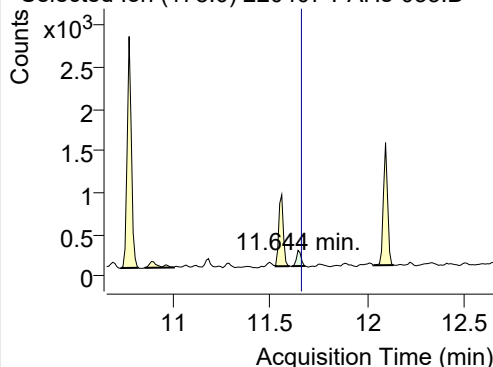


+ SIM (11.529-11.601 min, 7 scans) (\*\*) 22040

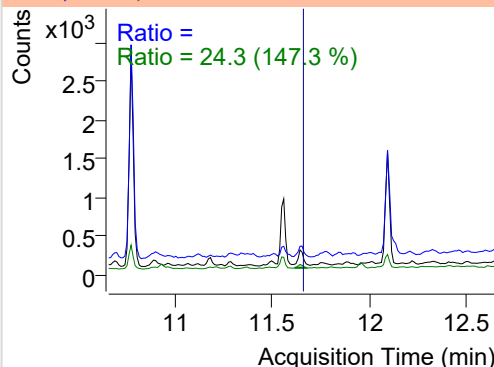


**Anthracene**

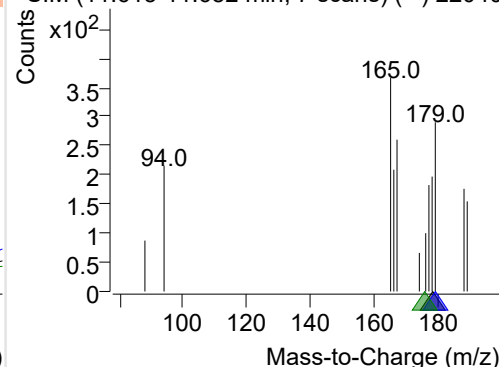
+ Selected Ion (178.0) 220407-PAHs-033.D



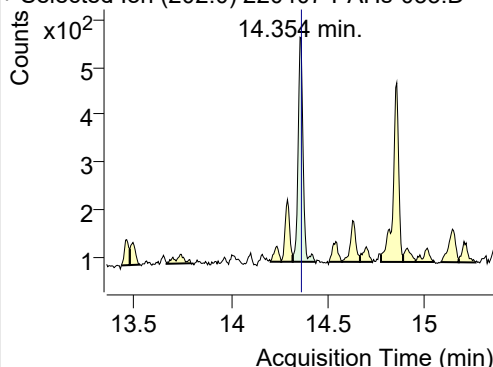
178.0, 179.0, 176.0



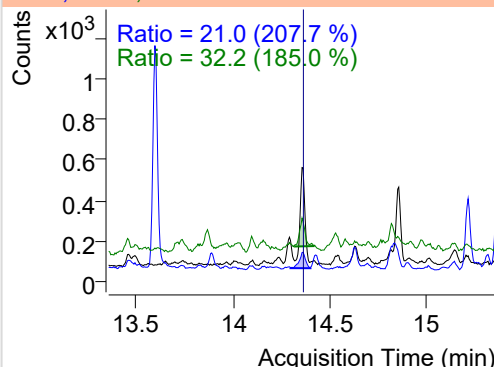
+ SIM (11.613-11.682 min, 7 scans) (\*\*) 22040

**Fluoranthene**

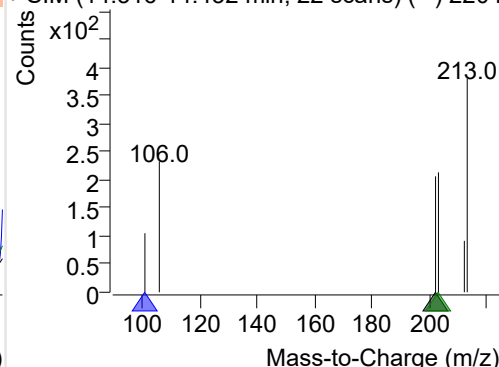
+ Selected Ion (202.0) 220407-PAHs-033.D



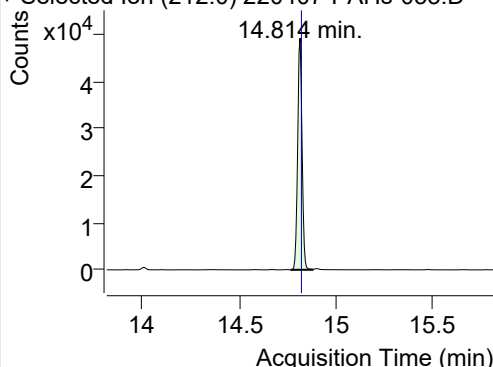
202.0, 101.0, 203.0



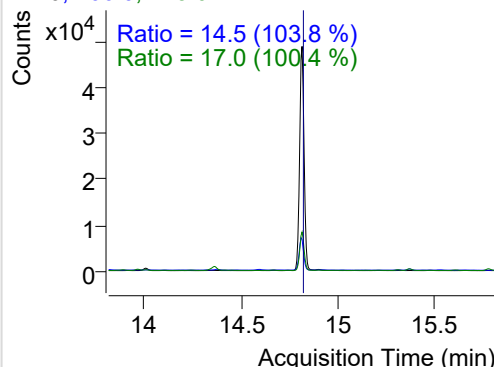
+ SIM (14.316-14.432 min, 22 scans) (\*\*) 2204

**LSS-D10-Pyrene**

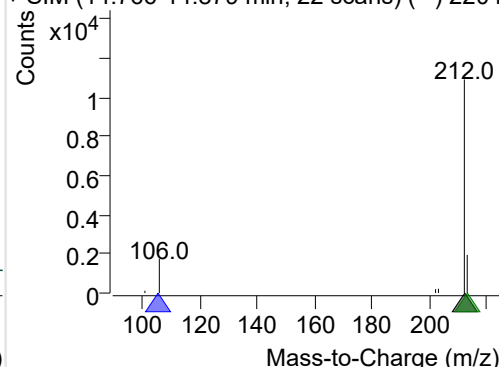
+ Selected Ion (212.0) 220407-PAHs-033.D



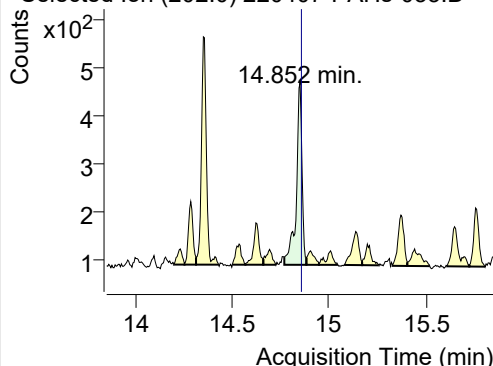
212.0, 106.0, 213.0



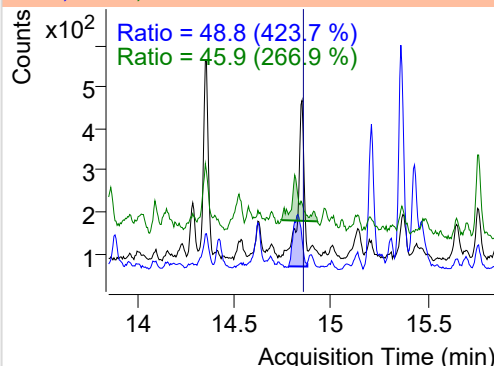
+ SIM (14.766-14.879 min, 22 scans) (\*\*) 2204

**Pyrene**

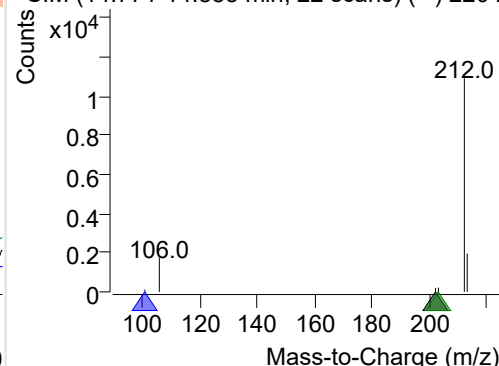
+ Selected Ion (202.0) 220407-PAHs-033.D



202.0, 101.0, 203.0



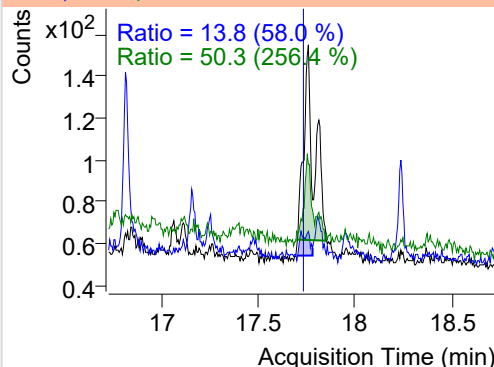
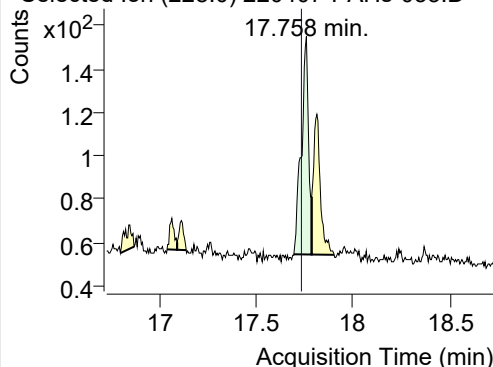
+ SIM (14.771-14.885 min, 22 scans) (\*\*) 2204



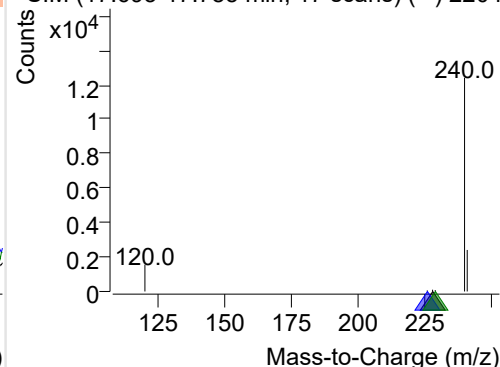
**Benz(a)anthracene**

+ Selected Ion (228.0) 220407-PAHs-033.D

228.0, 226.0, 229.0

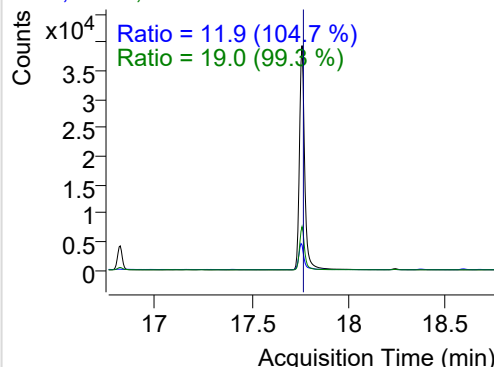
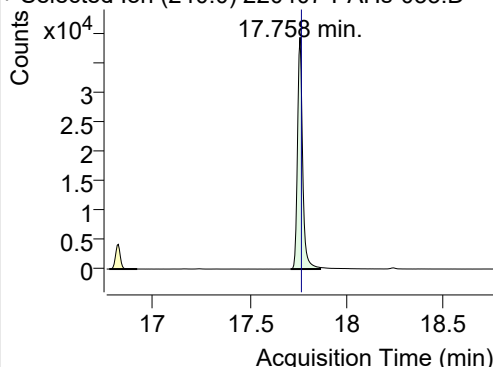


+ SIM (17.693-17.785 min, 17 scans) (\*\*) 2204

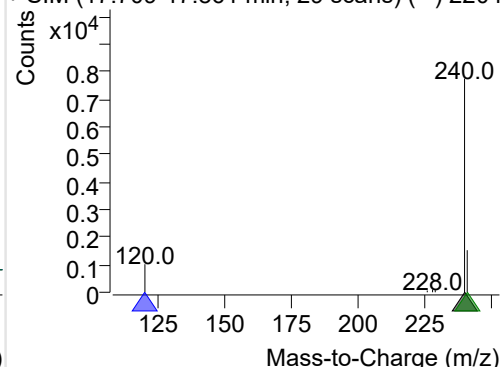
**IS-D12-Chrysene**

+ Selected Ion (240.0) 220407-PAHs-033.D

240.0, 120.0, 241.0

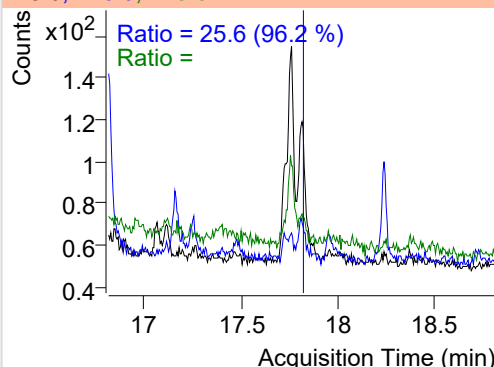
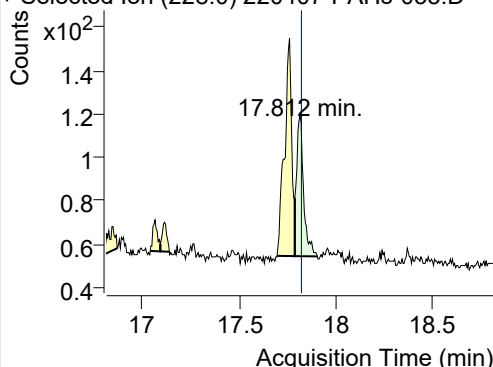


+ SIM (17.709-17.861 min, 29 scans) (\*\*) 2204

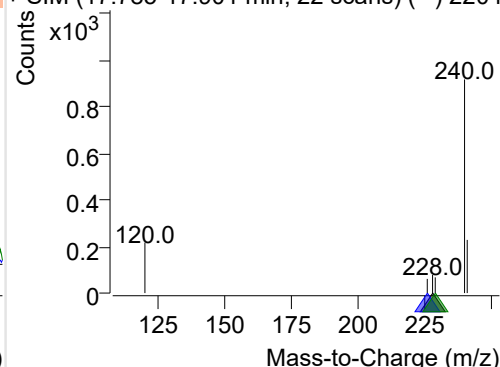
**Chrysene**

+ Selected Ion (228.0) 220407-PAHs-033.D

228.0, 226.0, 229.0

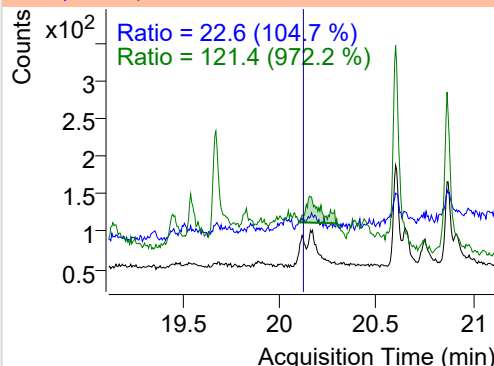
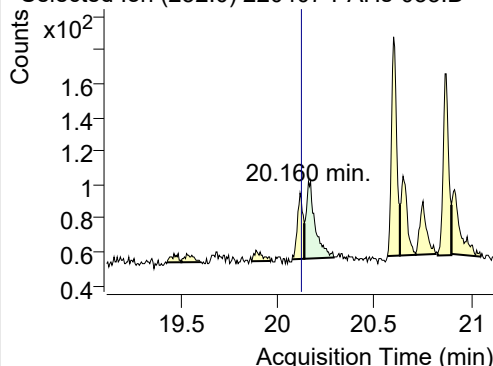


+ SIM (17.785-17.901 min, 22 scans) (\*\*) 2204

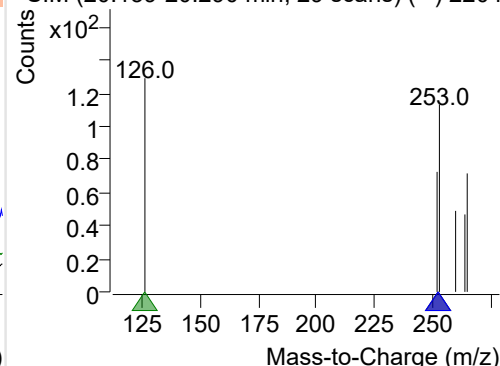
**Benzo(b)fluoranthene**

+ Selected Ion (252.0) 220407-PAHs-033.D

252.0, 253.0, 126.0



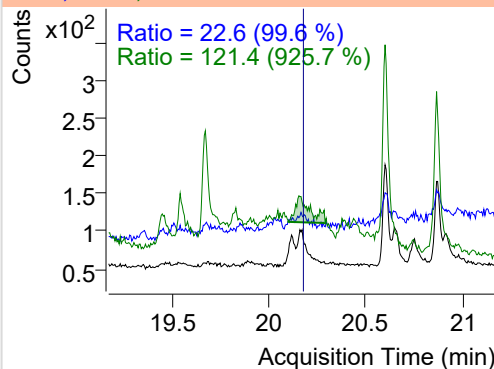
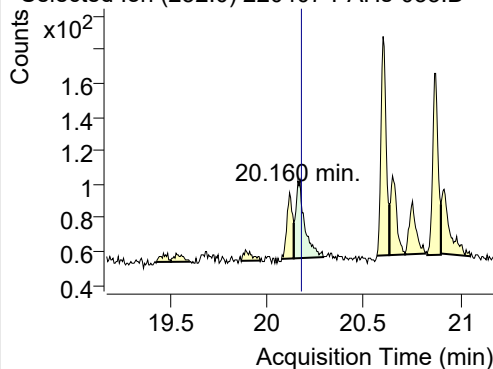
+ SIM (20.139-20.290 min, 29 scans) (\*\*) 2204



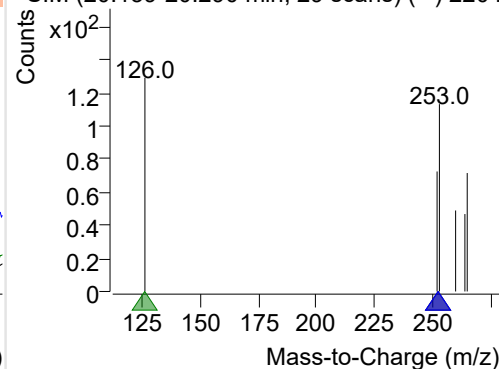
**Benzo(k)fluoranthene**

+ Selected Ion (252.0) 220407-PAHs-033.D

252.0, 253.0, 126.0

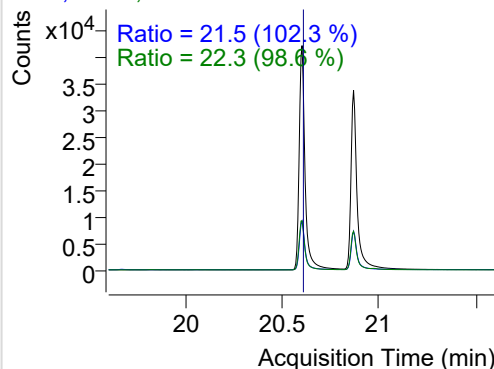
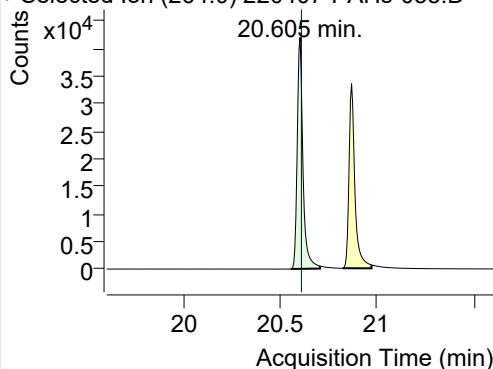


+ SIM (20.139-20.290 min, 29 scans) (\*\*) 2204

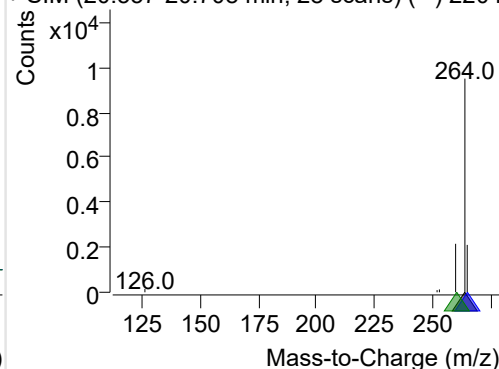
**SS-D12-Benzo(e)pyrene**

+ Selected Ion (264.0) 220407-PAHs-033.D

264.0, 265.0, 260.0

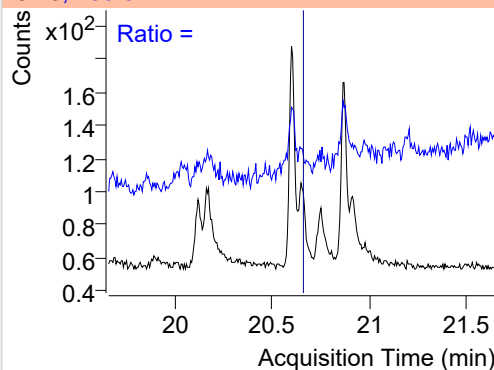
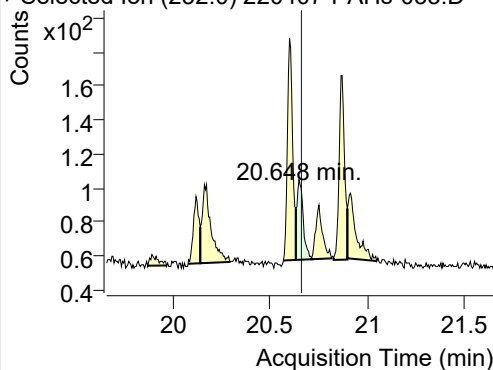


+ SIM (20.557-20.708 min, 28 scans) (\*\*) 2204

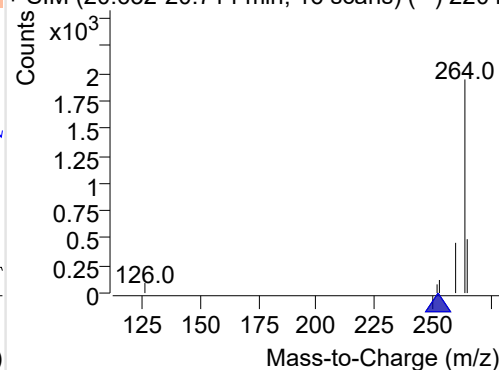
**Benzo(e)pyrene**

+ Selected Ion (252.0) 220407-PAHs-033.D

252.0, 253.0

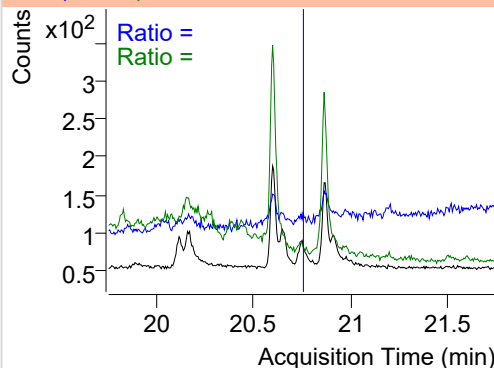
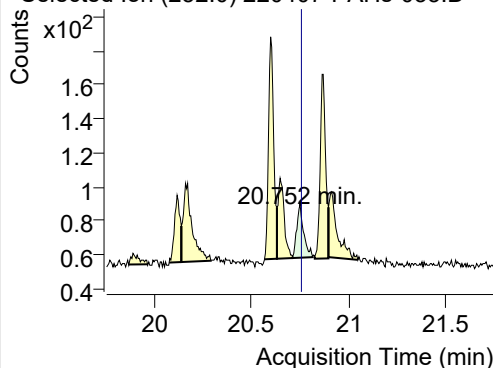


+ SIM (20.632-20.714 min, 16 scans) (\*\*) 2204

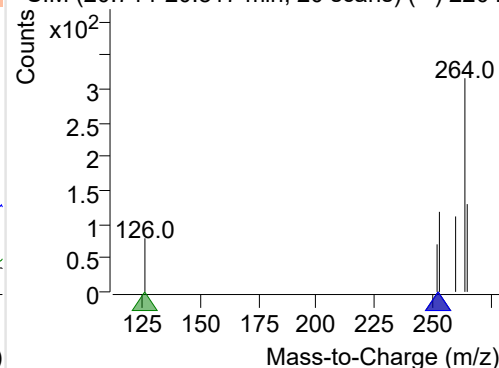
**Benzo(a)pyrene**

+ Selected Ion (252.0) 220407-PAHs-033.D

252.0, 253.0, 126.0

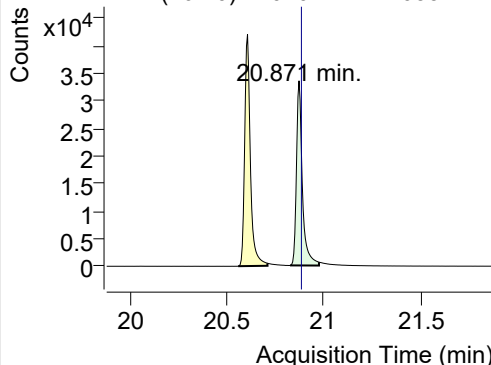


+ SIM (20.714-20.817 min, 20 scans) (\*\*) 2204

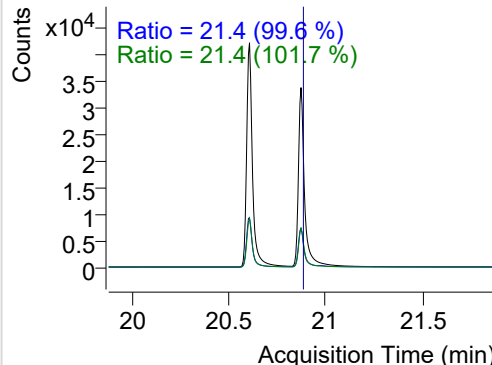


## IS-D12-Perylene

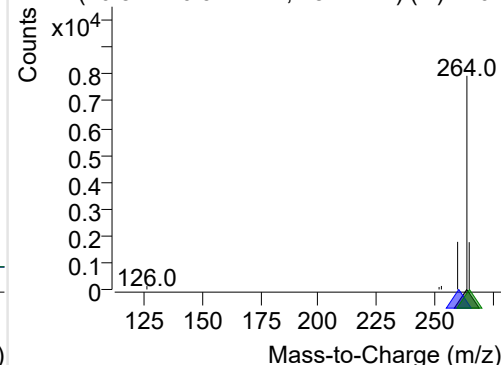
+ Selected Ion (264.0) 220407-PAHs-033.D



264.0, 260.0, 265.0

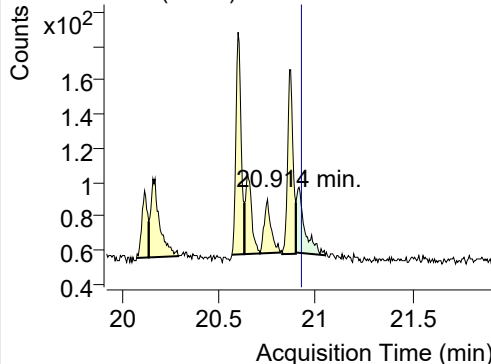


+ SIM (20.824-20.974 min, 28 scans) (\*\*) 2204

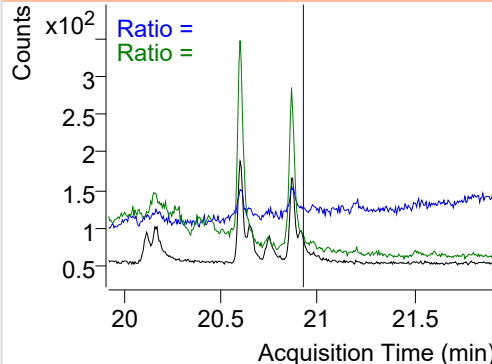


## Perylene

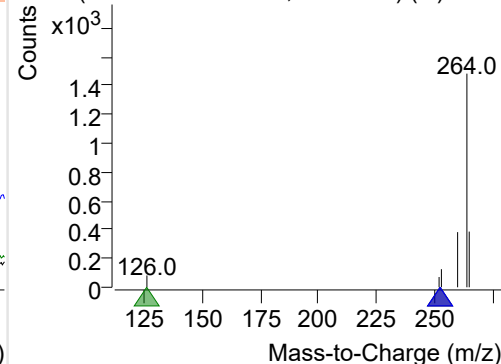
+ Selected Ion (252.0) 220407-PAHs-033.D



252.0, 253.0, 126.0

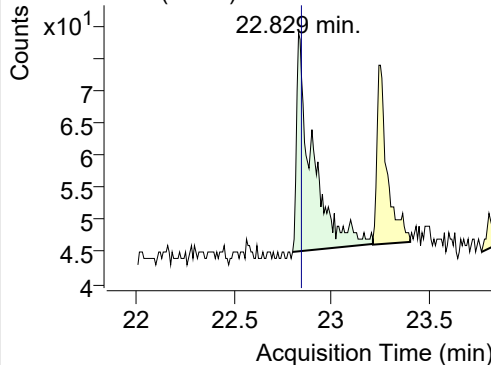


+ SIM (20.898-21.050 min, 28 scans) (\*\*) 2204

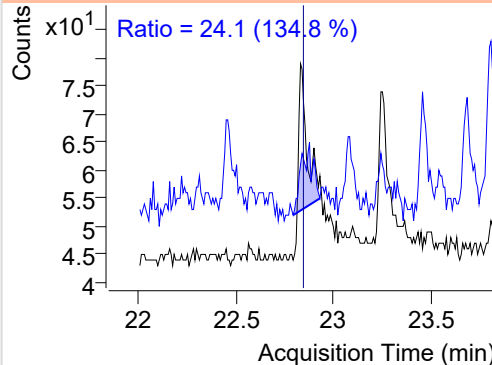


## Indeno(1,2,3-c,d)pyrene

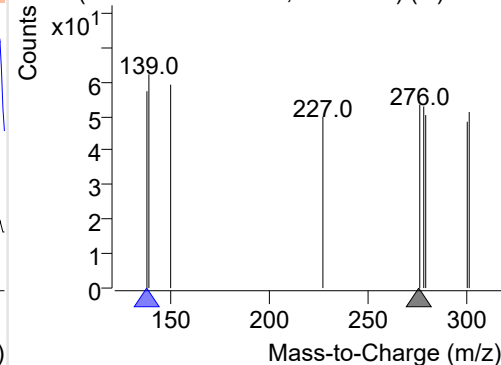
+ Selected Ion (276.0) 220407-PAHs-033.D



276.0, 138.0

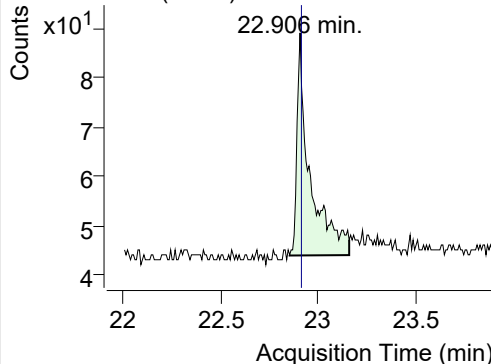


+ SIM (22.799-23.211 min, 54 scans) (\*\*) 2204

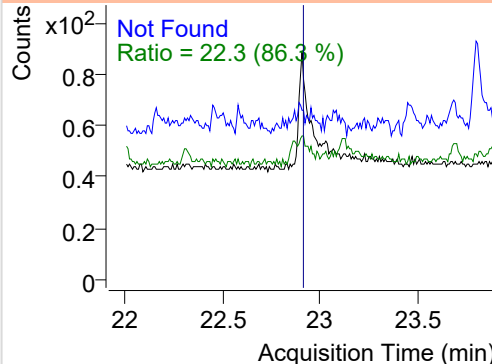


## Dibenz(a,h)anthracene

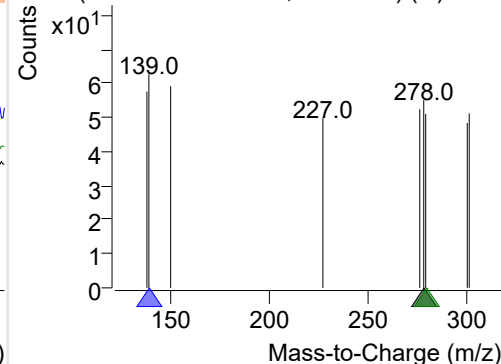
+ Selected Ion (278.0) 220407-PAHs-033.D



278.0, 139.0, 279.0

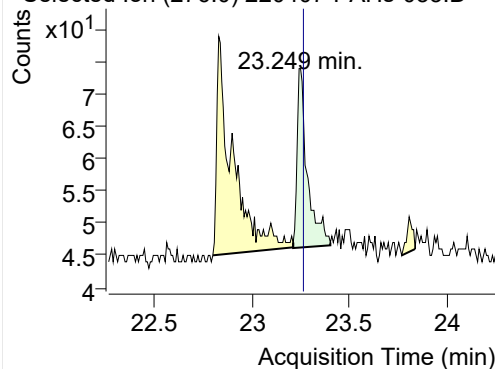


+ SIM (22.852-23.158 min, 41 scans) (\*\*) 2204

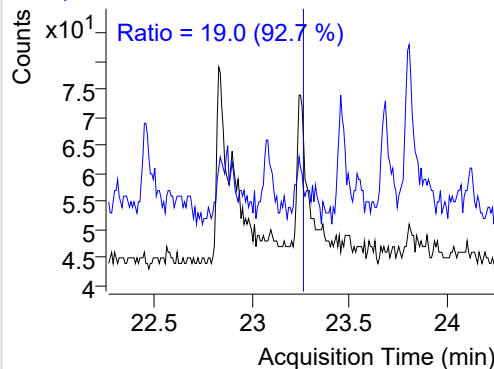


**Benzo(g,h,i)perylene**

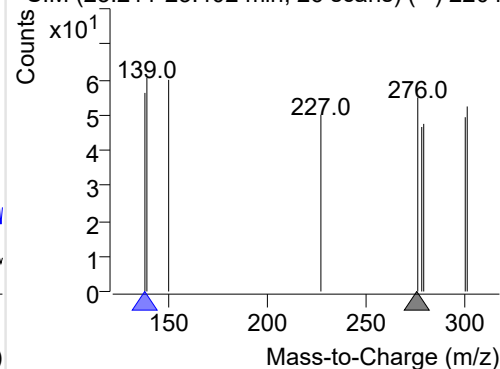
+ Selected Ion (276.0) 220407-PAHs-033.D



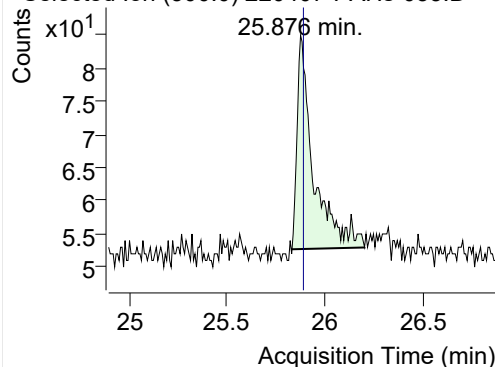
276.0, 138.0



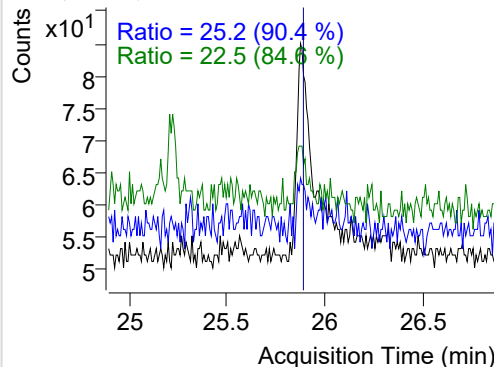
+ SIM (23.211-23.402 min, 26 scans) (\*\*) 2204

**Coronene**

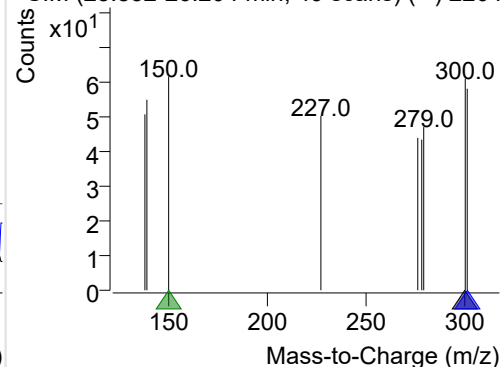
+ Selected Ion (300.0) 220407-PAHs-033.D



300.0, 301.0, 150.0



+ SIM (25.832-26.204 min, 49 scans) (\*\*) 2204





## Quantitative Analysis Sample Based Report

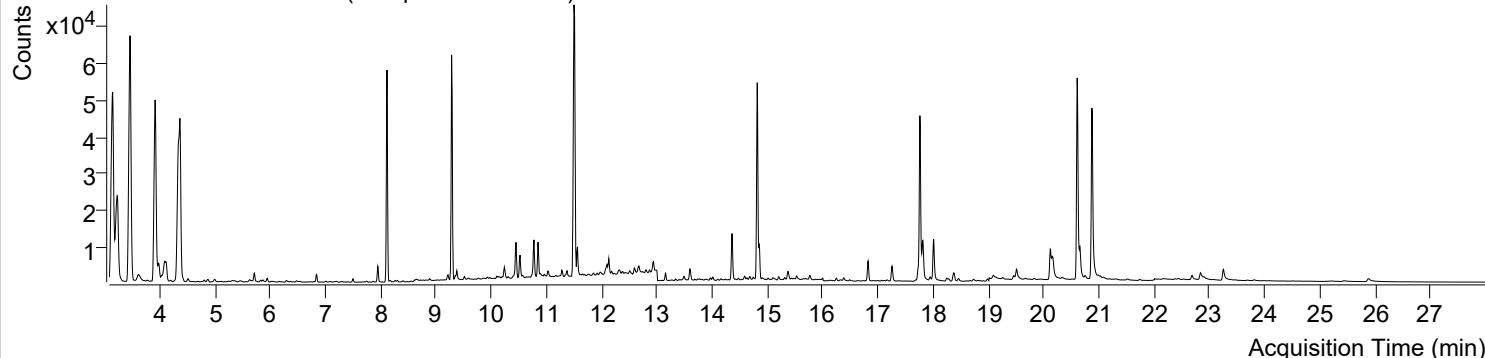


Trusted Answers

Batch Data Path File Name	D:\MassHunter\GCMS\1\data\PAHs\220407-PAHs-Sample\QuantResults\220407-PAHs-Quant.batch.bin		
Analysis Time Stamp	2022-04-13 오후 5:40:30	Analyst Name	DESKTOP-86B7UPG\5975MS
Report Generation Time	2022-04-13 오후 5:40:41	Report Generator Name	DESKTOP-86B7UPG\5975MS
Calibration Last Update	2022-04-13 오후 5:38:35	Batch State	Processed
Analyze Quant Version	10.2	Report Quant Version	10.2
Acq. Date-Time	2022-04-08 오전 4:30:33	Data File	220407-PAHs-034.D
Type	Sample	Name	Sample-PM-220301
Dil.	1	Acq. Method File	PAHs 19mix-Method

## Sample Chromatogram

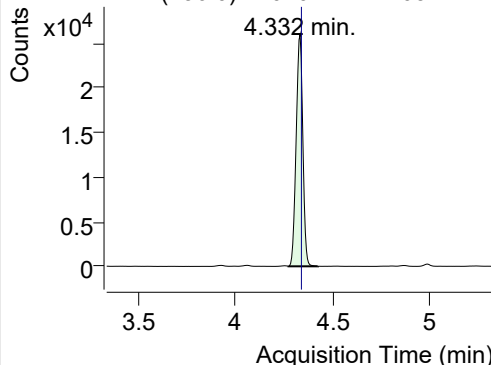
+ TIC SIM 220407-PAHs-034.D (Sample-PM-220301)



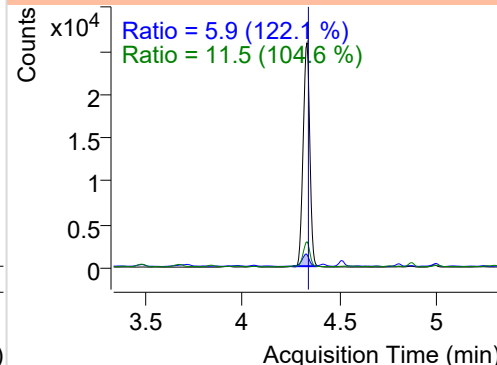
Name	RT	Transition	Resp.	Height	Final Conc. Units	Ratio
IS-D8-Naphthalene	4.332	136.0	61779	25898.02	ND µg/mL	11.5
Naphthalene	4.365	128.0	79150	34050.69	ND µg/mL	12.8
Acenaphthylene	7.745	152.0	311	191.33	ND µg/mL	33.9
IS-D10-Acenaphthene	8.112	164.0	41527	28388.38	ND µg/mL	90.4
Acenaphthene	8.177	154.0	138	99.30	ND µg/mL	174.8
LSS-D10-Fluorene	9.281	176.0	44717	28537.40	ND µg/mL	86.4
Fluorene	9.344	166.0	729	469.24	ND µg/mL	100.5
IS-D10-Phenanthrene	11.508	188.0	72712	48440.60	ND µg/mL	15.2
Phenanthrene	11.560	178.0	8110	5236.31	ND µg/mL	17.8
Anthracene	11.655	178.0	280	181.37	ND µg/mL	34.5
Fluoranthene	14.359	202.0	14029	8729.09	ND µg/mL	18.1
LSS-D10-Pyrene	14.814	212.0	64913	40687.04	ND µg/mL	17.4
Pyrene	14.852	202.0	10533	6805.50	ND µg/mL	26.3
Benz(a)anthracene	17.725	228.0	4561	2244.94	ND µg/mL	25.1
IS-D12-Chrysene	17.758	240.0	61604	34132.66	ND µg/mL	19.0
Chrysene	17.812	228.0	15839	6772.29	ND µg/mL	27.7
Benzo(b)fluoranthene	20.117	252.0	10823	5766.17	ND µg/mL	22.0
Benzo(k)fluoranthene	20.155	252.0	12809	4227.14	ND µg/mL	25.9
SS-D12-Benzo(e)pyrene	20.605	264.0	76067	37795.00	ND µg/mL	22.1
Benzo(e)pyrene	20.654	252.0	9895	4746.40	ND µg/mL	21.0
Benzo(a)pyrene	20.752	252.0	1547	596.73	ND µg/mL	17.3
IS-D12-Perylene	20.871	264.0	68300	32114.76	ND µg/mL	20.6
Perylene	20.990	252.0	632	280.76	ND µg/mL	
Indeno(1,2,3-c,d)pyrene	22.837	276.0	5969	1538.10	ND µg/mL	15.5
Dibenz(a,h)anthracene	22.906	278.0	1116	263.22	ND µg/mL	
Benzo(g,h,i)perylene	23.249	276.0	7270	2383.83	ND µg/mL	18.9
Coronene	25.876	300.0	3104	535.68	ND µg/mL	22.8

## IS-D8-Naphthalene

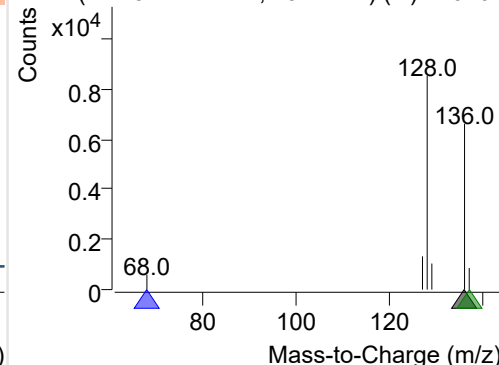
+ Selected Ion (136.0) 220407-PAHs-034.D



136.0, 68.0, 137.0

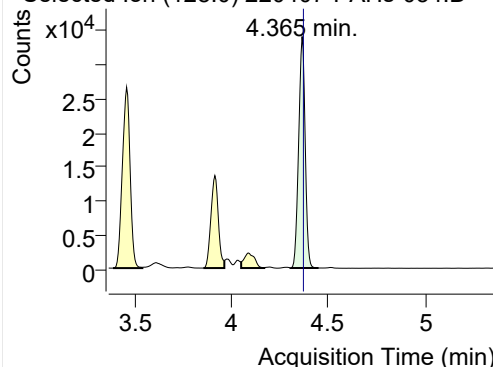


+ SIM (4.273-4.424 min, 29 scans) (\*\*) 220407

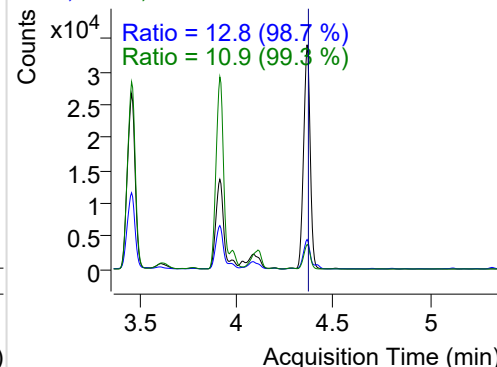


**Naphthalene**

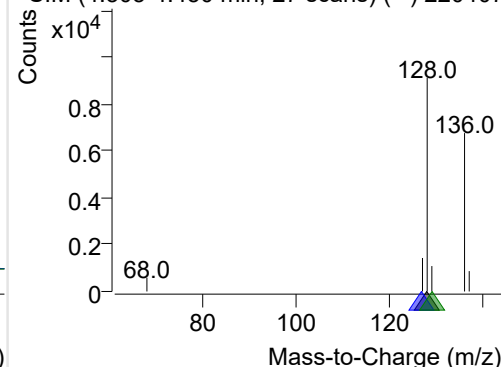
+ Selected Ion (128.0) 220407-PAHs-034.D



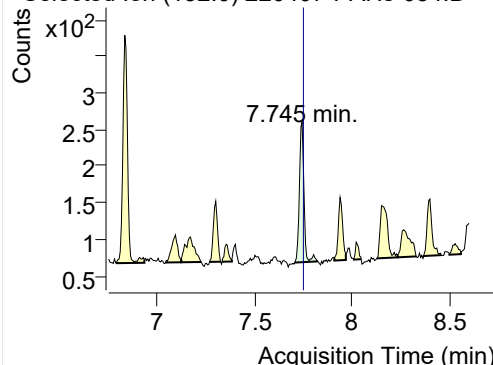
128.0, 127.0, 129.0



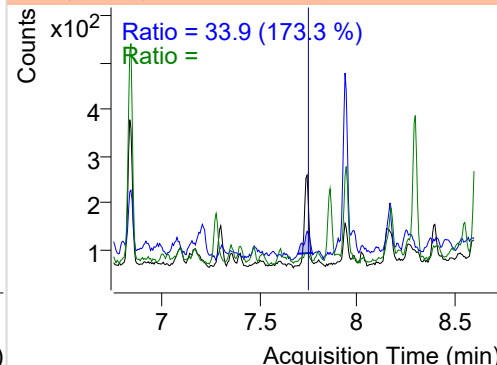
+ SIM (4.305-4.450 min, 27 scans) (\*\*) 220407

**Acenaphthylene**

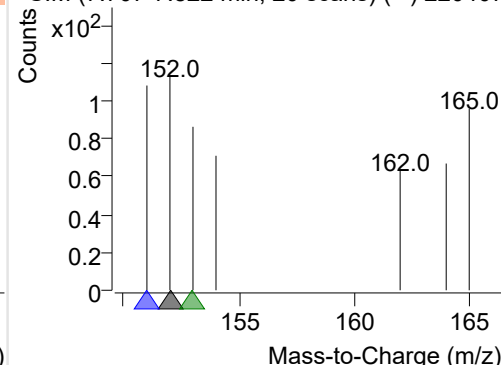
+ Selected Ion (152.0) 220407-PAHs-034.D



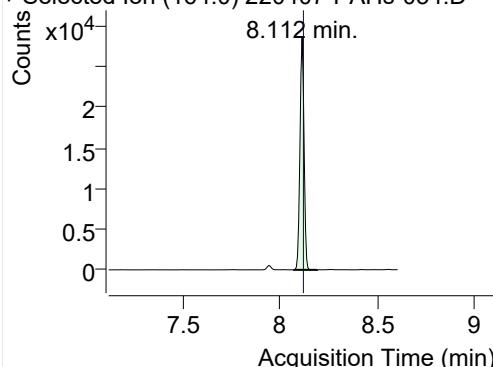
152.0, 151.0, 153.0



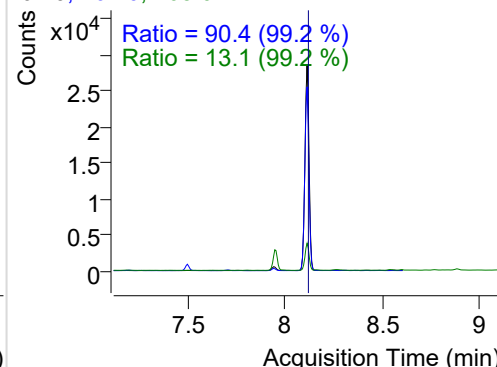
+ SIM (7.707-7.822 min, 20 scans) (\*\*) 220407

**IS-D10-Acenaphthene**

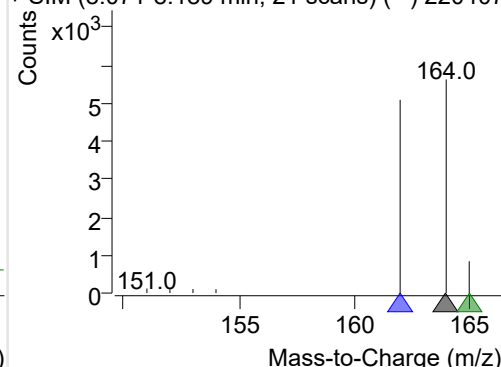
+ Selected Ion (164.0) 220407-PAHs-034.D



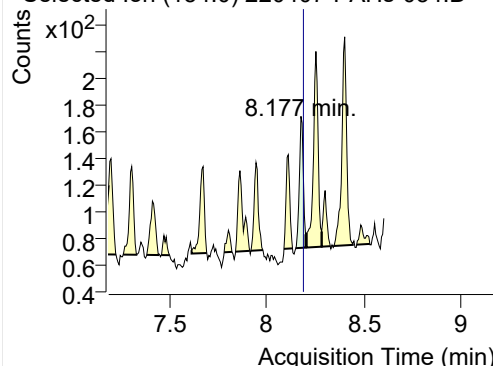
164.0, 162.0, 165.0



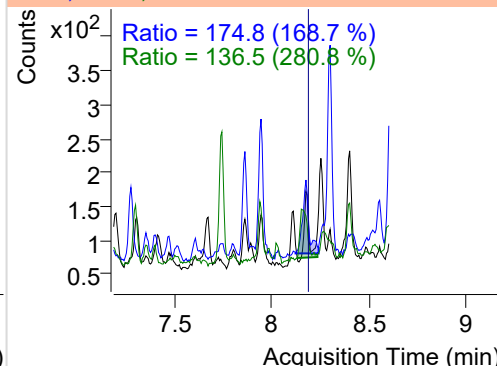
+ SIM (8.071-8.189 min, 21 scans) (\*\*) 220407

**Acenaphthene**

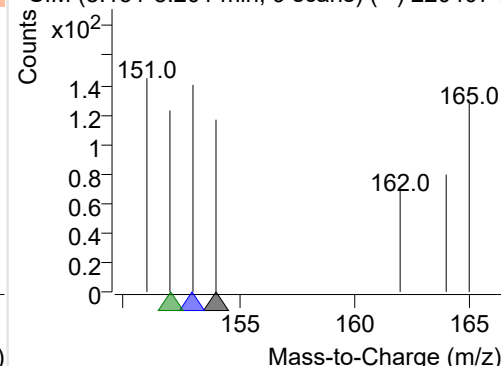
+ Selected Ion (154.0) 220407-PAHs-034.D



154.0, 153.0, 152.0

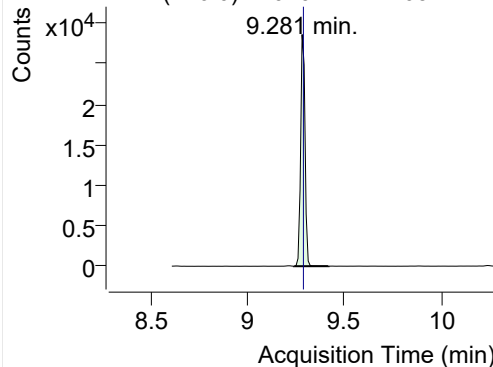


+ SIM (8.151-8.201 min, 9 scans) (\*\*) 220407-I

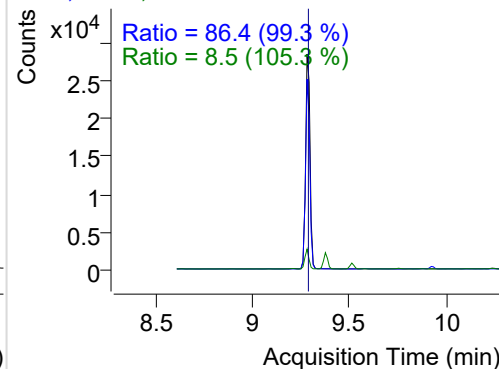


## LSS-D10-Fluorene

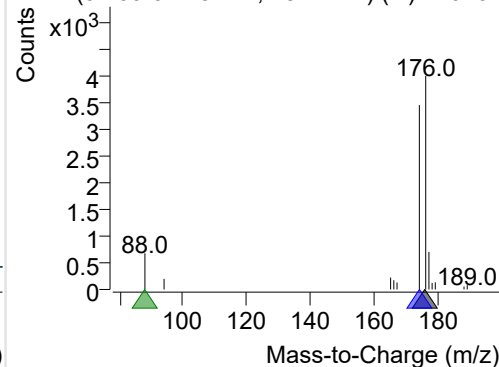
+ Selected Ion (176.0) 220407-PAHs-034.D



176.0, 174.0, 88.0

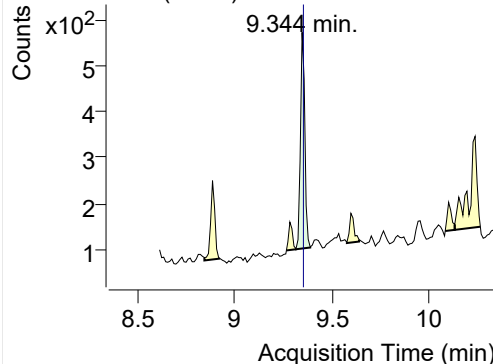


+ SIM (9.239-9.418 min, 18 scans) (\*\*) 220407

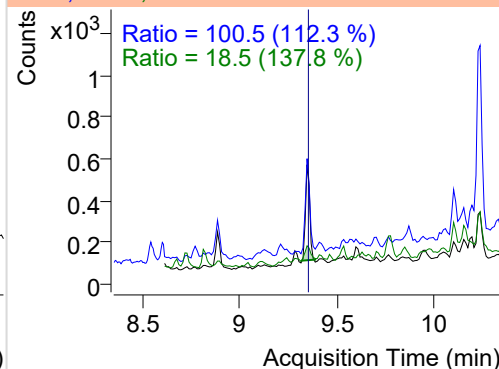


## Fluorene

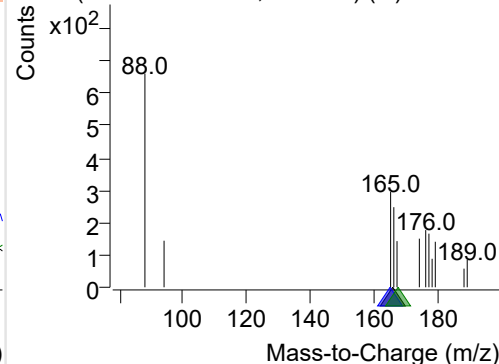
+ Selected Ion (166.0) 220407-PAHs-034.D



166.0, 165.0, 167.0

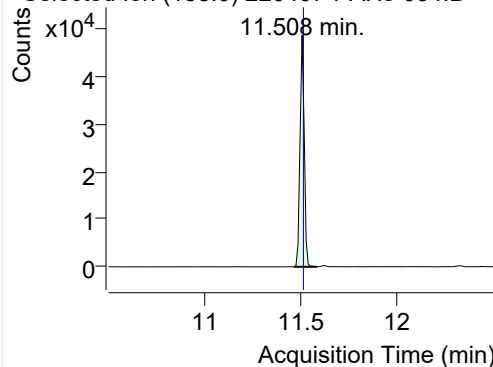


+ SIM (9.313-9.386 min, 8 scans) (\*\*) 220407-I

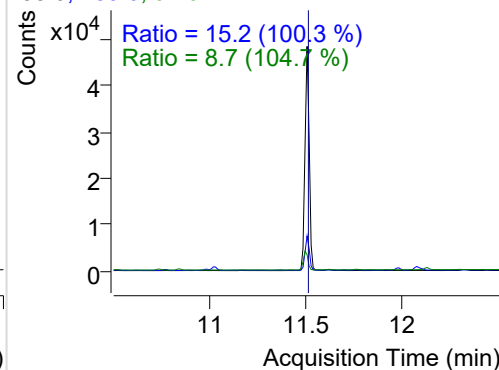


## IS-D10-Phenanthrene

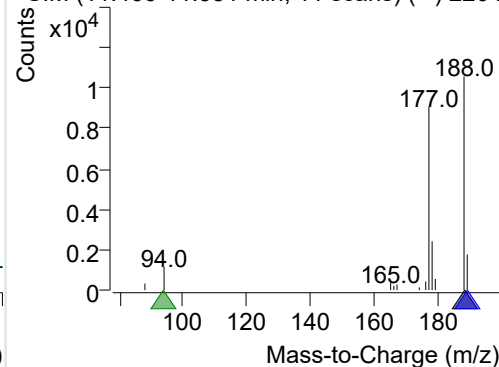
+ Selected Ion (188.0) 220407-PAHs-034.D



188.0, 189.0, 94.0

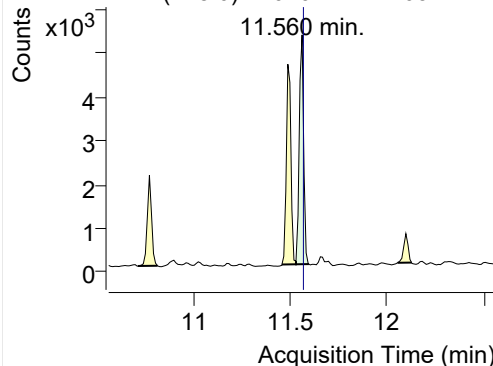


+ SIM (11.466-11.581 min, 11 scans) (\*\*) 2204

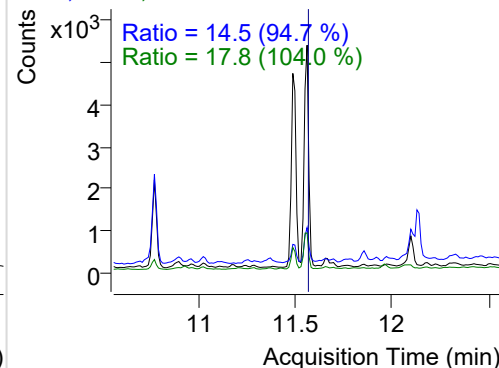


## Phenanthrene

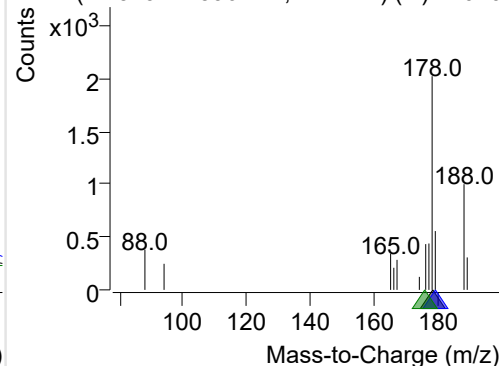
+ Selected Ion (178.0) 220407-PAHs-034.D



178.0, 179.0, 176.0

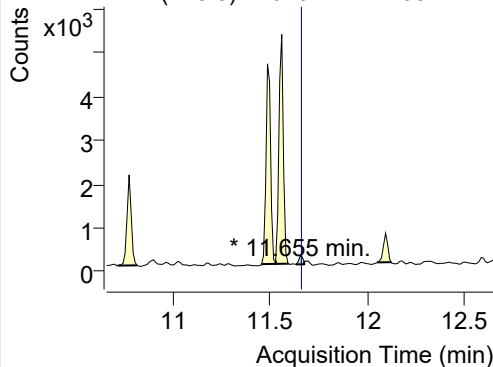


+ SIM (11.529-11.596 min, 7 scans) (\*\*) 22040

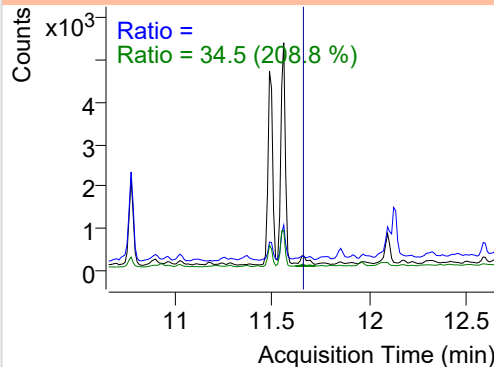


**Anthracene**

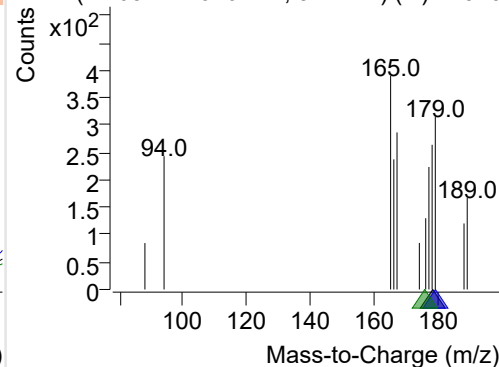
+ Selected Ion (178.0) 220407-PAHs-034.D



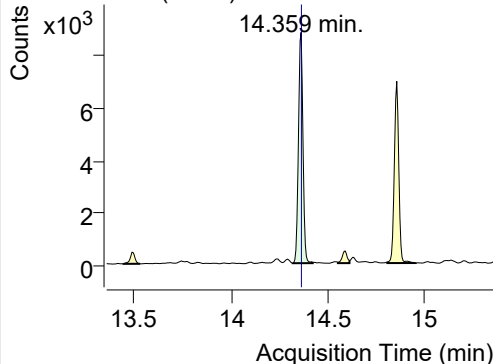
178.0, 179.0, 176.0



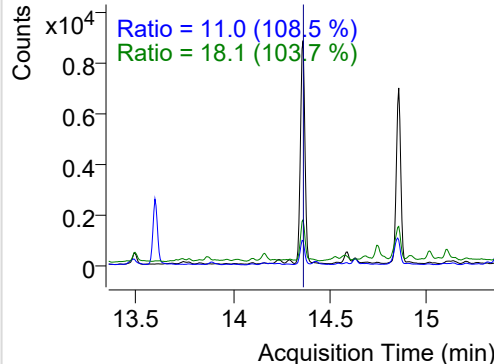
+ SIM (11.634-11.676 min, 5 scans) (\*\*) 22040

**Fluoranthene**

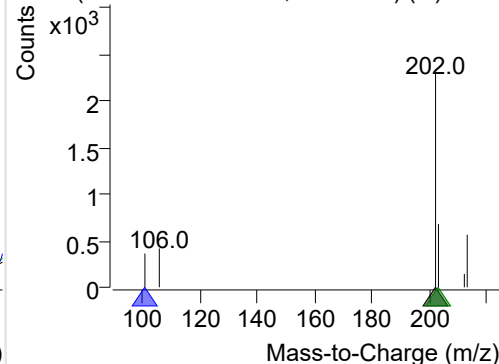
+ Selected Ion (202.0) 220407-PAHs-034.D



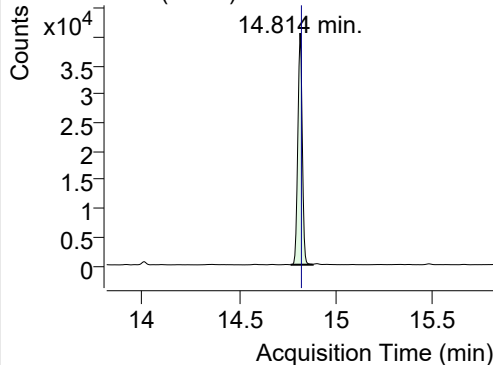
202.0, 101.0, 203.0



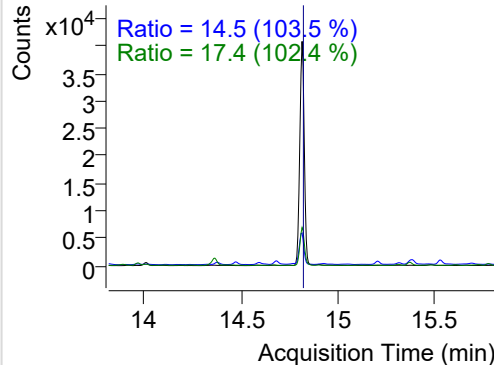
+ SIM (14.316-14.419 min, 20 scans) (\*\*) 2204

**LSS-D10-Pyrene**

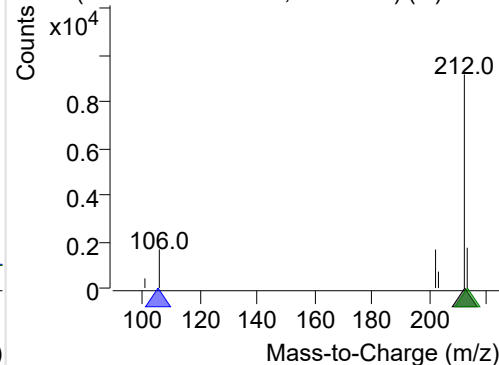
+ Selected Ion (212.0) 220407-PAHs-034.D



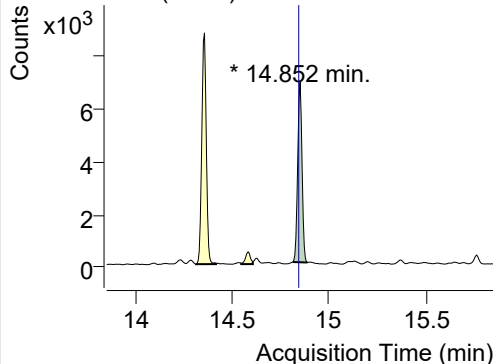
212.0, 106.0, 213.0



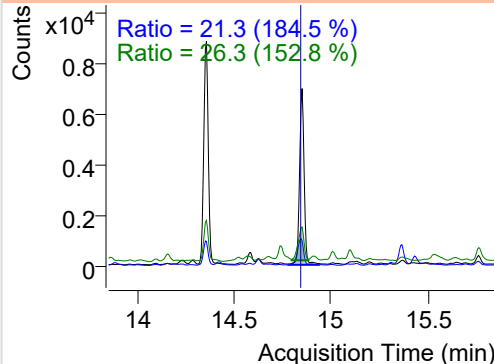
+ SIM (14.766-14.879 min, 22 scans) (\*\*) 2204

**Pyrene**

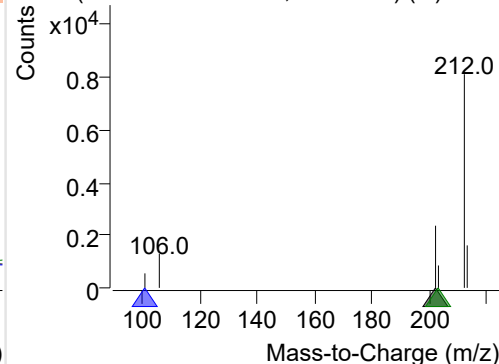
+ Selected Ion (202.0) 220407-PAHs-034.D



202.0, 101.0, 203.0

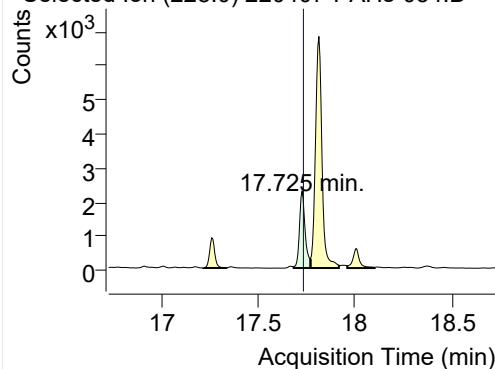


+ SIM (14.814-14.890 min, 15 scans) (\*\*) 2204

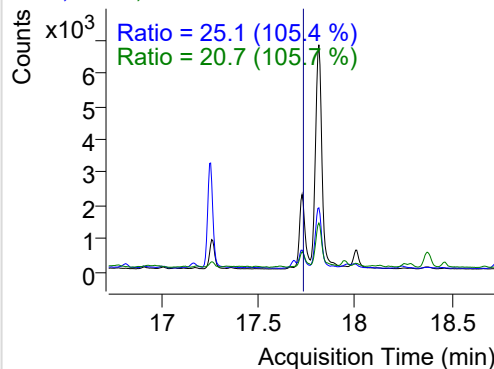


**Benz(a)anthracene**

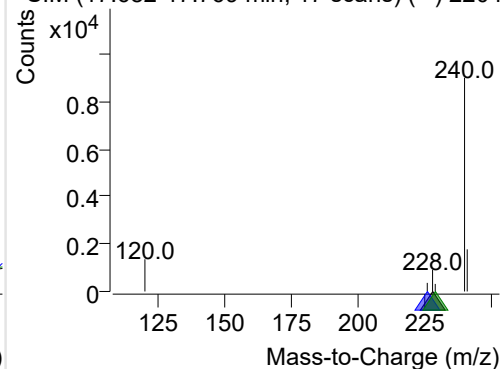
+ Selected Ion (228.0) 220407-PAHs-034.D



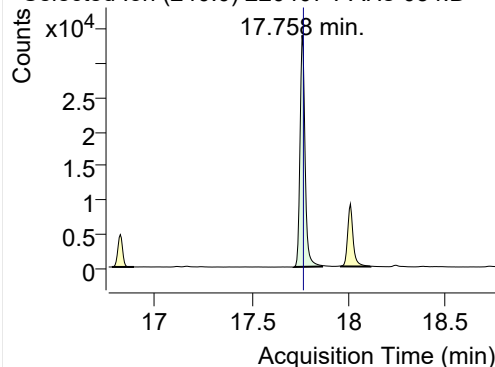
228.0, 226.0, 229.0



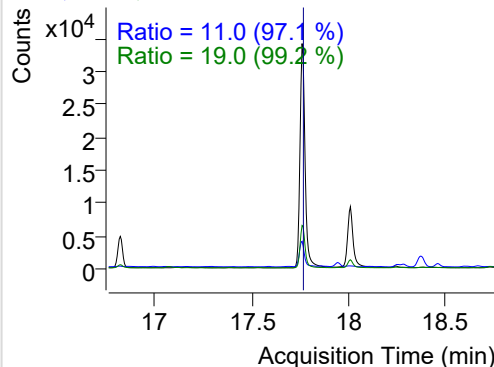
+ SIM (17.682-17.769 min, 17 scans) (\*\*) 2204

**IS-D12-Chrysene**

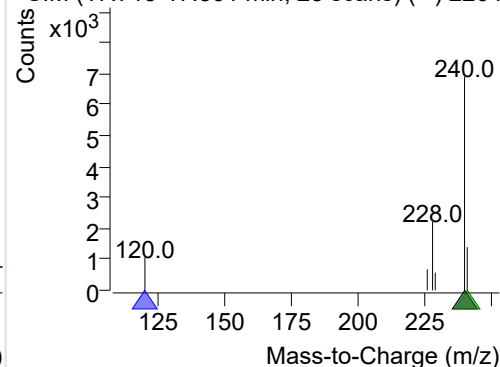
+ Selected Ion (240.0) 220407-PAHs-034.D



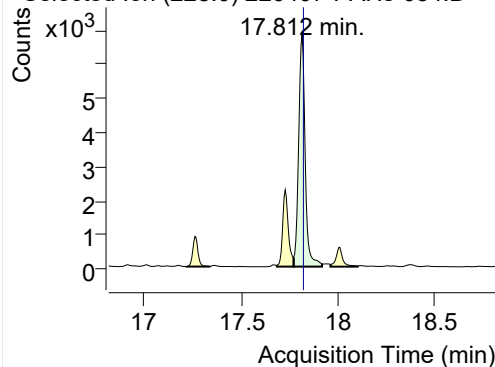
240.0, 120.0, 241.0



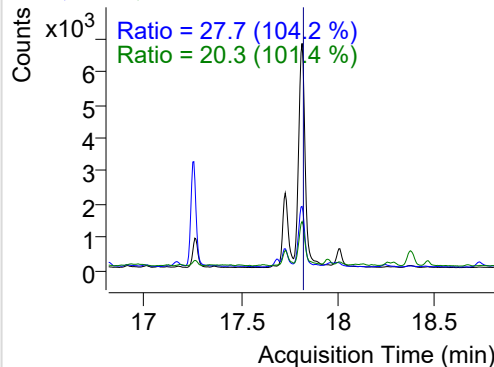
+ SIM (17.715-17.861 min, 28 scans) (\*\*) 2204

**Chrysene**

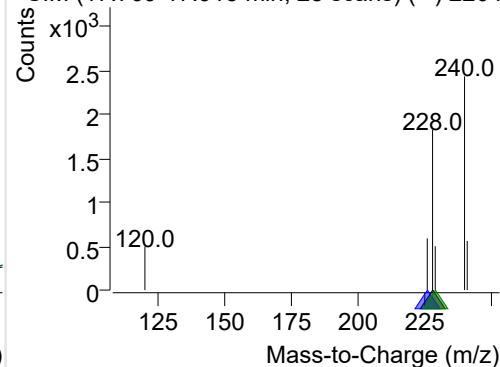
+ Selected Ion (228.0) 220407-PAHs-034.D



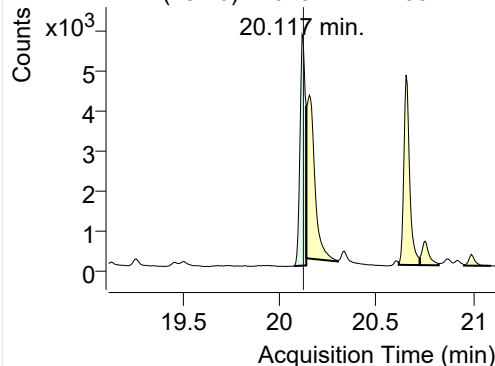
228.0, 226.0, 229.0



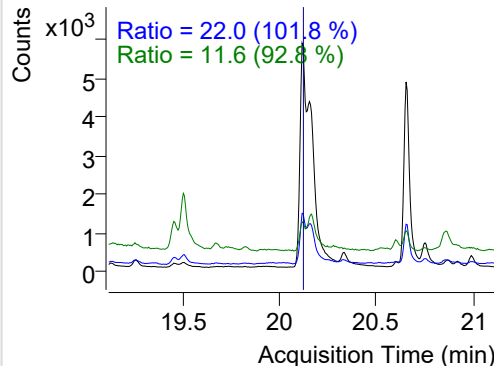
+ SIM (17.769-17.915 min, 28 scans) (\*\*) 2204

**Benzo(b)fluoranthene**

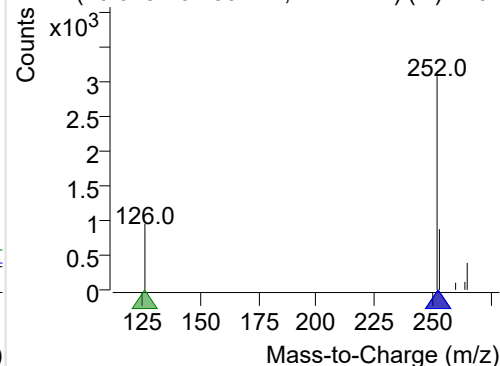
+ Selected Ion (252.0) 220407-PAHs-034.D



252.0, 253.0, 126.0



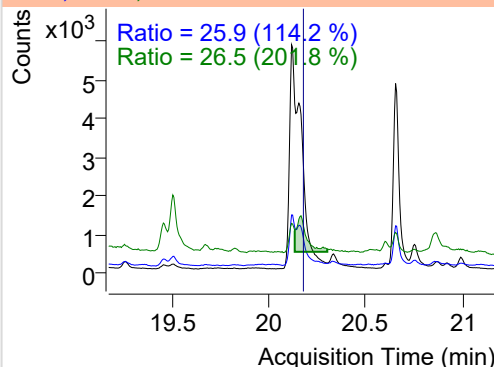
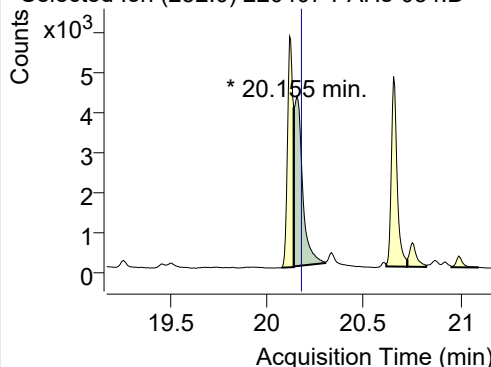
+ SIM (20.075-20.139 min, 12 scans) (\*\*) 2204



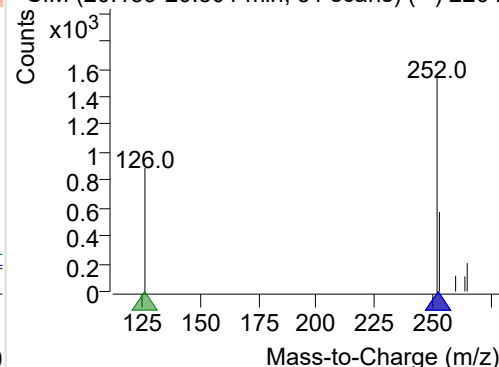
**Benzo(k)fluoranthene**

+ Selected Ion (252.0) 220407-PAHs-034.D

252.0, 253.0, 126.0

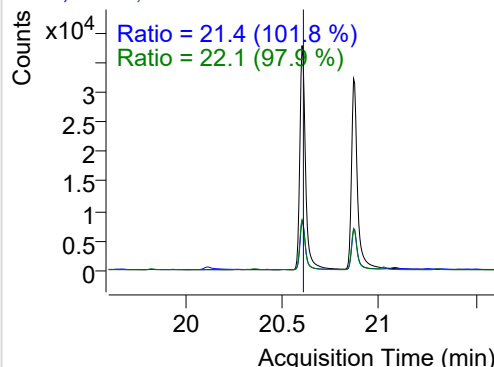
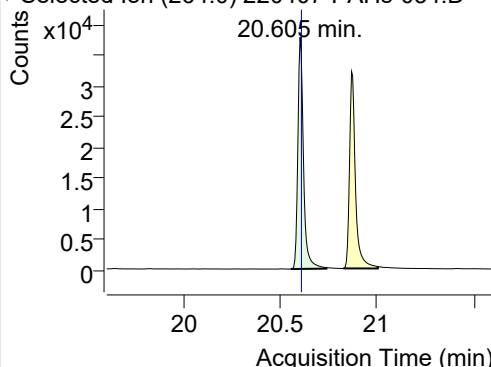


+ SIM (20.139-20.301 min, 31 scans) (\*\*) 2204

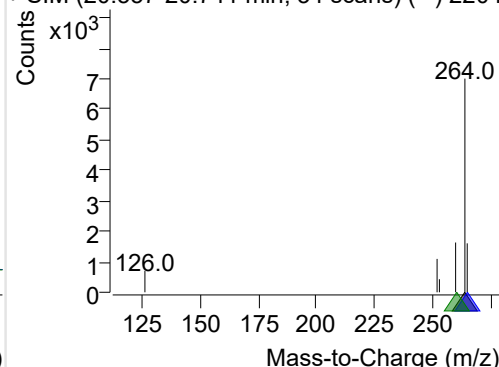
**SS-D12-Benzo(e)pyrene**

+ Selected Ion (264.0) 220407-PAHs-034.D

264.0, 265.0, 260.0

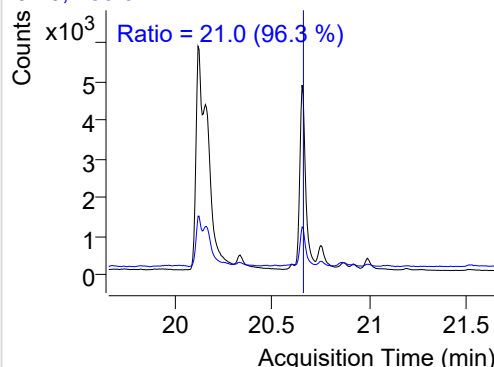
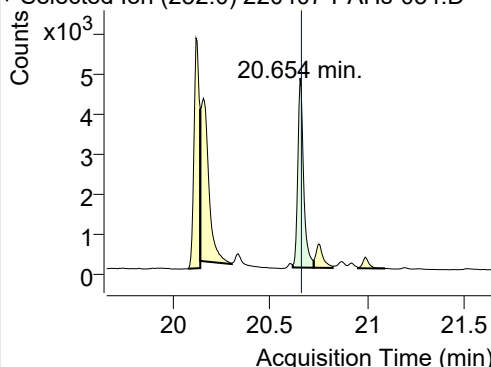


+ SIM (20.557-20.741 min, 34 scans) (\*\*) 2204

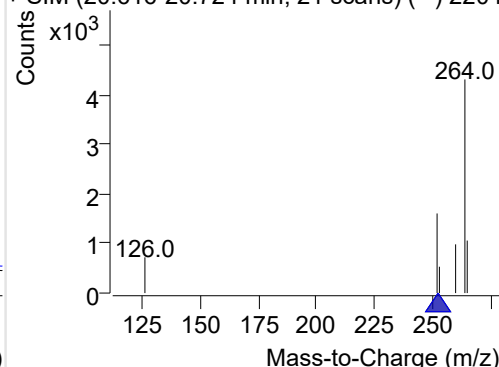
**Benzo(e)pyrene**

+ Selected Ion (252.0) 220407-PAHs-034.D

252.0, 253.0

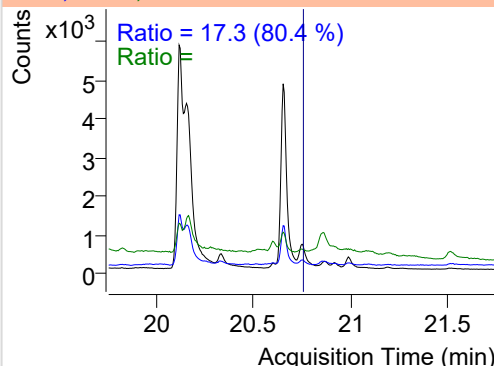
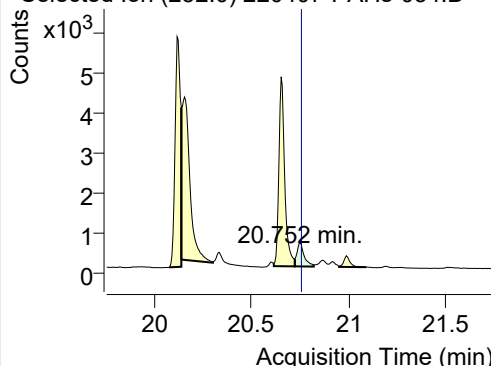


+ SIM (20.616-20.724 min, 21 scans) (\*\*) 2204

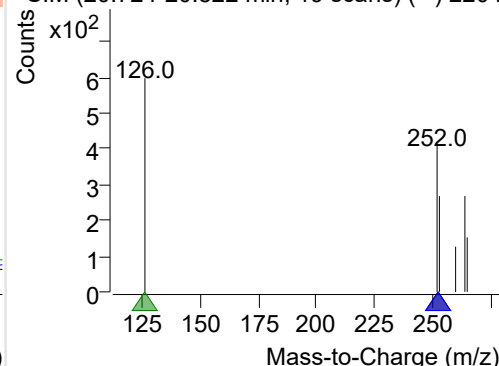
**Benzo(a)pyrene**

+ Selected Ion (252.0) 220407-PAHs-034.D

252.0, 253.0, 126.0

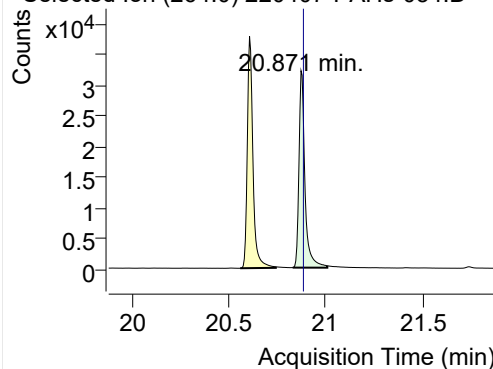


+ SIM (20.724-20.822 min, 19 scans) (\*\*) 2204

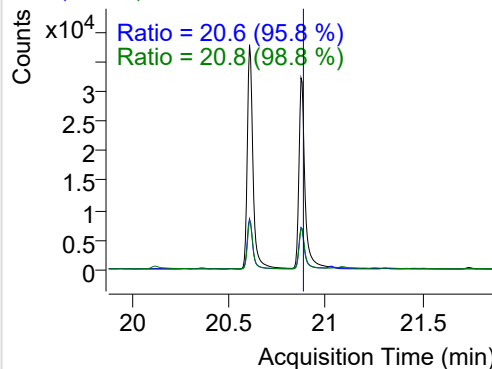


## IS-D12-Perylene

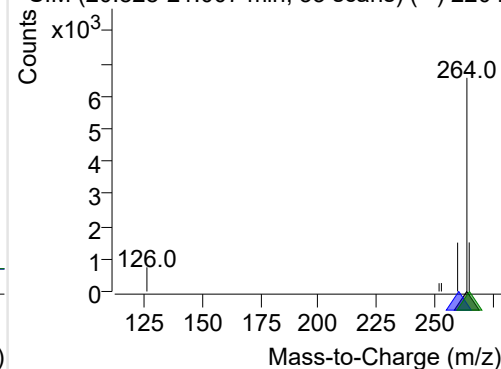
+ Selected Ion (264.0) 220407-PAHs-034.D



264.0, 260.0, 265.0

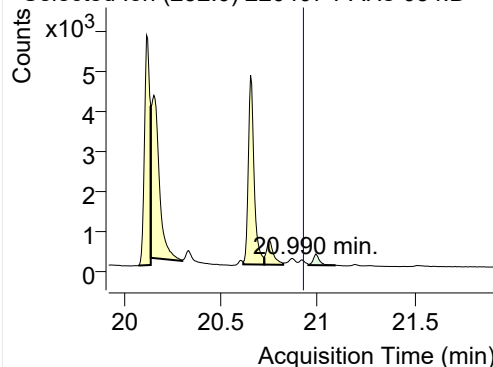


+ SIM (20.828-21.007 min, 33 scans) (\*\*) 2204

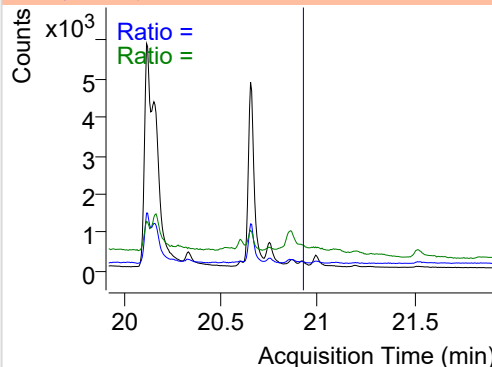


## Perylene

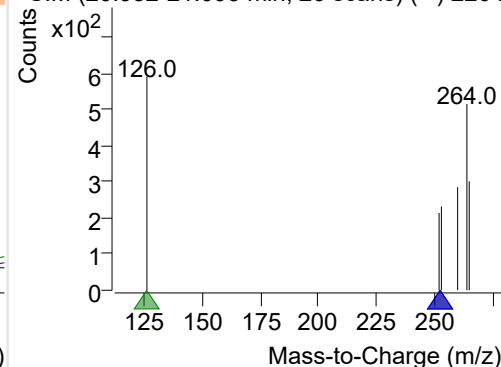
+ Selected Ion (252.0) 220407-PAHs-034.D



252.0, 253.0, 126.0

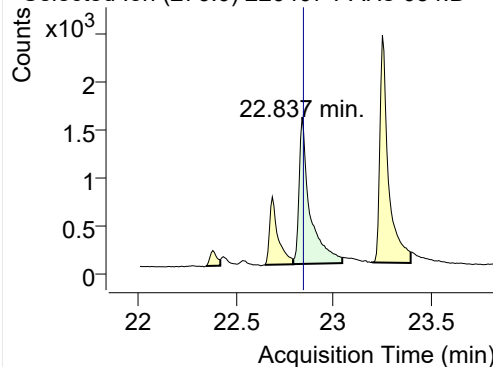


+ SIM (20.952-21.093 min, 26 scans) (\*\*) 2204

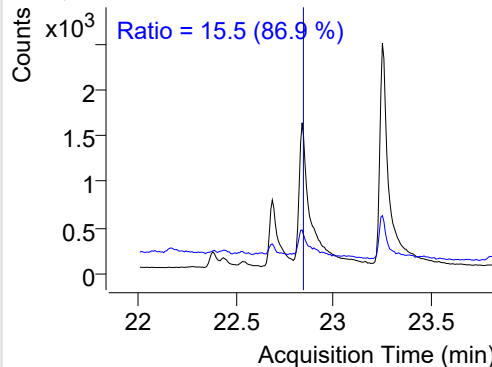


## Indeno(1,2,3-c,d)pyrene

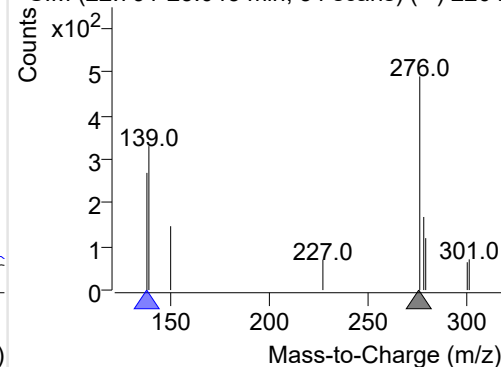
+ Selected Ion (276.0) 220407-PAHs-034.D



276.0, 138.0

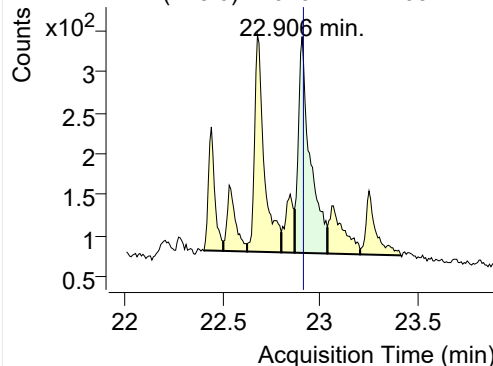


+ SIM (22.791-23.043 min, 34 scans) (\*\*) 2204

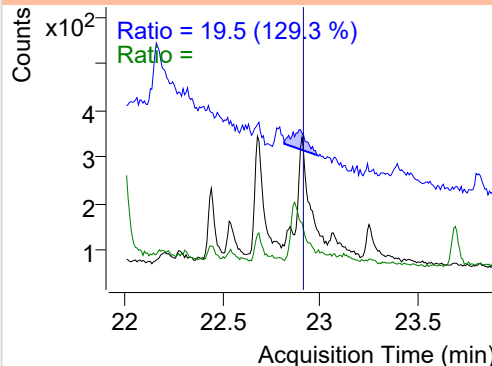


## Dibenz(a,h)anthracene

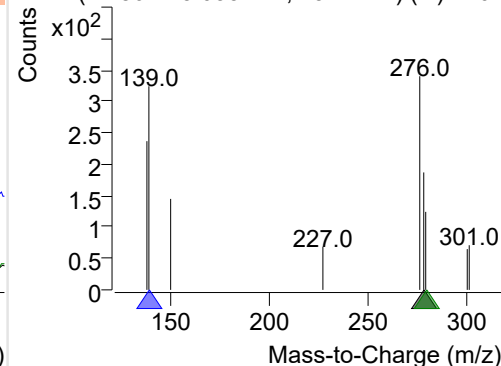
+ Selected Ion (278.0) 220407-PAHs-034.D



278.0, 139.0, 279.0

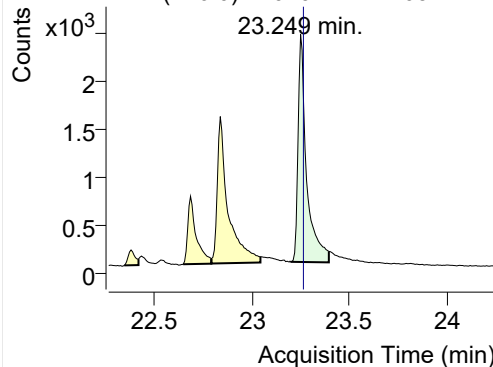


+ SIM (22.867-23.035 min, 23 scans) (\*\*) 2204

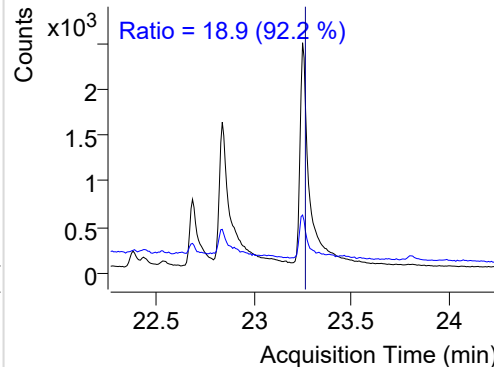


**Benzo(g,h,i)perylene**

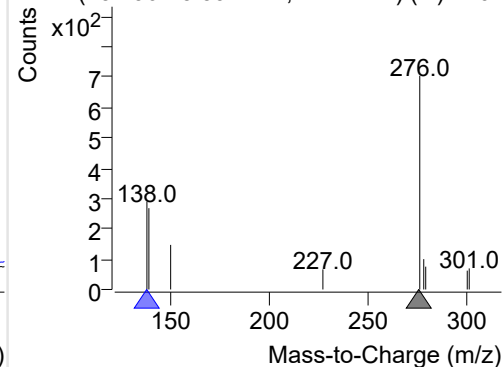
+ Selected Ion (276.0) 220407-PAHs-034.D



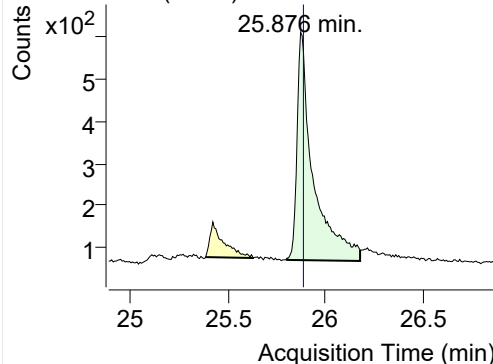
276.0, 138.0



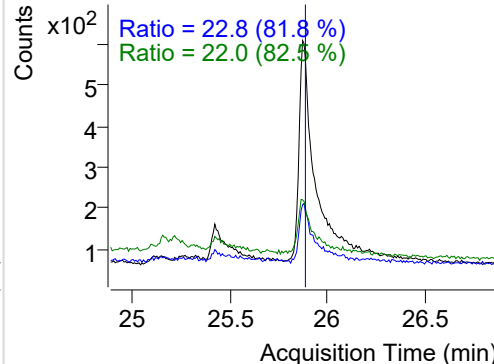
+ SIM (23.196-23.394 min, 27 scans) (\*\*) 2204

**Coronene**

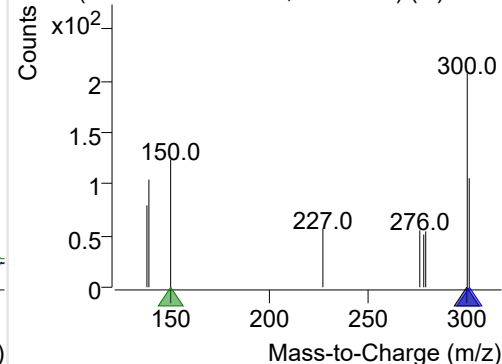
+ Selected Ion (300.0) 220407-PAHs-034.D



300.0, 301.0, 150.0



+ SIM (25.807-26.181 min, 50 scans) (\*\*) 2204





## Quantitative Analysis Sample Based Report

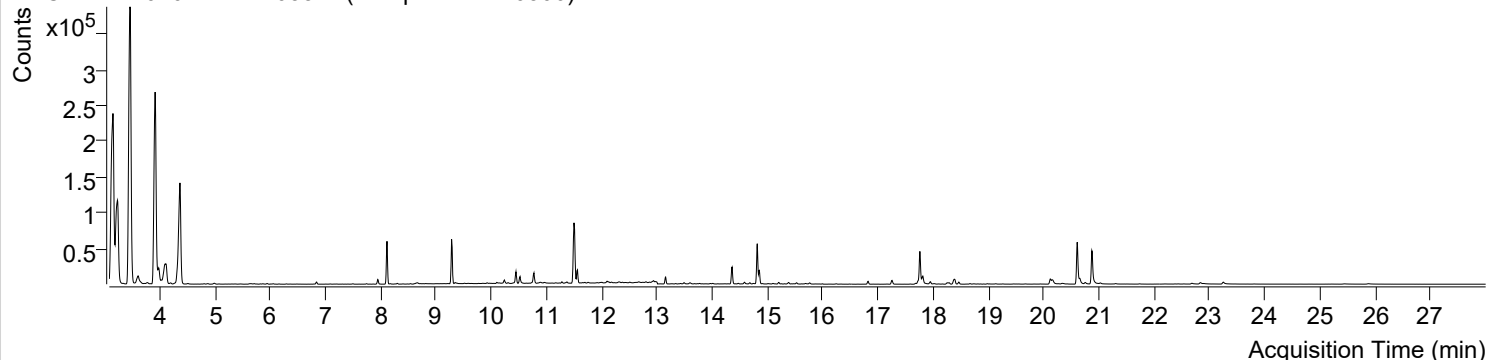


Trusted Answers

Batch Data Path File Name	D:\MassHunter\GCMS\1\data\PAHs\220407-PAHs-Sample\QuantResults\220407-PAHs-Quant.batch.bin		
Analysis Time Stamp	2022-04-13 오후 5:40:30	Analyst Name	DESKTOP-86B7UPG\5975MS
Report Generation Time	2022-04-13 오후 5:40:41	Report Generator Name	DESKTOP-86B7UPG\5975MS
Calibration Last Update	2022-04-13 오후 5:38:35	Batch State	Processed
Analyze Quant Version	10.2	Report Quant Version	10.2
Acq. Date-Time	2022-04-08 오전 5:01:48	Data File	220407-PAHs-035.D
Type	Sample	Name	Sample-PM-220306
Dil.	1	Acq. Method File	PAHs 19mix-Method

## Sample Chromatogram

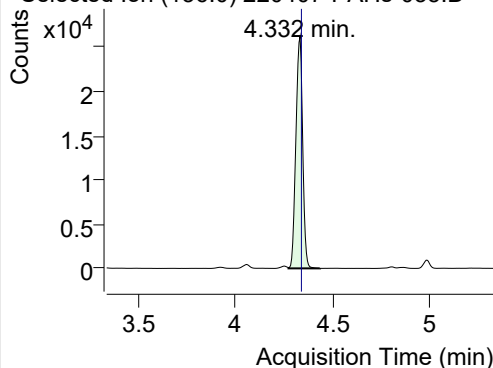
+ TIC SIM 220407-PAHs-035.D (Sample-PM-220306)



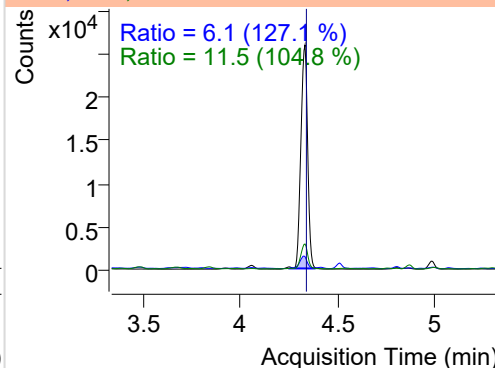
Name	RT	Transition	Resp.	Height	Final Conc. Units	Ratio
IS-D8-Naphthalene	4.332	136.0	63230	26074.81	ND µg/mL	11.5
Naphthalene	4.365	128.0	267957	112633.32	ND µg/mL	13.0
Acenaphthylene	7.745	152.0	648	422.72	ND µg/mL	25.2
IS-D10-Acenaphthene	8.112	164.0	43058	29617.83	ND µg/mL	90.4
Acenaphthene	8.177	154.0	259	163.24	ND µg/mL	103.6
LSS-D10-Fluorene	9.281	176.0	45637	28909.95	ND µg/mL	86.5
Fluorene	9.344	166.0	1074	690.32	ND µg/mL	102.1
IS-D10-Phenanthrene	11.508	188.0	75527	51040.12	ND µg/mL	15.2
Phenanthrene	11.560	178.0	20548	12497.11	ND µg/mL	17.2
Anthracene	11.655	178.0	631	386.62	ND µg/mL	31.3
Fluoranthene	14.359	202.0	28922	18049.93	ND µg/mL	17.4
LSS-D10-Pyrene	14.814	212.0	65335	42681.60	ND µg/mL	17.1
Pyrene	14.852	202.0	23231	14326.89	ND µg/mL	21.8
Benz(a)anthracene	17.725	228.0	5987	2960.92	ND µg/mL	24.6
IS-D12-Chrysene	17.758	240.0	61967	34883.41	ND µg/mL	18.9
Chrysene	17.812	228.0	16071	7165.67	ND µg/mL	27.4
Benzo(b)fluoranthene	20.117	252.0	10217	5266.43	ND µg/mL	20.7
Benzo(k)fluoranthene	20.155	252.0	12324	4290.96	ND µg/mL	19.5
SS-D12-Benzo(e)pyrene	20.605	264.0	78849	40515.63	ND µg/mL	22.0
Benzo(e)pyrene	20.654	252.0	8087	4016.70	ND µg/mL	20.0
Benzo(a)pyrene	20.752	252.0	3649	1432.84	ND µg/mL	14.9
IS-D12-Perylene	20.871	264.0	67770	32253.50	ND µg/mL	21.3
Perylene	20.920	252.0	648	224.97	ND µg/mL	
Indeno(1,2,3-c,d)pyrene	22.837	276.0	5956	1556.11	ND µg/mL	18.7
Dibenz(a,h)anthracene	22.906	278.0	1022	230.15	ND µg/mL	20.6
Benzo(g,h,i)perylene	23.249	276.0	6388	2138.36	ND µg/mL	21.1
Coronene	25.876	300.0	2215	393.81	ND µg/mL	25.0

## IS-D8-Naphthalene

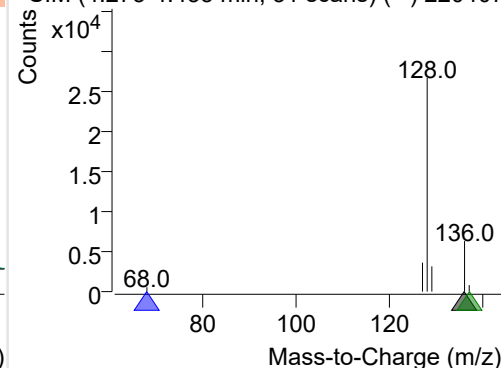
+ Selected Ion (136.0) 220407-PAHs-035.D



136.0, 68.0, 137.0

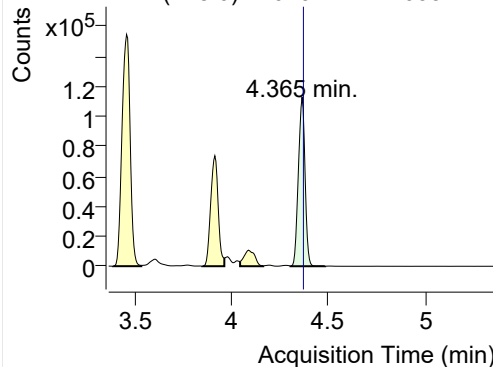


+ SIM (4.273-4.435 min, 31 scans) (\*\*) 220407

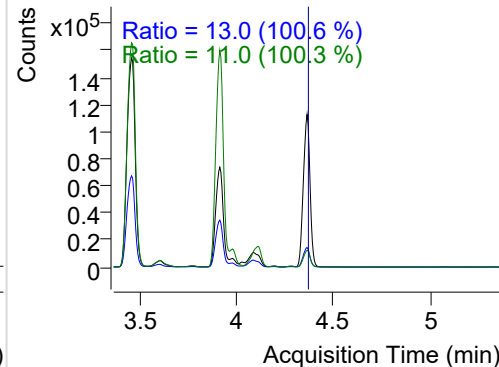


**Naphthalene**

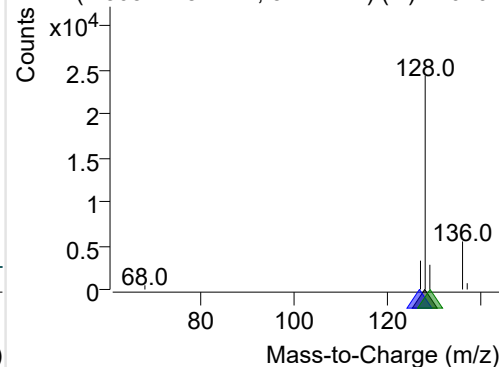
+ Selected Ion (128.0) 220407-PAHs-035.D



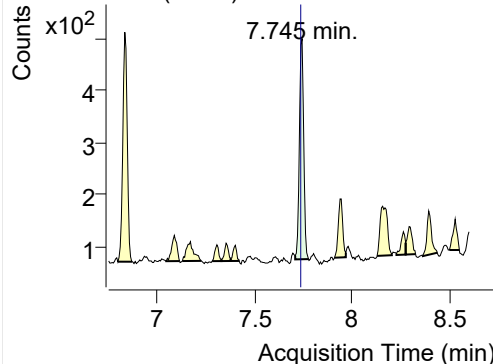
128.0, 127.0, 129.0



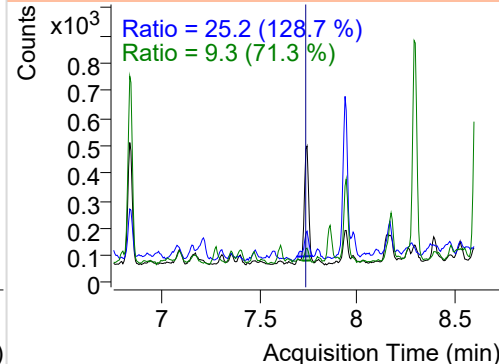
+ SIM (4.305-4.484 min, 34 scans) (\*\*) 220407

**Acenaphthylene**

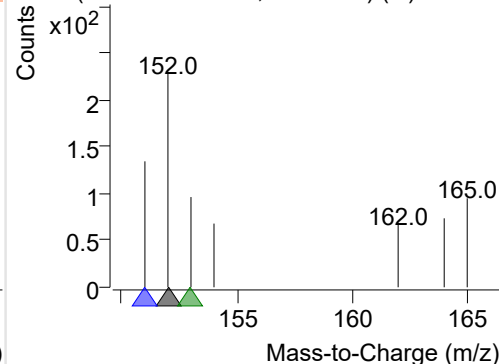
+ Selected Ion (152.0) 220407-PAHs-035.D



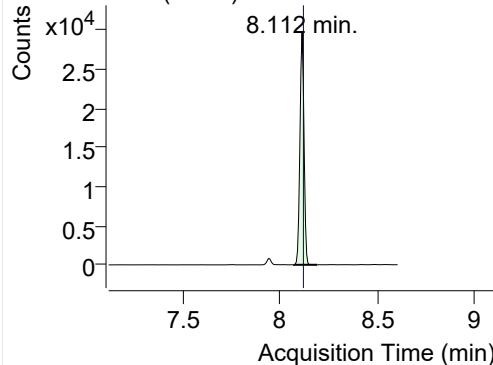
152.0, 151.0, 153.0



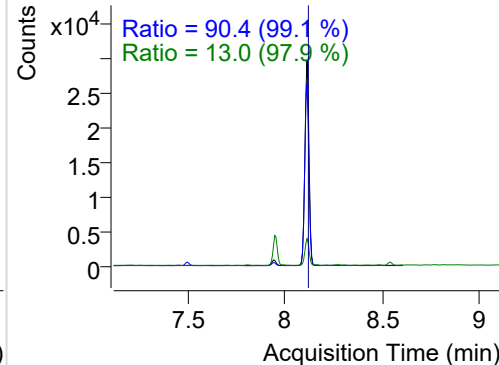
+ SIM (7.710-7.779 min, 12 scans) (\*\*) 220407

**IS-D10-Acenaphthene**

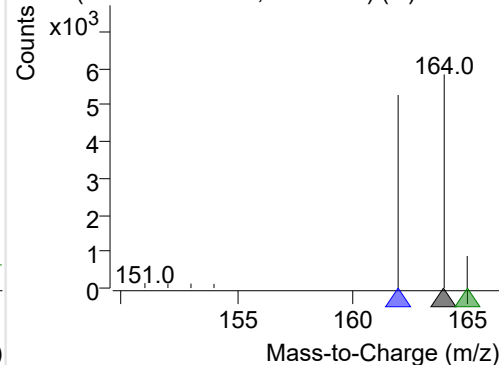
+ Selected Ion (164.0) 220407-PAHs-035.D



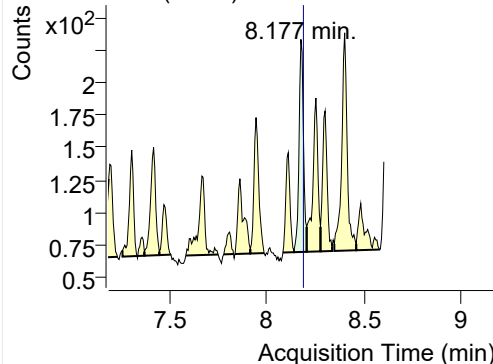
164.0, 162.0, 165.0



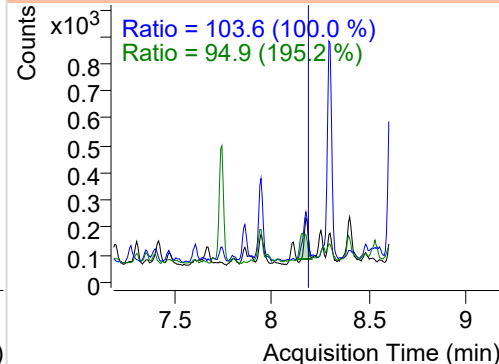
+ SIM (8.071-8.189 min, 21 scans) (\*\*) 220407

**Acenaphthene**

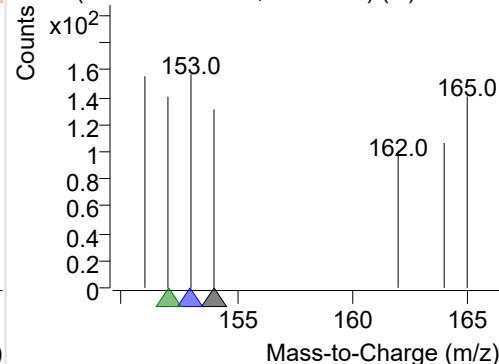
+ Selected Ion (154.0) 220407-PAHs-035.D



154.0, 153.0, 152.0

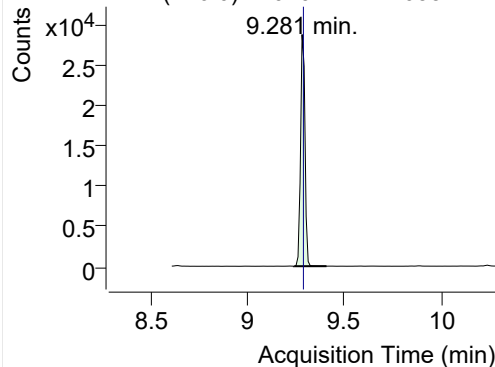


+ SIM (8.142-8.207 min, 12 scans) (\*\*) 220407

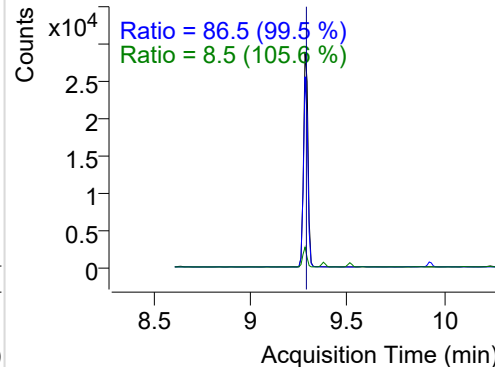


## LSS-D10-Fluorene

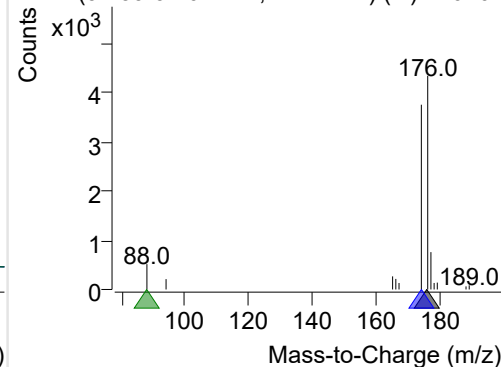
+ Selected Ion (176.0) 220407-PAHs-035.D



176.0, 174.0, 88.0

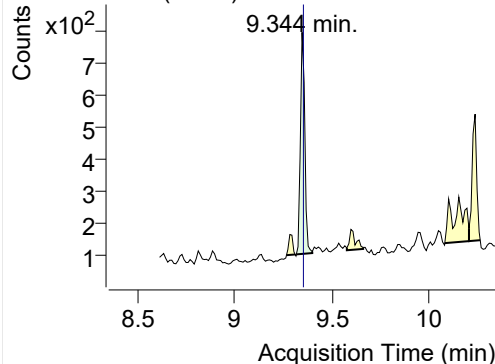


+ SIM (9.239-9.407 min, 17 scans) (\*\*) 220407

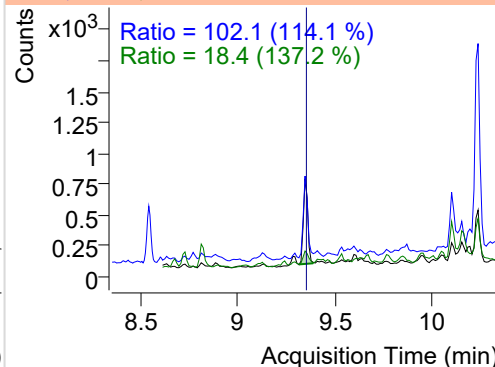


## Fluorene

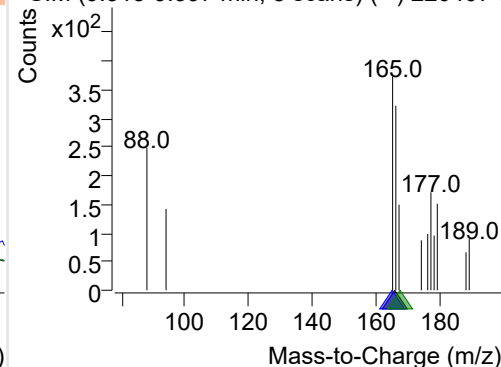
+ Selected Ion (166.0) 220407-PAHs-035.D



166.0, 165.0, 167.0

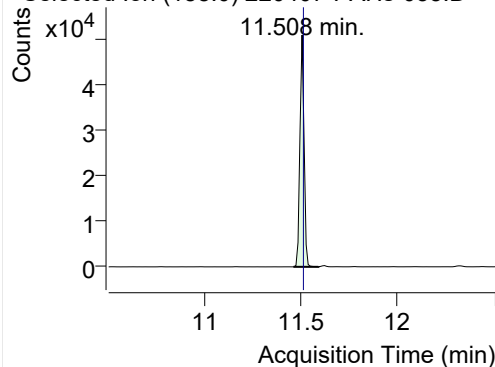


+ SIM (9.315-9.397 min, 8 scans) (\*\*) 220407-I

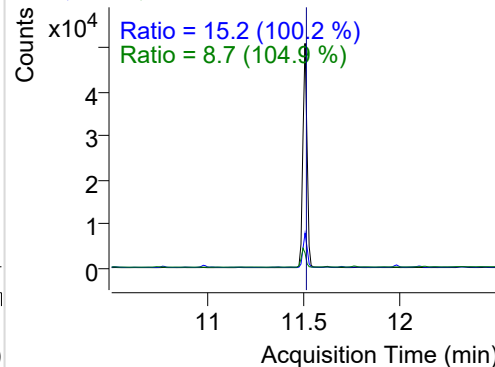


## IS-D10-Phenanthrene

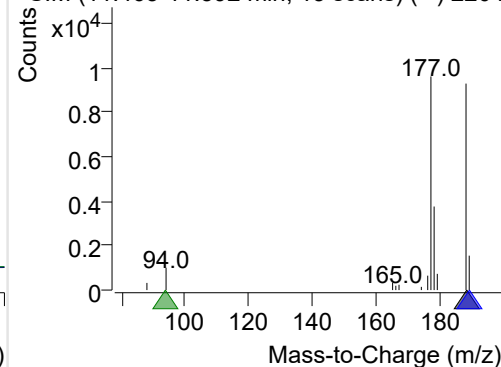
+ Selected Ion (188.0) 220407-PAHs-035.D



188.0, 189.0, 94.0

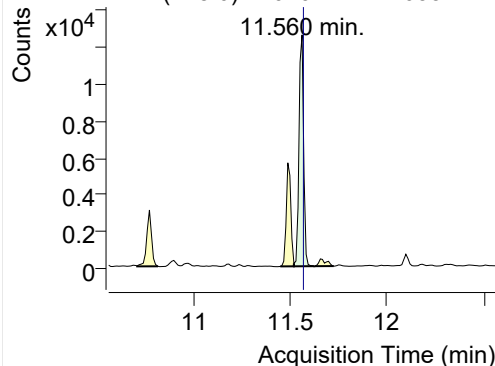


+ SIM (11.463-11.592 min, 13 scans) (\*\*) 2204

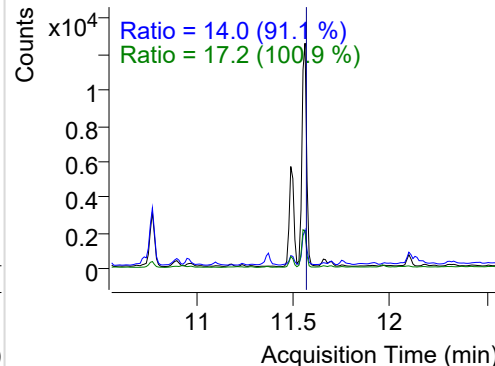


## Phenanthrene

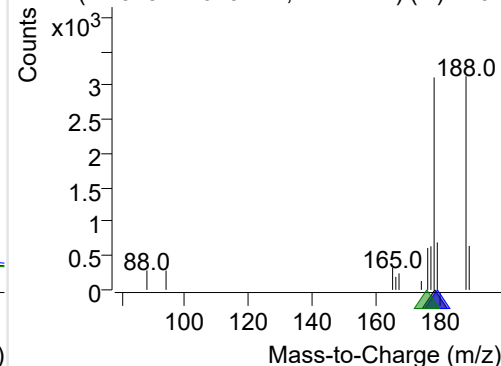
+ Selected Ion (178.0) 220407-PAHs-035.D



178.0, 179.0, 176.0

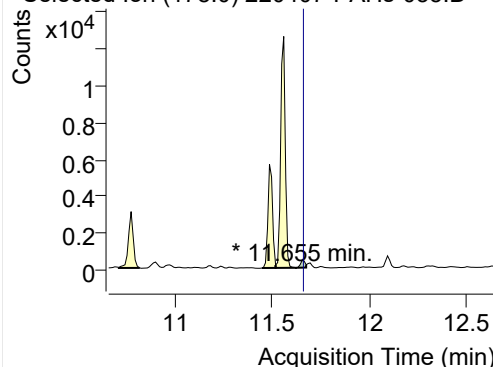


+ SIM (11.518-11.623 min, 11 scans) (\*\*) 2204

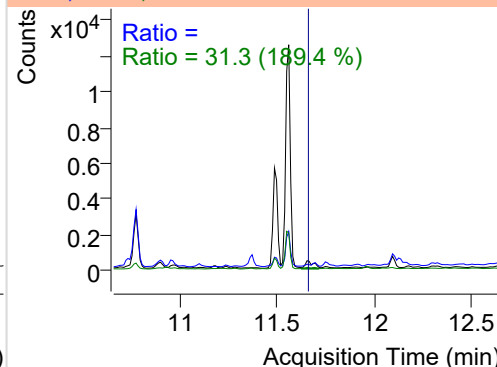


**Anthracene**

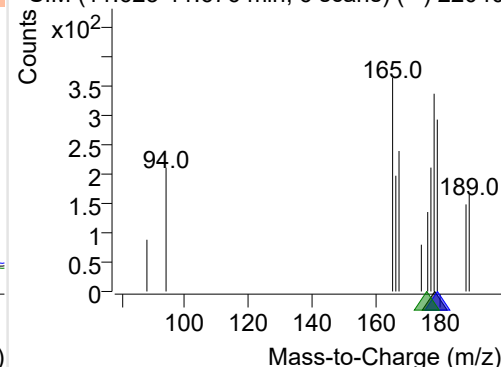
+ Selected Ion (178.0) 220407-PAHs-035.D



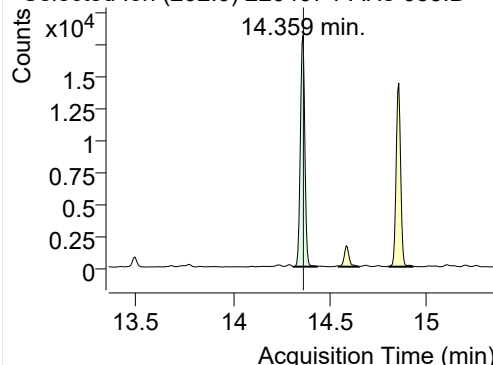
178.0, 179.0, 176.0



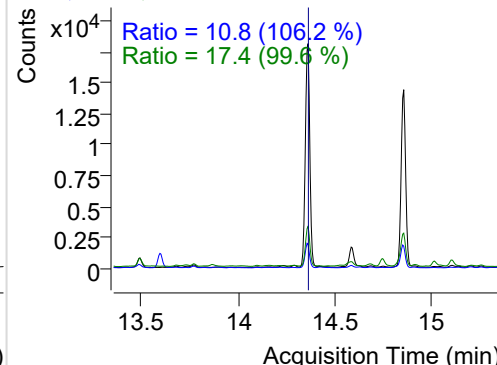
+ SIM (11.623-11.676 min, 6 scans) (\*\*) 22040

**Fluoranthene**

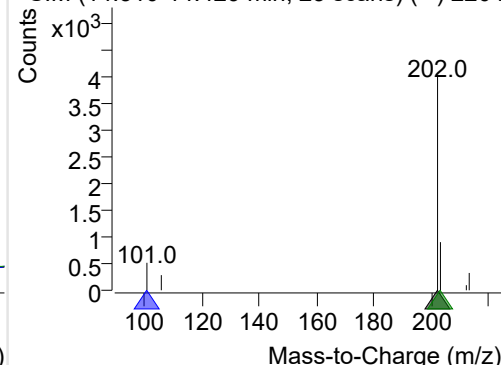
+ Selected Ion (202.0) 220407-PAHs-035.D



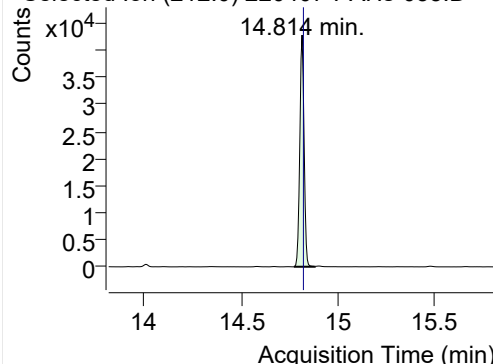
202.0, 101.0, 203.0



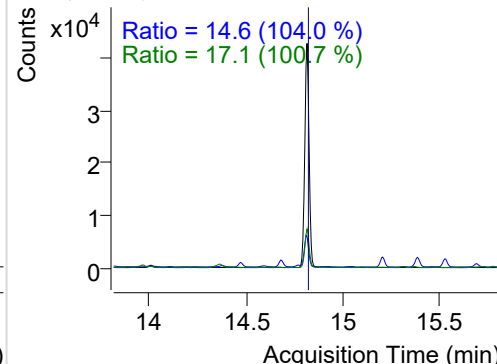
+ SIM (14.310-14.429 min, 23 scans) (\*\*) 2204

**LSS-D10-Pyrene**

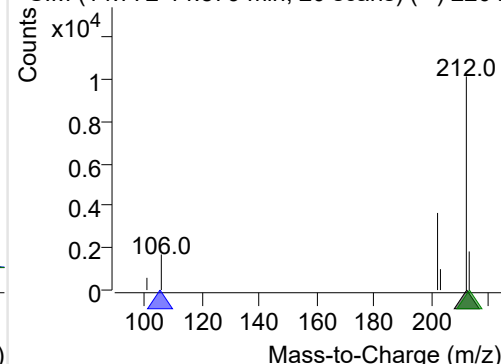
+ Selected Ion (212.0) 220407-PAHs-035.D



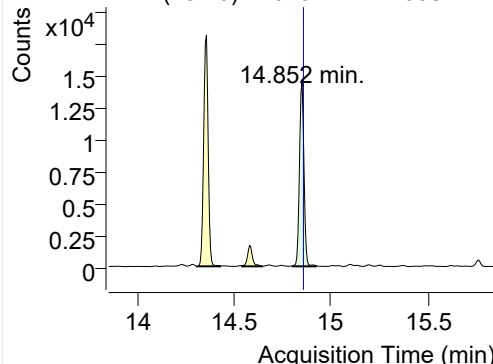
212.0, 106.0, 213.0



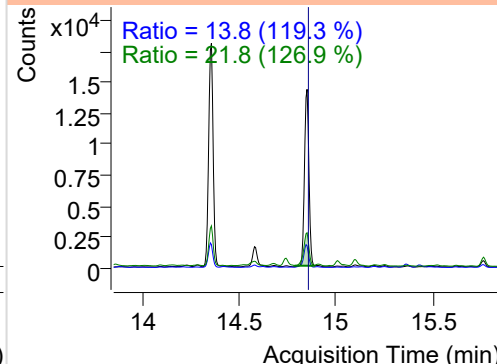
+ SIM (14.772-14.879 min, 20 scans) (\*\*) 2204

**Pyrene**

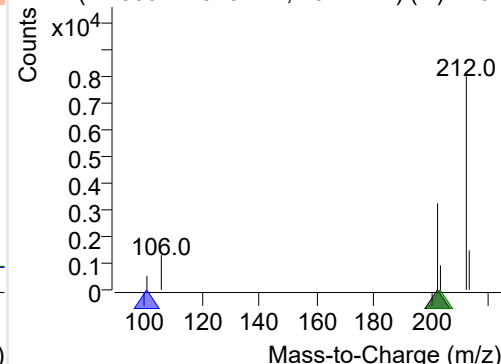
+ Selected Ion (202.0) 220407-PAHs-035.D



202.0, 101.0, 203.0

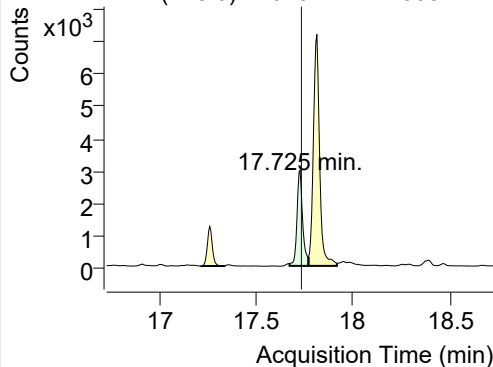


+ SIM (14.803-14.923 min, 23 scans) (\*\*) 2204

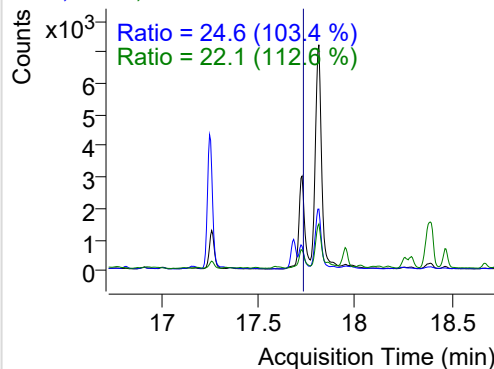


**Benz(a)anthracene**

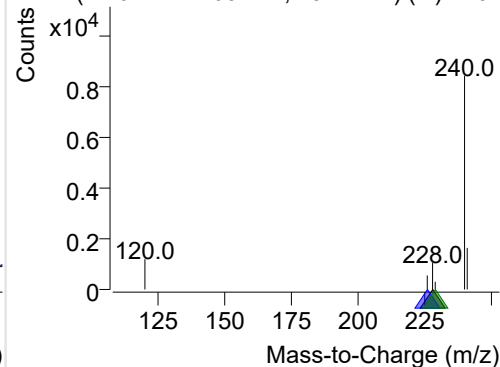
+ Selected Ion (228.0) 220407-PAHs-035.D



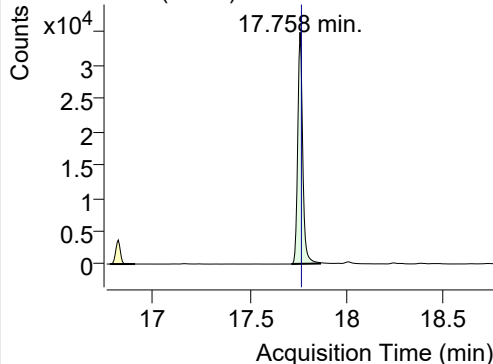
228.0, 226.0, 229.0



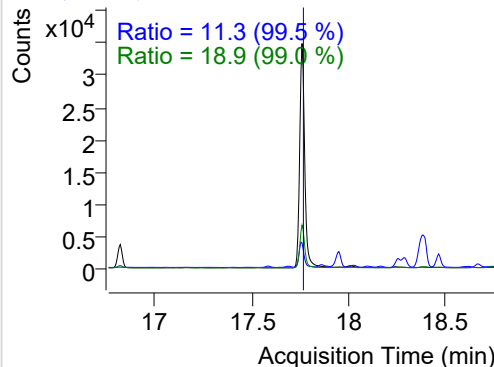
+ SIM (17.671-17.769 min, 19 scans) (\*\*) 2204

**IS-D12-Chrysene**

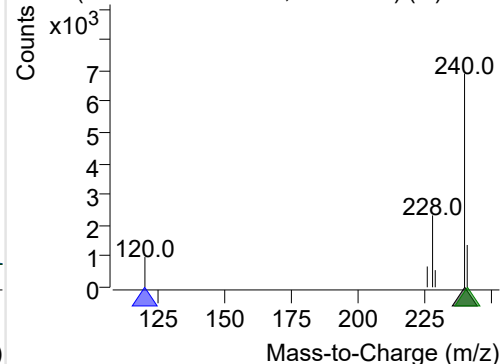
+ Selected Ion (240.0) 220407-PAHs-035.D



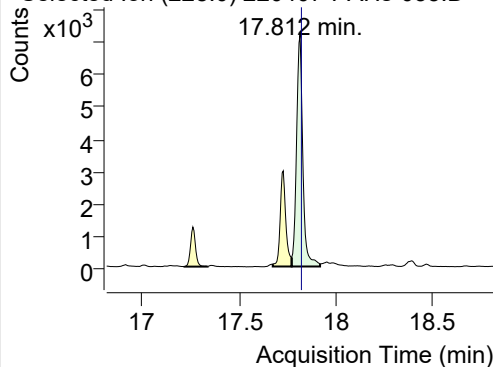
240.0, 120.0, 241.0



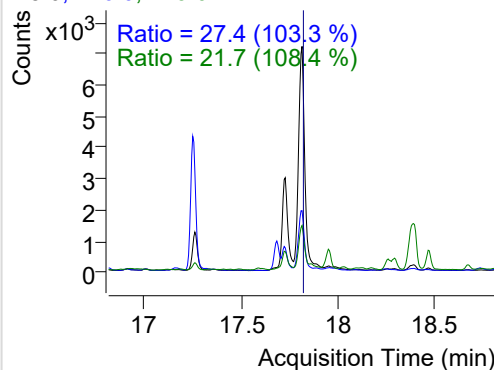
+ SIM (17.713-17.861 min, 28 scans) (\*\*) 2204

**Chrysene**

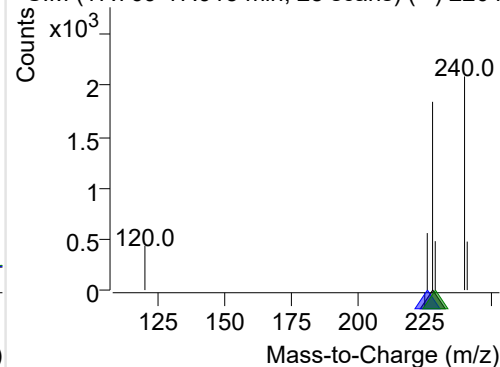
+ Selected Ion (228.0) 220407-PAHs-035.D



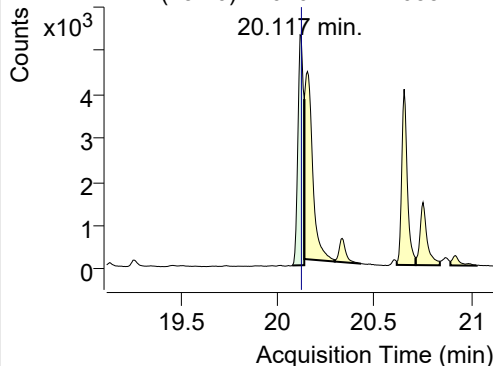
228.0, 226.0, 229.0



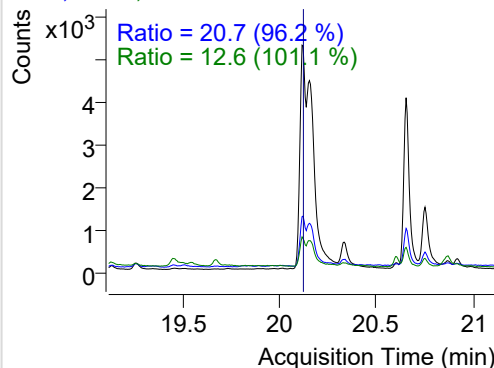
+ SIM (17.769-17.915 min, 28 scans) (\*\*) 2204

**Benzo(b)fluoranthene**

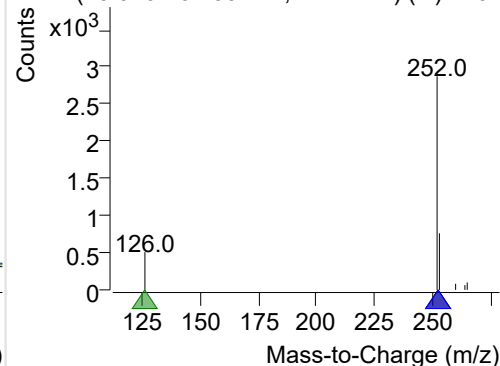
+ Selected Ion (252.0) 220407-PAHs-035.D



252.0, 253.0, 126.0

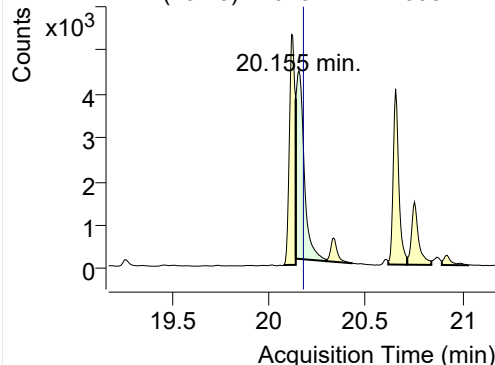


+ SIM (20.076-20.139 min, 12 scans) (\*\*) 2204

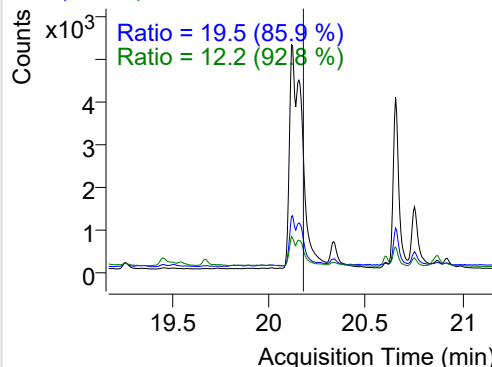


**Benzo(k)fluoranthene**

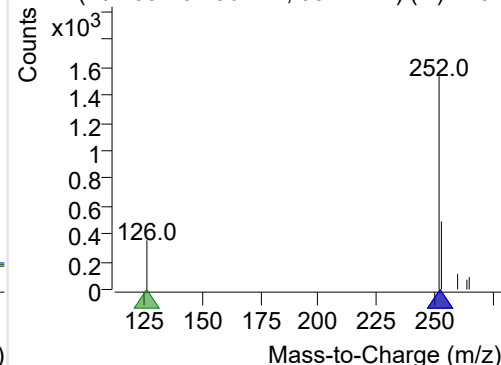
+ Selected Ion (252.0) 220407-PAHs-035.D



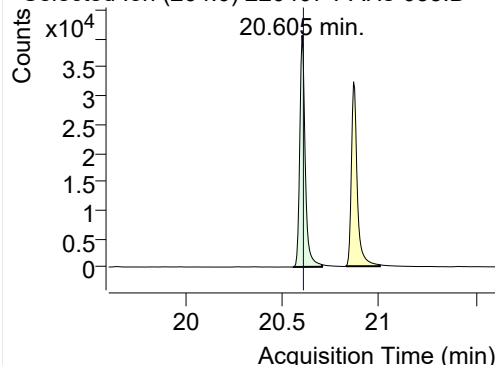
252.0, 253.0, 126.0



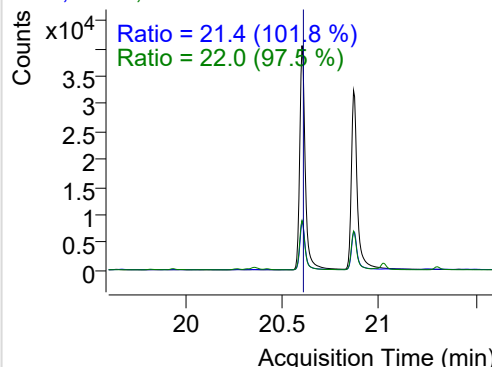
+ SIM (20.139-20.296 min, 30 scans) (\*\*) 2204

**SS-D12-Benzo(e)pyrene**

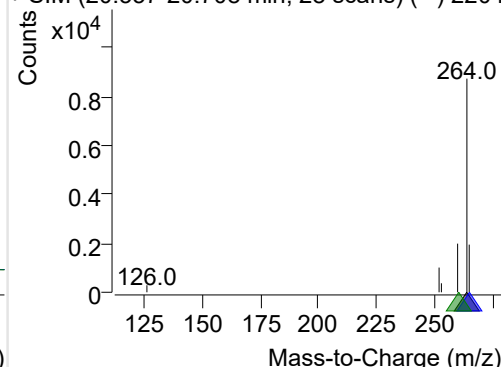
+ Selected Ion (264.0) 220407-PAHs-035.D



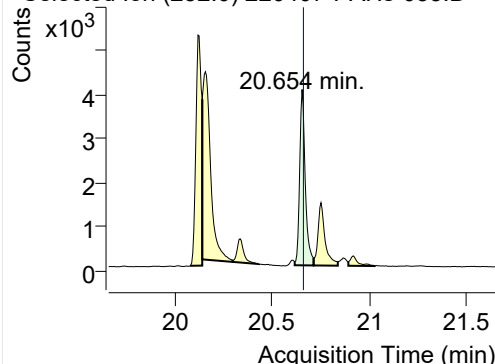
264.0, 265.0, 260.0



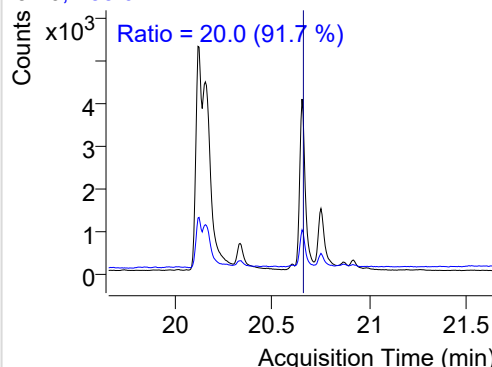
+ SIM (20.557-20.708 min, 28 scans) (\*\*) 2204

**Benzo(e)pyrene**

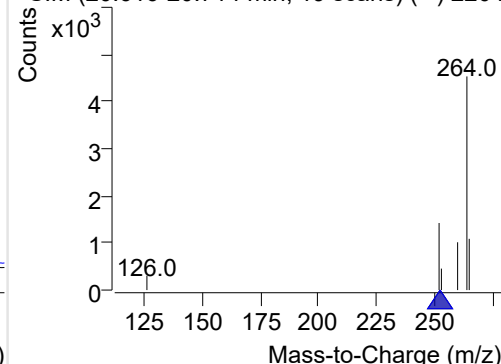
+ Selected Ion (252.0) 220407-PAHs-035.D



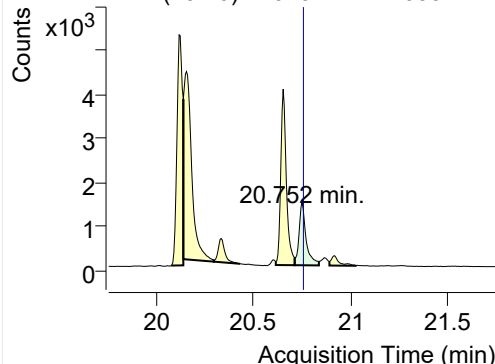
252.0, 253.0



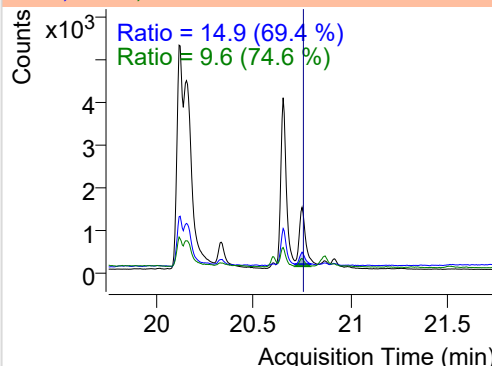
+ SIM (20.616-20.714 min, 19 scans) (\*\*) 2204

**Benzo(a)pyrene**

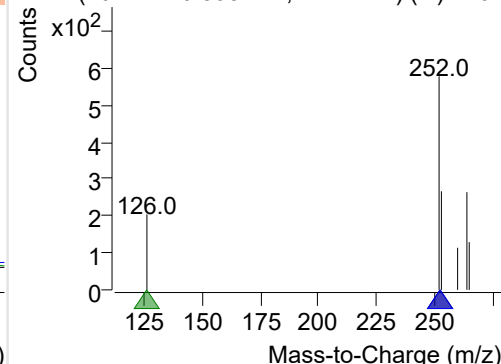
+ Selected Ion (252.0) 220407-PAHs-035.D



252.0, 253.0, 126.0

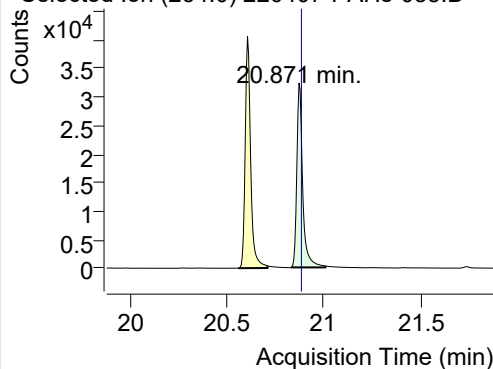


+ SIM (20.714-20.838 min, 24 scans) (\*\*) 2204

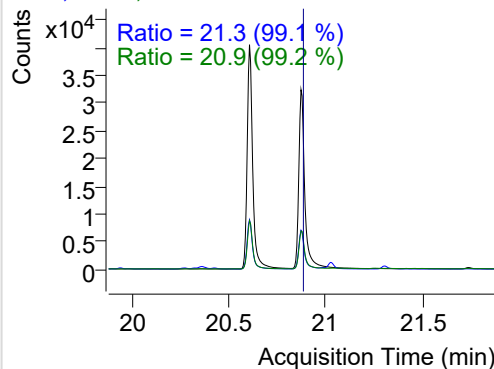


## IS-D12-Perylene

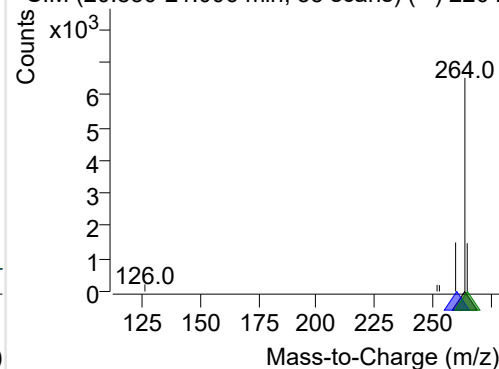
+ Selected Ion (264.0) 220407-PAHs-035.D



264.0, 260.0, 265.0

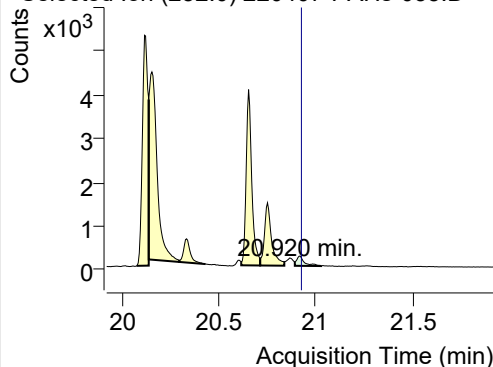


+ SIM (20.830-21.006 min, 33 scans) (\*\*) 2204

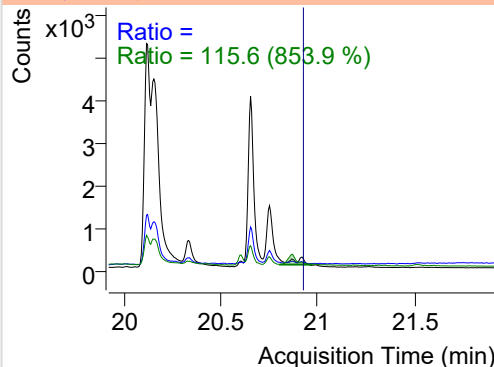


## Perylene

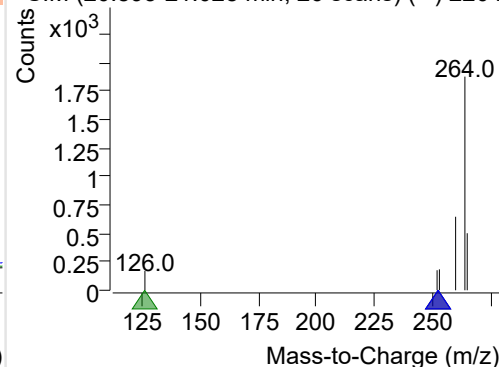
+ Selected Ion (252.0) 220407-PAHs-035.D



252.0, 253.0, 126.0

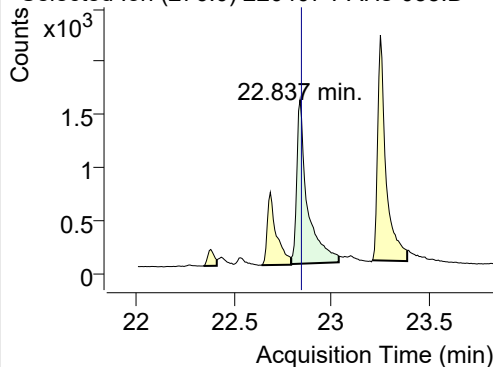


+ SIM (20.893-21.028 min, 26 scans) (\*\*) 2204

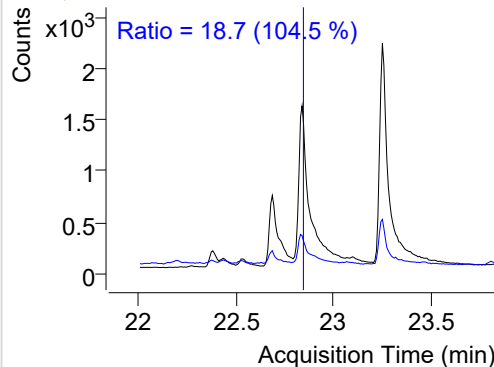


## Indeno(1,2,3-c,d)pyrene

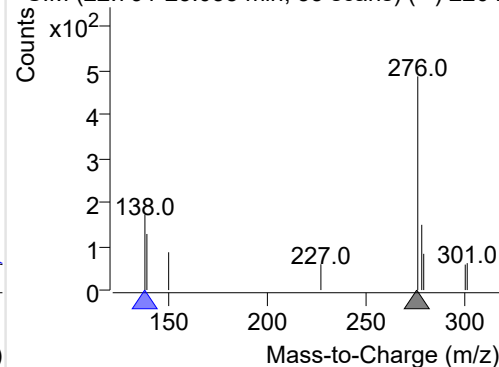
+ Selected Ion (276.0) 220407-PAHs-035.D



276.0, 138.0

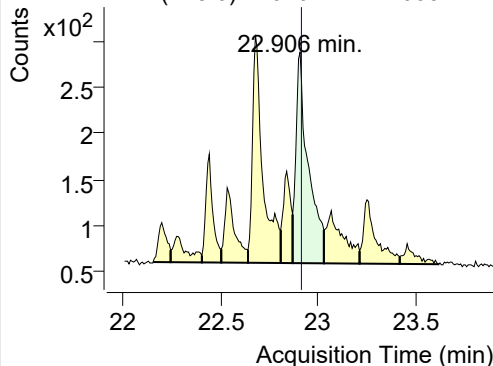


+ SIM (22.791-23.035 min, 33 scans) (\*\*) 2204

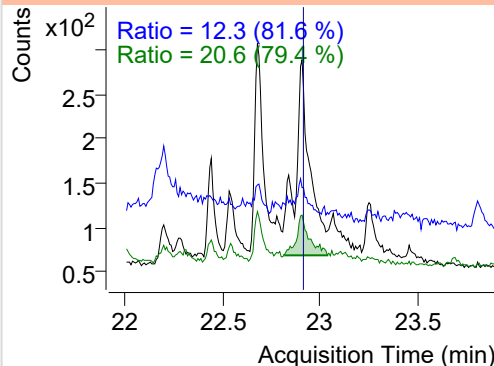


## Dibenz(a,h)anthracene

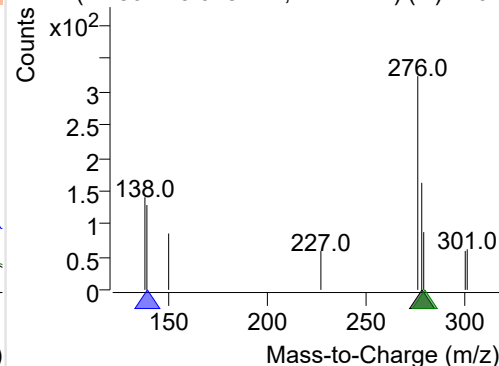
+ Selected Ion (278.0) 220407-PAHs-035.D



278.0, 139.0, 279.0

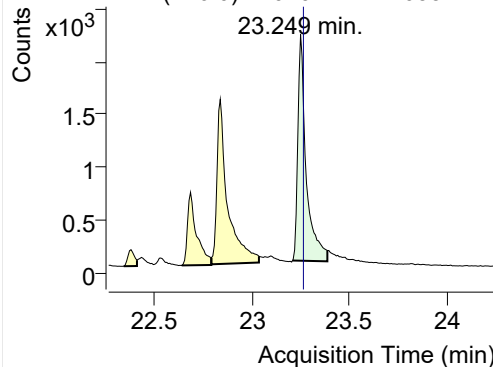


+ SIM (22.867-23.028 min, 22 scans) (\*\*) 2204

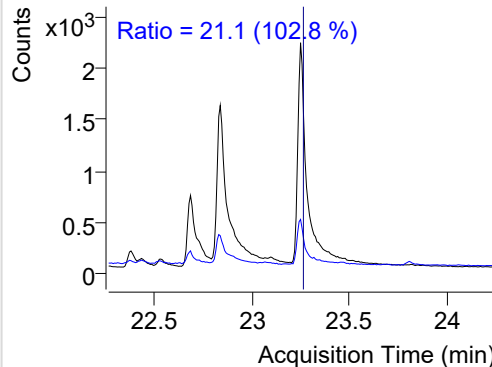


**Benzo(g,h,i)perylene**

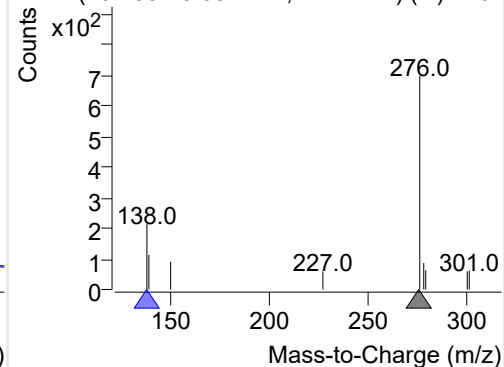
+ Selected Ion (276.0) 220407-PAHs-035.D



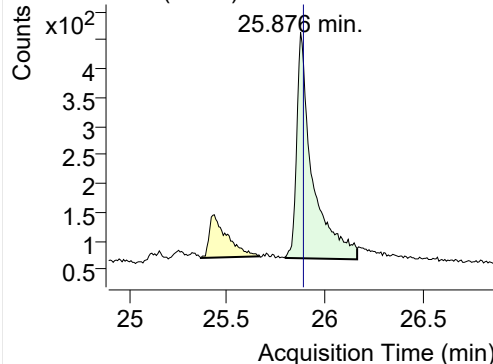
276.0, 138.0



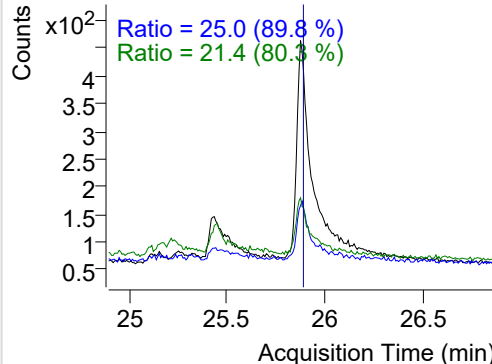
+ SIM (23.208-23.387 min, 24 scans) (\*\*) 2204

**Coronene**

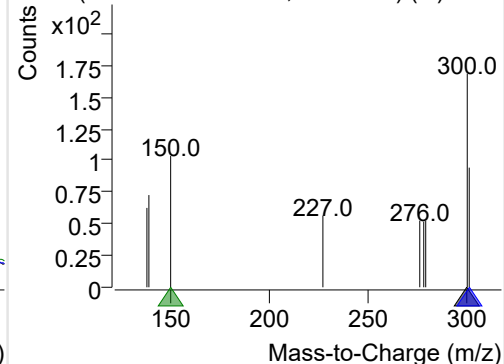
+ Selected Ion (300.0) 220407-PAHs-035.D



300.0, 301.0, 150.0



+ SIM (25.799-26.166 min, 49 scans) (\*\*) 2204





## Quantitative Analysis Sample Based Report

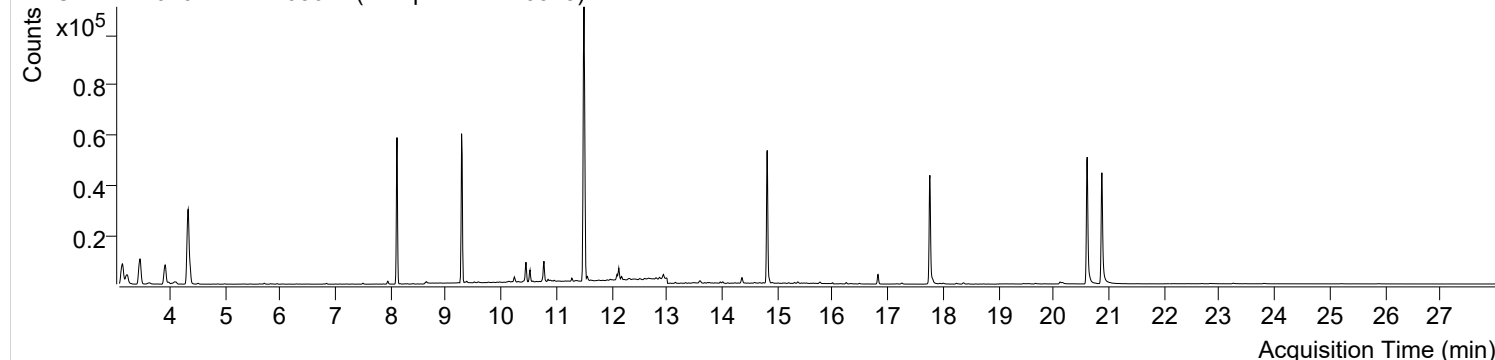


Trusted Answers

Batch Data Path File Name	D:\MassHunter\GCMS\1\data\PAHs\220407-PAHs-Sample\QuantResults\220407-PAHs-Quant.batch.bin		
Analysis Time Stamp	2022-04-13 오후 5:40:30	Analyst Name	DESKTOP-86B7UPG\5975MS
Report Generation Time	2022-04-13 오후 5:40:41	Report Generator Name	DESKTOP-86B7UPG\5975MS
Calibration Last Update	2022-04-13 오후 5:38:35	Batch State	Processed
Analyze Quant Version	10.2	Report Quant Version	10.2
Acq. Date-Time	2022-04-08 오전 5:32:58	Data File	220407-PAHs-036.D
Type	Sample	Name	Sample-PM-220313
Dil.	1	Acq. Method File	PAHs 19mix-Method

## Sample Chromatogram

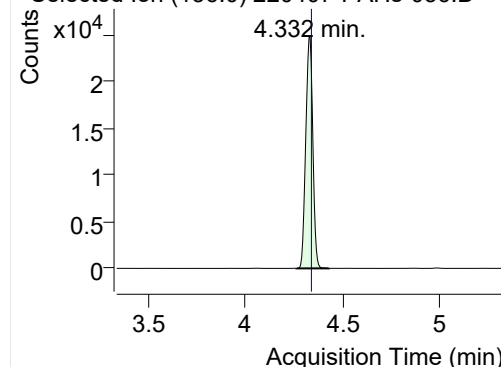
+ TIC SIM 220407-PAHs-036.D (Sample-PM-220313)



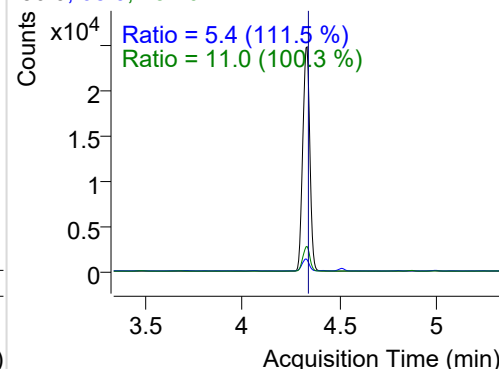
Name	RT	Transition	Resp.	Height	Final Conc. Units	Ratio
IS-D8-Naphthalene	4.332	136.0	62527	24789.04	ND µg/mL	11.0
Naphthalene	4.365	128.0	12920	5174.41	ND µg/mL	14.9
Acenaphthylene	7.739	152.0	36	25.08	ND µg/mL	86.3
IS-D10-Acenaphthene	8.112	164.0	41186	28809.24	ND µg/mL	91.0
Acenaphthene	8.177	154.0	41	27.38	ND µg/mL	157.9
LSS-D10-Fluorene	9.282	176.0	44389	27512.66	ND µg/mL	87.8
Fluorene	9.345	166.0	179	114.45	ND µg/mL	100.2
IS-D10-Phenanthrene	11.508	188.0	73858	48999.74	ND µg/mL	15.3
Phenanthrene	11.560	178.0	1757	1117.25	ND µg/mL	18.5
Anthracene	11.655	178.0	74	49.00	ND µg/mL	
Fluoranthene	14.354	202.0	2271	1395.61	ND µg/mL	20.4
LSS-D10-Pyrene	14.814	212.0	65529	40506.42	ND µg/mL	17.3
Pyrene	14.847	202.0	1707	1025.51	ND µg/mL	35.1
Benz(a)anthracene	17.725	228.0	313	177.60	ND µg/mL	41.2
IS-D12-Chrysene	17.758	240.0	61255	33365.96	ND µg/mL	19.0
Chrysene	17.807	228.0	1566	661.83	ND µg/mL	26.4
Benzo(b)fluoranthene	20.117	252.0	1151	559.77	ND µg/mL	44.2
Benzo(k)fluoranthene	20.149	252.0	862	354.73	ND µg/mL	59.0
SS-D12-Benzo(e)pyrene	20.605	264.0	70563	35123.86	ND µg/mL	22.0
Benzo(e)pyrene	20.654	252.0	1054	485.06	ND µg/mL	19.3
Benzo(a)pyrene	20.752	252.0	137	56.48	ND µg/mL	
IS-D12-Perylene	20.871	264.0	64229	30813.00	ND µg/mL	20.9
Perylene	20.914	252.0	24	21.41	ND µg/mL	320.9
Indeno(1,2,3-c,d)pyrene	22.837	276.0	315	106.04	ND µg/mL	19.1
Dibenz(a,h)anthracene	22.913	278.0	89	25.24	ND µg/mL	54.5
Benzo(g,h,i)perylene	23.249	276.0	562	191.03	ND µg/mL	20.1
Coronene	25.876	300.0	280	52.64	ND µg/mL	20.0

## IS-D8-Naphthalene

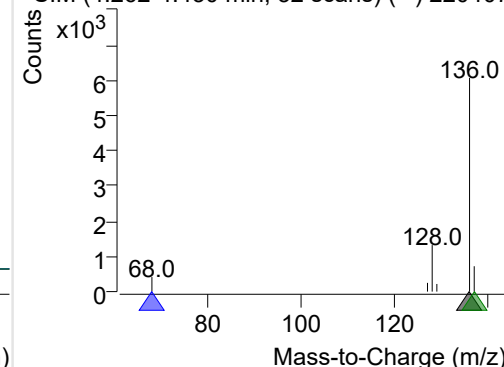
+ Selected Ion (136.0) 220407-PAHs-036.D



136.0, 68.0, 137.0

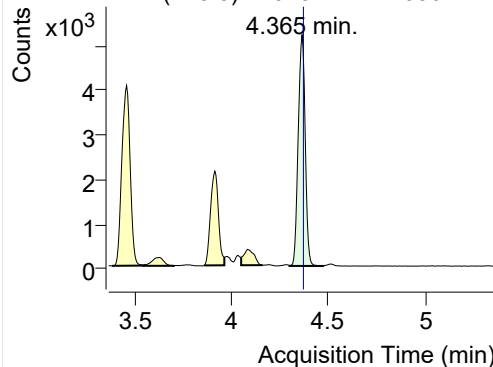


+ SIM (4.262-4.430 min, 32 scans) (\*\*) 220407

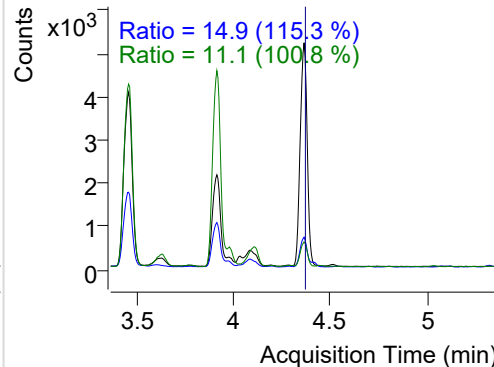


**Naphthalene**

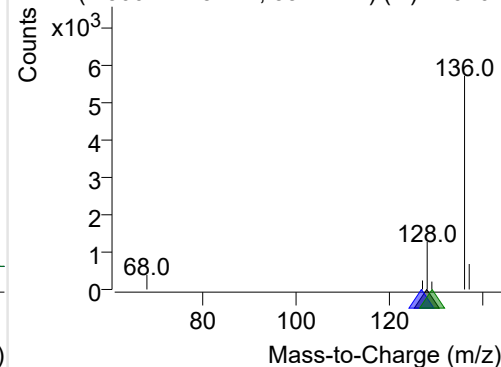
+ Selected Ion (128.0) 220407-PAHs-036.D



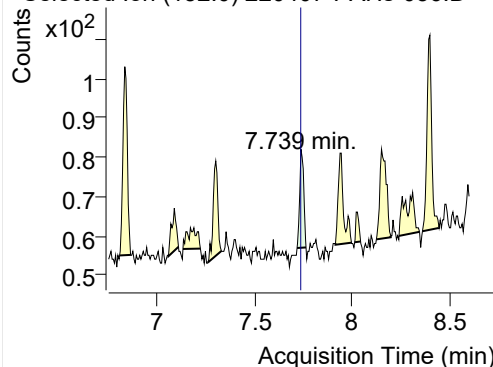
128.0, 127.0, 129.0



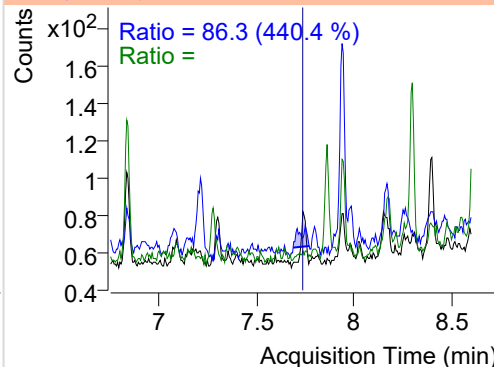
+ SIM (4.300-4.473 min, 33 scans) (\*\*) 220407

**Acenaphthylene**

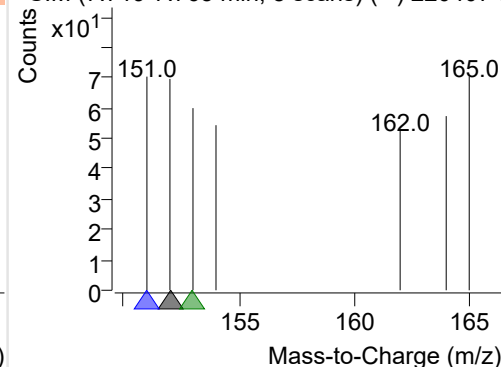
+ Selected Ion (152.0) 220407-PAHs-036.D



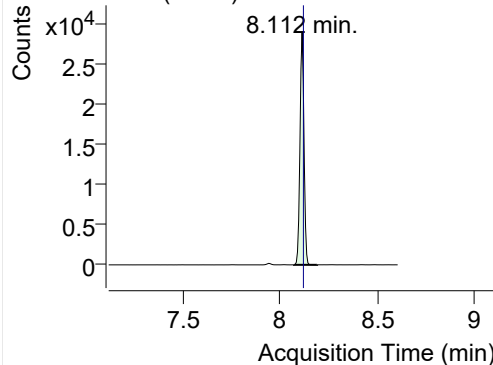
152.0, 151.0, 153.0



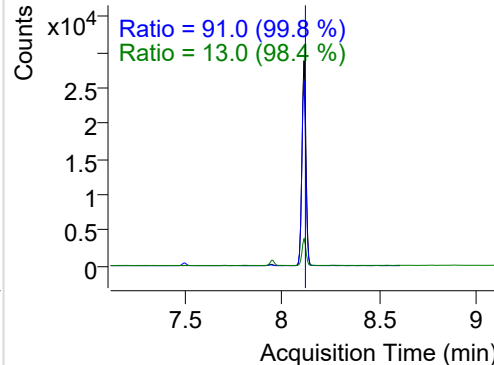
+ SIM (7.719-7.765 min, 8 scans) (\*\*) 220407-I

**IS-D10-Acenaphthene**

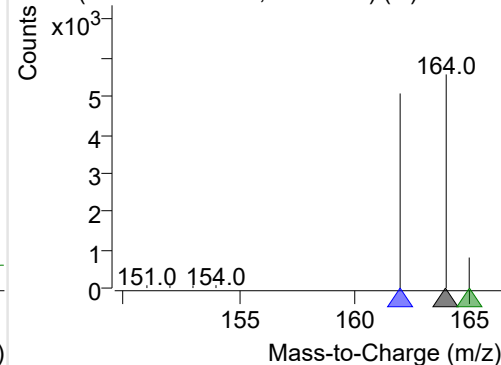
+ Selected Ion (164.0) 220407-PAHs-036.D



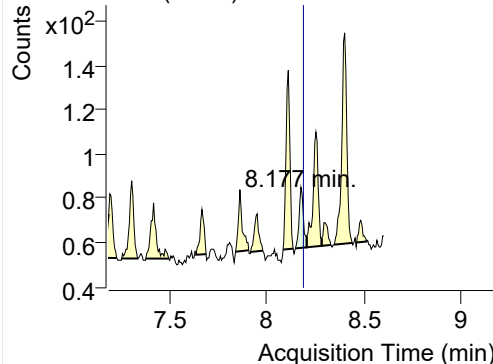
164.0, 162.0, 165.0



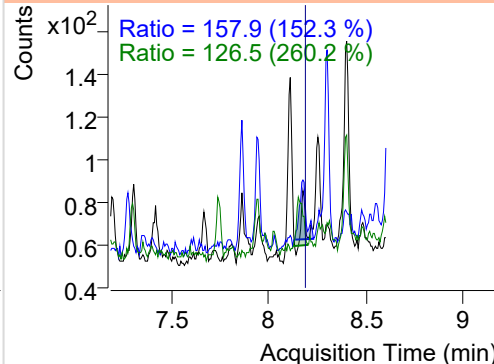
+ SIM (8.071-8.189 min, 21 scans) (\*\*) 220407

**Acenaphthene**

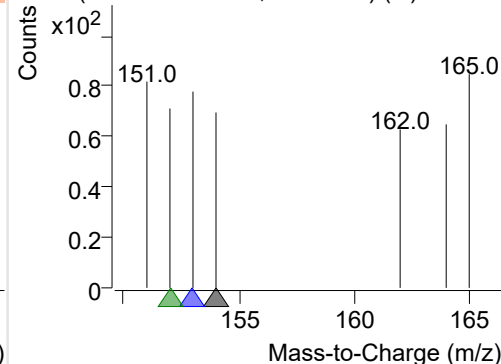
+ Selected Ion (154.0) 220407-PAHs-036.D



154.0, 153.0, 152.0

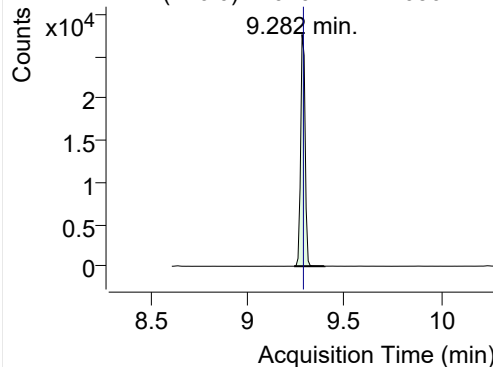


+ SIM (8.149-8.207 min, 10 scans) (\*\*) 220407

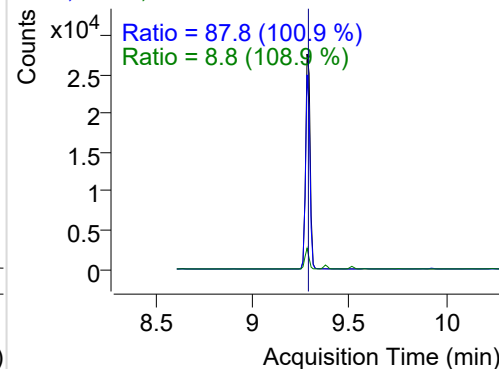


## LSS-D10-Fluorene

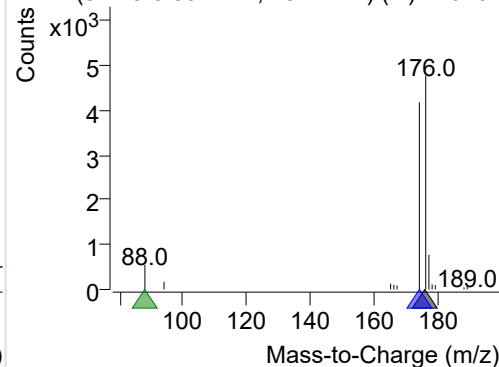
+ Selected Ion (176.0) 220407-PAHs-036.D



176.0, 174.0, 88.0

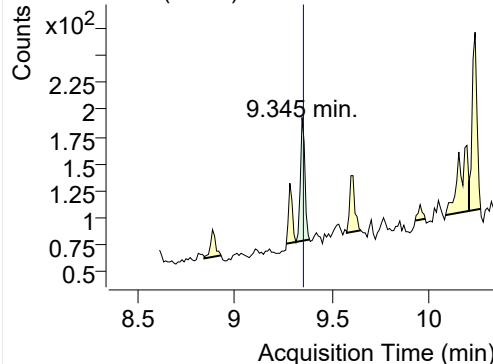


+ SIM (9.240-9.397 min, 15 scans) (\*\*) 220407

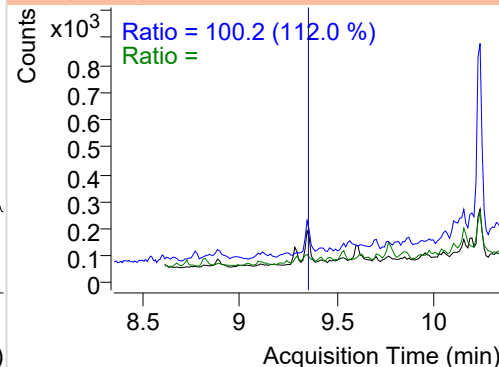


## Fluorene

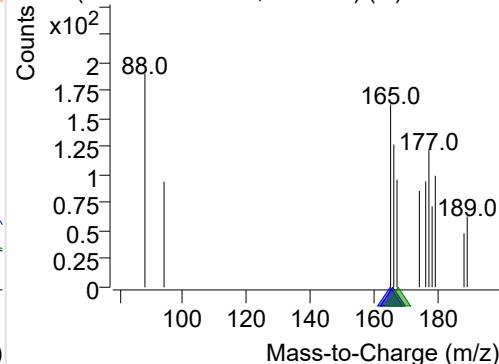
+ Selected Ion (166.0) 220407-PAHs-036.D



166.0, 165.0, 167.0

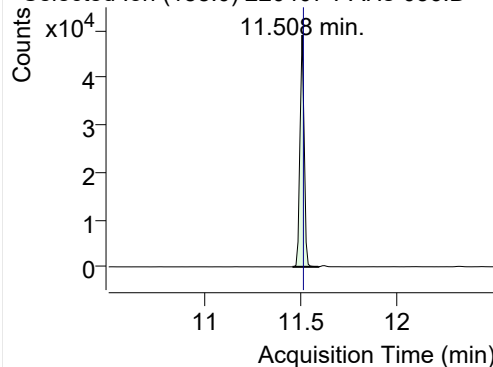


+ SIM (9.314-9.383 min, 6 scans) (\*\*) 220407-I

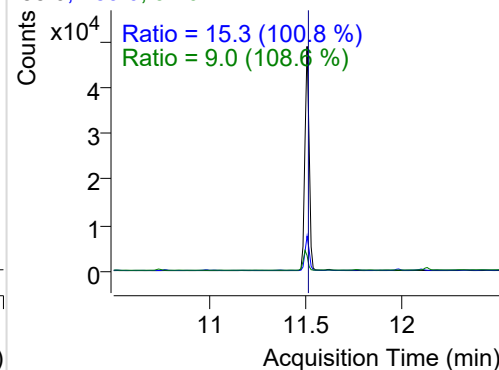


## IS-D10-Phenanthrene

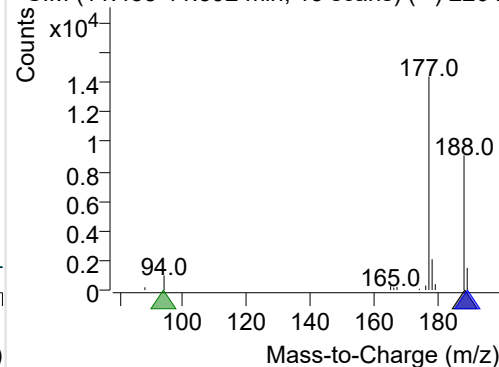
+ Selected Ion (188.0) 220407-PAHs-036.D



188.0, 189.0, 94.0

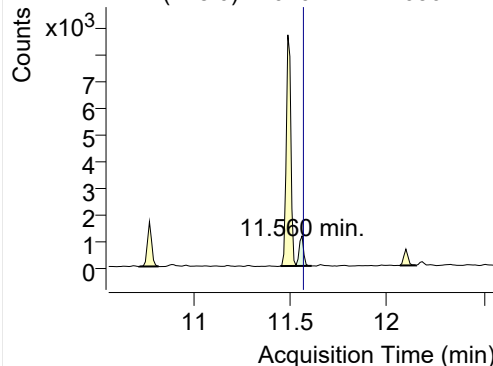


+ SIM (11.458-11.592 min, 13 scans) (\*\*) 2204

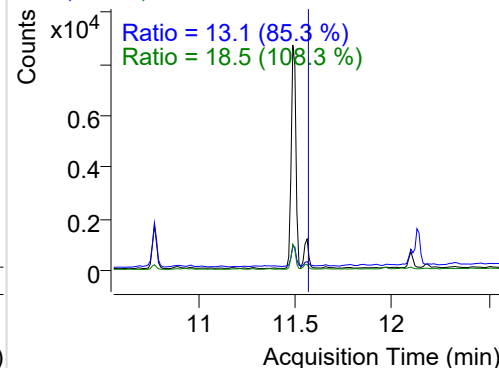


## Phenanthrene

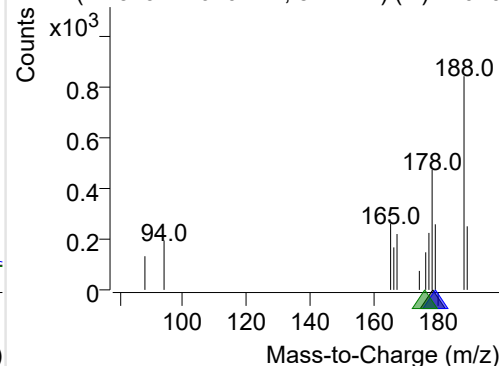
+ Selected Ion (178.0) 220407-PAHs-036.D



178.0, 179.0, 176.0

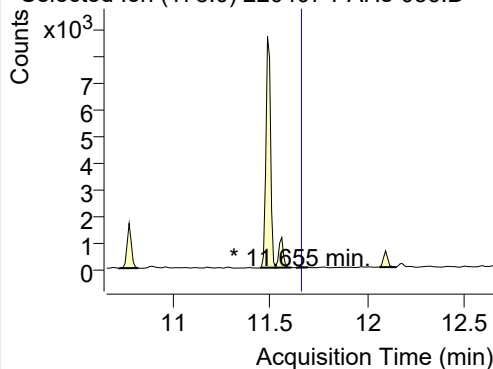


+ SIM (11.529-11.610 min, 8 scans) (\*\*) 22040

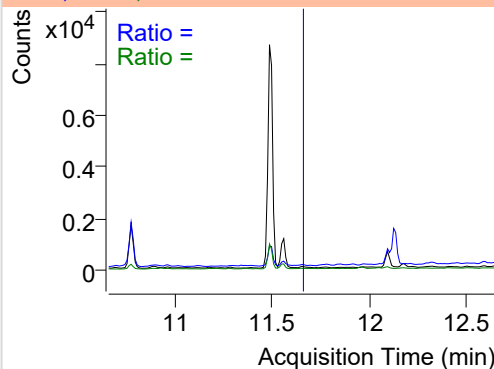


**Anthracene**

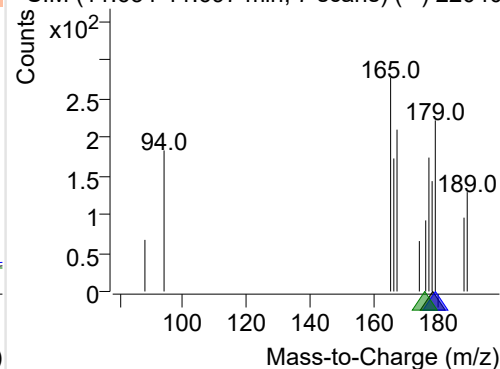
+ Selected Ion (178.0) 220407-PAHs-036.D



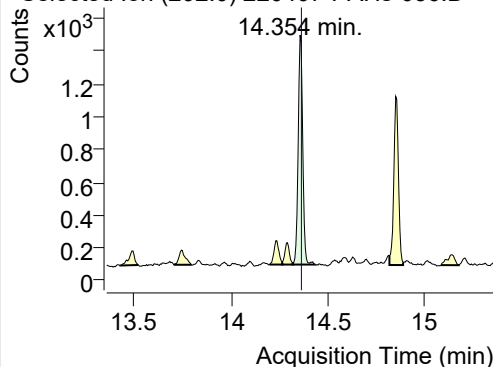
178.0, 179.0, 176.0



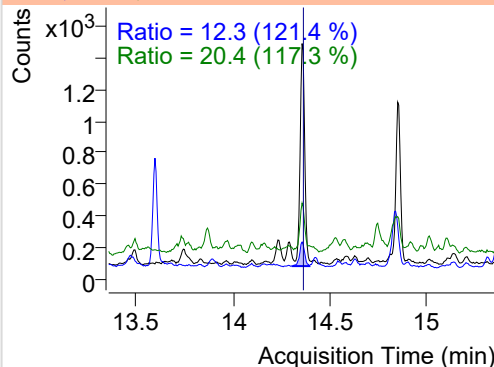
+ SIM (11.634-11.697 min, 7 scans) (\*\*) 22040

**Fluoranthene**

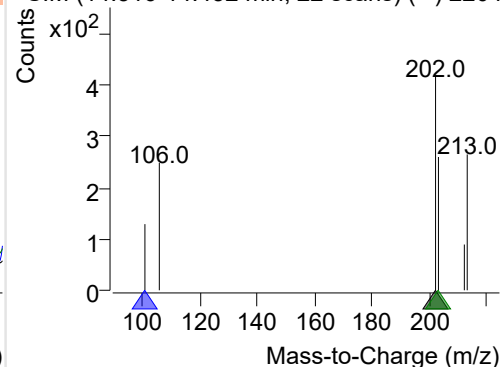
+ Selected Ion (202.0) 220407-PAHs-036.D



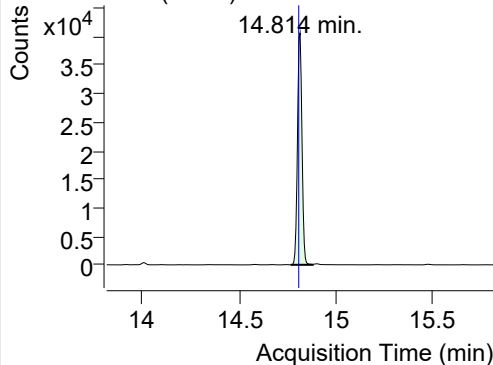
202.0, 101.0, 203.0



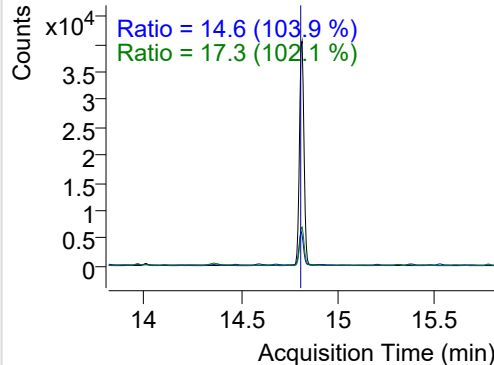
+ SIM (14.316-14.432 min, 22 scans) (\*\*) 2204

**LSS-D10-Pyrene**

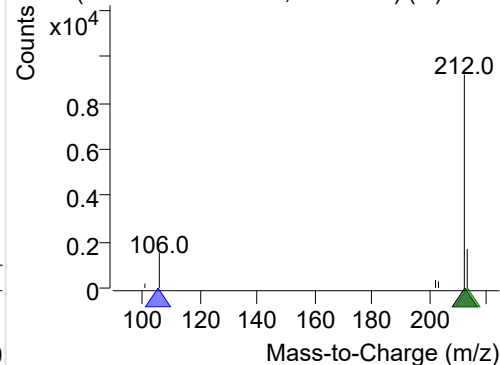
+ Selected Ion (212.0) 220407-PAHs-036.D



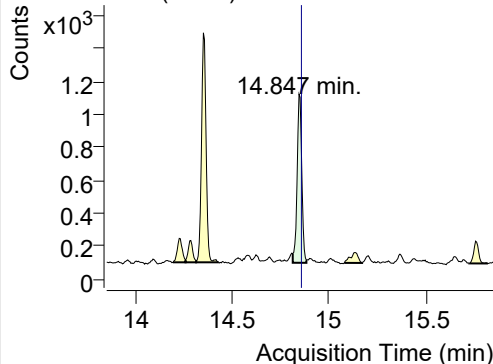
212.0, 106.0, 213.0



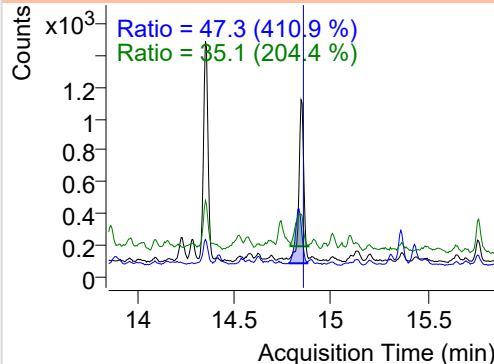
+ SIM (14.766-14.879 min, 22 scans) (\*\*) 2204

**Pyrene**

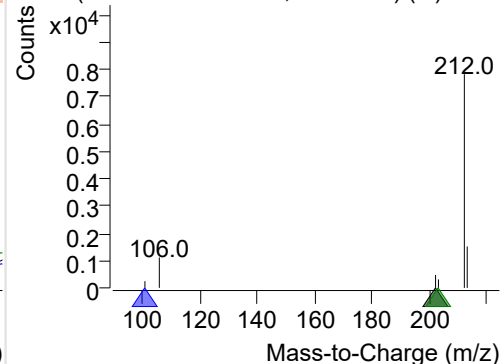
+ Selected Ion (202.0) 220407-PAHs-036.D



202.0, 101.0, 203.0



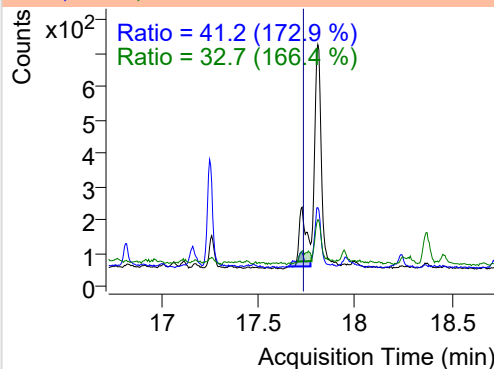
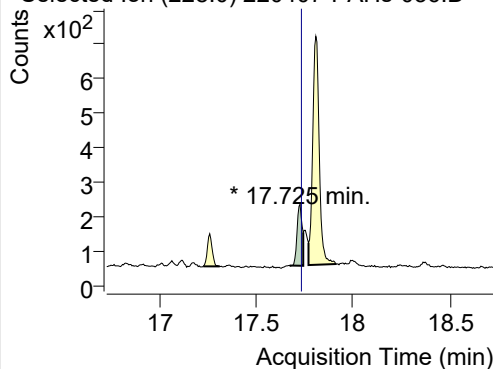
+ SIM (14.814-14.885 min, 14 scans) (\*\*) 2204



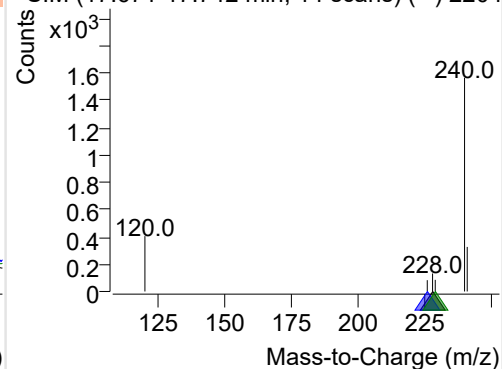
**Benz(a)anthracene**

+ Selected Ion (228.0) 220407-PAHs-036.D

228.0, 226.0, 229.0

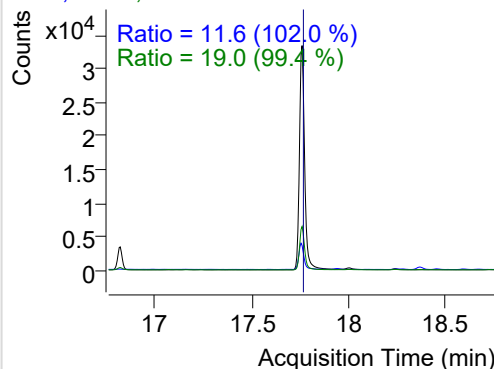
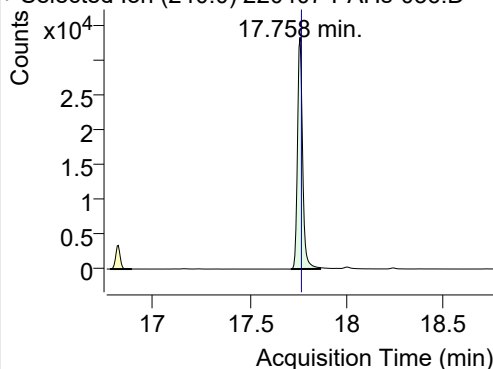


+ SIM (17.671-17.742 min, 14 scans) (\*\*) 2204

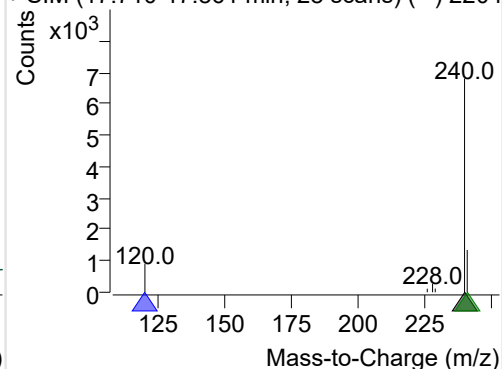
**IS-D12-Chrysene**

+ Selected Ion (240.0) 220407-PAHs-036.D

240.0, 120.0, 241.0

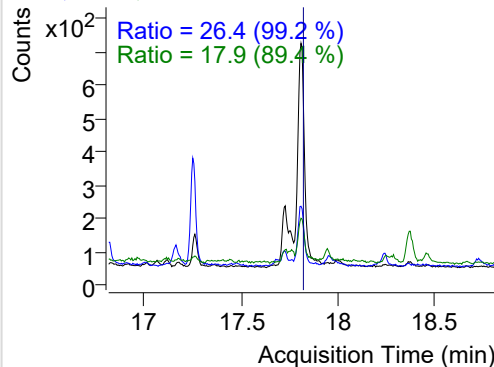
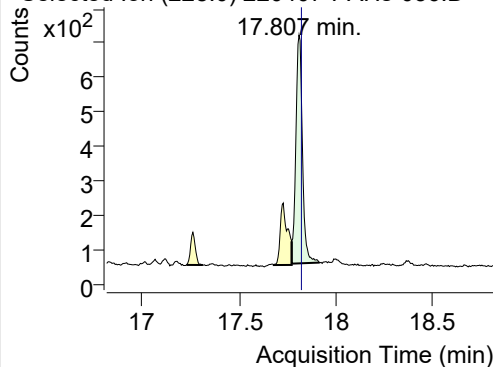


+ SIM (17.710-17.861 min, 28 scans) (\*\*) 2204

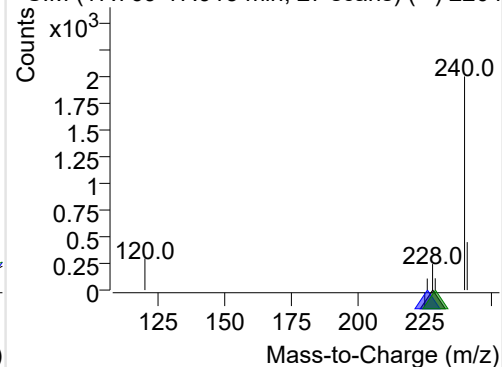
**Chrysene**

+ Selected Ion (228.0) 220407-PAHs-036.D

228.0, 226.0, 229.0

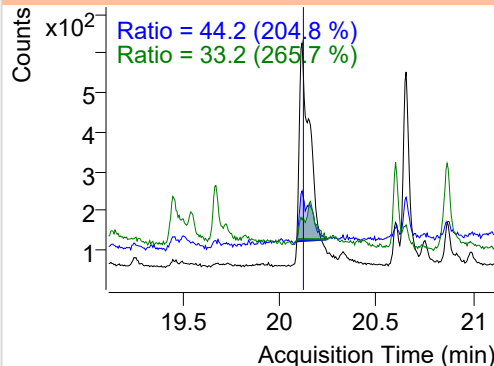
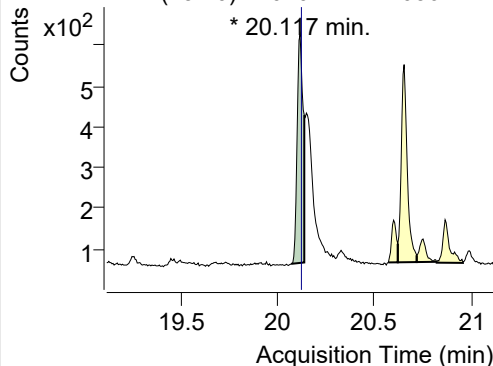


+ SIM (17.769-17.913 min, 27 scans) (\*\*) 2204

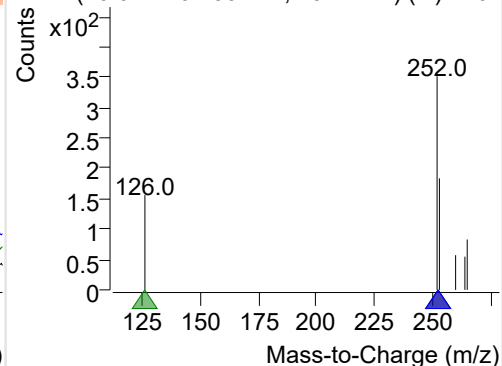
**Benzo(b)fluoranthene**

+ Selected Ion (252.0) 220407-PAHs-036.D

252.0, 253.0, 126.0



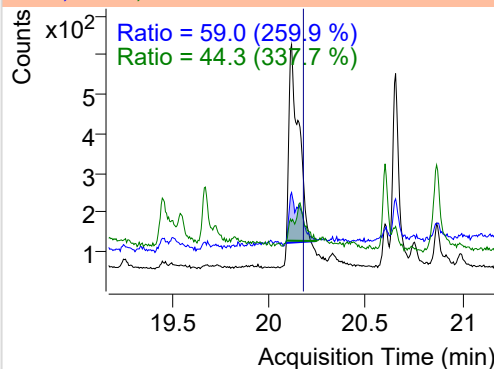
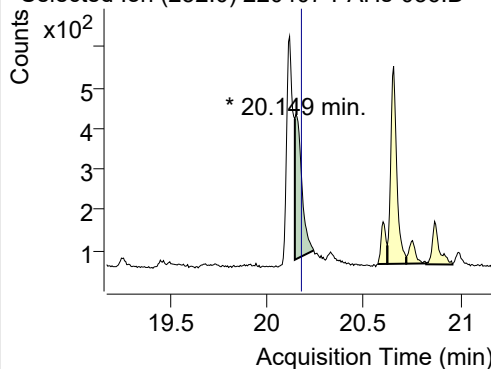
+ SIM (20.071-20.139 min, 13 scans) (\*\*) 2204



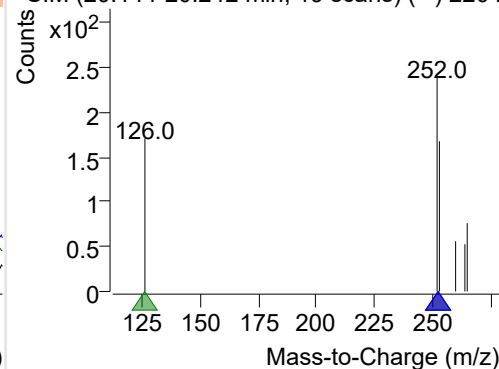
**Benzo(k)fluoranthene**

+ Selected Ion (252.0) 220407-PAHs-036.D

252.0, 253.0, 126.0

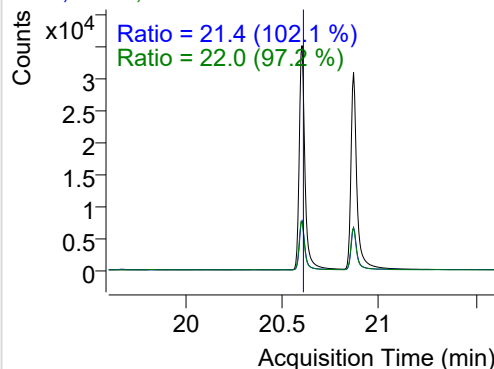
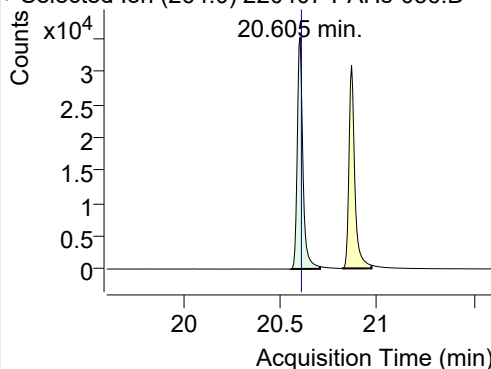


+ SIM (20.144-20.242 min, 19 scans) (\*\*) 2204

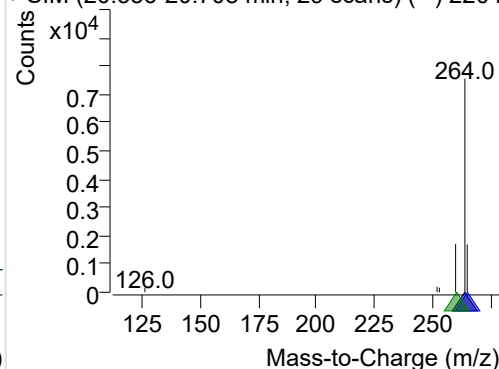
**SS-D12-Benzo(e)pyrene**

+ Selected Ion (264.0) 220407-PAHs-036.D

264.0, 265.0, 260.0

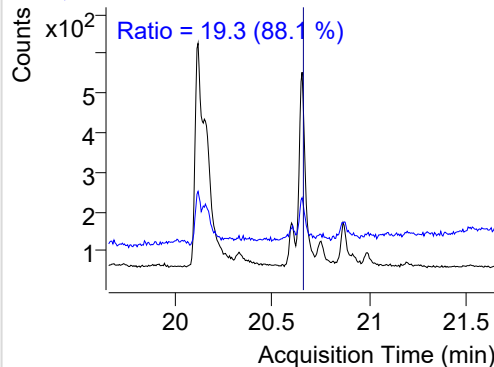
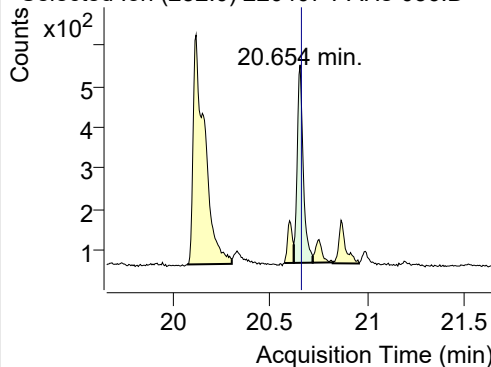


+ SIM (20.556-20.708 min, 29 scans) (\*\*) 2204

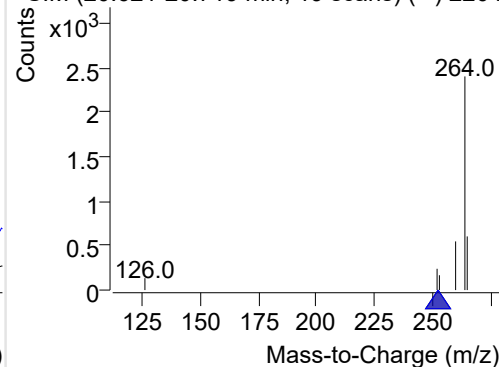
**Benzo(e)pyrene**

+ Selected Ion (252.0) 220407-PAHs-036.D

252.0, 253.0

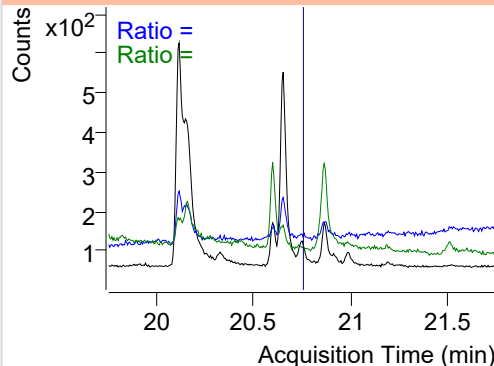
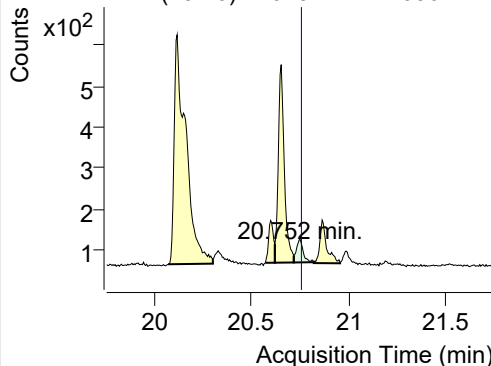


+ SIM (20.621-20.719 min, 19 scans) (\*\*) 2204

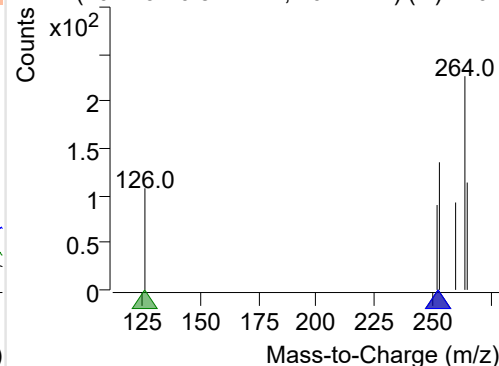
**Benzo(a)pyrene**

+ Selected Ion (252.0) 220407-PAHs-036.D

252.0, 253.0, 126.0

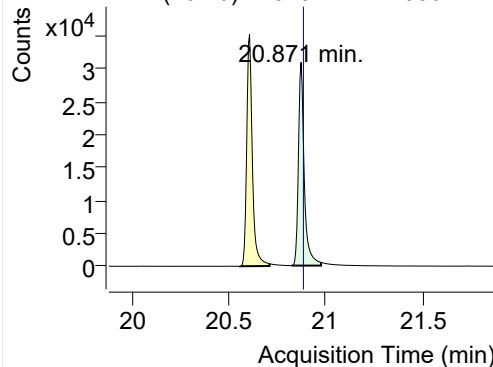


+ SIM (20.719-20.822 min, 20 scans) (\*\*) 2204

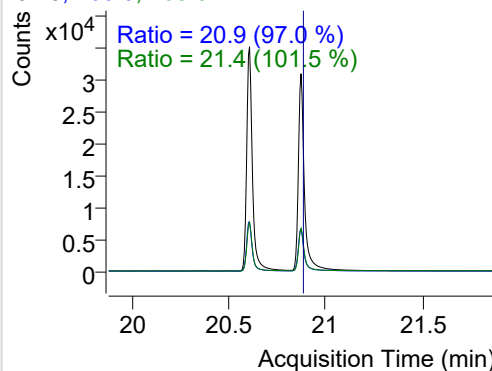


## IS-D12-Perylene

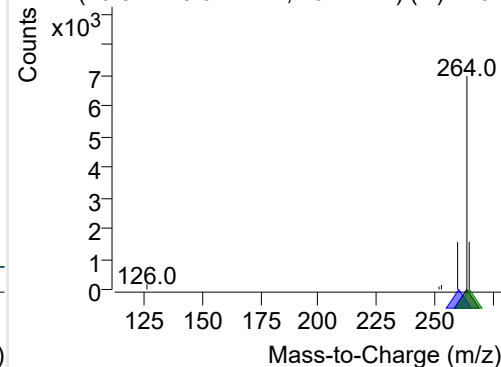
+ Selected Ion (264.0) 220407-PAHs-036.D



264.0, 260.0, 265.0

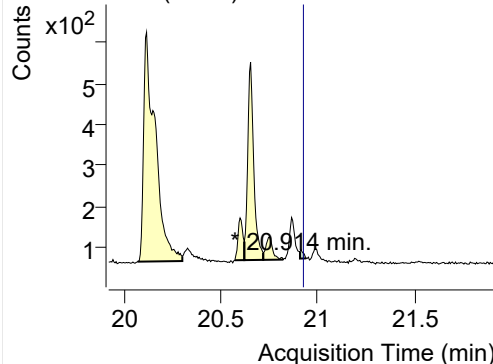


+ SIM (20.822-20.974 min, 29 scans) (\*\*) 2204

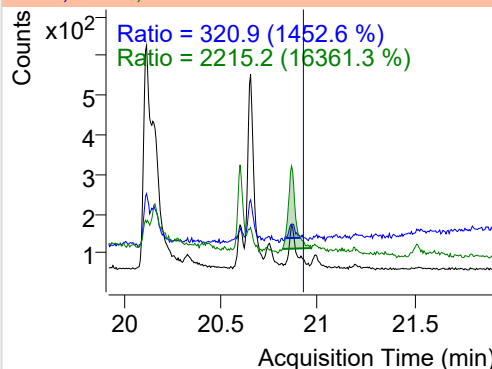


## Perylene

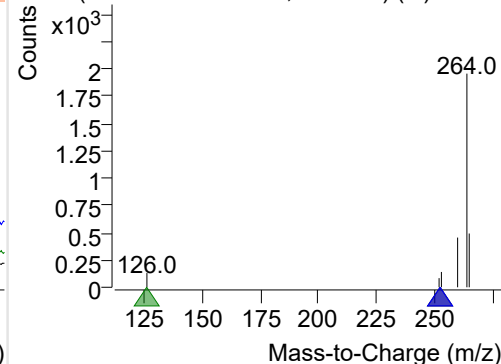
+ Selected Ion (252.0) 220407-PAHs-036.D



252.0, 253.0, 126.0

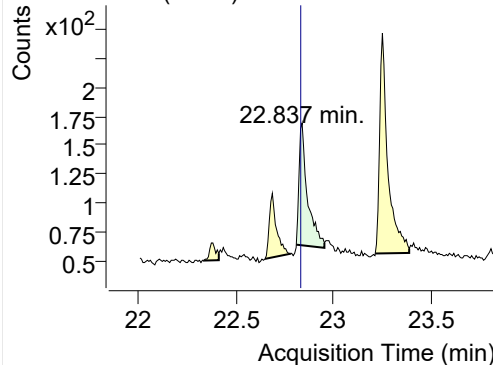


+ SIM (20.909-20.941 min, 7 scans) (\*\*) 22040

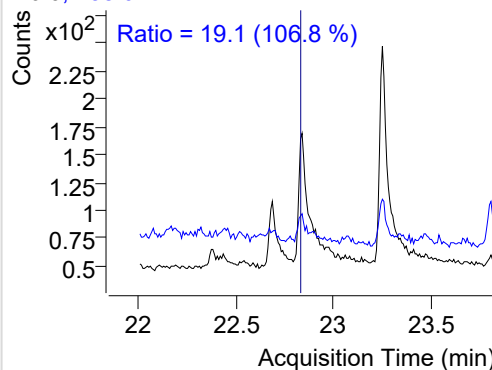


## Indeno(1,2,3-c,d)pyrene

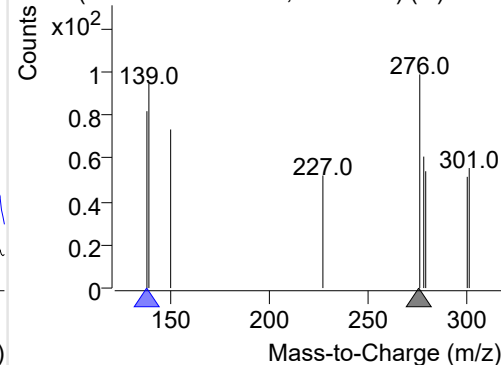
+ Selected Ion (276.0) 220407-PAHs-036.D



276.0, 138.0

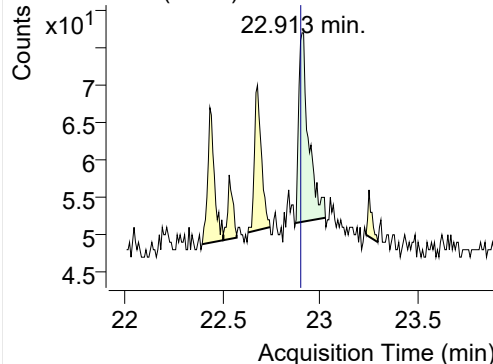


+ SIM (22.807-22.951 min, 19 scans) (\*\*) 2204

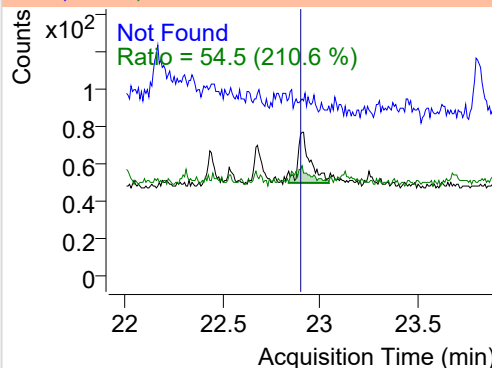


## Dibenz(a,h)anthracene

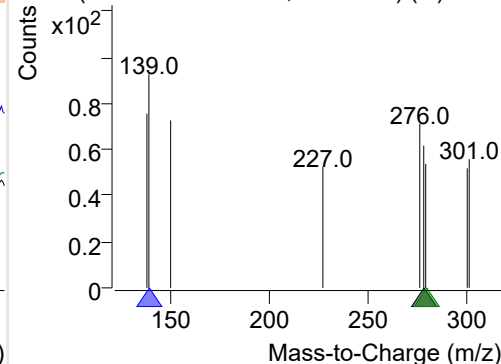
+ Selected Ion (278.0) 220407-PAHs-036.D



278.0, 139.0, 279.0

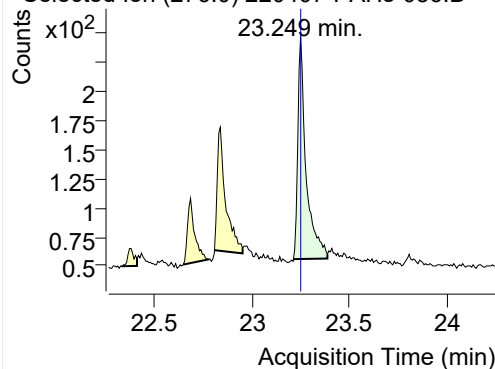


+ SIM (22.872-23.025 min, 20 scans) (\*\*) 2204

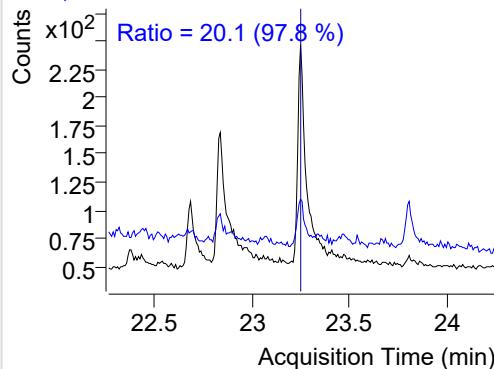


**Benzo(g,h,i)perylene**

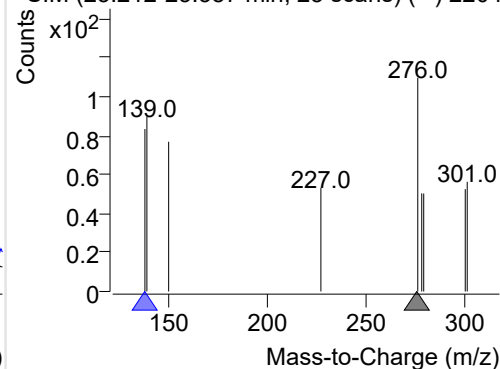
+ Selected Ion (276.0) 220407-PAHs-036.D



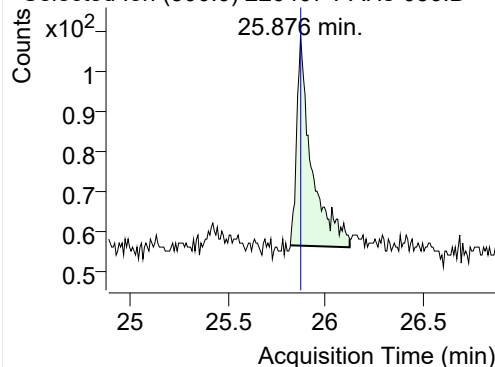
276.0, 138.0



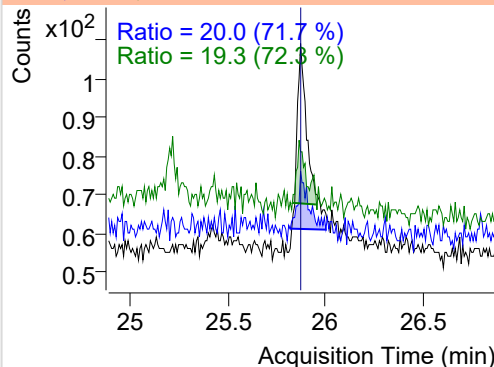
+ SIM (23.212-23.387 min, 23 scans) (\*\*) 2204

**Coronene**

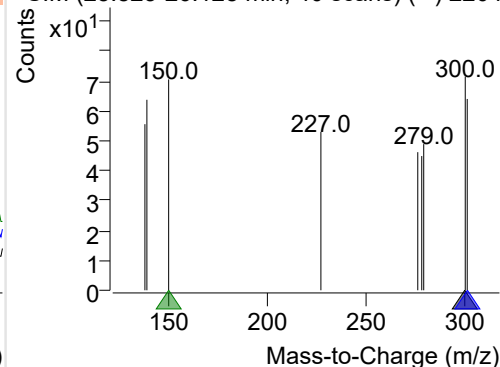
+ Selected Ion (300.0) 220407-PAHs-036.D



300.0, 301.0, 150.0



+ SIM (25.823-26.128 min, 40 scans) (\*\*) 2204





## Quantitative Analysis Sample Based Report

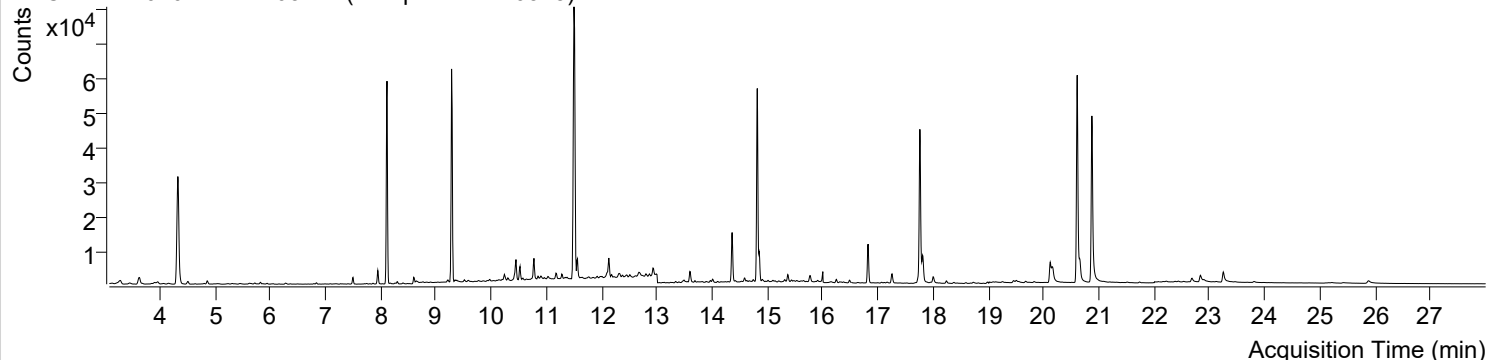


Trusted Answers

Batch Data Path File Name	D:\MassHunter\GCMS\1\data\PAHs\220407-PAHs-Sample\QuantResults\220407-PAHs-Quant.batch.bin		
Analysis Time Stamp	2022-04-13 오후 5:40:30	Analyst Name	DESKTOP-86B7UPG\5975MS
Report Generation Time	2022-04-13 오후 5:40:41	Report Generator Name	DESKTOP-86B7UPG\5975MS
Calibration Last Update	2022-04-13 오후 5:38:35	Batch State	Processed
Analyze Quant Version	10.2	Report Quant Version	10.2
Acq. Date-Time	2022-04-08 오전 6:04:12	Data File	220407-PAHs-037.D
Type	Sample	Name	Sample-PM-220325
Dil.	1	Acq. Method File	PAHs 19mix-Method

## Sample Chromatogram

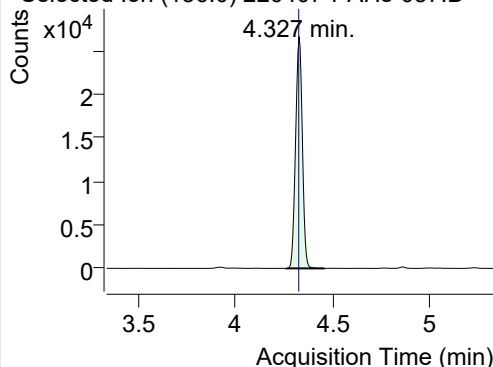
+ TIC SIM 220407-PAHs-037.D (Sample-PM-220325)



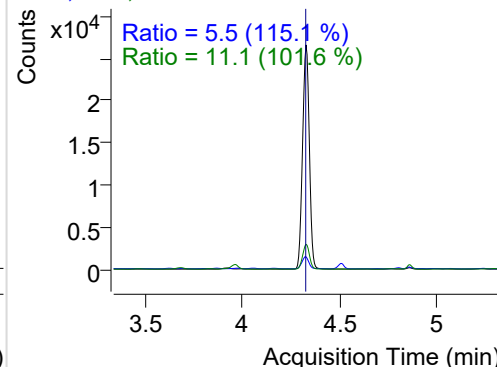
Name	RT	Transition	Resp.	Height	Final Conc. Units	Ratio
IS-D8-Naphthalene	4.327	136.0	64095	26564.29	ND µg/mL	11.1
Naphthalene	4.365	128.0	2652	1094.91	ND µg/mL	20.2
Acenaphthylene	7.739	152.0	156	102.67	ND µg/mL	46.8
IS-D10-Acenaphthene	8.112	164.0	42080	28844.65	ND µg/mL	91.2
Acenaphthene	8.177	154.0	128	67.42	ND µg/mL	105.8
LSS-D10-Fluorene	9.281	176.0	45459	28662.55	ND µg/mL	86.9
Fluorene	9.344	166.0	399	262.70	ND µg/mL	82.9
IS-D10-Phenanthrene	11.508	188.0	74283	49635.81	ND µg/mL	15.1
Phenanthrene	11.560	178.0	6190	3805.96	ND µg/mL	17.5
Anthracene	11.655	178.0	34	27.40	ND µg/mL	
Fluoranthene	14.359	202.0	11890	7488.30	ND µg/mL	20.5
LSS-D10-Pyrene	14.814	212.0	66476	42225.25	ND µg/mL	17.3
Pyrene	14.852	202.0	9692	5976.20	ND µg/mL	26.7
Benz(a)anthracene	17.725	228.0	1892	948.34	ND µg/mL	27.9
IS-D12-Chrysene	17.758	240.0	62631	33891.15	ND µg/mL	19.1
Chrysene	17.807	228.0	10266	4577.12	ND µg/mL	28.4
Benzo(b)fluoranthene	20.117	252.0	8552	4276.88	ND µg/mL	21.5
Benzo(k)fluoranthene	20.149	252.0	9648	3245.13	ND µg/mL	23.9
SS-D12-Benzo(e)pyrene	20.605	264.0	79222	41383.04	ND µg/mL	22.2
Benzo(e)pyrene	20.654	252.0	7016	3193.59	ND µg/mL	20.0
Benzo(a)pyrene	20.730	252.0	97	55.21	ND µg/mL	1450.4
IS-D12-Perylene	20.871	264.0	66867	33264.50	ND µg/mL	21.7
Perylene	20.914	252.0	92	50.48	ND µg/mL	202.7
Indeno(1,2,3-c,d)pyrene	22.837	276.0	5452	1547.32	ND µg/mL	18.3
Dibenz(a,h)anthracene	22.906	278.0	597	179.01	ND µg/mL	35.6
Benzo(g,h,i)perylene	23.249	276.0	7301	2371.33	ND µg/mL	18.5
Coronene	25.876	300.0	2774	482.76	ND µg/mL	22.4

## IS-D8-Naphthalene

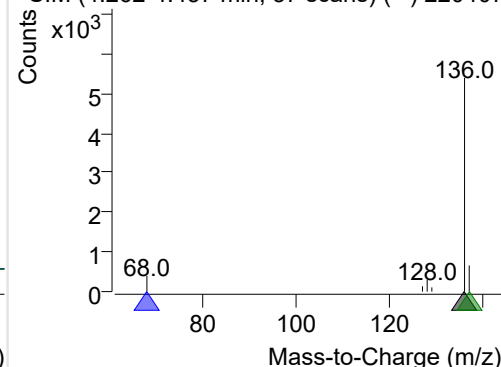
+ Selected Ion (136.0) 220407-PAHs-037.D



136.0, 68.0, 137.0

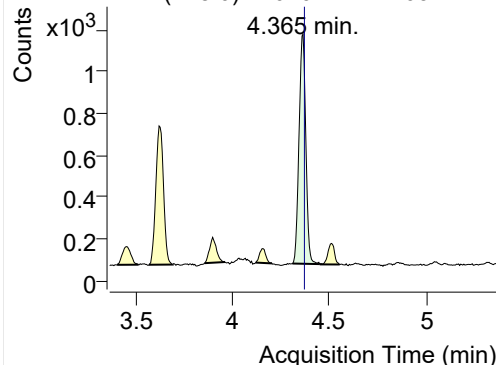


+ SIM (4.262-4.457 min, 37 scans) (\*\*) 220407

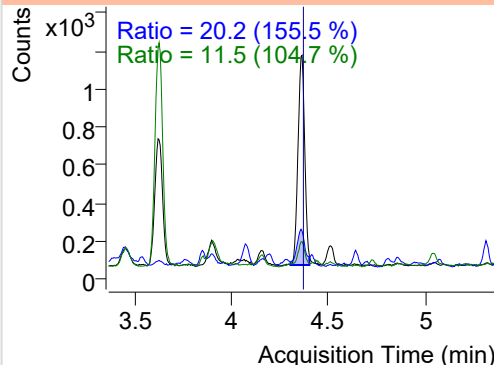


**Naphthalene**

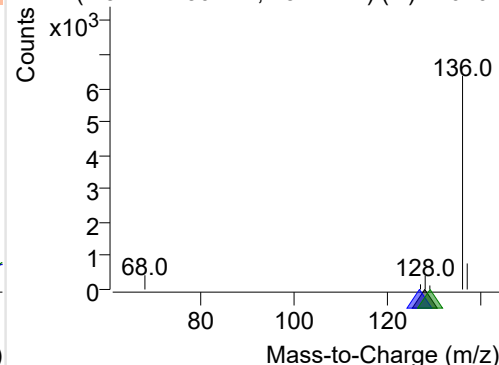
+ Selected Ion (128.0) 220407-PAHs-037.D



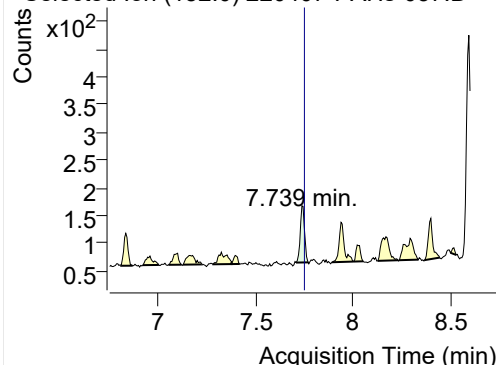
128.0, 127.0, 129.0



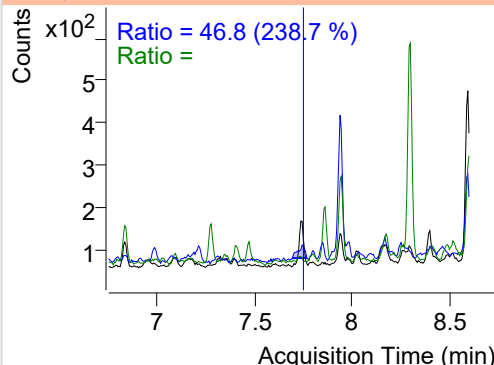
+ SIM (4.311-4.450 min, 25 scans) (\*\*) 220407

**Acenaphthylene**

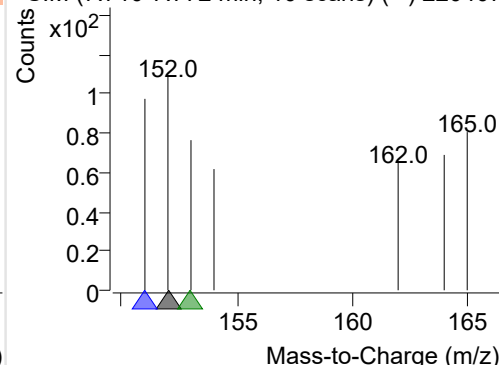
+ Selected Ion (152.0) 220407-PAHs-037.D



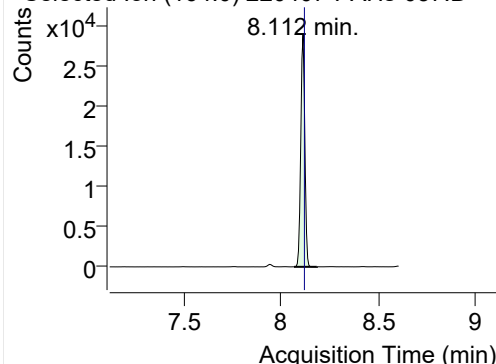
152.0, 151.0, 153.0



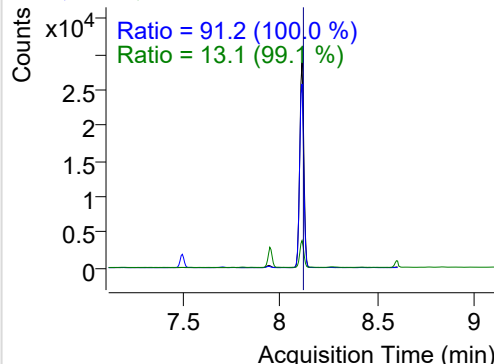
+ SIM (7.710-7.772 min, 10 scans) (\*\*) 220407

**IS-D10-Acenaphthene**

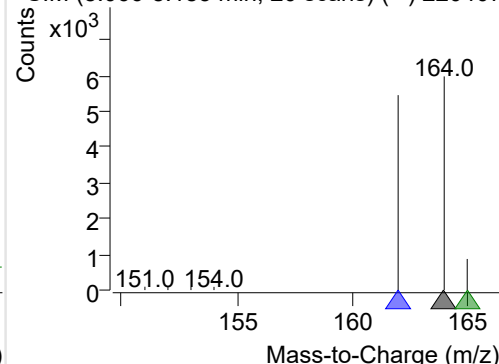
+ Selected Ion (164.0) 220407-PAHs-037.D



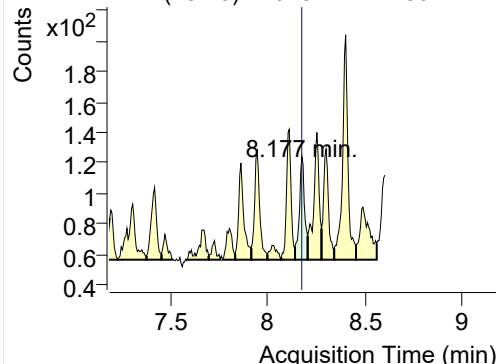
164.0, 162.0, 165.0



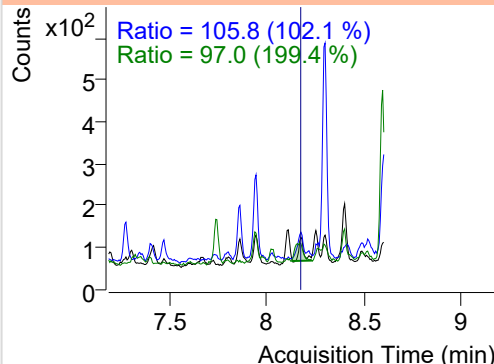
+ SIM (8.066-8.183 min, 20 scans) (\*\*) 220407

**Acenaphthene**

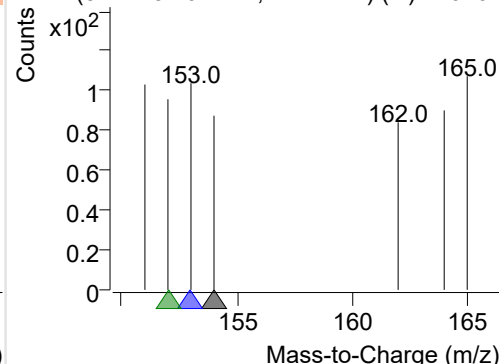
+ Selected Ion (154.0) 220407-PAHs-037.D



154.0, 153.0, 152.0

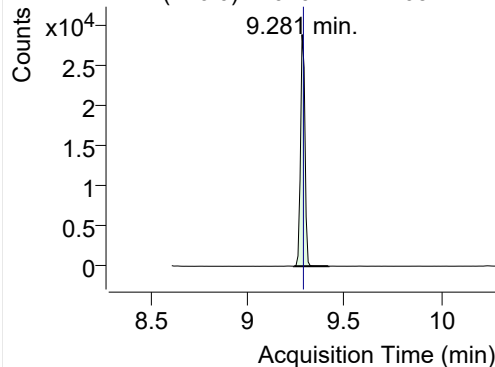


+ SIM (8.142-8.207 min, 12 scans) (\*\*) 220407

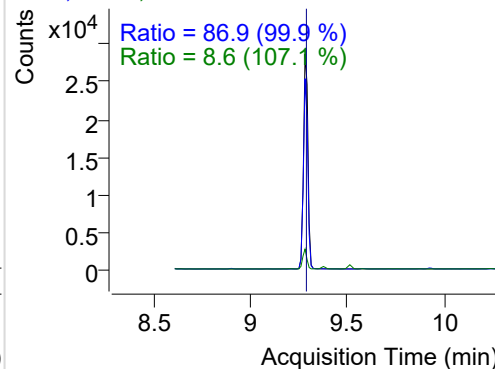


## LSS-D10-Fluorene

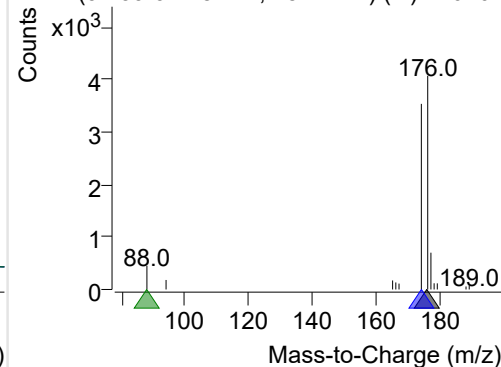
+ Selected Ion (176.0) 220407-PAHs-037.D



176.0, 174.0, 88.0

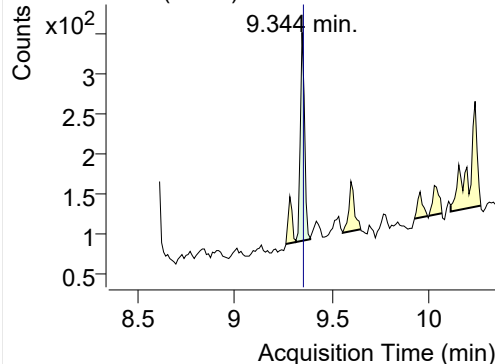


+ SIM (9.239-9.418 min, 18 scans) (\*\*) 220407

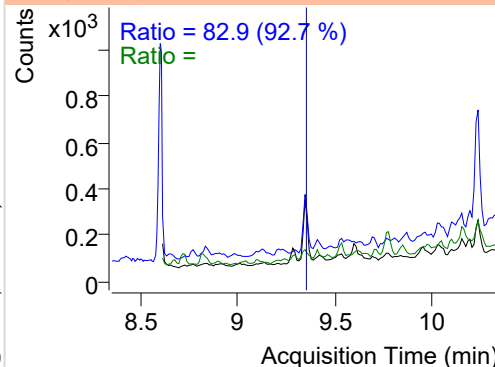


## Fluorene

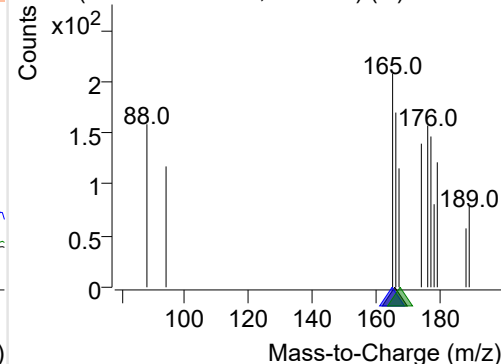
+ Selected Ion (166.0) 220407-PAHs-037.D



166.0, 165.0, 167.0

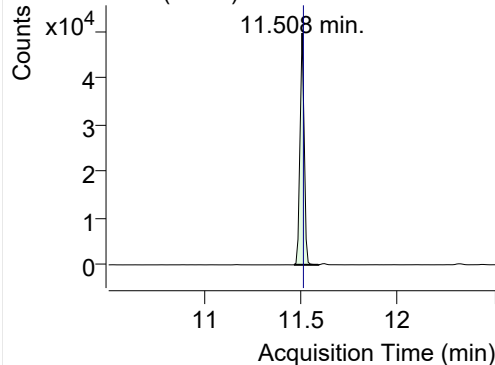


+ SIM (9.313-9.386 min, 8 scans) (\*\*) 220407-I

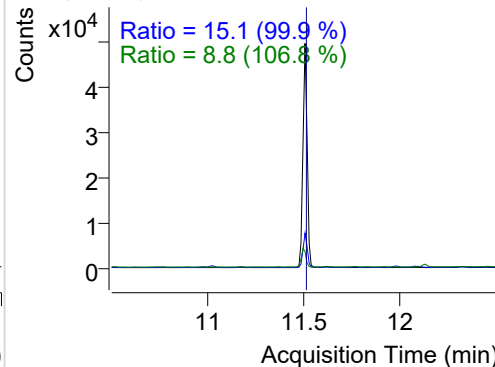


## IS-D10-Phenanthrene

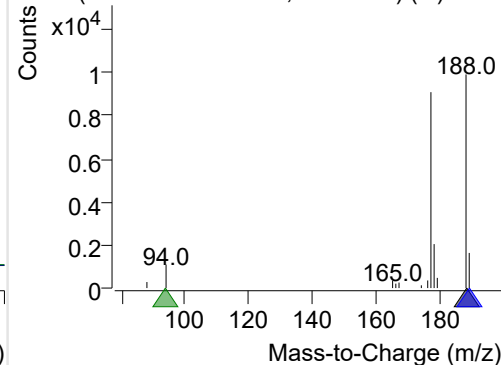
+ Selected Ion (188.0) 220407-PAHs-037.D



188.0, 189.0, 94.0

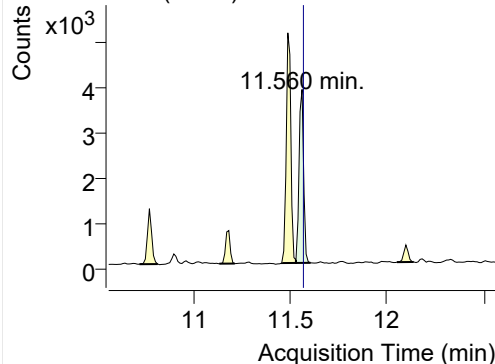


+ SIM (11.466-11.592 min, 12 scans) (\*\*) 2204

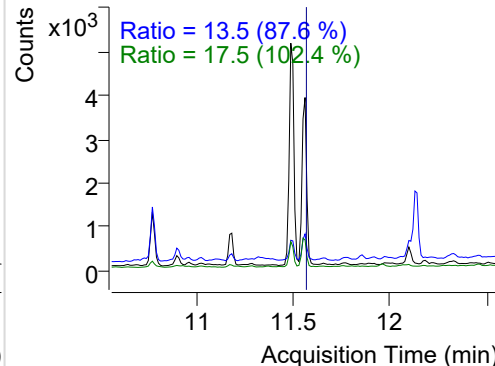


## Phenanthrene

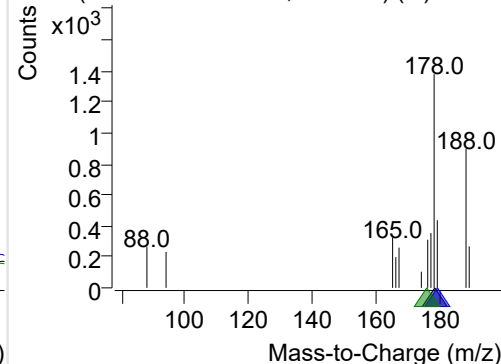
+ Selected Ion (178.0) 220407-PAHs-037.D



178.0, 179.0, 176.0

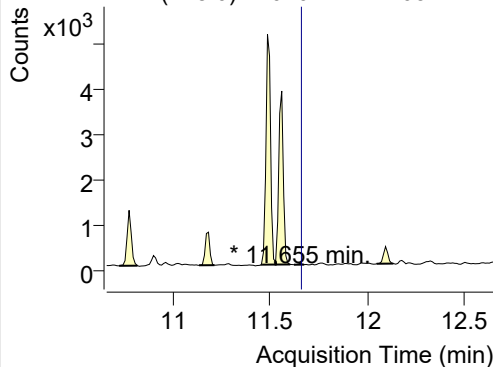


+ SIM (11.529-11.604 min, 8 scans) (\*\*) 22040

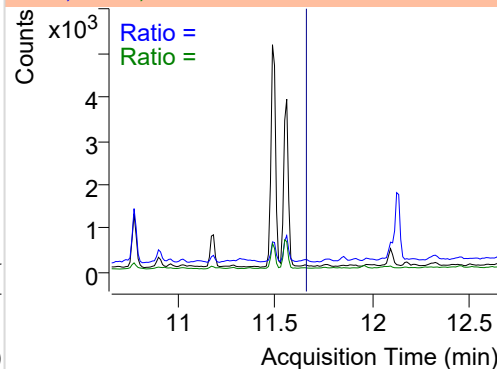


**Anthracene**

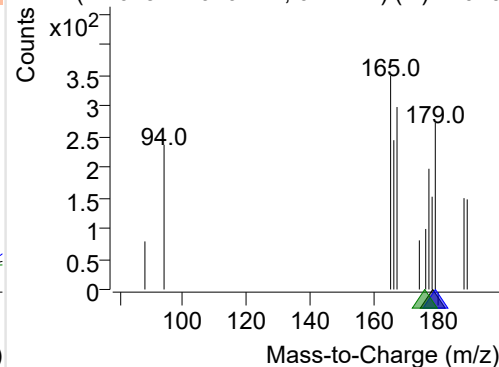
+ Selected Ion (178.0) 220407-PAHs-037.D



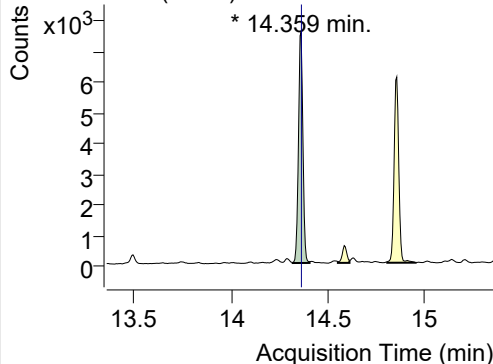
178.0, 179.0, 176.0



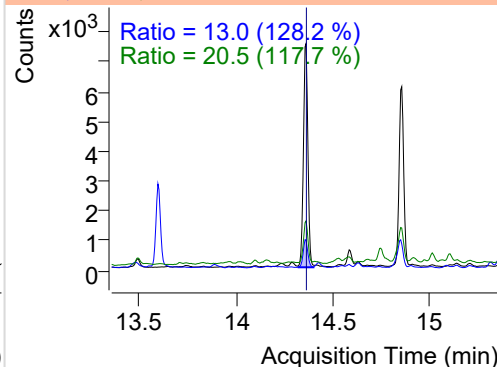
+ SIM (11.623-11.676 min, 6 scans) (\*\*) 22040

**Fluoranthene**

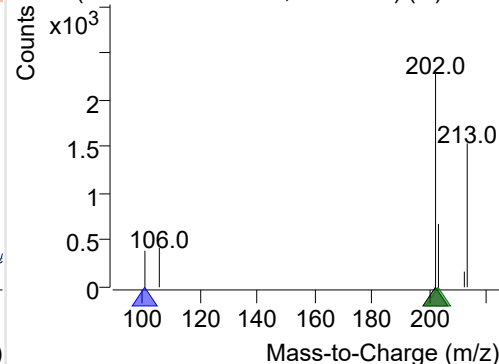
+ Selected Ion (202.0) 220407-PAHs-037.D



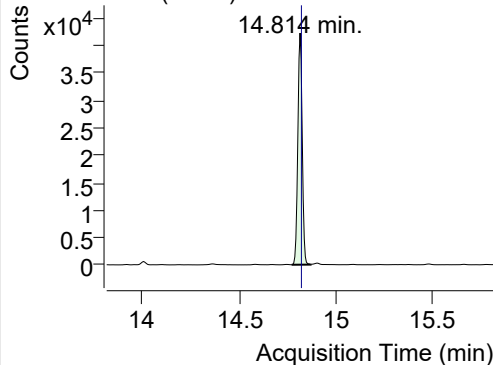
202.0, 101.0, 203.0



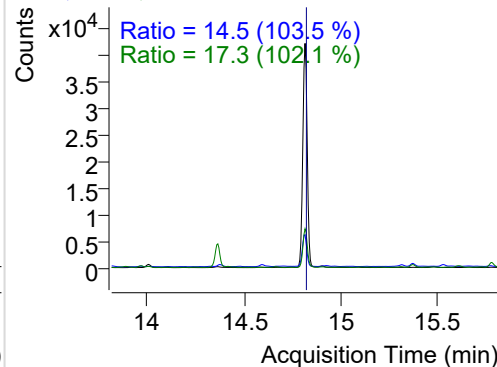
+ SIM (14.316-14.402 min, 17 scans) (\*\*) 2204

**LSS-D10-Pyrene**

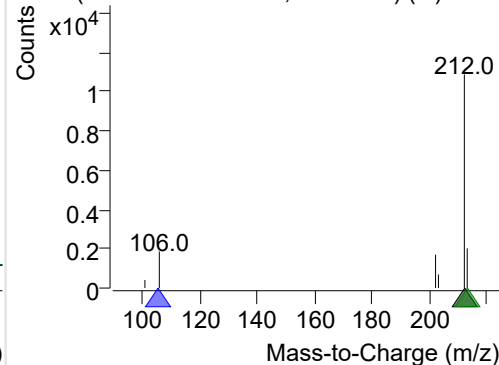
+ Selected Ion (212.0) 220407-PAHs-037.D



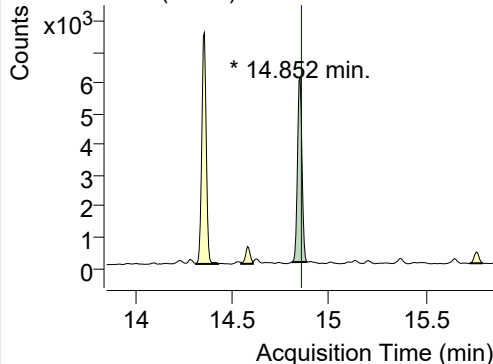
212.0, 106.0, 213.0



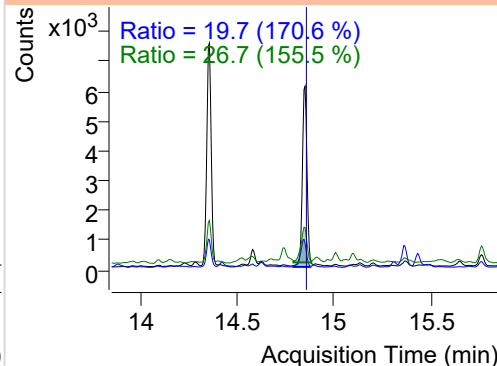
+ SIM (14.771-14.868 min, 19 scans) (\*\*) 2204

**Pyrene**

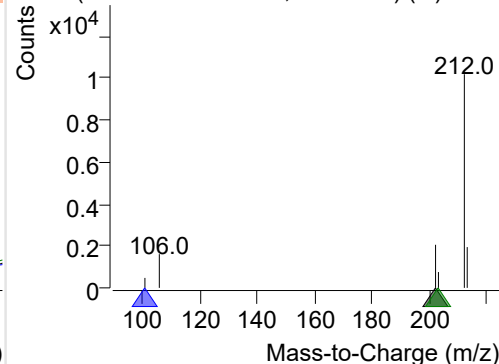
+ Selected Ion (202.0) 220407-PAHs-037.D



202.0, 101.0, 203.0



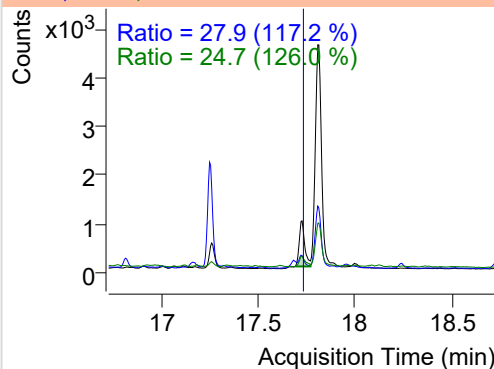
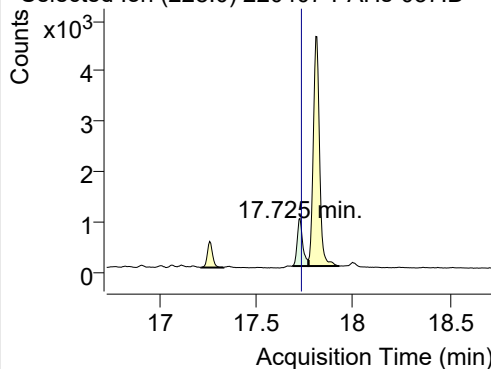
+ SIM (14.809-14.890 min, 16 scans) (\*\*) 2204



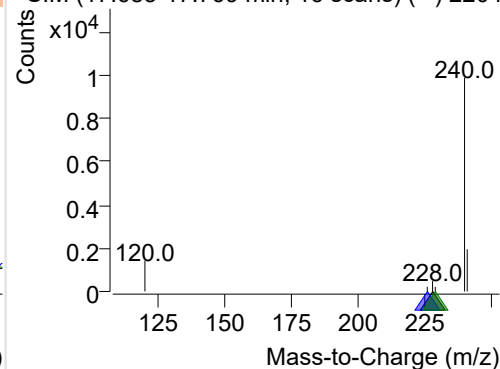
**Benz(a)anthracene**

+ Selected Ion (228.0) 220407-PAHs-037.D

228.0, 226.0, 229.0

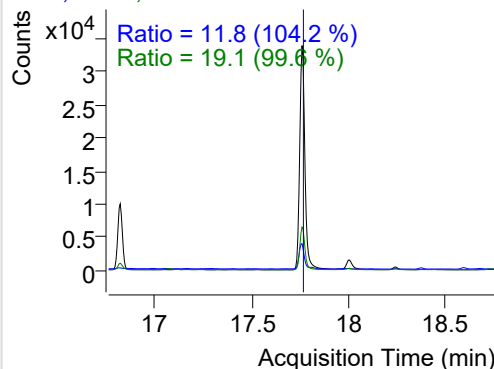
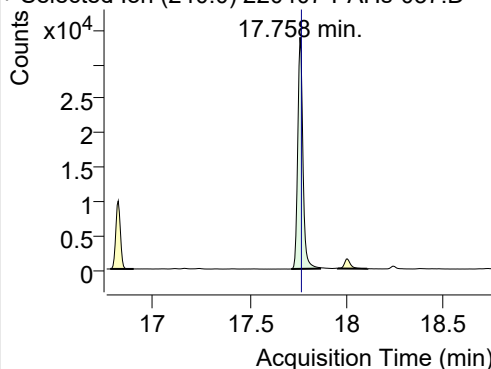


+ SIM (17.685-17.769 min, 16 scans) (\*\*) 2204

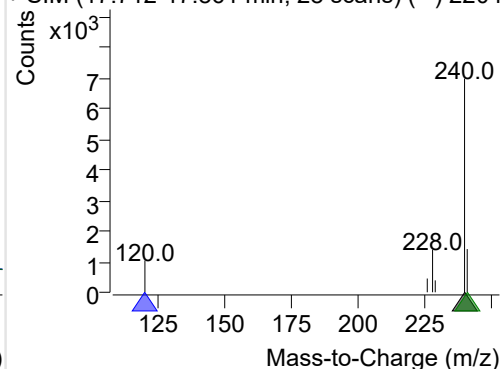
**IS-D12-Chrysene**

+ Selected Ion (240.0) 220407-PAHs-037.D

240.0, 120.0, 241.0

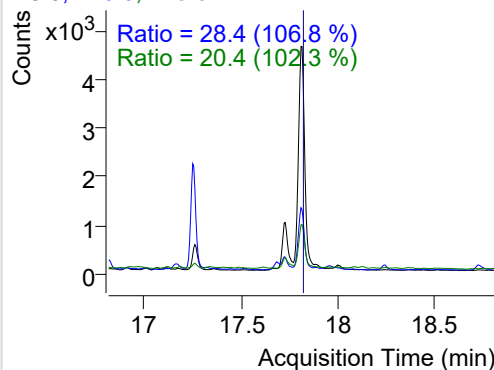
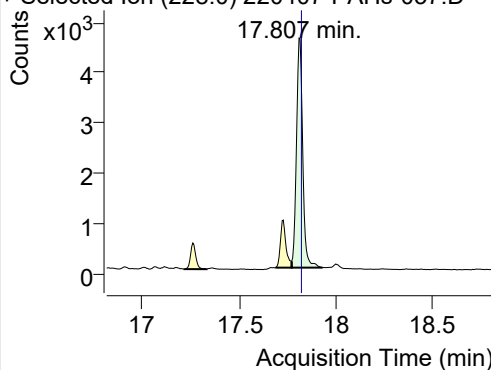


+ SIM (17.712-17.861 min, 28 scans) (\*\*) 2204

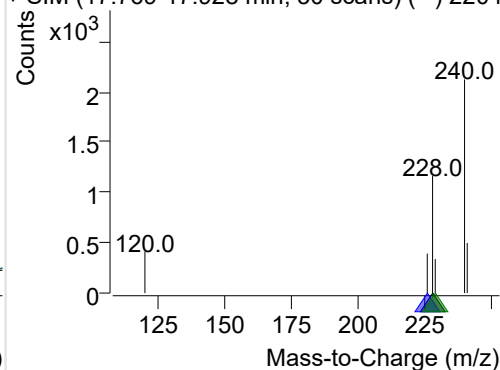
**Chrysene**

+ Selected Ion (228.0) 220407-PAHs-037.D

228.0, 226.0, 229.0

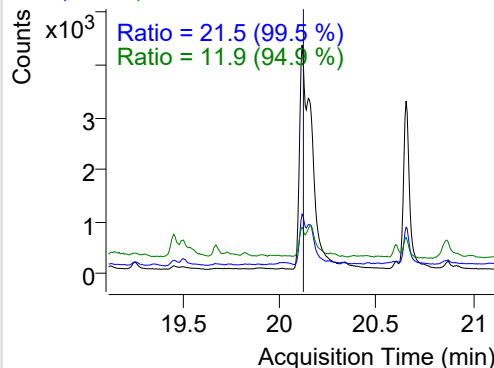
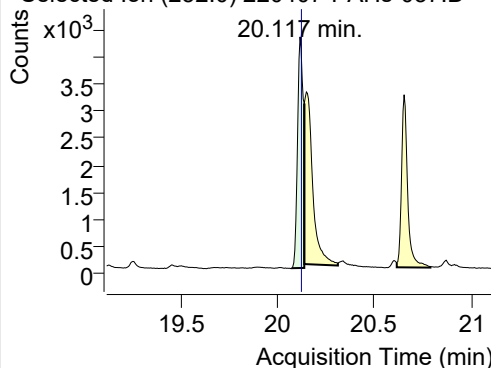


+ SIM (17.769-17.928 min, 30 scans) (\*\*) 2204

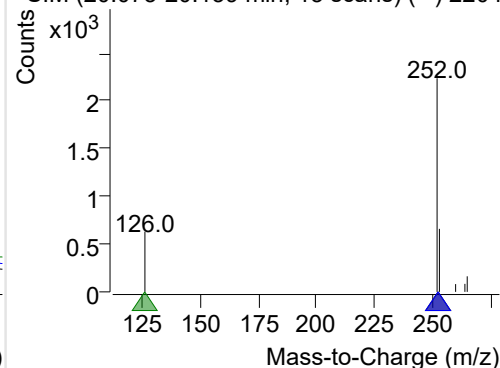
**Benzo(b)fluoranthene**

+ Selected Ion (252.0) 220407-PAHs-037.D

252.0, 253.0, 126.0



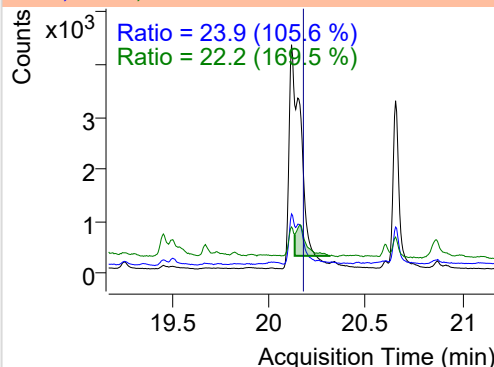
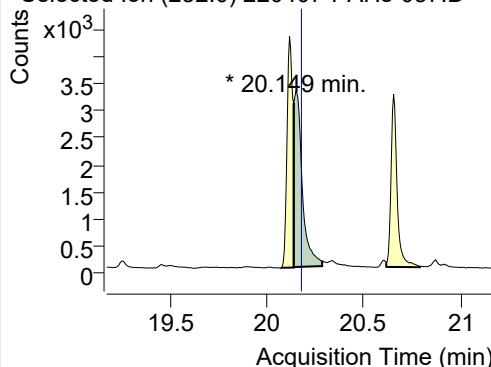
+ SIM (20.073-20.139 min, 13 scans) (\*\*) 2204



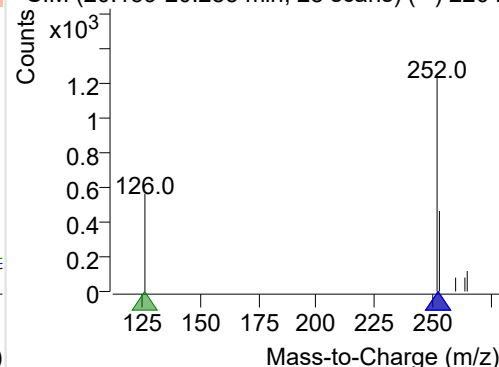
**Benzo(k)fluoranthene**

+ Selected Ion (252.0) 220407-PAHs-037.D

252.0, 253.0, 126.0

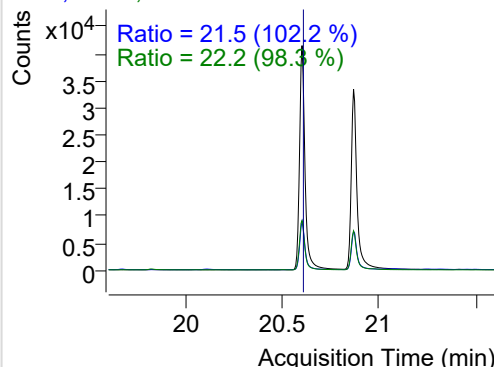
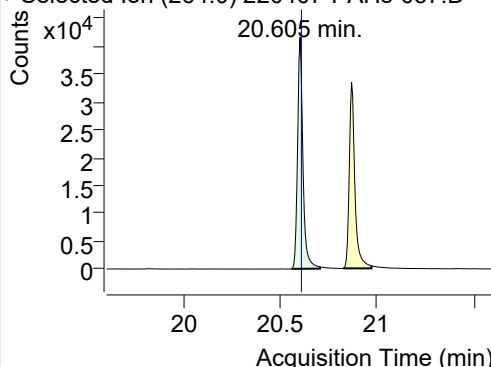


+ SIM (20.139-20.285 min, 28 scans) (\*\*) 2204

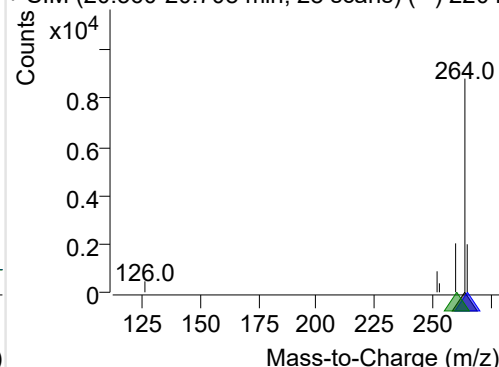
**SS-D12-Benzo(e)pyrene**

+ Selected Ion (264.0) 220407-PAHs-037.D

264.0, 265.0, 260.0

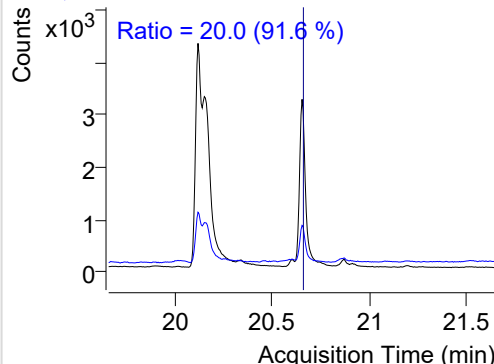
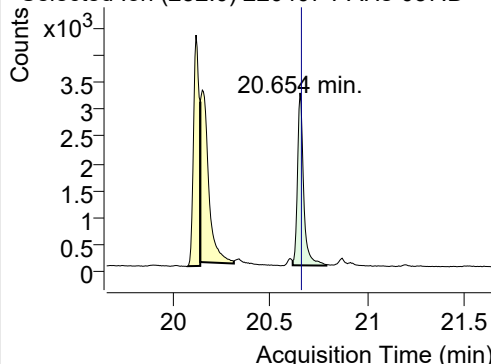


+ SIM (20.560-20.708 min, 28 scans) (\*\*) 2204

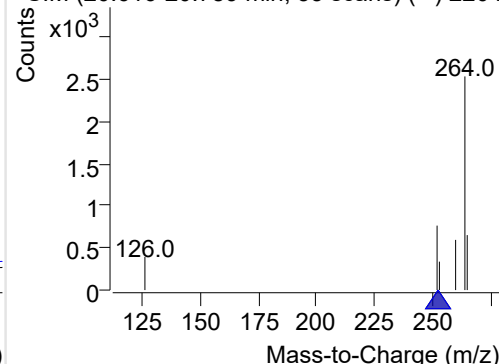
**Benzo(e)pyrene**

+ Selected Ion (252.0) 220407-PAHs-037.D

252.0, 253.0

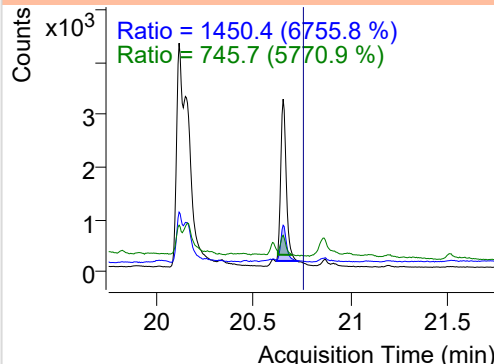
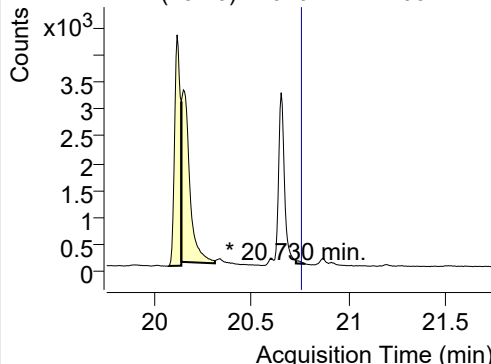


+ SIM (20.616-20.789 min, 33 scans) (\*\*) 2204

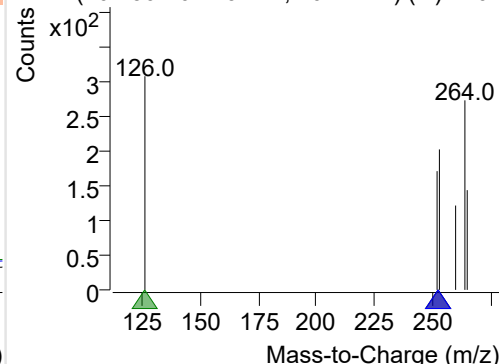
**Benzo(a)pyrene**

+ Selected Ion (252.0) 220407-PAHs-037.D

252.0, 253.0, 126.0

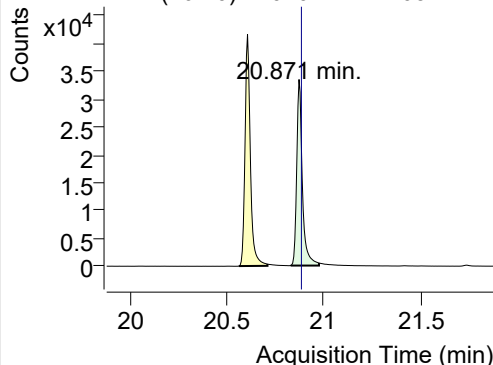


+ SIM (20.730-20.779 min, 10 scans) (\*\*) 2204

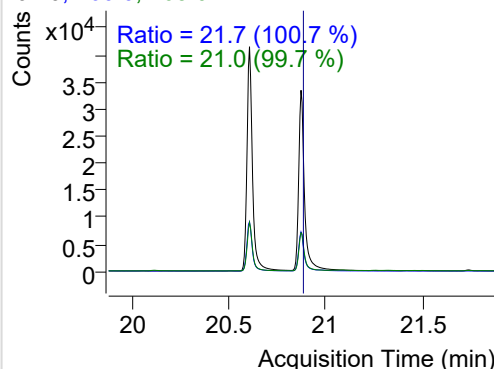


## IS-D12-Perylene

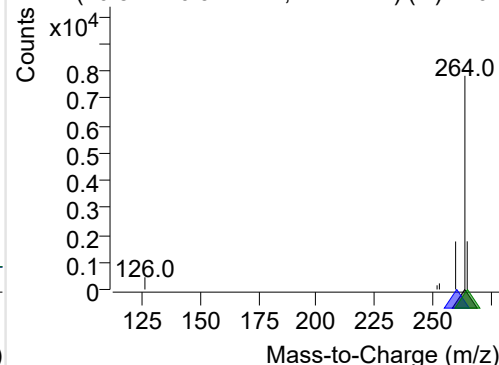
+ Selected Ion (264.0) 220407-PAHs-037.D



264.0, 260.0, 265.0

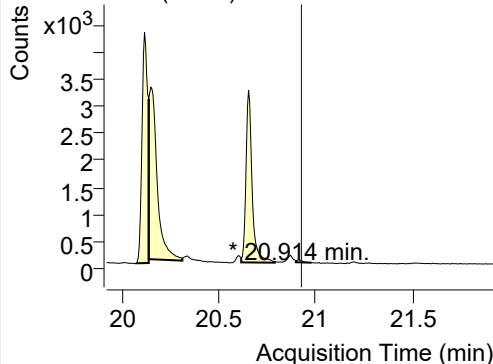


+ SIM (20.827-20.974 min, 27 scans) (\*\*) 2204

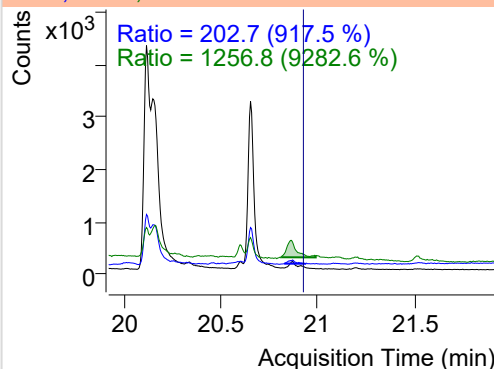


## Perylene

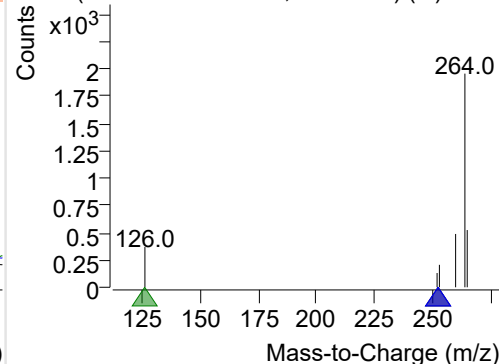
+ Selected Ion (252.0) 220407-PAHs-037.D



252.0, 253.0, 126.0

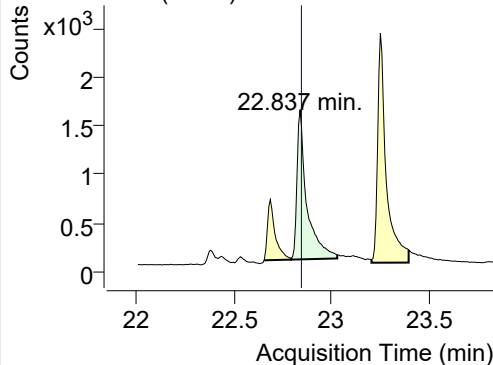


+ SIM (20.898-20.979 min, 16 scans) (\*\*) 2204

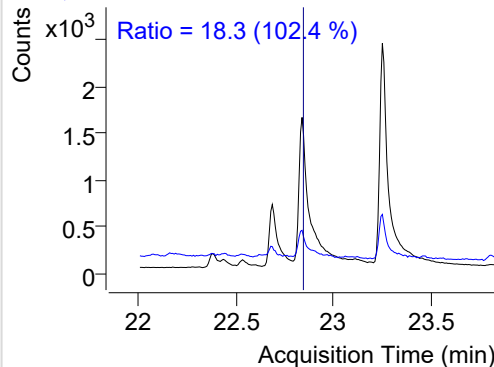


## Indeno(1,2,3-c,d)pyrene

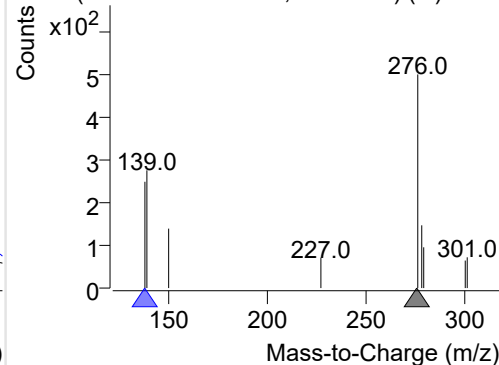
+ Selected Ion (276.0) 220407-PAHs-037.D



276.0, 138.0

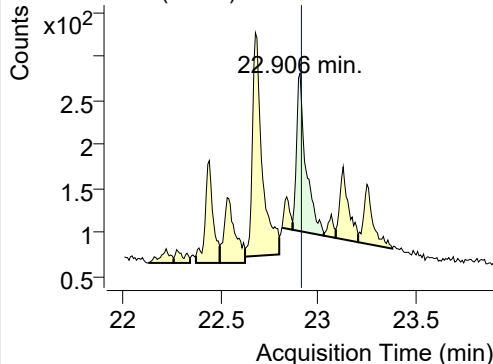


+ SIM (22.791-23.028 min, 32 scans) (\*\*) 2204

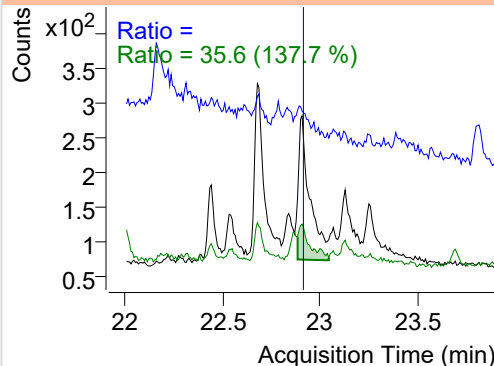


## Dibenz(a,h)anthracene

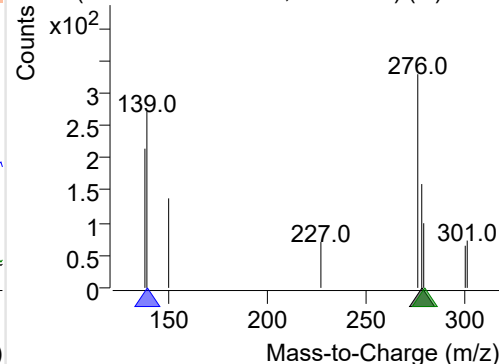
+ Selected Ion (278.0) 220407-PAHs-037.D



278.0, 139.0, 279.0

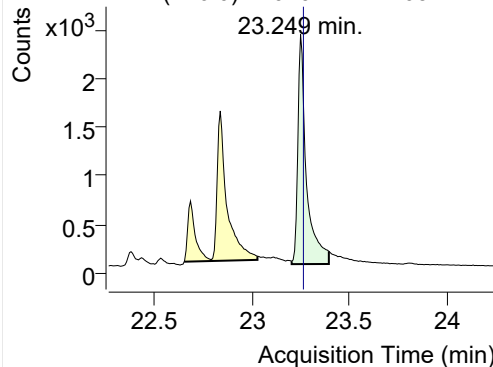


+ SIM (22.867-23.028 min, 22 scans) (\*\*) 2204

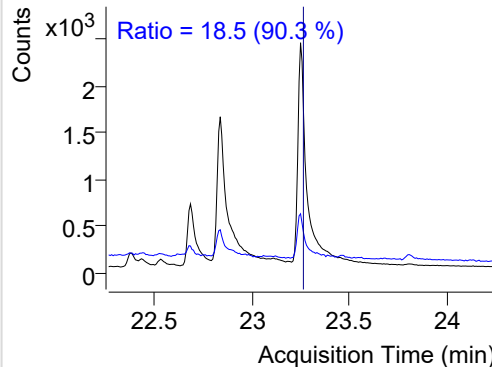


**Benzo(g,h,i)perylene**

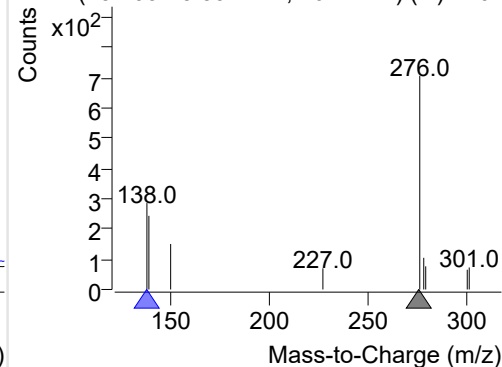
+ Selected Ion (276.0) 220407-PAHs-037.D



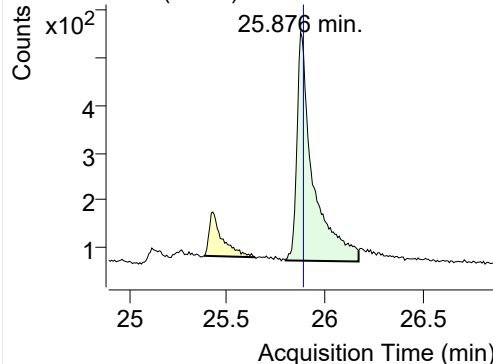
276.0, 138.0



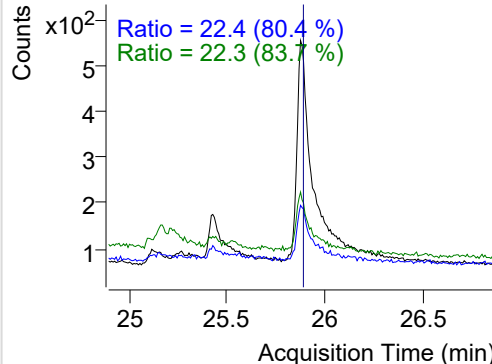
+ SIM (23.203-23.394 min, 26 scans) (\*\*) 2204

**Coronene**

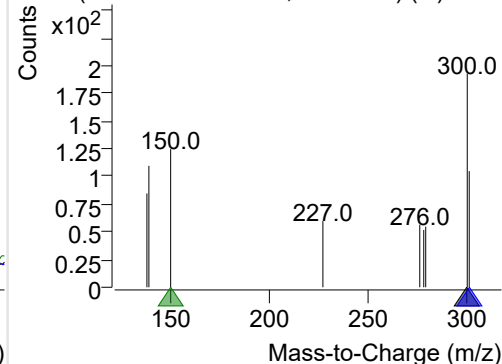
+ Selected Ion (300.0) 220407-PAHs-037.D



300.0, 301.0, 150.0



+ SIM (25.799-26.174 min, 50 scans) (\*\*) 2204





## Quantitative Analysis Sample Based Report

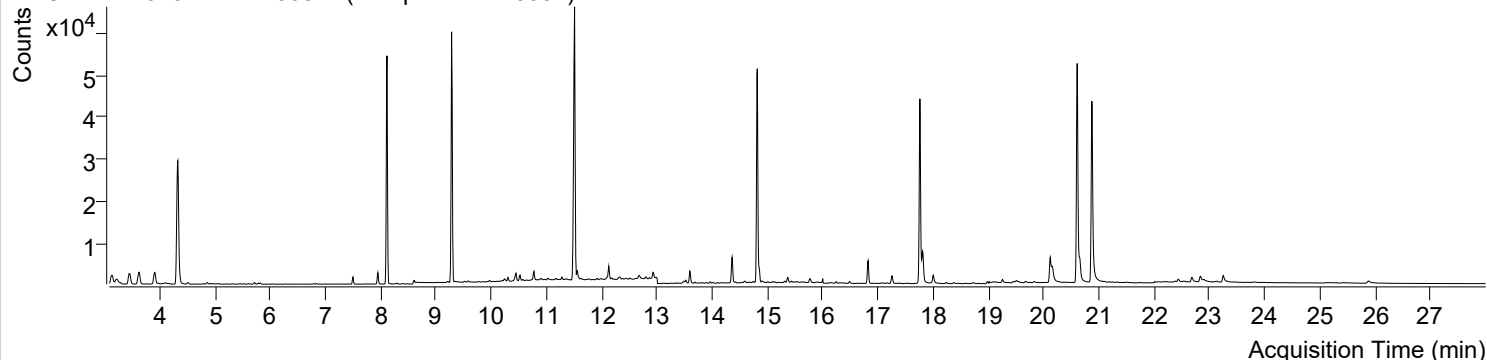


Trusted Answers

Batch Data Path File Name	D:\MassHunter\GCMS\1\data\PAHs\220407-PAHs-Sample\QuantResults\220407-PAHs-Quant.batch.bin		
Analysis Time Stamp	2022-04-13 오후 5:40:30	Analyst Name	DESKTOP-86B7UPG\5975MS
Report Generation Time	2022-04-13 오후 5:40:41	Report Generator Name	DESKTOP-86B7UPG\5975MS
Calibration Last Update	2022-04-13 오후 5:38:35	Batch State	Processed
Analyze Quant Version	10.2	Report Quant Version	10.2
Acq. Date-Time	2022-04-08 오전 6:35:20	Data File	220407-PAHs-038.D
Type	Sample	Name	Sample-PM-220331
Dil.	1	Acq. Method File	PAHs 19mix-Method

## Sample Chromatogram

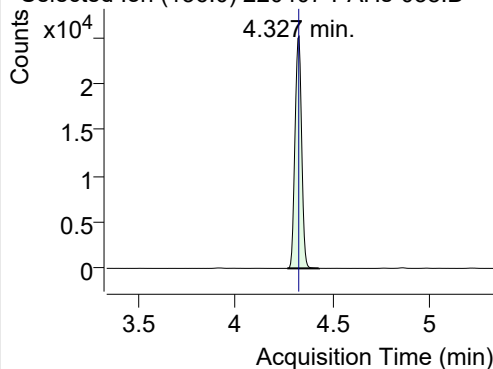
+ TIC SIM 220407-PAHs-038.D (Sample-PM-220331)



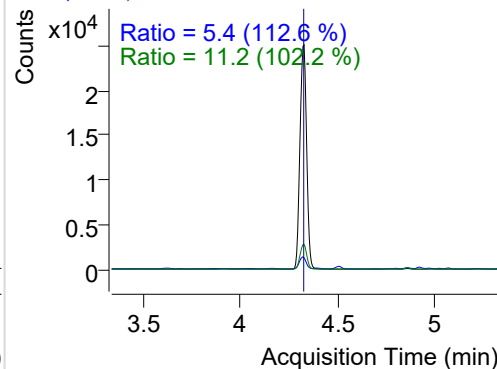
Name	RT	Transition	Resp.	Height	Final Conc. Units	Ratio
IS-D8-Naphthalene	4.327	136.0	59577	25059.42	ND µg/mL	11.2
Naphthalene	4.359	128.0	2736	1148.25	ND µg/mL	15.0
Acenaphthylene	7.739	152.0	32	20.56	ND µg/mL	
IS-D10-Acenaphthene	8.112	164.0	39002	26756.03	ND µg/mL	91.2
Acenaphthene	8.177	154.0	41	25.80	ND µg/mL	149.5
LSS-D10-Fluorene	9.281	176.0	42015	27306.90	ND µg/mL	88.4
Fluorene	9.344	166.0	110	78.68	ND µg/mL	82.0
IS-D10-Phenanthrene	11.508	188.0	71495	49709.57	ND µg/mL	15.1
Phenanthrene	11.560	178.0	2337	1378.97	ND µg/mL	17.2
Anthracene	11.665	178.0	14	6.00	ND µg/mL	
Fluoranthene	14.354	202.0	4914	2943.49	ND µg/mL	19.0
LSS-D10-Pyrene	14.814	212.0	62068	38573.33	ND µg/mL	17.2
Pyrene	14.852	202.0	3724	2268.92	ND µg/mL	24.8
Benz(a)anthracene	17.720	228.0	272	143.22	ND µg/mL	
IS-D12-Chrysene	17.758	240.0	57732	33545.77	ND µg/mL	19.0
Chrysene	17.807	228.0	10099	4486.12	ND µg/mL	27.5
Benzo(b)fluoranthene	20.117	252.0	8581	4372.32	ND µg/mL	43.8
Benzo(k)fluoranthene	20.149	252.0	6419	2670.75	ND µg/mL	
SS-D12-Benzo(e)pyrene	20.605	264.0	69978	35939.31	ND µg/mL	22.2
Benzo(e)pyrene	20.654	252.0	5754	2678.64	ND µg/mL	21.0
Benzo(a)pyrene	20.719	252.0	125	70.12	ND µg/mL	971.5
IS-D12-Perylene	20.871	264.0	61637	29845.50	ND µg/mL	21.7
Perylene	20.893	252.0	48	36.91	ND µg/mL	
Indeno(1,2,3-c,d)pyrene	22.837	276.0	4188	1111.89	ND µg/mL	17.7
Dibenz(a,h)anthracene	22.898	278.0	501	179.02	ND µg/mL	50.5
Benzo(g,h,i)perylene	23.249	276.0	3663	1243.18	ND µg/mL	19.8
Coronene	25.883	300.0	1820	344.62	ND µg/mL	23.0

## IS-D8-Naphthalene

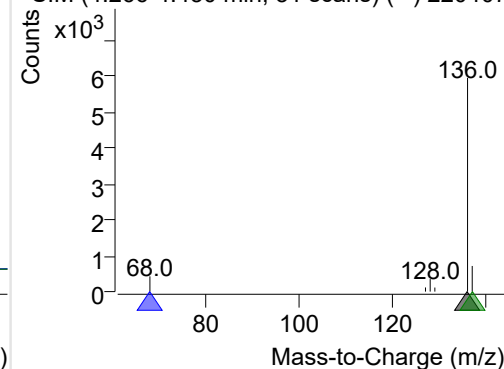
+ Selected Ion (136.0) 220407-PAHs-038.D



136.0, 68.0, 137.0

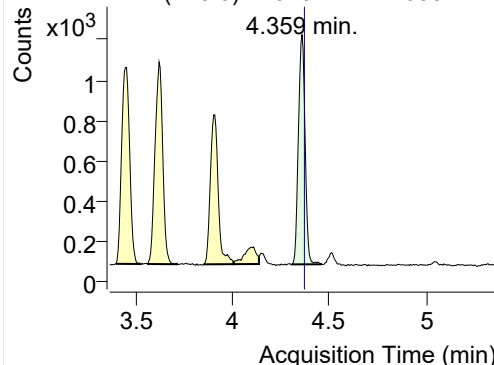


+ SIM (4.266-4.430 min, 31 scans) (\*\*) 220407

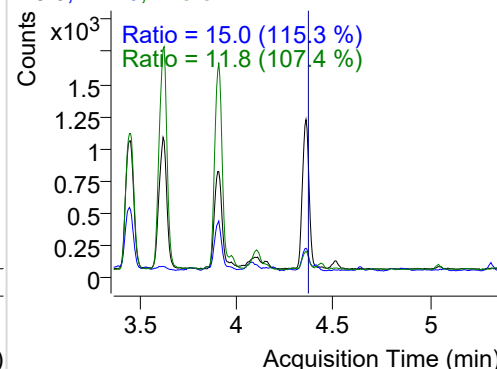


**Naphthalene**

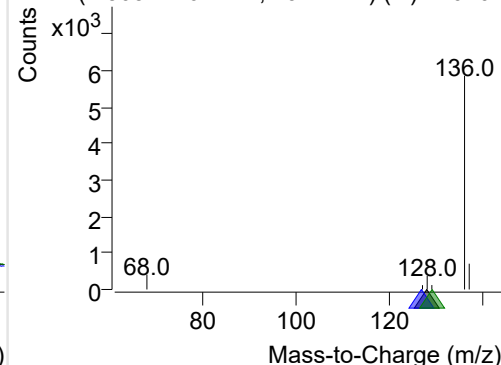
+ Selected Ion (128.0) 220407-PAHs-038.D



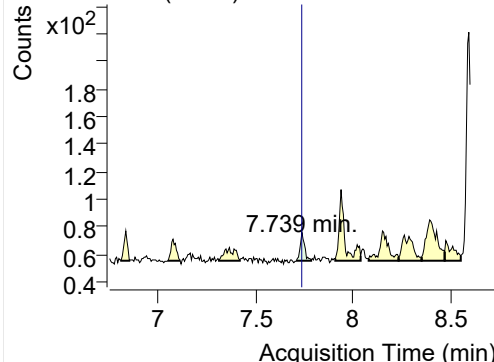
128.0, 127.0, 129.0



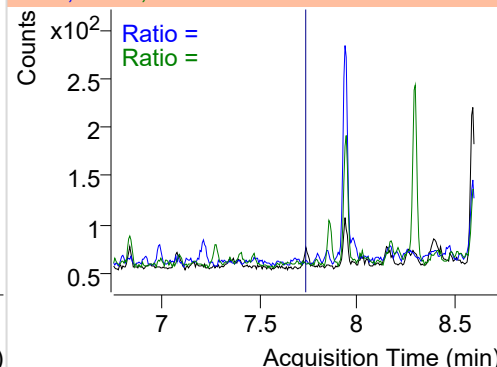
+ SIM (4.305-4.462 min, 29 scans) (\*\*) 220407

**Acenaphthylene**

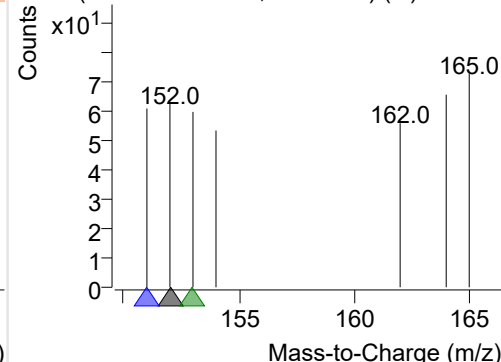
+ Selected Ion (152.0) 220407-PAHs-038.D



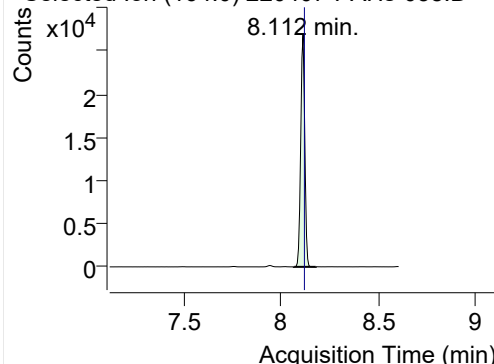
152.0, 151.0, 153.0



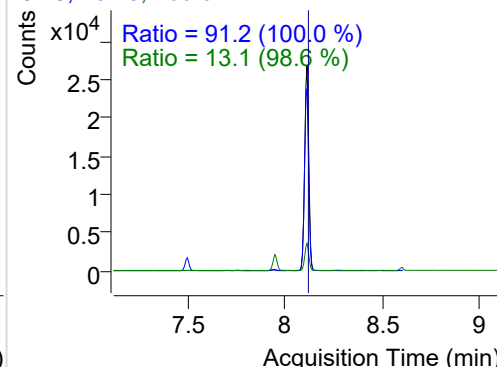
+ SIM (7.711-7.787 min, 13 scans) (\*\*) 220407

**IS-D10-Acenaphthene**

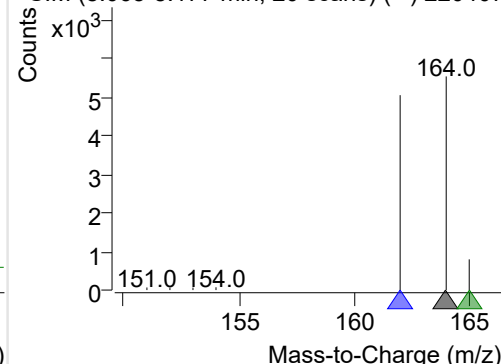
+ Selected Ion (164.0) 220407-PAHs-038.D



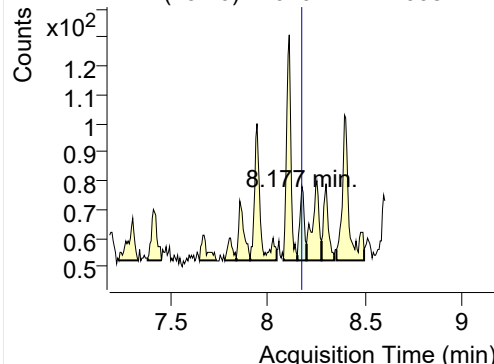
164.0, 162.0, 165.0



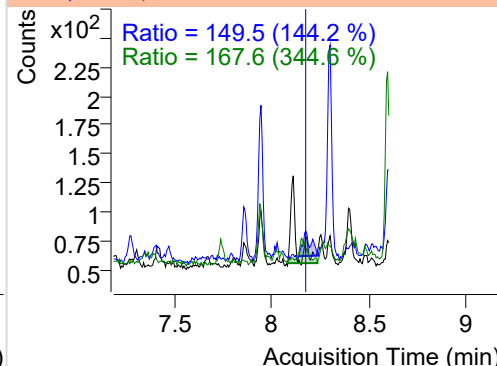
+ SIM (8.065-8.177 min, 20 scans) (\*\*) 220407

**Acenaphthene**

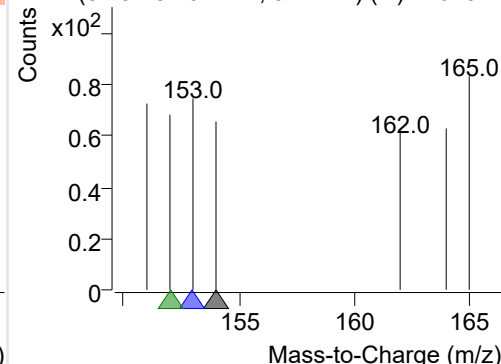
+ Selected Ion (154.0) 220407-PAHs-038.D



154.0, 153.0, 152.0

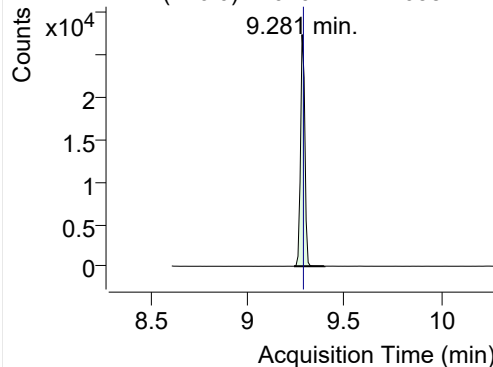


+ SIM (8.154-8.201 min, 9 scans) (\*\*) 220407-I

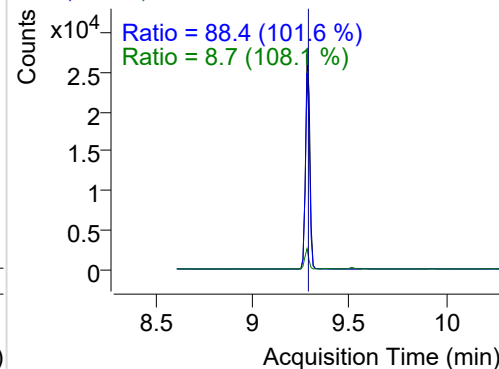


## LSS-D10-Fluorene

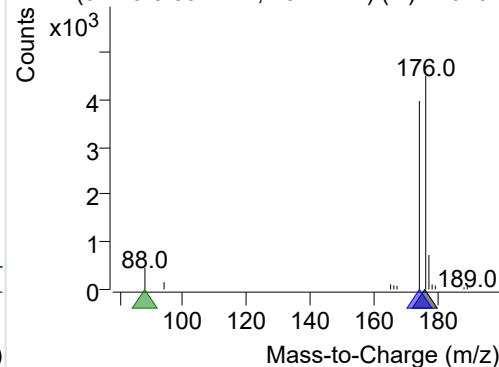
+ Selected Ion (176.0) 220407-PAHs-038.D



176.0, 174.0, 88.0

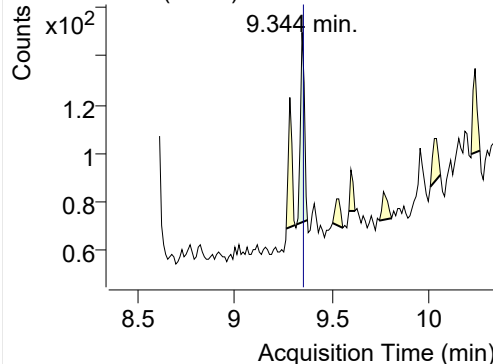


+ SIM (9.240-9.397 min, 15 scans) (\*\*) 220407

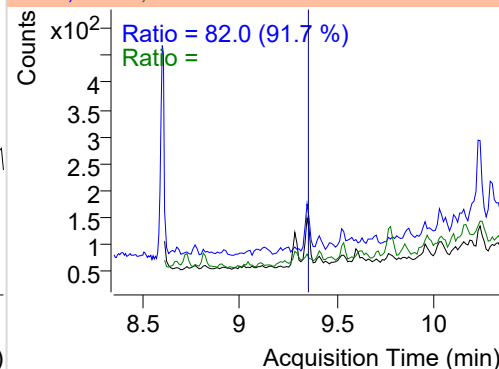


## Fluorene

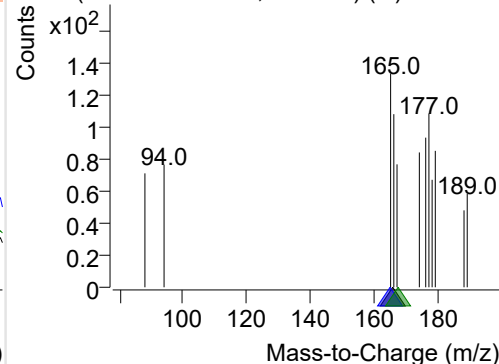
+ Selected Ion (166.0) 220407-PAHs-038.D



166.0, 165.0, 167.0

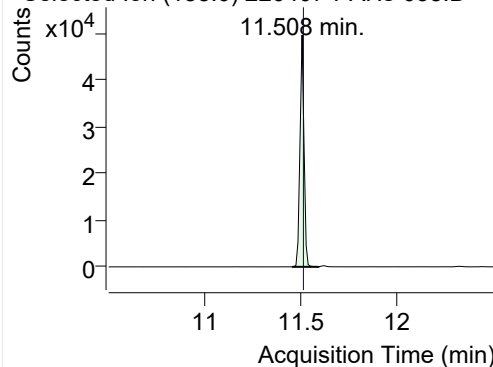


+ SIM (9.317-9.372 min, 5 scans) (\*\*) 220407-I

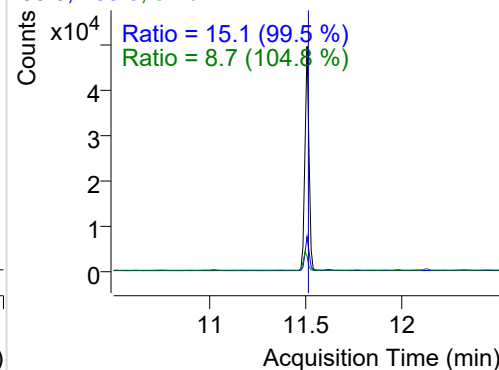


## IS-D10-Phenanthrene

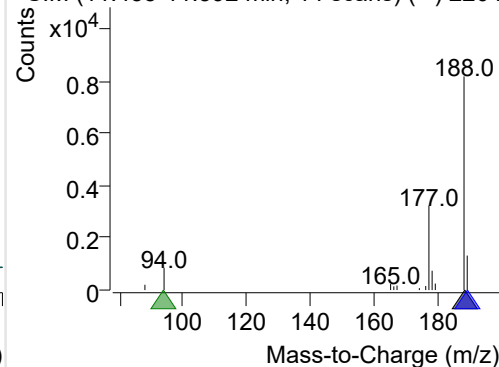
+ Selected Ion (188.0) 220407-PAHs-038.D



188.0, 189.0, 94.0

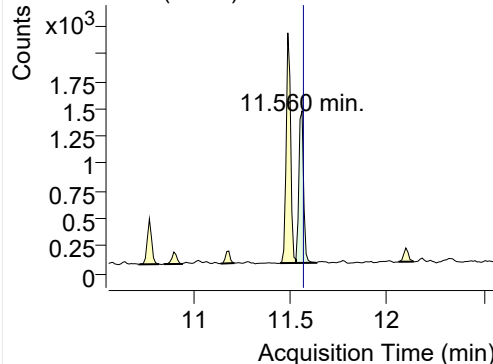


+ SIM (11.455-11.592 min, 14 scans) (\*\*) 2204

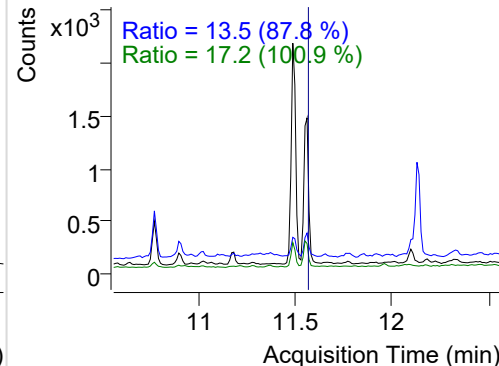


## Phenanthrene

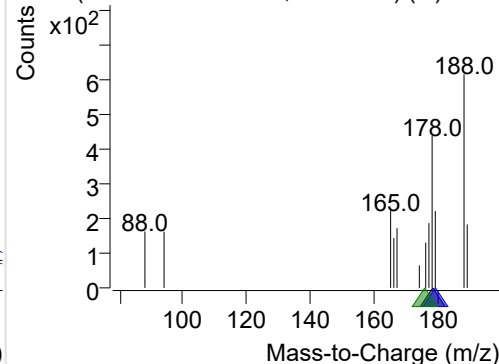
+ Selected Ion (178.0) 220407-PAHs-038.D



178.0, 179.0, 176.0

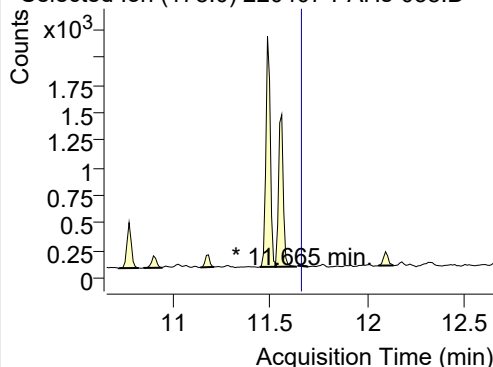


+ SIM (11.529-11.634 min, 11 scans) (\*\*) 2204

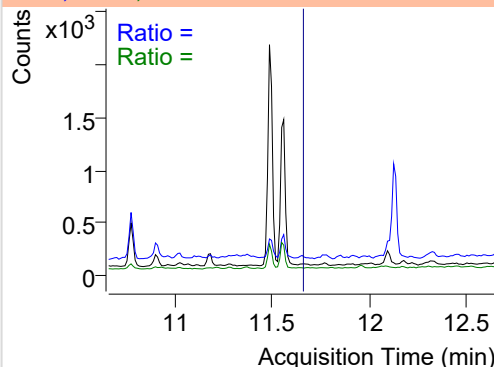


**Anthracene**

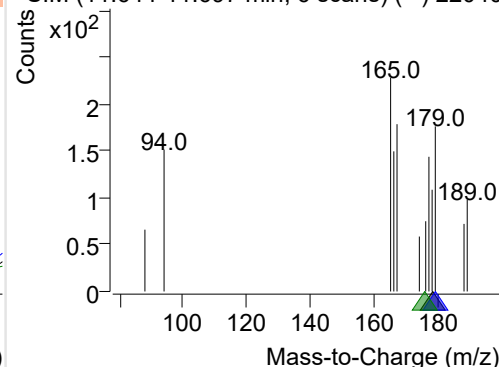
+ Selected Ion (178.0) 220407-PAHs-038.D



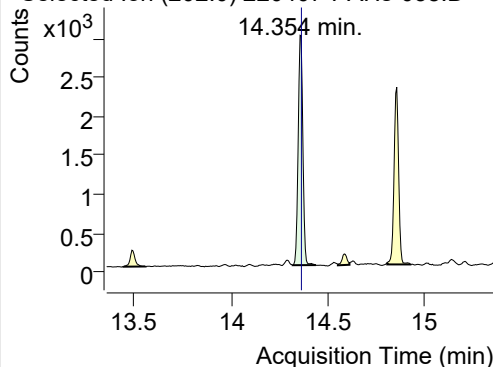
178.0, 179.0, 176.0



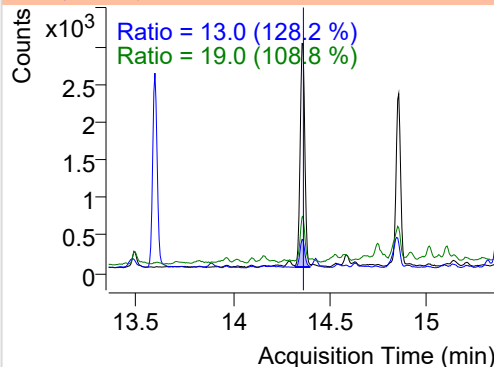
+ SIM (11.644-11.697 min, 6 scans) (\*\*) 22040

**Fluoranthene**

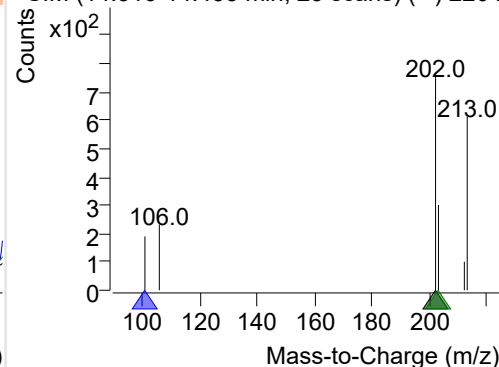
+ Selected Ion (202.0) 220407-PAHs-038.D



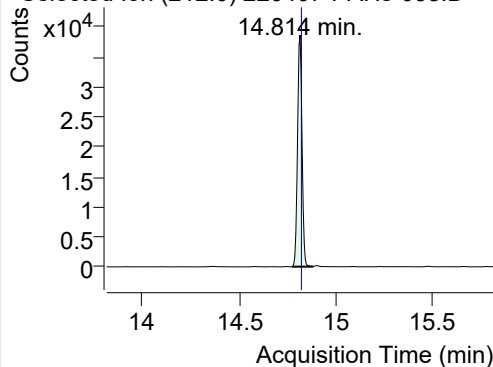
202.0, 101.0, 203.0



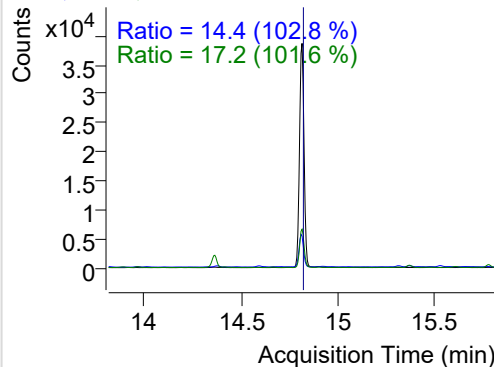
+ SIM (14.316-14.435 min, 23 scans) (\*\*) 2204

**LSS-D10-Pyrene**

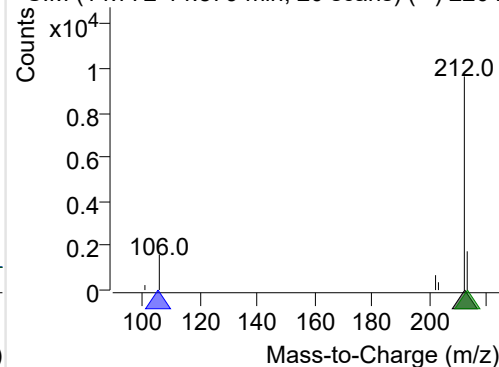
+ Selected Ion (212.0) 220407-PAHs-038.D



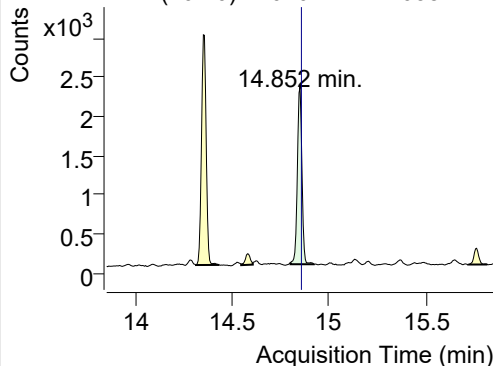
212.0, 106.0, 213.0



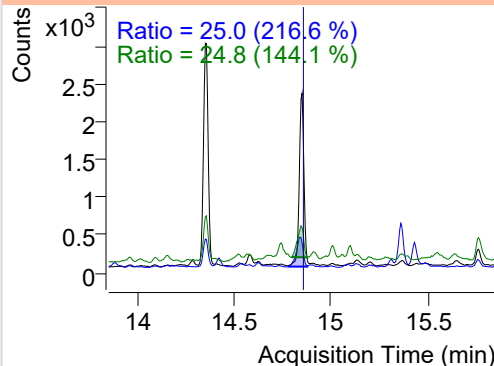
+ SIM (14.772-14.879 min, 20 scans) (\*\*) 2204

**Pyrene**

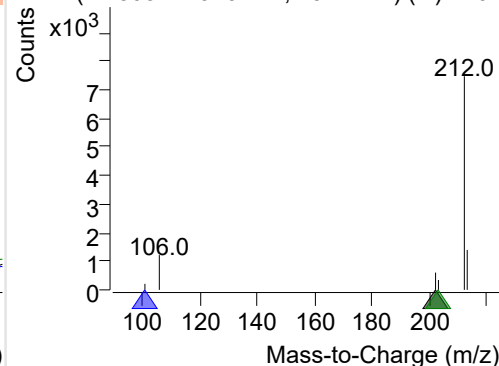
+ Selected Ion (202.0) 220407-PAHs-038.D



202.0, 101.0, 203.0



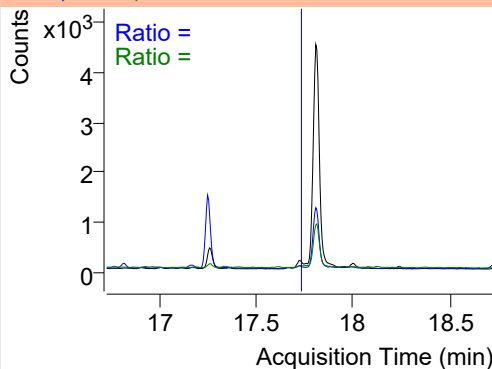
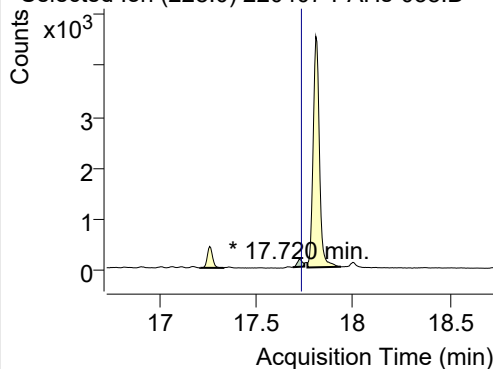
+ SIM (14.803-14.923 min, 23 scans) (\*\*) 2204



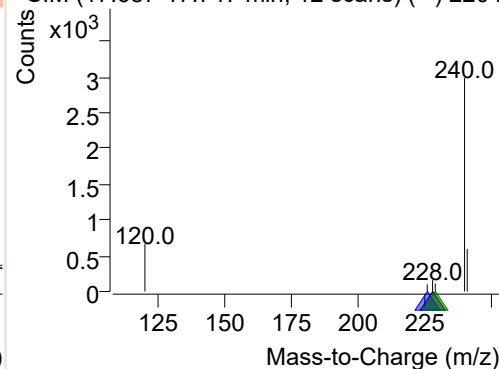
**Benz(a)anthracene**

+ Selected Ion (228.0) 220407-PAHs-038.D

228.0, 226.0, 229.0

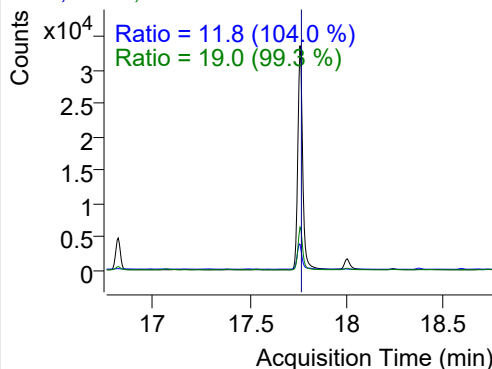
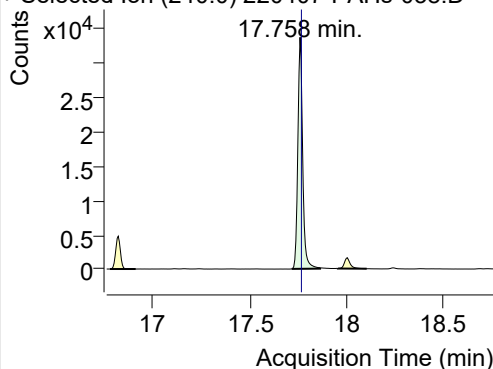


+ SIM (17.687-17.747 min, 12 scans) (\*\*) 2204

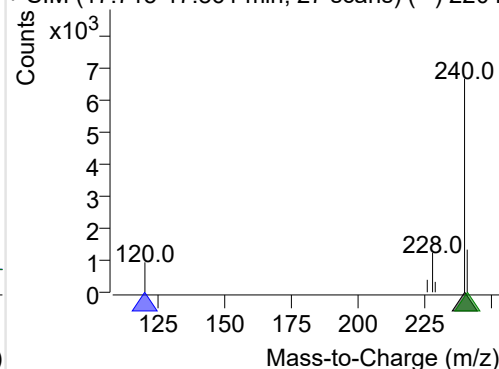
**IS-D12-Chrysene**

+ Selected Ion (240.0) 220407-PAHs-038.D

240.0, 120.0, 241.0

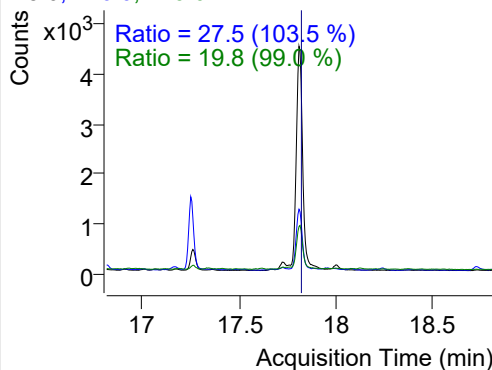
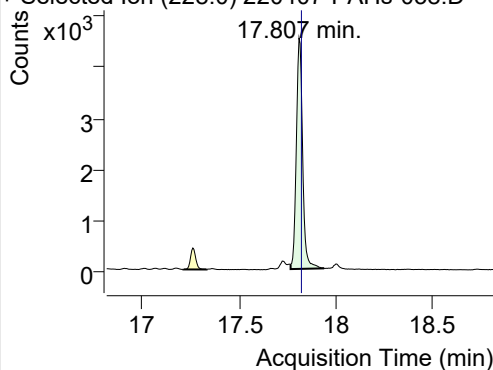


+ SIM (17.715-17.861 min, 27 scans) (\*\*) 2204

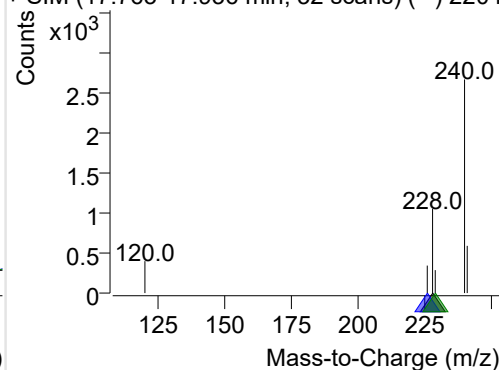
**Chrysene**

+ Selected Ion (228.0) 220407-PAHs-038.D

228.0, 226.0, 229.0

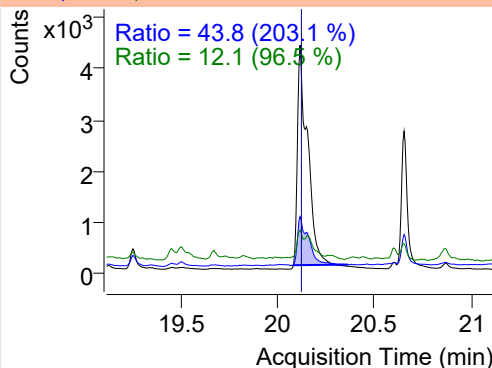
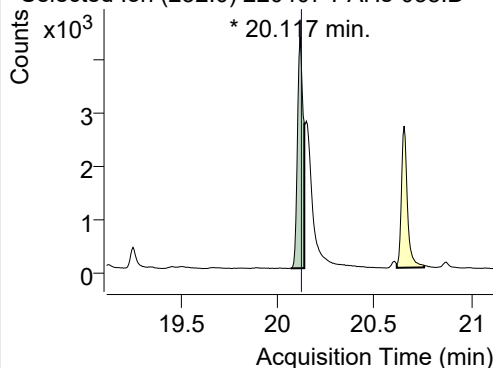


+ SIM (17.763-17.936 min, 32 scans) (\*\*) 2204

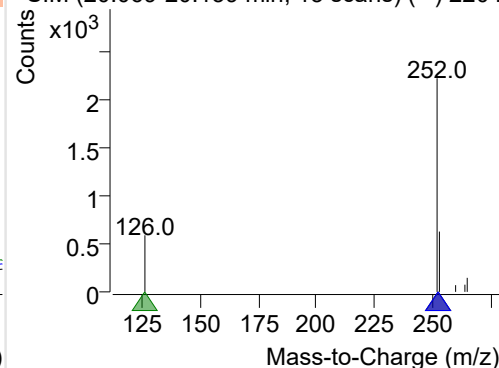
**Benzo(b)fluoranthene**

+ Selected Ion (252.0) 220407-PAHs-038.D

252.0, 253.0, 126.0



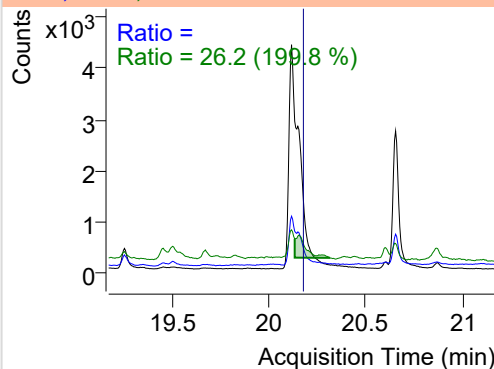
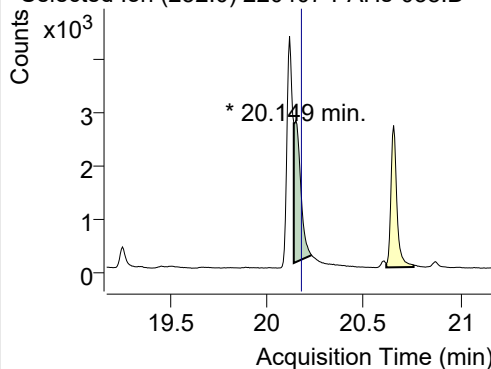
+ SIM (20.069-20.139 min, 13 scans) (\*\*) 2204



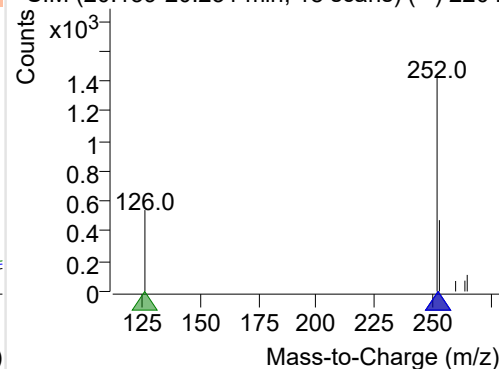
**Benzo(k)fluoranthene**

+ Selected Ion (252.0) 220407-PAHs-038.D

252.0, 253.0, 126.0

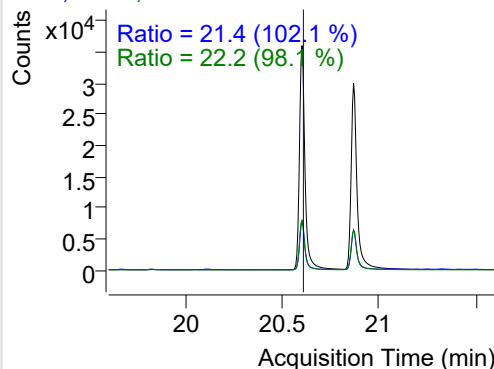
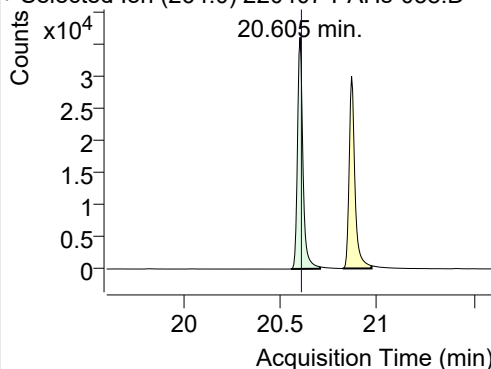


+ SIM (20.139-20.231 min, 18 scans) (\*\*) 2204

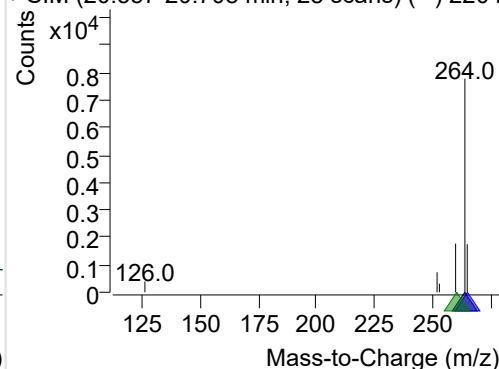
**SS-D12-Benzo(e)pyrene**

+ Selected Ion (264.0) 220407-PAHs-038.D

264.0, 265.0, 260.0

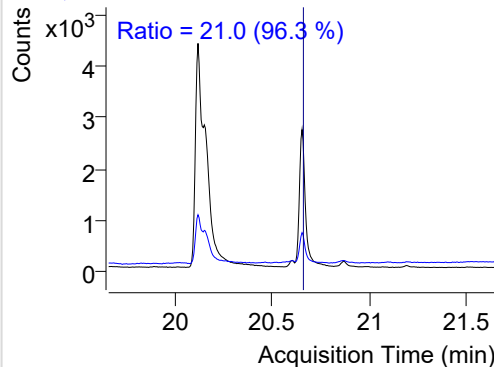
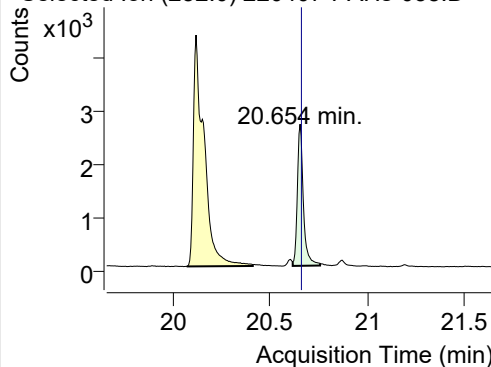


+ SIM (20.557-20.708 min, 28 scans) (\*\*) 2204

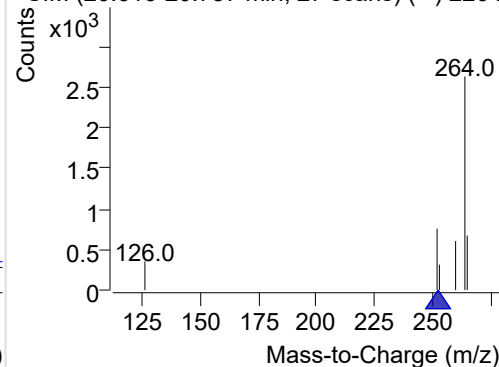
**Benzo(e)pyrene**

+ Selected Ion (252.0) 220407-PAHs-038.D

252.0, 253.0

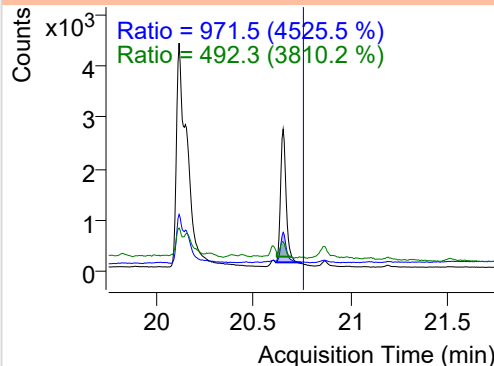
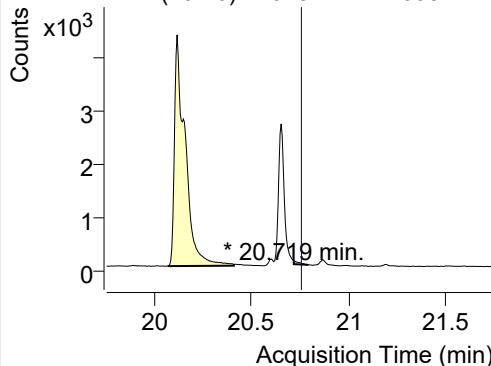


+ SIM (20.616-20.757 min, 27 scans) (\*\*) 2204

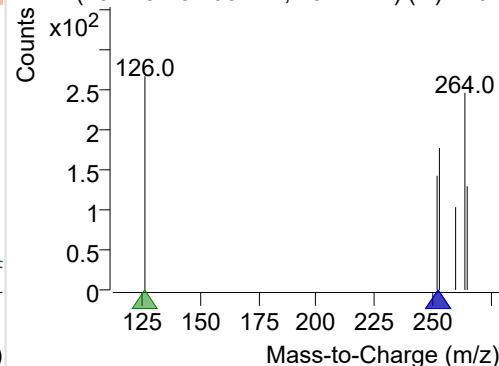
**Benzo(a)pyrene**

+ Selected Ion (252.0) 220407-PAHs-038.D

252.0, 253.0, 126.0

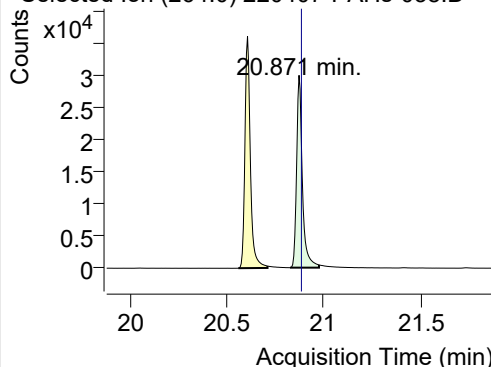


+ SIM (20.719-20.795 min, 15 scans) (\*\*) 2204

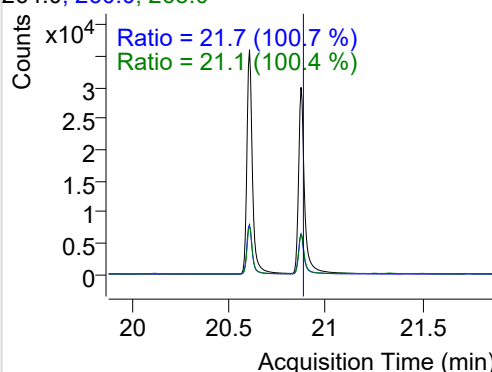


## IS-D12-Perylene

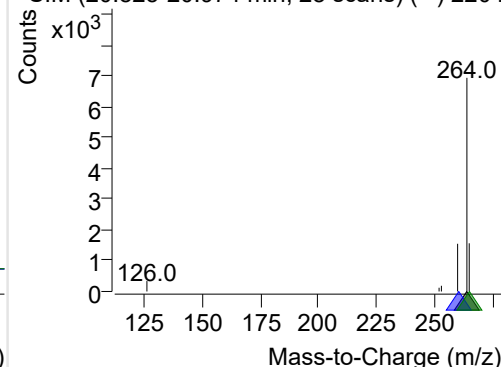
+ Selected Ion (264.0) 220407-PAHs-038.D



264.0, 260.0, 265.0

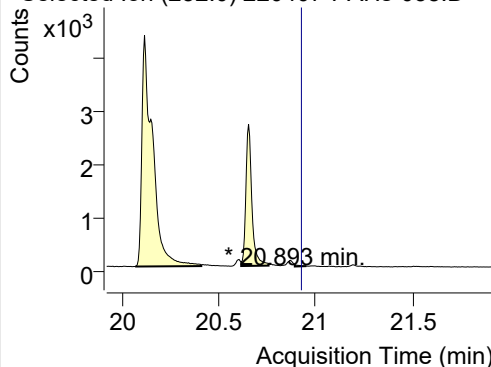


+ SIM (20.825-20.974 min, 28 scans) (\*\*) 2204

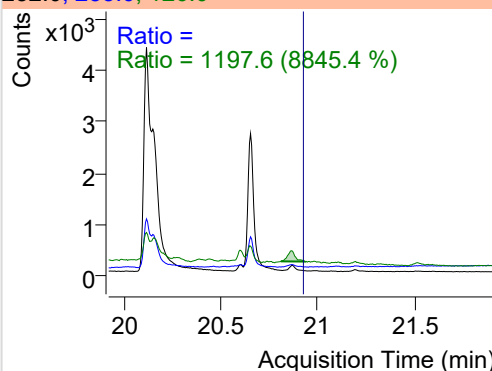


## Perylene

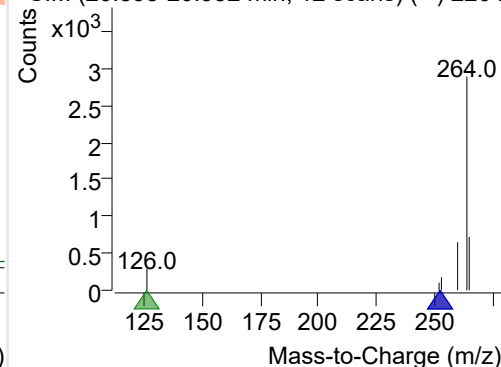
+ Selected Ion (252.0) 220407-PAHs-038.D



252.0, 253.0, 126.0

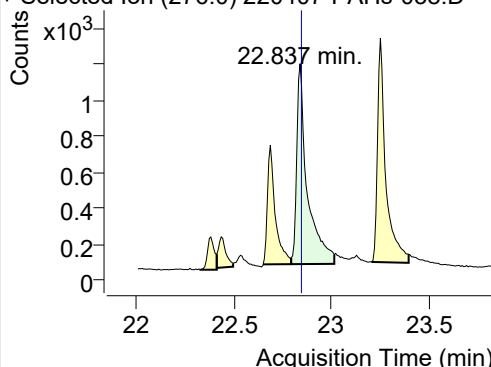


+ SIM (20.893-20.952 min, 12 scans) (\*\*) 2204

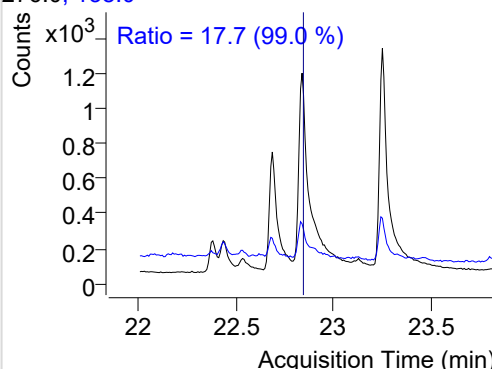


## Indeno(1,2,3-c,d)pyrene

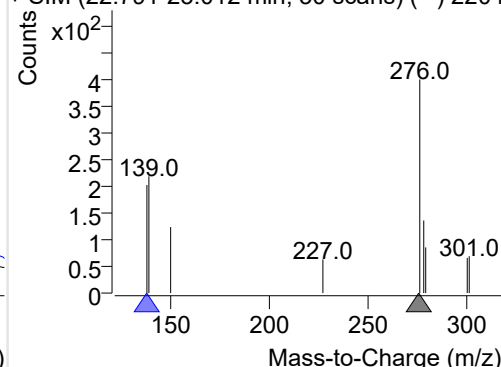
+ Selected Ion (276.0) 220407-PAHs-038.D



276.0, 138.0

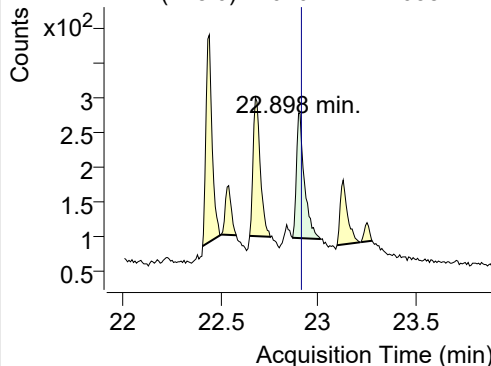


+ SIM (22.791-23.012 min, 30 scans) (\*\*) 2204

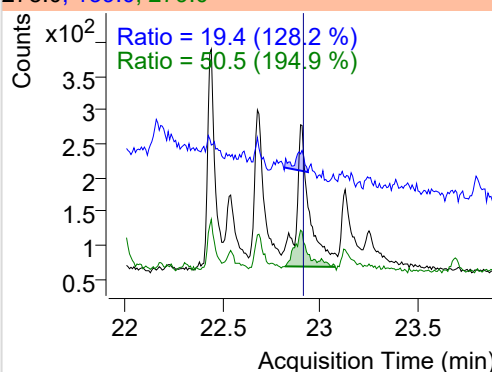


## Dibenz(a,h)anthracene

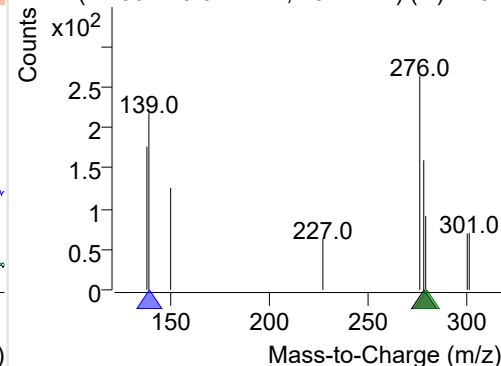
+ Selected Ion (278.0) 220407-PAHs-038.D



278.0, 139.0, 279.0

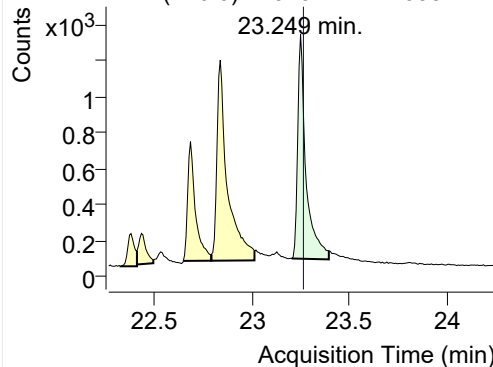


+ SIM (22.867-23.011 min, 18 scans) (\*\*) 2204

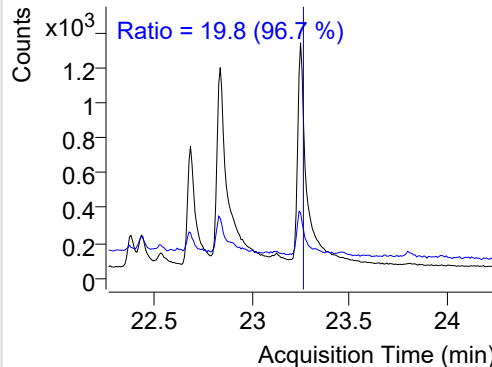


**Benzo(g,h,i)perylene**

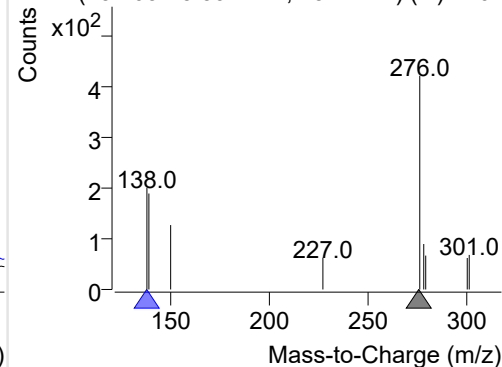
+ Selected Ion (276.0) 220407-PAHs-038.D



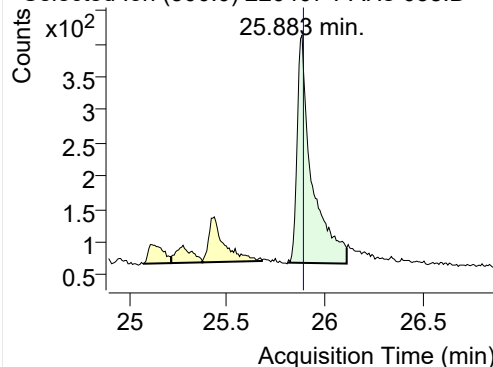
276.0, 138.0



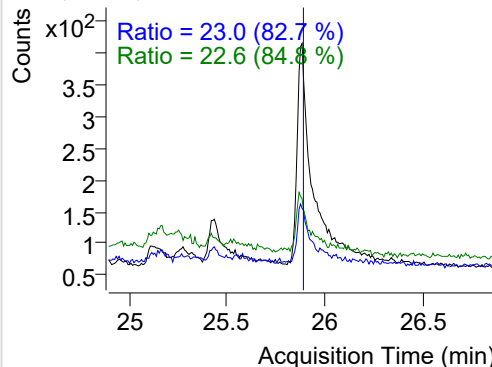
+ SIM (23.203-23.394 min, 25 scans) (\*\*) 2204

**Coronene**

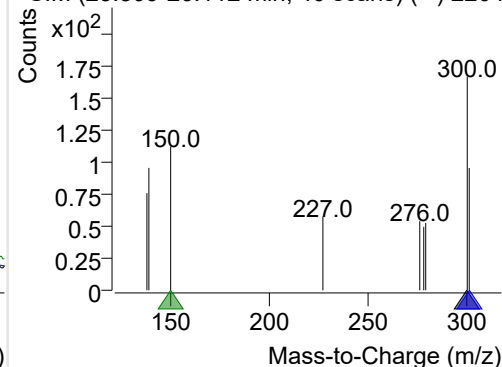
+ Selected Ion (300.0) 220407-PAHs-038.D



300.0, 301.0, 150.0



+ SIM (25.809-26.112 min, 40 scans) (\*\*) 2204





## Quantitative Analysis Sample Based Report

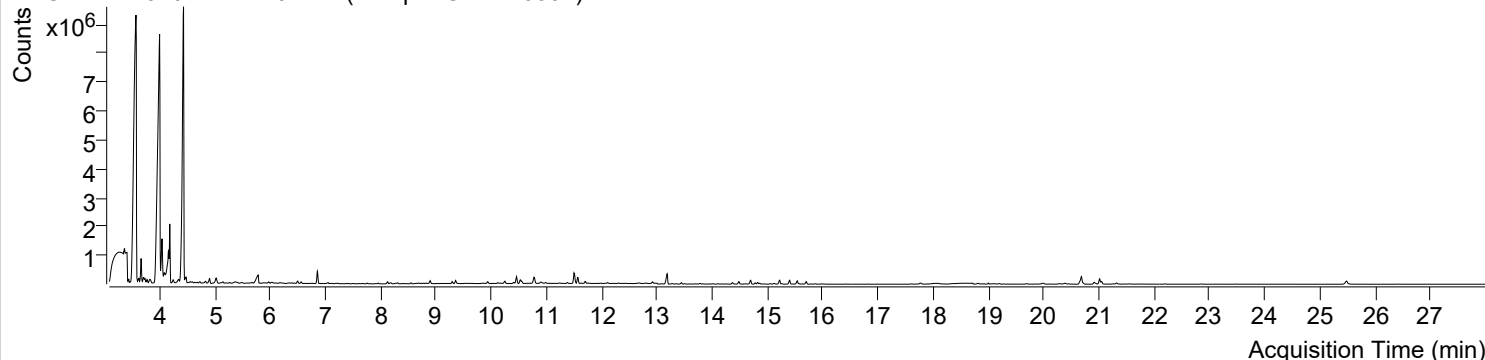


Trusted Answers

Batch Data Path File Name	D:\MassHunter\GCMS\1\data\PAHs\220407-PAHs-Sample\QuantResults\220407-PAHs-Quant.batch.bin		
Analysis Time Stamp	2022-04-13 오후 5:40:30	Analyst Name	DESKTOP-86B7UPG\5975MS
Report Generation Time	2022-04-13 오후 5:40:41	Report Generator Name	DESKTOP-86B7UPG\5975MS
Calibration Last Update	2022-04-13 오후 5:38:35	Batch State	Processed
Analyze Quant Version	10.2	Report Quant Version	10.2
Acq. Date-Time	2022-04-08 오전 8:08:50	Data File	220407-PAHs-041.D
Type	Sample	Name	Sample-Gas-220301
Dil.	1	Acq. Method File	PAHs 19mix-Method

## Sample Chromatogram

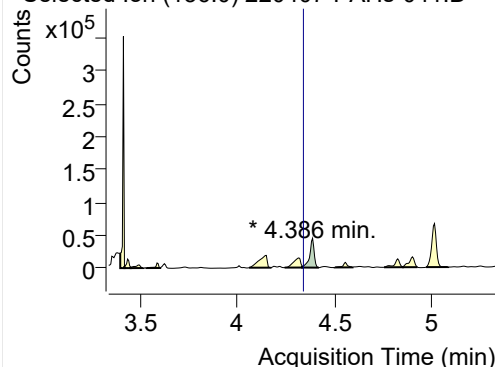
+ TIC SIM 220407-PAHs-041.D (Sample-Gas-220301)



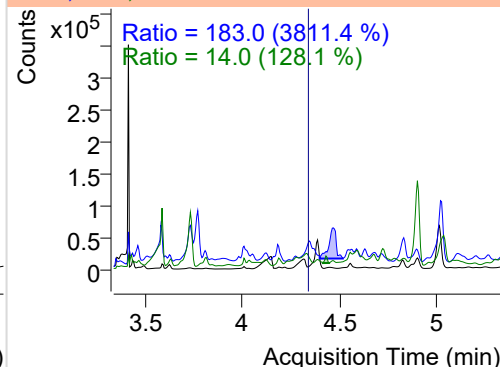
Name	RT	Transition	Resp.	Height	Final Conc. Units	Ratio
IS-D8-Naphthalene	4.386	136.0	70291	44590.91	ND µg/mL	14.0
Naphthalene	4.430	128.0	14296934	7400400.01	ND µg/mL	14.6
Acenaphthylene	7.751	152.0	23793	17512.83	ND µg/mL	22.8
IS-D10-Acenaphthene	8.124	164.0	49393	33662.47	ND µg/mL	93.3
Acenaphthene	8.189	154.0	12376	8230.67	ND µg/mL	129.6
LSS-D10-Fluorene	9.292	176.0	46184	31847.61	ND µg/mL	91.3
Fluorene	9.355	166.0	70609	50347.63	ND µg/mL	96.3
IS-D10-Phenanthrene	11.518	188.0	83650	55556.03	ND µg/mL	15.7
Phenanthrene	11.571	178.0	231455	139368.81	ND µg/mL	18.2
Anthracene	11.665	178.0	2981	2743.04	ND µg/mL	364.0
Fluoranthene	14.364	202.0	60465	37128.71	ND µg/mL	19.8
LSS-D10-Pyrene	14.820	212.0	69839	44499.63	ND µg/mL	16.5
Pyrene	14.858	202.0	35522	23132.51	ND µg/mL	39.4
Benz(a)anthracene	17.720	228.0	387	155.16	ND µg/mL	89.9
IS-D12-Chrysene	17.769	240.0	73424	28737.70	ND µg/mL	17.5
Chrysene	17.818	228.0	748	271.76	ND µg/mL	14.5
Benzo(b)fluoranthene	20.095	252.0	1800	985.47	ND µg/mL	
Benzo(k)fluoranthene	20.177	252.0	60	53.00	ND µg/mL	
SS-D12-Benzo(e)pyrene	20.654	264.0	87028	50951.82	ND µg/mL	33.9
Benzo(e)pyrene	20.681	252.0	395575	211634.52	ND µg/mL	19.1
Benzo(a)pyrene	20.746	252.0	628	573.17	ND µg/mL	12035.7
IS-D12-Perylene	20.914	264.0	71486	44940.48	ND µg/mL	21.9
Perylene	20.936	252.0	2424	1177.36	ND µg/mL	
Indeno(1,2,3-c,d)pyrene	22.837	276.0	294	94.31	ND µg/mL	44.5
Dibenz(a,h)anthracene	22.898	278.0	249	219.19	ND µg/mL	1827.8
Benzo(g,h,i)perylene	23.264	276.0	224	68.04	ND µg/mL	
Coronene	25.891	300.0	61	19.10	ND µg/mL	

## IS-D8-Naphthalene

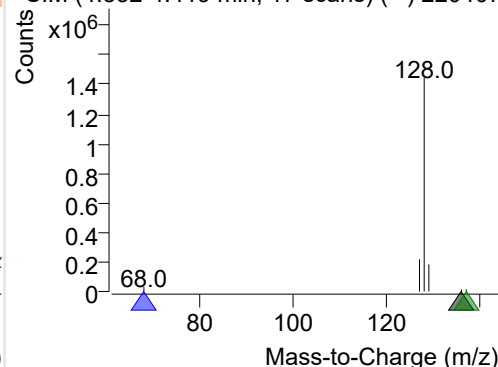
+ Selected Ion (136.0) 220407-PAHs-041.D



136.0, 68.0, 137.0

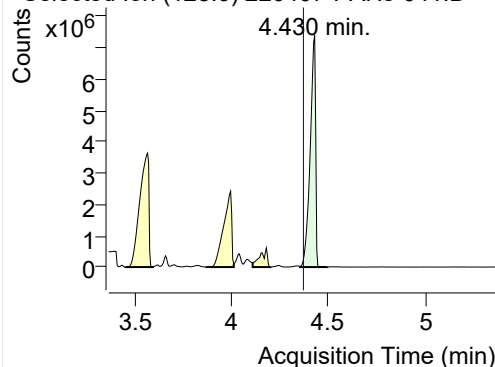


+ SIM (4.332-4.419 min, 17 scans) (\*\*) 220407

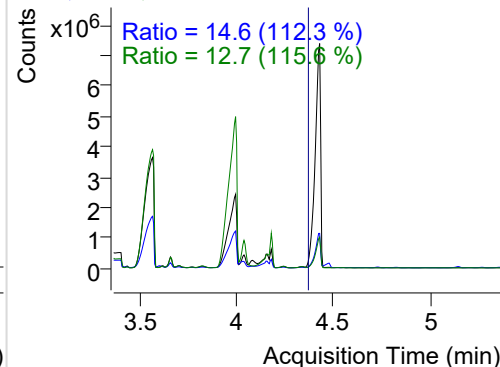


## Naphthalene

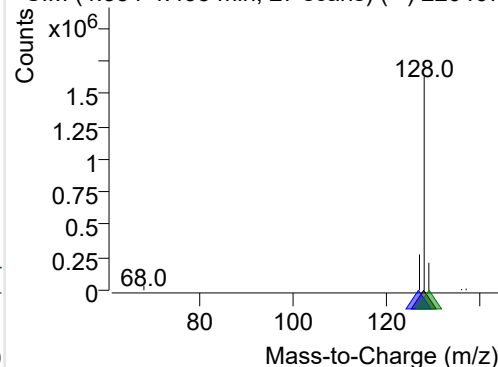
+ Selected Ion (128.0) 220407-PAHs-041.D



128.0, 127.0, 129.0

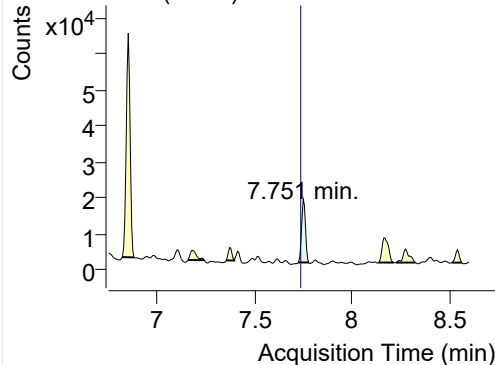


+ SIM (4.354-4.495 min, 27 scans) (\*\*) 220407

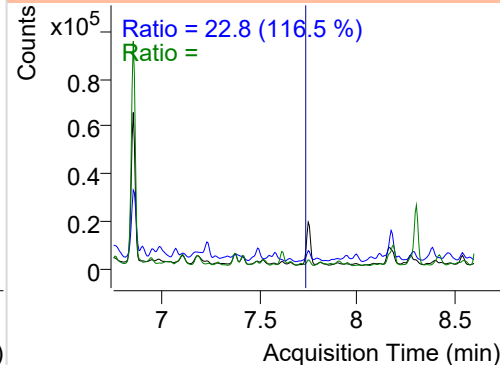


## Acenaphthylene

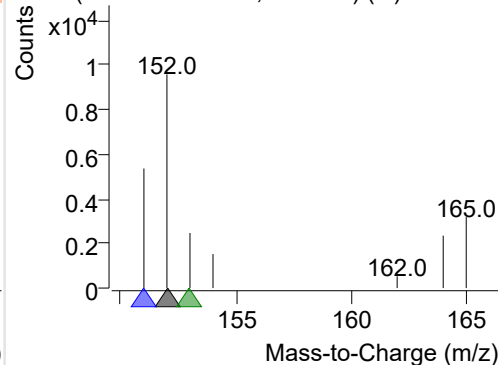
+ Selected Ion (152.0) 220407-PAHs-041.D



152.0, 151.0, 153.0

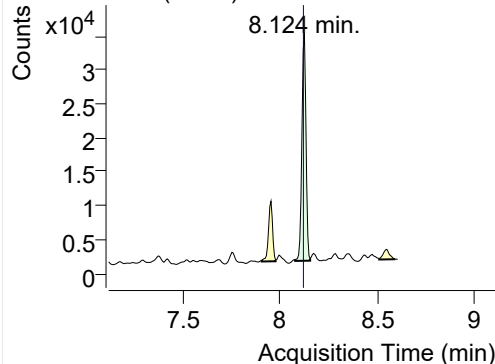


+ SIM (7.726-7.779 min, 9 scans) (\*\*) 220407-I

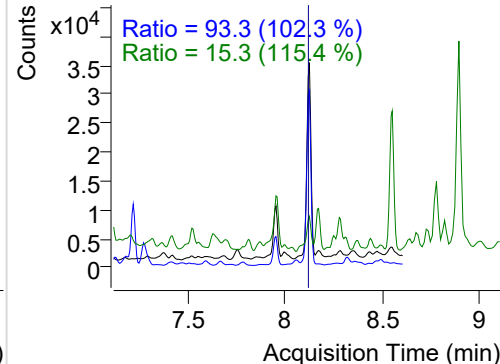


## IS-D10-Acenaphthene

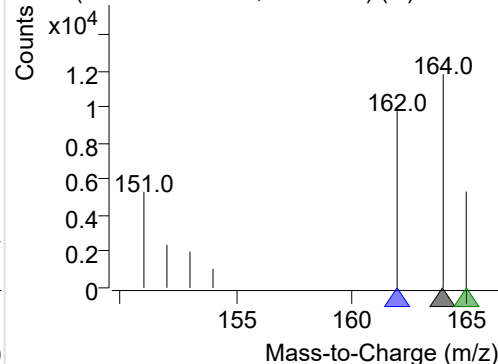
+ Selected Ion (164.0) 220407-PAHs-041.D



164.0, 162.0, 165.0

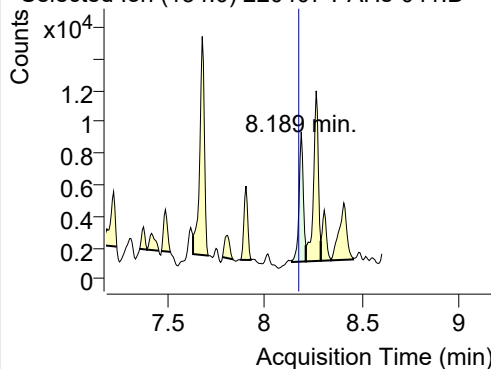


+ SIM (8.077-8.154 min, 14 scans) (\*\*) 220407

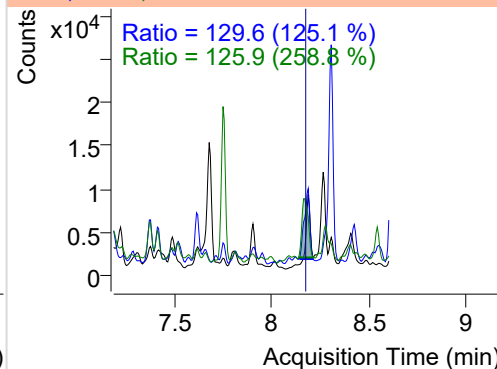


**Acenaphthene**

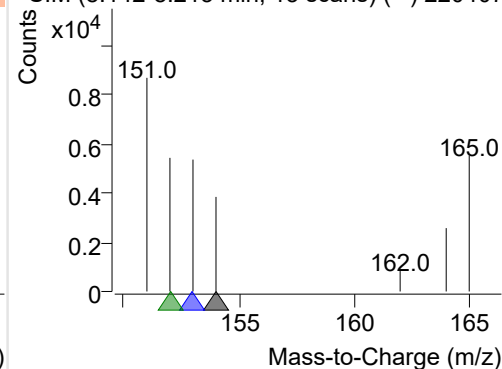
+ Selected Ion (154.0) 220407-PAHs-041.D



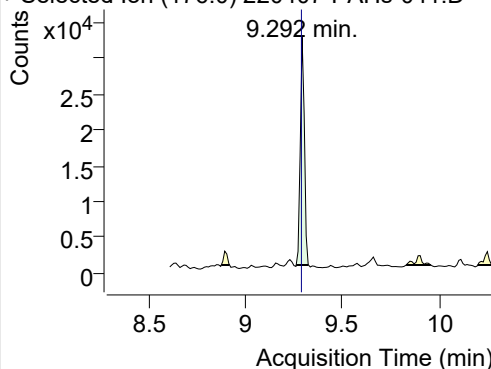
154.0, 153.0, 152.0



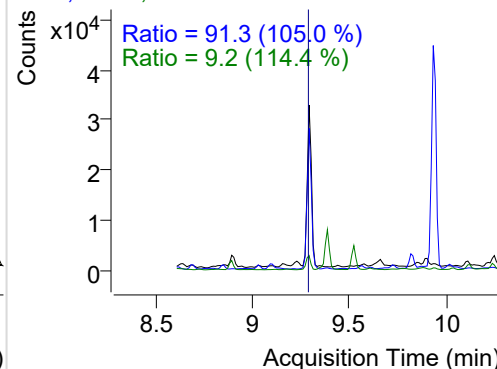
+ SIM (8.142-8.213 min, 13 scans) (\*\*) 220407

**LSS-D10-Fluorene**

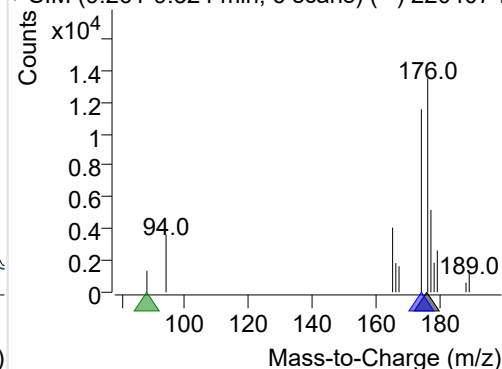
+ Selected Ion (176.0) 220407-PAHs-041.D



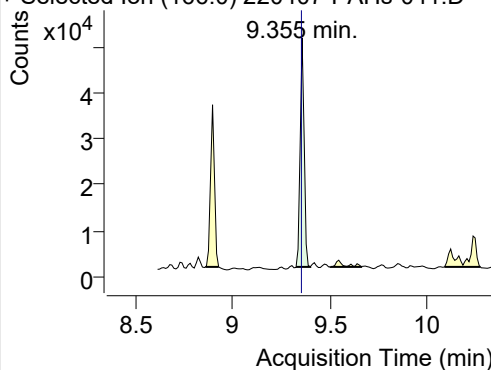
176.0, 174.0, 88.0



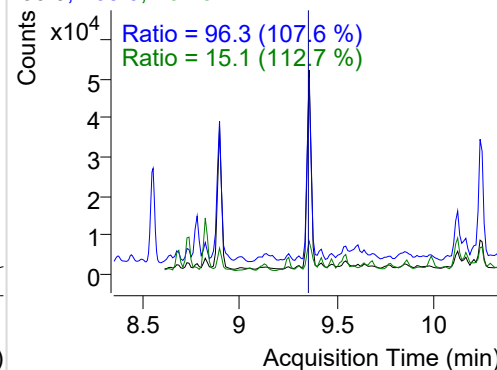
+ SIM (9.261-9.324 min, 6 scans) (\*\*) 220407-I

**Fluorene**

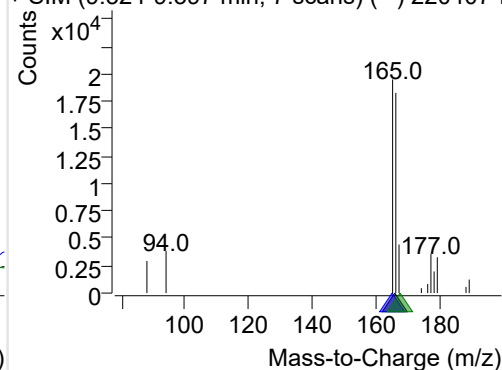
+ Selected Ion (166.0) 220407-PAHs-041.D



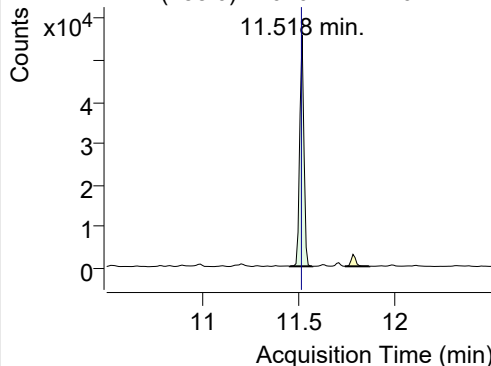
166.0, 165.0, 167.0



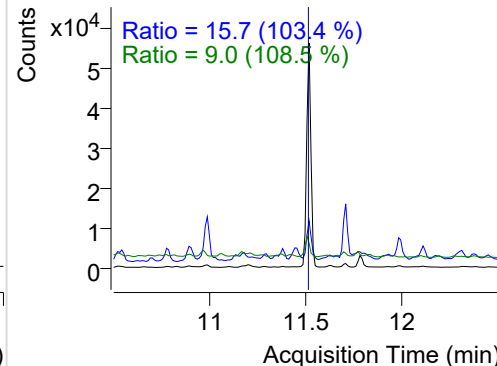
+ SIM (9.324-9.397 min, 7 scans) (\*\*) 220407-I

**IS-D10-Phenanthrene**

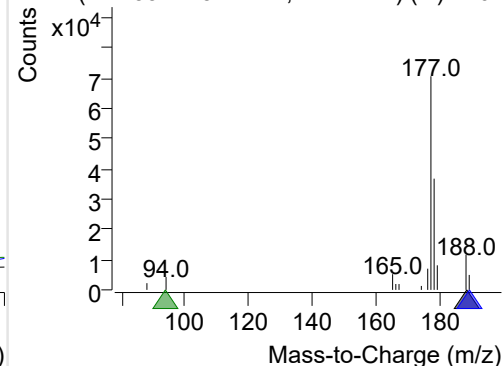
+ Selected Ion (188.0) 220407-PAHs-041.D



188.0, 189.0, 94.0

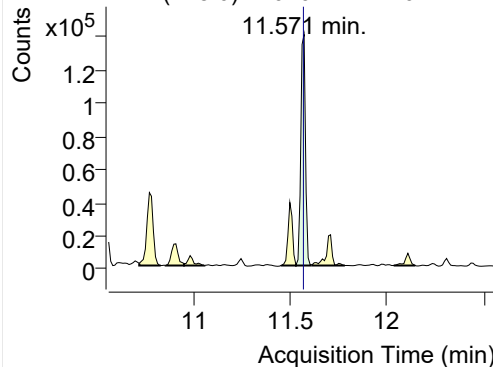


+ SIM (11.455-11.571 min, 12 scans) (\*\*) 2204

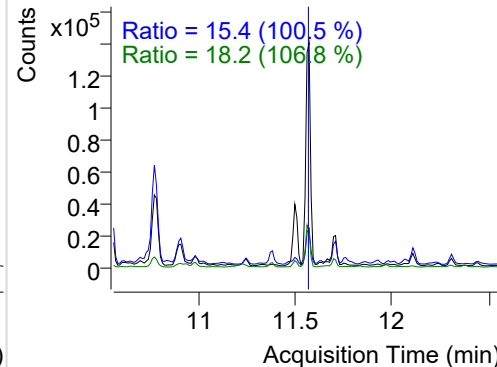


**Phenanthrene**

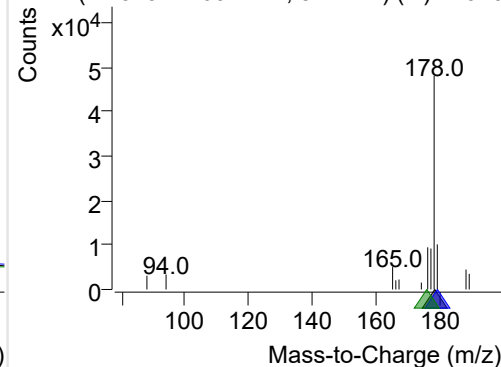
+ Selected Ion (178.0) 220407-PAHs-041.D



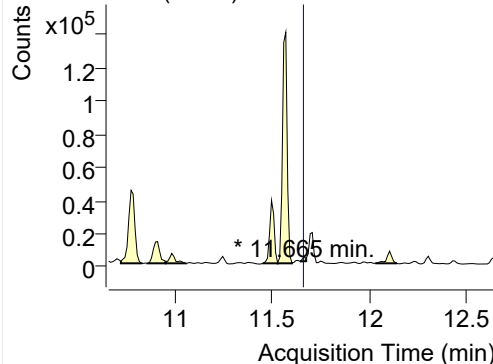
178.0, 179.0, 176.0



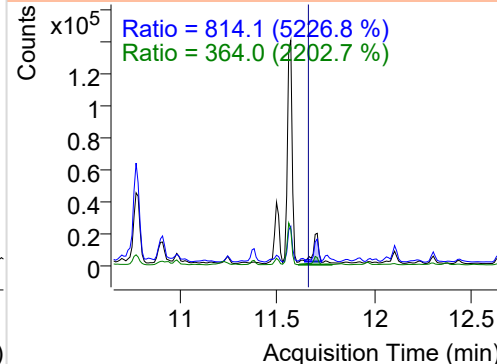
+ SIM (11.529-11.602 min, 8 scans) (\*\*) 22040

**Anthracene**

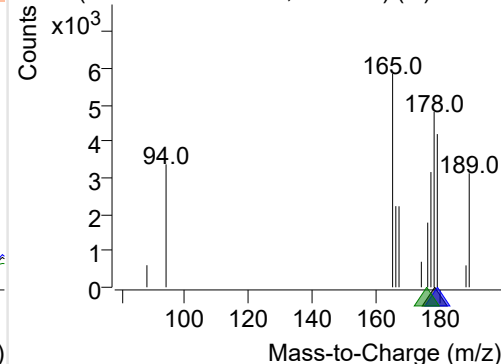
+ Selected Ion (178.0) 220407-PAHs-041.D



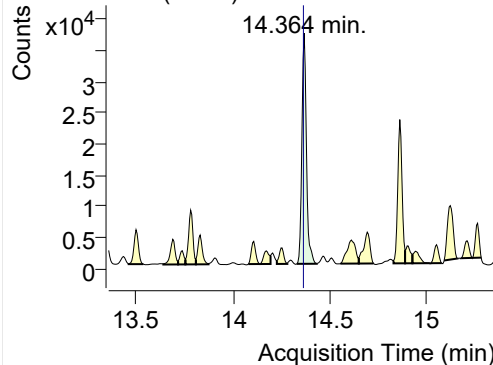
178.0, 179.0, 176.0



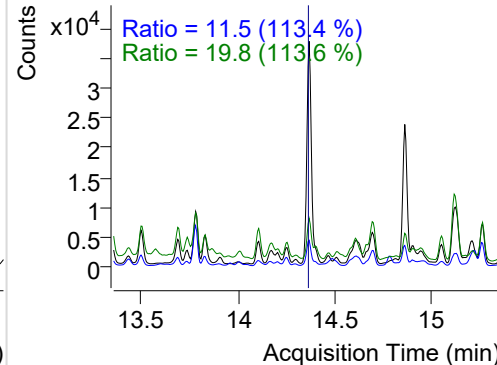
+ SIM (11.644-11.676 min, 4 scans) (\*\*) 22040

**Fluoranthene**

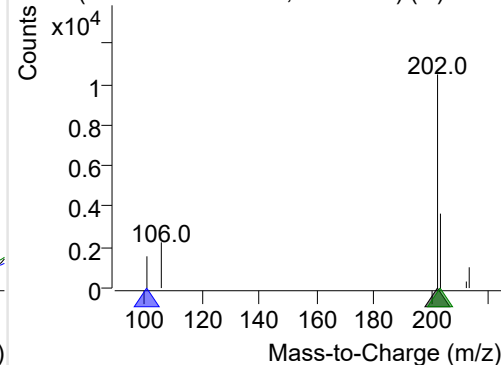
+ Selected Ion (202.0) 220407-PAHs-041.D



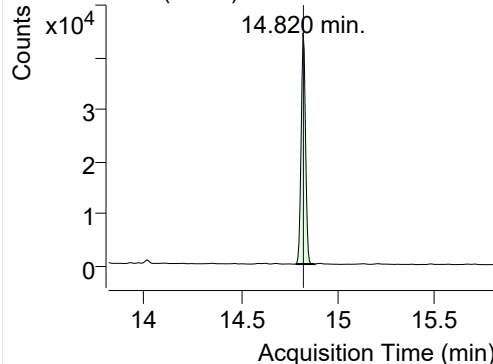
202.0, 101.0, 203.0



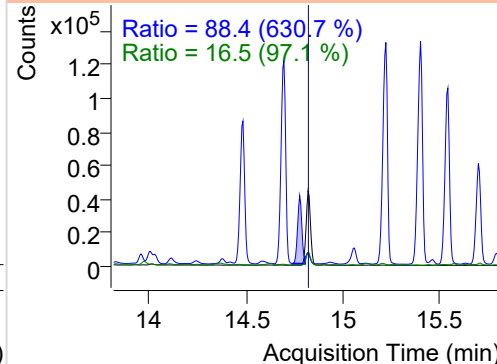
+ SIM (14.327-14.429 min, 19 scans) (\*\*) 2204

**LSS-D10-Pyrene**

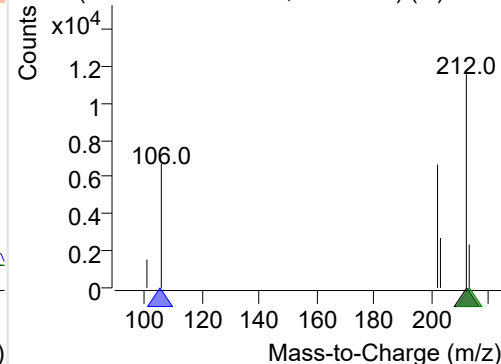
+ Selected Ion (212.0) 220407-PAHs-041.D



212.0, 106.0, 213.0

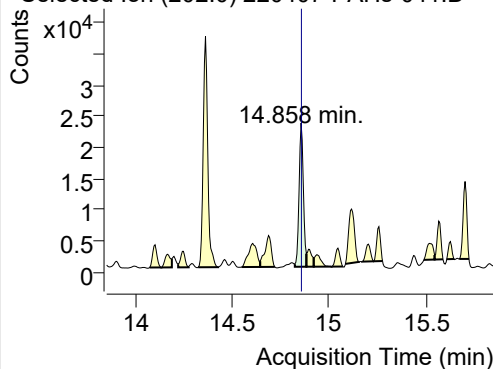


+ SIM (14.782-14.879 min, 19 scans) (\*\*) 2204

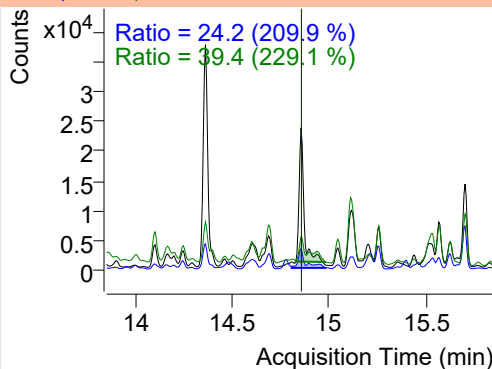


**Pyrene**

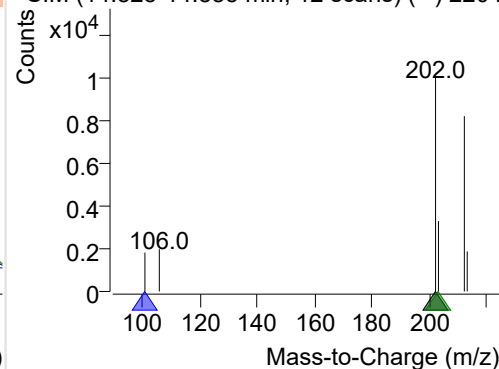
+ Selected Ion (202.0) 220407-PAHs-041.D



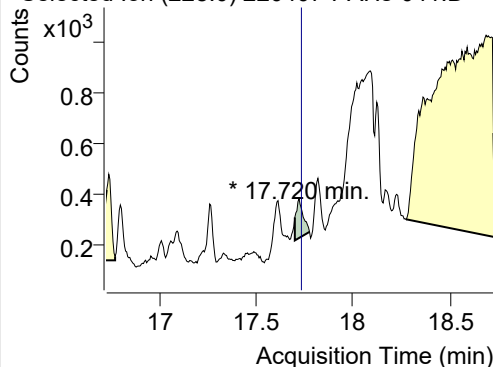
202.0, 101.0, 203.0



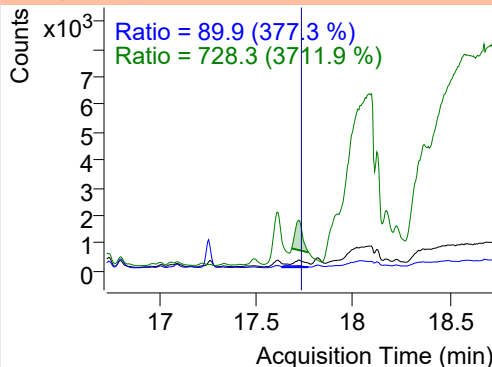
+ SIM (14.825-14.885 min, 12 scans) (\*\*) 2204

**Benz(a)anthracene**

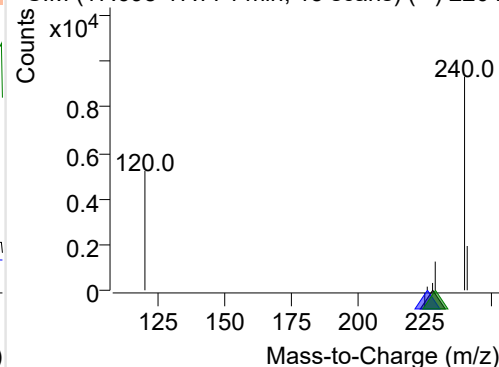
+ Selected Ion (228.0) 220407-PAHs-041.D



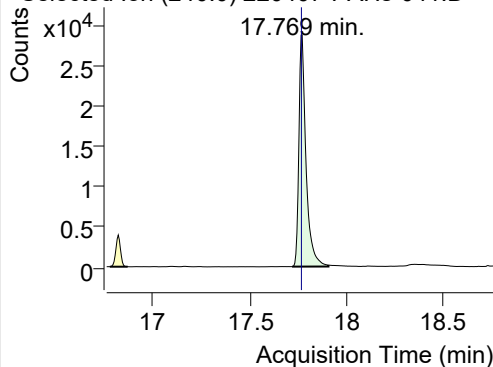
228.0, 226.0, 229.0



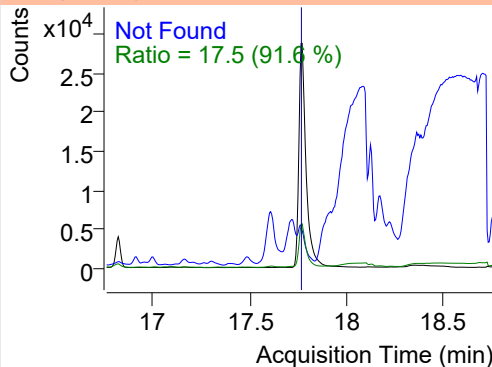
+ SIM (17.698-17.774 min, 15 scans) (\*\*) 2204

**IS-D12-Chrysene**

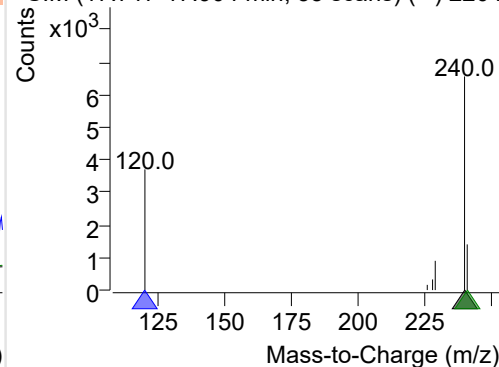
+ Selected Ion (240.0) 220407-PAHs-041.D



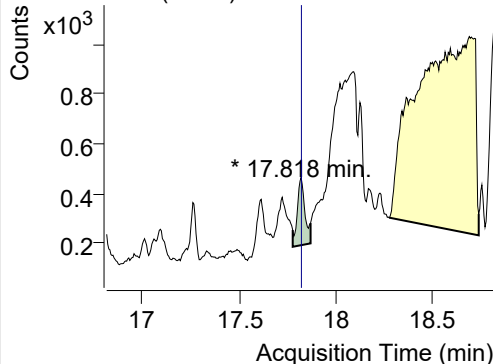
240.0, 120.0, 241.0



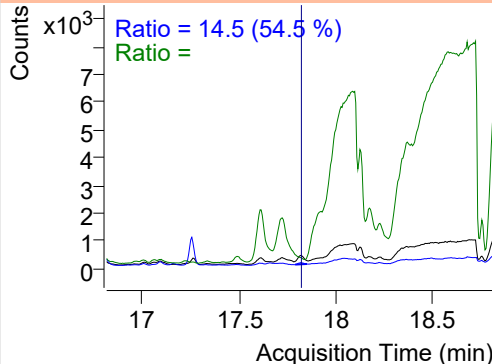
+ SIM (17.717-17.904 min, 35 scans) (\*\*) 2204

**Chrysene**

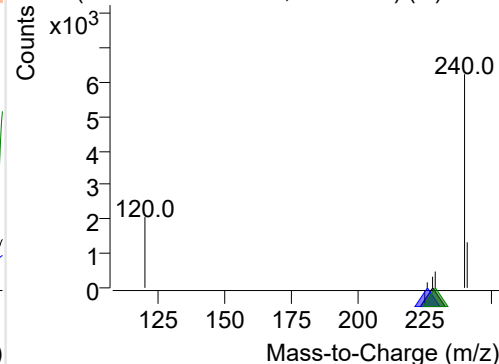
+ Selected Ion (228.0) 220407-PAHs-041.D

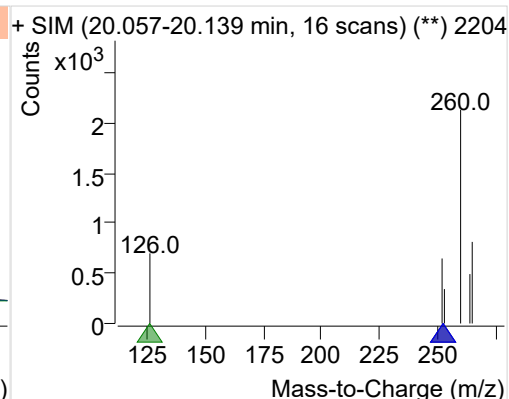
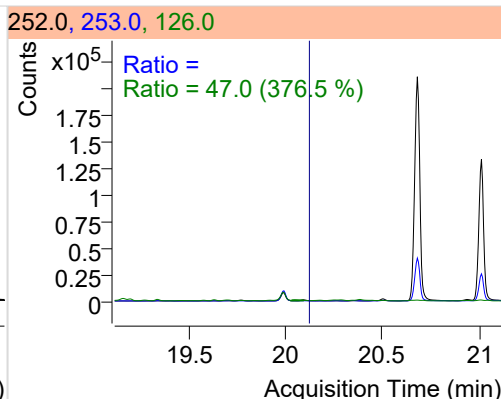
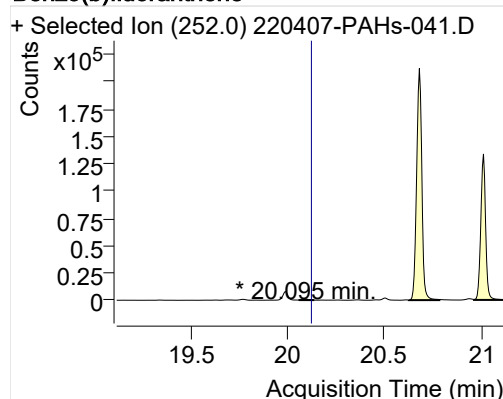
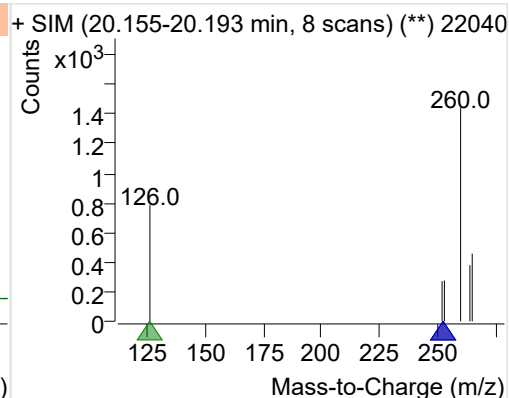
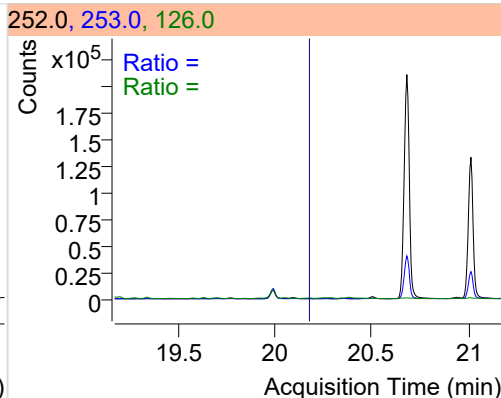
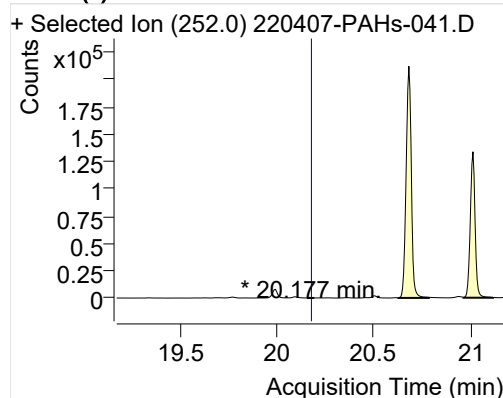
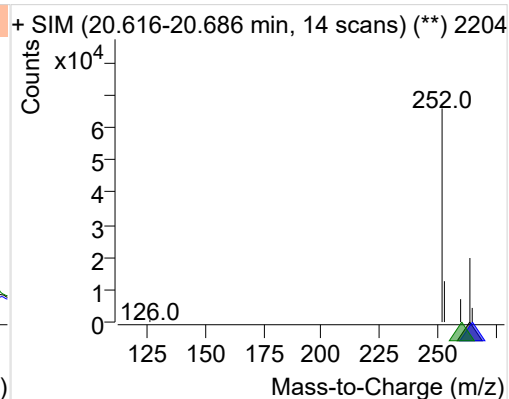
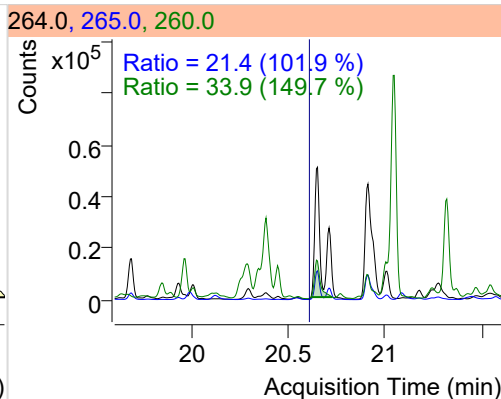
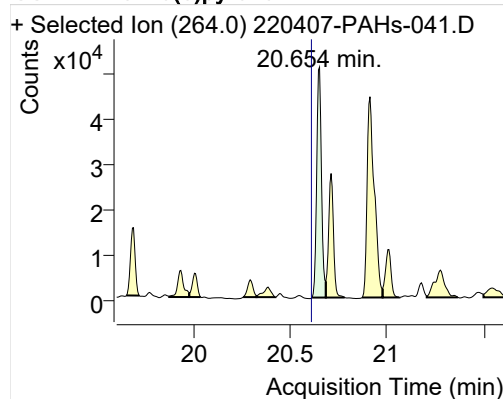
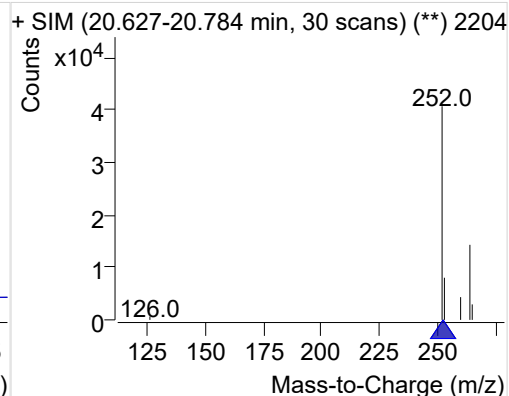
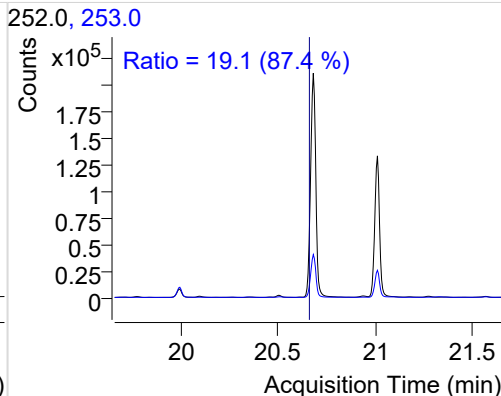
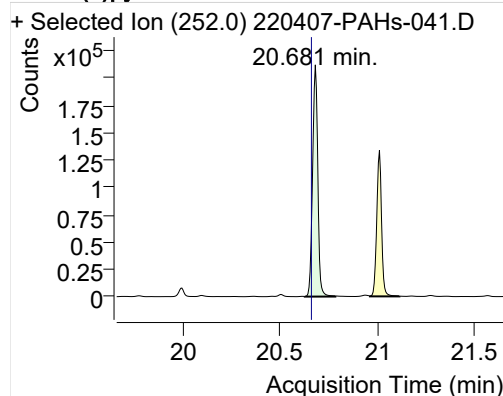


228.0, 226.0, 229.0



+ SIM (17.774-17.866 min, 18 scans) (\*\*) 2204

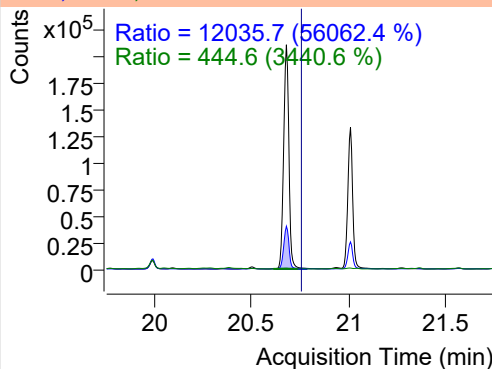
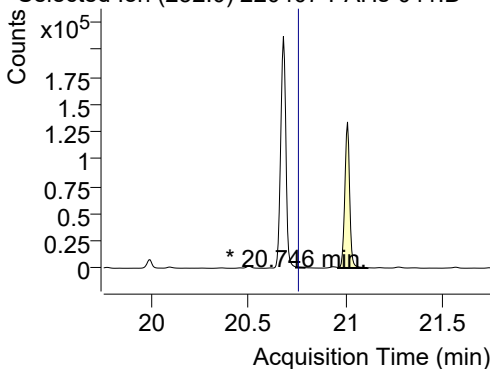


**Benzo(b)fluoranthene****Benzo(k)fluoranthene****SS-D12-Benzo(e)pyrene****Benzo(e)pyrene**

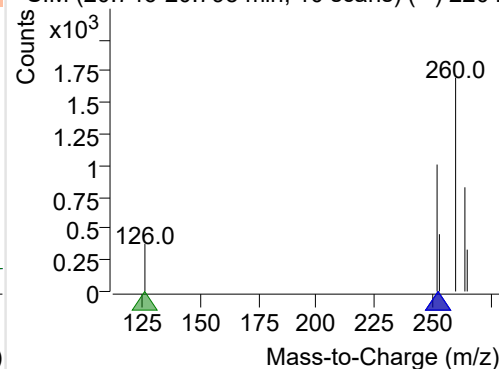
**Benzo(a)pyrene**

+ Selected Ion (252.0) 220407-PAHs-041.D

252.0, 253.0, 126.0

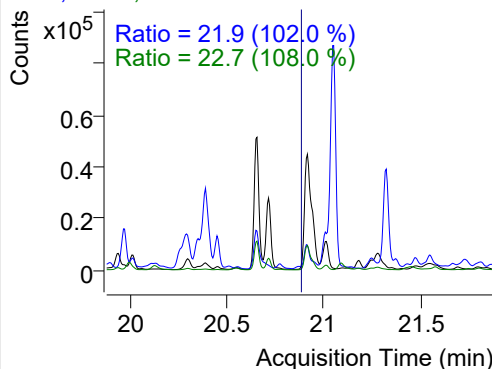
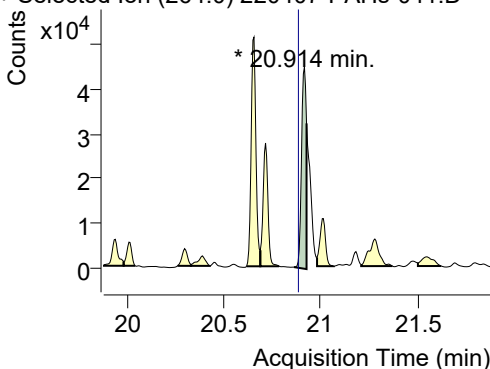


+ SIM (20.746-20.795 min, 10 scans) (\*\*) 2204

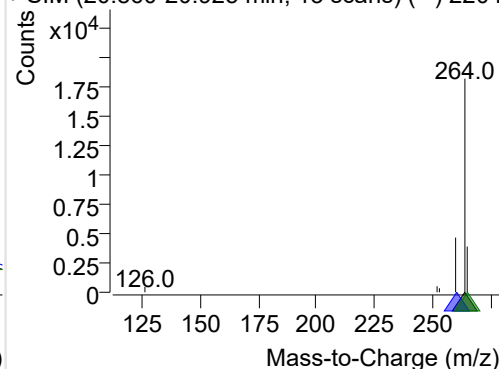
**IS-D12-Perylene**

+ Selected Ion (264.0) 220407-PAHs-041.D

264.0, 260.0, 265.0

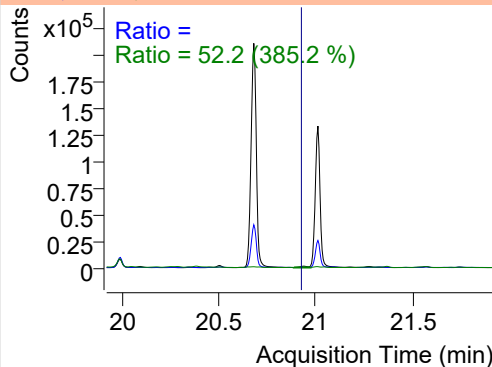
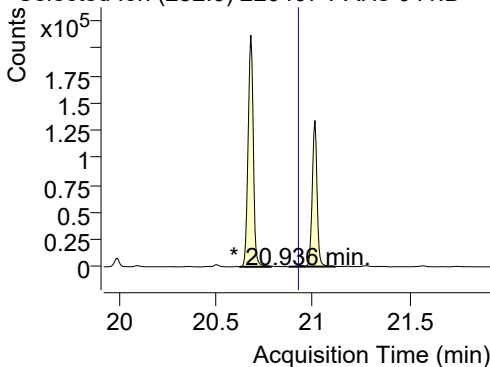


+ SIM (20.860-20.925 min, 13 scans) (\*\*) 2204

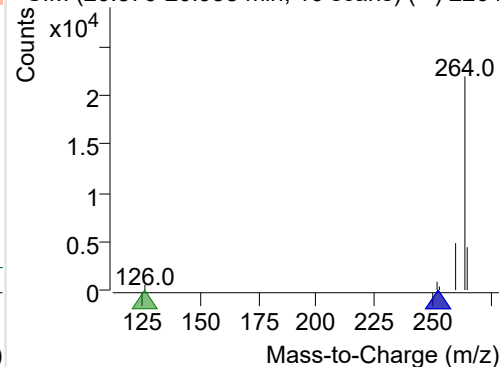
**Perylene**

+ Selected Ion (252.0) 220407-PAHs-041.D

252.0, 253.0, 126.0

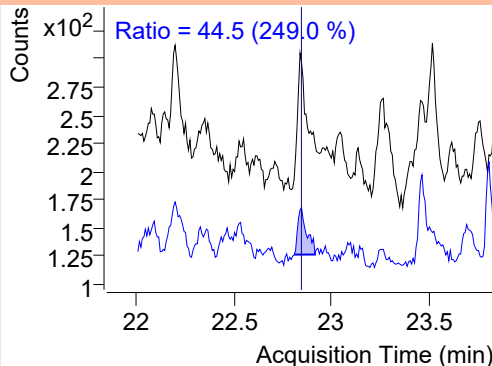
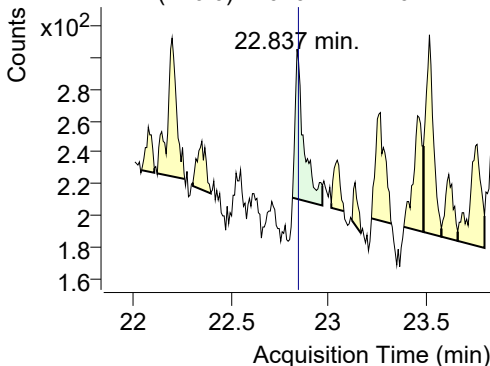


+ SIM (20.876-20.958 min, 16 scans) (\*\*) 2204

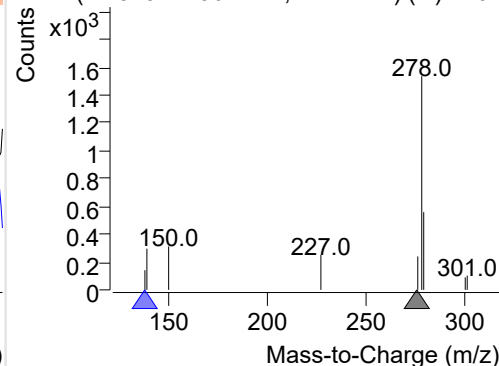
**Indeno(1,2,3-c,d)pyrene**

+ Selected Ion (276.0) 220407-PAHs-041.D

276.0, 138.0



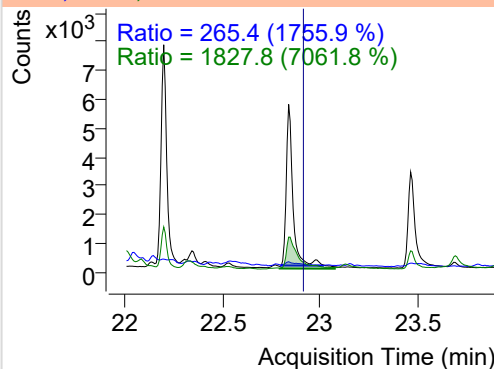
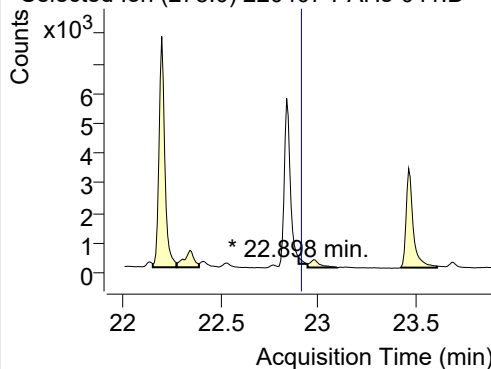
+ SIM (22.813-22.967 min, 21 scans) (\*\*) 2204



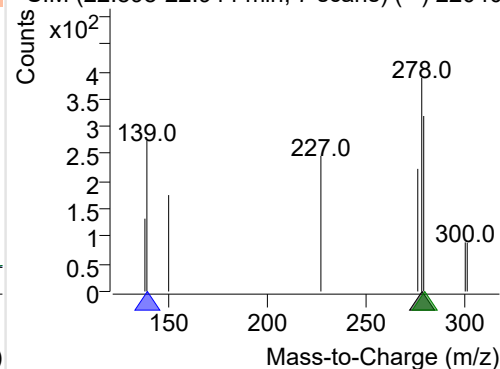
**Dibenz(a,h)anthracene**

+ Selected Ion (278.0) 220407-PAHs-041.D

278.0, 139.0, 279.0

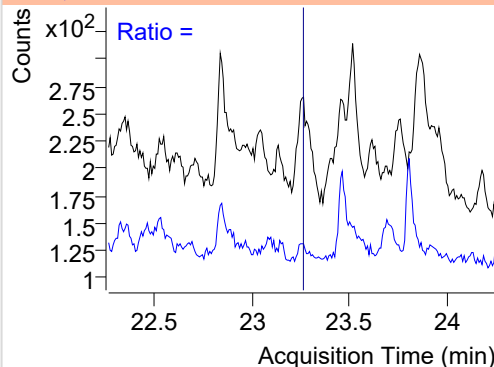
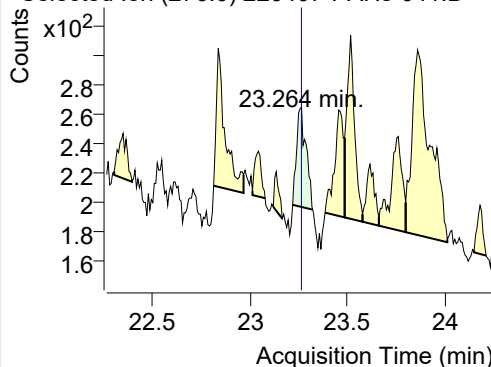


+ SIM (22.898-22.944 min, 7 scans) (\*\*) 22040

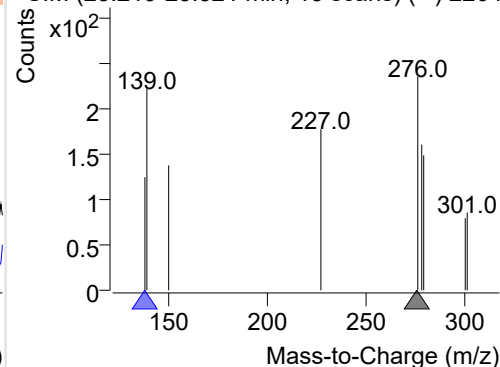
**Benzo(g,h,i)perylene**

+ Selected Ion (276.0) 220407-PAHs-041.D

276.0, 138.0

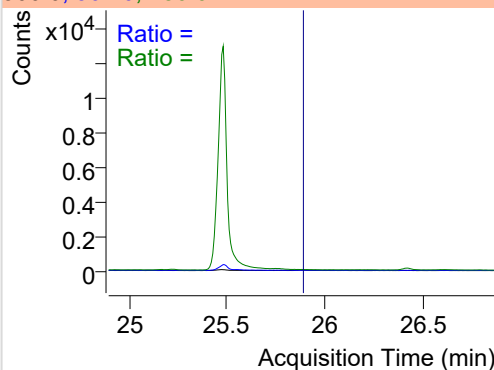
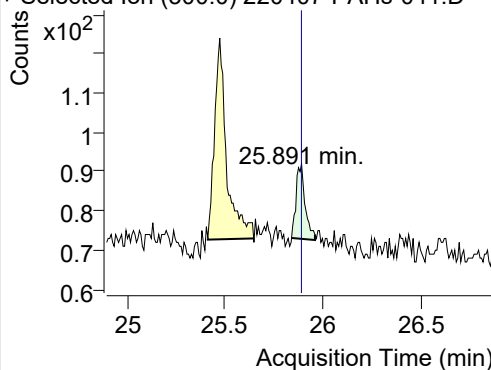


+ SIM (23.219-23.321 min, 13 scans) (\*\*) 2204

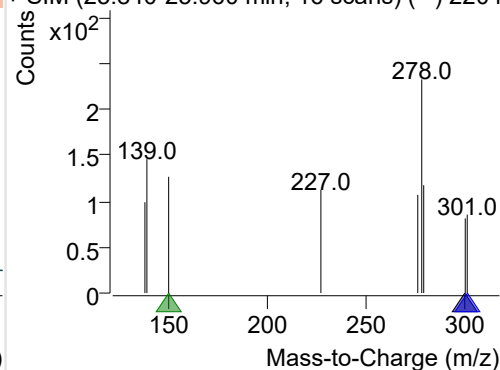
**Coronene**

+ Selected Ion (300.0) 220407-PAHs-041.D

300.0, 301.0, 150.0



+ SIM (25.840-25.960 min, 16 scans) (\*\*) 2204





## Quantitative Analysis Sample Based Report

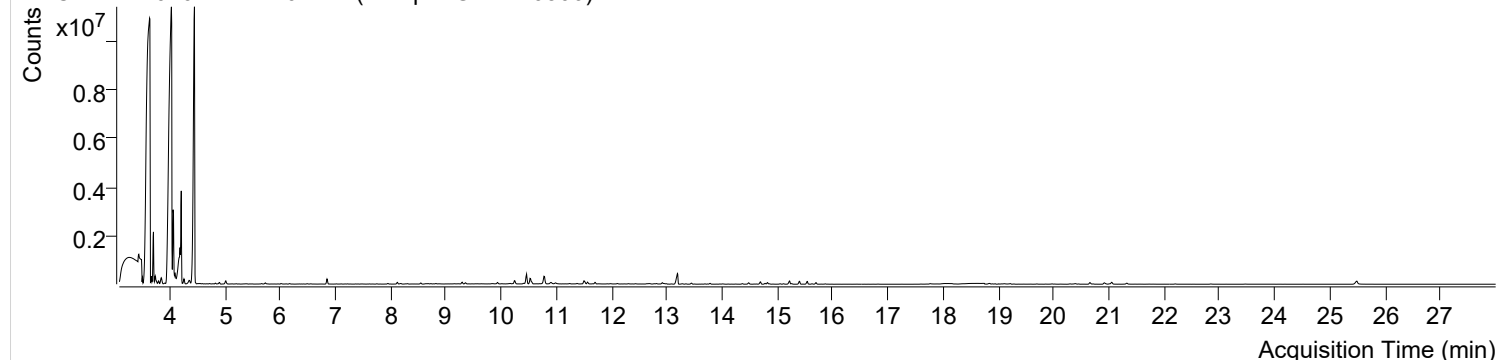


Trusted Answers

Batch Data Path File Name	D:\MassHunter\GCMS\1\data\PAHs\220407-PAHs-Sample\QuantResults\220407-PAHs-Quant.batch.bin		
Analysis Time Stamp	2022-04-13 오후 5:40:30	Analyst Name	DESKTOP-86B7UPG\5975MS
Report Generation Time	2022-04-13 오후 5:40:41	Report Generator Name	DESKTOP-86B7UPG\5975MS
Calibration Last Update	2022-04-13 오후 5:38:35	Batch State	Processed
Analyze Quant Version	10.2	Report Quant Version	10.2
Acq. Date-Time	2022-04-08 오전 8:39:58	Data File	220407-PAHs-042.D
Type	Sample	Name	Sample-Gas-220306
Dil.	1	Acq. Method File	PAHs 19mix-Method

## Sample Chromatogram

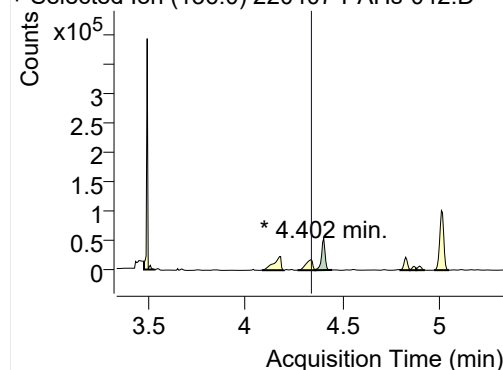
+ TIC SIM 220407-PAHs-042.D (Sample-Gas-220306)



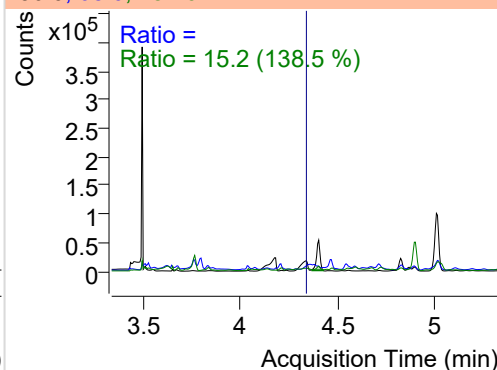
Name	RT	Transition	Resp.	Height	Final Conc. Units	Ratio
IS-D8-Naphthalene	4.402	136.0	67639	53656.15	ND µg/mL	15.2
Naphthalene	4.446	128.0	15041236	8387113.46	ND µg/mL	15.6
Acenaphthylene	7.751	152.0	12164	8384.92	ND µg/mL	20.4
IS-D10-Acenaphthene	8.118	164.0	47467	33537.47	ND µg/mL	93.8
Acenaphthene	8.183	154.0	10313	6635.55	ND µg/mL	124.0
LSS-D10-Fluorene	9.292	176.0	51387	34066.62	ND µg/mL	87.5
Fluorene	9.355	166.0	34985	22728.98	ND µg/mL	86.4
IS-D10-Phenanthrene	11.518	188.0	82914	48892.05	ND µg/mL	17.0
Phenanthrene	11.560	178.0	76070	49880.76	ND µg/mL	18.2
Anthracene	11.665	178.0	2759	1757.40	ND µg/mL	276.7
Fluoranthene	14.364	202.0	23233	15253.65	ND µg/mL	17.9
LSS-D10-Pyrene	14.820	212.0	74156	49053.94	ND µg/mL	17.4
Pyrene	14.858	202.0	17086	10609.65	ND µg/mL	21.7
Benz(a)anthracene	17.704	228.0	370	79.94	ND µg/mL	76.3
IS-D12-Chrysene	17.763	240.0	71455	14141.00	ND µg/mL	17.8
Chrysene	17.704	228.0	370	79.94	ND µg/mL	76.3
Benzo(b)fluoranthene	20.101	252.0	1480	608.97	ND µg/mL	21.4
Benzo(k)fluoranthene	20.176	252.0	67	45.20	ND µg/mL	147.9
SS-D12-Benzo(e)pyrene	20.654	264.0	80298	43868.14	ND µg/mL	32.4
Benzo(e)pyrene	20.676	252.0	4039	1372.79	ND µg/mL	22.3
Benzo(a)pyrene	20.735	252.0	46	111.39	ND µg/mL	
IS-D12-Perylene	20.914	264.0	89837	38704.31	ND µg/mL	25.3
Perylene	20.941	252.0	1310	508.20	ND µg/mL	19.0
Indeno(1,2,3-c,d)pyrene	22.844	276.0	252	85.57	ND µg/mL	101.0
Dibenz(a,h)anthracene	22.898	278.0	281	274.42	ND µg/mL	1688.9
Benzo(g,h,i)perylene	23.257	276.0	301	74.71	ND µg/mL	18.9
Coronene	25.891	300.0	51	19.81	ND µg/mL	

## IS-D8-Naphthalene

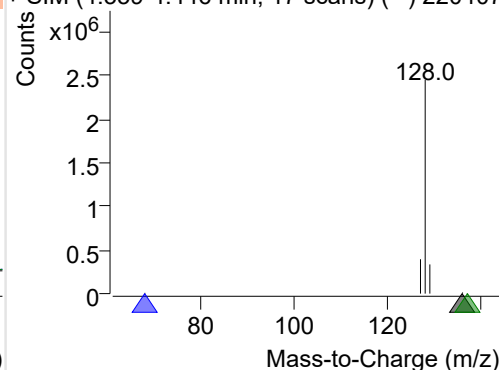
+ Selected Ion (136.0) 220407-PAHs-042.D



136.0, 68.0, 137.0

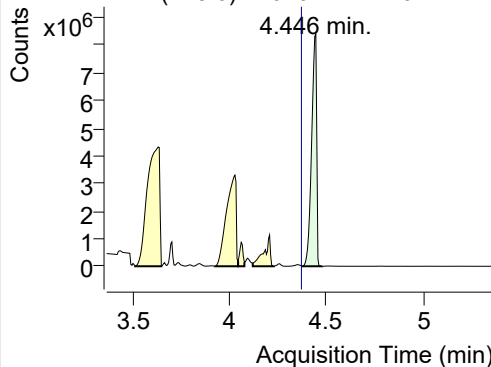


+ SIM (4.359-4.446 min, 17 scans) (\*\*) 220407

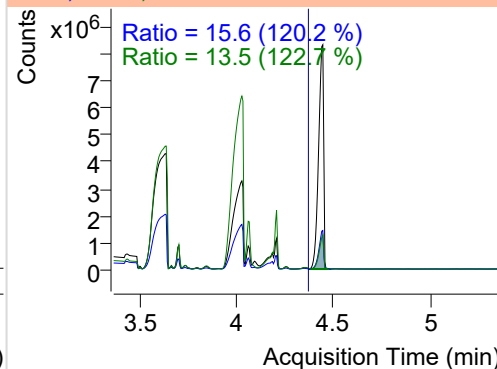


**Naphthalene**

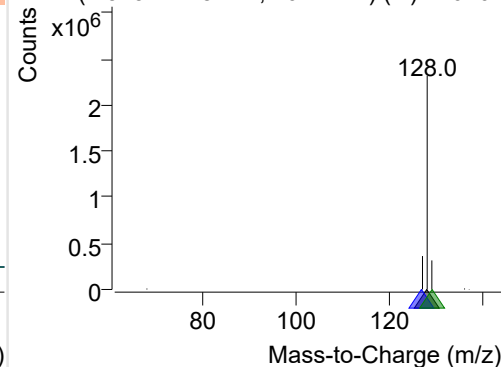
+ Selected Ion (128.0) 220407-PAHs-042.D



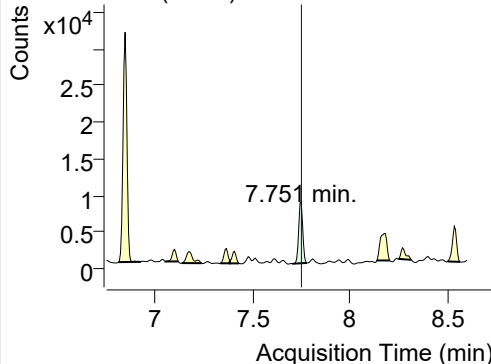
128.0, 127.0, 129.0



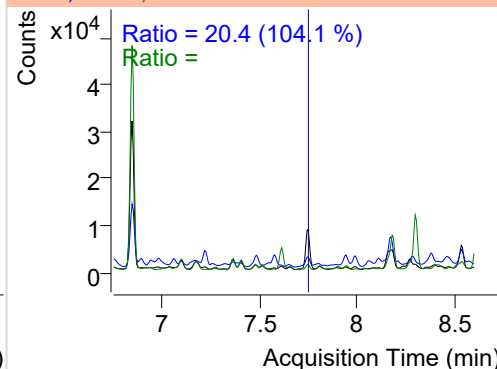
+ SIM (4.375-4.478 min, 20 scans) (\*\*) 220407

**Acenaphthylene**

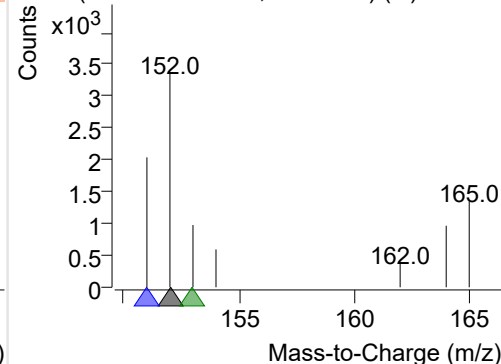
+ Selected Ion (152.0) 220407-PAHs-042.D



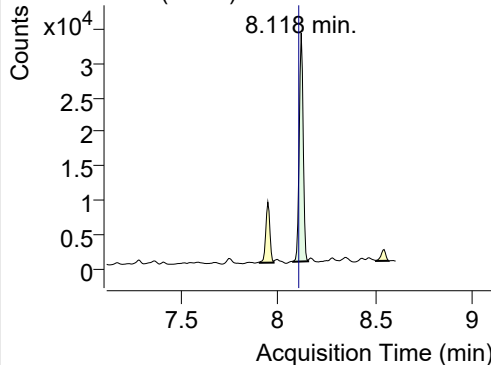
152.0, 151.0, 153.0



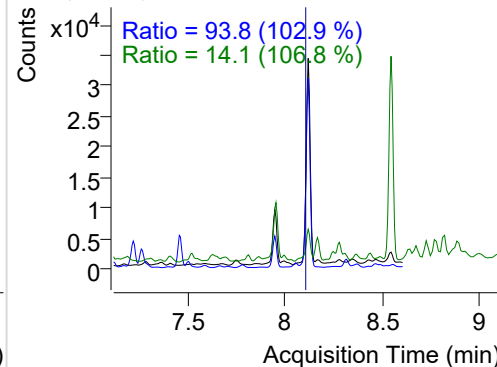
+ SIM (7.710-7.781 min, 13 scans) (\*\*) 220407

**IS-D10-Acenaphthene**

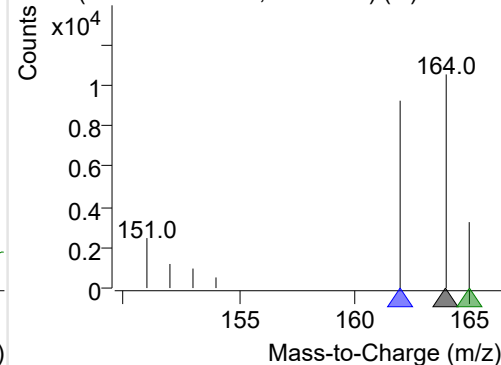
+ Selected Ion (164.0) 220407-PAHs-042.D



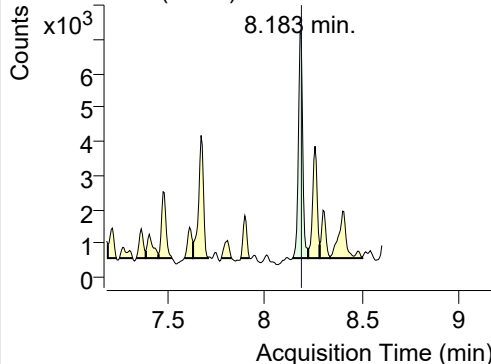
164.0, 162.0, 165.0



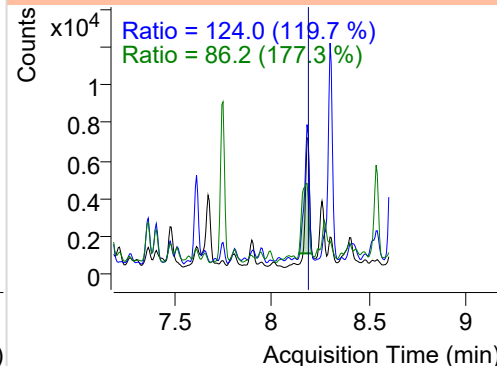
+ SIM (8.077-8.154 min, 14 scans) (\*\*) 220407

**Acenaphthene**

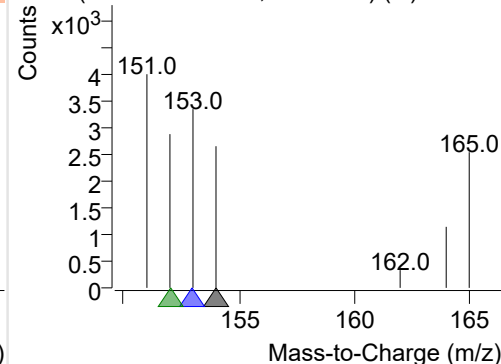
+ Selected Ion (154.0) 220407-PAHs-042.D



154.0, 153.0, 152.0

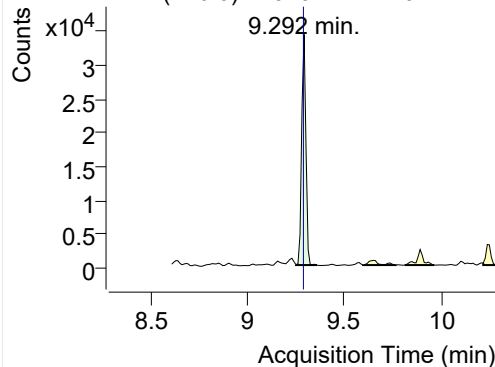


+ SIM (8.148-8.225 min, 14 scans) (\*\*) 220407

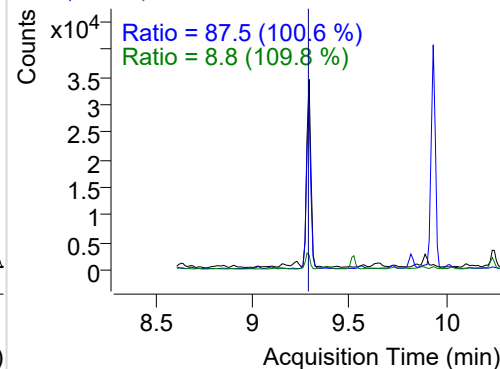


## LSS-D10-Fluorene

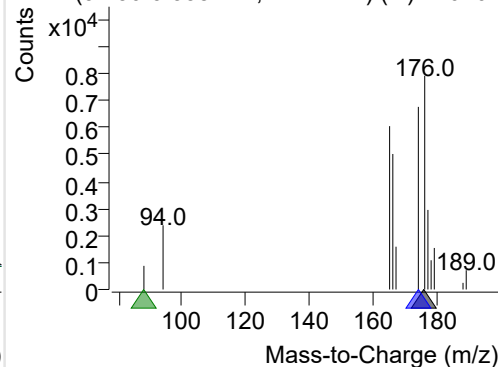
+ Selected Ion (176.0) 220407-PAHs-042.D



176.0, 174.0, 88.0

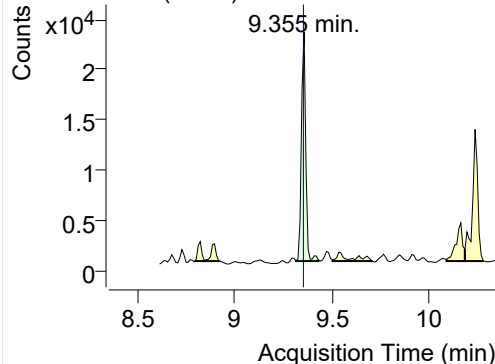


+ SIM (9.250-9.358 min, 11 scans) (\*\*) 220407

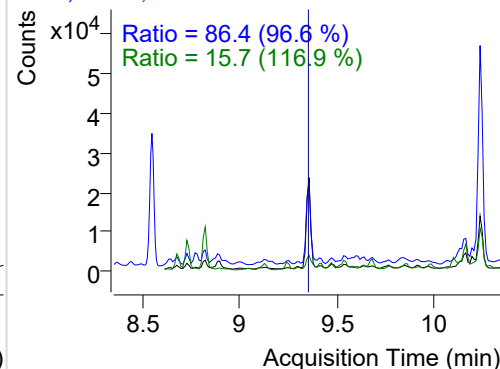


## Fluorene

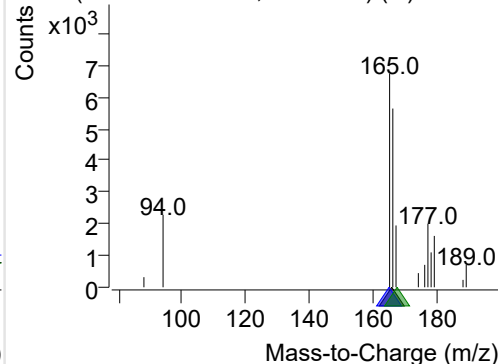
+ Selected Ion (166.0) 220407-PAHs-042.D



166.0, 165.0, 167.0

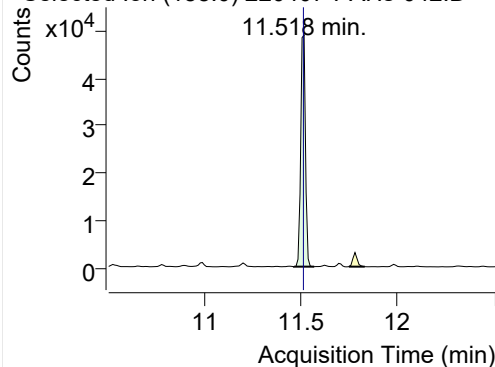


+ SIM (9.313-9.428 min, 12 scans) (\*\*) 220407

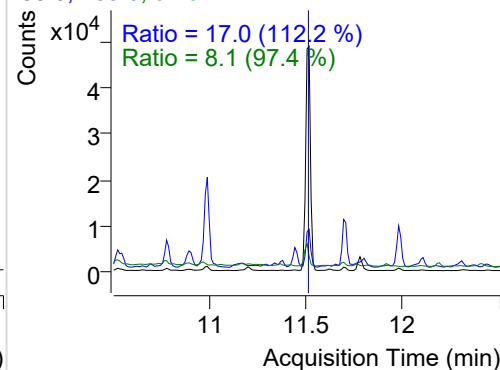


## IS-D10-Phenanthrene

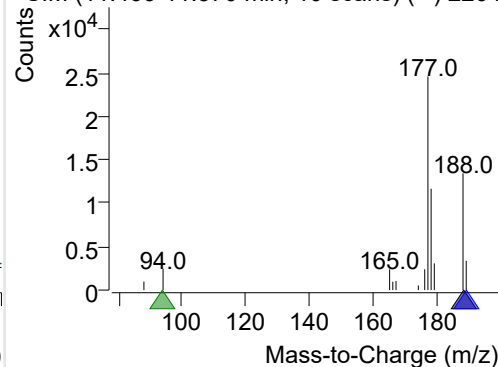
+ Selected Ion (188.0) 220407-PAHs-042.D



188.0, 189.0, 94.0

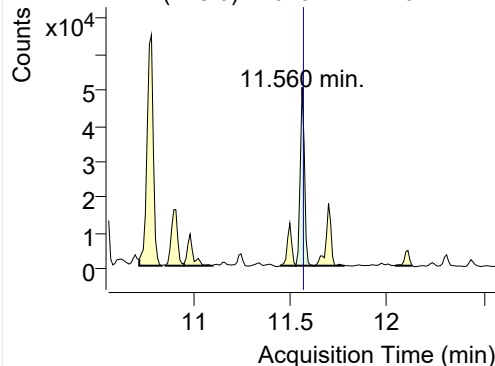


+ SIM (11.466-11.570 min, 10 scans) (\*\*) 2204

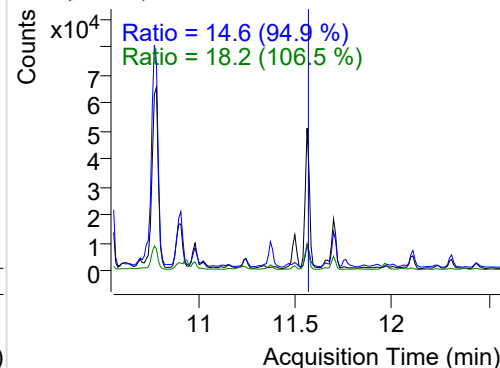


## Phenanthrene

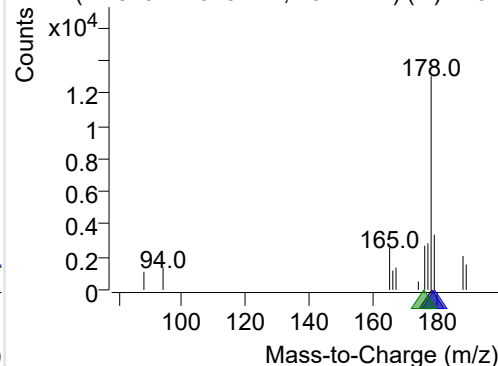
+ Selected Ion (178.0) 220407-PAHs-042.D



178.0, 179.0, 176.0

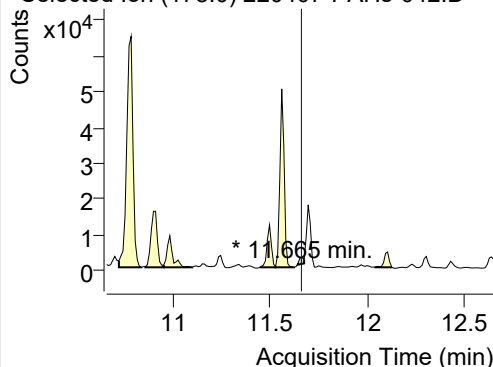


+ SIM (11.529-11.623 min, 10 scans) (\*\*) 2204

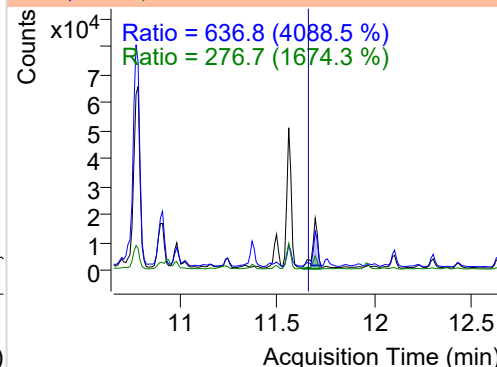


**Anthracene**

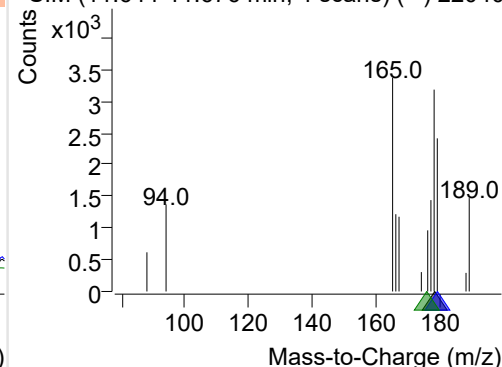
+ Selected Ion (178.0) 220407-PAHs-042.D



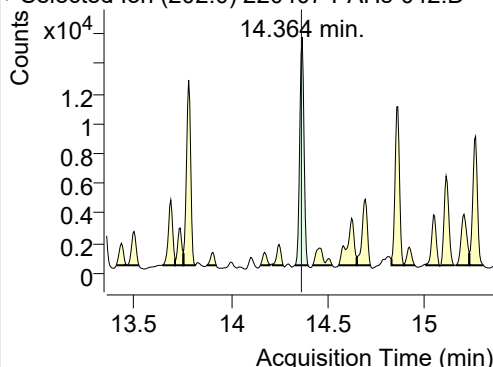
178.0, 179.0, 176.0



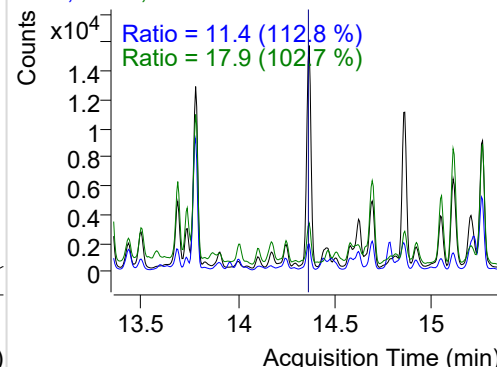
+ SIM (11.644-11.676 min, 4 scans) (\*\*) 22040

**Fluoranthene**

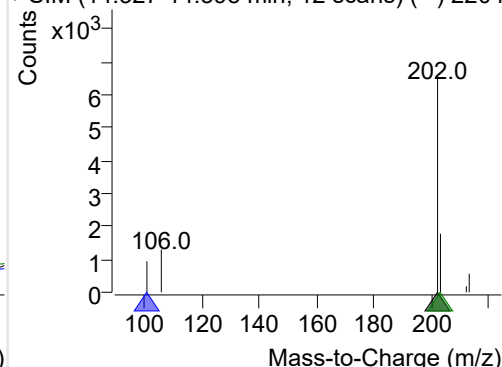
+ Selected Ion (202.0) 220407-PAHs-042.D



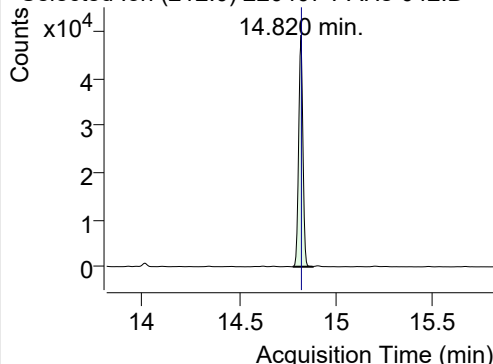
202.0, 101.0, 203.0



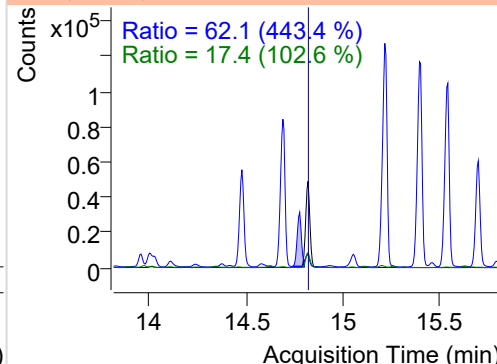
+ SIM (14.327-14.395 min, 12 scans) (\*\*) 2204

**LSS-D10-Pyrene**

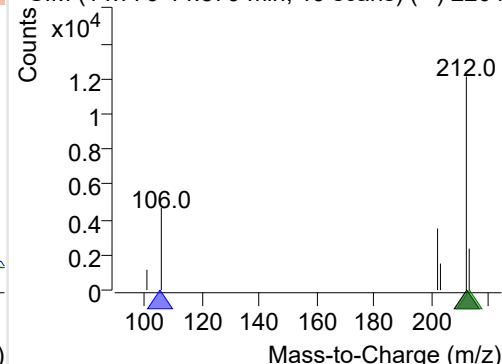
+ Selected Ion (212.0) 220407-PAHs-042.D



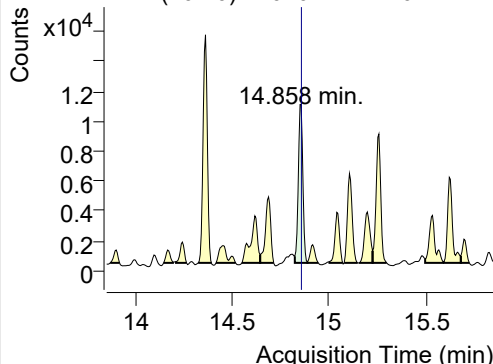
212.0, 106.0, 213.0



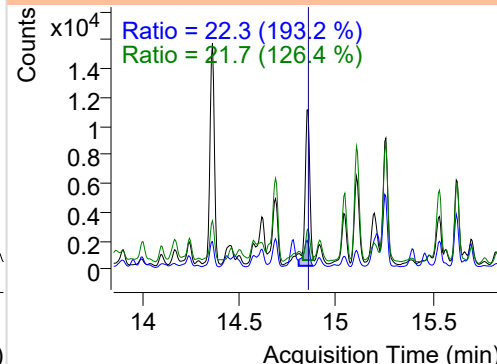
+ SIM (14.776-14.879 min, 19 scans) (\*\*) 2204

**Pyrene**

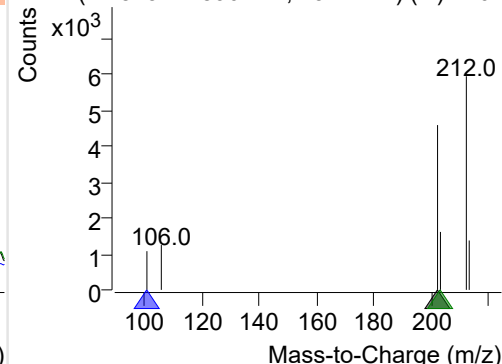
+ Selected Ion (202.0) 220407-PAHs-042.D



202.0, 101.0, 203.0



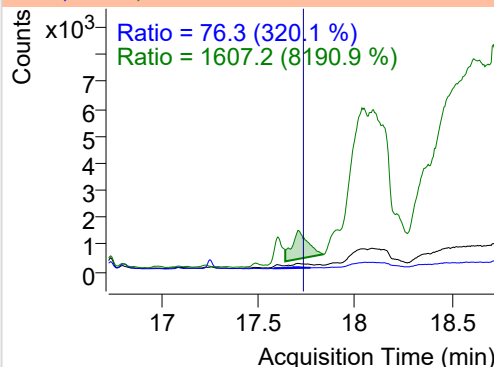
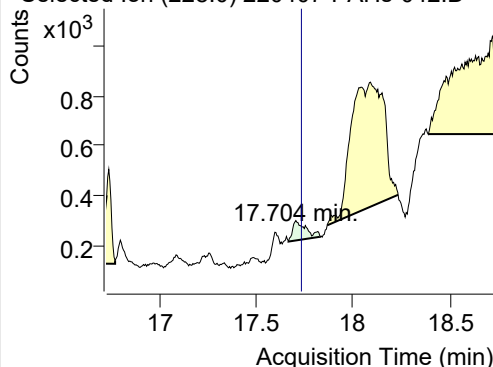
+ SIM (14.825-14.890 min, 13 scans) (\*\*) 2204



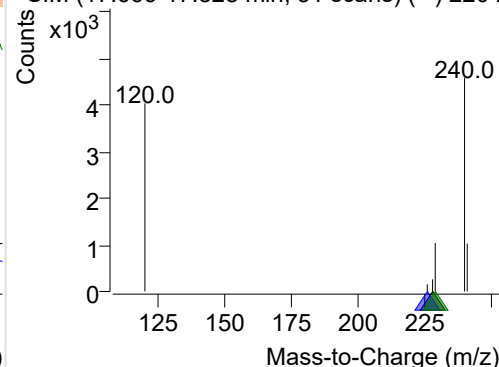
**Benz(a)anthracene**

+ Selected Ion (228.0) 220407-PAHs-042.D

228.0, 226.0, 229.0

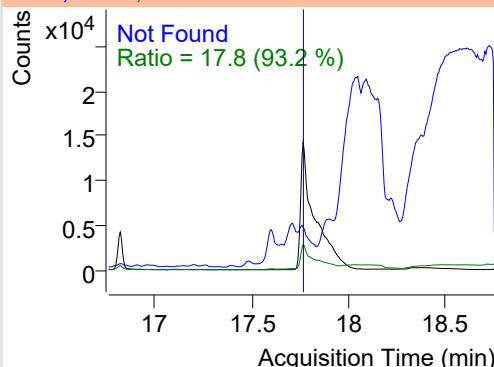
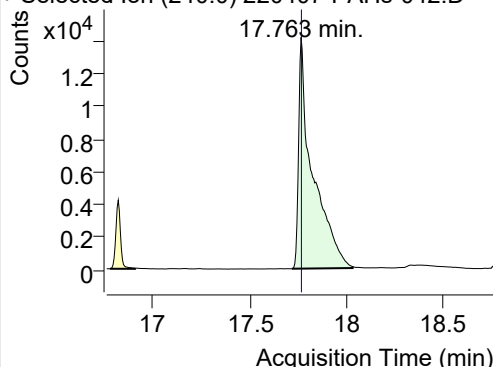


+ SIM (17.666-17.828 min, 31 scans) (\*\*) 2204

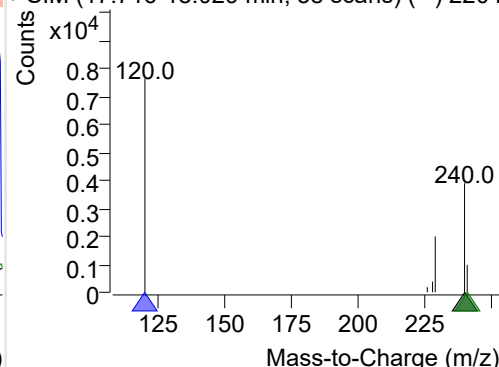
**IS-D12-Chrysene**

+ Selected Ion (240.0) 220407-PAHs-042.D

240.0, 120.0, 241.0

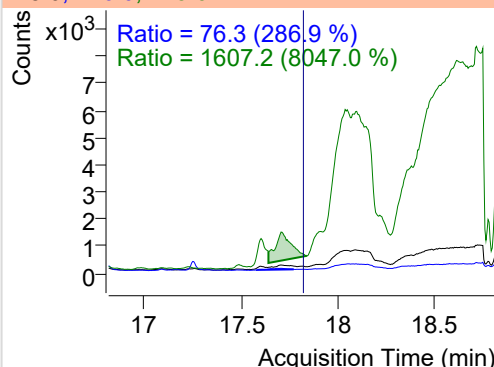
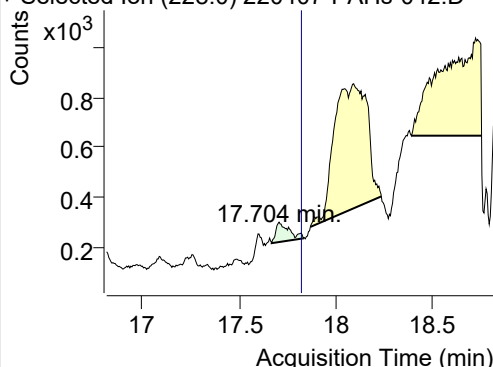


+ SIM (17.716-18.029 min, 58 scans) (\*\*) 2204

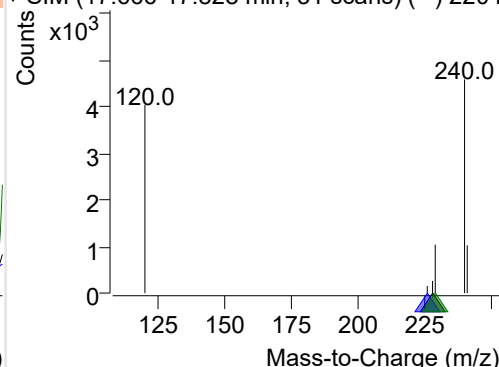
**Chrysene**

+ Selected Ion (228.0) 220407-PAHs-042.D

228.0, 226.0, 229.0

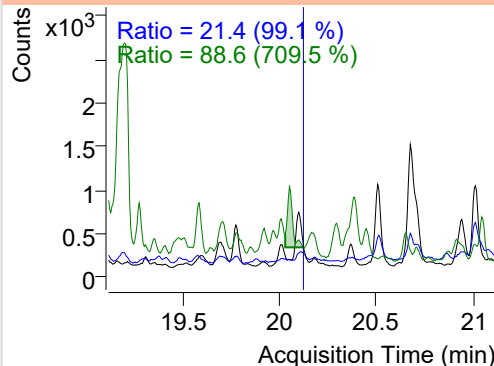
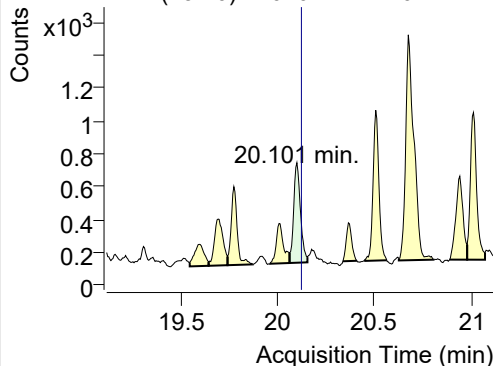


+ SIM (17.666-17.828 min, 31 scans) (\*\*) 2204

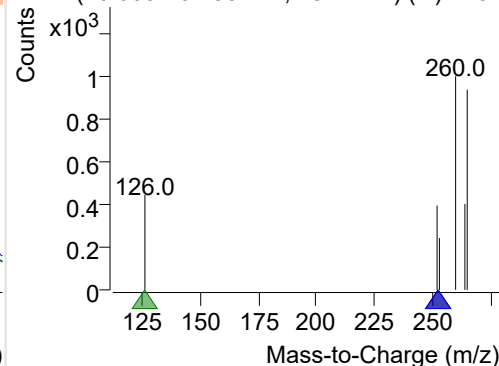
**Benzo(b)fluoranthene**

+ Selected Ion (252.0) 220407-PAHs-042.D

252.0, 253.0, 126.0



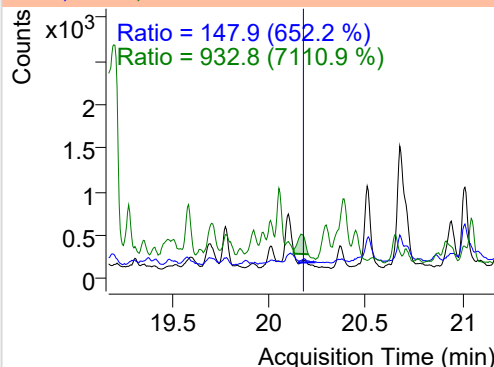
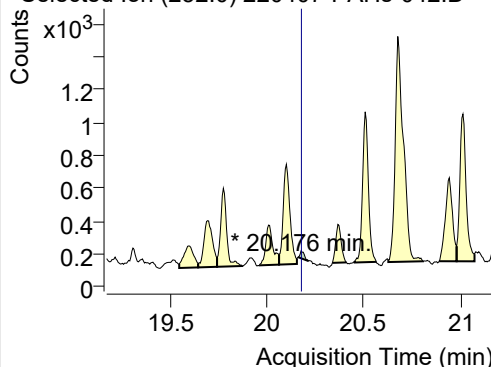
+ SIM (20.063-20.155 min, 18 scans) (\*\*) 2204



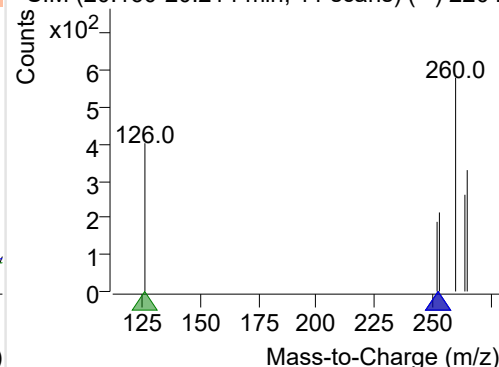
**Benzo(k)fluoranthene**

+ Selected Ion (252.0) 220407-PAHs-042.D

252.0, 253.0, 126.0

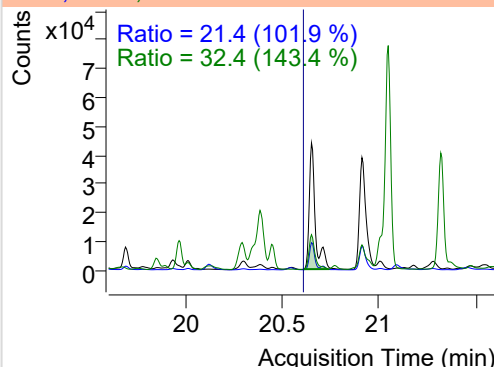
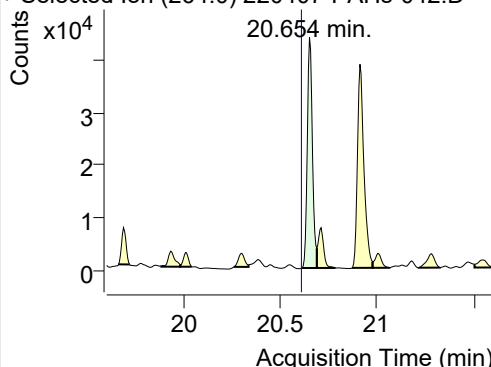


+ SIM (20.160-20.214 min, 11 scans) (\*\*) 2204

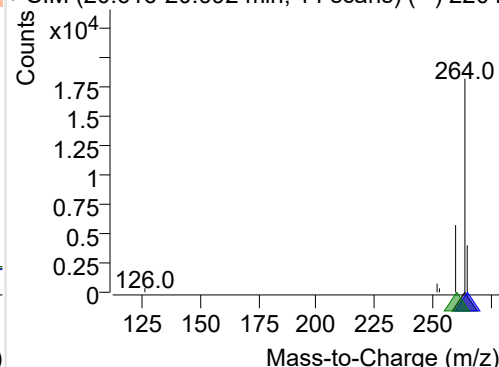
**SS-D12-Benzo(e)pyrene**

+ Selected Ion (264.0) 220407-PAHs-042.D

264.0, 265.0, 260.0

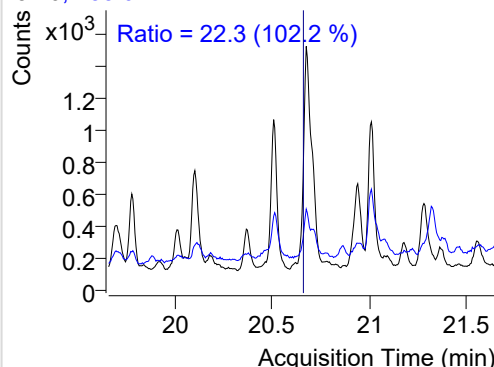
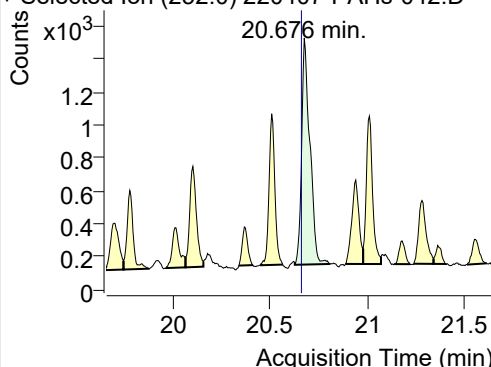


+ SIM (20.616-20.692 min, 14 scans) (\*\*) 2204

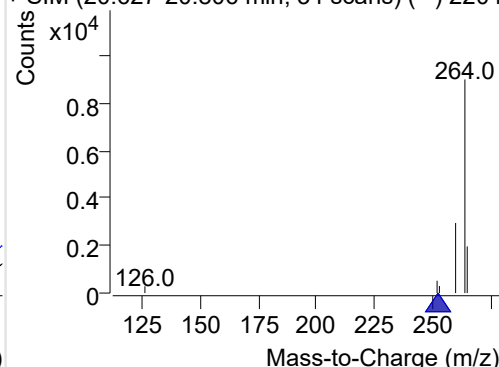
**Benzo(e)pyrene**

+ Selected Ion (252.0) 220407-PAHs-042.D

252.0, 253.0

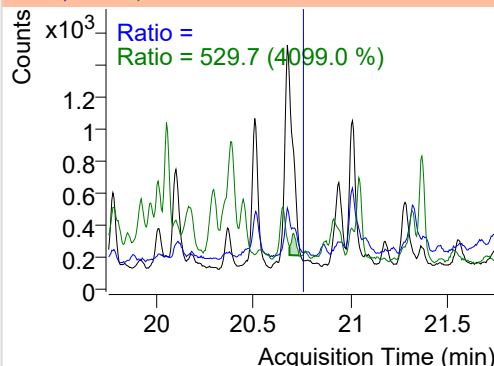
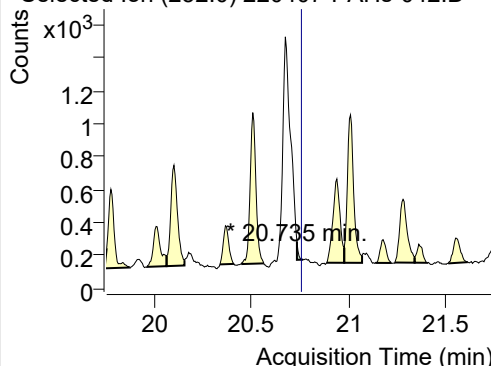


+ SIM (20.627-20.806 min, 34 scans) (\*\*) 2204

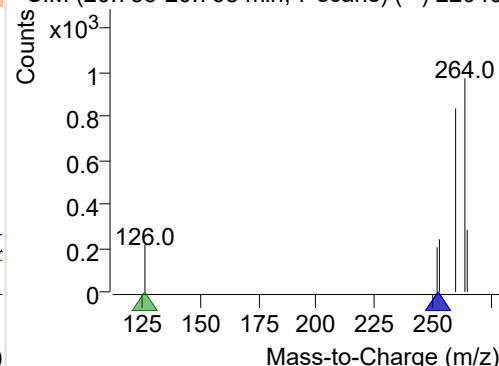
**Benzo(a)pyrene**

+ Selected Ion (252.0) 220407-PAHs-042.D

252.0, 253.0, 126.0

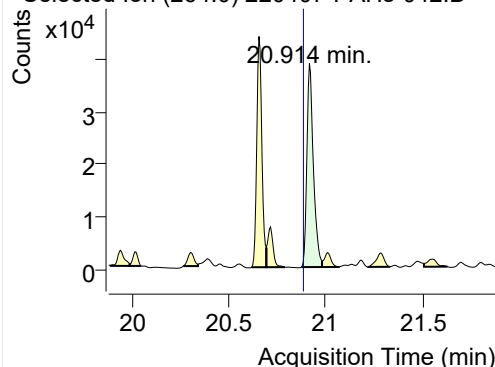


+ SIM (20.735-20.768 min, 7 scans) (\*\*) 22040

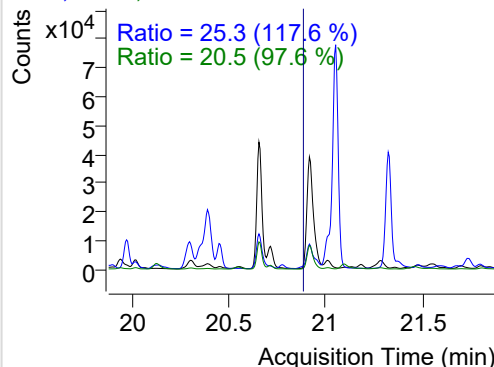


## IS-D12-Perylene

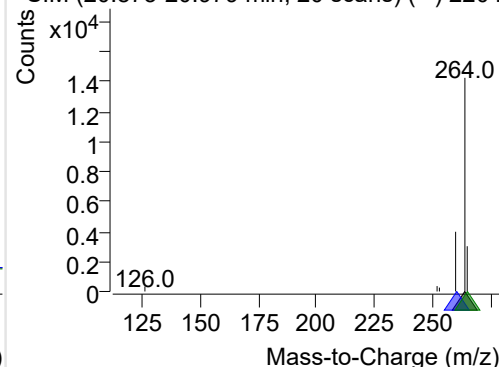
+ Selected Ion (264.0) 220407-PAHs-042.D



264.0, 260.0, 265.0

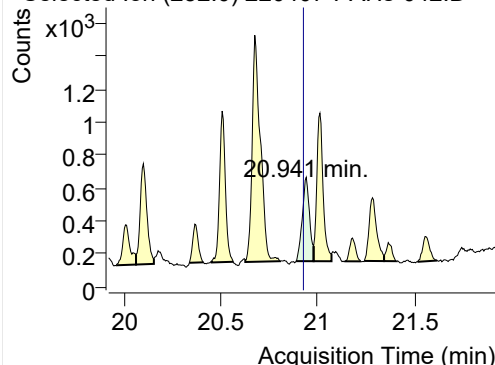


+ SIM (20.873-20.979 min, 20 scans) (\*\*) 2204

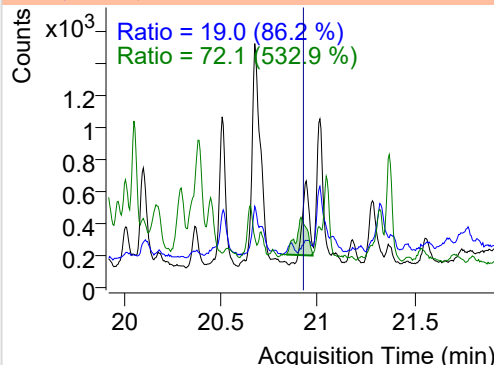


## Perylene

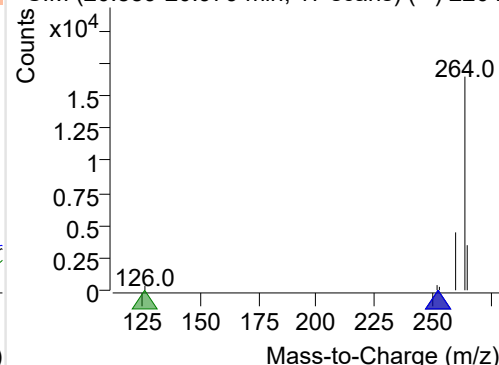
+ Selected Ion (252.0) 220407-PAHs-042.D



252.0, 253.0, 126.0

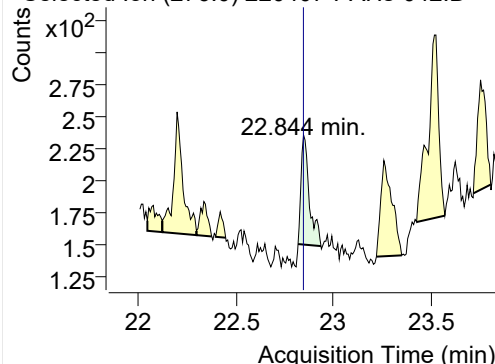


+ SIM (20.889-20.979 min, 17 scans) (\*\*) 2204

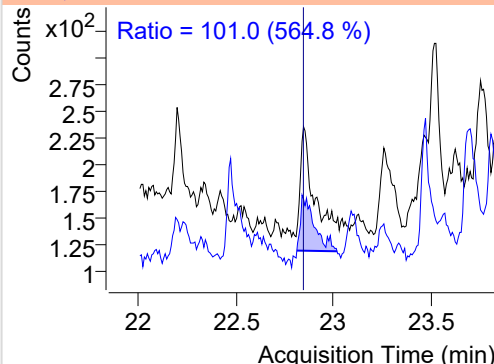


## Indeno(1,2,3-c,d)pyrene

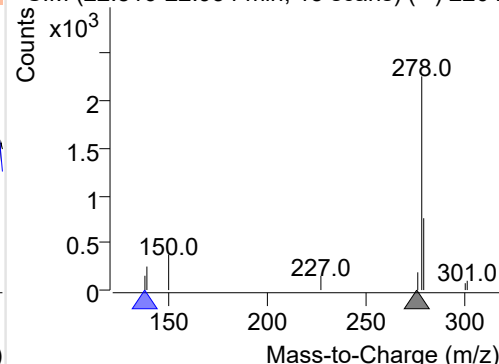
+ Selected Ion (276.0) 220407-PAHs-042.D



276.0, 138.0

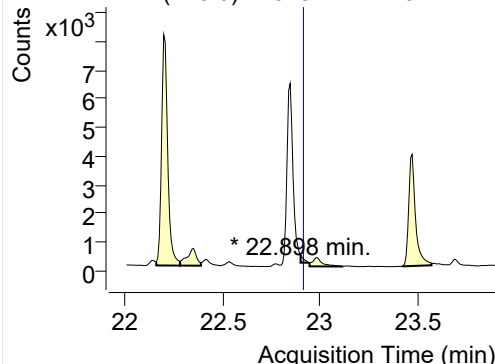


+ SIM (22.816-22.934 min, 15 scans) (\*\*) 2204

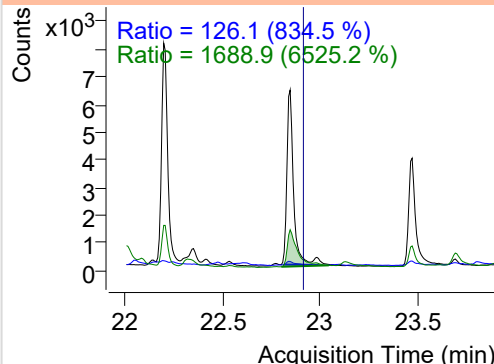


## Dibenz(a,h)anthracene

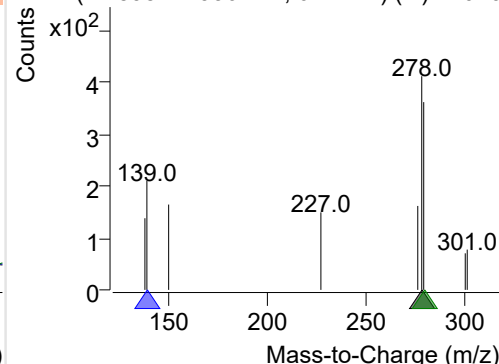
+ Selected Ion (278.0) 220407-PAHs-042.D



278.0, 139.0, 279.0

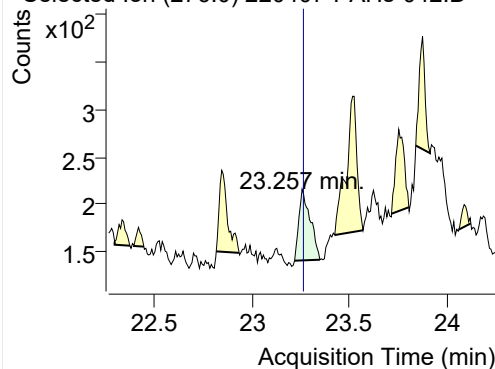


+ SIM (22.898-22.936 min, 6 scans) (\*\*) 22040

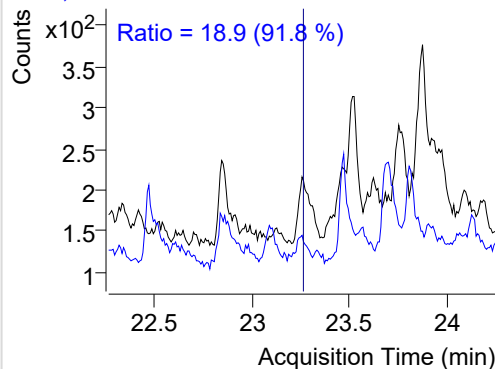


**Benzo(g,h,i)perylene**

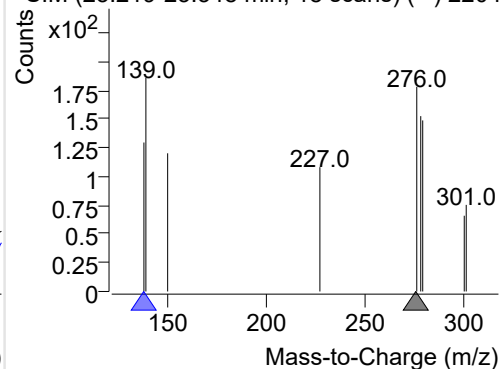
+ Selected Ion (276.0) 220407-PAHs-042.D



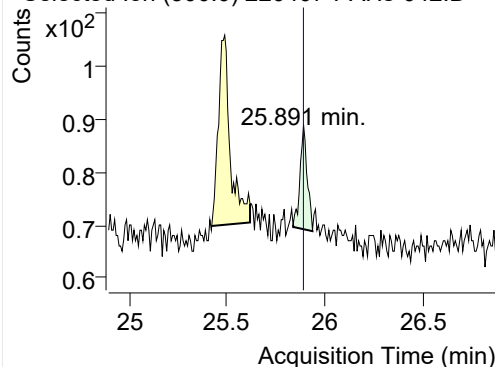
276.0, 138.0



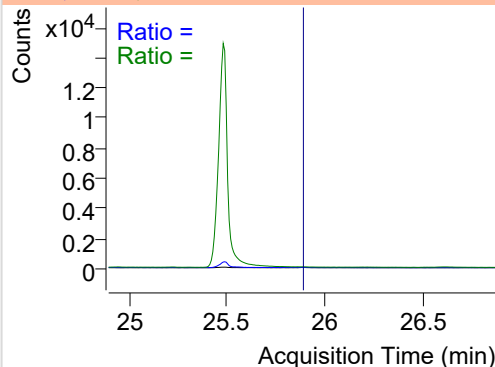
+ SIM (23.219-23.348 min, 18 scans) (\*\*) 2204

**Coronene**

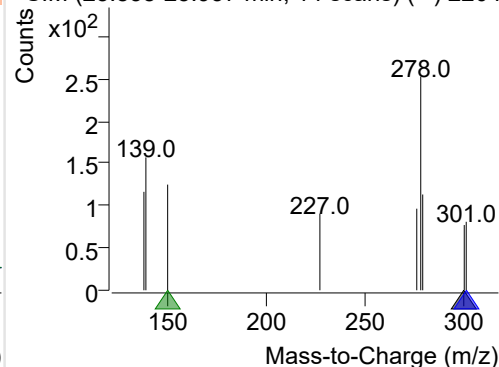
+ Selected Ion (300.0) 220407-PAHs-042.D



300.0, 301.0, 150.0



+ SIM (25.838-25.937 min, 14 scans) (\*\*) 2204





## Quantitative Analysis Sample Based Report

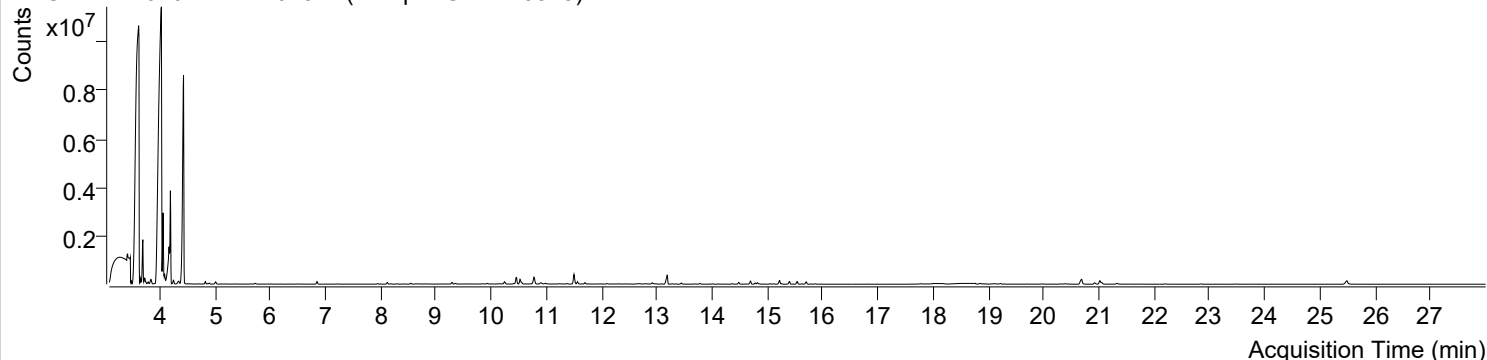


Trusted Answers

Batch Data Path File Name	D:\MassHunter\GCMS\1\data\PAHs\220407-PAHs-Sample\QuantResults\220407-PAHs-Quant.batch.bin		
Analysis Time Stamp	2022-04-13 오후 5:40:30	Analyst Name	DESKTOP-86B7UPG\5975MS
Report Generation Time	2022-04-13 오후 5:40:41	Report Generator Name	DESKTOP-86B7UPG\5975MS
Calibration Last Update	2022-04-13 오후 5:38:35	Batch State	Processed
Analyze Quant Version	10.2	Report Quant Version	10.2
Acq. Date-Time	2022-04-08 오전 9:11:06	Data File	220407-PAHs-043.D
Type	Sample	Name	Sample-Gas-220313
Dil.	1	Acq. Method File	PAHs 19mix-Method

## Sample Chromatogram

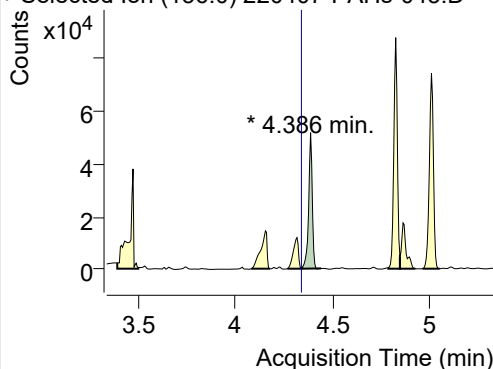
+ TIC SIM 220407-PAHs-043.D (Sample-Gas-220313)



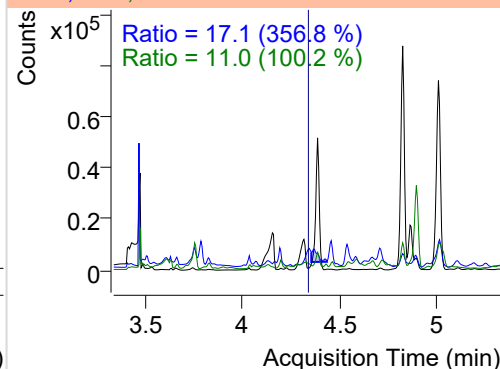
Name	RT	Transition	Resp.	Height	Final Conc. Units	Ratio
IS-D8-Naphthalene	4.386	136.0	65511	51314.03	ND µg/mL	11.0
Naphthalene	4.430	128.0	10829012	6728642.74	ND µg/mL	14.4
Acenaphthylene	7.745	152.0	2921	1988.73	ND µg/mL	
IS-D10-Acenaphthene	8.118	164.0	46849	31831.66	ND µg/mL	93.3
Acenaphthene	8.183	154.0	5503	3632.76	ND µg/mL	119.0
LSS-D10-Fluorene	9.292	176.0	47007	31517.62	ND µg/mL	88.3
Fluorene	9.355	166.0	21883	14163.25	ND µg/mL	88.5
IS-D10-Phenanthrene	11.508	188.0	79340	50234.21	ND µg/mL	16.3
Phenanthrene	11.560	178.0	92362	63915.72	ND µg/mL	17.9
Anthracene	11.655	178.0	1235	1323.59	ND µg/mL	550.3
Fluoranthene	14.359	202.0	19425	11767.55	ND µg/mL	19.1
LSS-D10-Pyrene	14.820	212.0	68149	43270.79	ND µg/mL	17.3
Pyrene	14.852	202.0	14250	8775.99	ND µg/mL	29.9
Benz(a)anthracene	17.715	228.0	260	62.58	ND µg/mL	
IS-D12-Chrysene	17.763	240.0	68958	10451.87	ND µg/mL	13.9
Chrysene	17.812	228.0	177	77.79	ND µg/mL	
Benzo(b)fluoranthene	20.101	252.0	1050	471.00	ND µg/mL	
Benzo(k)fluoranthene	20.188	252.0	118	79.51	ND µg/mL	
SS-D12-Benzo(e)pyrene	20.659	264.0	91440	50386.27	ND µg/mL	28.9
Benzo(e)pyrene	20.687	252.0	313736	159469.01	ND µg/mL	19.1
Benzo(a)pyrene	20.746	252.0	524	587.99	ND µg/mL	11427.4
IS-D12-Perylene	20.920	264.0	83916	38604.04	ND µg/mL	24.5
Perylene	20.947	252.0	934	391.53	ND µg/mL	
Indeno(1,2,3-c,d)pyrene	22.852	276.0	295	86.18	ND µg/mL	77.5
Dibenz(a,h)anthracene	22.890	278.0	405	391.23	ND µg/mL	1262.8
Benzo(g,h,i)perylene	23.265	276.0	205	63.47	ND µg/mL	14.5
Coronene	25.884	300.0	56	17.75	ND µg/mL	

## IS-D8-Naphthalene

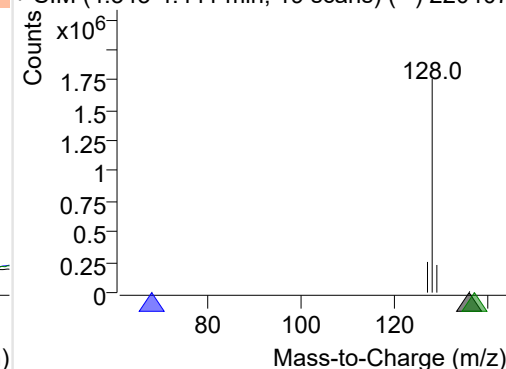
+ Selected Ion (136.0) 220407-PAHs-043.D



136.0, 68.0, 137.0

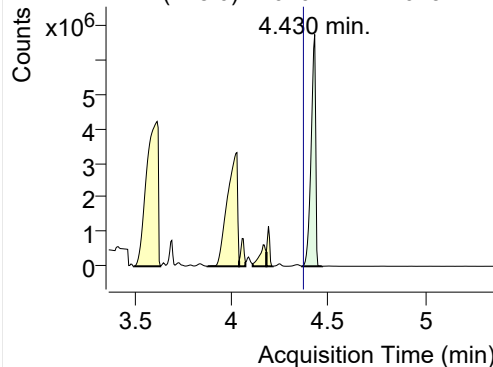


+ SIM (4.343-4.441 min, 19 scans) (\*\*) 220407

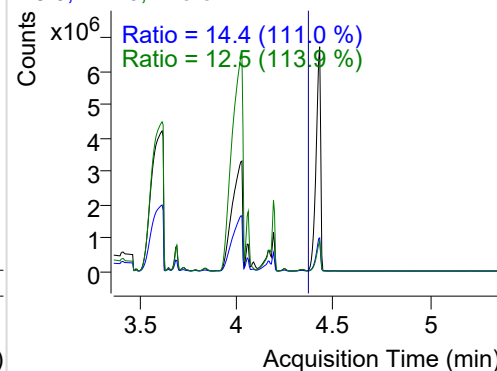


**Naphthalene**

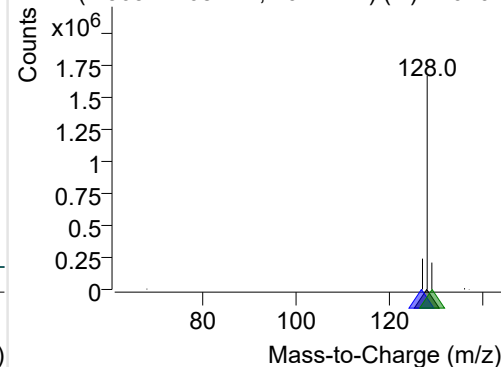
+ Selected Ion (128.0) 220407-PAHs-043.D



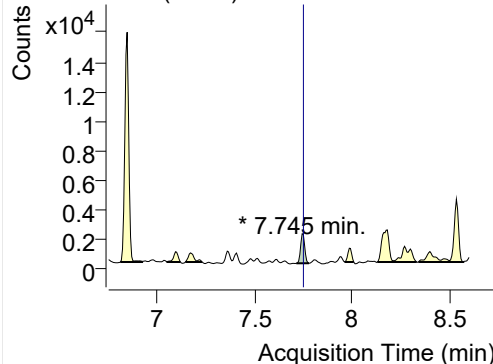
128.0, 127.0, 129.0



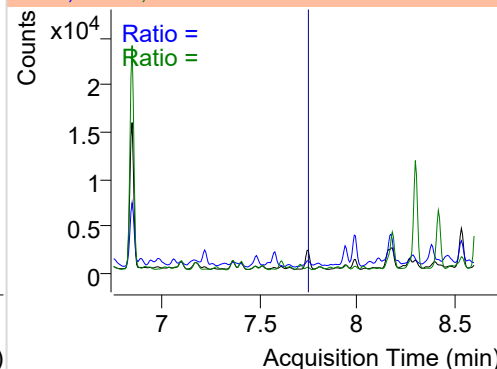
+ SIM (4.365-4.468 min, 20 scans) (\*\*) 220407

**Acenaphthylene**

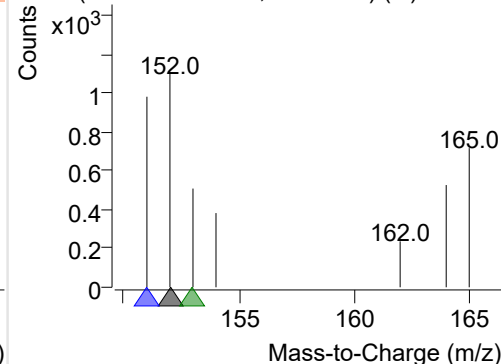
+ Selected Ion (152.0) 220407-PAHs-043.D



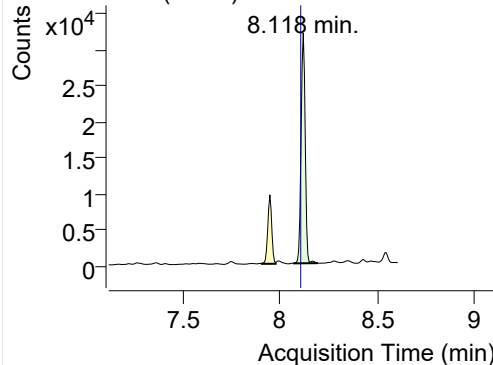
152.0, 151.0, 153.0



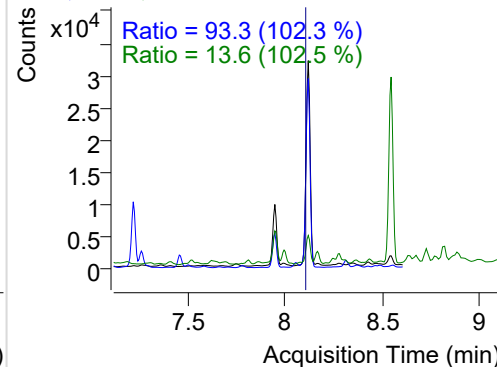
+ SIM (7.716-7.781 min, 12 scans) (\*\*) 220407

**IS-D10-Acenaphthene**

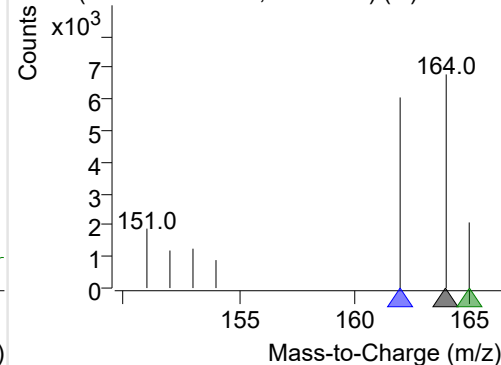
+ Selected Ion (164.0) 220407-PAHs-043.D



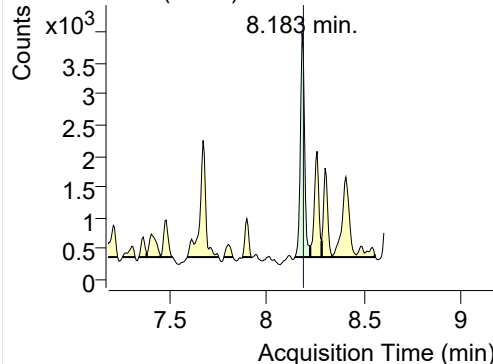
164.0, 162.0, 165.0



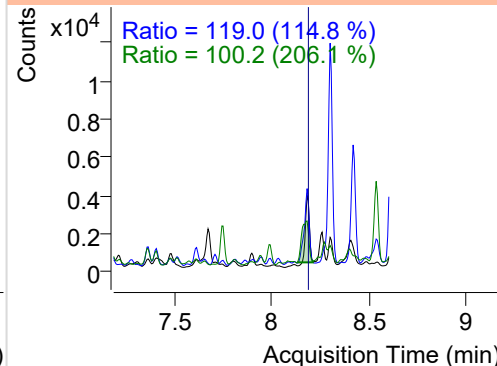
+ SIM (8.071-8.194 min, 21 scans) (\*\*) 220407

**Acenaphthene**

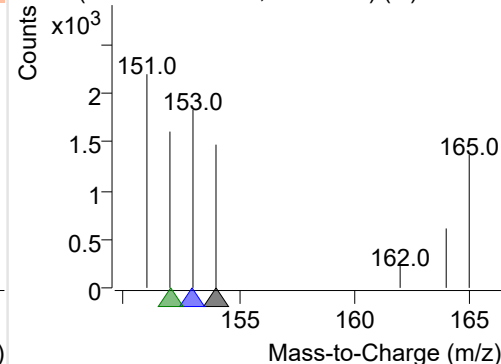
+ Selected Ion (154.0) 220407-PAHs-043.D



154.0, 153.0, 152.0

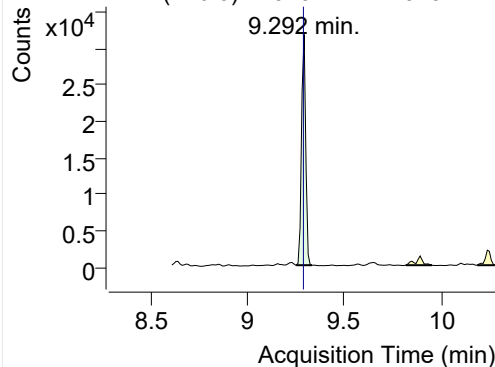


+ SIM (8.148-8.225 min, 14 scans) (\*\*) 220407

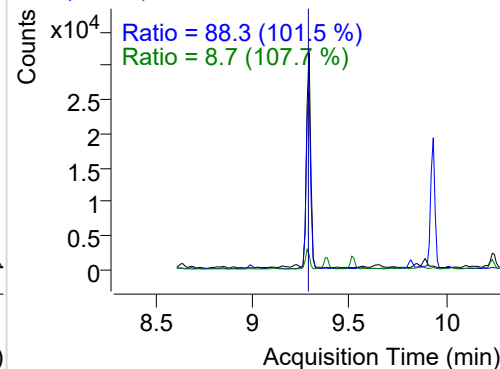


## LSS-D10-Fluorene

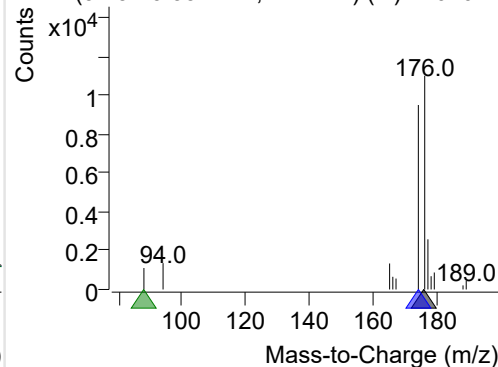
+ Selected Ion (176.0) 220407-PAHs-043.D



176.0, 174.0, 88.0

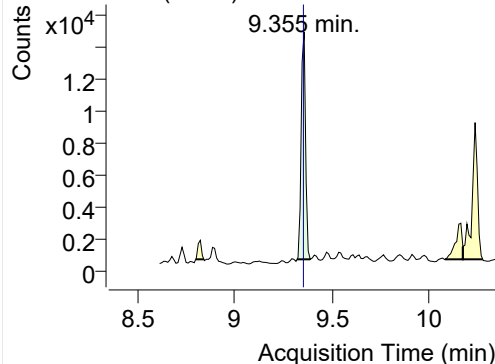


+ SIM (9.251-9.332 min, 7 scans) (\*\*) 220407-I

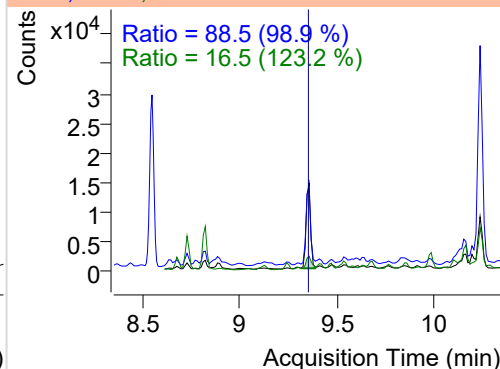


## Fluorene

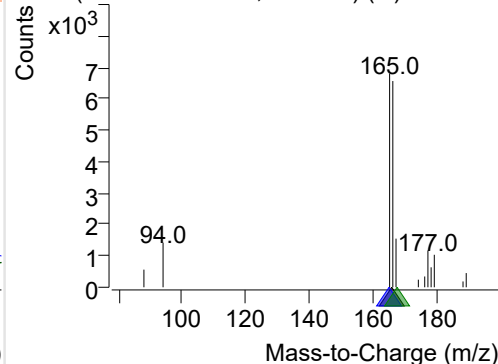
+ Selected Ion (166.0) 220407-PAHs-043.D



166.0, 165.0, 167.0

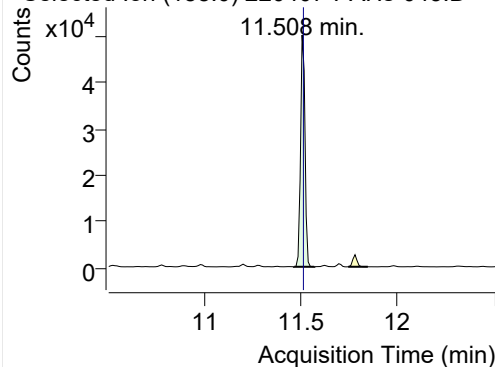


+ SIM (9.318-9.386 min, 6 scans) (\*\*) 220407-I

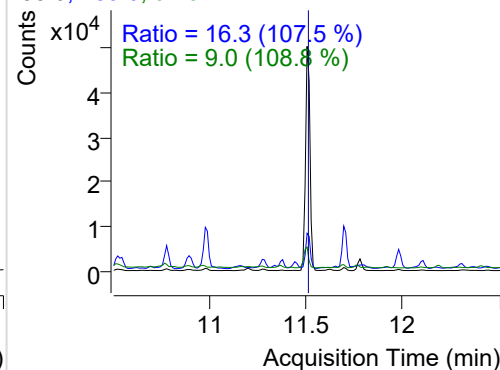


## IS-D10-Phenanthrene

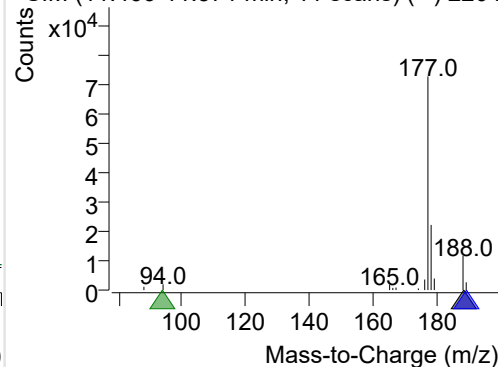
+ Selected Ion (188.0) 220407-PAHs-043.D



188.0, 189.0, 94.0

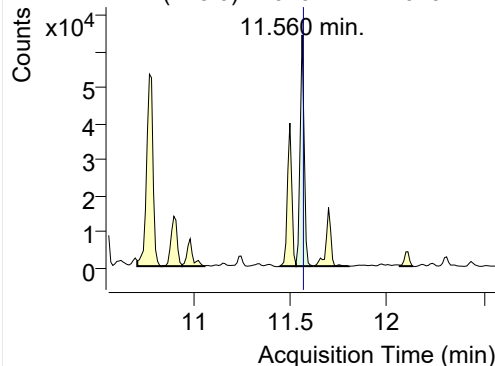


+ SIM (11.466-11.571 min, 11 scans) (\*\*) 2204

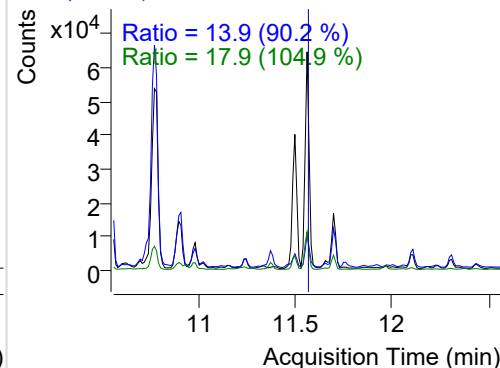


## Phenanthrene

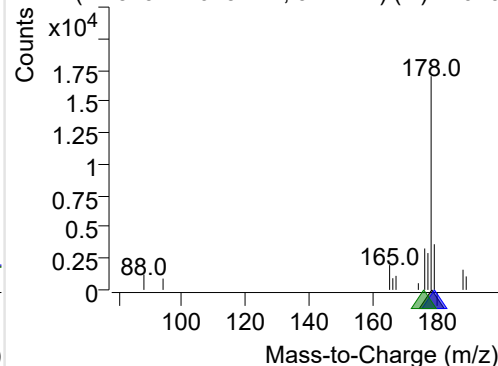
+ Selected Ion (178.0) 220407-PAHs-043.D



178.0, 179.0, 176.0

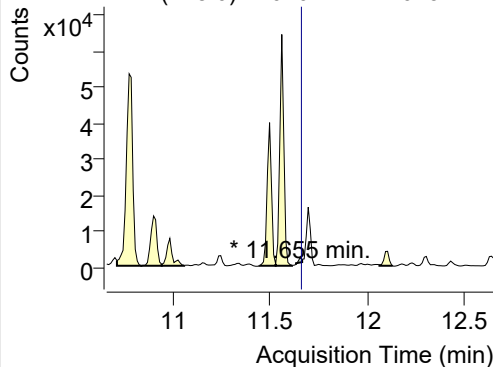


+ SIM (11.529-11.613 min, 9 scans) (\*\*) 22040

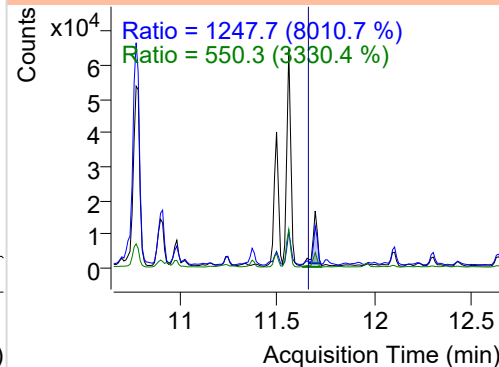


**Anthracene**

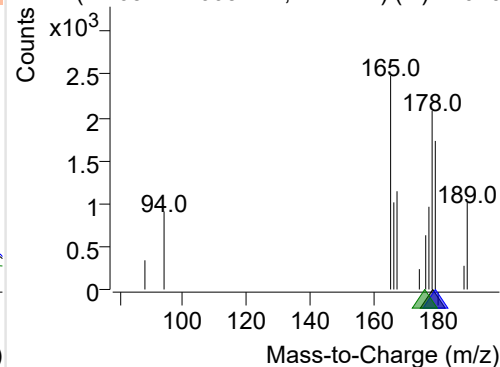
+ Selected Ion (178.0) 220407-PAHs-043.D



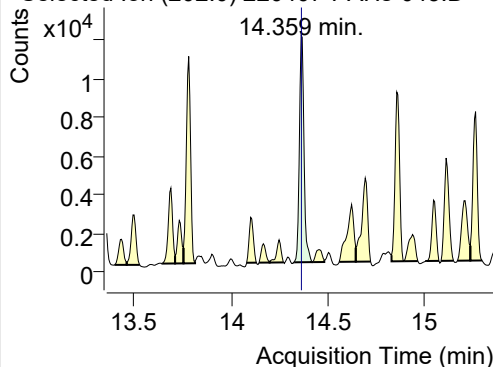
178.0, 179.0, 176.0



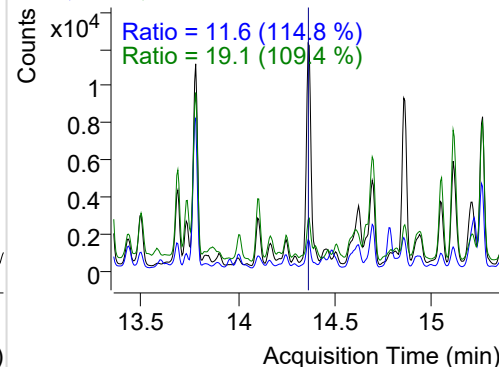
+ SIM (11.634-11.665 min, 4 scans) (\*\*) 22040

**Fluoranthene**

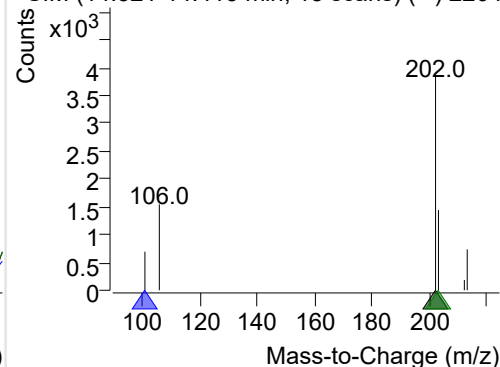
+ Selected Ion (202.0) 220407-PAHs-043.D



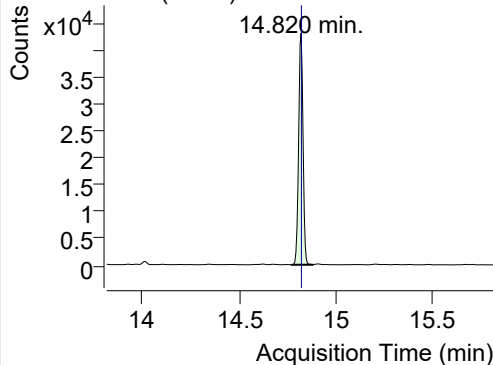
202.0, 101.0, 203.0



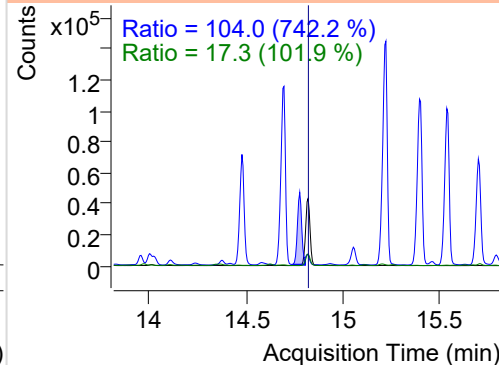
+ SIM (14.321-14.413 min, 18 scans) (\*\*) 2204

**LSS-D10-Pyrene**

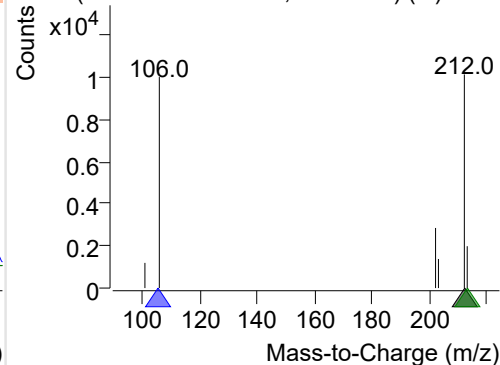
+ Selected Ion (212.0) 220407-PAHs-043.D



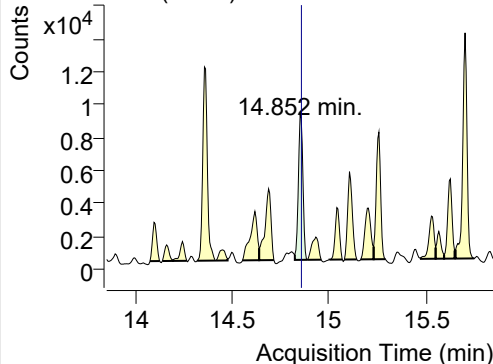
212.0, 106.0, 213.0



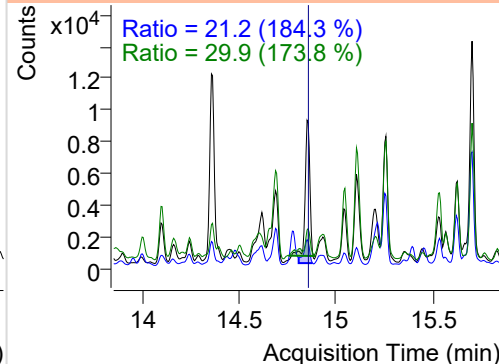
+ SIM (14.771-14.880 min, 21 scans) (\*\*) 2204

**Pyrene**

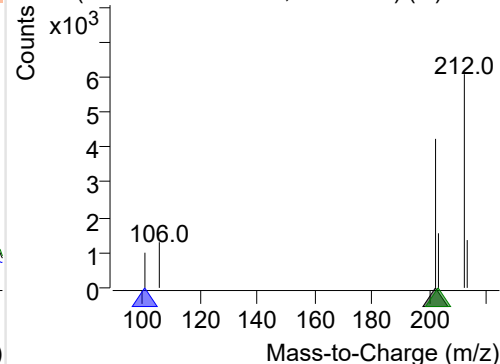
+ Selected Ion (202.0) 220407-PAHs-043.D



202.0, 101.0, 203.0



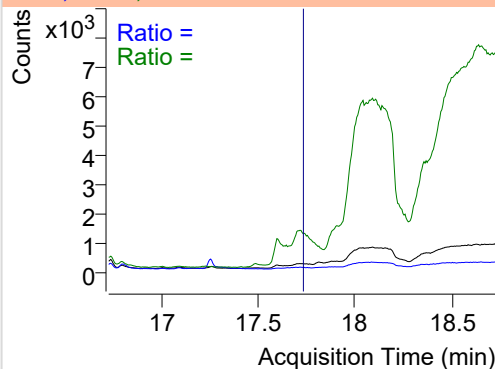
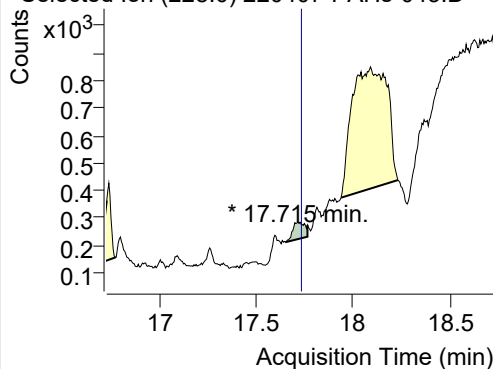
+ SIM (14.825-14.890 min, 12 scans) (\*\*) 2204



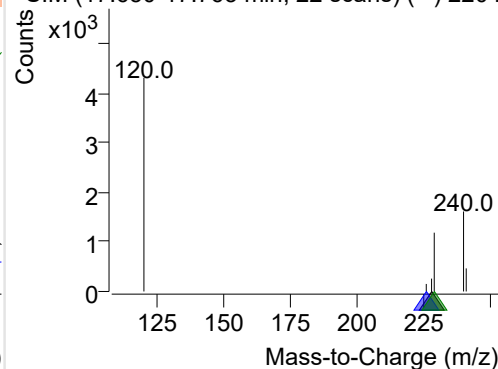
**Benz(a)anthracene**

+ Selected Ion (228.0) 220407-PAHs-043.D

228.0, 226.0, 229.0

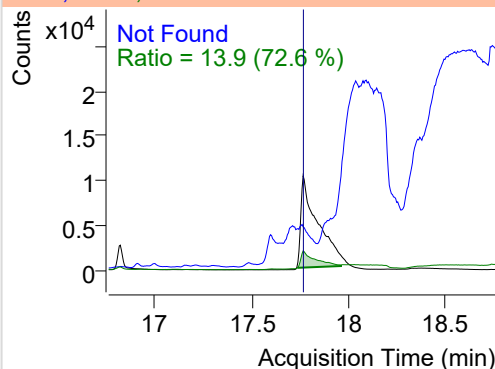
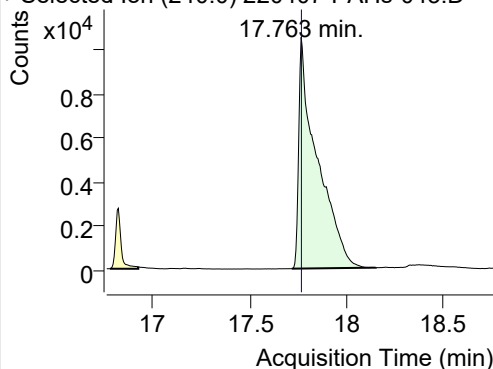


+ SIM (17.650-17.763 min, 22 scans) (\*\*) 2204

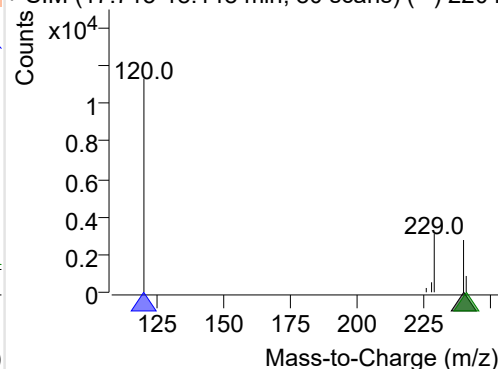
**IS-D12-Chrysene**

+ Selected Ion (240.0) 220407-PAHs-043.D

240.0, 120.0, 241.0

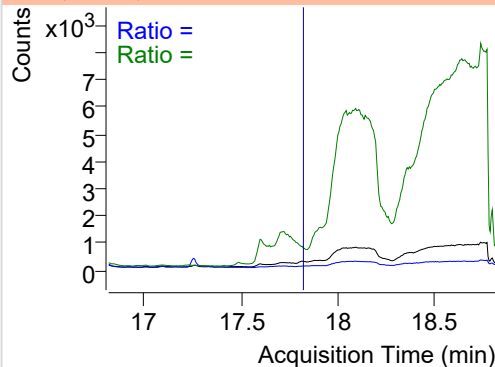
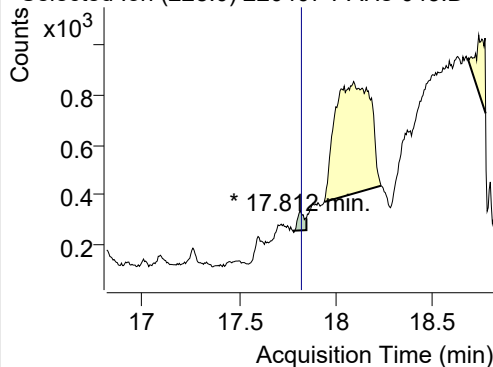


+ SIM (17.715-18.148 min, 80 scans) (\*\*) 2204

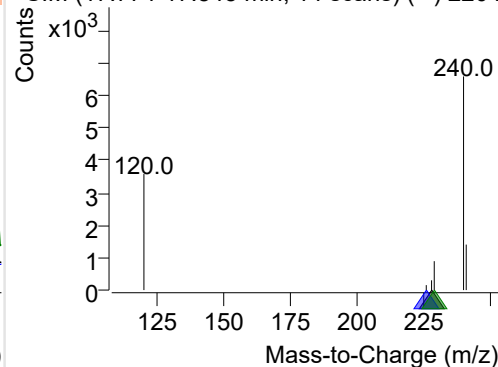
**Chrysene**

+ Selected Ion (228.0) 220407-PAHs-043.D

228.0, 226.0, 229.0

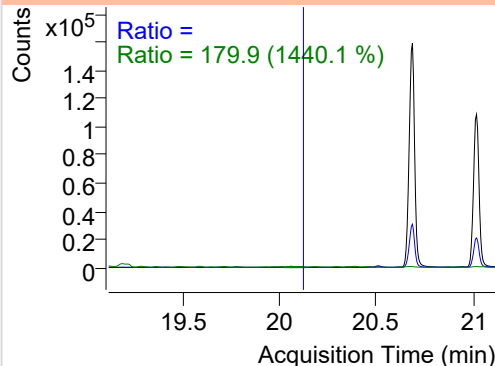
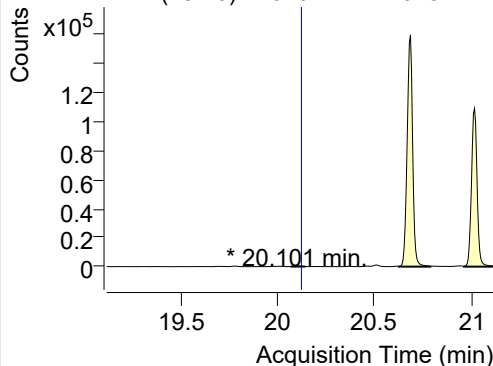


+ SIM (17.774-17.845 min, 14 scans) (\*\*) 2204

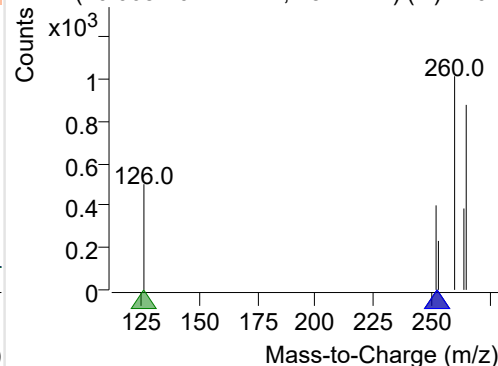
**Benzo(b)fluoranthene**

+ Selected Ion (252.0) 220407-PAHs-043.D

252.0, 253.0, 126.0



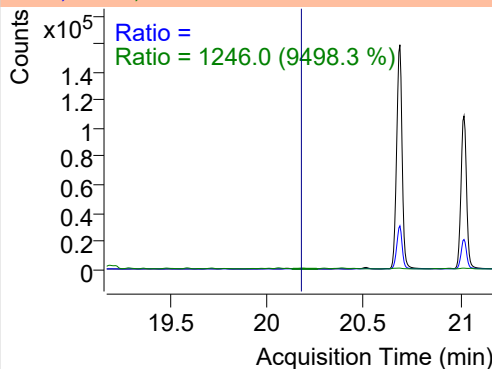
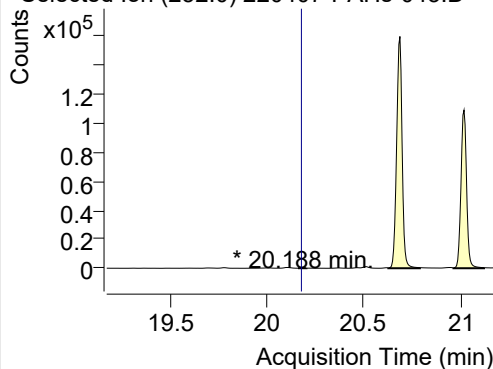
+ SIM (20.068-20.144 min, 15 scans) (\*\*) 2204



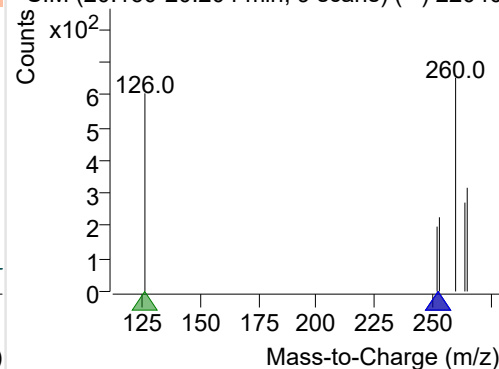
**Benzo(k)fluoranthene**

+ Selected Ion (252.0) 220407-PAHs-043.D

252.0, 253.0, 126.0

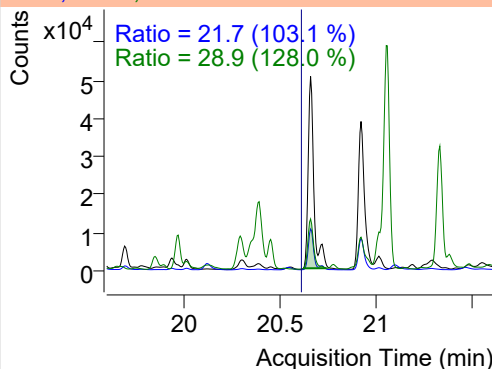
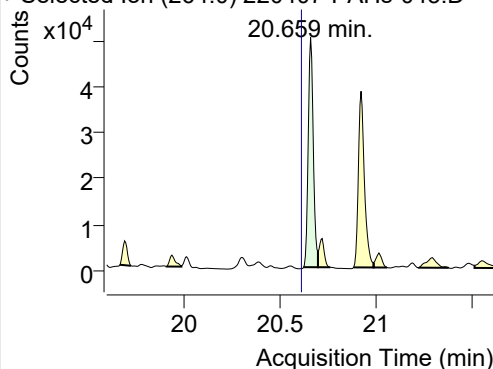


+ SIM (20.160-20.204 min, 9 scans) (\*\*) 22040

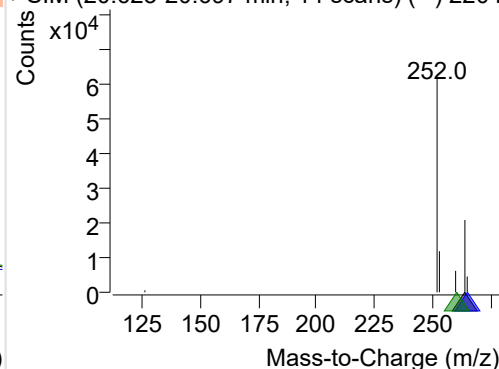
**SS-D12-Benzo(e)pyrene**

+ Selected Ion (264.0) 220407-PAHs-043.D

264.0, 265.0, 260.0

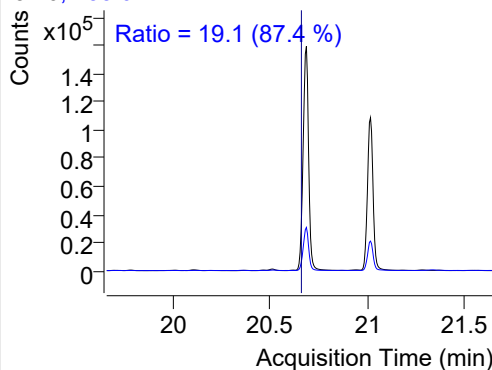
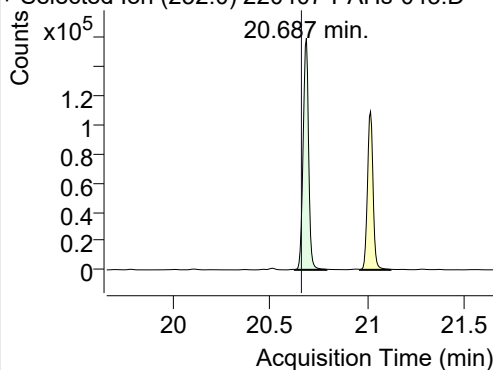


+ SIM (20.623-20.697 min, 14 scans) (\*\*) 2204

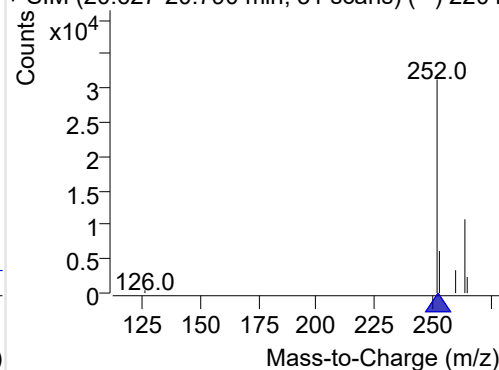
**Benzo(e)pyrene**

+ Selected Ion (252.0) 220407-PAHs-043.D

252.0, 253.0

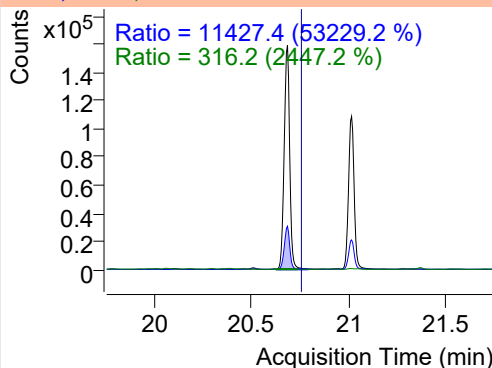
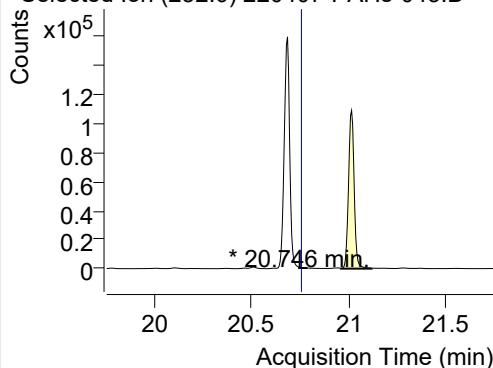


+ SIM (20.627-20.790 min, 31 scans) (\*\*) 2204

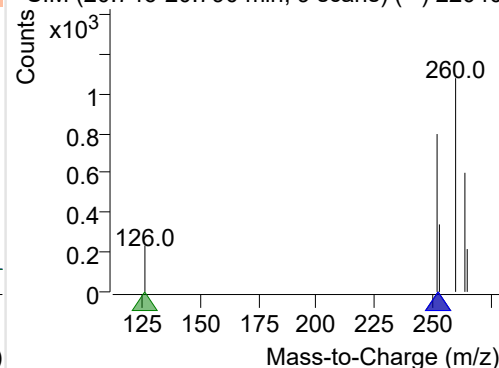
**Benzo(a)pyrene**

+ Selected Ion (252.0) 220407-PAHs-043.D

252.0, 253.0, 126.0

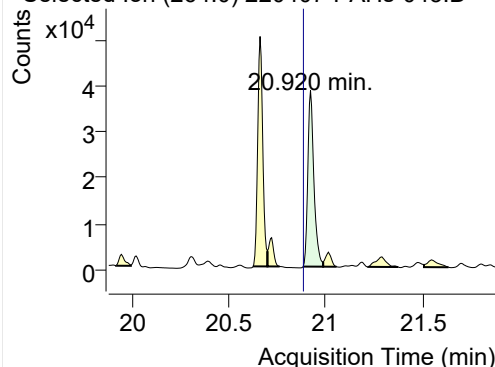


+ SIM (20.746-20.790 min, 9 scans) (\*\*) 22040

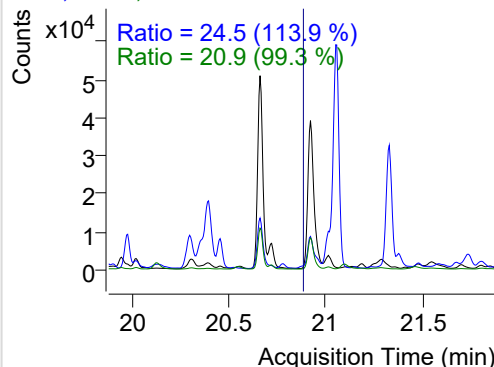


## IS-D12-Perylene

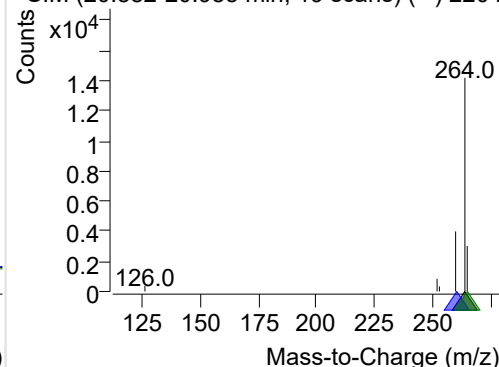
+ Selected Ion (264.0) 220407-PAHs-043.D



264.0, 260.0, 265.0

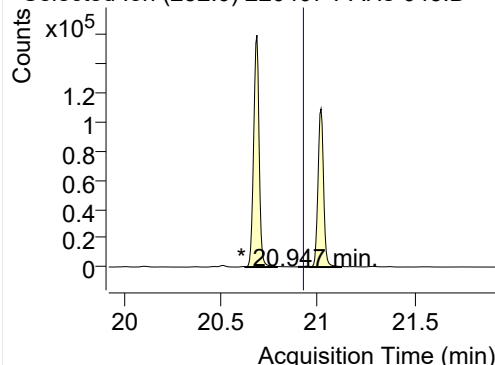


+ SIM (20.882-20.985 min, 19 scans) (\*\*) 2204

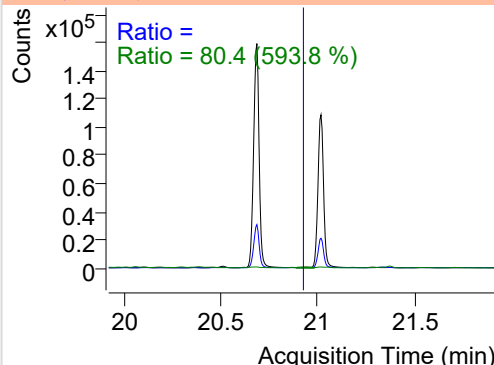


## Perylene

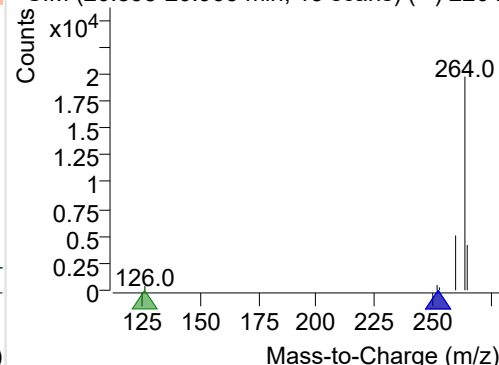
+ Selected Ion (252.0) 220407-PAHs-043.D



252.0, 253.0, 126.0

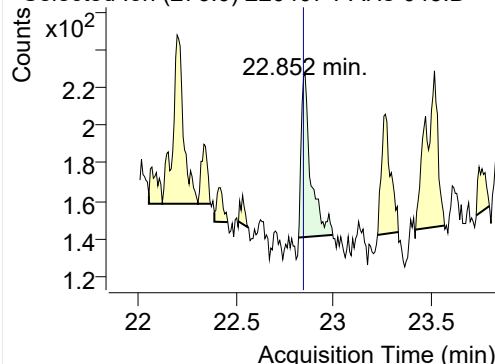


+ SIM (20.898-20.963 min, 13 scans) (\*\*) 2204

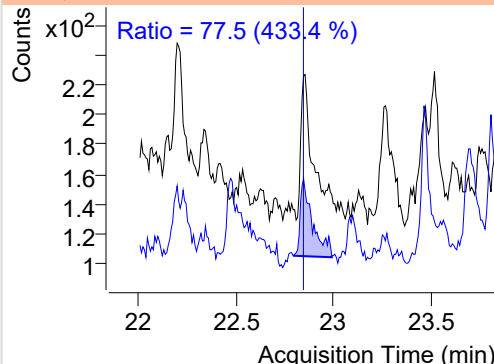


## Indeno(1,2,3-c,d)pyrene

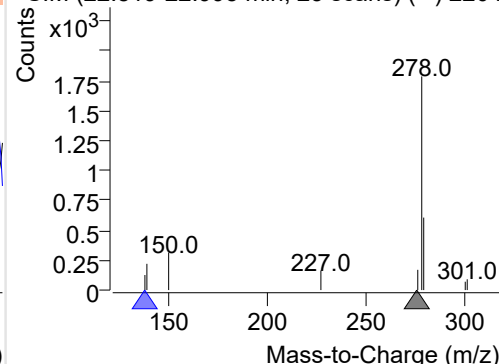
+ Selected Ion (276.0) 220407-PAHs-043.D



276.0, 138.0

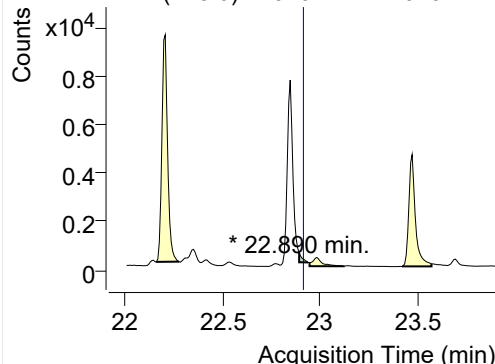


+ SIM (22.819-22.995 min, 23 scans) (\*\*) 2204

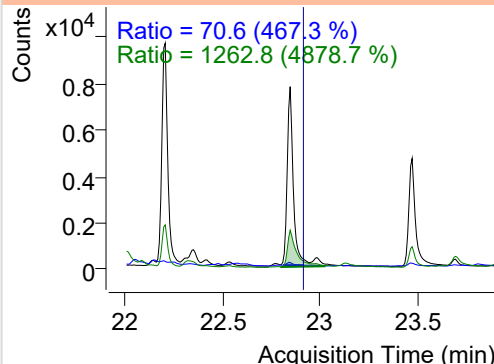


## Dibenz(a,h)anthracene

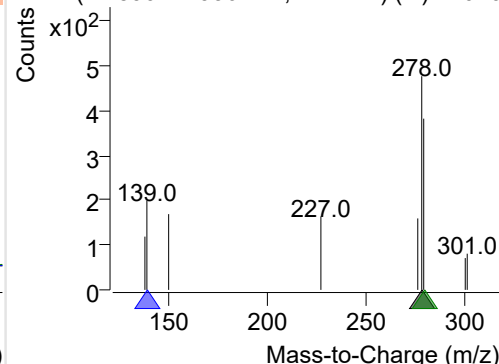
+ Selected Ion (278.0) 220407-PAHs-043.D



278.0, 139.0, 279.0

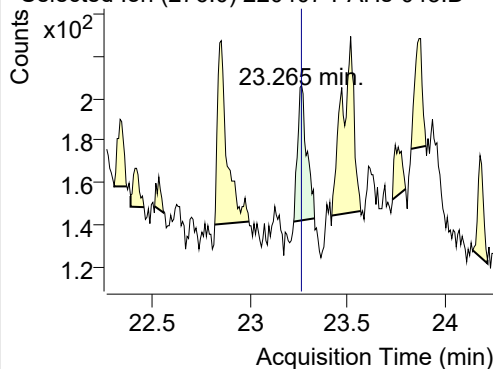


+ SIM (22.890-22.936 min, 7 scans) (\*\*) 22040

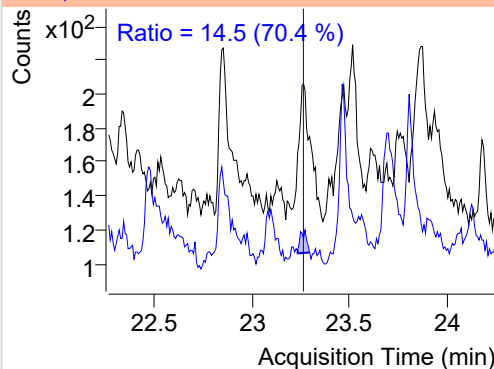


**Benzo(g,h,i)perylene**

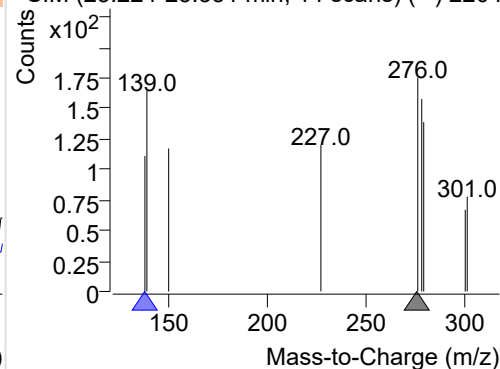
+ Selected Ion (276.0) 220407-PAHs-043.D



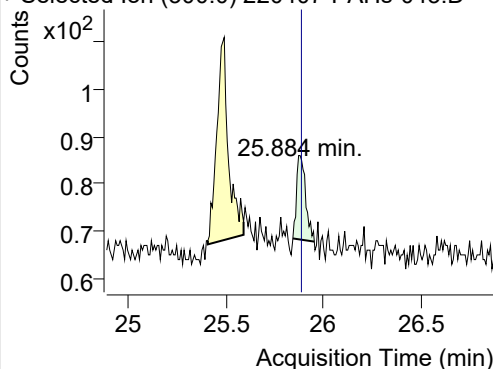
276.0, 138.0



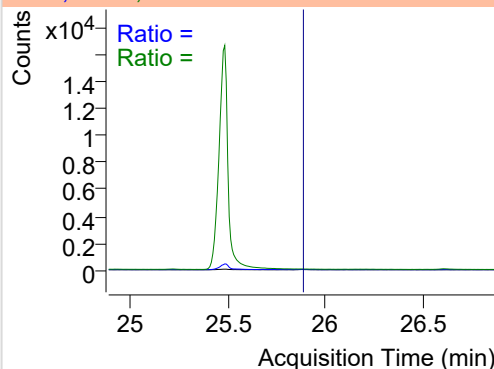
+ SIM (23.224-23.331 min, 14 scans) (\*\*) 2204

**Coronene**

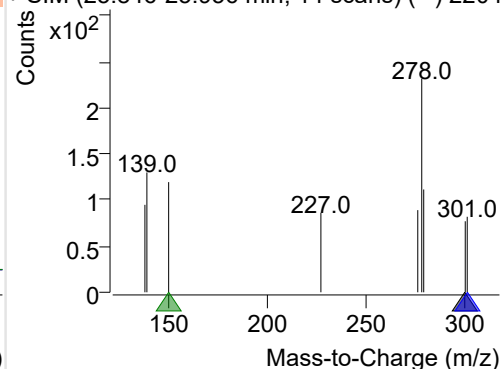
+ Selected Ion (300.0) 220407-PAHs-043.D



300.0, 301.0, 150.0



+ SIM (25.846-25.956 min, 14 scans) (\*\*) 2204





## Quantitative Analysis Sample Based Report

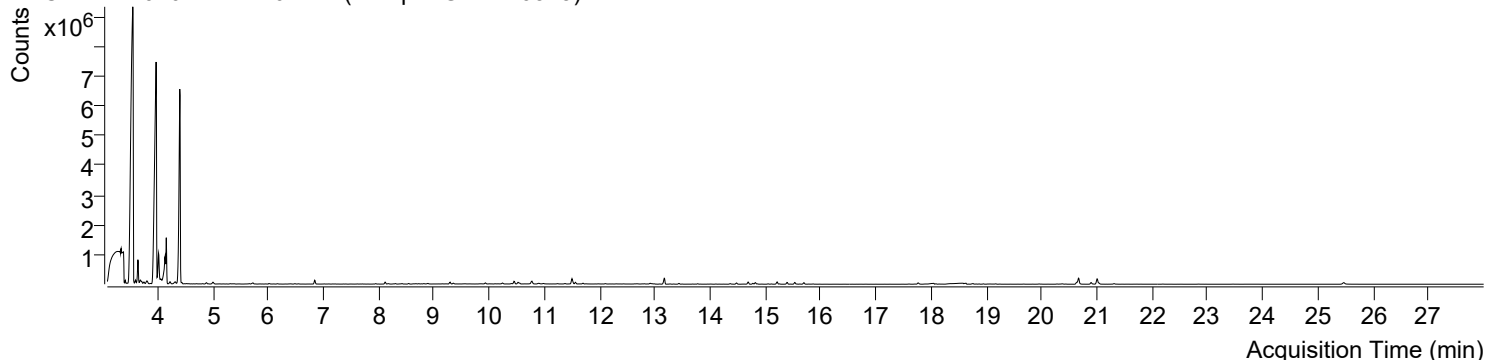


Trusted Answers

Batch Data Path File Name	D:\MassHunter\GCMS\1\data\PAHs\220407-PAHs-Sample\QuantResults\220407-PAHs-Quant.batch.bin		
Analysis Time Stamp	2022-04-13 오후 5:40:30	Analyst Name	DESKTOP-86B7UPG\5975MS
Report Generation Time	2022-04-13 오후 5:40:41	Report Generator Name	DESKTOP-86B7UPG\5975MS
Calibration Last Update	2022-04-13 오후 5:38:35	Batch State	Processed
Analyze Quant Version	10.2	Report Quant Version	10.2
Acq. Date-Time	2022-04-08 오전 9:42:10	Data File	220407-PAHs-044.D
Type	Sample	Name	Sample-Gas-220325
Dil.	1	Acq. Method File	PAHs 19mix-Method

## Sample Chromatogram

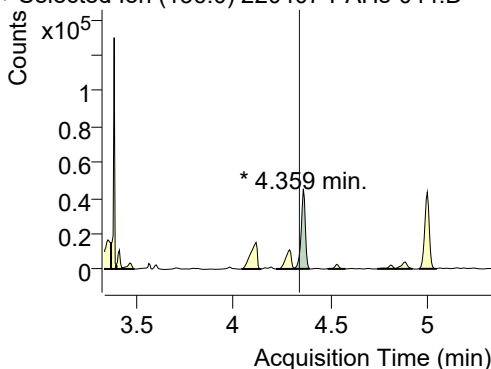
+ TIC SIM 220407-PAHs-044.D (Sample-Gas-220325)



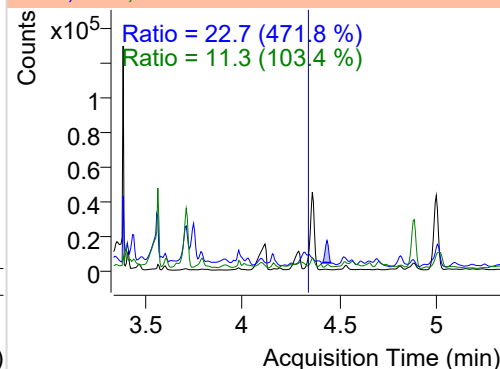
Name	RT	Transition	Resp.	Height	Final Conc. Units	Ratio
IS-D8-Naphthalene	4.359	136.0	65707	44787.75	ND µg/mL	11.3
Naphthalene	4.397	128.0	8369928	5177016.72	ND µg/mL	13.8
Acenaphthylene	7.745	152.0	1741	1234.19	ND µg/mL	
IS-D10-Acenaphthene	8.118	164.0	47375	31504.45	ND µg/mL	92.0
Acenaphthene	8.183	154.0	4671	2921.12	ND µg/mL	132.7
LSS-D10-Fluorene	9.292	176.0	43713	29108.89	ND µg/mL	89.3
Fluorene	9.355	166.0	18791	11779.70	ND µg/mL	96.2
IS-D10-Phenanthrene	11.508	188.0	75821	48977.22	ND µg/mL	15.7
Phenanthrene	11.560	178.0	57446	37718.63	ND µg/mL	18.3
Anthracene	11.655	178.0	511	569.95	ND µg/mL	606.6
Fluoranthene	14.359	202.0	20626	12784.81	ND µg/mL	12.7
LSS-D10-Pyrene	14.814	212.0	64150	38791.51	ND µg/mL	16.9
Pyrene	14.852	202.0	12048	7769.57	ND µg/mL	11.3
Benz(a)anthracene	17.709	228.0	265	90.20	ND µg/mL	
IS-D12-Chrysene	17.763	240.0	67110	33404.74	ND µg/mL	18.6
Chrysene	17.812	228.0	453	244.17	ND µg/mL	23.2
Benzo(b)fluoranthene	20.079	252.0	467	238.00	ND µg/mL	
Benzo(k)fluoranthene	20.193	252.0	74	48.33	ND µg/mL	
SS-D12-Benzo(e)pyrene	20.632	264.0	74173	41867.08	ND µg/mL	27.1
Benzo(e)pyrene	20.665	252.0	313062	169083.25	ND µg/mL	19.0
Benzo(a)pyrene	20.741	252.0	330	406.95	ND µg/mL	18031.6
IS-D12-Perylene	20.893	264.0	75912	38473.19	ND µg/mL	22.5
Perylene	20.947	252.0	701	805.54	ND µg/mL	
Indeno(1,2,3-c,d)pyrene	22.837	276.0	153	44.20	ND µg/mL	79.0
Dibenz(a,h)anthracene	22.883	278.0	201	172.27	ND µg/mL	920.5
Benzo(g,h,i)perylene	23.249	276.0	165	39.63	ND µg/mL	41.7
Coronene	25.861	300.0	43	10.17	ND µg/mL	

## IS-D8-Naphthalene

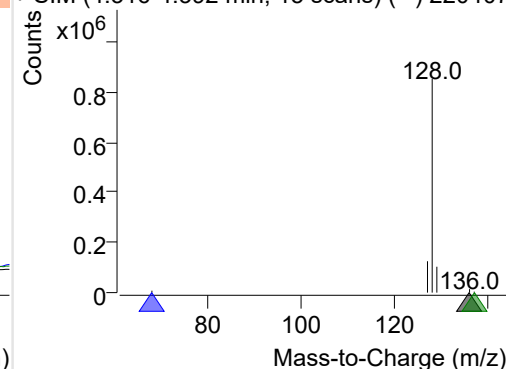
+ Selected Ion (136.0) 220407-PAHs-044.D



136.0, 68.0, 137.0

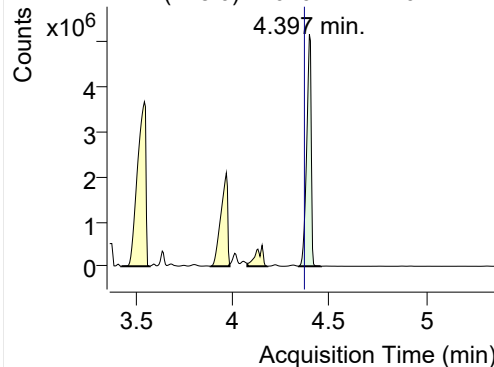


+ SIM (4.316-4.392 min, 15 scans) (\*\*) 220407

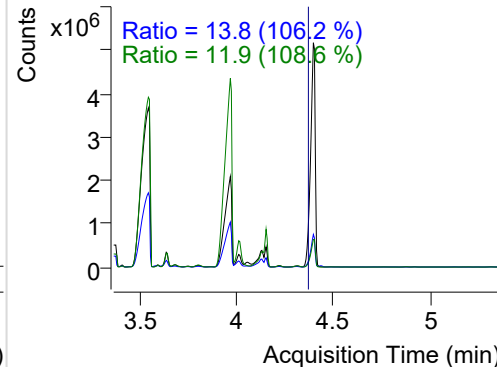


**Naphthalene**

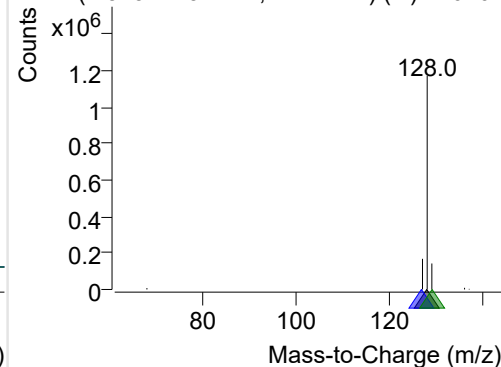
+ Selected Ion (128.0) 220407-PAHs-044.D



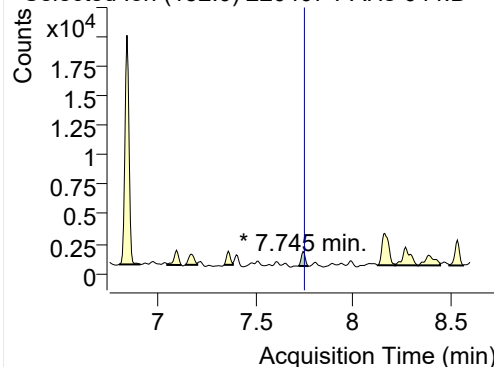
128.0, 127.0, 129.0



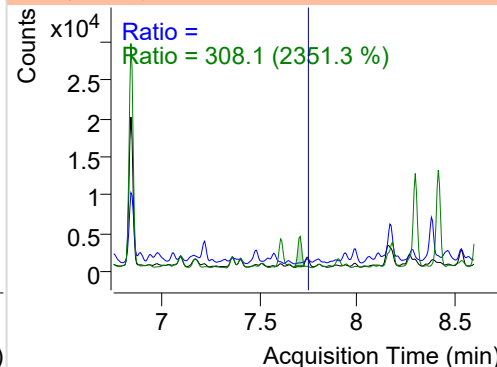
+ SIM (4.343-4.457 min, 22 scans) (\*\*) 220407

**Acenaphthylene**

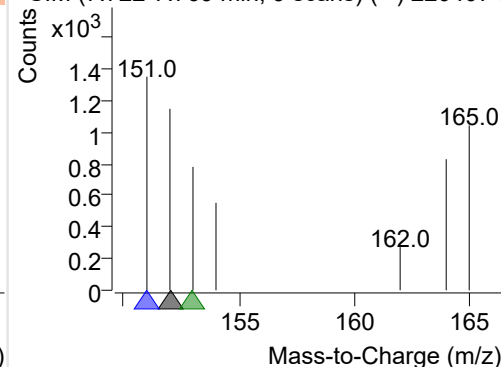
+ Selected Ion (152.0) 220407-PAHs-044.D



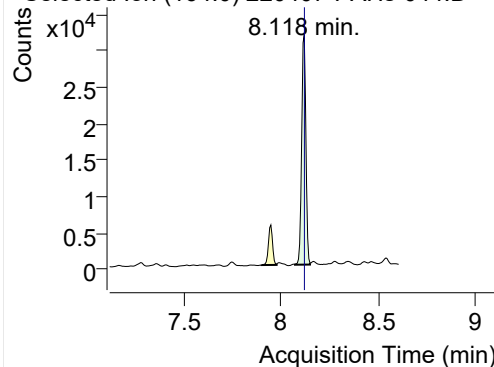
152.0, 151.0, 153.0



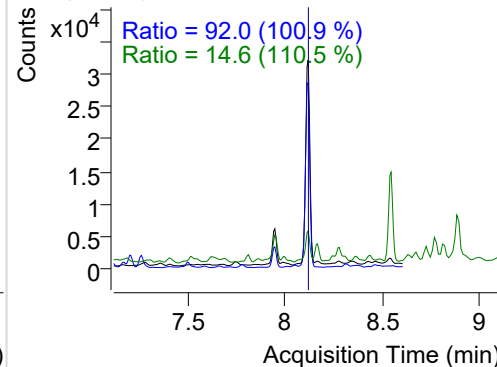
+ SIM (7.722-7.769 min, 9 scans) (\*\*) 220407-I

**IS-D10-Acenaphthene**

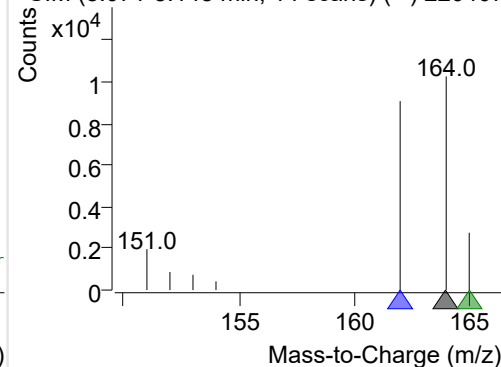
+ Selected Ion (164.0) 220407-PAHs-044.D



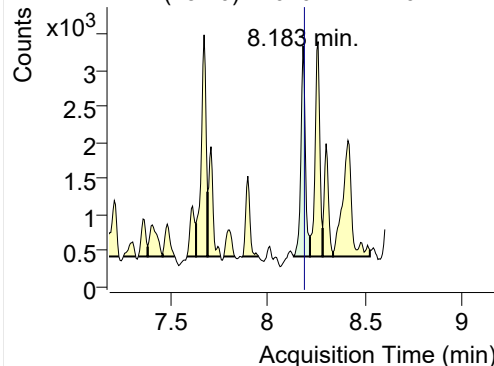
164.0, 162.0, 165.0



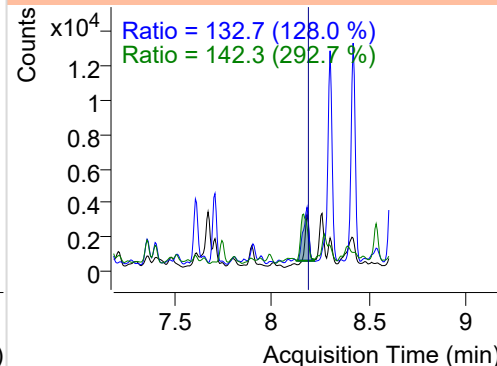
+ SIM (8.071-8.148 min, 14 scans) (\*\*) 220407

**Acenaphthene**

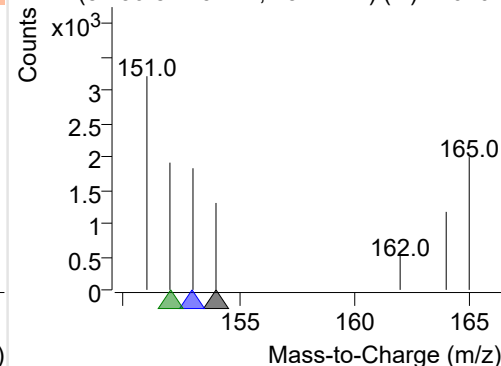
+ Selected Ion (154.0) 220407-PAHs-044.D



154.0, 153.0, 152.0

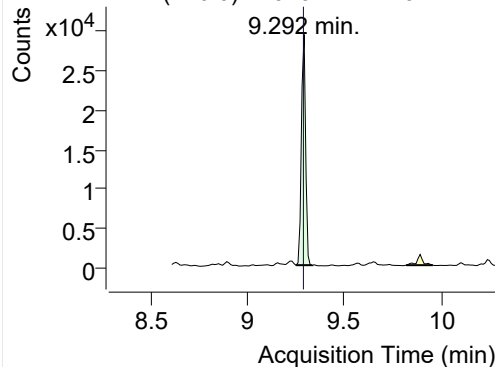


+ SIM (8.136-8.219 min, 15 scans) (\*\*) 220407

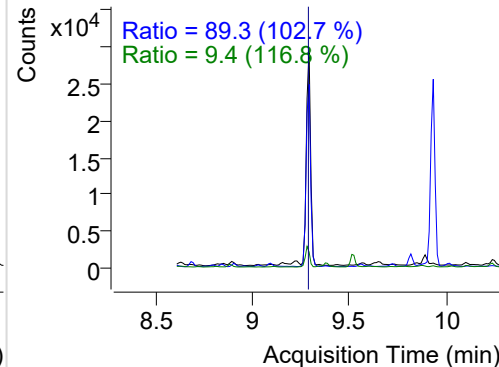


## LSS-D10-Fluorene

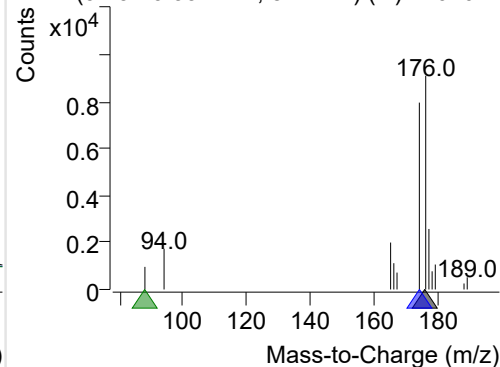
+ Selected Ion (176.0) 220407-PAHs-044.D



176.0, 174.0, 88.0

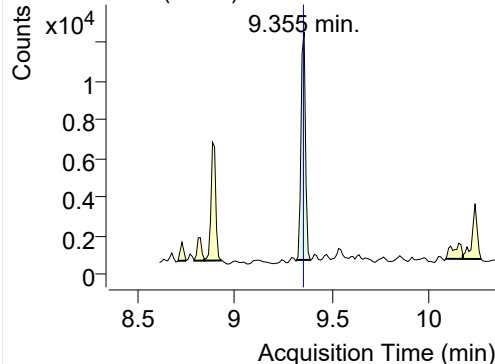


+ SIM (9.251-9.334 min, 8 scans) (\*\*) 220407-I

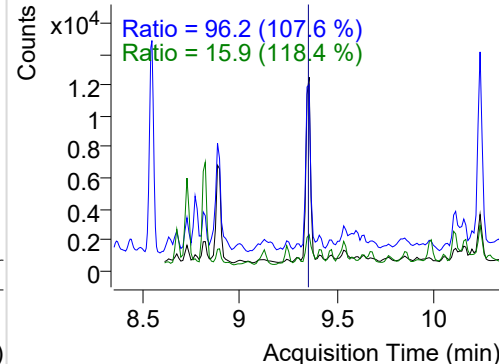


## Fluorene

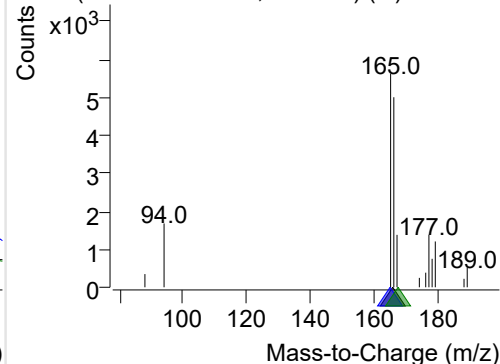
+ Selected Ion (166.0) 220407-PAHs-044.D



166.0, 165.0, 167.0

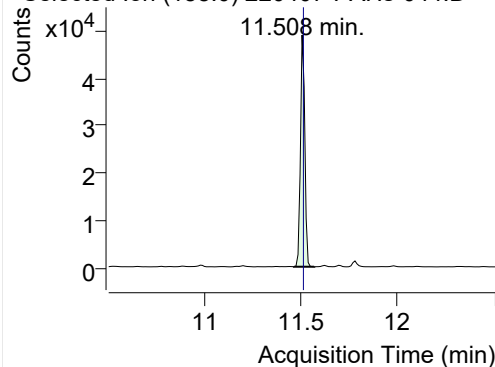


+ SIM (9.316-9.386 min, 7 scans) (\*\*) 220407-I

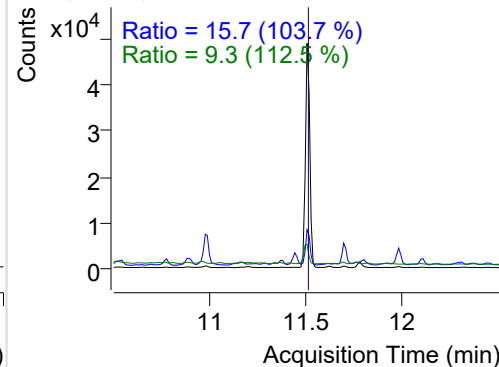


## IS-D10-Phenanthrene

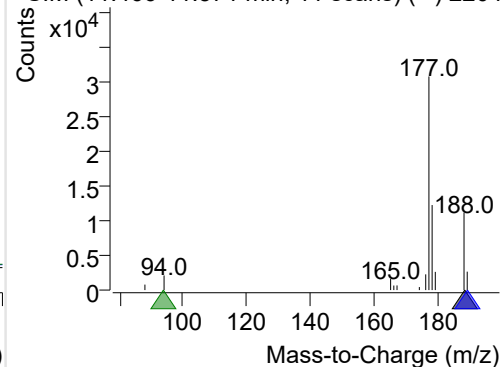
+ Selected Ion (188.0) 220407-PAHs-044.D



188.0, 189.0, 94.0

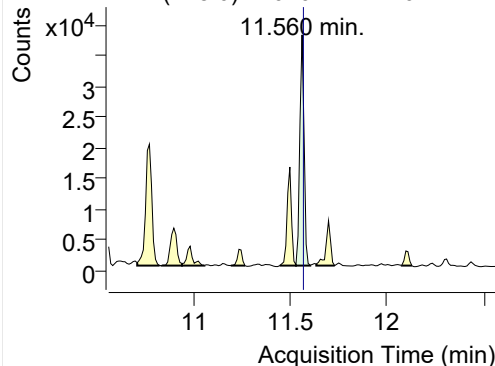


+ SIM (11.466-11.571 min, 11 scans) (\*\*) 2204

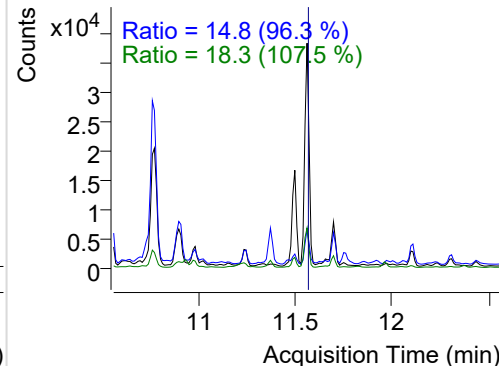


## Phenanthrene

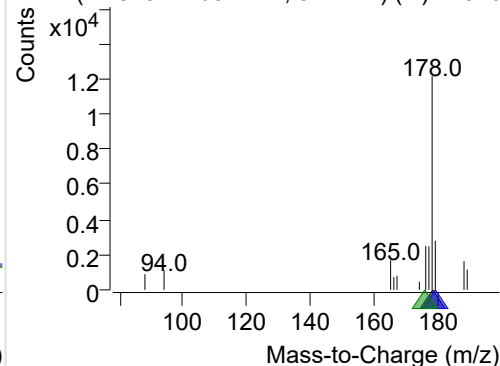
+ Selected Ion (178.0) 220407-PAHs-044.D



178.0, 179.0, 176.0

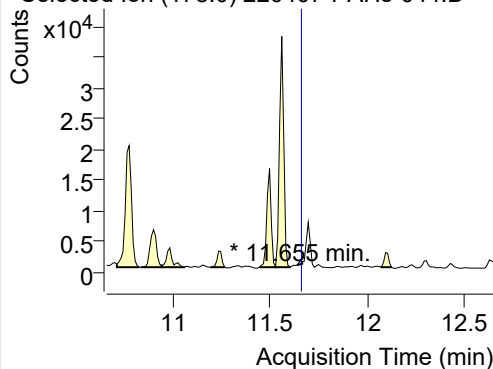


+ SIM (11.529-11.602 min, 8 scans) (\*\*) 22040

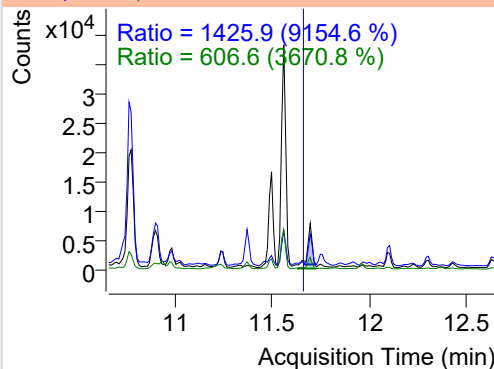


**Anthracene**

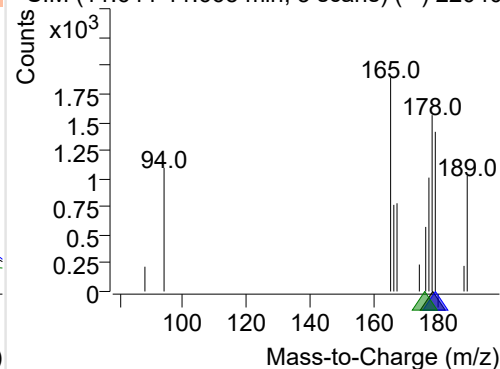
+ Selected Ion (178.0) 220407-PAHs-044.D



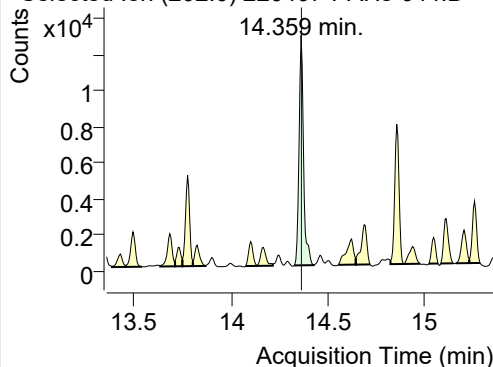
178.0, 179.0, 176.0



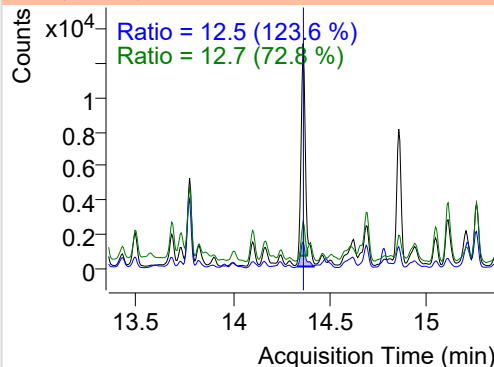
+ SIM (11.644-11.665 min, 3 scans) (\*\*) 22040

**Fluoranthene**

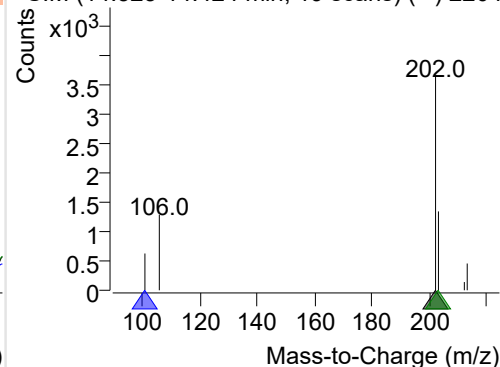
+ Selected Ion (202.0) 220407-PAHs-044.D



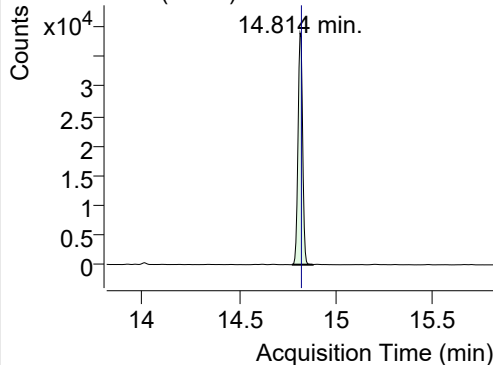
202.0, 101.0, 203.0



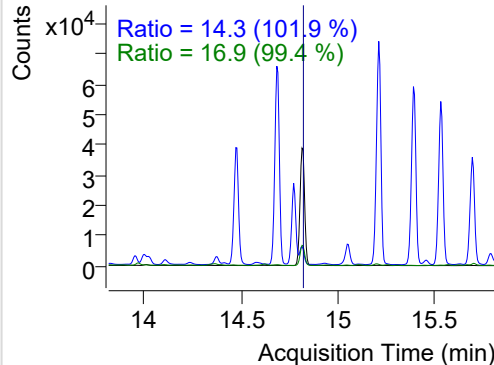
+ SIM (14.323-14.424 min, 19 scans) (\*\*) 2204

**LSS-D10-Pyrene**

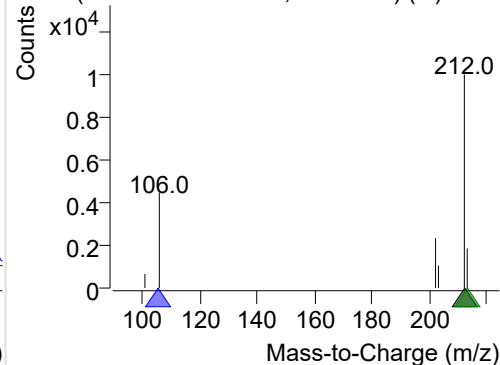
+ Selected Ion (212.0) 220407-PAHs-044.D



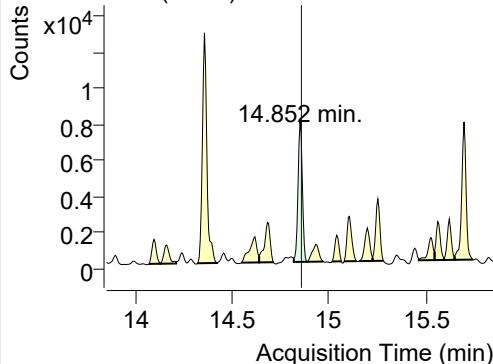
212.0, 106.0, 213.0



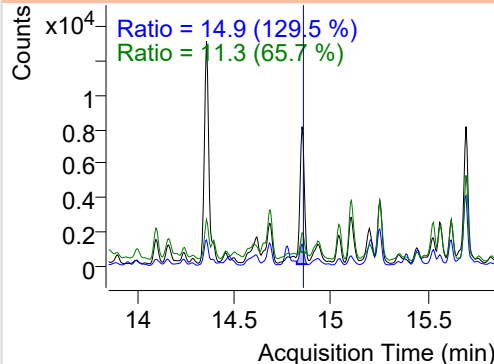
+ SIM (14.772-14.879 min, 20 scans) (\*\*) 2204

**Pyrene**

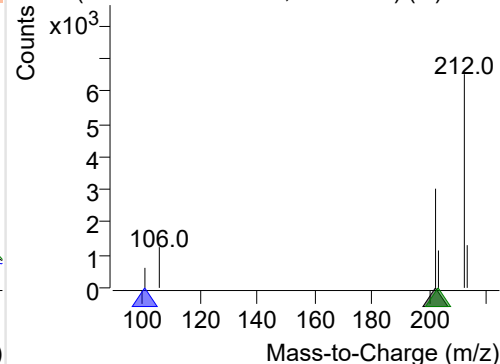
+ Selected Ion (202.0) 220407-PAHs-044.D



202.0, 101.0, 203.0



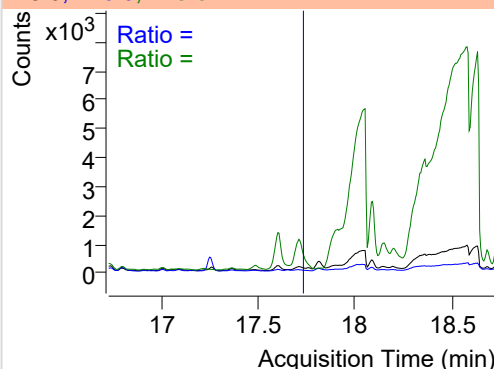
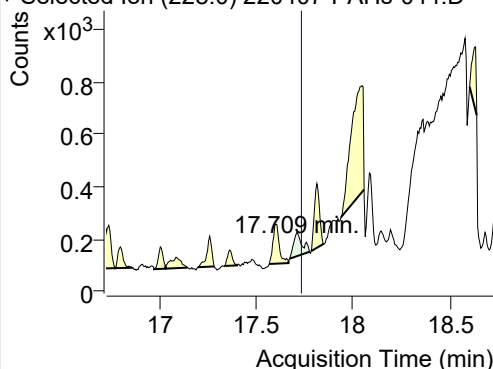
+ SIM (14.820-14.890 min, 14 scans) (\*\*) 2204



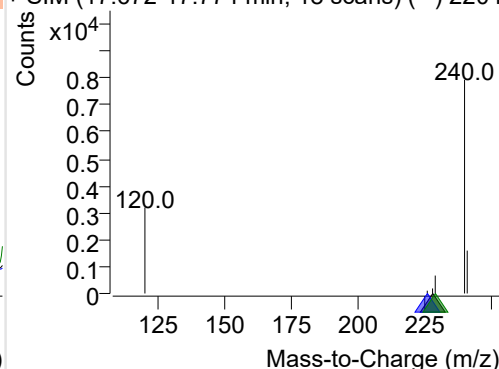
**Benz(a)anthracene**

+ Selected Ion (228.0) 220407-PAHs-044.D

228.0, 226.0, 229.0

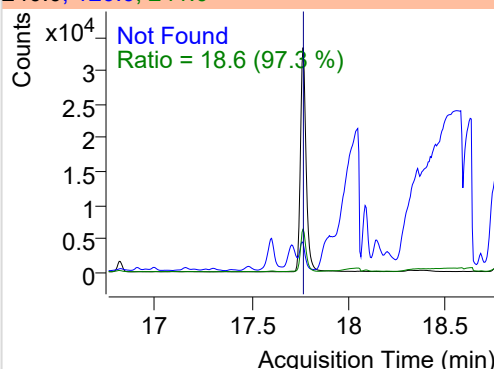
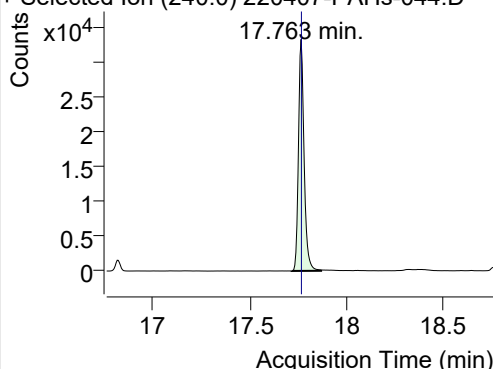


+ SIM (17.672-17.774 min, 18 scans) (\*\*) 2204

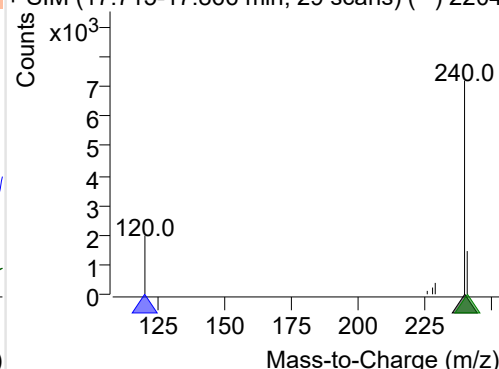
**IS-D12-Chrysene**

+ Selected Ion (240.0) 220407-PAHs-044.D

240.0, 120.0, 241.0

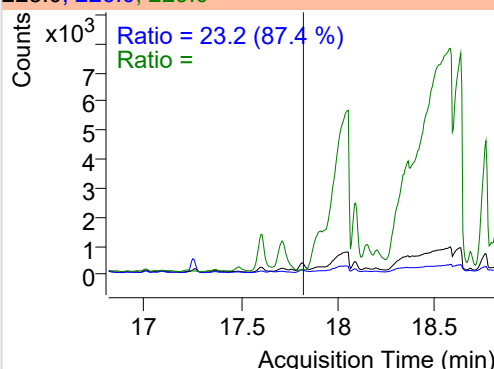
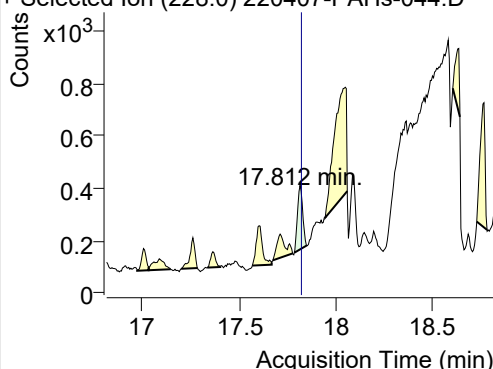


+ SIM (17.715-17.866 min, 29 scans) (\*\*) 2204

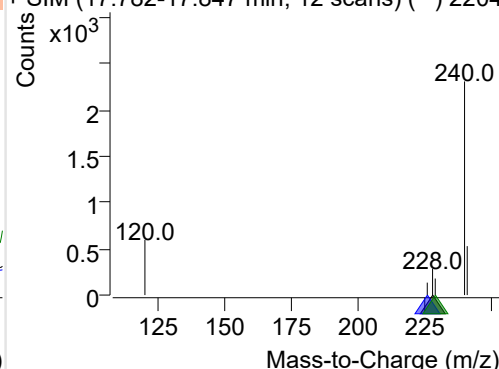
**Chrysene**

+ Selected Ion (228.0) 220407-PAHs-044.D

228.0, 226.0, 229.0

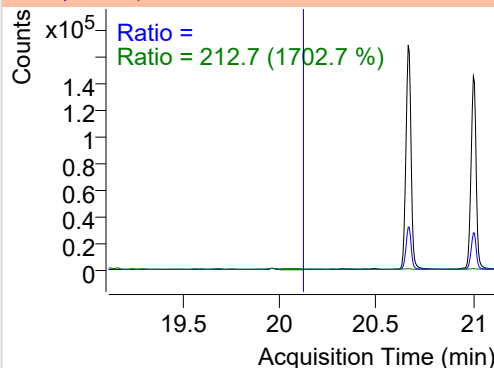
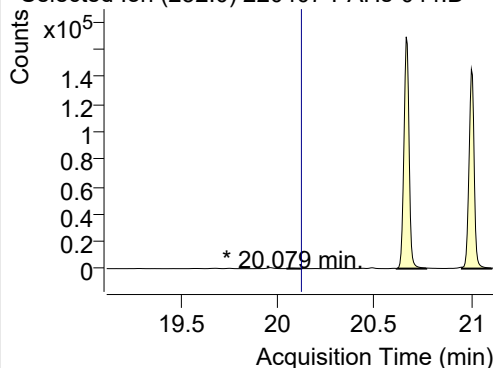


+ SIM (17.782-17.847 min, 12 scans) (\*\*) 2204

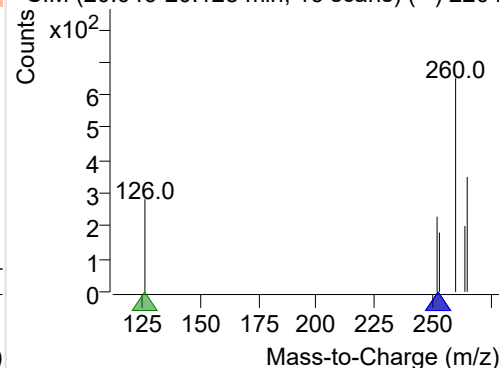
**Benzo(b)fluoranthene**

+ Selected Ion (252.0) 220407-PAHs-044.D

252.0, 253.0, 126.0



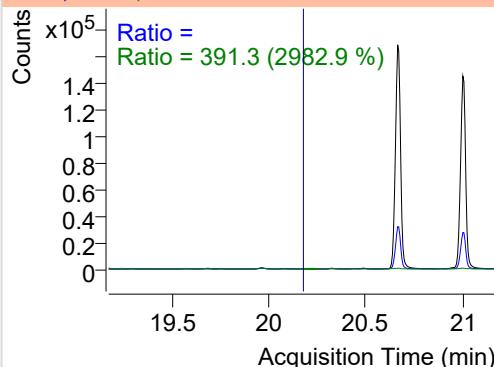
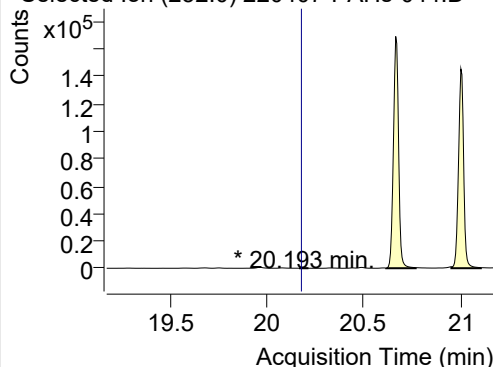
+ SIM (20.046-20.128 min, 16 scans) (\*\*) 2204



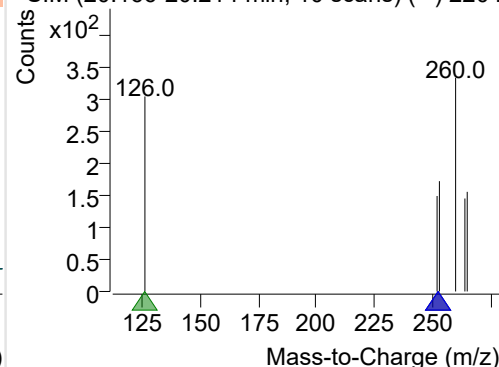
**Benzo(k)fluoranthene**

+ Selected Ion (252.0) 220407-PAHs-044.D

252.0, 253.0, 126.0

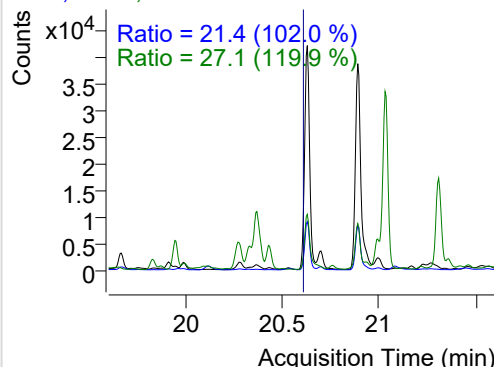
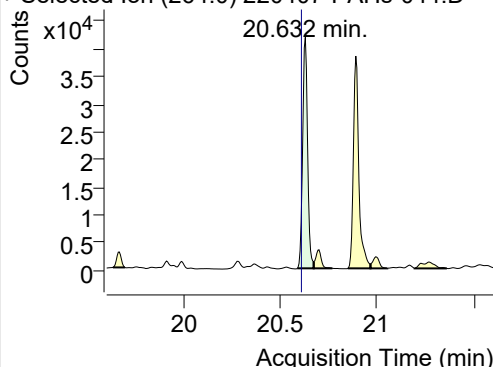


+ SIM (20.166-20.214 min, 10 scans) (\*\*) 2204

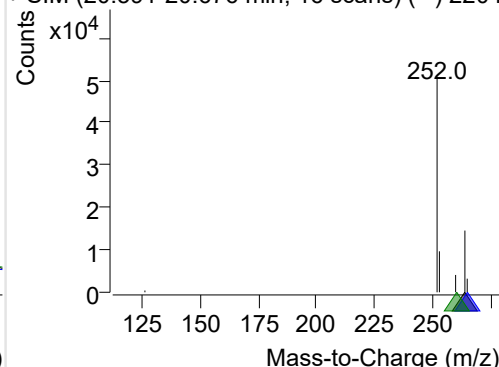
**SS-D12-Benzo(e)pyrene**

+ Selected Ion (264.0) 220407-PAHs-044.D

264.0, 265.0, 260.0

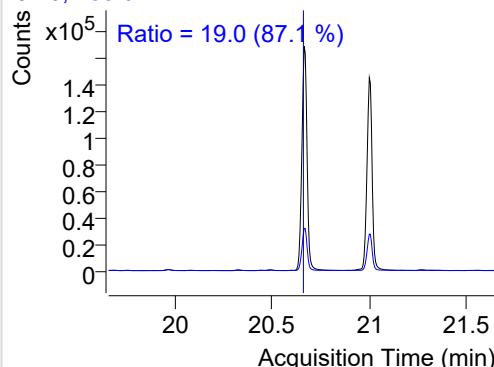
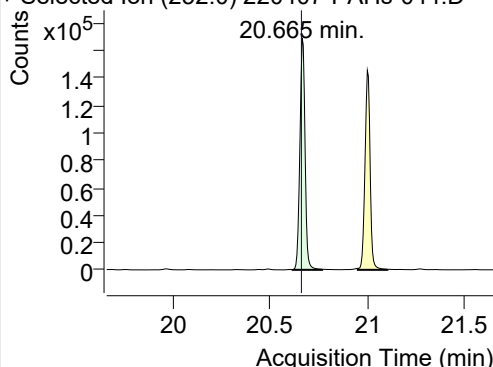


+ SIM (20.591-20.676 min, 16 scans) (\*\*) 2204

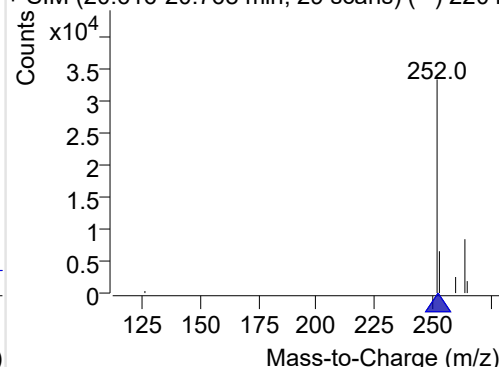
**Benzo(e)pyrene**

+ Selected Ion (252.0) 220407-PAHs-044.D

252.0, 253.0

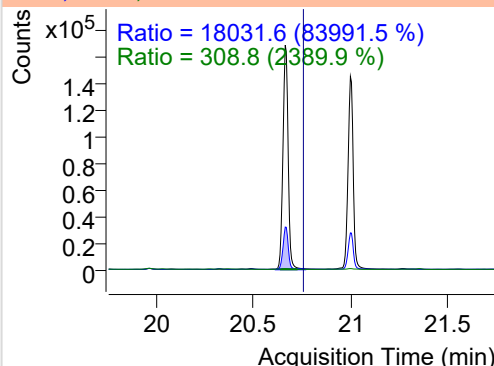
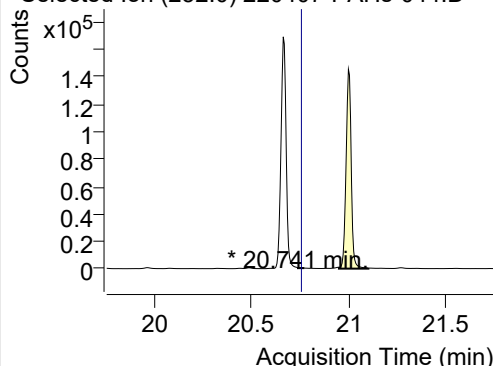


+ SIM (20.616-20.768 min, 29 scans) (\*\*) 2204

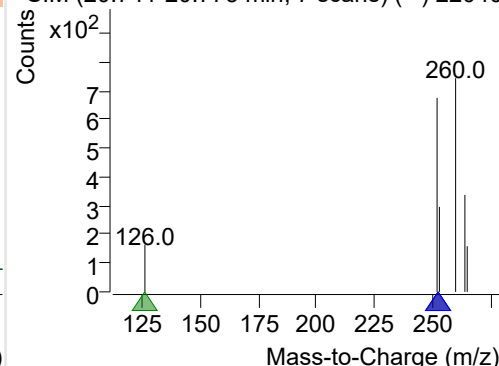
**Benzo(a)pyrene**

+ Selected Ion (252.0) 220407-PAHs-044.D

252.0, 253.0, 126.0

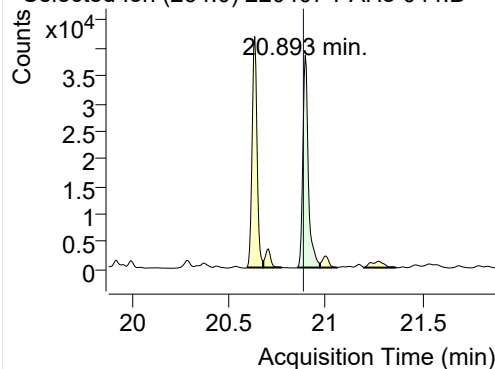


+ SIM (20.741-20.773 min, 7 scans) (\*\*) 22040

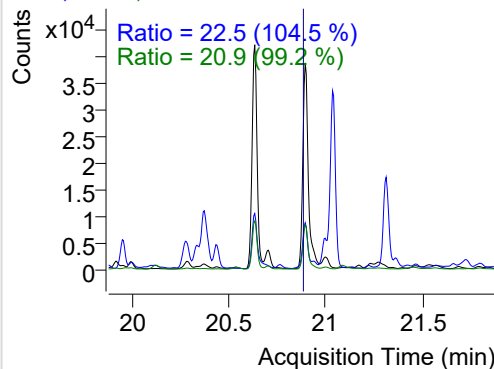


## IS-D12-Perylene

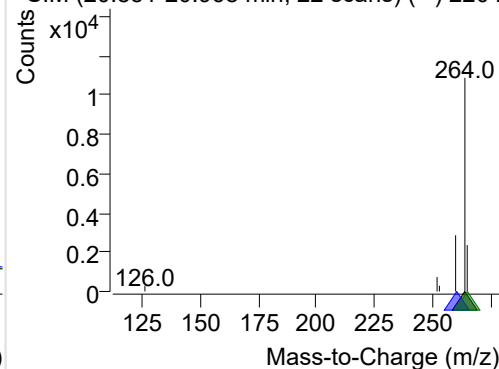
+ Selected Ion (264.0) 220407-PAHs-044.D



264.0, 260.0, 265.0

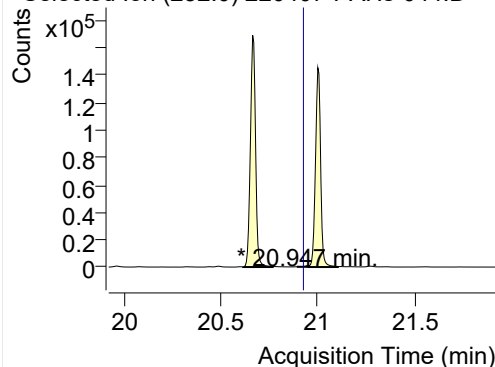


+ SIM (20.851-20.968 min, 22 scans) (\*\*) 2204

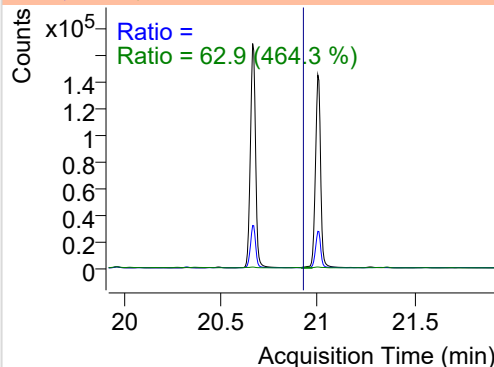


## Perylene

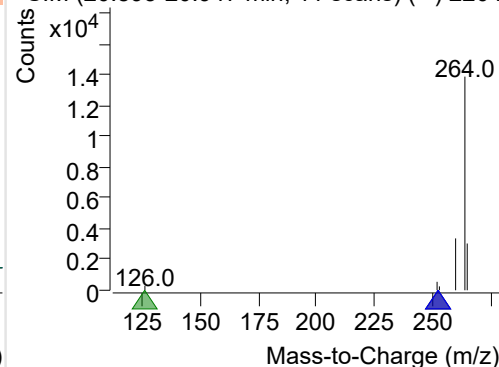
+ Selected Ion (252.0) 220407-PAHs-044.D



252.0, 253.0, 126.0

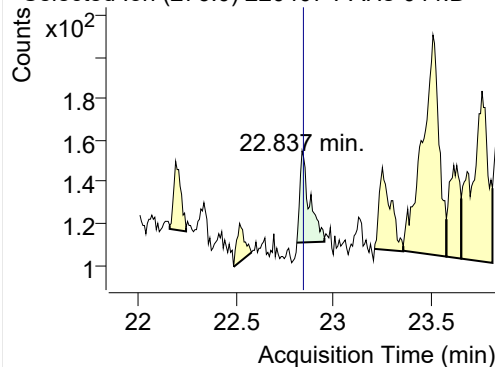


+ SIM (20.893-20.947 min, 11 scans) (\*\*) 2204

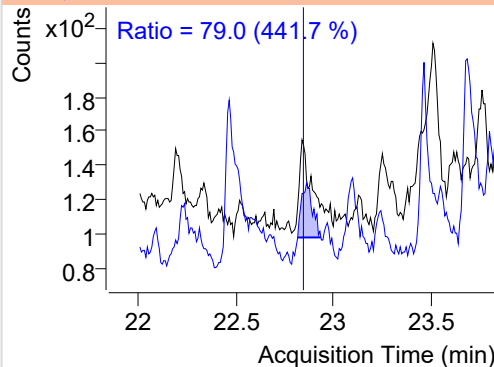


## Indeno(1,2,3-c,d)pyrene

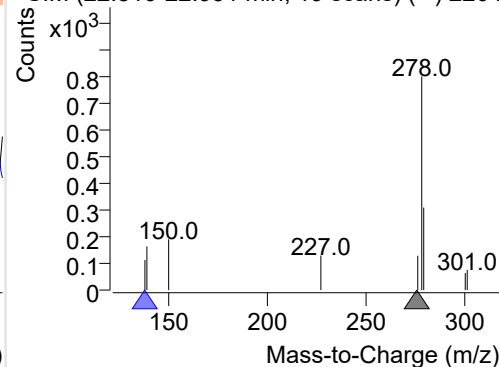
+ Selected Ion (276.0) 220407-PAHs-044.D



276.0, 138.0

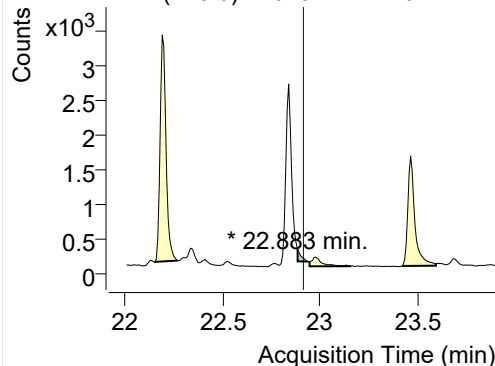


+ SIM (22.810-22.951 min, 19 scans) (\*\*) 2204

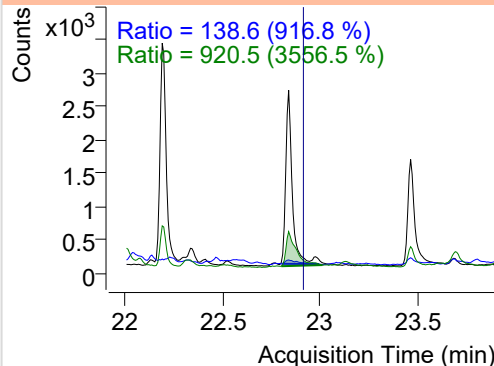


## Dibenz(a,h)anthracene

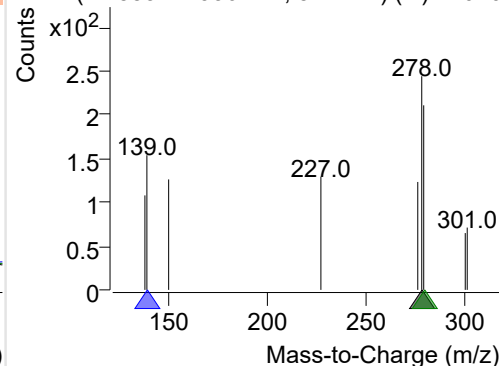
+ Selected Ion (278.0) 220407-PAHs-044.D



278.0, 139.0, 279.0



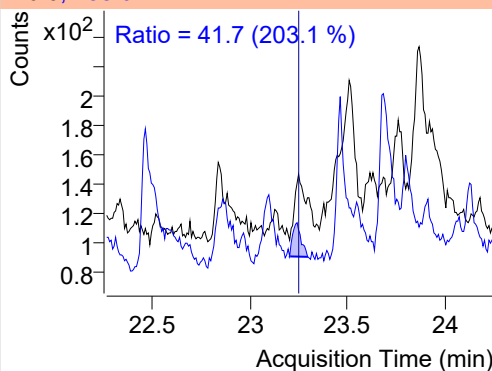
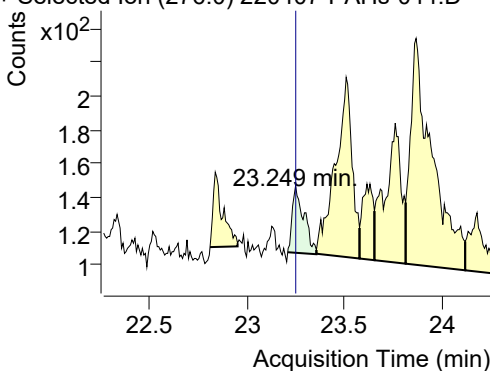
+ SIM (22.883-22.936 min, 8 scans) (\*\*) 22040



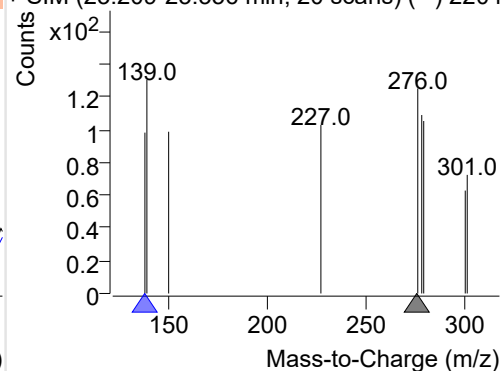
**Benzo(g,h,i)perylene**

+ Selected Ion (276.0) 220407-PAHs-044.D

276.0, 138.0

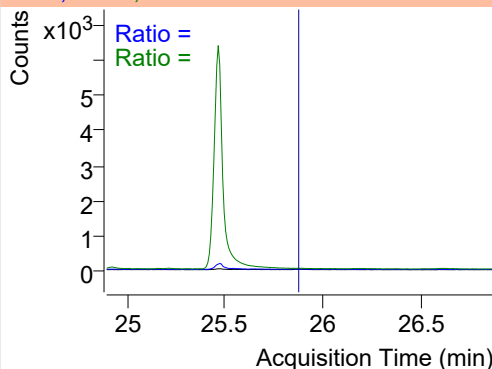
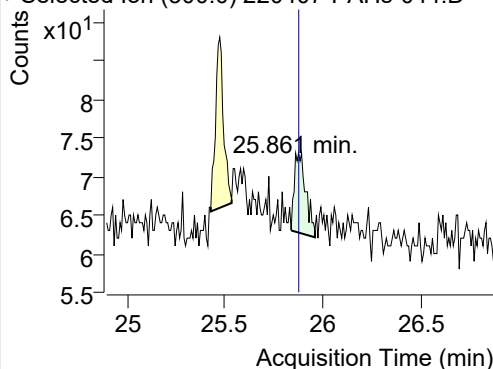


+ SIM (23.209-23.356 min, 20 scans) (\*\*) 2204

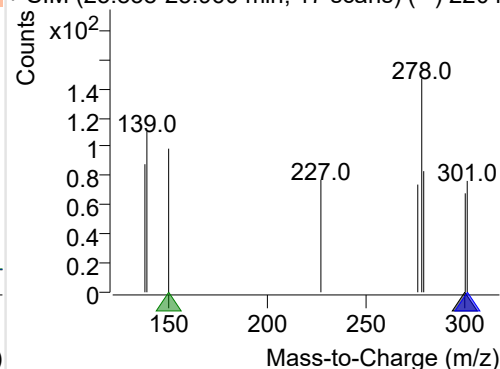
**Coronene**

+ Selected Ion (300.0) 220407-PAHs-044.D

300.0, 301.0, 150.0



+ SIM (25.838-25.960 min, 17 scans) (\*\*) 2204





## Quantitative Analysis Sample Based Report

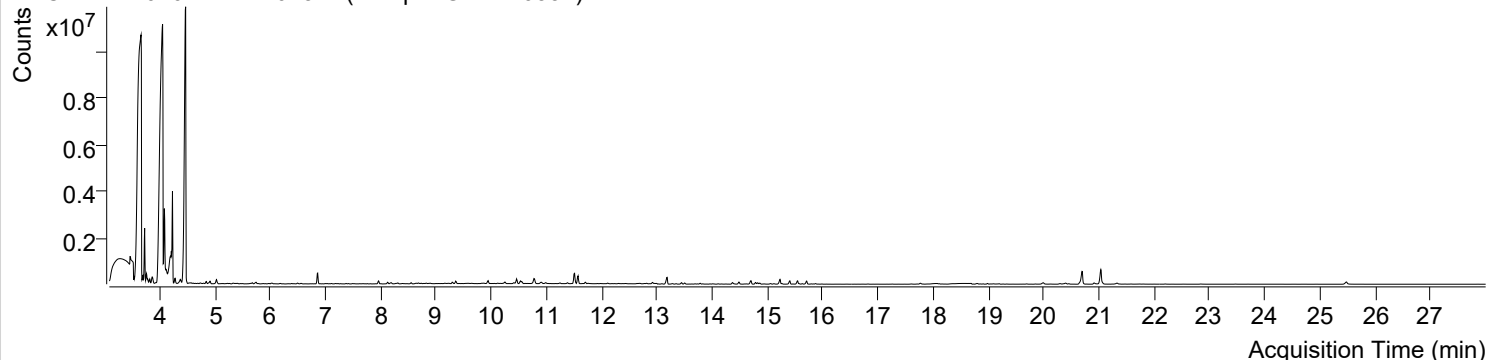


Trusted Answers

Batch Data Path File Name	D:\MassHunter\GCMS\1\data\PAHs\220407-PAHs-Sample\QuantResults\220407-PAHs-Quant.batch.bin		
Analysis Time Stamp	2022-04-13 오후 5:40:30	Analyst Name	DESKTOP-86B7UPG\5975MS
Report Generation Time	2022-04-13 오후 5:40:41	Report Generator Name	DESKTOP-86B7UPG\5975MS
Calibration Last Update	2022-04-13 오후 5:38:35	Batch State	Processed
Analyze Quant Version	10.2	Report Quant Version	10.2
Acq. Date-Time	2022-04-08 오전 10:13:20	Data File	220407-PAHs-045.D
Type	Sample	Name	Sample-Gas-220331
Dil.	1	Acq. Method File	PAHs 19mix-Method

## Sample Chromatogram

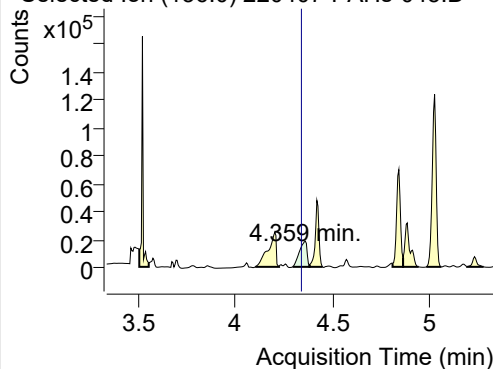
+ TIC SIM 220407-PAHs-045.D (Sample-Gas-220331)



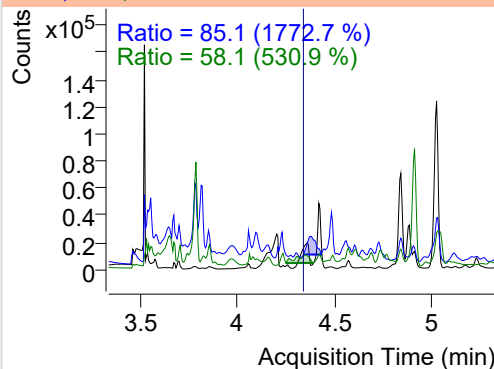
Name	RT	Transition	Resp.	Height	Final Conc. Units	Ratio
IS-D8-Naphthalene	4.359	136.0	49666	18329.65	ND µg/mL	58.1
Naphthalene	4.467	128.0	16946246	8386139.73	ND µg/mL	16.3
Acenaphthylene	7.757	152.0	8952	6573.83	ND µg/mL	
IS-D10-Acenaphthene	8.124	164.0	44376	30687.82	ND µg/mL	94.7
Acenaphthene	8.195	154.0	19591	12688.87	ND µg/mL	132.6
LSS-D10-Fluorene	9.292	176.0	44844	28559.28	ND µg/mL	91.7
Fluorene	9.355	166.0	75010	49883.38	ND µg/mL	97.8
IS-D10-Phenanthrene	11.518	188.0	75657	49367.68	ND µg/mL	13.6
Phenanthrene	11.571	178.0	343738	225471.72	ND µg/mL	18.1
Anthracene	11.665	178.0	2444	2762.49	ND µg/mL	348.5
Fluoranthene	14.364	202.0	73448	45859.83	ND µg/mL	19.3
LSS-D10-Pyrene	14.820	212.0	65214	41042.72	ND µg/mL	16.9
Pyrene	14.858	202.0	51719	32549.75	ND µg/mL	18.2
Benz(a)anthracene	17.725	228.0	712	210.51	ND µg/mL	
IS-D12-Chrysene	17.769	240.0	67115	29711.11	ND µg/mL	17.3
Chrysene	17.818	228.0	5173	2082.46	ND µg/mL	21.8
Benzo(b)fluoranthene	20.095	252.0	1388	600.68	ND µg/mL	
Benzo(k)fluoranthene	20.193	252.0	59	50.90	ND µg/mL	
SS-D12-Benzo(e)pyrene	20.648	264.0	80128	43522.50	ND µg/mL	38.7
Benzo(e)pyrene	20.692	252.0	924231	456716.95	ND µg/mL	19.3
Benzo(a)pyrene	20.746	252.0	666	1248.35	ND µg/mL	26719.2
IS-D12-Perylene	20.909	264.0	85228	35693.04	ND µg/mL	24.6
Perylene	20.958	252.0	2377	3304.01	ND µg/mL	
Indeno(1,2,3-c,d)pyrene	22.837	276.0	347	99.45	ND µg/mL	109.2
Dibenz(a,h)anthracene	22.890	278.0	486	572.11	ND µg/mL	1051.5
Benzo(g,h,i)perylene	23.257	276.0	168	66.91	ND µg/mL	43.7
Coronene	25.883	300.0	100	19.71	ND µg/mL	

## IS-D8-Naphthalene

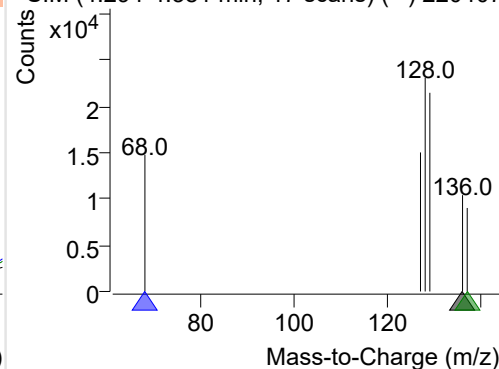
+ Selected Ion (136.0) 220407-PAHs-045.D



136.0, 68.0, 137.0

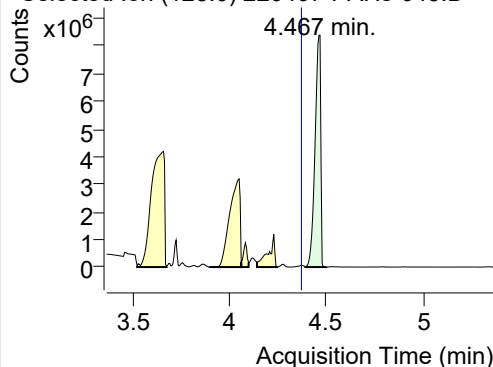


+ SIM (4.294-4.381 min, 17 scans) (\*\*) 220407

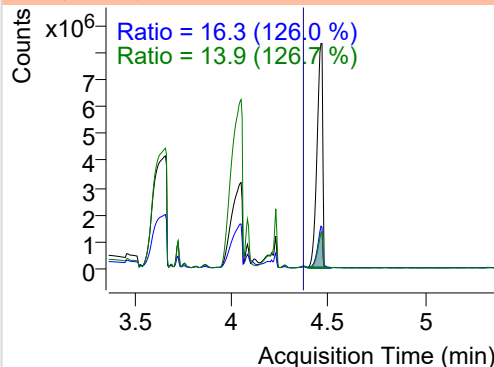


## Naphthalene

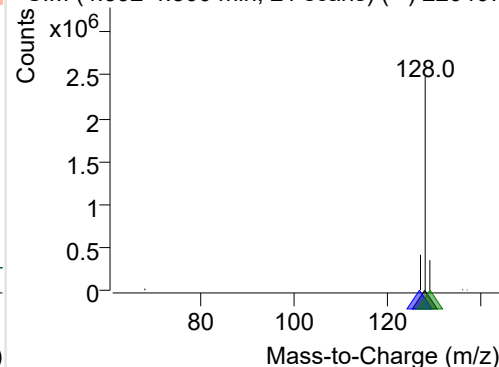
+ Selected Ion (128.0) 220407-PAHs-045.D



128.0, 127.0, 129.0

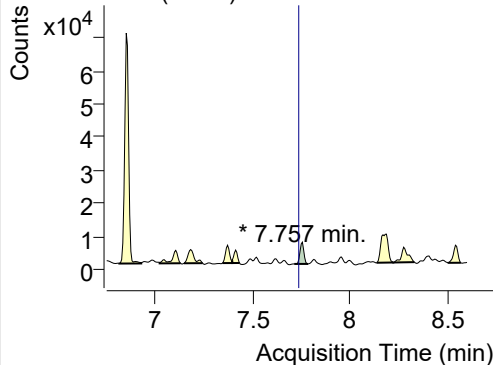


+ SIM (4.392-4.500 min, 21 scans) (\*\*) 220407

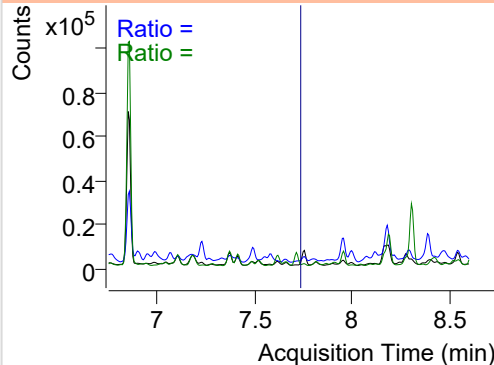


## Acenaphthylene

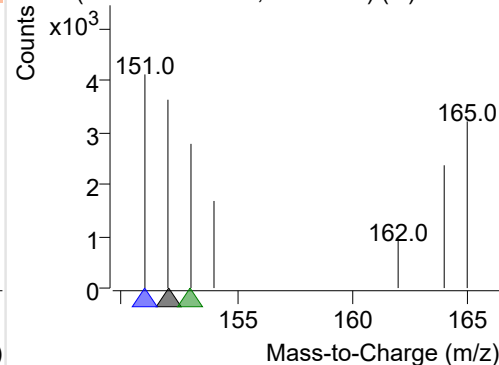
+ Selected Ion (152.0) 220407-PAHs-045.D



152.0, 151.0, 153.0

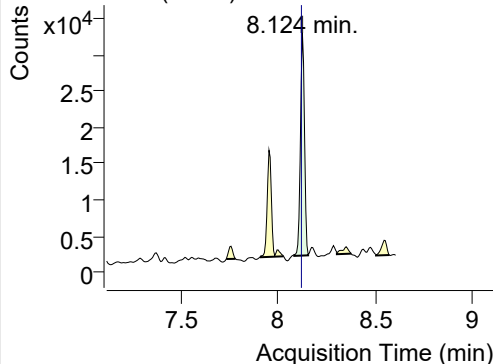


+ SIM (7.716-7.787 min, 13 scans) (\*\*) 220407

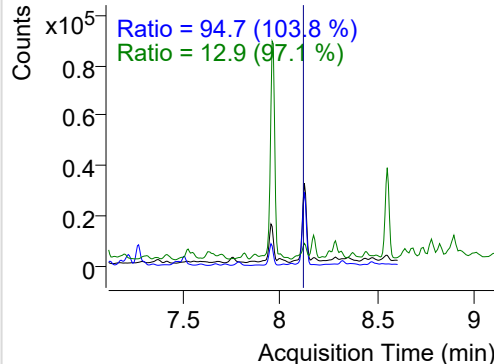


## IS-D10-Acenaphthene

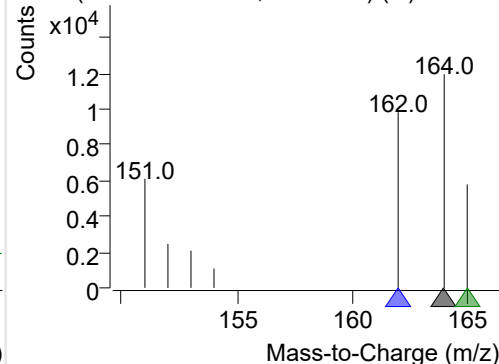
+ Selected Ion (164.0) 220407-PAHs-045.D



164.0, 162.0, 165.0

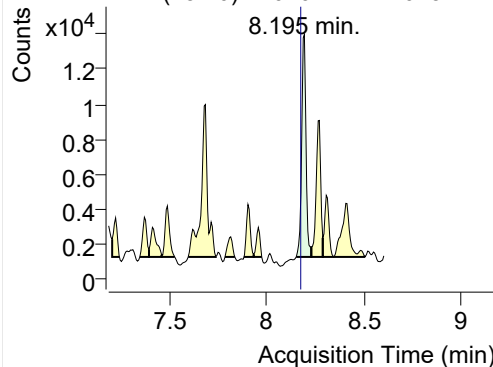


+ SIM (8.083-8.154 min, 13 scans) (\*\*) 220407

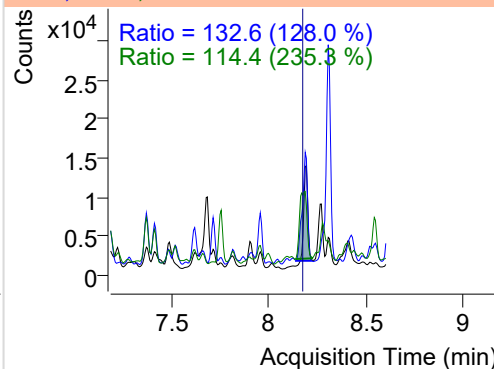


**Acenaphthene**

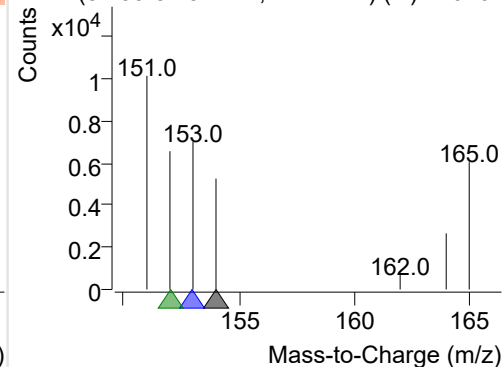
+ Selected Ion (154.0) 220407-PAHs-045.D



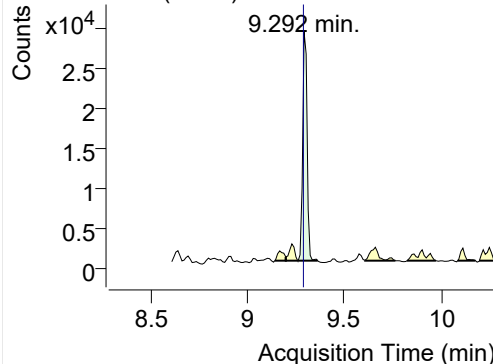
154.0, 153.0, 152.0



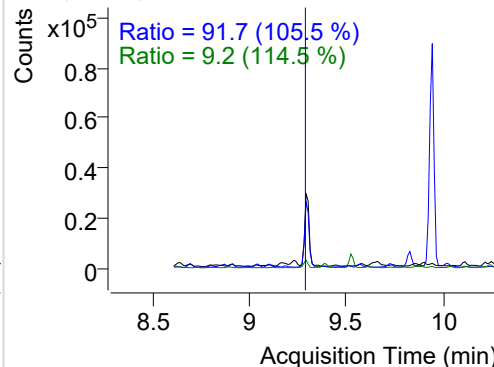
+ SIM (8.153-8.231 min, 14 scans) (\*\*) 220407

**LSS-D10-Fluorene**

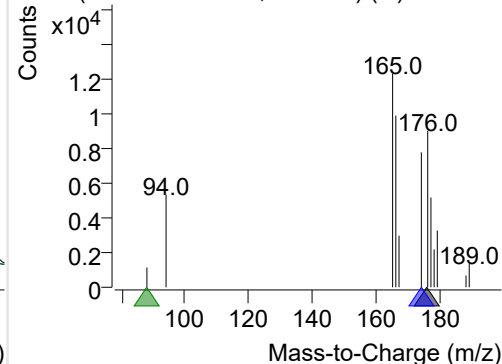
+ Selected Ion (176.0) 220407-PAHs-045.D



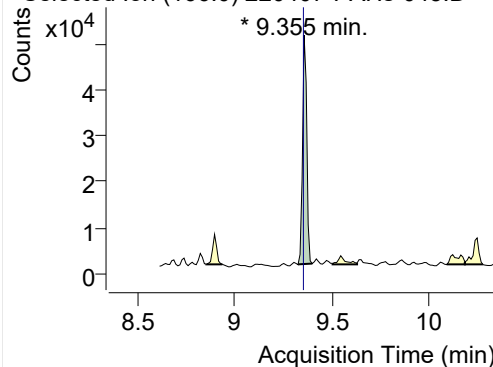
176.0, 174.0, 88.0



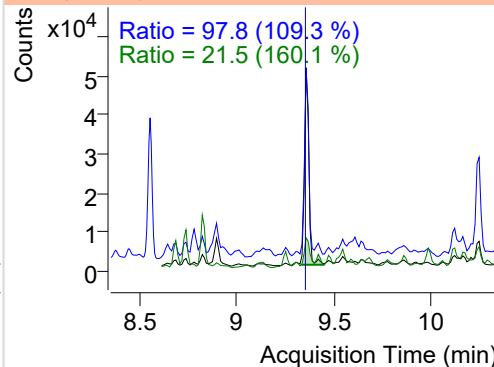
+ SIM (9.262-9.362 min, 9 scans) (\*\*) 220407-I

**Fluorene**

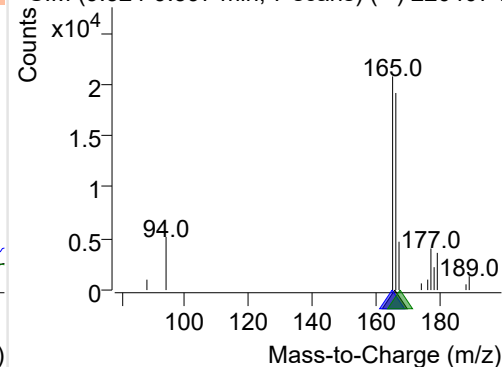
+ Selected Ion (166.0) 220407-PAHs-045.D



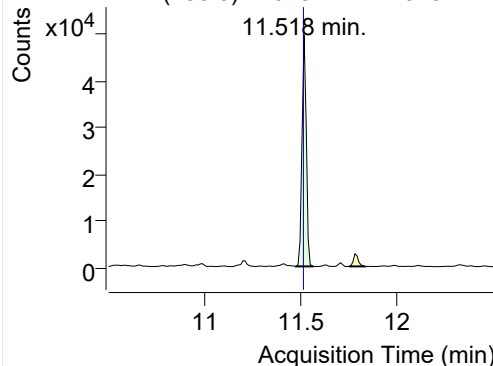
166.0, 165.0, 167.0



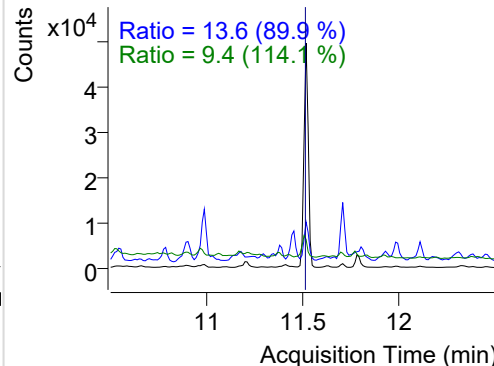
+ SIM (9.324-9.397 min, 7 scans) (\*\*) 220407-I

**IS-D10-Phenanthrene**

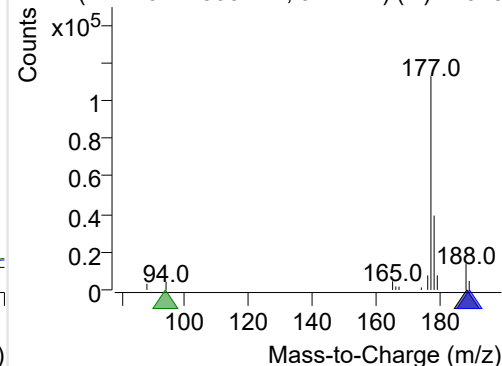
+ Selected Ion (188.0) 220407-PAHs-045.D



188.0, 189.0, 94.0

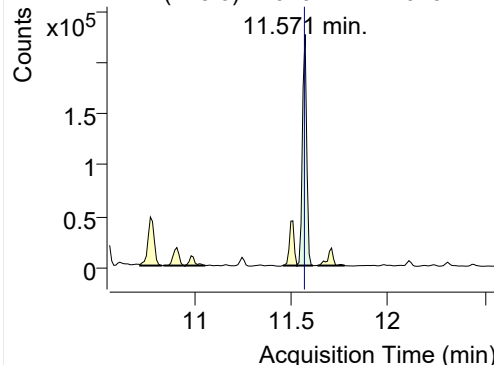


+ SIM (11.476-11.566 min, 9 scans) (\*\*) 22040

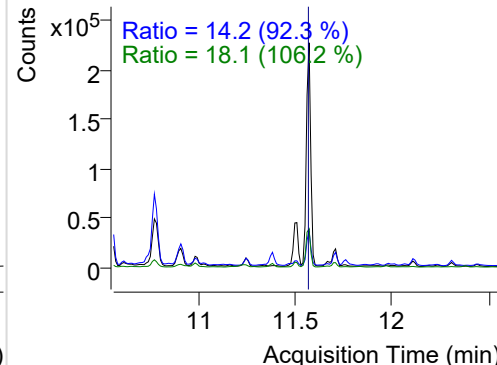


**Phenanthrene**

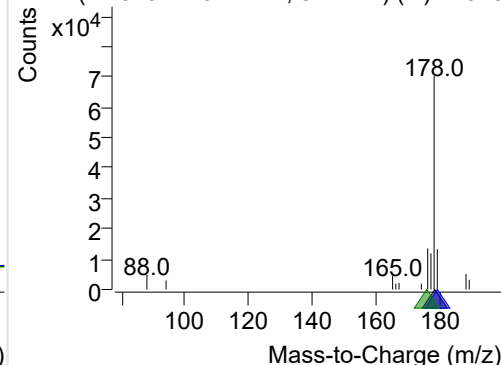
+ Selected Ion (178.0) 220407-PAHs-045.D



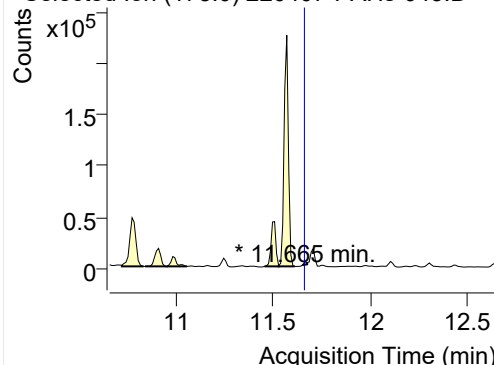
178.0, 179.0, 176.0



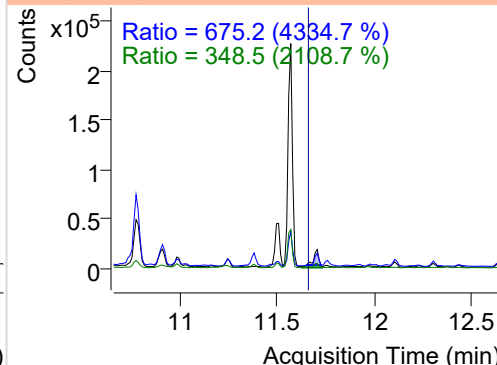
+ SIM (11.529-11.612 min, 8 scans) (\*\*) 22040

**Anthracene**

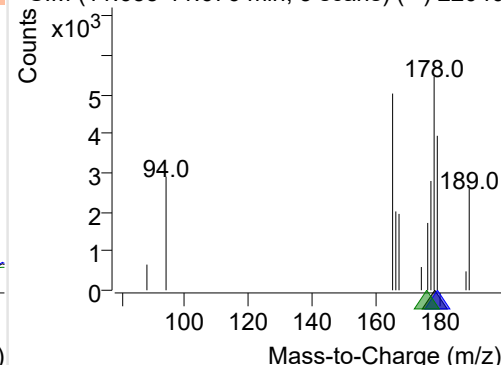
+ Selected Ion (178.0) 220407-PAHs-045.D



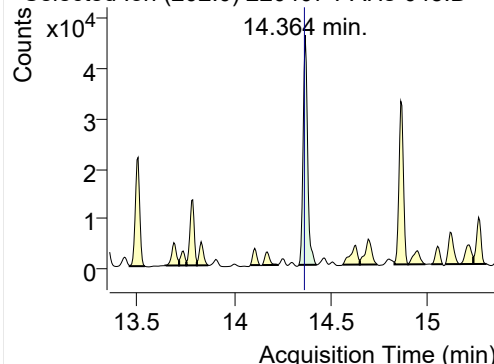
178.0, 179.0, 176.0



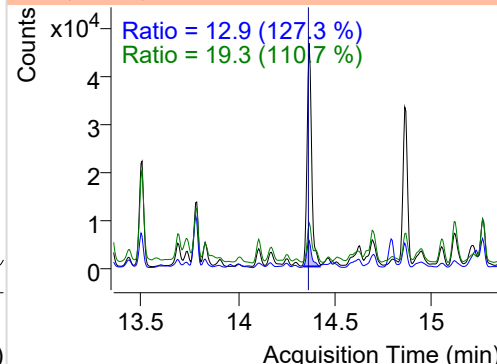
+ SIM (11.655-11.676 min, 3 scans) (\*\*) 22040

**Fluoranthene**

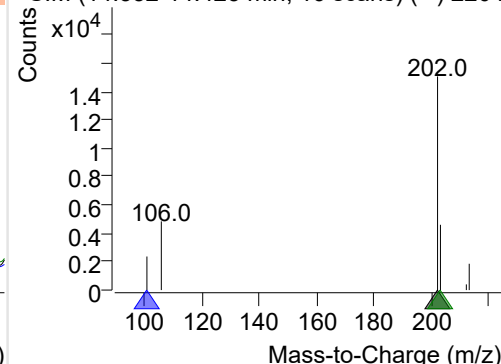
+ Selected Ion (202.0) 220407-PAHs-045.D



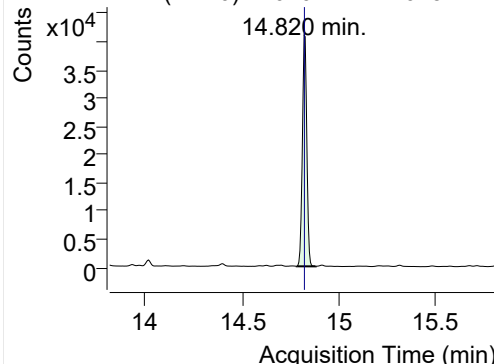
202.0, 101.0, 203.0



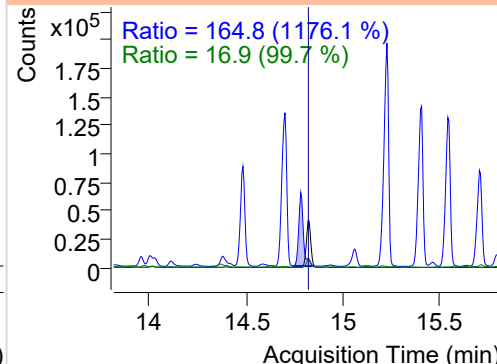
+ SIM (14.332-14.423 min, 16 scans) (\*\*) 2204

**LSS-D10-Pyrene**

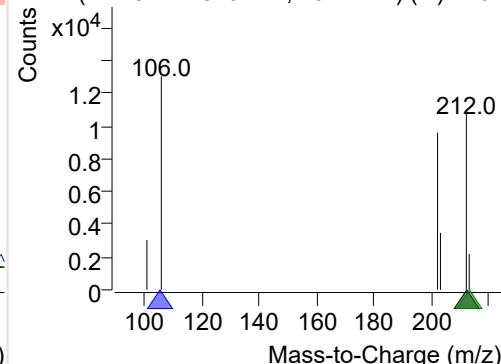
+ Selected Ion (212.0) 220407-PAHs-045.D



212.0, 106.0, 213.0

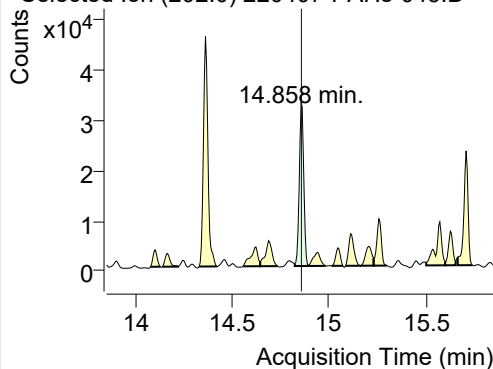


+ SIM (14.782-14.879 min, 19 scans) (\*\*) 2204

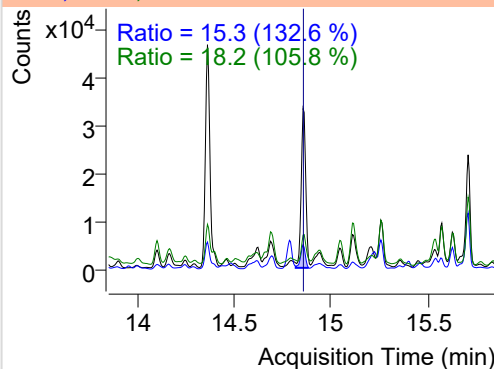


**Pyrene**

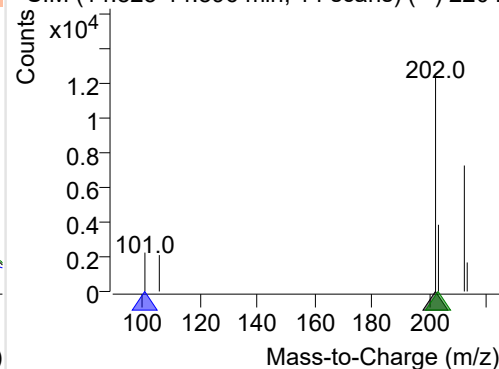
+ Selected Ion (202.0) 220407-PAHs-045.D



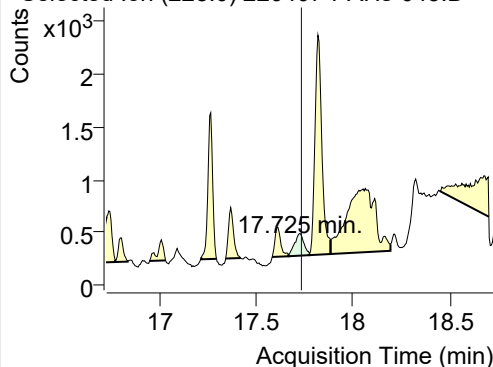
202.0, 101.0, 203.0



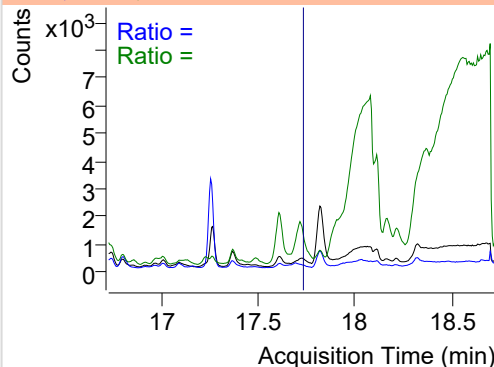
+ SIM (14.825-14.896 min, 14 scans) (\*\*) 2204

**Benz(a)anthracene**

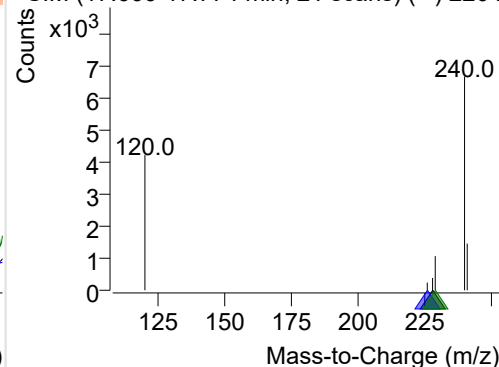
+ Selected Ion (228.0) 220407-PAHs-045.D



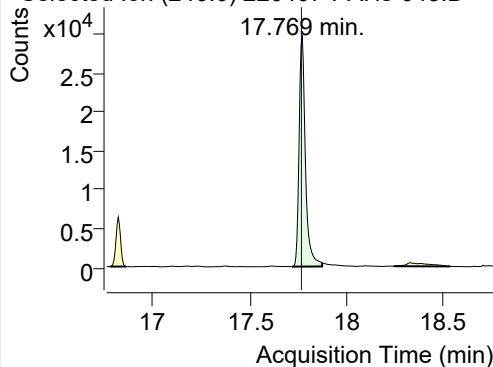
228.0, 226.0, 229.0



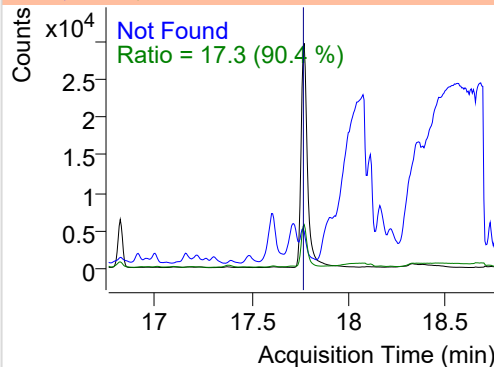
+ SIM (17.666-17.774 min, 21 scans) (\*\*) 2204

**IS-D12-Chrysene**

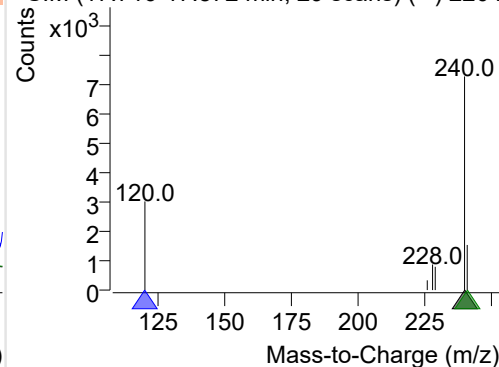
+ Selected Ion (240.0) 220407-PAHs-045.D



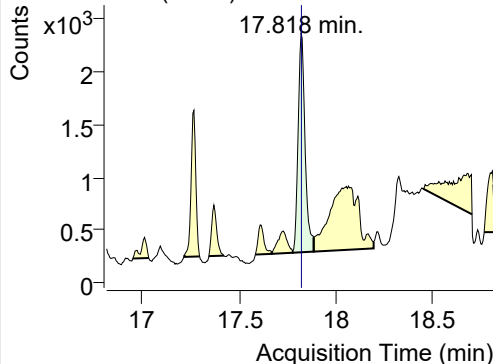
240.0, 120.0, 241.0



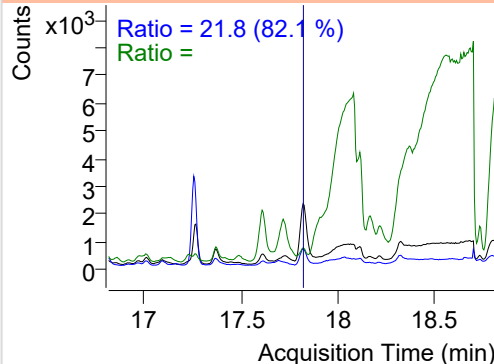
+ SIM (17.716-17.872 min, 29 scans) (\*\*) 2204

**Chrysene**

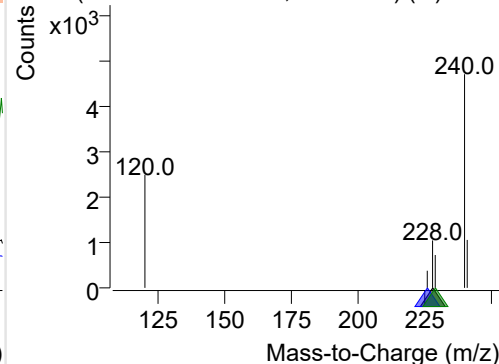
+ Selected Ion (228.0) 220407-PAHs-045.D



228.0, 226.0, 229.0



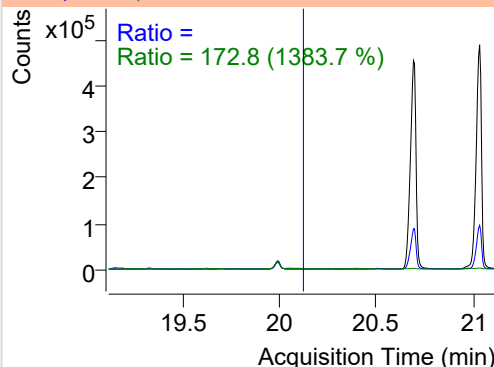
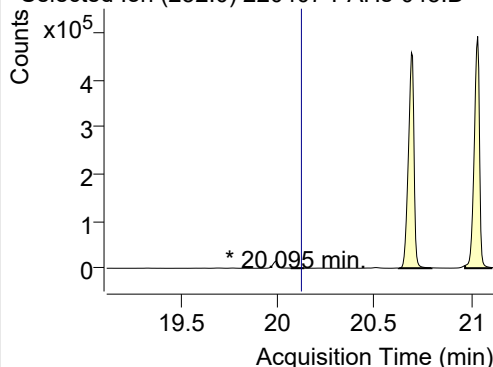
+ SIM (17.774-17.883 min, 21 scans) (\*\*) 2204



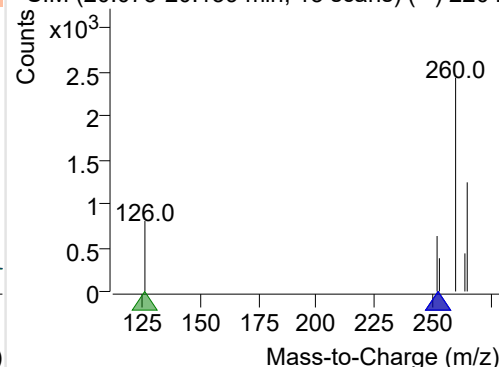
**Benzo(b)fluoranthene**

+ Selected Ion (252.0) 220407-PAHs-045.D

252.0, 253.0, 126.0

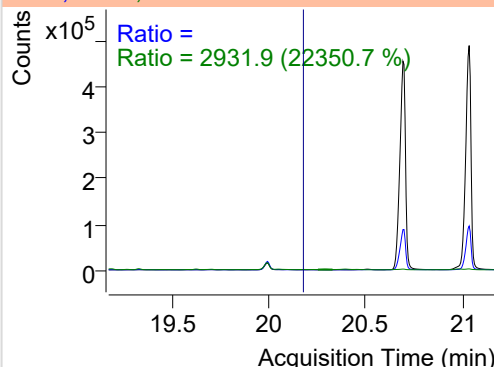
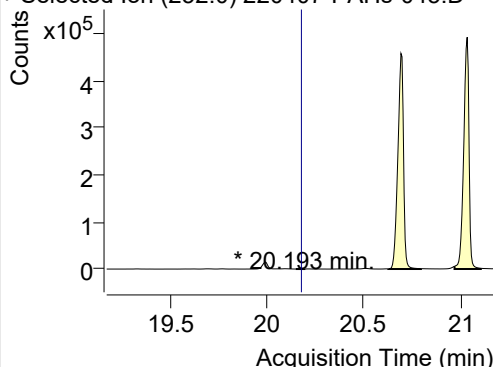


+ SIM (20.073-20.139 min, 13 scans) (\*\*) 2204

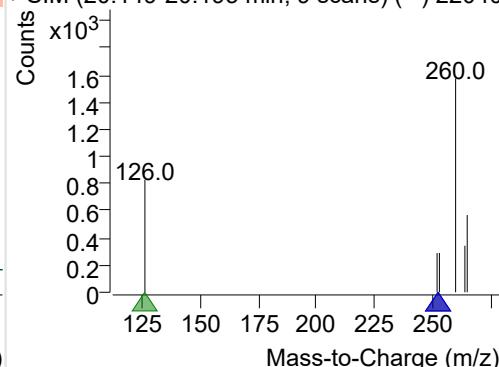
**Benzo(k)fluoranthene**

+ Selected Ion (252.0) 220407-PAHs-045.D

252.0, 253.0, 126.0

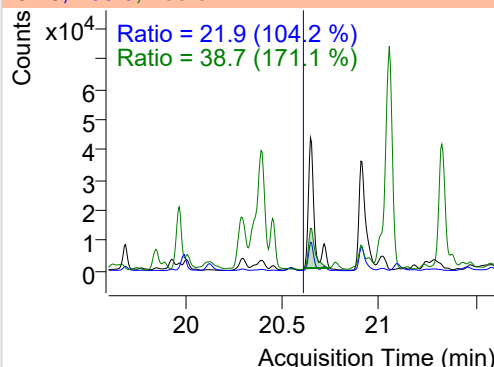
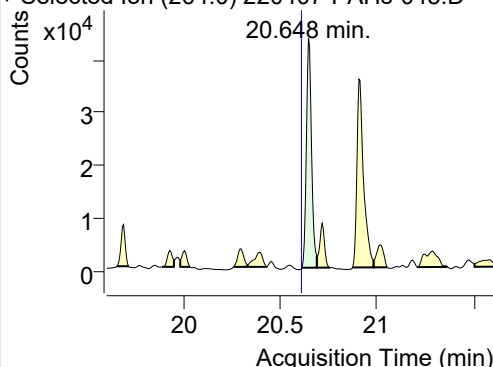


+ SIM (20.149-20.193 min, 9 scans) (\*\*) 22040

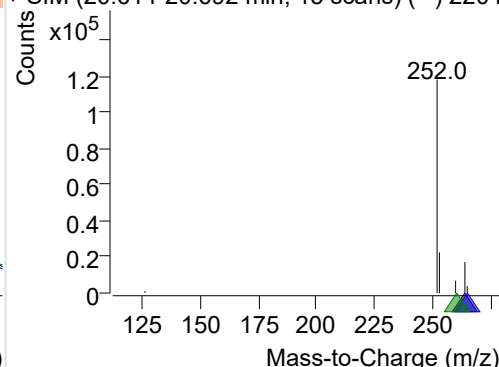
**SS-D12-Benzo(e)pyrene**

+ Selected Ion (264.0) 220407-PAHs-045.D

264.0, 265.0, 260.0

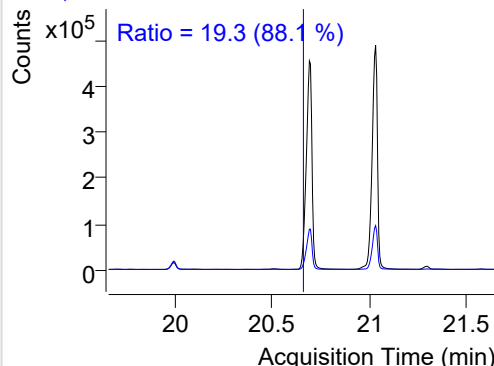
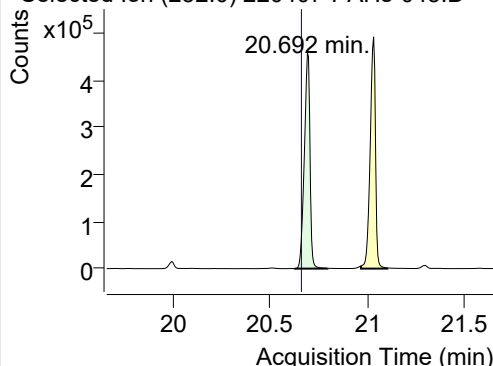


+ SIM (20.614-20.692 min, 15 scans) (\*\*) 2204

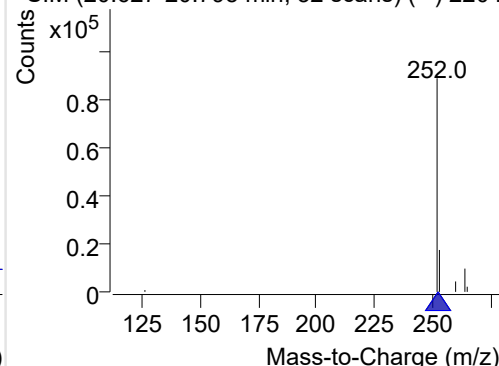
**Benzo(e)pyrene**

+ Selected Ion (252.0) 220407-PAHs-045.D

252.0, 253.0



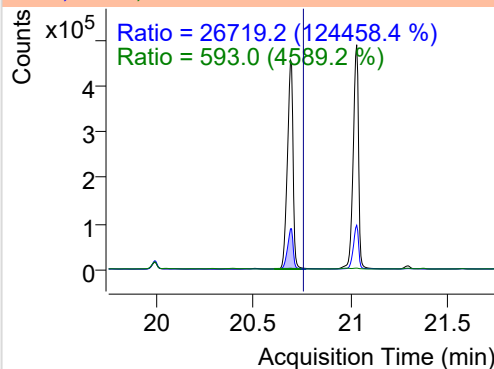
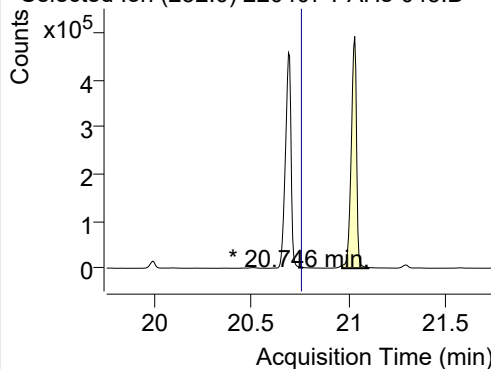
+ SIM (20.627-20.795 min, 32 scans) (\*\*) 2204



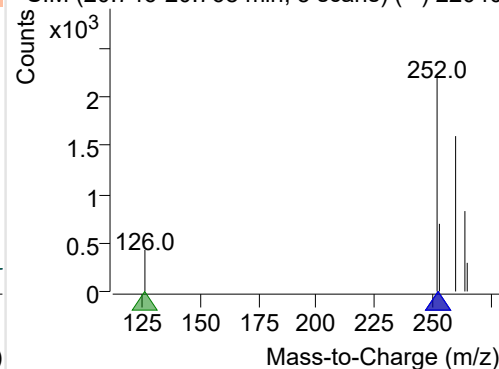
**Benzo(a)pyrene**

+ Selected Ion (252.0) 220407-PAHs-045.D

252.0, 253.0, 126.0

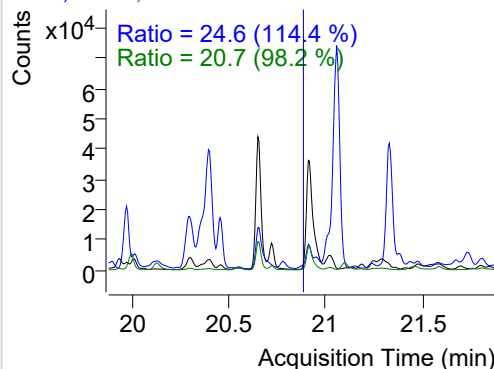
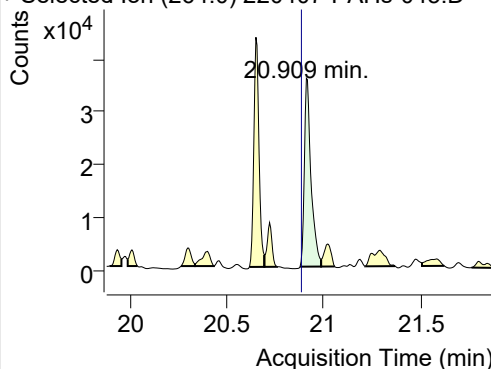


+ SIM (20.746-20.768 min, 5 scans) (\*\*) 22040

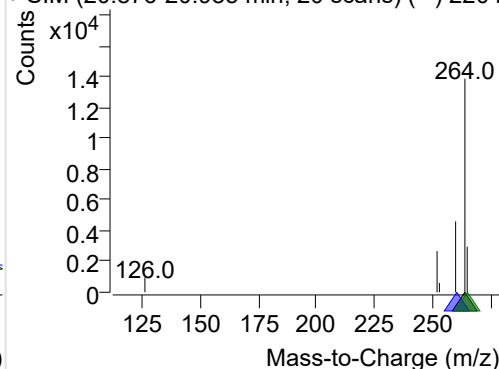
**IS-D12-Perylene**

+ Selected Ion (264.0) 220407-PAHs-045.D

264.0, 260.0, 265.0

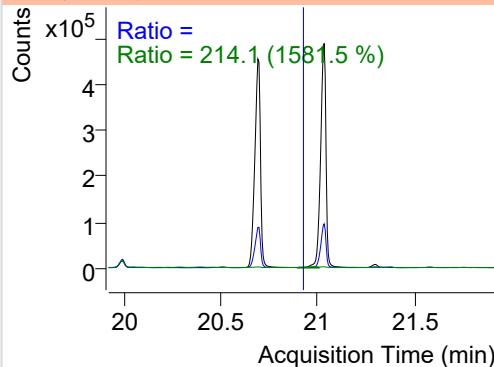
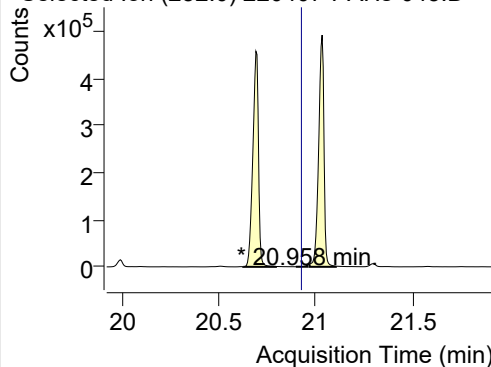


+ SIM (20.876-20.985 min, 20 scans) (\*\*) 2204

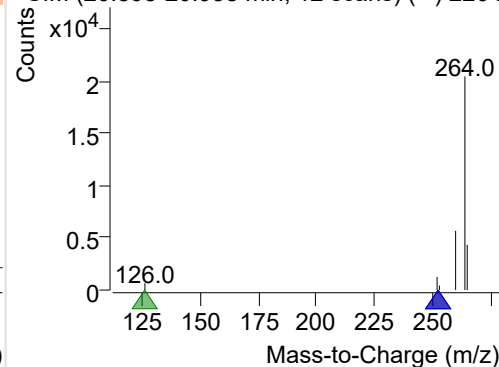
**Perylene**

+ Selected Ion (252.0) 220407-PAHs-045.D

252.0, 253.0, 126.0

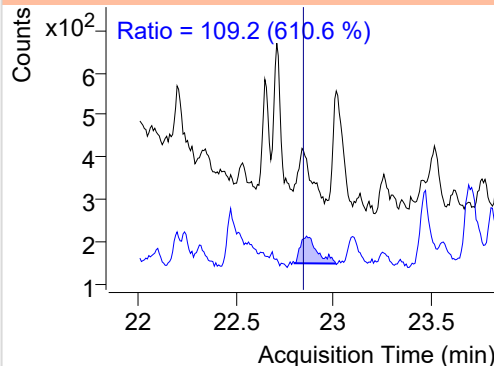
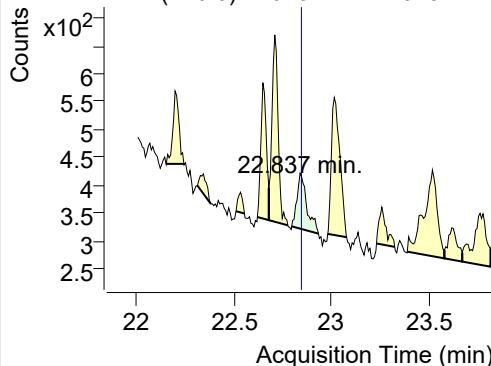


+ SIM (20.898-20.958 min, 12 scans) (\*\*) 2204

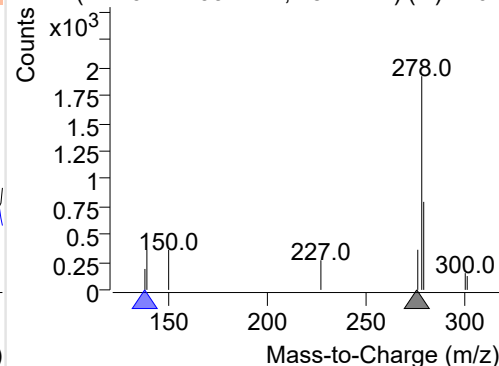
**Indeno(1,2,3-c,d)pyrene**

+ Selected Ion (276.0) 220407-PAHs-045.D

276.0, 138.0



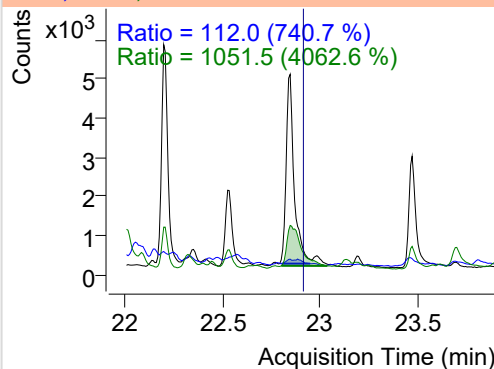
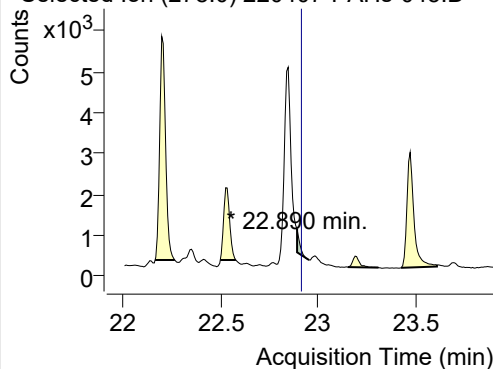
+ SIM (22.794-22.931 min, 18 scans) (\*\*) 2204



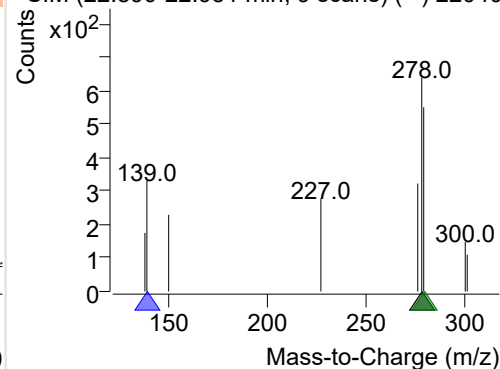
**Dibenz(a,h)anthracene**

+ Selected Ion (278.0) 220407-PAHs-045.D

278.0, 139.0, 279.0

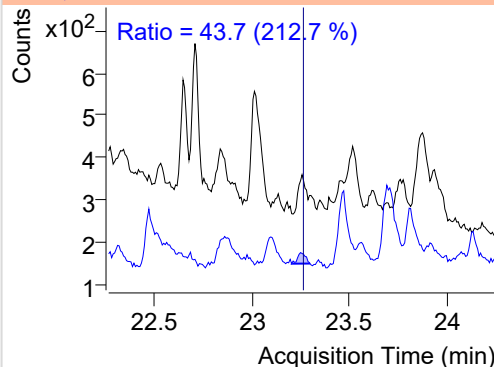
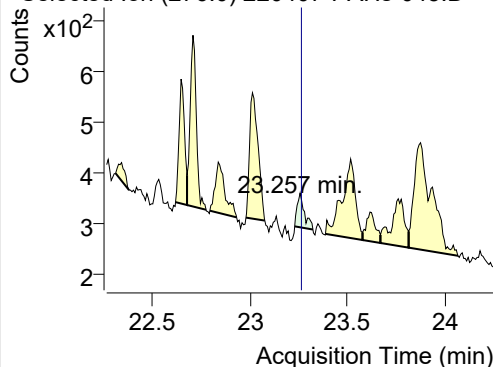


+ SIM (22.890-22.951 min, 9 scans) (\*\*) 22040

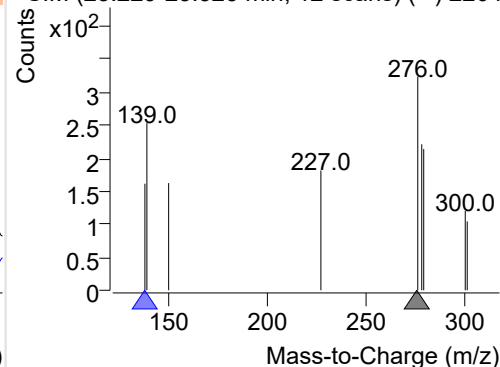
**Benzo(g,h,i)perylene**

+ Selected Ion (276.0) 220407-PAHs-045.D

276.0, 138.0

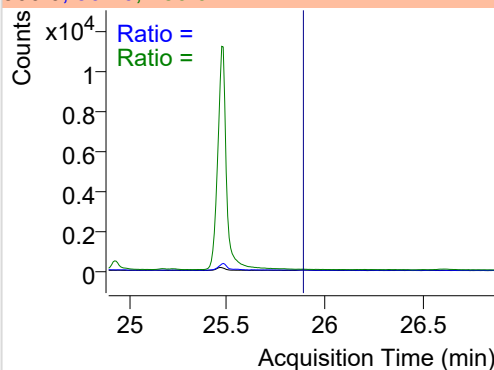
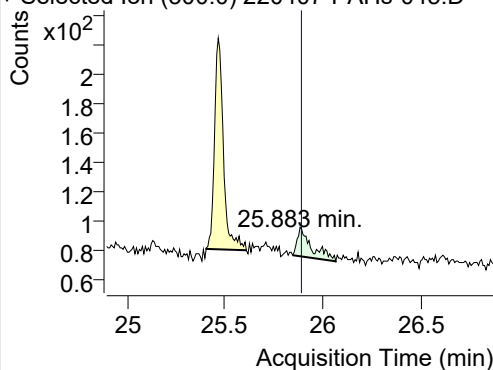


+ SIM (23.229-23.323 min, 12 scans) (\*\*) 2204

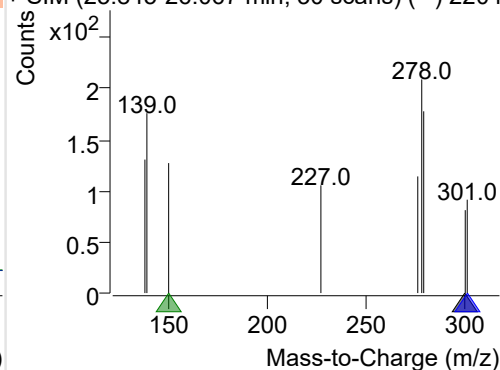
**Coronene**

+ Selected Ion (300.0) 220407-PAHs-045.D

300.0, 301.0, 150.0



+ SIM (25.845-26.067 min, 30 scans) (\*\*) 2204





## Quantitative Analysis Sample Based Report

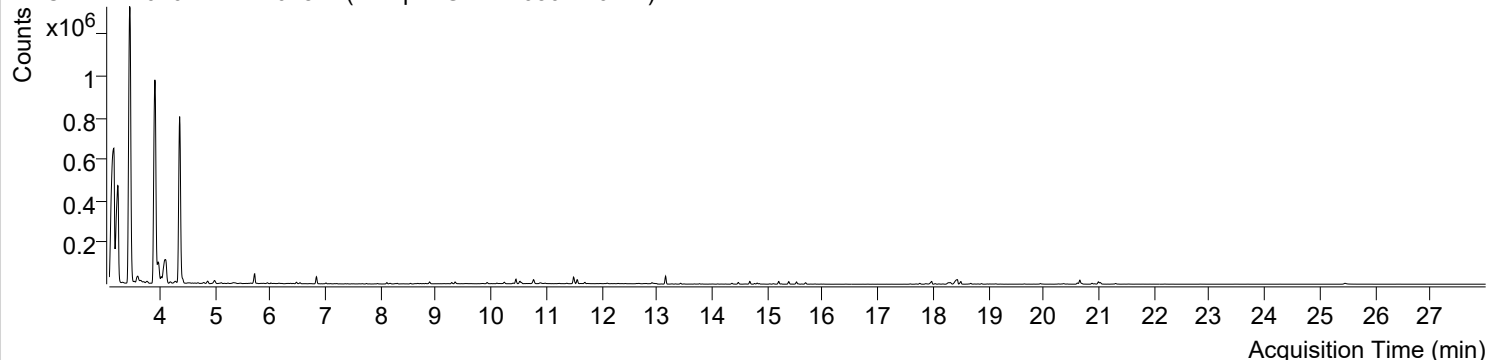


Trusted Answers

Batch Data Path File Name	D:\MassHunter\GCMS\1\data\PAHs\220407-PAHs-Sample\QuantResults\220407-PAHs-Quant.batch.bin		
Analysis Time Stamp	2022-04-13 오후 5:40:30	Analyst Name	DESKTOP-86B7UPG\5975MS
Report Generation Time	2022-04-13 오후 5:40:41	Report Generator Name	DESKTOP-86B7UPG\5975MS
Calibration Last Update	2022-04-13 오후 5:38:35	Batch State	Processed
Analyze Quant Version	10.2	Report Quant Version	10.2
Acq. Date-Time	2022-04-08 오전 11:46:37	Data File	220407-PAHs-048.D
Type	Sample	Name	Sample-Gas-220301-10DIL
Dil.	1	Acq. Method File	PAHs 19mix-Method

## Sample Chromatogram

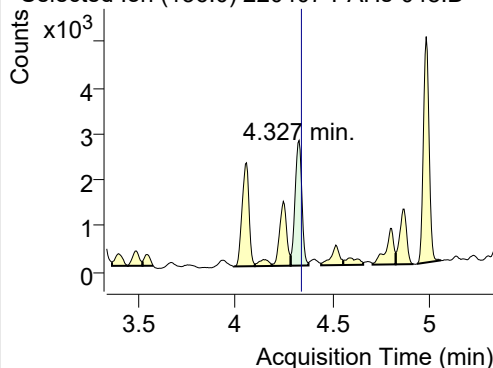
+ TIC SIM 220407-PAHs-048.D (Sample-Gas-220301-10DIL)



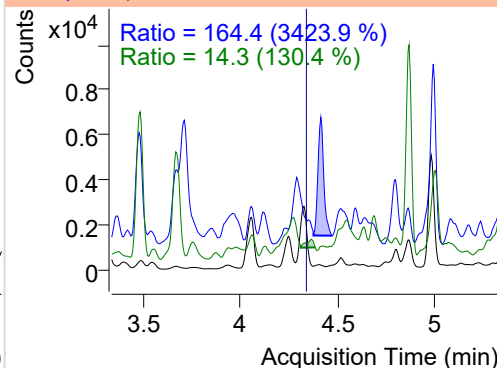
Name	RT	Transition	Resp.	Height	Final Conc. Units	Ratio
IS-D8-Naphthalene	4.327	136.0	6614	2719.37	ND µg/mL	14.3
Naphthalene	4.359	128.0	1495298	643383.38	ND µg/mL	13.1
Acenaphthylene	7.739	152.0	2133	1480.33	ND µg/mL	28.6
IS-D10-Acenaphthene	8.112	164.0	4291	2924.84	ND µg/mL	96.3
Acenaphthene	8.177	154.0	1097	686.78	ND µg/mL	130.9
LSS-D10-Fluorene	9.282	176.0	4189	2659.05	ND µg/mL	87.8
Fluorene	9.345	166.0	6289	4120.08	ND µg/mL	93.4
IS-D10-Phenanthrene	11.508	188.0	7137	4920.05	ND µg/mL	20.1
Phenanthrene	11.560	178.0	21029	12763.15	ND µg/mL	17.7
Anthracene	11.697	178.0	3725	1718.15	ND µg/mL	23.3
Fluoranthene	14.354	202.0	5007	3027.69	ND µg/mL	19.6
LSS-D10-Pyrene	14.814	212.0	6006	3832.66	ND µg/mL	16.7
Pyrene	14.852	202.0	3086	1942.26	ND µg/mL	18.8
Benz(a)anthracene	17.872	228.0	149	51.50	ND µg/mL	25.9
IS-D12-Chrysene	17.758	240.0	5742	3133.31	ND µg/mL	18.5
Chrysene	17.872	228.0	149	51.50	ND µg/mL	25.9
Benzo(b)fluoranthene	20.654	252.0	29502	15725.16	ND µg/mL	19.0
Benzo(k)fluoranthene	20.654	252.0	29502	15725.16	ND µg/mL	19.0
SS-D12-Benzo(e)pyrene	20.611	264.0	6763	3672.46	ND µg/mL	33.8
Benzo(e)pyrene	20.654	252.0	29502	15725.16	ND µg/mL	19.0
Benzo(a)pyrene	20.654	252.0	29502	15725.16	ND µg/mL	19.0
IS-D12-Perylene	20.876	264.0	5624	2893.62	ND µg/mL	21.3
Perylene	20.990	252.0	14700	7837.60	ND µg/mL	19.3
Indeno(1,2,3-c,d)pyrene	22.852	276.0	16	7.86	ND µg/mL	
Dibenz(a,h)anthracene	22.974	278.0	37	12.98	ND µg/mL	
Benzo(g,h,i)perylene	23.242	276.0	5	4.27	ND µg/mL	
Coronene	25.861	300.0	58	9.00	ND µg/mL	68.6

## IS-D8-Naphthalene

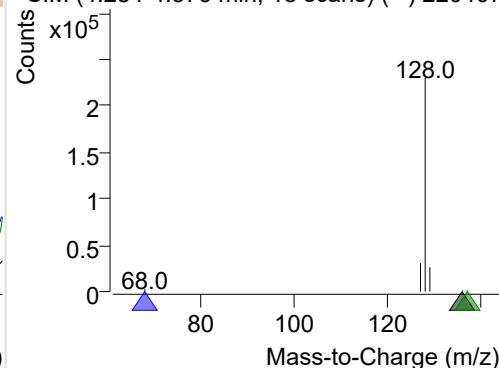
+ Selected Ion (136.0) 220407-PAHs-048.D



136.0, 68.0, 137.0

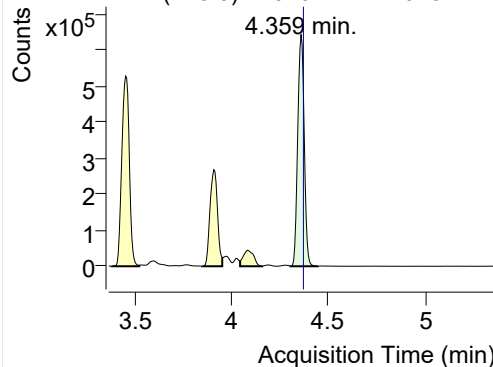


+ SIM (4.284-4.376 min, 18 scans) (\*\*) 220407

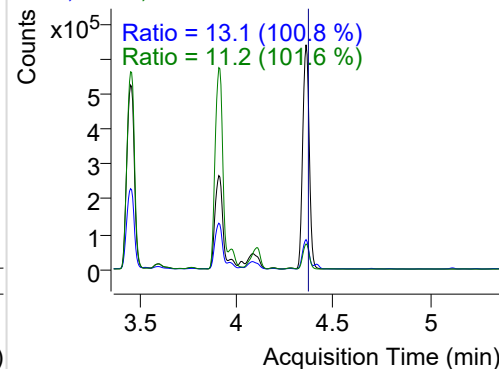


**Naphthalene**

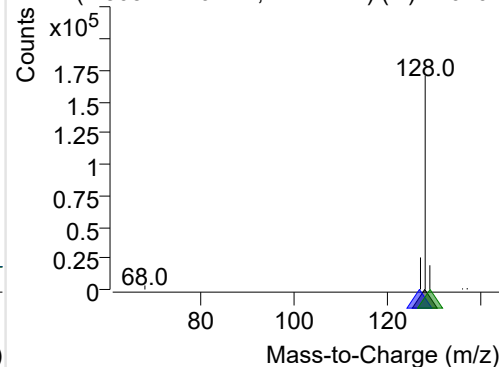
+ Selected Ion (128.0) 220407-PAHs-048.D



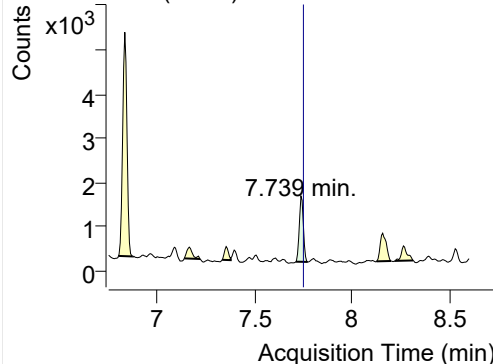
128.0, 127.0, 129.0



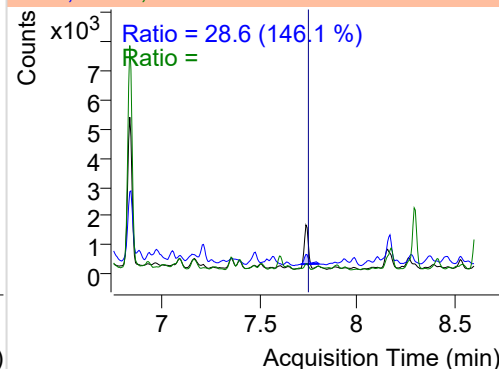
+ SIM (4.305-4.446 min, 27 scans) (\*\*) 220407

**Acenaphthylene**

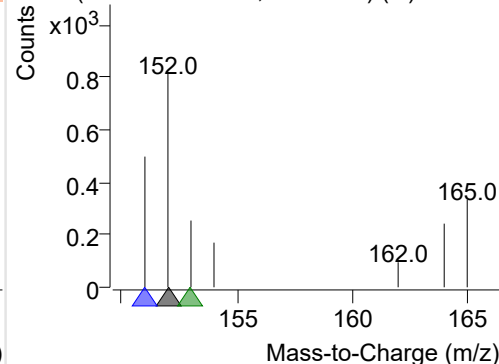
+ Selected Ion (152.0) 220407-PAHs-048.D



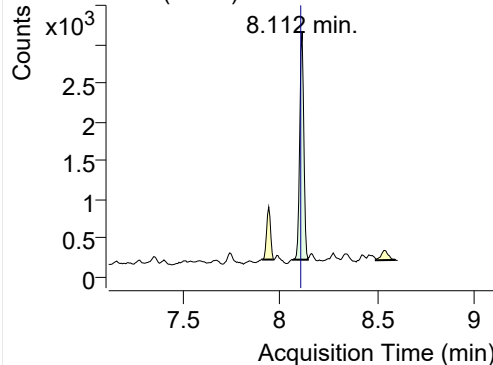
152.0, 151.0, 153.0



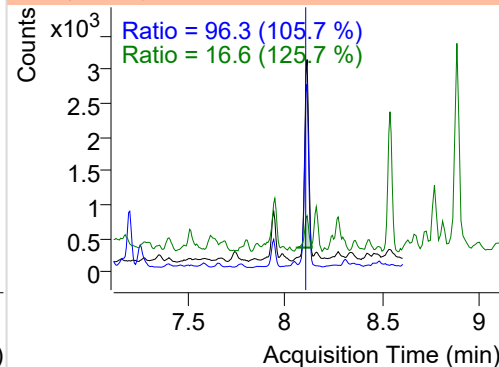
+ SIM (7.713-7.774 min, 10 scans) (\*\*) 220407

**IS-D10-Acenaphthene**

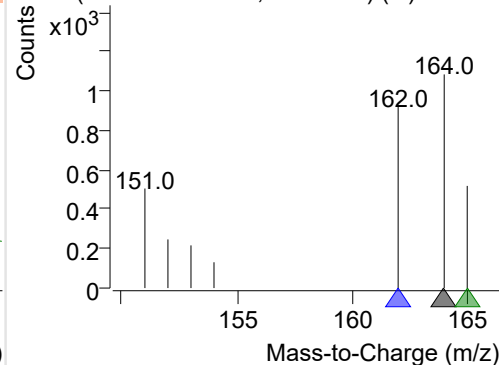
+ Selected Ion (164.0) 220407-PAHs-048.D



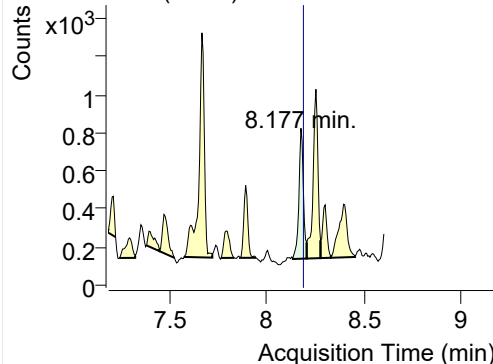
164.0, 162.0, 165.0



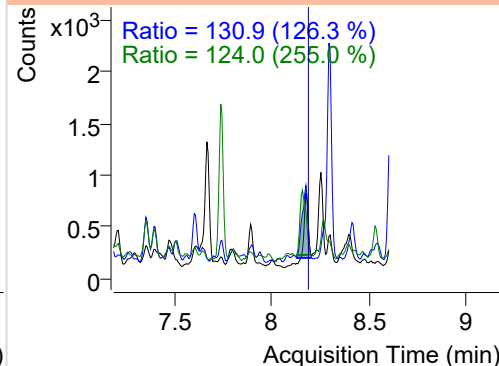
+ SIM (8.065-8.142 min, 14 scans) (\*\*) 220407

**Acenaphthene**

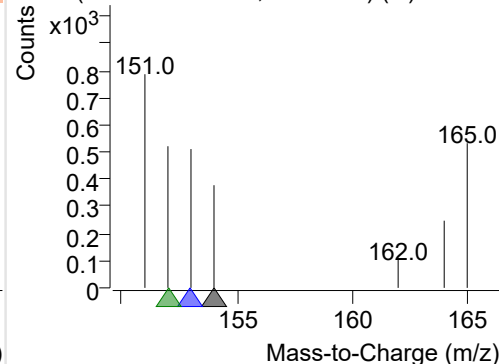
+ Selected Ion (154.0) 220407-PAHs-048.D



154.0, 153.0, 152.0

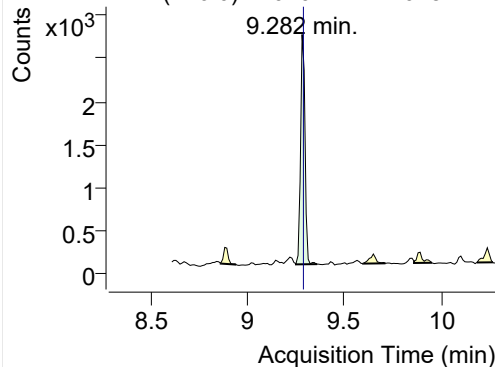


+ SIM (8.136-8.207 min, 13 scans) (\*\*) 220407

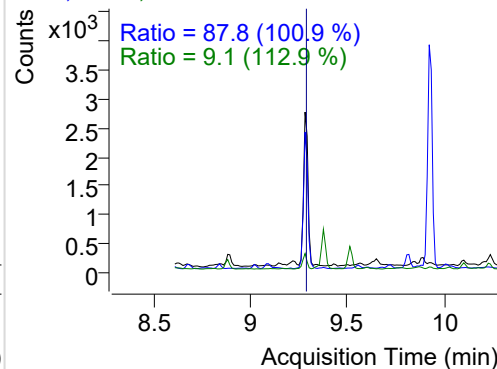


## LSS-D10-Fluorene

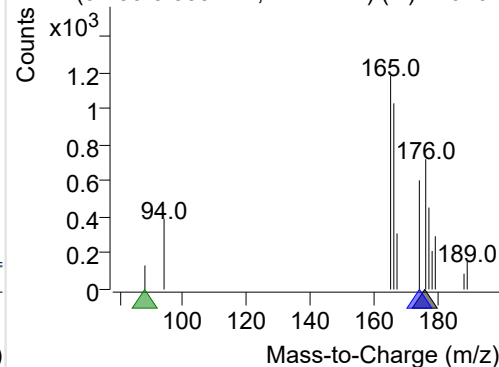
+ Selected Ion (176.0) 220407-PAHs-048.D



176.0, 174.0, 88.0

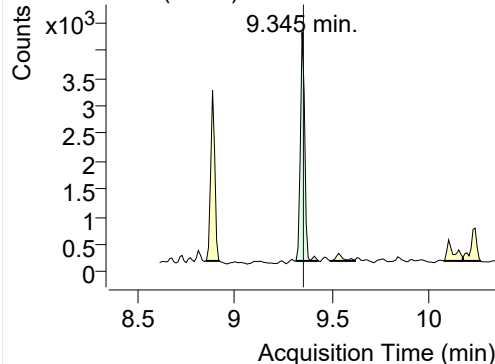


+ SIM (9.250-9.359 min, 11 scans) (\*\*) 220407

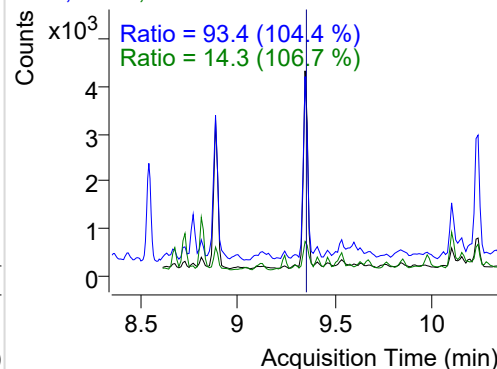


## Fluorene

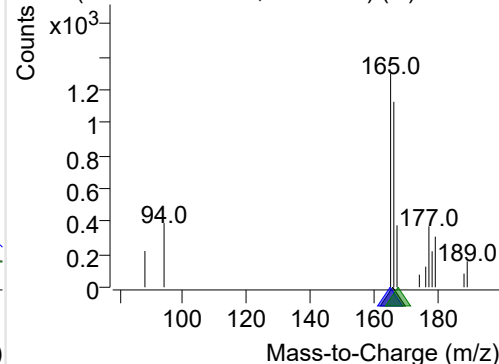
+ Selected Ion (166.0) 220407-PAHs-048.D



166.0, 165.0, 167.0

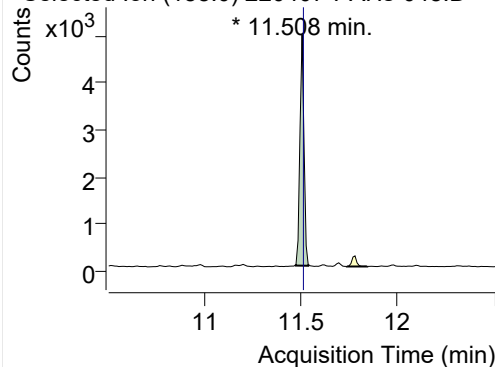


+ SIM (9.313-9.429 min, 11 scans) (\*\*) 220407

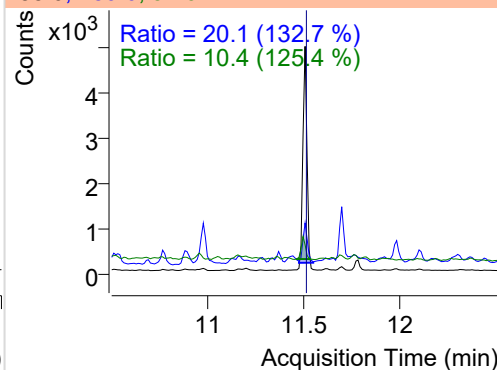


## IS-D10-Phenanthrene

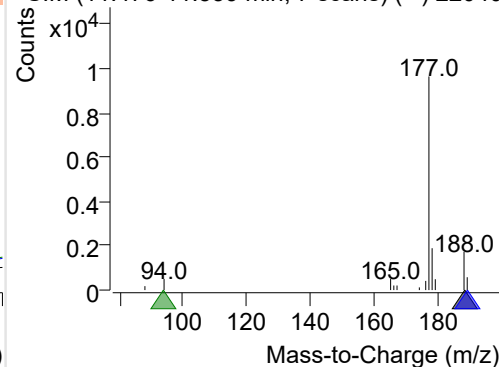
+ Selected Ion (188.0) 220407-PAHs-048.D



188.0, 189.0, 94.0

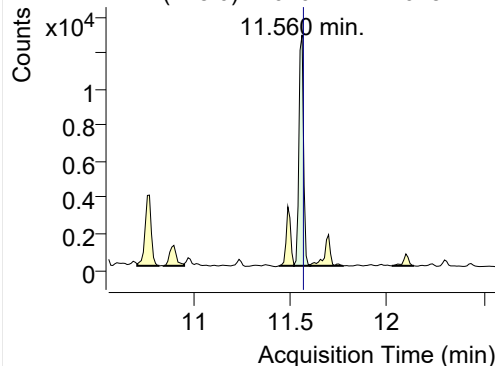


+ SIM (11.476-11.539 min, 7 scans) (\*\*) 22040

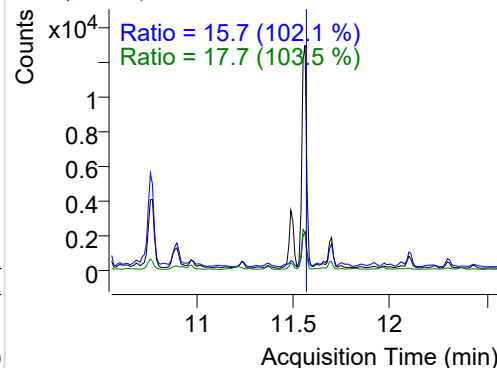


## Phenanthrene

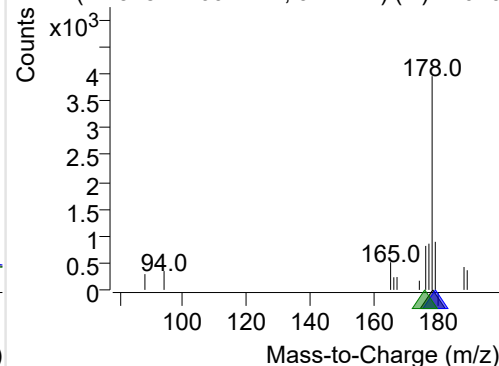
+ Selected Ion (178.0) 220407-PAHs-048.D



178.0, 179.0, 176.0

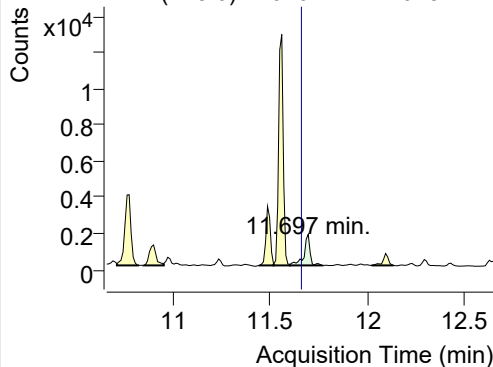


+ SIM (11.518-11.602 min, 9 scans) (\*\*) 22040

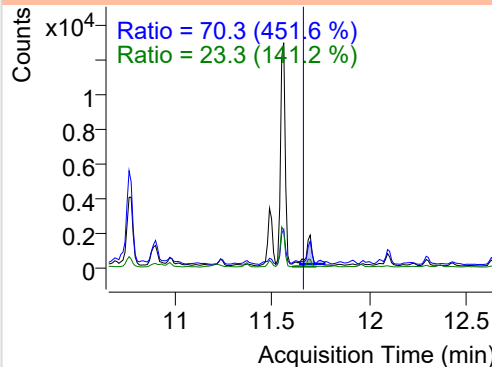


**Anthracene**

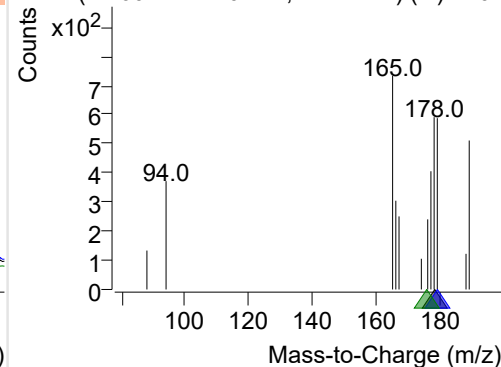
+ Selected Ion (178.0) 220407-PAHs-048.D



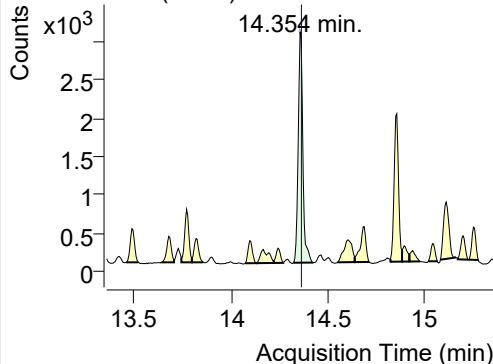
178.0, 179.0, 176.0



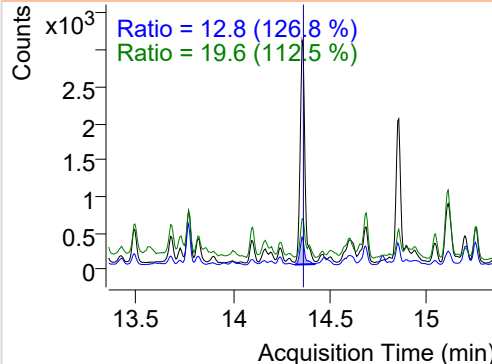
+ SIM (11.602-11.770 min, 17 scans) (\*\*) 2204

**Fluoranthene**

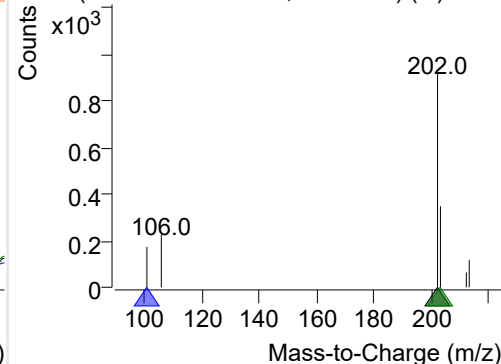
+ Selected Ion (202.0) 220407-PAHs-048.D



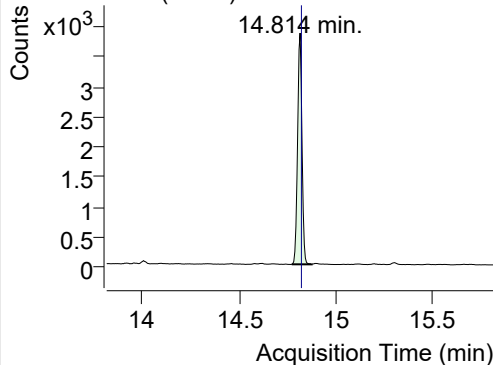
202.0, 101.0, 203.0



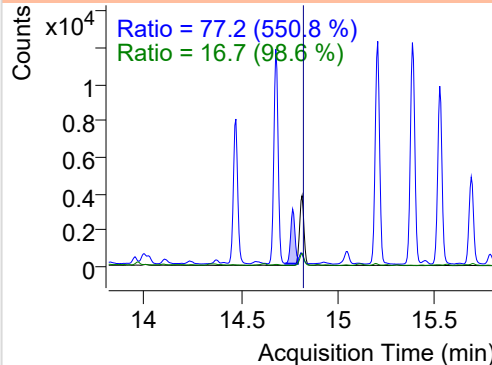
+ SIM (14.319-14.419 min, 19 scans) (\*\*) 2204

**LSS-D10-Pyrene**

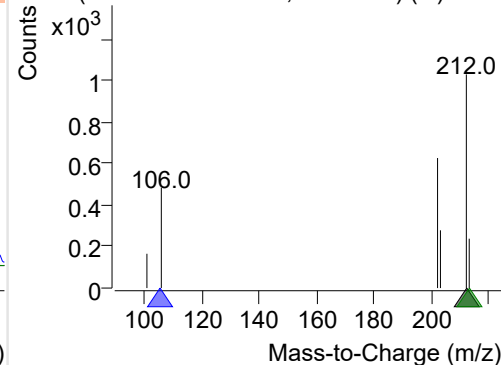
+ Selected Ion (212.0) 220407-PAHs-048.D



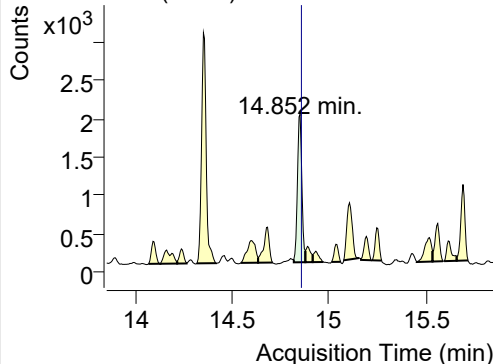
212.0, 106.0, 213.0



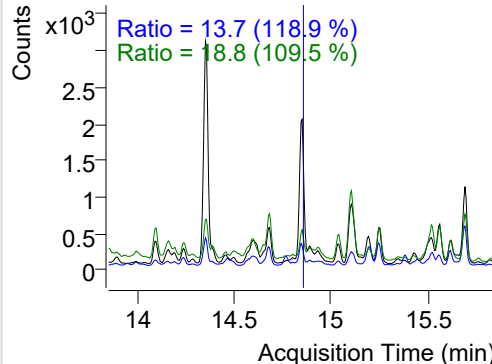
+ SIM (14.772-14.874 min, 19 scans) (\*\*) 2204

**Pyrene**

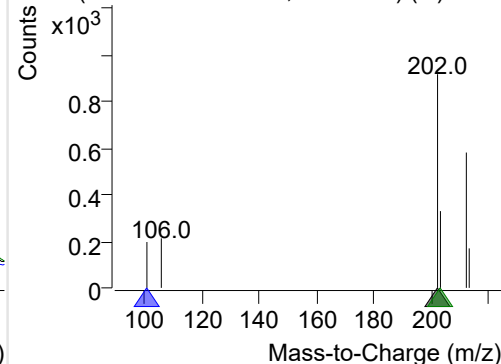
+ Selected Ion (202.0) 220407-PAHs-048.D



202.0, 101.0, 203.0



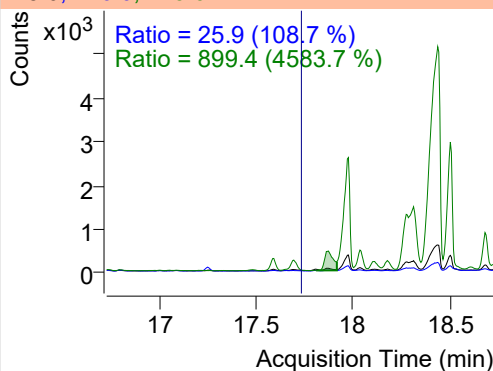
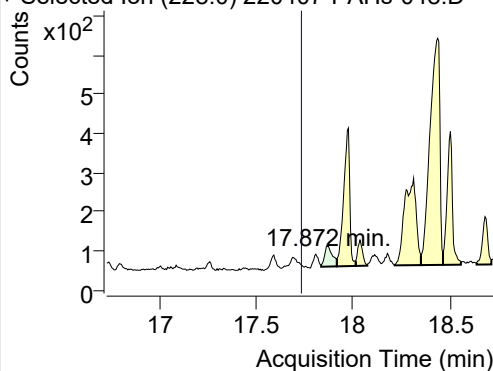
+ SIM (14.820-14.879 min, 12 scans) (\*\*) 2204



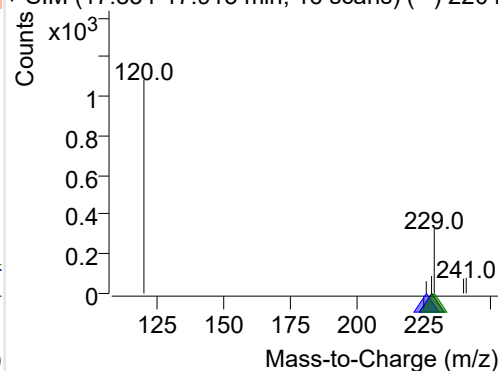
**Benz(a)anthracene**

+ Selected Ion (228.0) 220407-PAHs-048.D

228.0, 226.0, 229.0

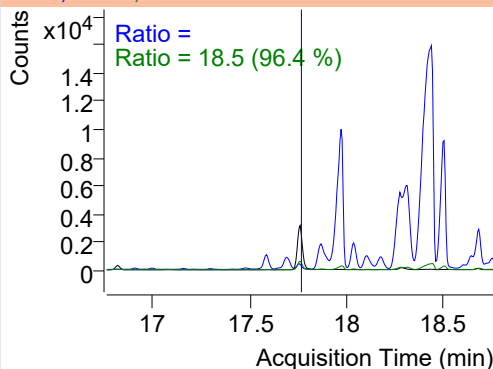
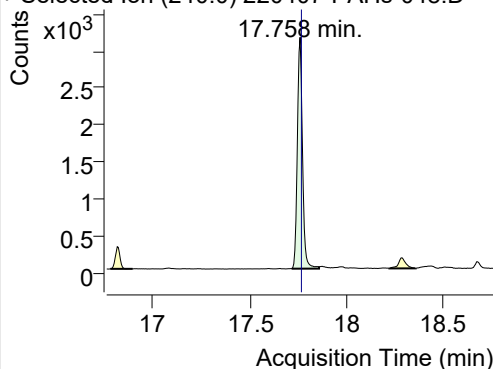


+ SIM (17.834-17.915 min, 16 scans) (\*\*) 2204

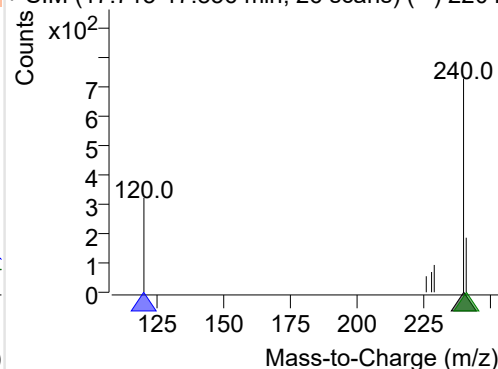
**IS-D12-Chrysene**

+ Selected Ion (240.0) 220407-PAHs-048.D

240.0, 120.0, 241.0

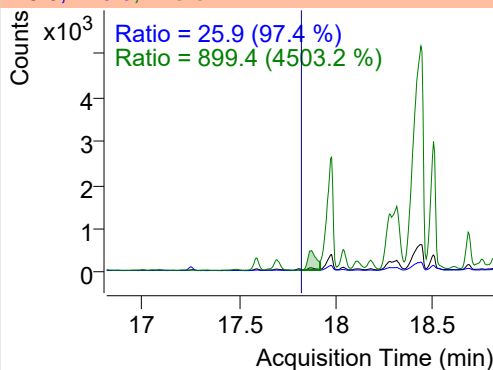
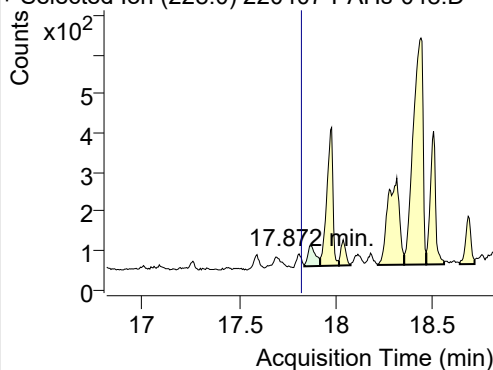


+ SIM (17.715-17.856 min, 26 scans) (\*\*) 2204

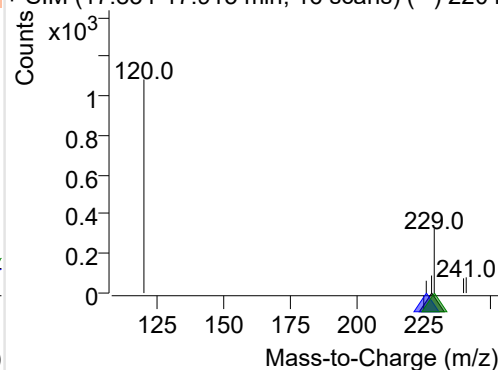
**Chrysene**

+ Selected Ion (228.0) 220407-PAHs-048.D

228.0, 226.0, 229.0

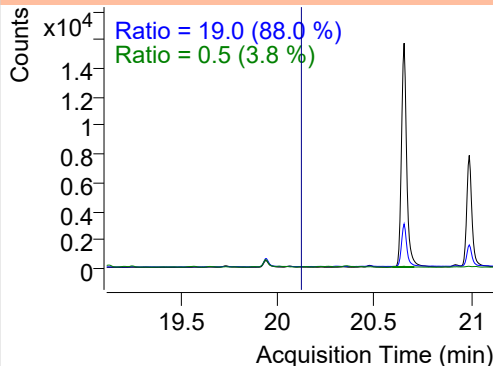
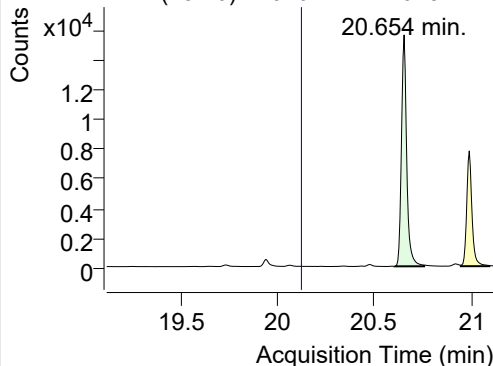


+ SIM (17.834-17.915 min, 16 scans) (\*\*) 2204

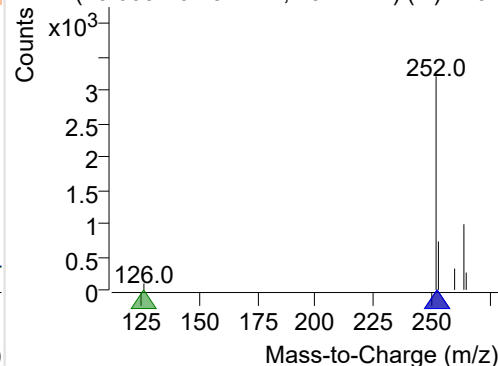
**Benzo(b)fluoranthene**

+ Selected Ion (252.0) 220407-PAHs-048.D

252.0, 253.0, 126.0



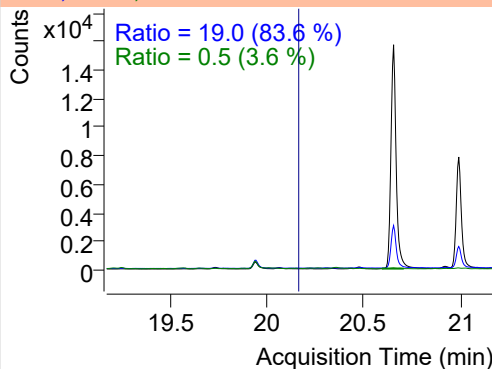
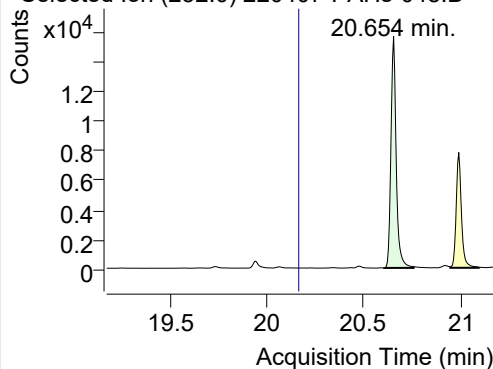
+ SIM (20.605-20.757 min, 29 scans) (\*\*) 2204



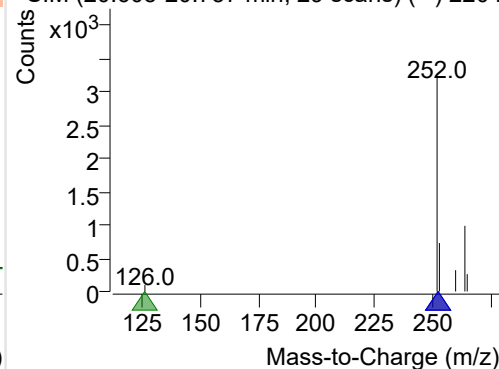
**Benzo(k)fluoranthene**

+ Selected Ion (252.0) 220407-PAHs-048.D

252.0, 253.0, 126.0

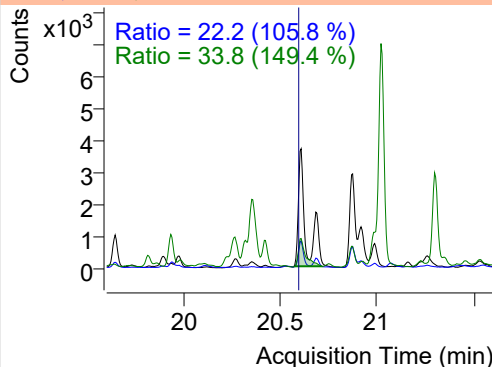
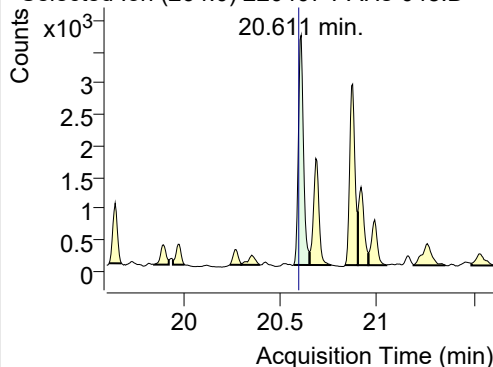


+ SIM (20.605-20.757 min, 29 scans) (\*\*) 2204

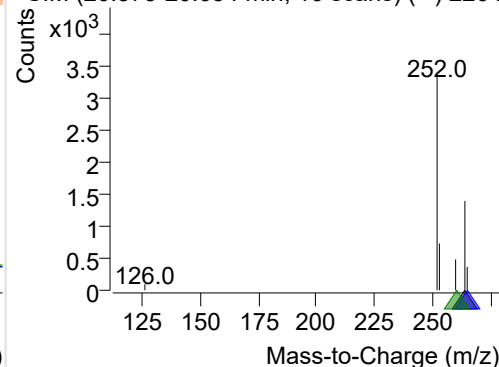
**SS-D12-Benzo(e)pyrene**

+ Selected Ion (264.0) 220407-PAHs-048.D

264.0, 265.0, 260.0

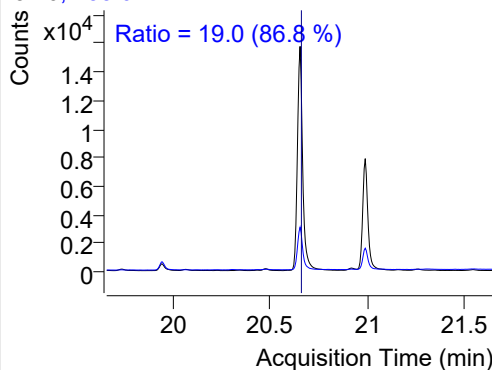
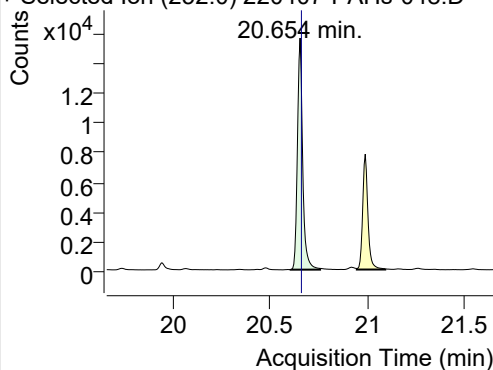


+ SIM (20.573-20.654 min, 16 scans) (\*\*) 2204

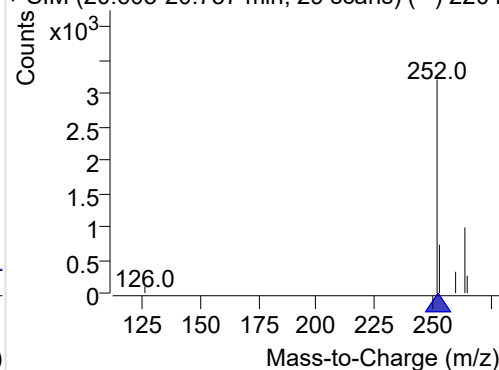
**Benzo(e)pyrene**

+ Selected Ion (252.0) 220407-PAHs-048.D

252.0, 253.0

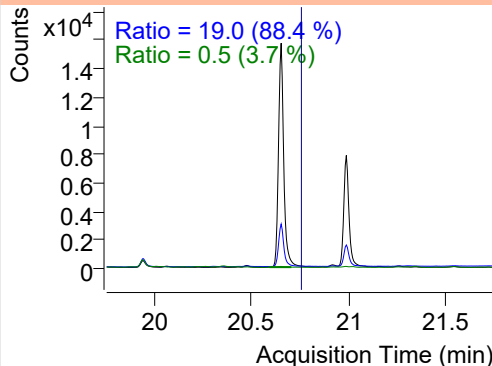
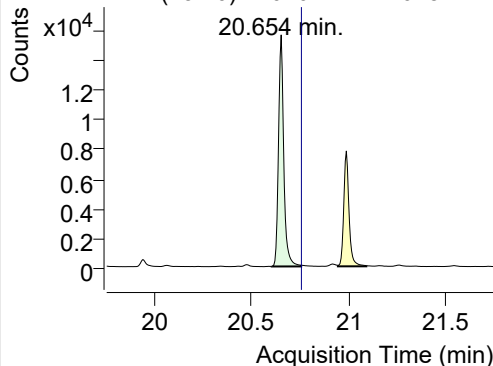


+ SIM (20.605-20.757 min, 29 scans) (\*\*) 2204

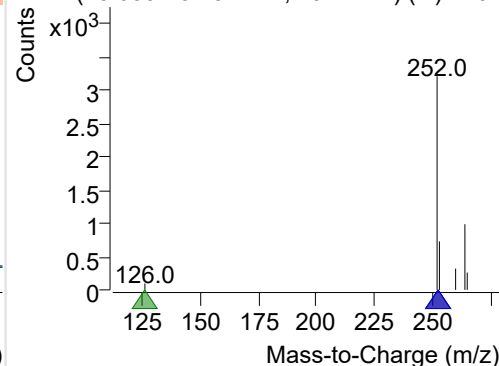
**Benzo(a)pyrene**

+ Selected Ion (252.0) 220407-PAHs-048.D

252.0, 253.0, 126.0

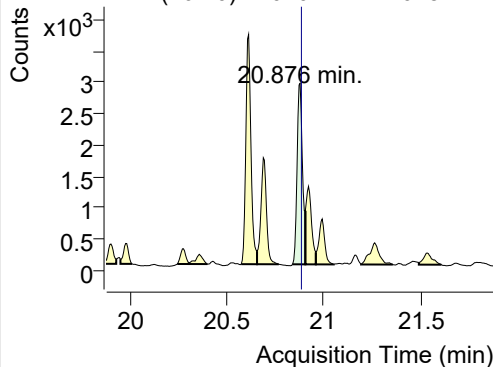


+ SIM (20.605-20.757 min, 29 scans) (\*\*) 2204

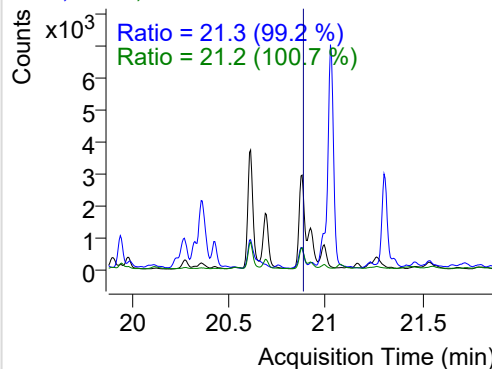


## IS-D12-Perylene

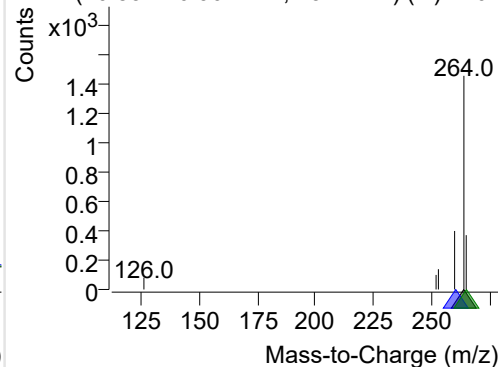
+ Selected Ion (264.0) 220407-PAHs-048.D



264.0, 260.0, 265.0

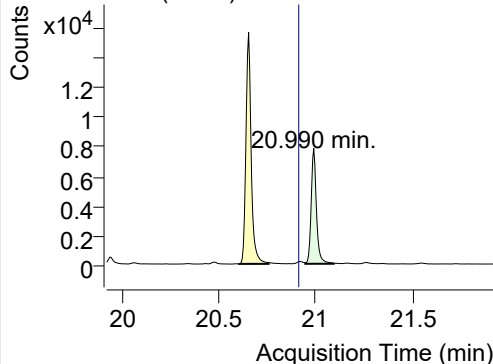


+ SIM (20.837-20.904 min, 13 scans) (\*\*) 2204

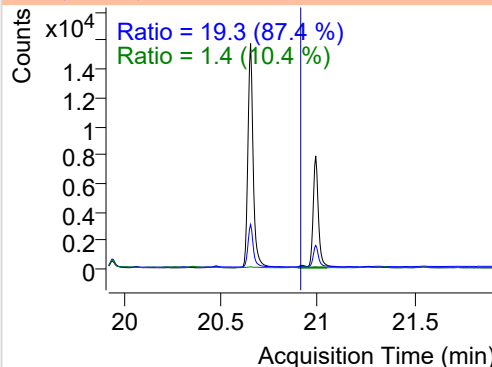


## Perylene

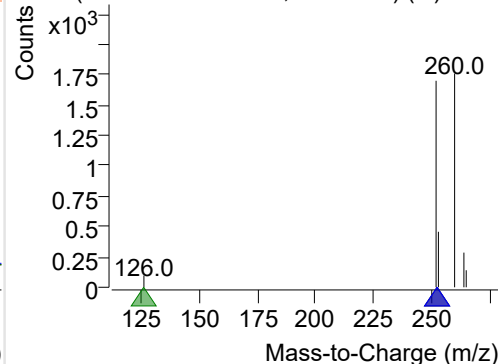
+ Selected Ion (252.0) 220407-PAHs-048.D



252.0, 253.0, 126.0

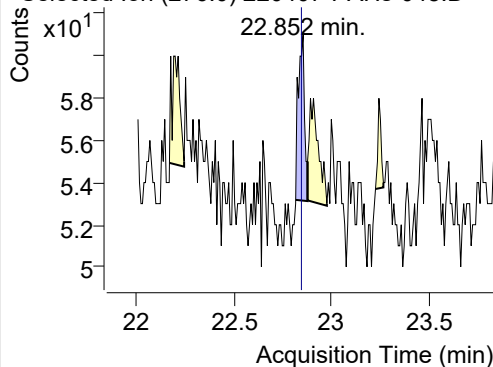


+ SIM (20.947-21.093 min, 28 scans) (\*\*) 2204

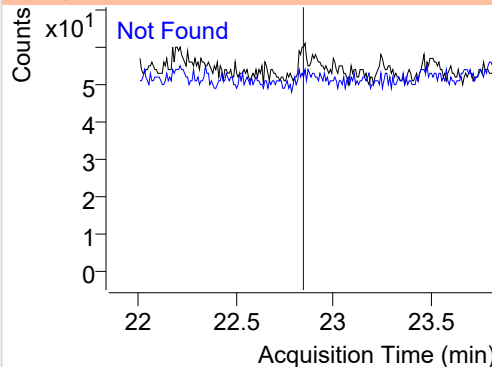


## Indeno(1,2,3-c,d)pyrene

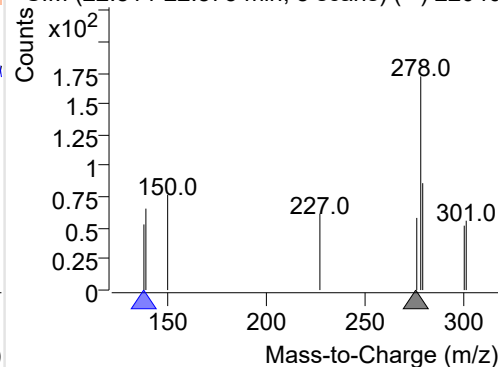
+ Selected Ion (276.0) 220407-PAHs-048.D



276.0, 138.0

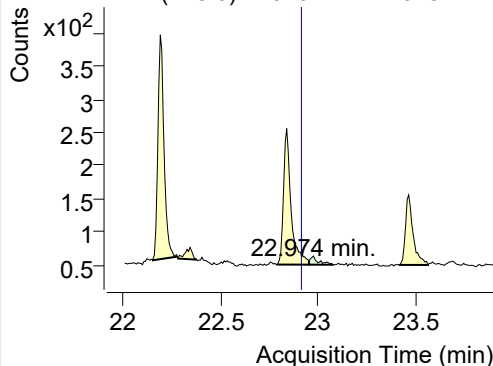


+ SIM (22.814-22.875 min, 8 scans) (\*\*) 22040

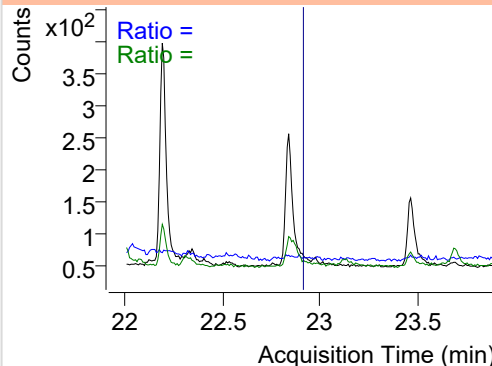


## Dibenz(a,h)anthracene

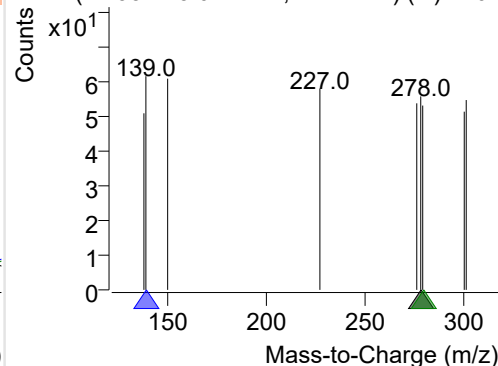
+ Selected Ion (278.0) 220407-PAHs-048.D



278.0, 139.0, 279.0



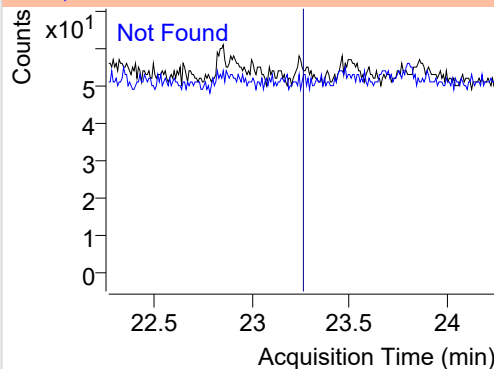
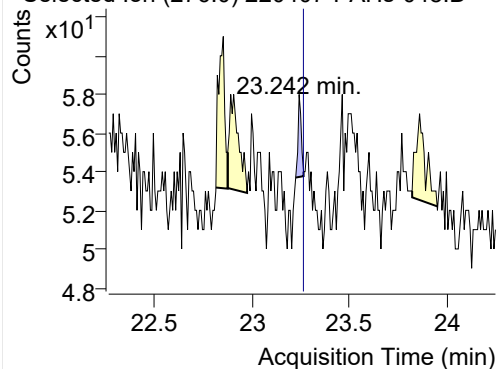
+ SIM (22.951-23.074 min, 17 scans) (\*\*) 2204



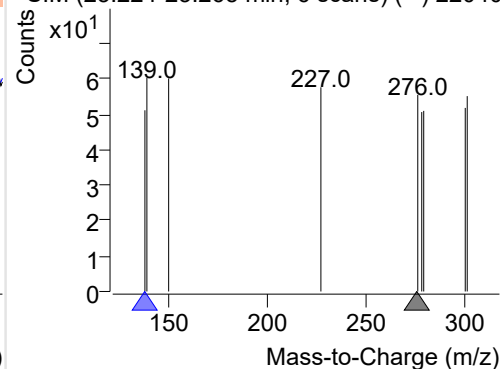
**Benzo(g,h,i)perylene**

+ Selected Ion (276.0) 220407-PAHs-048.D

276.0, 138.0

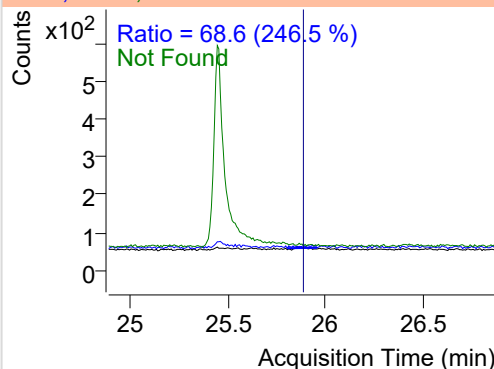
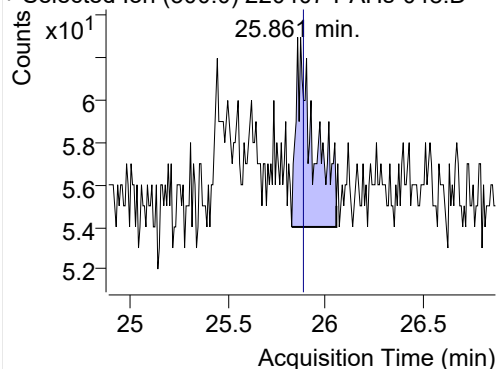


+ SIM (23.224-23.265 min, 6 scans) (\*\*) 22040

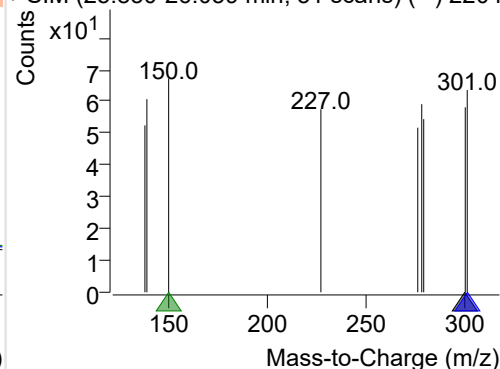
**Coronene**

+ Selected Ion (300.0) 220407-PAHs-048.D

300.0, 301.0, 150.0



+ SIM (25.830-26.059 min, 31 scans) (\*\*) 2204





## Quantitative Analysis Sample Based Report

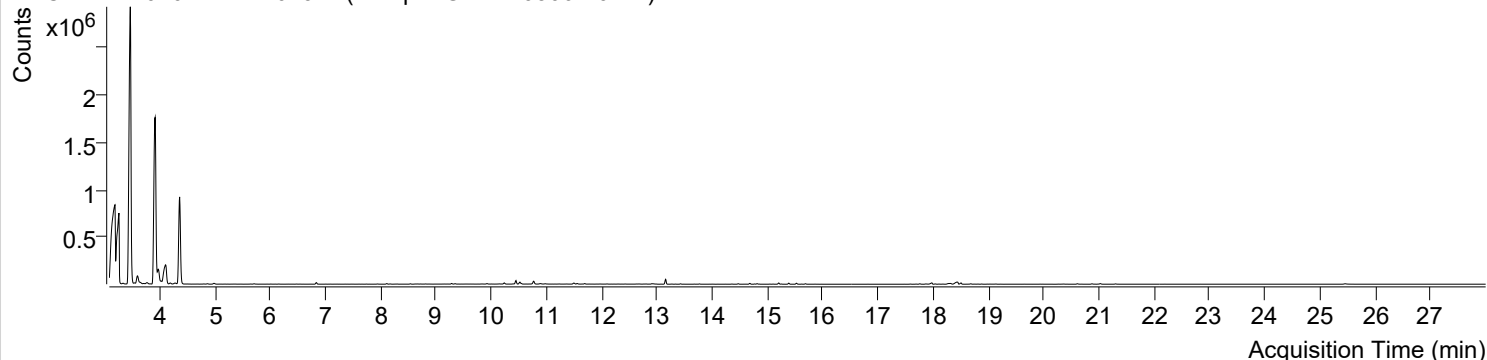


Trusted Answers

Batch Data Path File Name	D:\MassHunter\GCMS\1\data\PAHs\220407-PAHs-Sample\QuantResults\220407-PAHs-Quant.batch.bin		
Analysis Time Stamp	2022-04-13 오후 5:40:30	Analyst Name	DESKTOP-86B7UPG\5975MS
Report Generation Time	2022-04-13 오후 5:40:41	Report Generator Name	DESKTOP-86B7UPG\5975MS
Calibration Last Update	2022-04-13 오후 5:38:35	Batch State	Processed
Analyze Quant Version	10.2	Report Quant Version	10.2
Acq. Date-Time	2022-04-08 오후 12:17:58	Data File	220407-PAHs-049.D
Type	Sample	Name	Sample-Gas-220306-10DIL
Dil.	1	Acq. Method File	PAHs 19mix-Method

## Sample Chromatogram

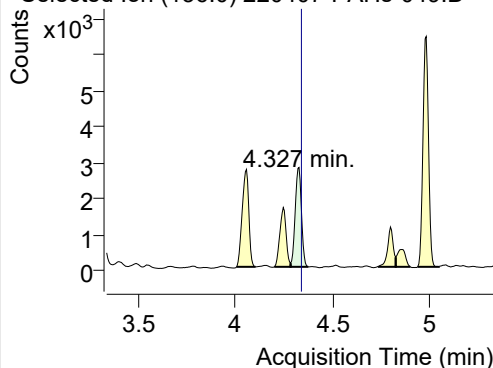
+ TIC SIM 220407-PAHs-049.D (Sample-Gas-220306-10DIL)



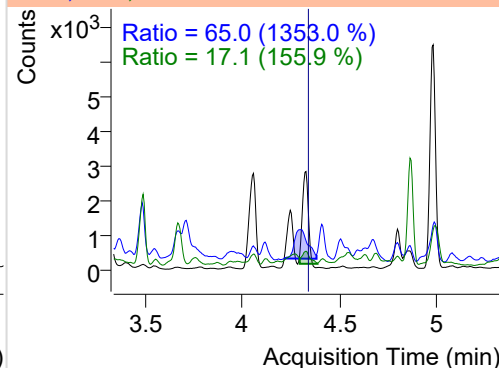
Name	RT	Transition	Resp.	Height	Final Conc. Units	Ratio
IS-D8-Naphthalene	4.327	136.0	6151	2762.33	ND µg/mL	17.1
Naphthalene	4.359	128.0	1640709	741051.34	ND µg/mL	13.3
Acenaphthylene	7.739	152.0	1023	707.49	ND µg/mL	15.5
IS-D10-Acenaphthene	8.112	164.0	4213	2786.55	ND µg/mL	92.9
Acenaphthene	8.177	154.0	926	586.05	ND µg/mL	125.0
LSS-D10-Fluorene	9.281	176.0	4349	3005.61	ND µg/mL	89.2
Fluorene	9.344	166.0	3161	2034.36	ND µg/mL	95.6
IS-D10-Phenanthrene	11.508	188.0	7121	4911.14	ND µg/mL	16.7
Phenanthrene	11.550	178.0	6779	3989.00	ND µg/mL	17.9
Anthracene	11.697	178.0	2657	1385.00	ND µg/mL	22.3
Fluoranthene	14.354	202.0	1966	1243.22	ND µg/mL	16.5
LSS-D10-Pyrene	14.814	212.0	6214	3774.66	ND µg/mL	17.2
Pyrene	14.847	202.0	1507	927.22	ND µg/mL	19.8
Benz(a)anthracene	17.872	228.0	155	60.40	ND µg/mL	
IS-D12-Chrysene	17.758	240.0	5708	3214.30	ND µg/mL	18.9
Chrysene	17.872	228.0	155	60.40	ND µg/mL	
Benzo(b)fluoranthene	20.122	252.0	9	8.34	ND µg/mL	
Benzo(k)fluoranthene	20.122	252.0	9	8.34	ND µg/mL	
SS-D12-Benzo(e)pyrene	20.610	264.0	6074	3094.38	ND µg/mL	30.1
Benzo(e)pyrene	20.654	252.0	143	86.81	ND µg/mL	
Benzo(a)pyrene	20.686	252.0	182	75.38	ND µg/mL	36.3
IS-D12-Perylene	20.871	264.0	6179	2722.06	ND µg/mL	18.7
Perylene	20.920	252.0	146	67.79	ND µg/mL	
Indeno(1,2,3-c,d)pyrene	22.837	276.0	21	8.21	ND µg/mL	
Dibenz(a,h)anthracene	22.837	278.0	573	200.93	ND µg/mL	36.5
Benzo(g,h,i)perylene	23.257	276.0	15	5.75	ND µg/mL	
Coronene	25.876	300.0	186	9.00	ND µg/mL	

## IS-D8-Naphthalene

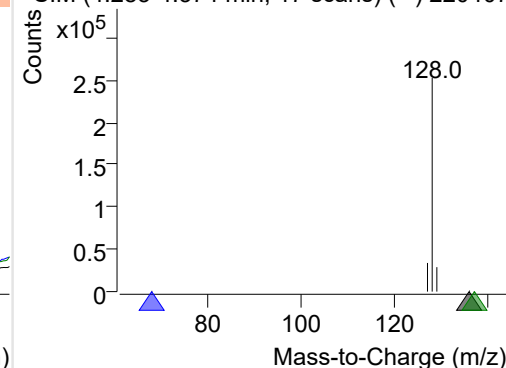
+ Selected Ion (136.0) 220407-PAHs-049.D



136.0, 68.0, 137.0

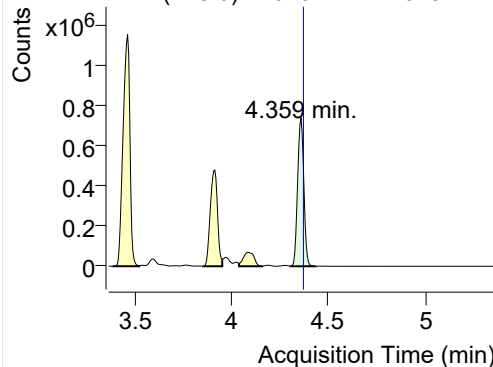


+ SIM (4.283-4.374 min, 17 scans) (\*\*) 220407

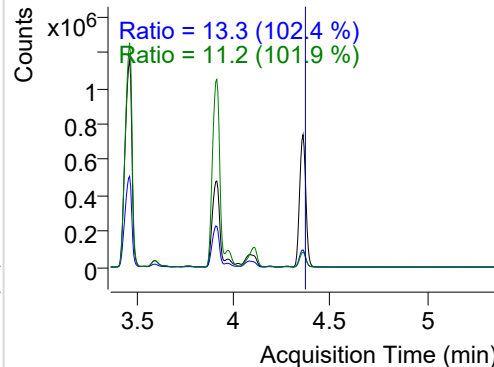


**Naphthalene**

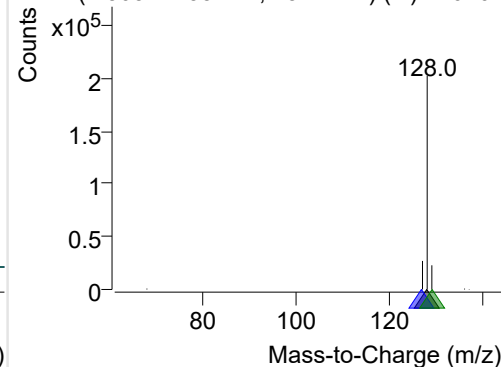
+ Selected Ion (128.0) 220407-PAHs-049.D



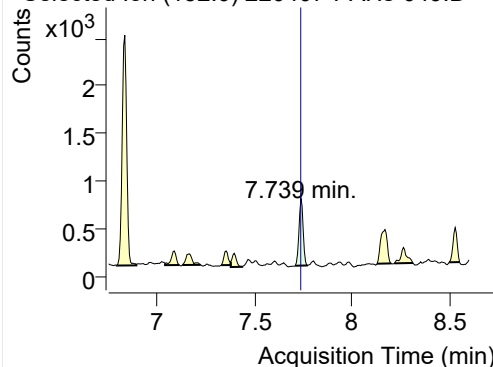
128.0, 127.0, 129.0



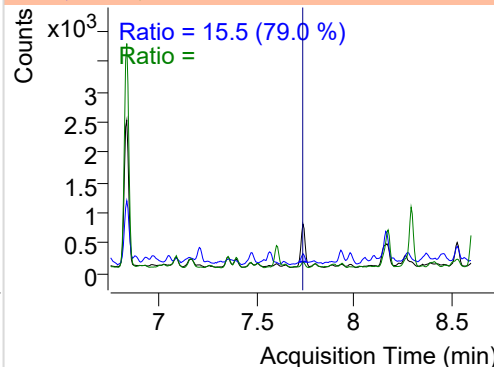
+ SIM (4.305-4.435 min, 25 scans) (\*\*) 220407

**Acenaphthylene**

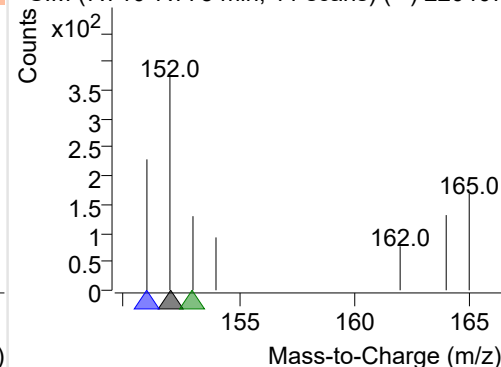
+ Selected Ion (152.0) 220407-PAHs-049.D



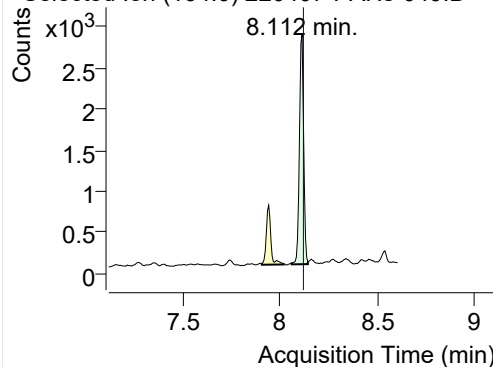
152.0, 151.0, 153.0



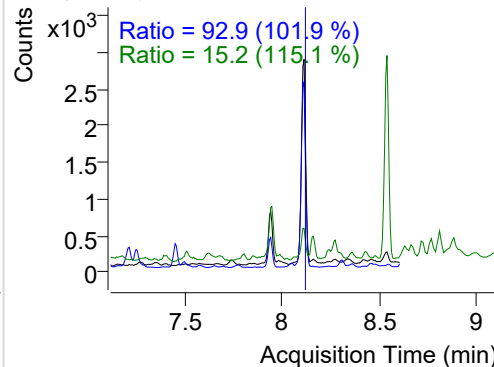
+ SIM (7.710-7.775 min, 11 scans) (\*\*) 220407

**IS-D10-Acenaphthene**

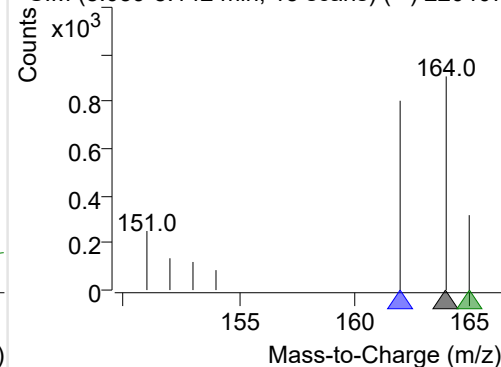
+ Selected Ion (164.0) 220407-PAHs-049.D



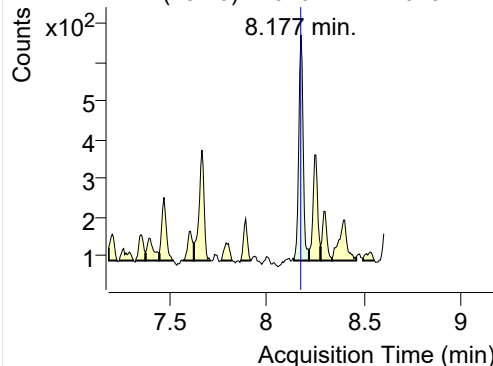
164.0, 162.0, 165.0



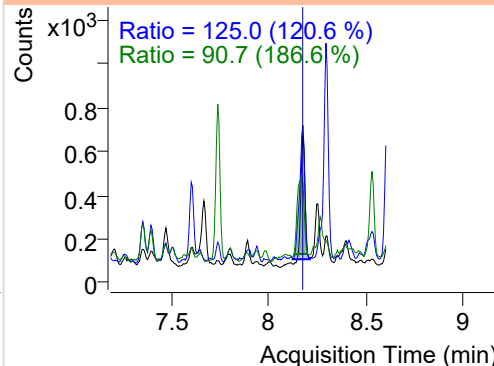
+ SIM (8.059-8.142 min, 15 scans) (\*\*) 220407

**Acenaphthene**

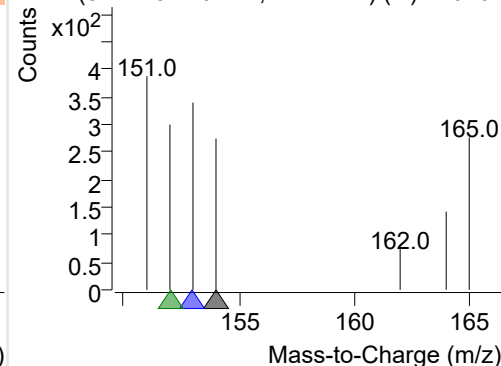
+ Selected Ion (154.0) 220407-PAHs-049.D



154.0, 153.0, 152.0

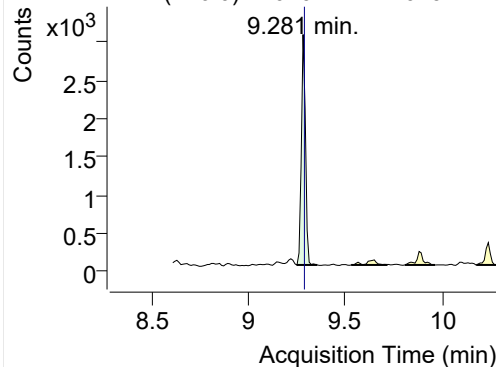


+ SIM (8.142-8.219 min, 14 scans) (\*\*) 220407

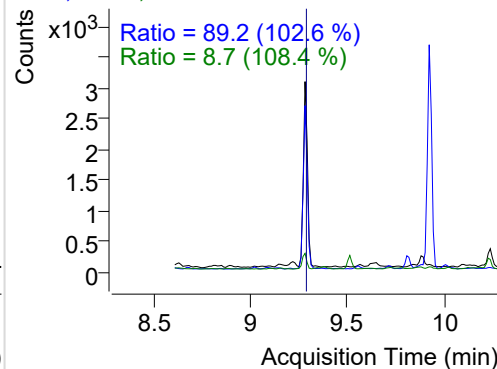


## LSS-D10-Fluorene

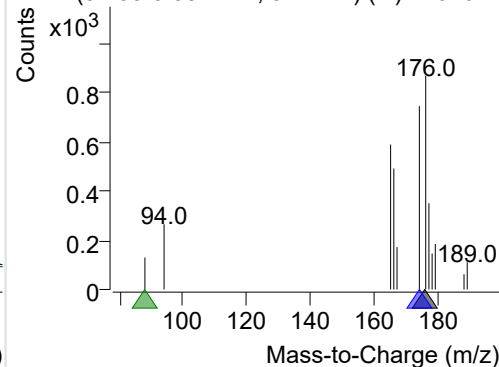
+ Selected Ion (176.0) 220407-PAHs-049.D



176.0, 174.0, 88.0

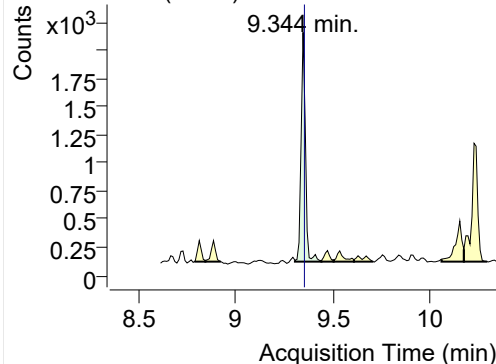


+ SIM (9.250-9.354 min, 9 scans) (\*\*) 220407-I

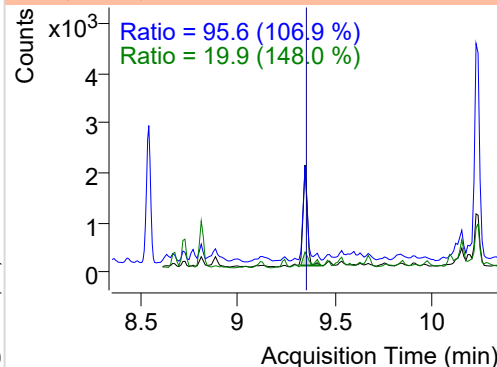


## Fluorene

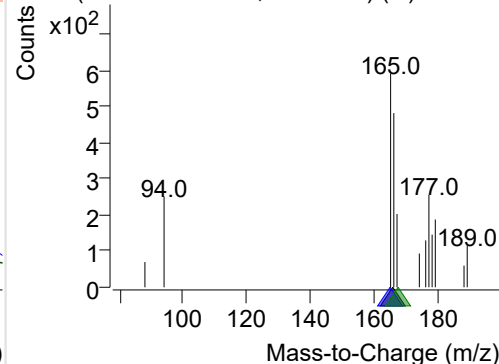
+ Selected Ion (166.0) 220407-PAHs-049.D



166.0, 165.0, 167.0

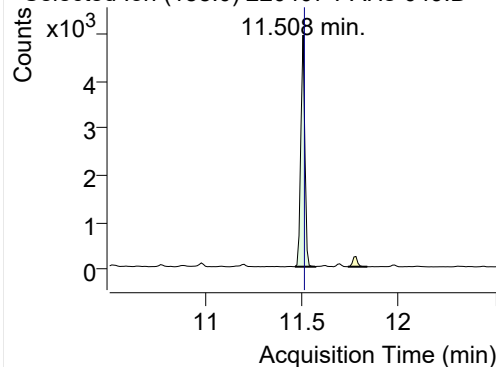


+ SIM (9.302-9.439 min, 14 scans) (\*\*) 220407

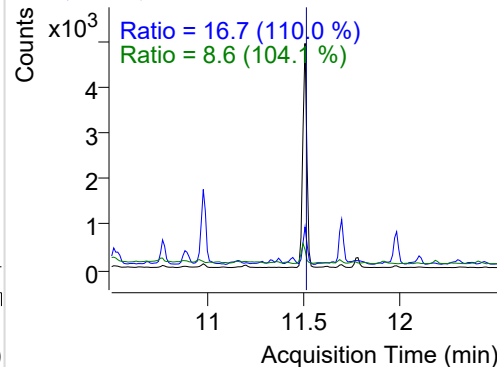


## IS-D10-Phenanthrene

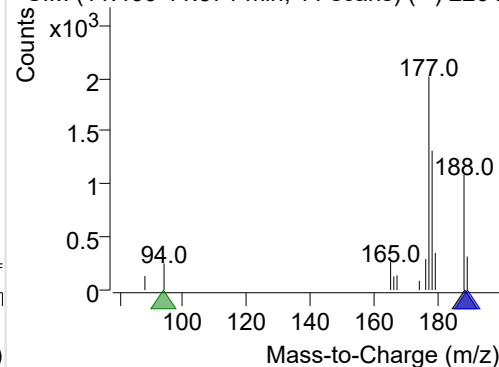
+ Selected Ion (188.0) 220407-PAHs-049.D



188.0, 189.0, 94.0

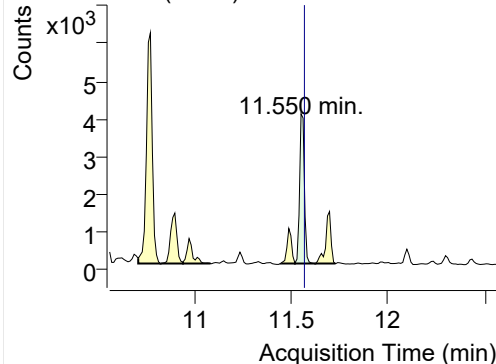


+ SIM (11.466-11.571 min, 11 scans) (\*\*) 2204

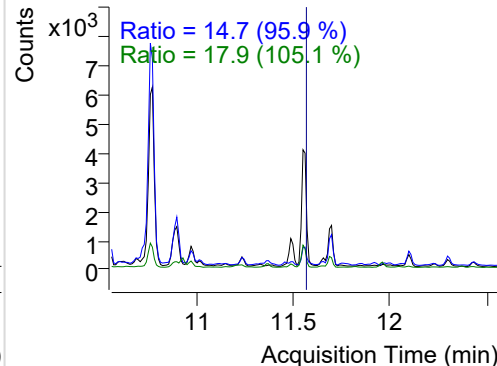


## Phenanthrene

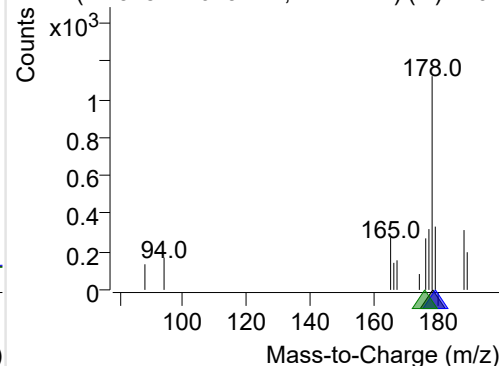
+ Selected Ion (178.0) 220407-PAHs-049.D



178.0, 179.0, 176.0

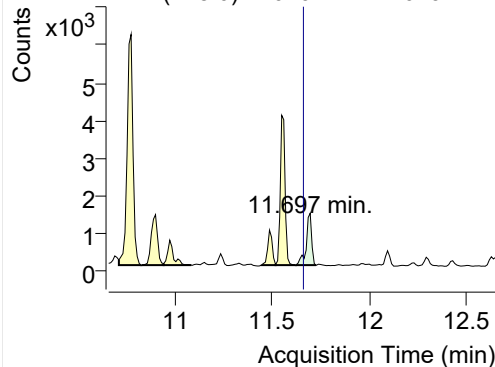


+ SIM (11.518-11.623 min, 11 scans) (\*\*) 2204

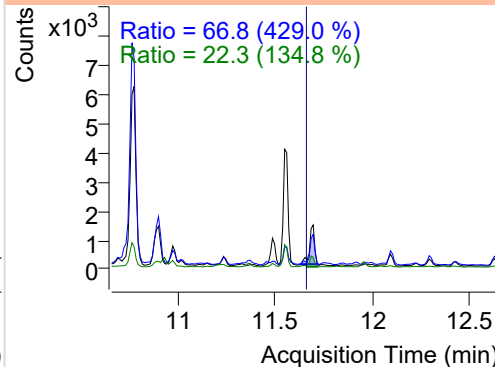


**Anthracene**

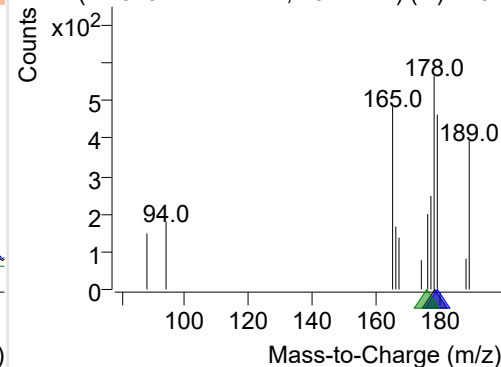
+ Selected Ion (178.0) 220407-PAHs-049.D



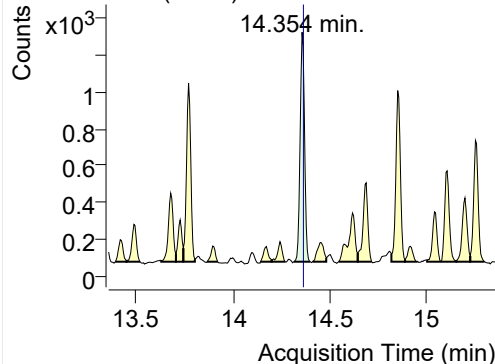
178.0, 179.0, 176.0



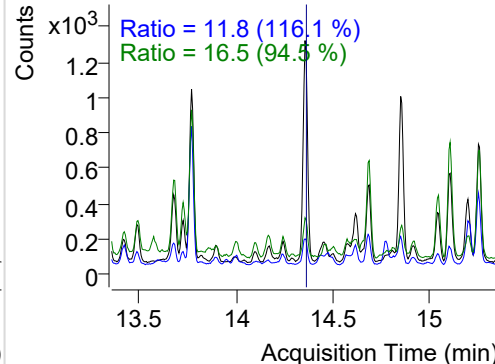
+ SIM (11.623-11.727 min, 10 scans) (\*\*) 2204

**Fluoranthene**

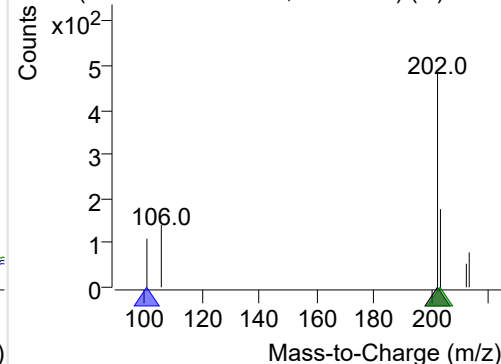
+ Selected Ion (202.0) 220407-PAHs-049.D



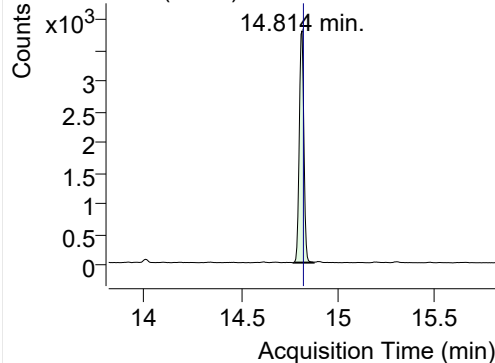
202.0, 101.0, 203.0



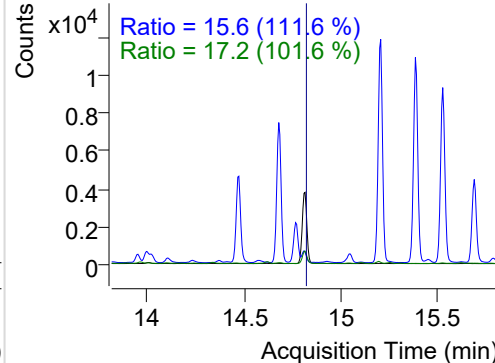
+ SIM (14.311-14.396 min, 15 scans) (\*\*) 2204

**LSS-D10-Pyrene**

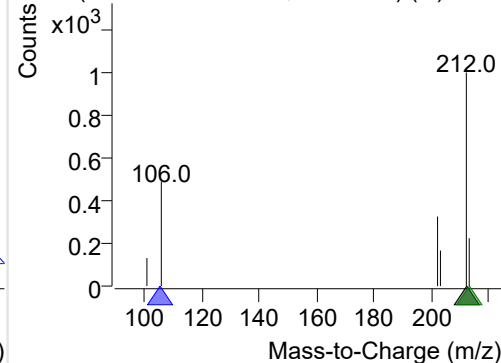
+ Selected Ion (212.0) 220407-PAHs-049.D



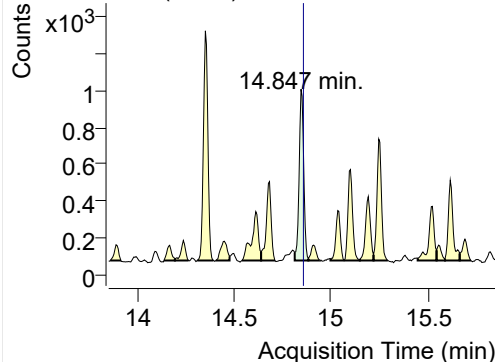
212.0, 106.0, 213.0



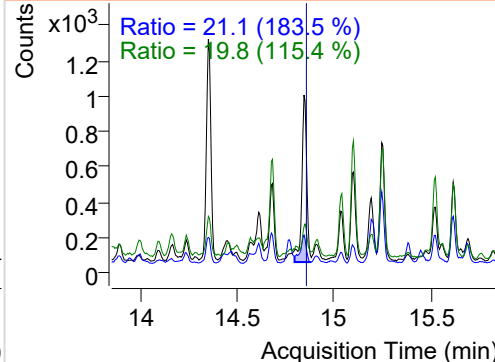
+ SIM (14.771-14.874 min, 20 scans) (\*\*) 2204

**Pyrene**

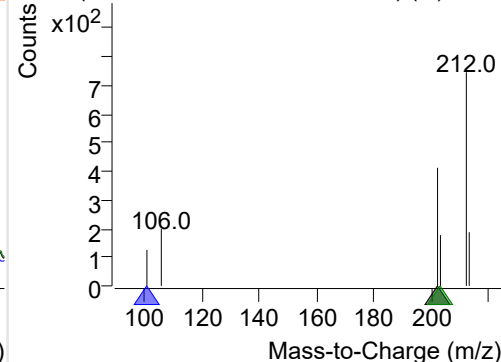
+ Selected Ion (202.0) 220407-PAHs-049.D



202.0, 101.0, 203.0



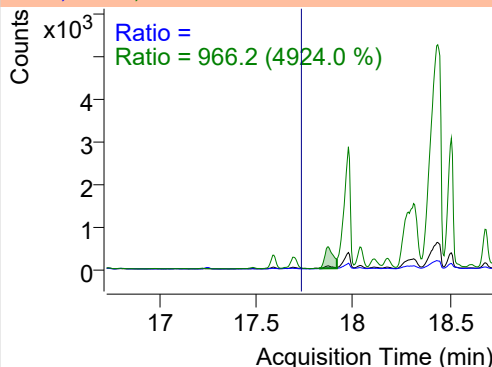
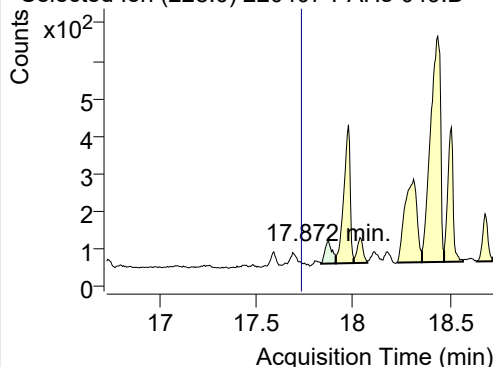
+ SIM (14.814-14.885 min, 14 scans) (\*\*) 2204



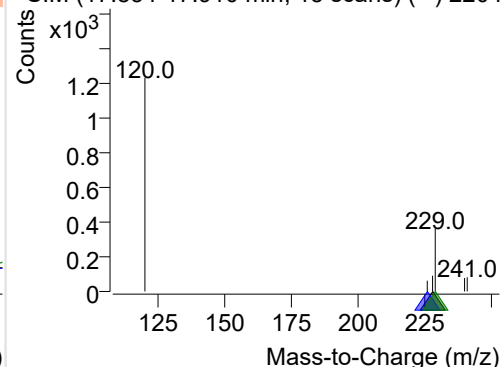
**Benz(a)anthracene**

+ Selected Ion (228.0) 220407-PAHs-049.D

228.0, 226.0, 229.0

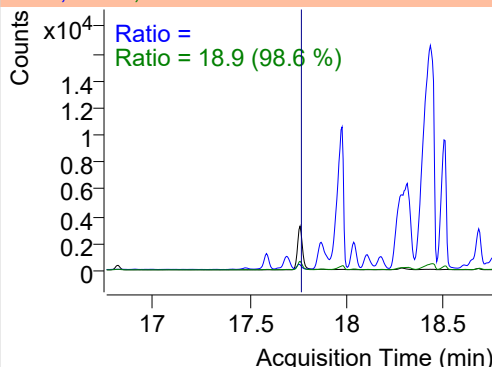
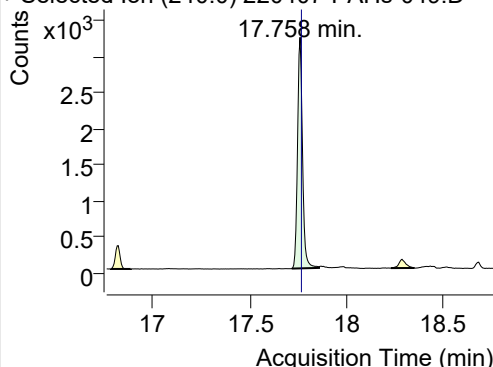


+ SIM (17.834-17.910 min, 15 scans) (\*\*) 2204

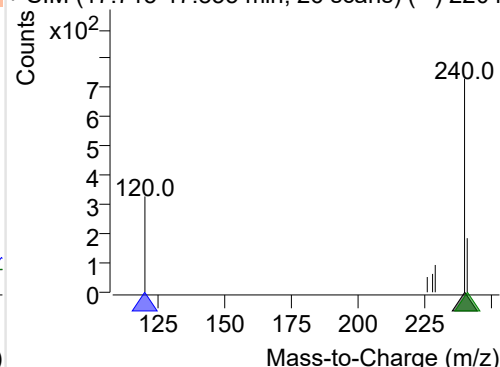
**IS-D12-Chrysene**

+ Selected Ion (240.0) 220407-PAHs-049.D

240.0, 120.0, 241.0

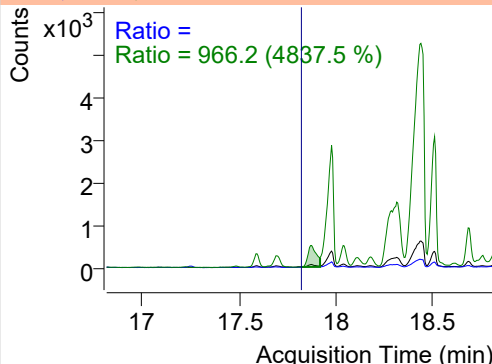
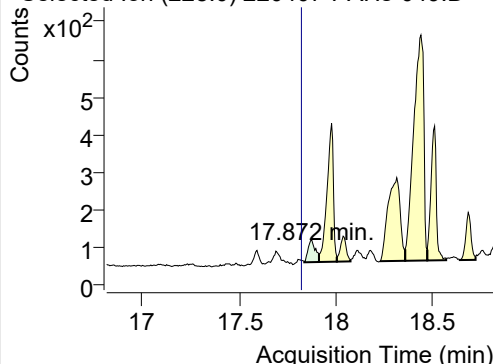


+ SIM (17.715-17.855 min, 26 scans) (\*\*) 2204

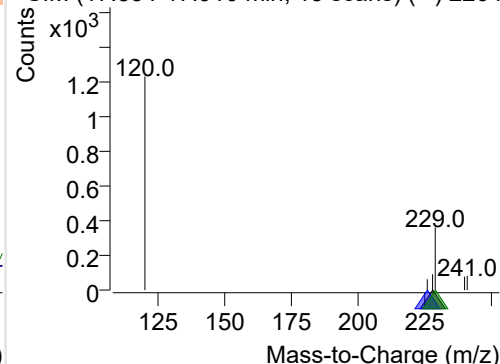
**Chrysene**

+ Selected Ion (228.0) 220407-PAHs-049.D

228.0, 226.0, 229.0

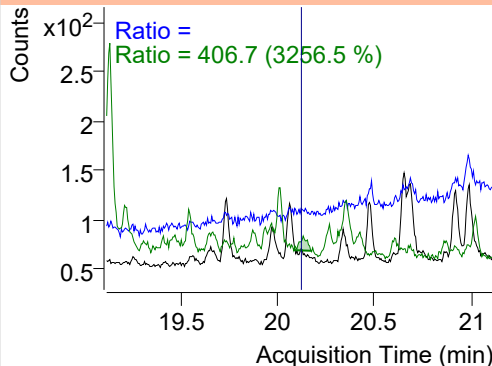
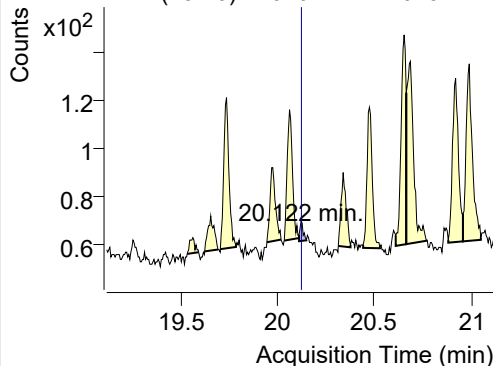


+ SIM (17.834-17.910 min, 15 scans) (\*\*) 2204

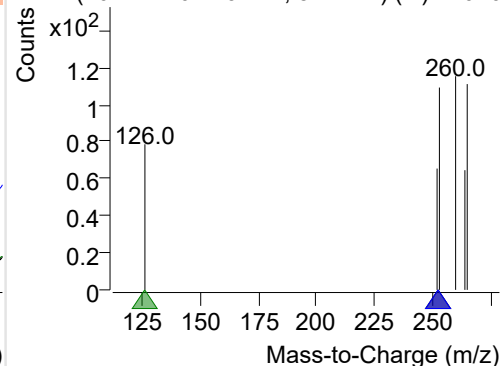
**Benzo(b)fluoranthene**

+ Selected Ion (252.0) 220407-PAHs-049.D

252.0, 253.0, 126.0



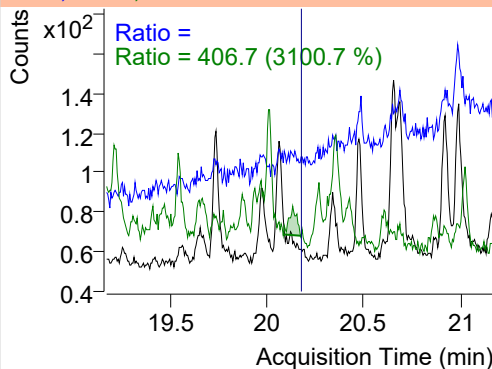
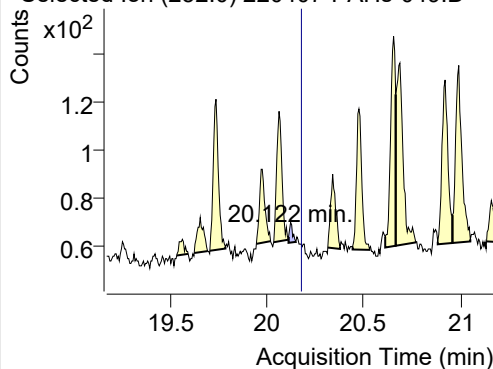
+ SIM (20.111-20.149 min, 8 scans) (\*\*) 22040



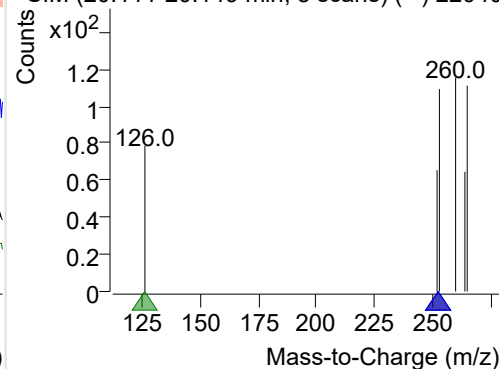
**Benzo(k)fluoranthene**

+ Selected Ion (252.0) 220407-PAHs-049.D

252.0, 253.0, 126.0

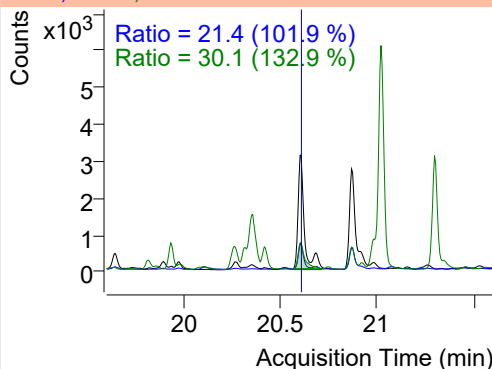
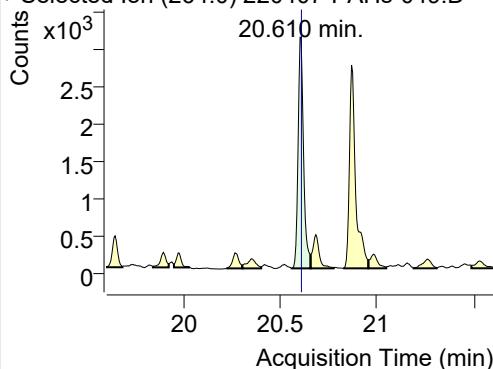


+ SIM (20.111-20.149 min, 8 scans) (\*\*) 22040

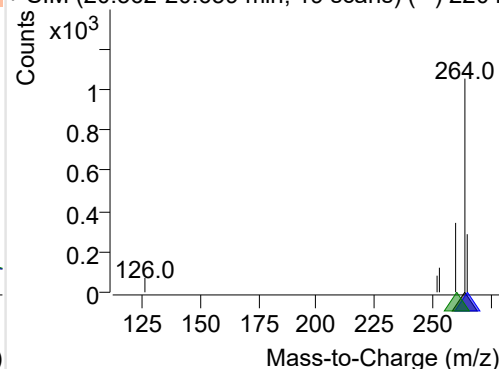
**SS-D12-Benzo(e)pyrene**

+ Selected Ion (264.0) 220407-PAHs-049.D

264.0, 265.0, 260.0

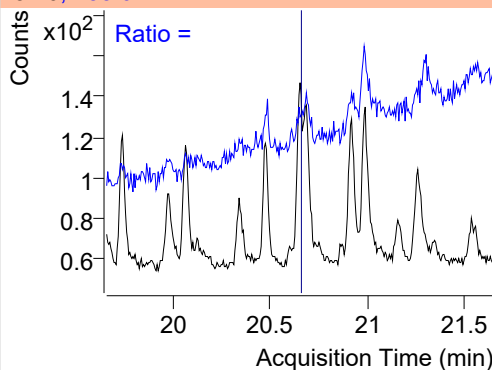
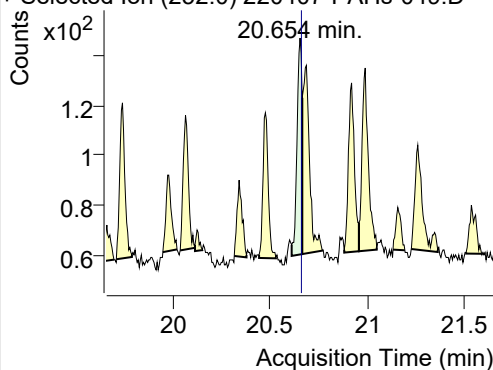


+ SIM (20.562-20.659 min, 19 scans) (\*\*) 2204

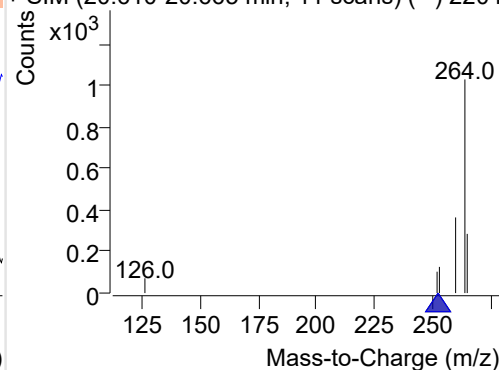
**Benzo(e)pyrene**

+ Selected Ion (252.0) 220407-PAHs-049.D

252.0, 253.0

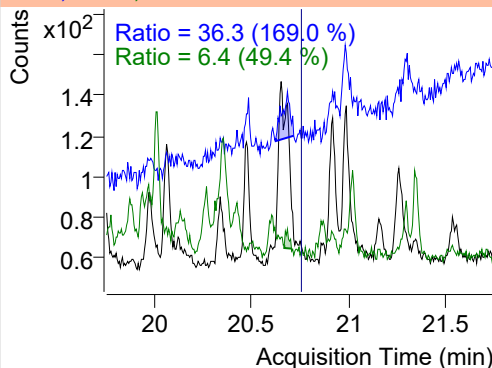
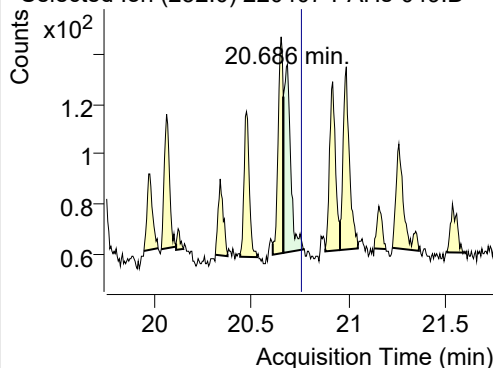


+ SIM (20.610-20.665 min, 11 scans) (\*\*) 2204

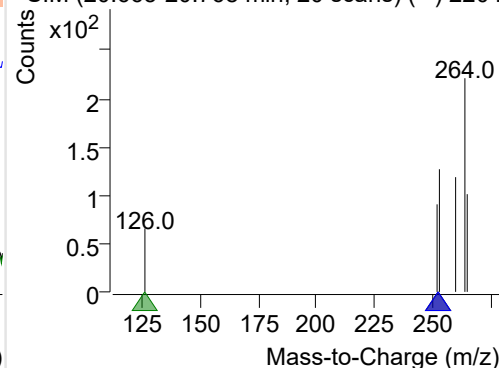
**Benzo(a)pyrene**

+ Selected Ion (252.0) 220407-PAHs-049.D

252.0, 253.0, 126.0

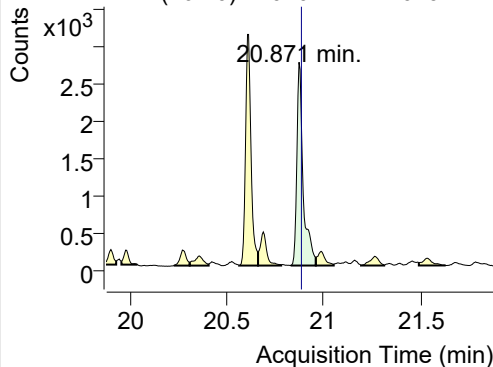


+ SIM (20.665-20.768 min, 20 scans) (\*\*) 2204

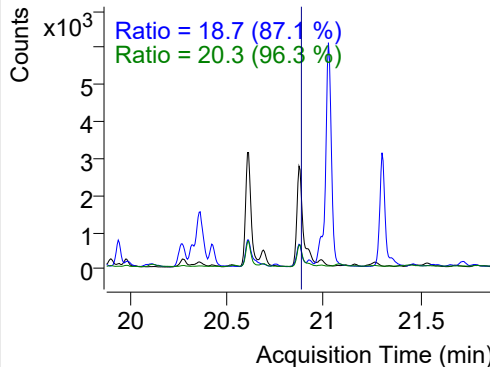


## IS-D12-Perylene

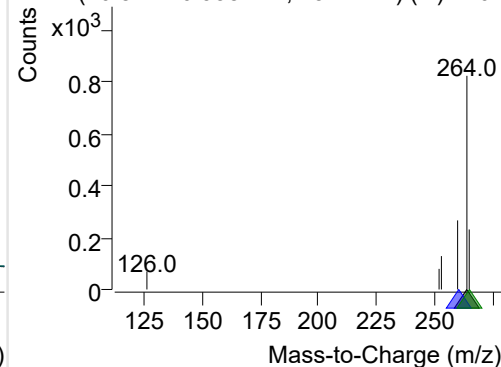
+ Selected Ion (264.0) 220407-PAHs-049.D



264.0, 260.0, 265.0

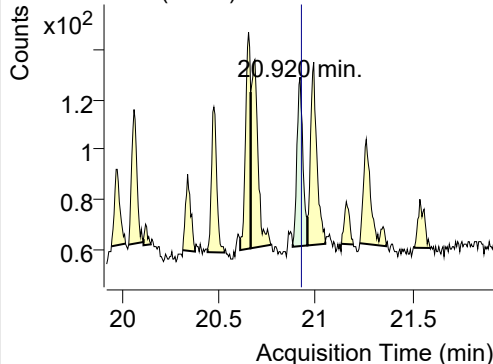


+ SIM (20.827-20.958 min, 25 scans) (\*\*) 2204

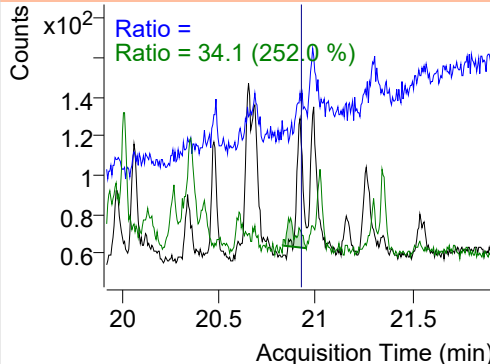


## Perylene

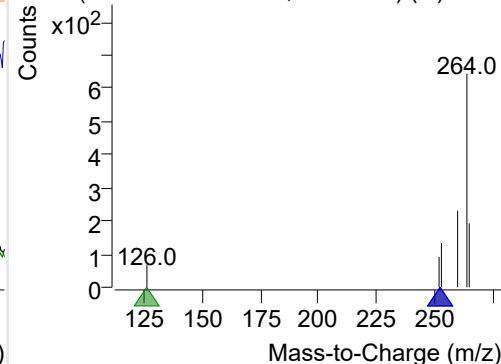
+ Selected Ion (252.0) 220407-PAHs-049.D



252.0, 253.0, 126.0

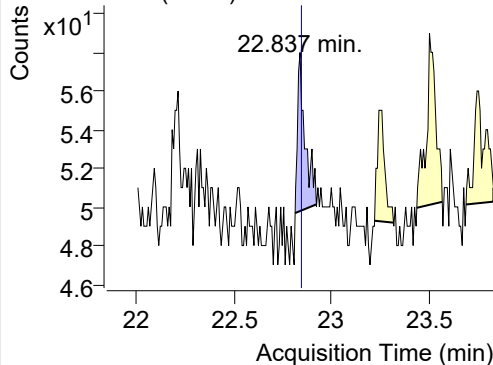


+ SIM (20.882-20.958 min, 15 scans) (\*\*) 2204

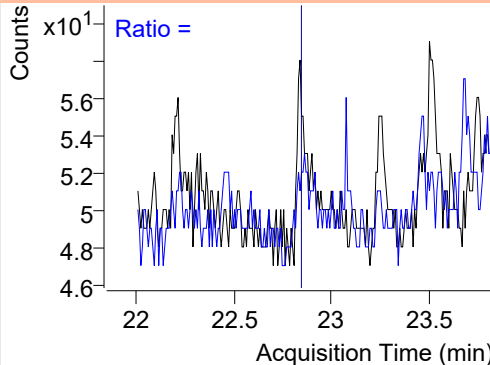


## Indeno(1,2,3-c,d)pyrene

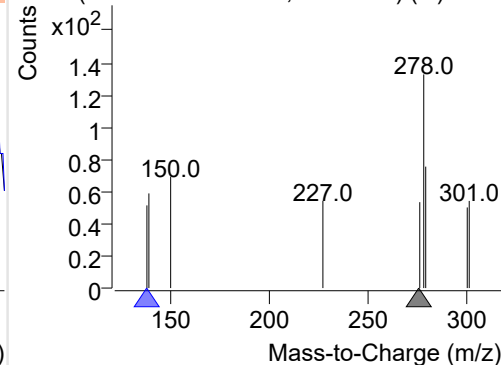
+ Selected Ion (276.0) 220407-PAHs-049.D



276.0, 138.0

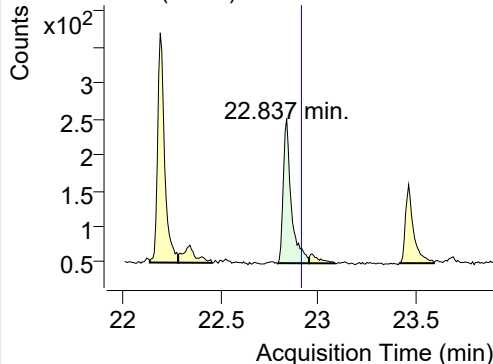


+ SIM (22.811-22.920 min, 14 scans) (\*\*) 2204

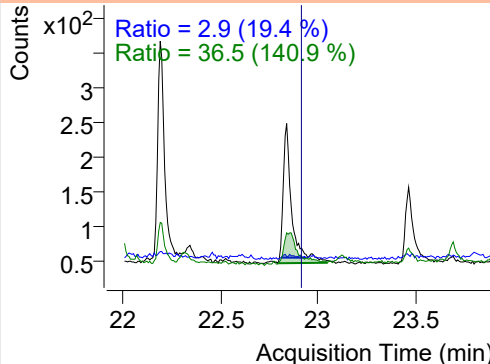


## Dibenz(a,h)anthracene

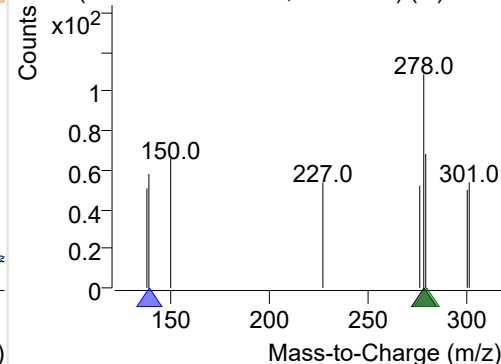
+ Selected Ion (278.0) 220407-PAHs-049.D



278.0, 139.0, 279.0



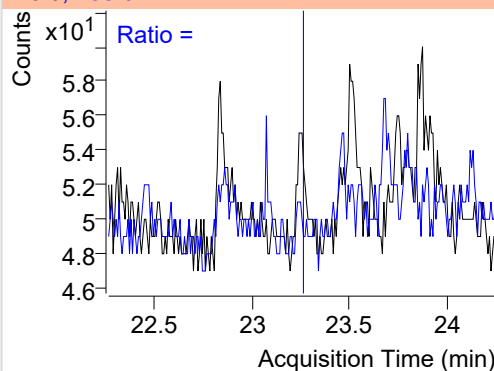
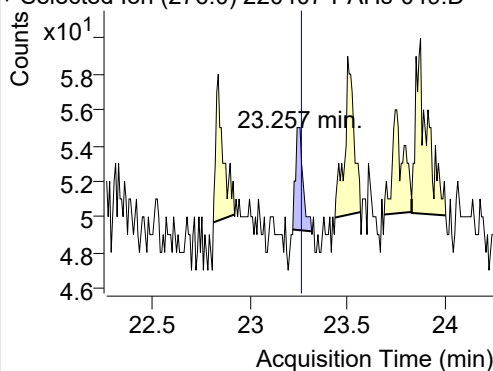
+ SIM (22.792-22.951 min, 21 scans) (\*\*) 2204



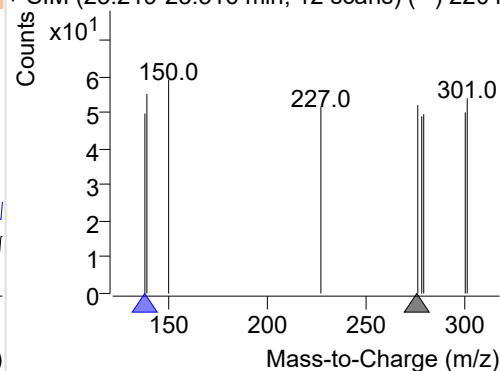
**Benzo(g,h,i)perylene**

+ Selected Ion (276.0) 220407-PAHs-049.D

276.0, 138.0

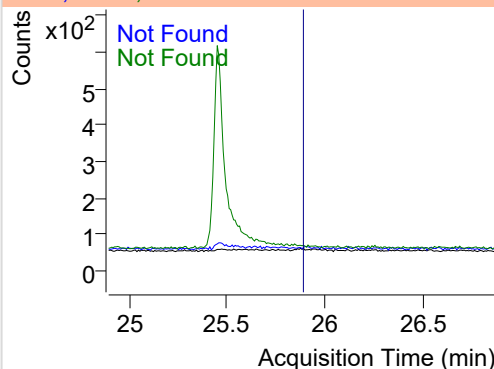
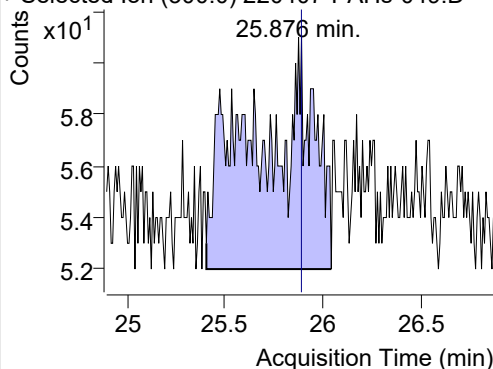


+ SIM (23.219-23.316 min, 12 scans) (\*\*) 2204

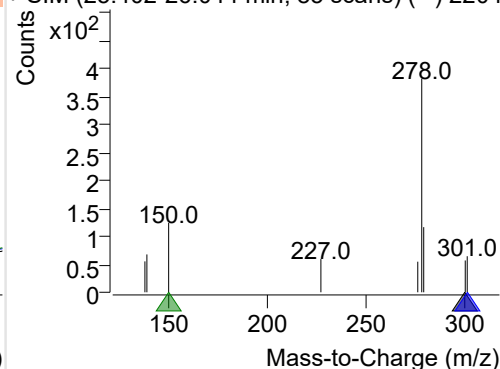
**Coronene**

+ Selected Ion (300.0) 220407-PAHs-049.D

300.0, 301.0, 150.0



+ SIM (25.402-26.044 min, 85 scans) (\*\*) 2204





## Quantitative Analysis Sample Based Report

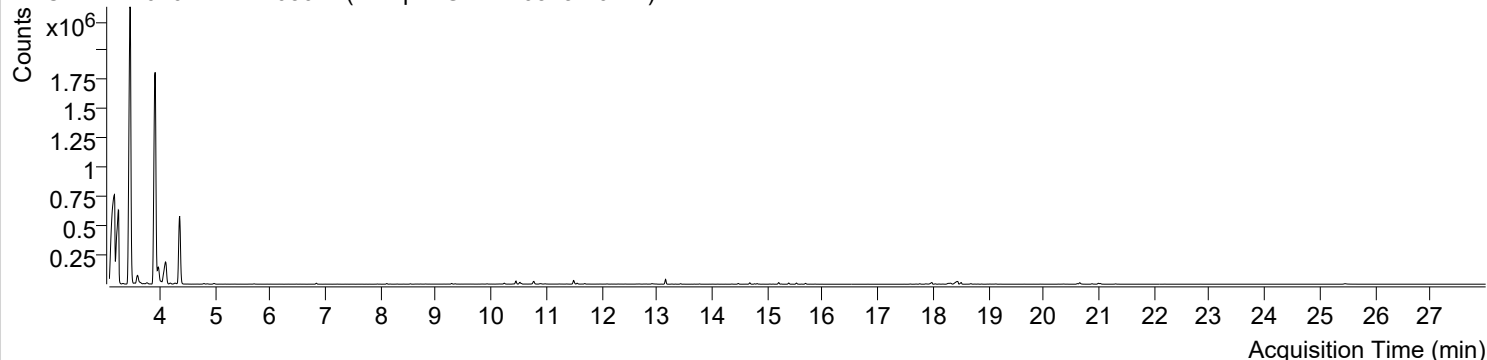


Trusted Answers

Batch Data Path File Name	D:\MassHunter\GCMS\1\data\PAHs\220407-PAHs-Sample\QuantResults\220407-PAHs-Quant.batch.bin		
Analysis Time Stamp	2022-04-13 오후 5:40:30	Analyst Name	DESKTOP-86B7UPG\5975MS
Report Generation Time	2022-04-13 오후 5:40:41	Report Generator Name	DESKTOP-86B7UPG\5975MS
Calibration Last Update	2022-04-13 오후 5:38:35	Batch State	Processed
Analyze Quant Version	10.2	Report Quant Version	10.2
Acq. Date-Time	2022-04-08 오후 12:49:00	Data File	220407-PAHs-050.D
Type	Sample	Name	Sample-Gas-220313-10DIL
Dil.	1	Acq. Method File	PAHs 19mix-Method

## Sample Chromatogram

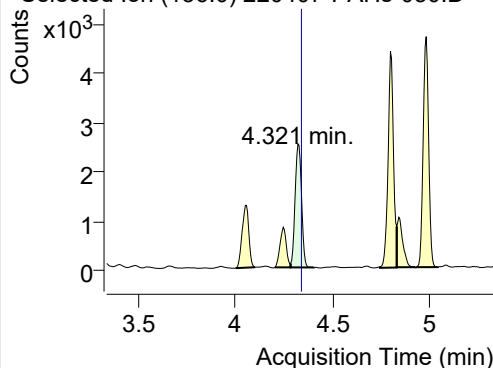
+ TIC SIM 220407-PAHs-050.D (Sample-Gas-220313-10DIL)



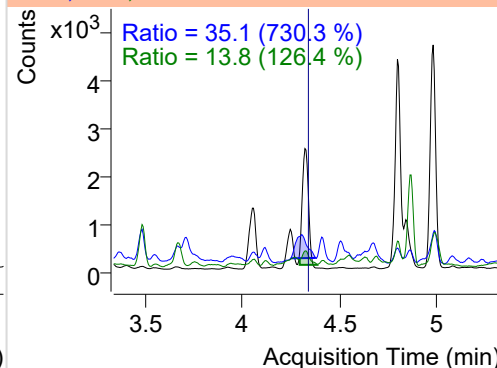
Name	RT	Transition	Resp.	Height	Final Conc. Units	Ratio
IS-D8-Naphthalene	4.321	136.0	5764	2500.61	ND µg/mL	13.8
Naphthalene	4.359	128.0	1077329	469522.24	ND µg/mL	13.2
Acenaphthylene	7.739	152.0	223	163.92	ND µg/mL	28.3
IS-D10-Acenaphthene	8.112	164.0	3803	2436.77	ND µg/mL	94.4
Acenaphthene	8.177	154.0	475	309.49	ND µg/mL	115.3
LSS-D10-Fluorene	9.281	176.0	3791	2538.98	ND µg/mL	88.6
Fluorene	9.344	166.0	1870	1229.57	ND µg/mL	96.4
IS-D10-Phenanthrene	11.508	188.0	6683	4532.33	ND µg/mL	16.2
Phenanthrene	11.560	178.0	7989	4702.10	ND µg/mL	18.0
Anthracene	11.697	178.0	2190	1195.88	ND µg/mL	23.3
Fluoranthene	14.354	202.0	1590	991.47	ND µg/mL	16.4
LSS-D10-Pyrene	14.814	212.0	5578	3563.92	ND µg/mL	16.7
Pyrene	14.847	202.0	1166	729.32	ND µg/mL	21.8
Benz(a)anthracene	17.866	228.0	157	65.73	ND µg/mL	
IS-D12-Chrysene	17.758	240.0	5188	2854.52	ND µg/mL	18.6
Chrysene	17.866	228.0	157	65.73	ND µg/mL	
Benzo(b)fluoranthene	20.654	252.0	19947	9984.03	ND µg/mL	19.0
Benzo(k)fluoranthene	20.654	252.0	19947	9984.03	ND µg/mL	19.0
SS-D12-Benzo(e)pyrene	20.610	264.0	6574	3305.29	ND µg/mL	28.3
Benzo(e)pyrene	20.654	252.0	19947	9984.03	ND µg/mL	19.0
Benzo(a)pyrene	20.654	252.0	19947	9984.03	ND µg/mL	19.0
IS-D12-Perylene	20.876	264.0	5512	2396.72	ND µg/mL	18.4
Perylene	20.990	252.0	11642	5613.70	ND µg/mL	19.0
Indeno(1,2,3-c,d)pyrene	22.837	276.0	28	7.19	ND µg/mL	
Dibenz(a,h)anthracene	22.967	278.0	54	13.85	ND µg/mL	
Benzo(g,h,i)perylene	23.249	276.0	13	6.39	ND µg/mL	
Coronene	25.899	300.0	229	7.54	ND µg/mL	

## IS-D8-Naphthalene

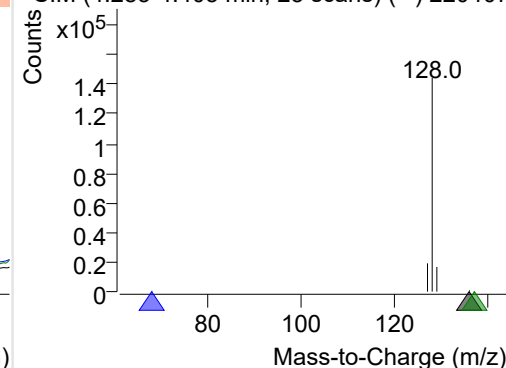
+ Selected Ion (136.0) 220407-PAHs-050.D



136.0, 68.0, 137.0

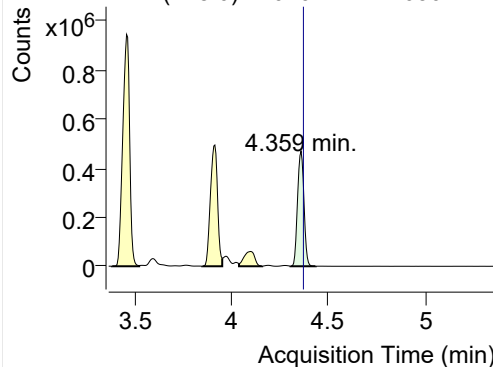


+ SIM (4.283-4.403 min, 23 scans) (\*\*) 220407

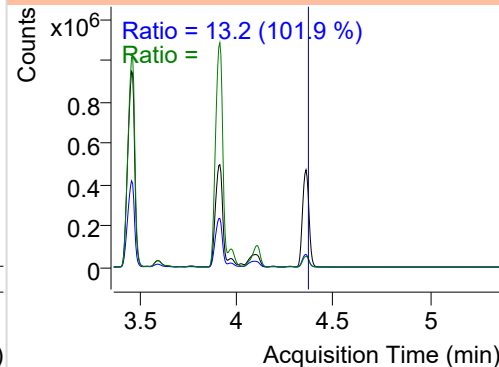


**Naphthalene**

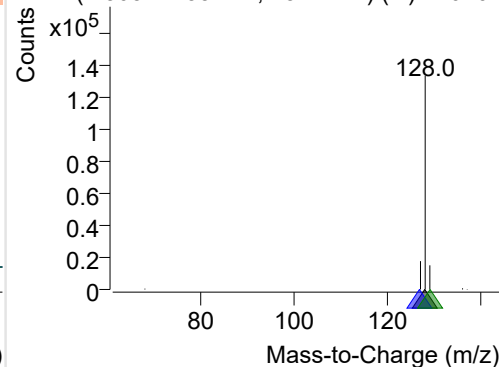
+ Selected Ion (128.0) 220407-PAHs-050.D



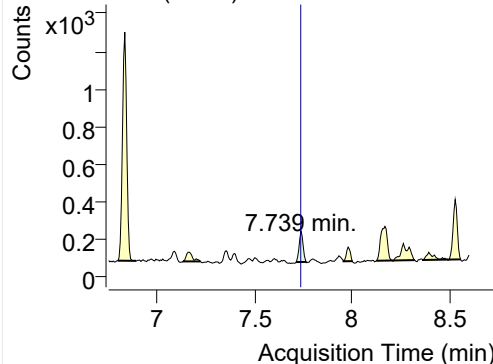
128.0, 127.0, 129.0



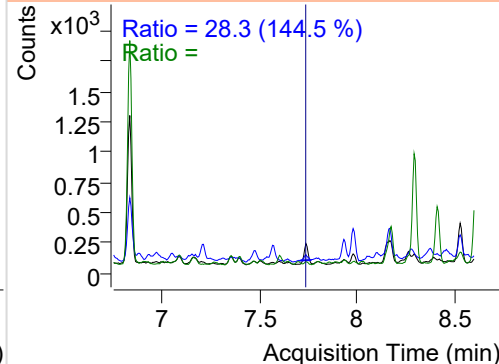
+ SIM (4.305-4.435 min, 25 scans) (\*\*) 220407

**Acenaphthylene**

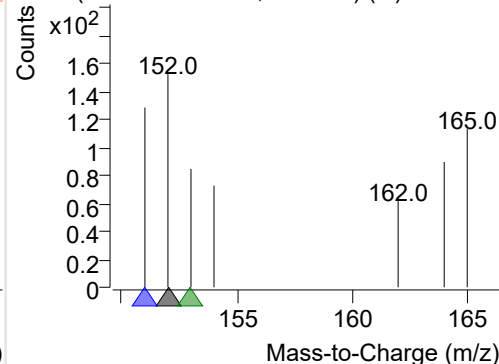
+ Selected Ion (152.0) 220407-PAHs-050.D



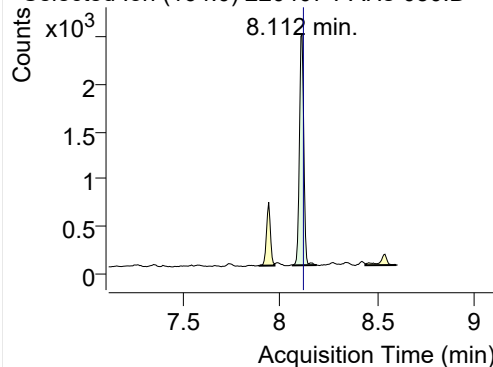
152.0, 151.0, 153.0



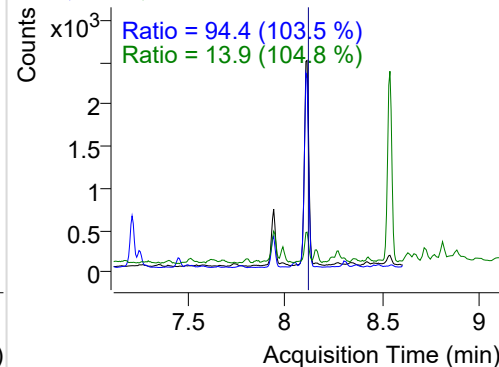
+ SIM (7.714-7.767 min, 9 scans) (\*\*) 220407-I

**IS-D10-Acenaphthene**

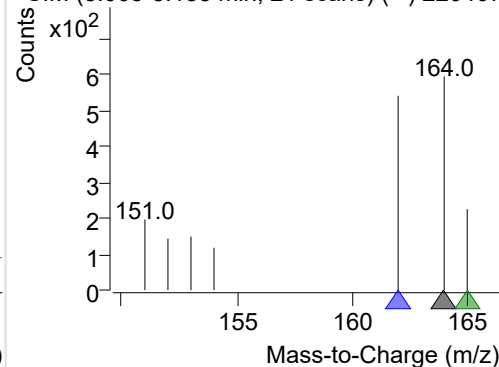
+ Selected Ion (164.0) 220407-PAHs-050.D



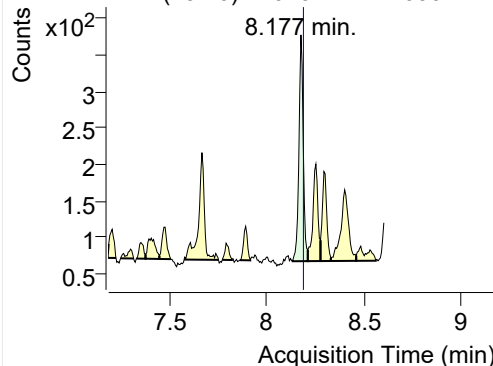
164.0, 162.0, 165.0



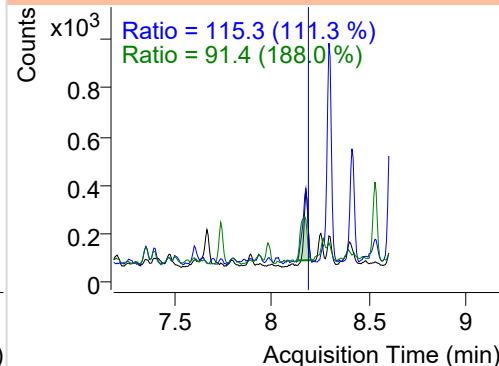
+ SIM (8.065-8.188 min, 21 scans) (\*\*) 220407

**Acenaphthene**

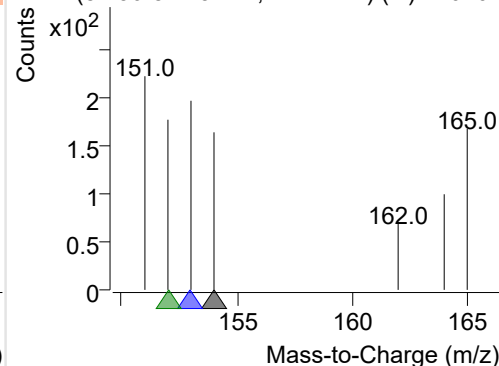
+ Selected Ion (154.0) 220407-PAHs-050.D



154.0, 153.0, 152.0

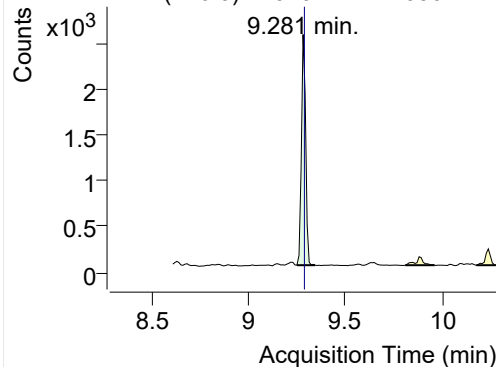


+ SIM (8.136-8.213 min, 14 scans) (\*\*) 220407

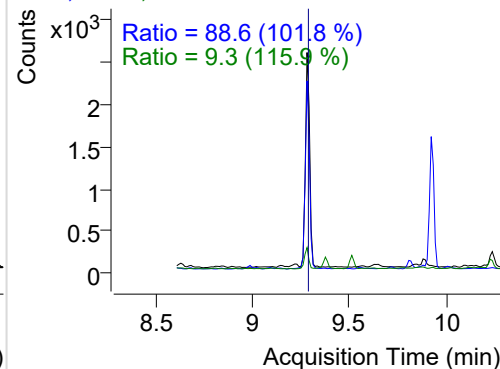


## LSS-D10-Fluorene

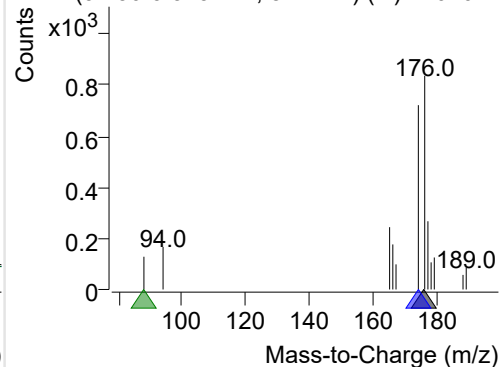
+ Selected Ion (176.0) 220407-PAHs-050.D



176.0, 174.0, 88.0

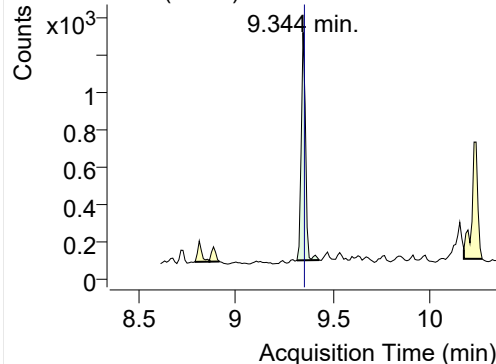


+ SIM (9.250-9.343 min, 8 scans) (\*\*) 220407-I

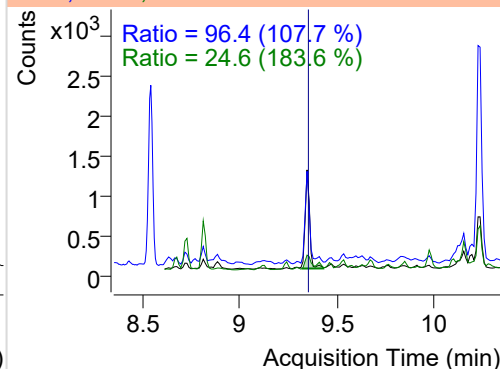


## Fluorene

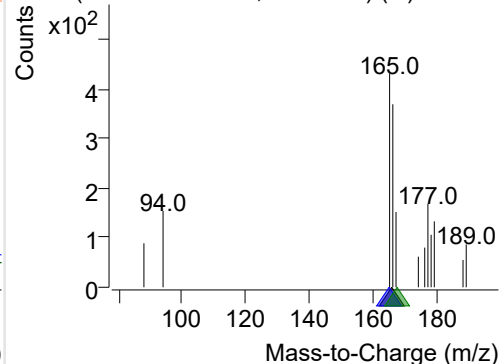
+ Selected Ion (166.0) 220407-PAHs-050.D



166.0, 165.0, 167.0

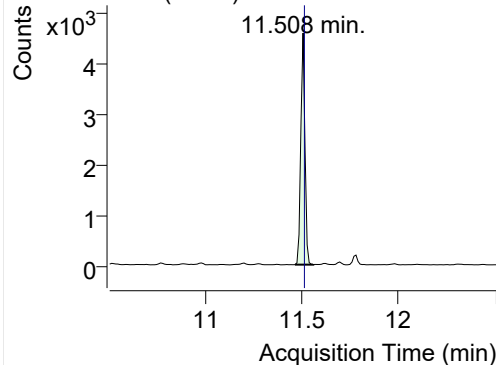


+ SIM (9.313-9.428 min, 11 scans) (\*\*) 220407

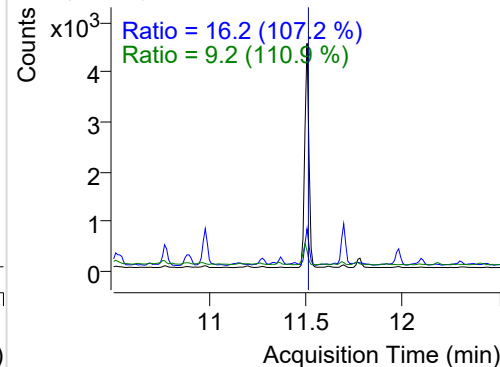


## IS-D10-Phenanthrene

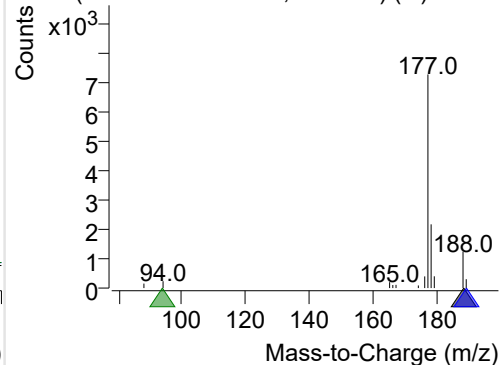
+ Selected Ion (188.0) 220407-PAHs-050.D



188.0, 189.0, 94.0

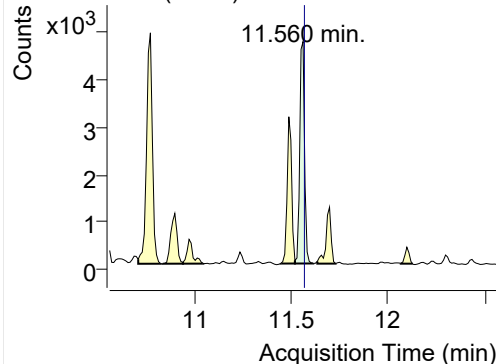


+ SIM (11.466-11.560 min, 9 scans) (\*\*) 22040

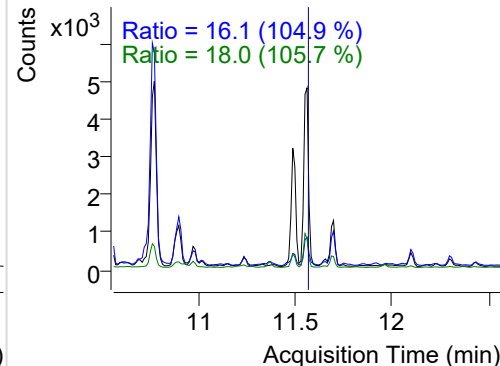


## Phenanthrene

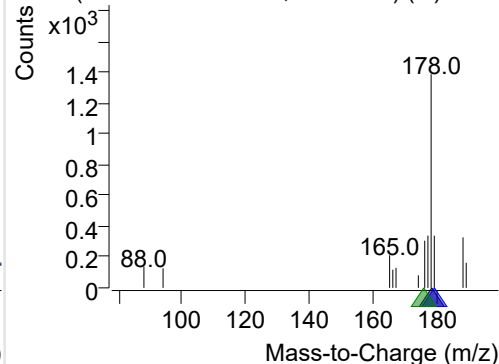
+ Selected Ion (178.0) 220407-PAHs-050.D



178.0, 179.0, 176.0

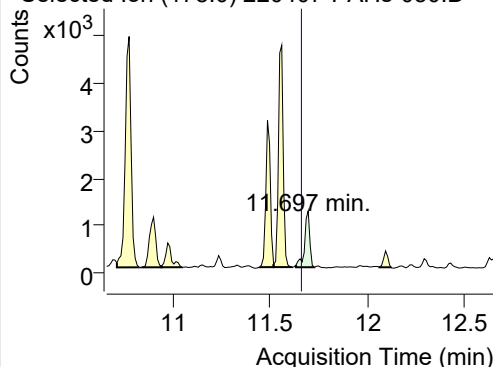


+ SIM (11.518-11.613 min, 10 scans) (\*\*) 2204

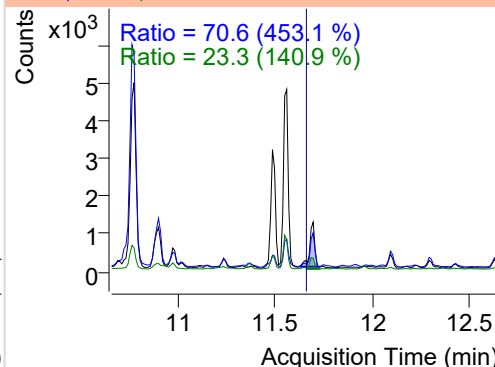


**Anthracene**

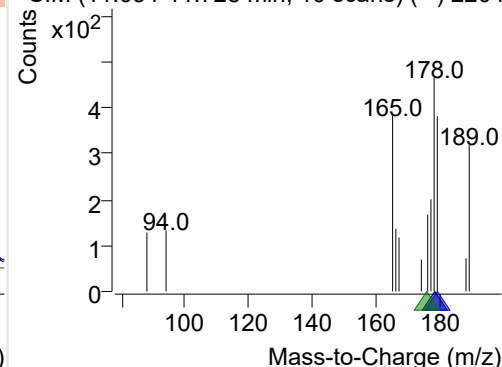
+ Selected Ion (178.0) 220407-PAHs-050.D



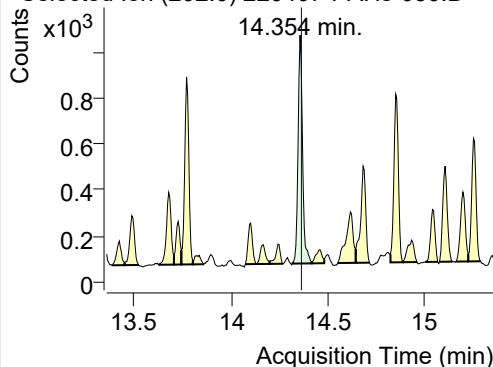
178.0, 179.0, 176.0



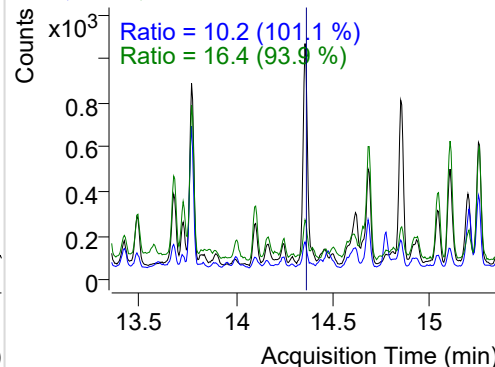
+ SIM (11.634-11.728 min, 10 scans) (\*\*) 2204

**Fluoranthene**

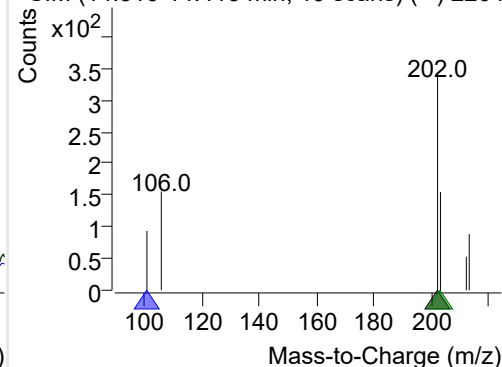
+ Selected Ion (202.0) 220407-PAHs-050.D



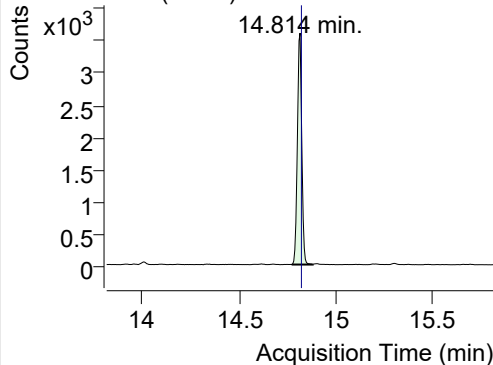
202.0, 101.0, 203.0



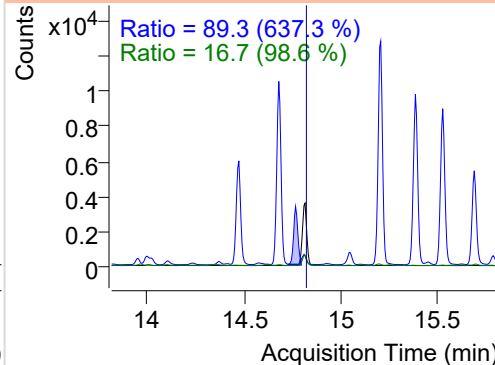
+ SIM (14.316-14.413 min, 19 scans) (\*\*) 2204

**LSS-D10-Pyrene**

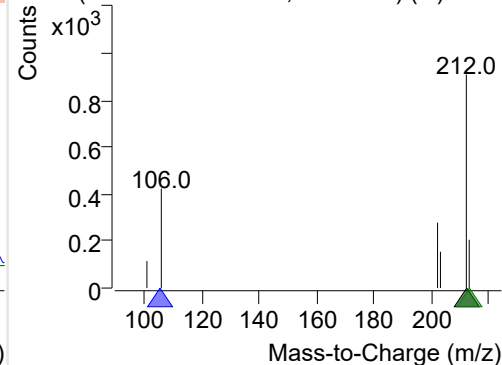
+ Selected Ion (212.0) 220407-PAHs-050.D



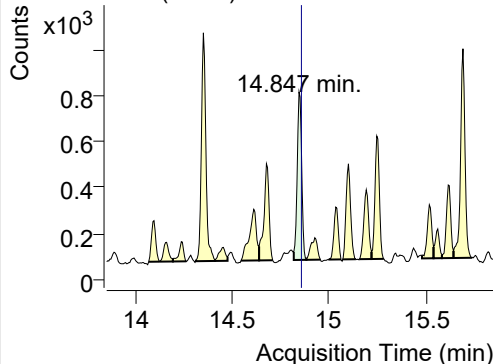
212.0, 106.0, 213.0



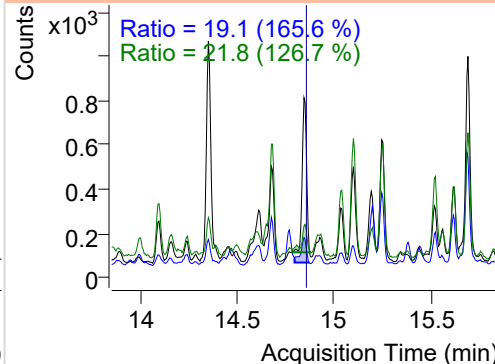
+ SIM (14.771-14.879 min, 20 scans) (\*\*) 2204

**Pyrene**

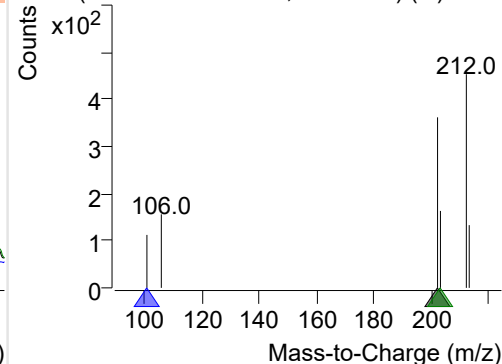
+ Selected Ion (202.0) 220407-PAHs-050.D



202.0, 101.0, 203.0



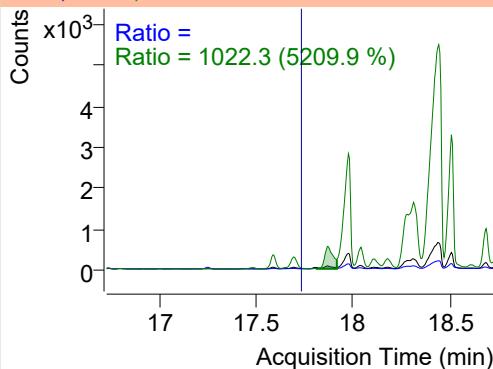
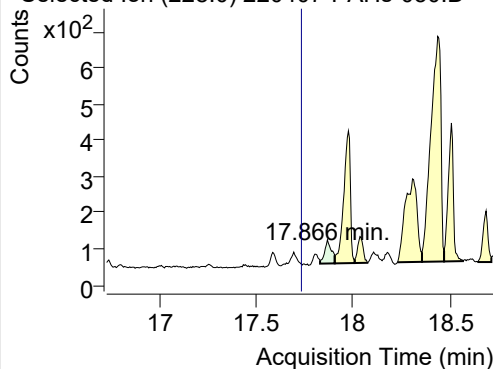
+ SIM (14.820-14.885 min, 13 scans) (\*\*) 2204



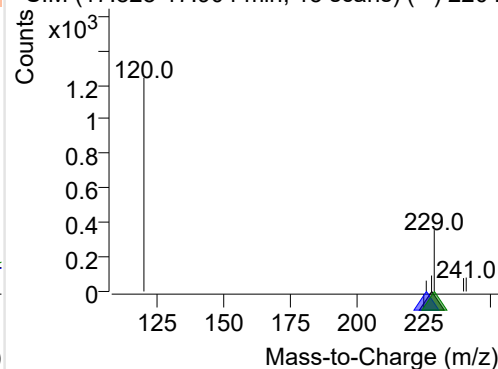
**Benz(a)anthracene**

+ Selected Ion (228.0) 220407-PAHs-050.D

228.0, 226.0, 229.0

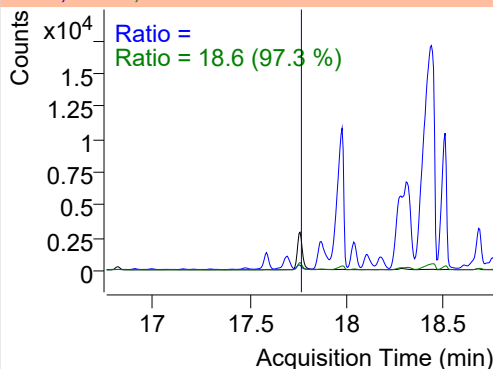
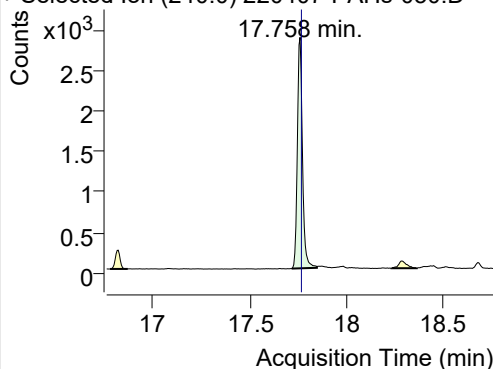


+ SIM (17.828-17.904 min, 15 scans) (\*\*) 2204

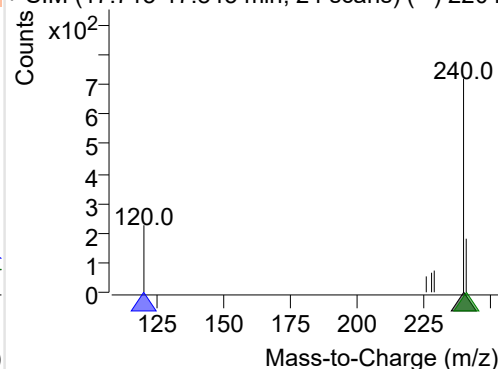
**IS-D12-Chrysene**

+ Selected Ion (240.0) 220407-PAHs-050.D

240.0, 120.0, 241.0

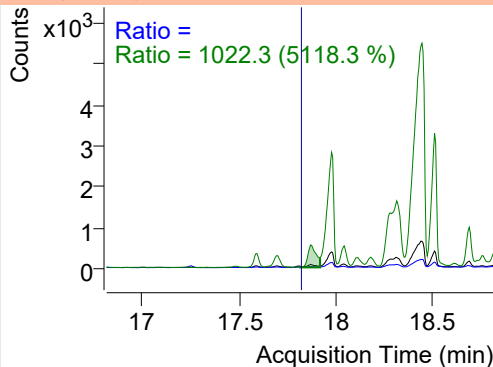
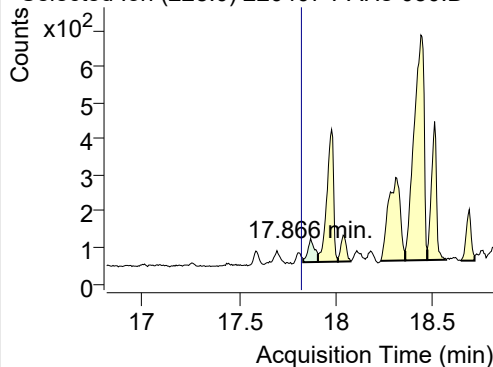


+ SIM (17.715-17.845 min, 24 scans) (\*\*) 2204

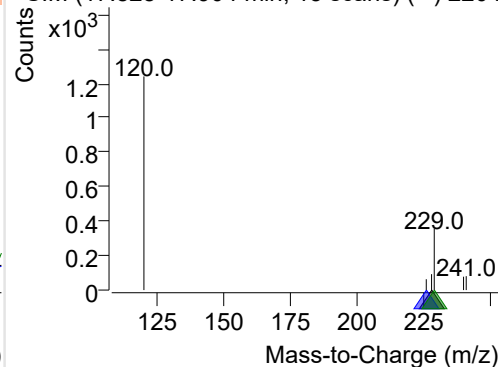
**Chrysene**

+ Selected Ion (228.0) 220407-PAHs-050.D

228.0, 226.0, 229.0

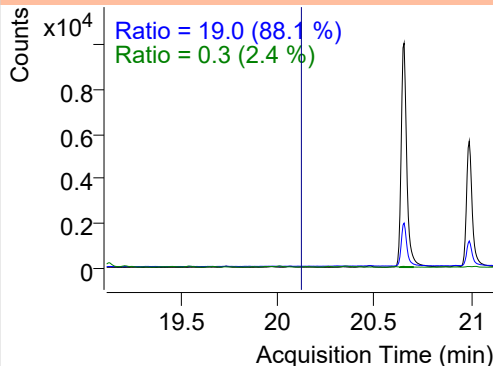
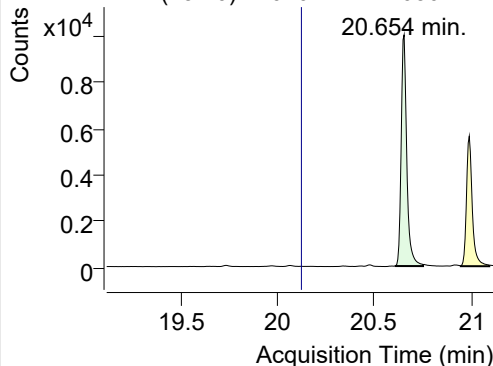


+ SIM (17.828-17.904 min, 15 scans) (\*\*) 2204

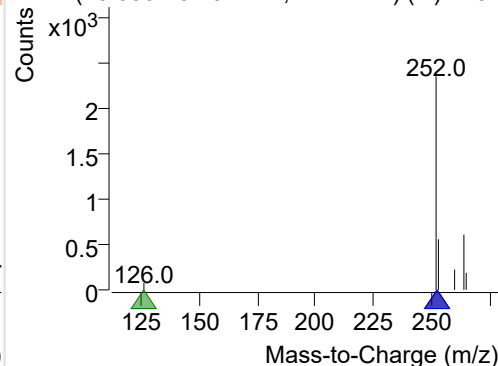
**Benzo(b)fluoranthene**

+ Selected Ion (252.0) 220407-PAHs-050.D

252.0, 253.0, 126.0

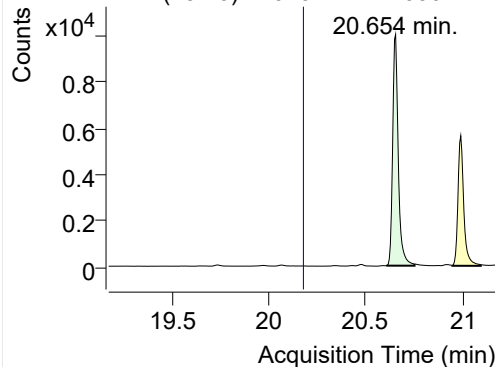


+ SIM (20.606-20.751 min, 27 scans) (\*\*) 2204

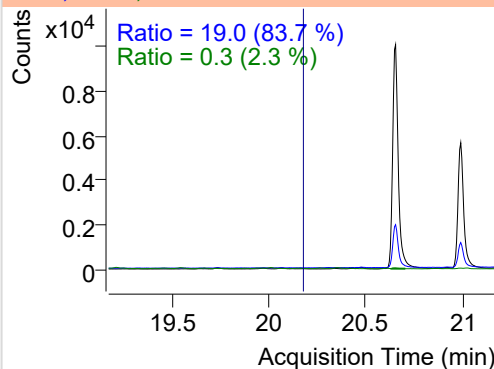


**Benzo(k)fluoranthene**

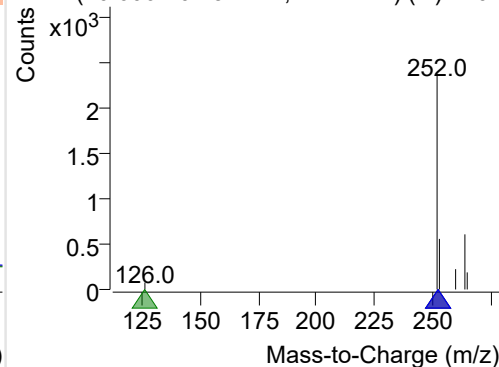
+ Selected Ion (252.0) 220407-PAHs-050.D



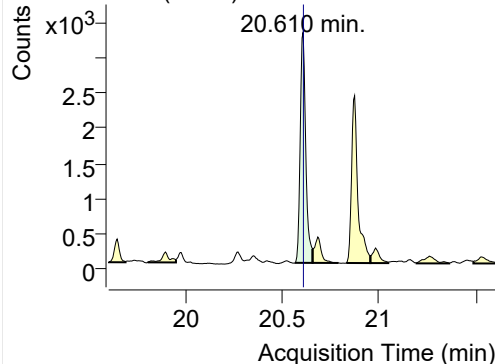
252.0, 253.0, 126.0



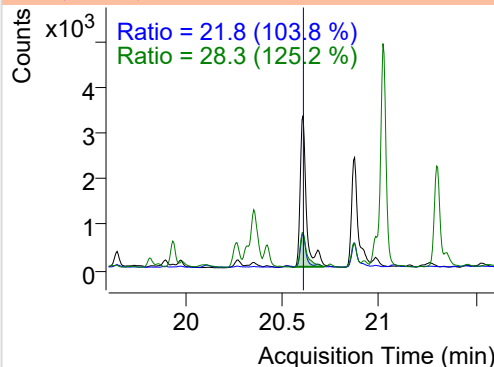
+ SIM (20.606-20.751 min, 27 scans) (\*\*) 2204

**SS-D12-Benzo(e)pyrene**

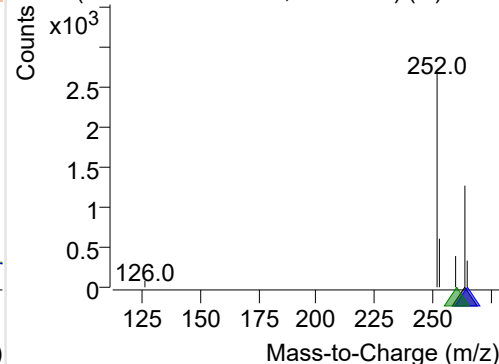
+ Selected Ion (264.0) 220407-PAHs-050.D



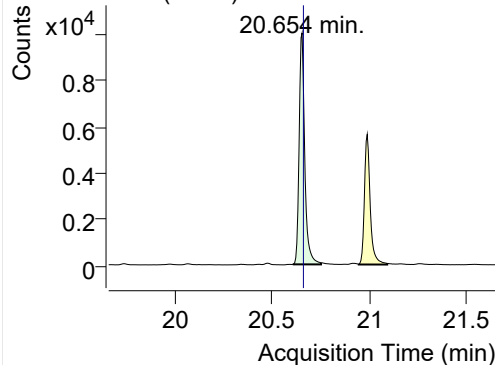
264.0, 265.0, 260.0



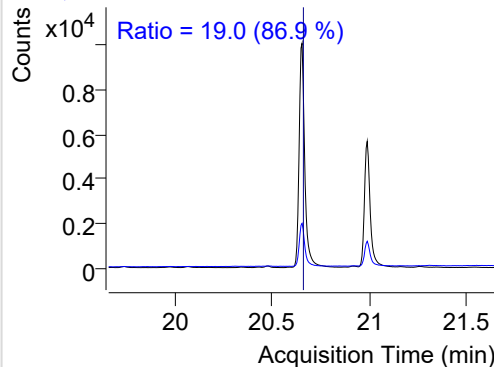
+ SIM (20.568-20.659 min, 17 scans) (\*\*) 2204

**Benzo(e)pyrene**

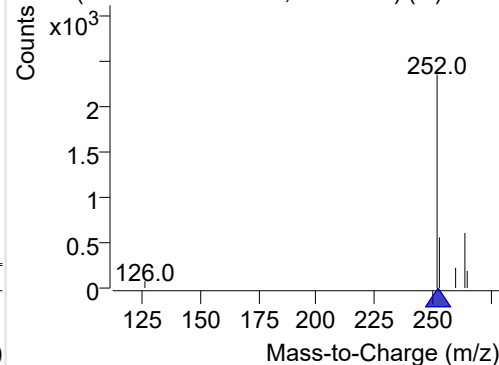
+ Selected Ion (252.0) 220407-PAHs-050.D



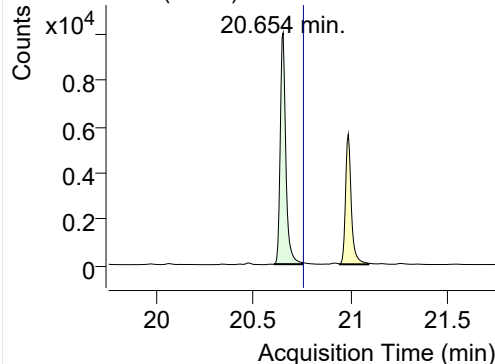
252.0, 253.0



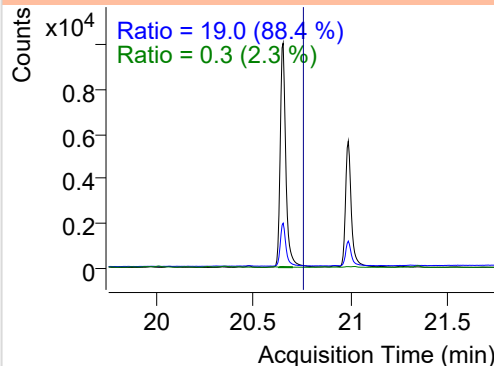
+ SIM (20.606-20.751 min, 27 scans) (\*\*) 2204

**Benzo(a)pyrene**

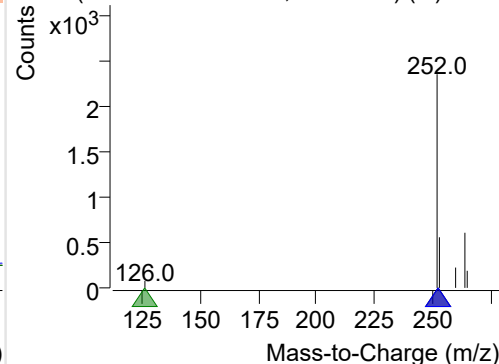
+ Selected Ion (252.0) 220407-PAHs-050.D



252.0, 253.0, 126.0

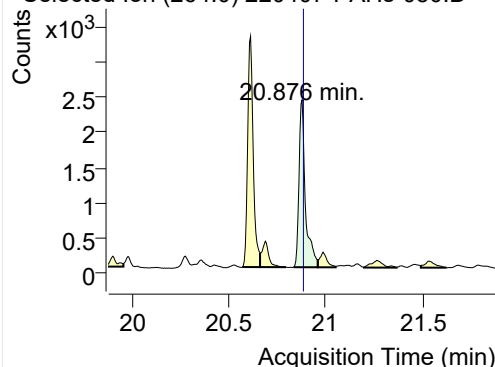


+ SIM (20.606-20.751 min, 27 scans) (\*\*) 2204

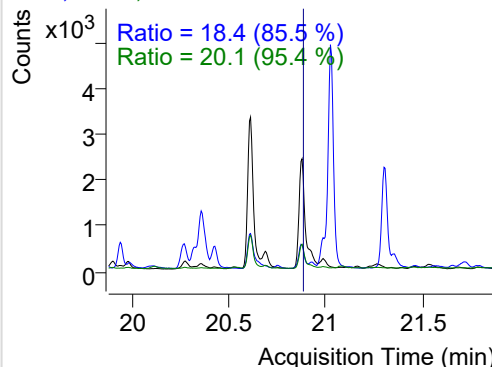


## IS-D12-Perylene

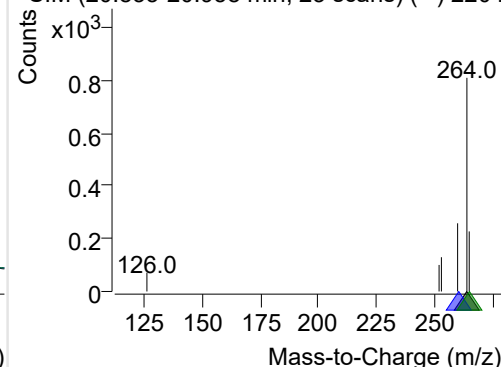
+ Selected Ion (264.0) 220407-PAHs-050.D



264.0, 260.0, 265.0

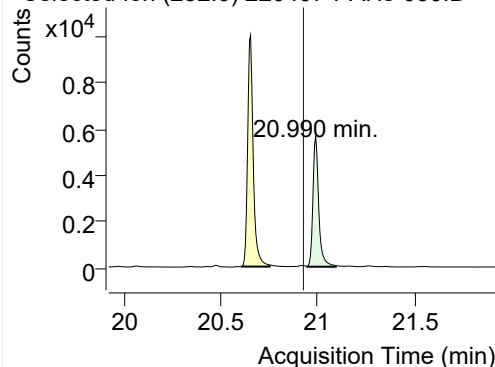


+ SIM (20.833-20.958 min, 23 scans) (\*\*) 2204

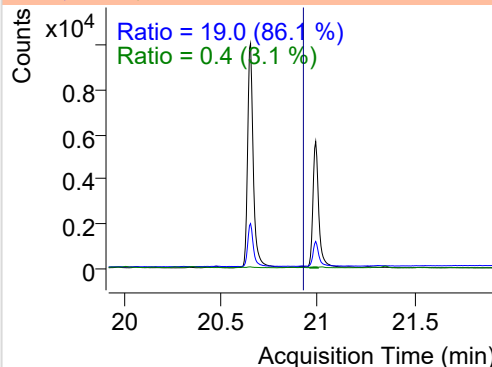


## Perylene

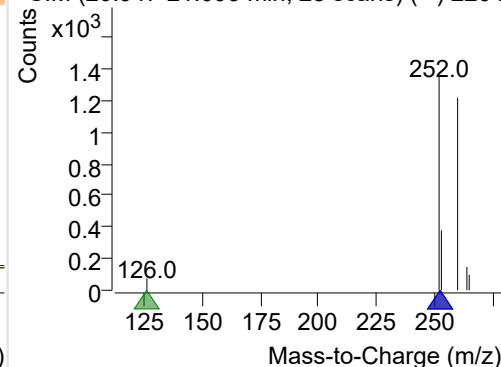
+ Selected Ion (252.0) 220407-PAHs-050.D



252.0, 253.0, 126.0

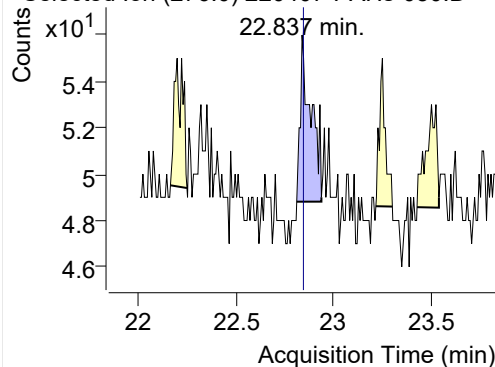


+ SIM (20.947-21.093 min, 28 scans) (\*\*) 2204

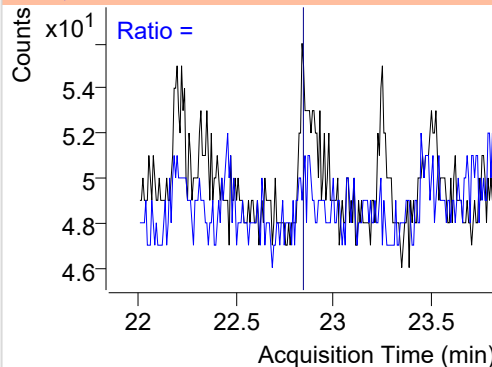


## Indeno(1,2,3-c,d)pyrene

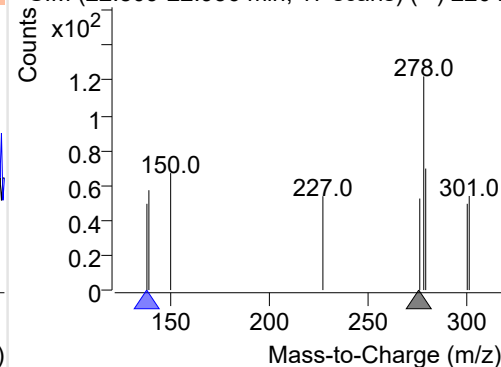
+ Selected Ion (276.0) 220407-PAHs-050.D



276.0, 138.0

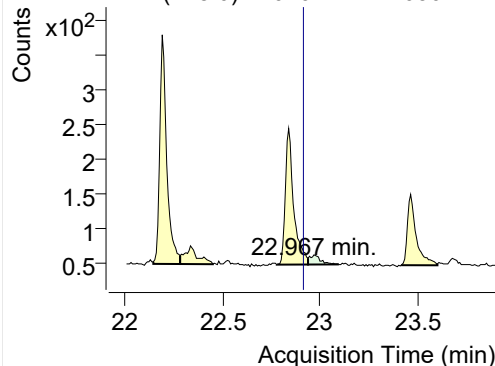


+ SIM (22.809-22.936 min, 17 scans) (\*\*) 2204

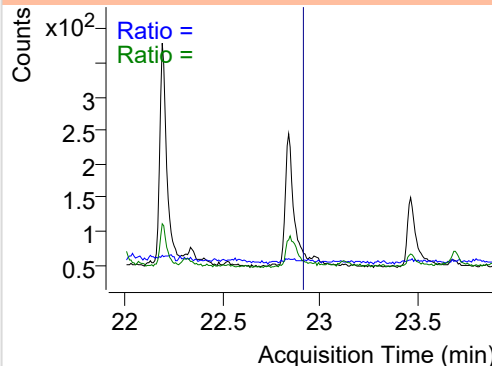


## Dibenz(a,h)anthracene

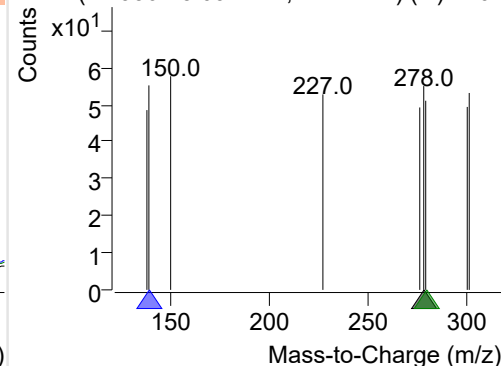
+ Selected Ion (278.0) 220407-PAHs-050.D



278.0, 139.0, 279.0



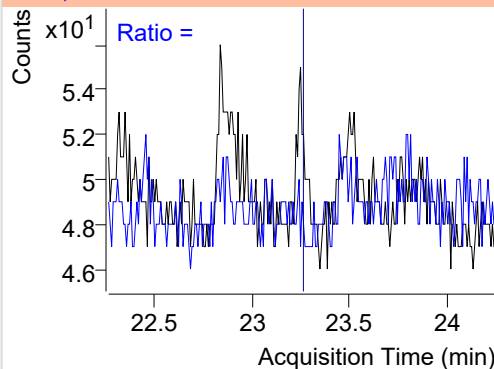
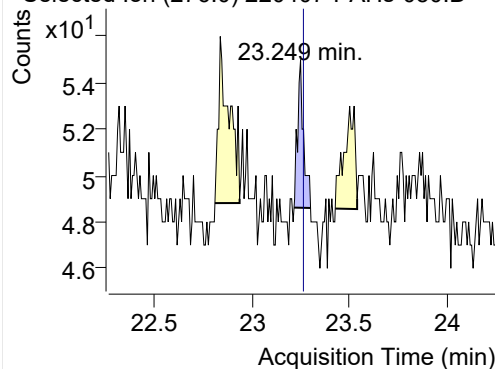
+ SIM (22.936-23.094 min, 21 scans) (\*\*) 2204



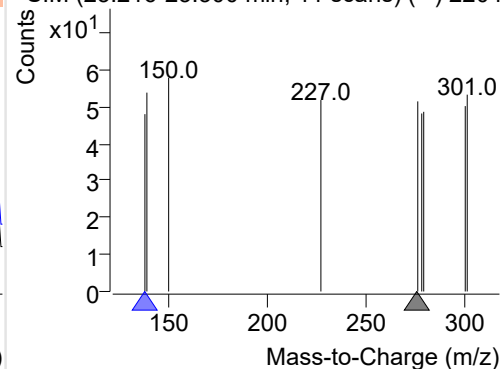
**Benzo(g,h,i)perylene**

+ Selected Ion (276.0) 220407-PAHs-050.D

276.0, 138.0

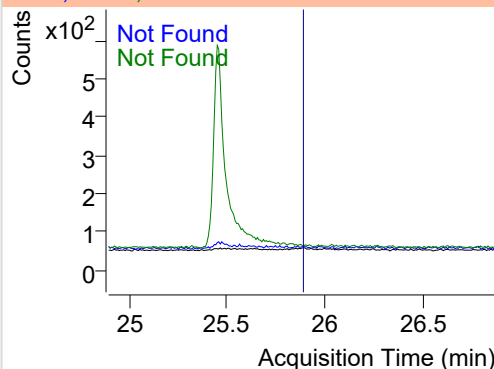
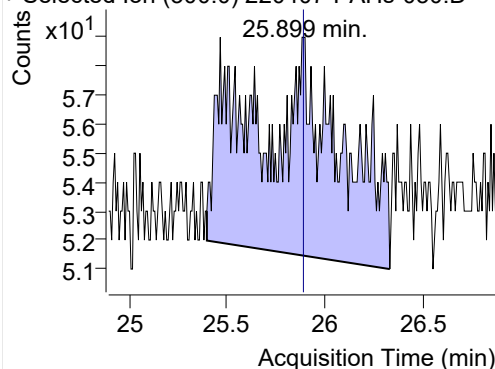


+ SIM (23.216-23.300 min, 11 scans) (\*\*) 2204

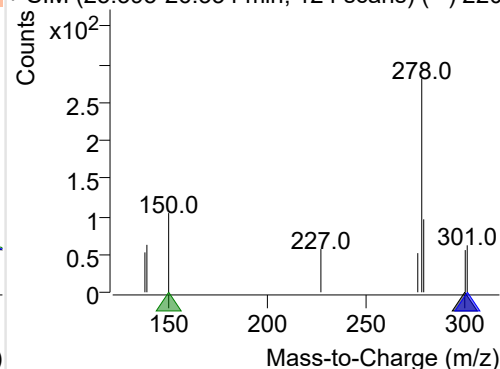
**Coronene**

+ Selected Ion (300.0) 220407-PAHs-050.D

300.0, 301.0, 150.0



+ SIM (25.395-26.334 min, 124 scans) (\*\*) 220





## Quantitative Analysis Sample Based Report

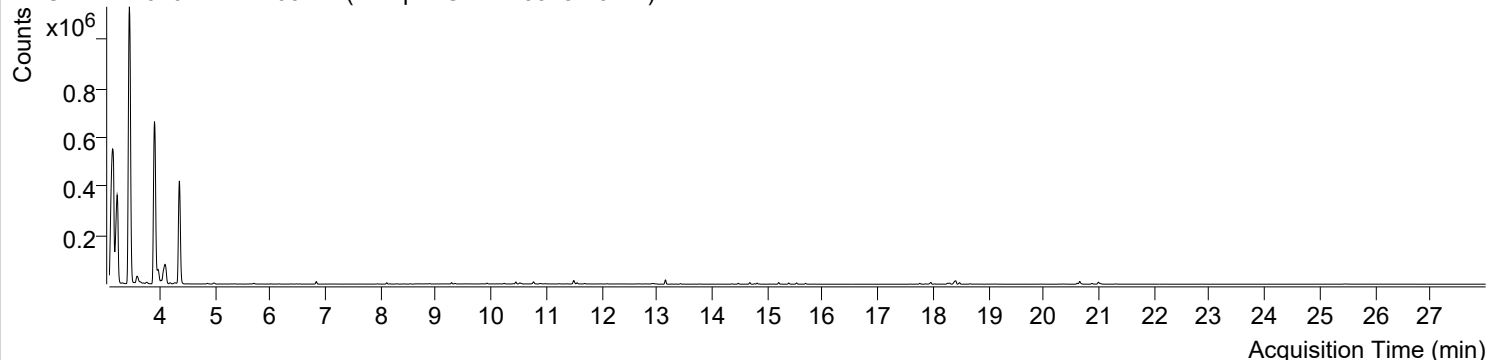


Trusted Answers

Batch Data Path File Name	D:\MassHunter\GCMS\1\data\PAHs\220407-PAHs-Sample\QuantResults\220407-PAHs-Quant.batch.bin		
Analysis Time Stamp	2022-04-13 오후 5:40:30	Analyst Name	DESKTOP-86B7UPG\5975MS
Report Generation Time	2022-04-13 오후 5:40:41	Report Generator Name	DESKTOP-86B7UPG\5975MS
Calibration Last Update	2022-04-13 오후 5:38:35	Batch State	Processed
Analyze Quant Version	10.2	Report Quant Version	10.2
Acq. Date-Time	2022-04-08 오후 1:20:12	Data File	220407-PAHs-051.D
Type	Sample	Name	Sample-Gas-220325-10DIL
Dil.	1	Acq. Method File	PAHs 19mix-Method

## Sample Chromatogram

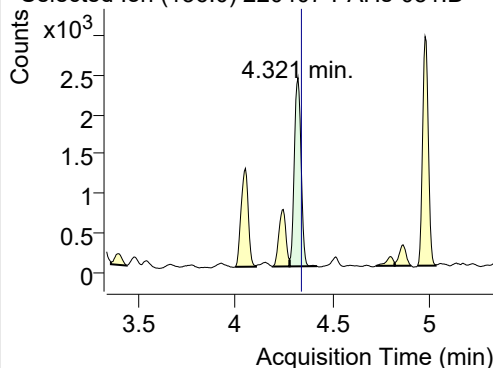
+ TIC SIM 220407-PAHs-051.D (Sample-Gas-220325-10DIL)



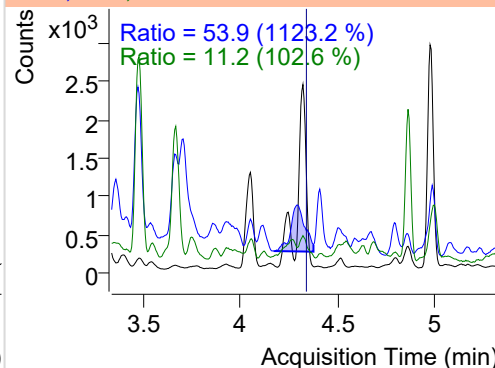
Name	RT	Transition	Resp.	Height	Final Conc. Units	Ratio
IS-D8-Naphthalene	4.321	136.0	5771	2384.71	ND µg/mL	11.2
Naphthalene	4.354	128.0	813514	339308.32	ND µg/mL	13.5
Acenaphthylene	7.739	152.0	132	106.07	ND µg/mL	
IS-D10-Acenaphthene	8.106	164.0	3756	2495.09	ND µg/mL	93.7
Acenaphthene	8.177	154.0	350	226.90	ND µg/mL	144.0
LSS-D10-Fluorene	9.281	176.0	3624	2448.44	ND µg/mL	88.7
Fluorene	9.344	166.0	1643	1098.23	ND µg/mL	88.4
IS-D10-Phenanthrene	11.508	188.0	6616	4276.47	ND µg/mL	14.7
Phenanthrene	11.550	178.0	5136	3055.34	ND µg/mL	18.6
Anthracene	11.697	178.0	942	532.72	ND µg/mL	25.2
Fluoranthene	14.354	202.0	1665	983.45	ND µg/mL	12.4
LSS-D10-Pyrene	14.814	212.0	5147	3227.93	ND µg/mL	16.9
Pyrene	14.852	202.0	1037	627.45	ND µg/mL	28.4
Benz(a)anthracene	17.801	228.0	57	30.34	ND µg/mL	
IS-D12-Chrysene	17.758	240.0	4968	2697.49	ND µg/mL	18.7
Chrysene	17.801	228.0	57	30.34	ND µg/mL	
Benzo(b)fluoranthene	20.654	252.0	18246	8981.79	ND µg/mL	18.7
Benzo(k)fluoranthene	20.654	252.0	18246	8981.79	ND µg/mL	18.7
SS-D12-Benzo(e)pyrene	20.605	264.0	5226	2589.77	ND µg/mL	26.9
Benzo(e)pyrene	20.654	252.0	18246	8981.79	ND µg/mL	18.7
Benzo(a)pyrene	20.654	252.0	18246	8981.79	ND µg/mL	18.7
IS-D12-Perylene	20.871	264.0	4666	2140.81	ND µg/mL	22.8
Perylene	20.990	252.0	12889	6315.89	ND µg/mL	19.2
Indeno(1,2,3-c,d)pyrene	22.852	276.0	8	5.34	ND µg/mL	56.4
Dibenz(a,h)anthracene	22.837	278.0	158	48.70	ND µg/mL	35.2
Benzo(g,h,i)perylene	23.241	276.0	5	4.21	ND µg/mL	
Coronene	25.891	300.0	8	4.30	ND µg/mL	

## IS-D8-Naphthalene

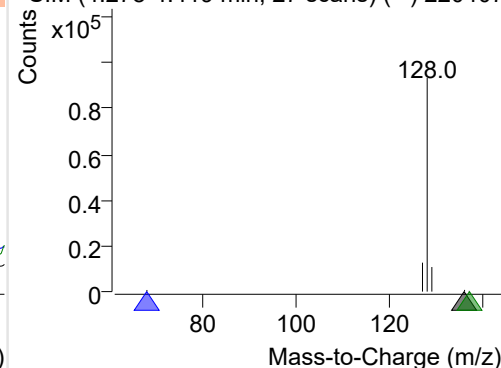
+ Selected Ion (136.0) 220407-PAHs-051.D



136.0, 68.0, 137.0

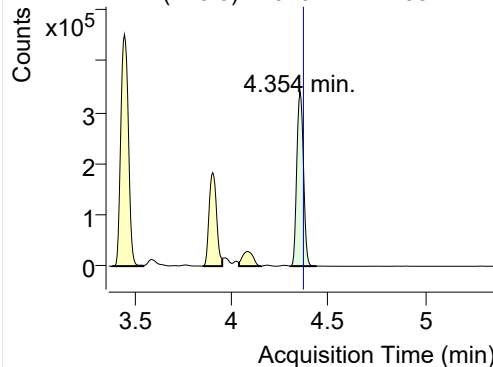


+ SIM (4.278-4.419 min, 27 scans) (\*\*) 220407

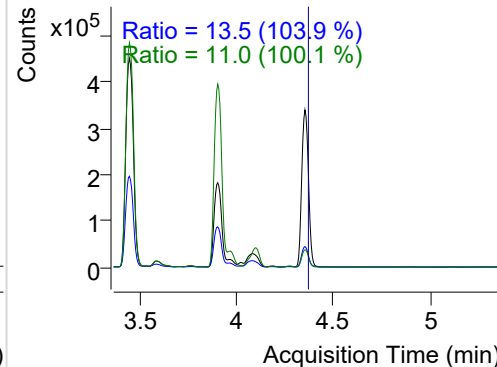


**Naphthalene**

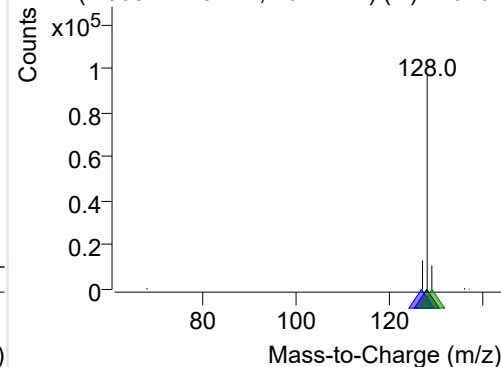
+ Selected Ion (128.0) 220407-PAHs-051.D



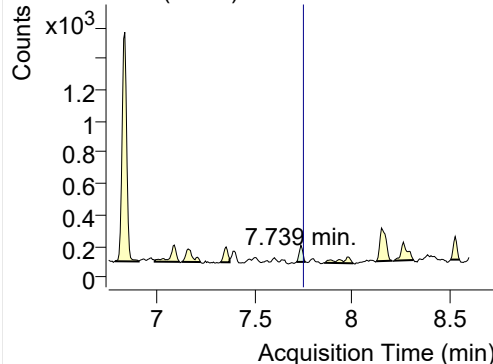
128.0, 127.0, 129.0



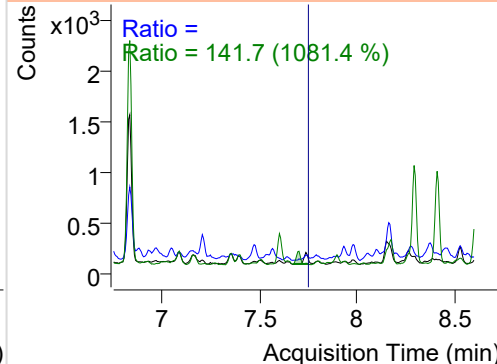
+ SIM (4.305-4.440 min, 26 scans) (\*\*) 220407

**Acenaphthylene**

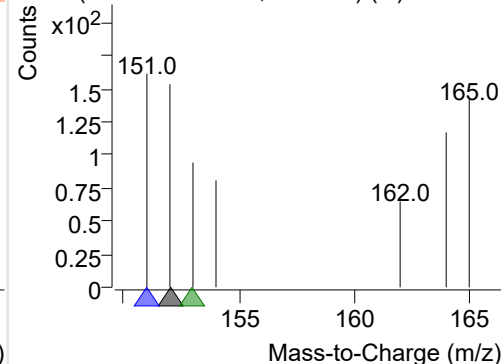
+ Selected Ion (152.0) 220407-PAHs-051.D



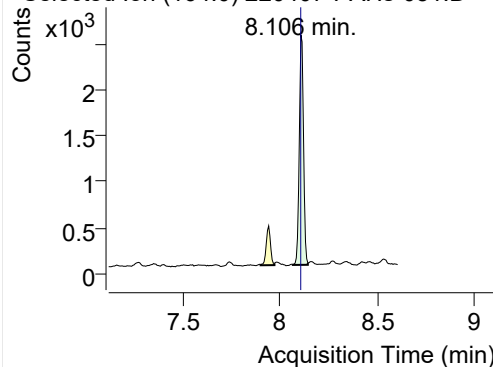
152.0, 151.0, 153.0



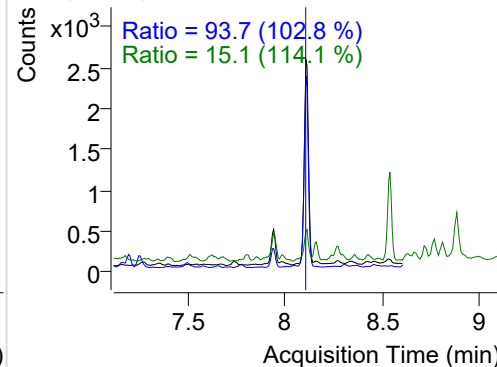
+ SIM (7.716-7.762 min, 7 scans) (\*\*) 220407-I

**IS-D10-Acenaphthene**

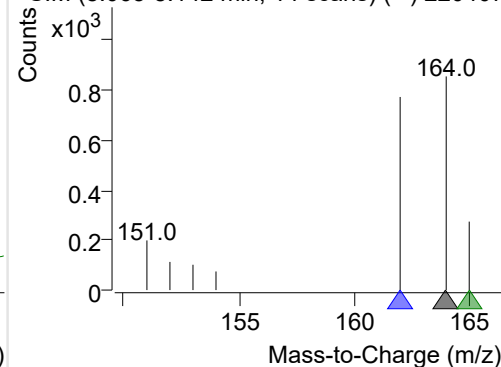
+ Selected Ion (164.0) 220407-PAHs-051.D



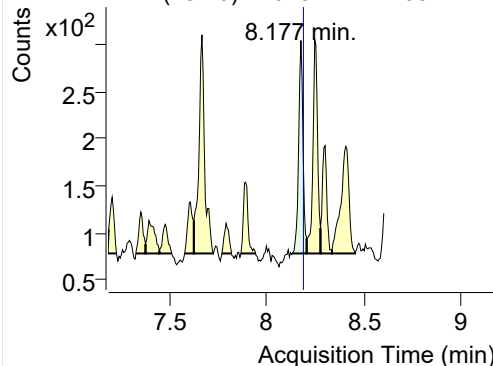
164.0, 162.0, 165.0



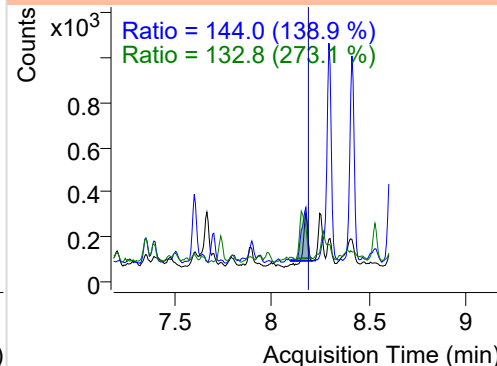
+ SIM (8.065-8.142 min, 14 scans) (\*\*) 220407

**Acenaphthene**

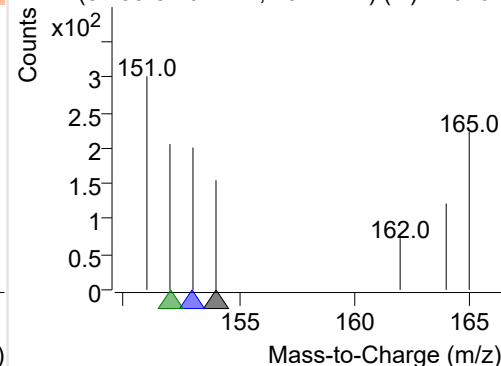
+ Selected Ion (154.0) 220407-PAHs-051.D



154.0, 153.0, 152.0

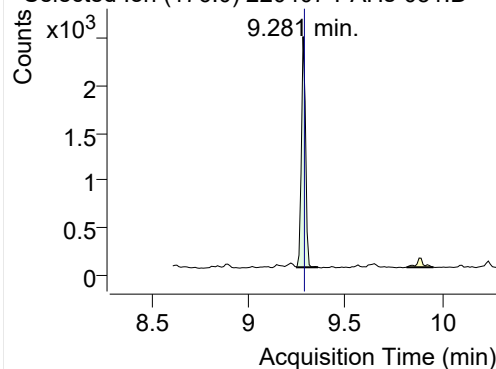


+ SIM (8.133-8.207 min, 13 scans) (\*\*) 220407

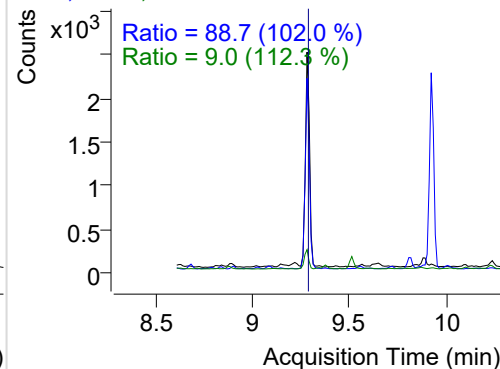


## LSS-D10-Fluorene

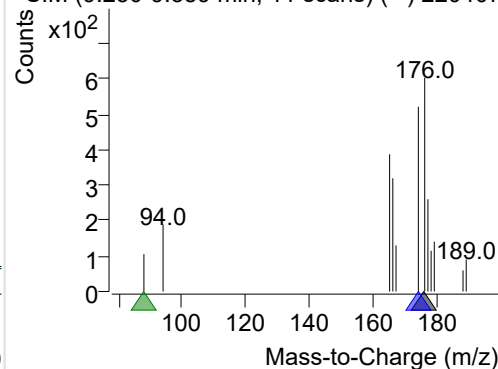
+ Selected Ion (176.0) 220407-PAHs-051.D



176.0, 174.0, 88.0

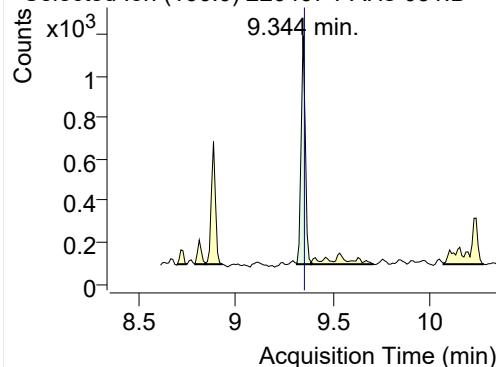


+ SIM (9.250-9.359 min, 11 scans) (\*\*) 220407

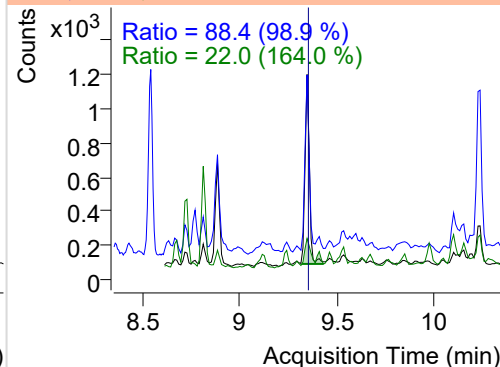


## Fluorene

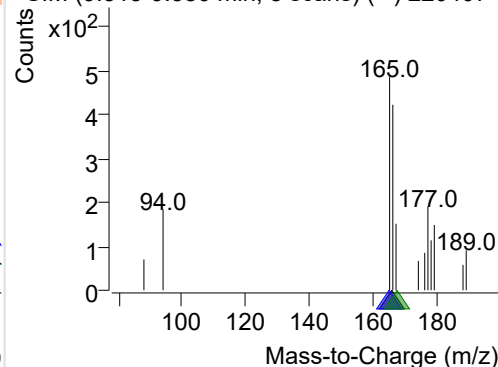
+ Selected Ion (166.0) 220407-PAHs-051.D



166.0, 165.0, 167.0

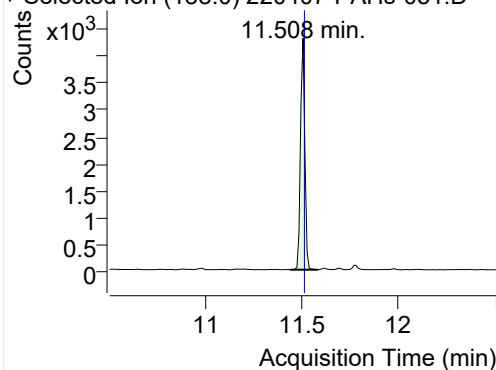


+ SIM (9.313-9.386 min, 8 scans) (\*\*) 220407-I

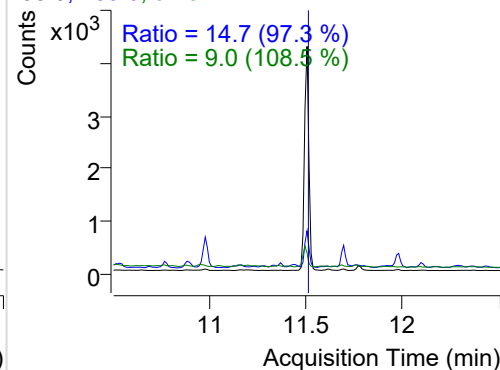


## IS-D10-Phenanthrene

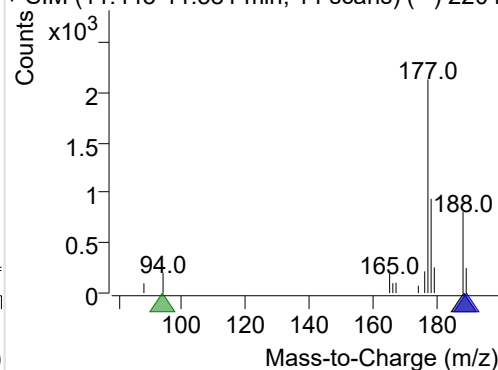
+ Selected Ion (188.0) 220407-PAHs-051.D



188.0, 189.0, 94.0

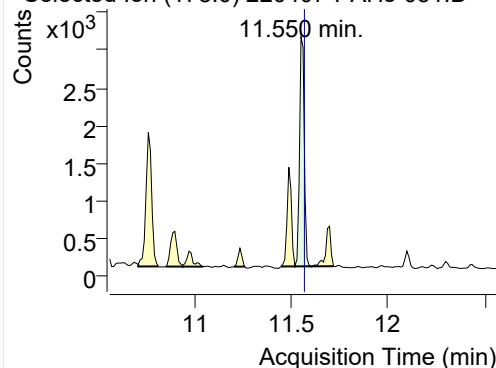


+ SIM (11.445-11.581 min, 14 scans) (\*\*) 2204

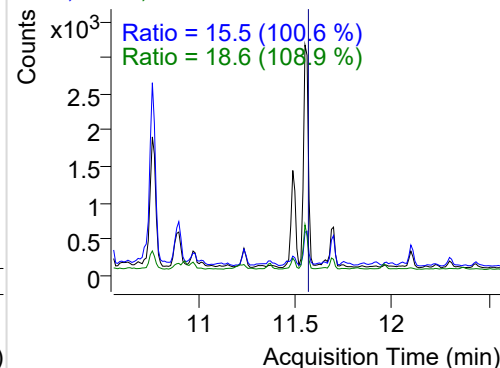


## Phenanthrene

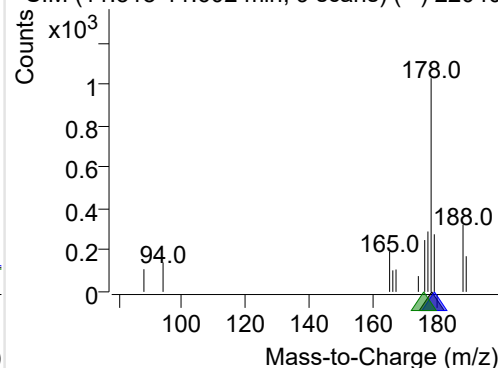
+ Selected Ion (178.0) 220407-PAHs-051.D



178.0, 179.0, 176.0

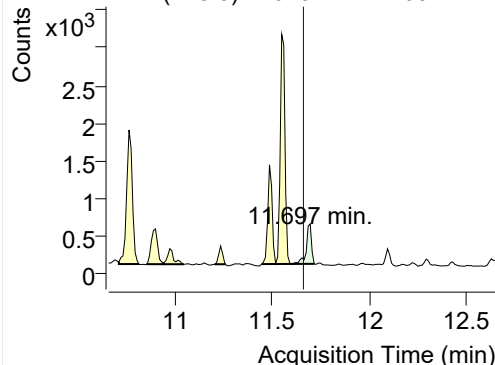


+ SIM (11.518-11.602 min, 9 scans) (\*\*) 22040

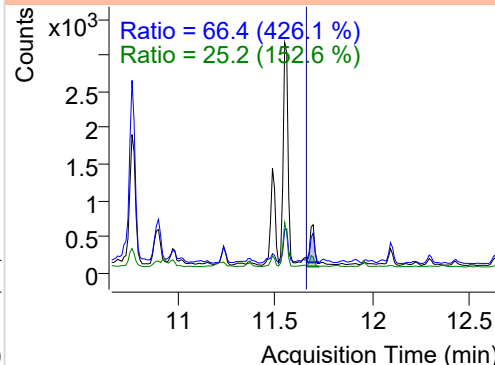


**Anthracene**

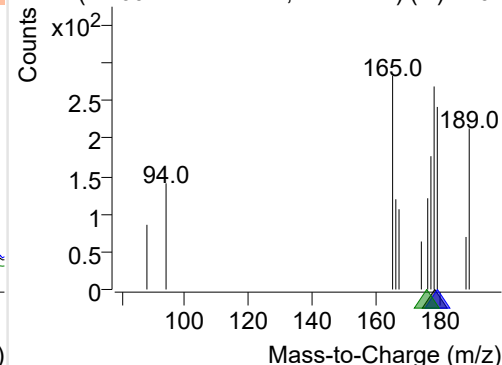
+ Selected Ion (178.0) 220407-PAHs-051.D



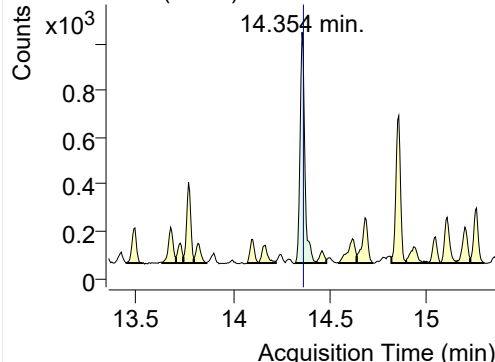
178.0, 179.0, 176.0



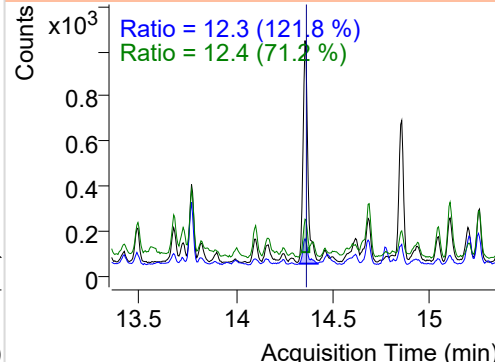
+ SIM (11.602-11.717 min, 11 scans) (\*\*) 2204

**Fluoranthene**

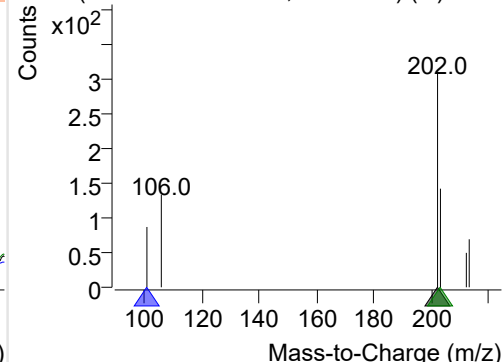
+ Selected Ion (202.0) 220407-PAHs-051.D



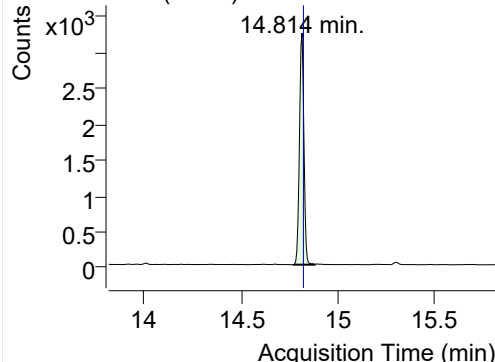
202.0, 101.0, 203.0



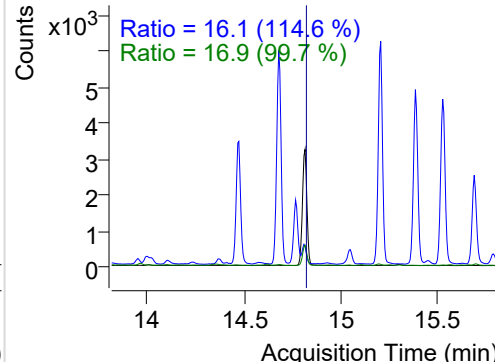
+ SIM (14.318-14.429 min, 21 scans) (\*\*) 2204

**LSS-D10-Pyrene**

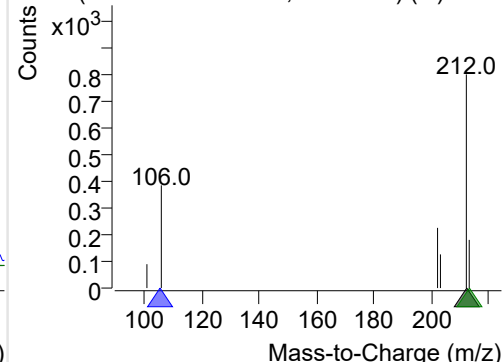
+ Selected Ion (212.0) 220407-PAHs-051.D



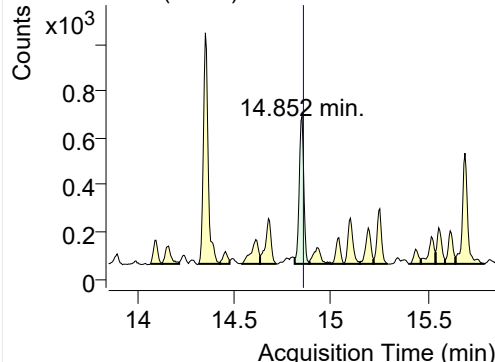
212.0, 106.0, 213.0



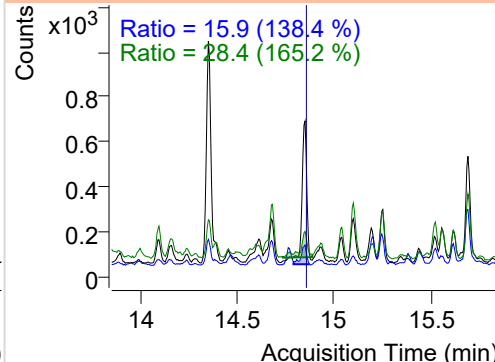
+ SIM (14.771-14.879 min, 21 scans) (\*\*) 2204

**Pyrene**

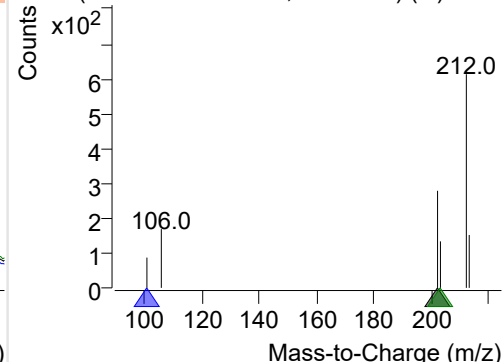
+ Selected Ion (202.0) 220407-PAHs-051.D



202.0, 101.0, 203.0



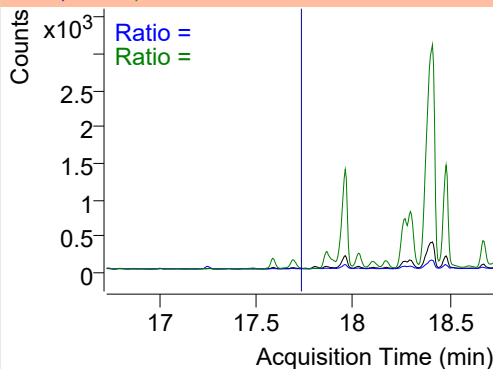
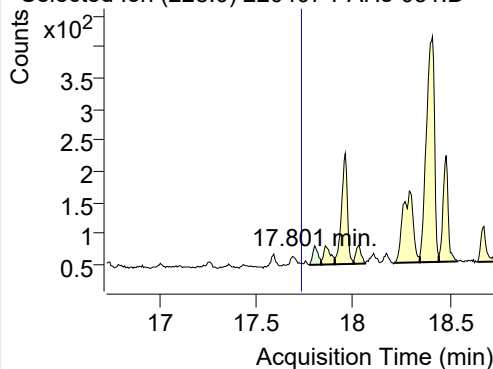
+ SIM (14.814-14.890 min, 15 scans) (\*\*) 2204



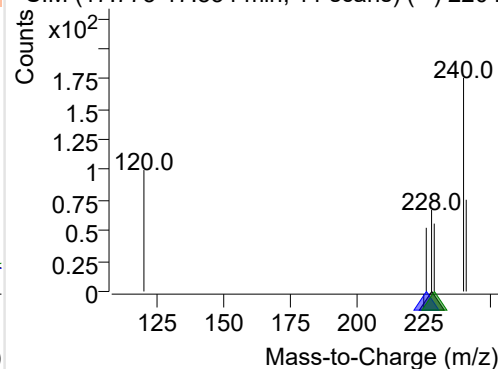
**Benz(a)anthracene**

+ Selected Ion (228.0) 220407-PAHs-051.D

228.0, 226.0, 229.0

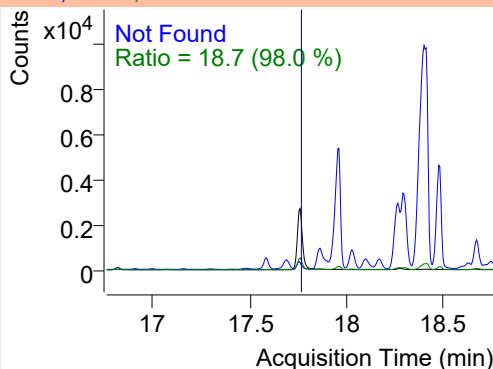
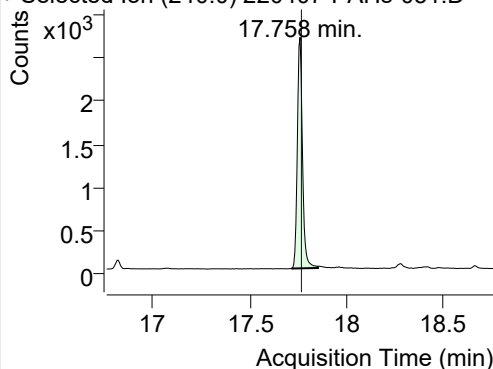


+ SIM (17.775-17.834 min, 11 scans) (\*\*) 2204

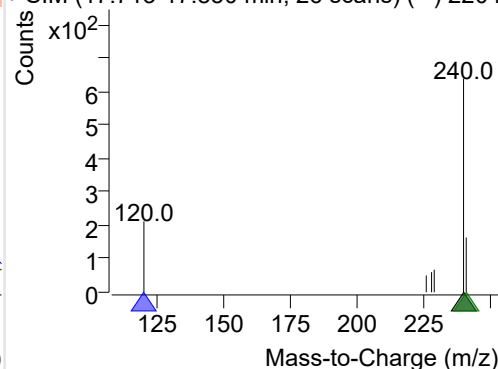
**IS-D12-Chrysene**

+ Selected Ion (240.0) 220407-PAHs-051.D

240.0, 120.0, 241.0

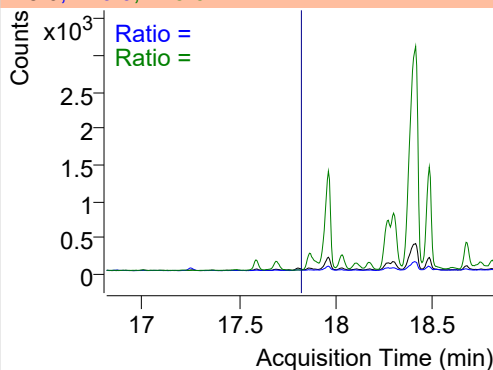
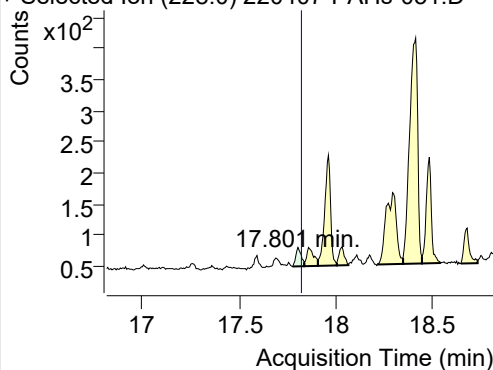


+ SIM (17.713-17.850 min, 26 scans) (\*\*) 2204

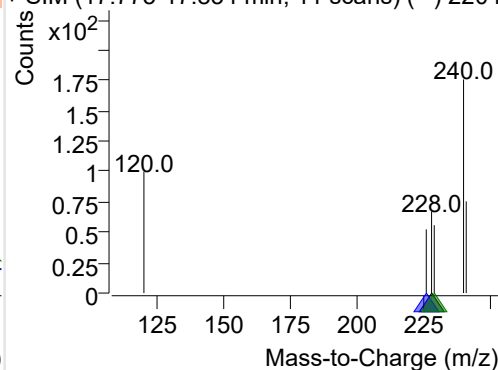
**Chrysene**

+ Selected Ion (228.0) 220407-PAHs-051.D

228.0, 226.0, 229.0

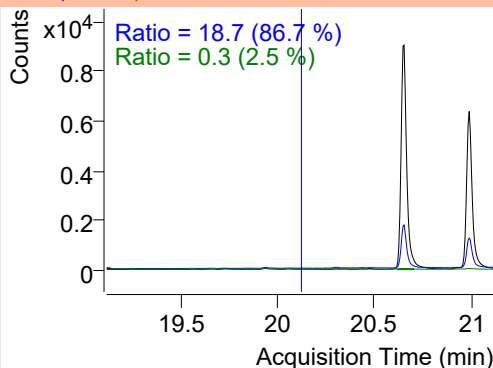
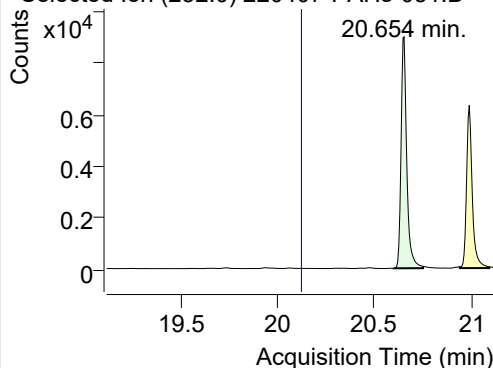


+ SIM (17.775-17.834 min, 11 scans) (\*\*) 2204

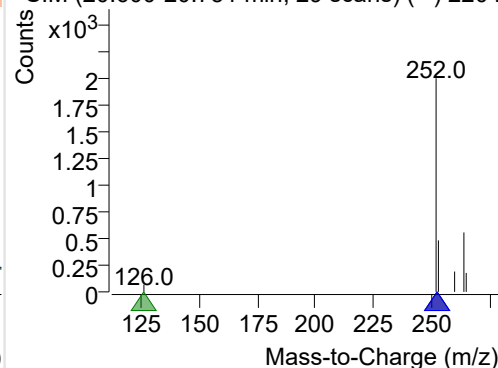
**Benzo(b)fluoranthene**

+ Selected Ion (252.0) 220407-PAHs-051.D

252.0, 253.0, 126.0

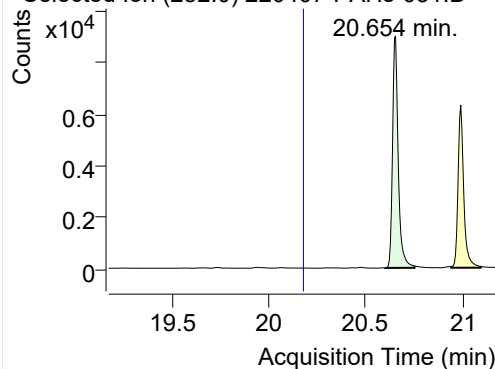


+ SIM (20.600-20.751 min, 29 scans) (\*\*) 2204

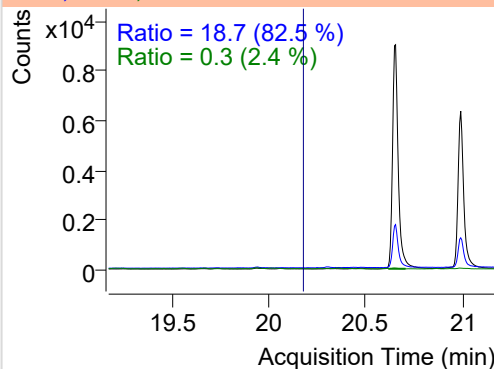


**Benzo(k)fluoranthene**

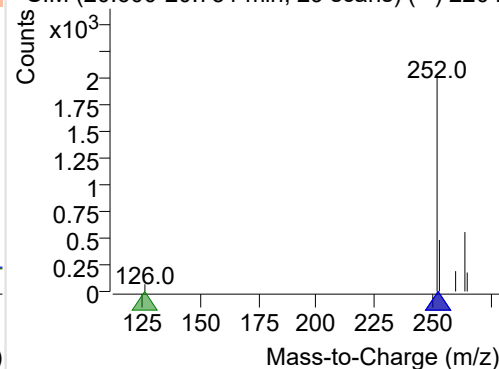
+ Selected Ion (252.0) 220407-PAHs-051.D



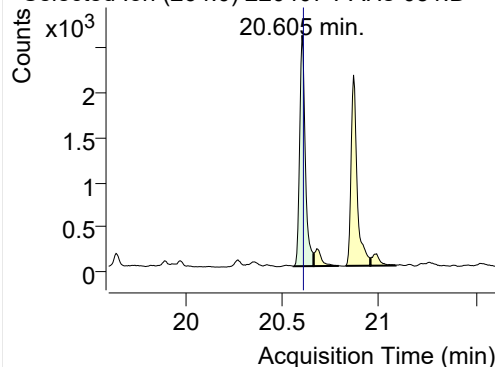
252.0, 253.0, 126.0



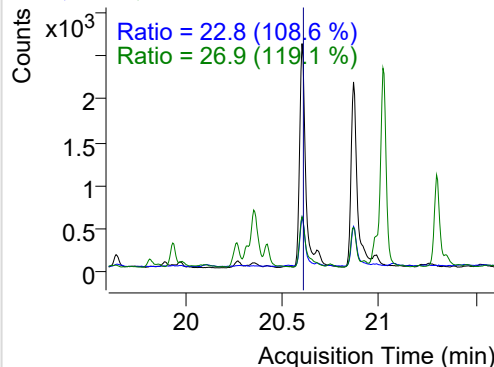
+ SIM (20.600-20.751 min, 29 scans) (\*\*) 2204

**SS-D12-Benzo(e)pyrene**

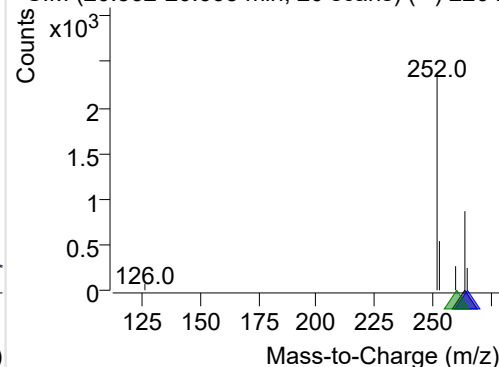
+ Selected Ion (264.0) 220407-PAHs-051.D



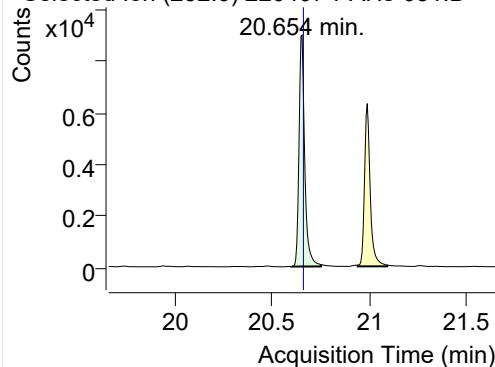
264.0, 265.0, 260.0



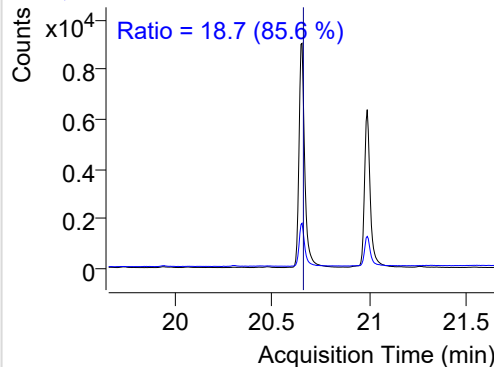
+ SIM (20.562-20.665 min, 20 scans) (\*\*) 2204

**Benzo(e)pyrene**

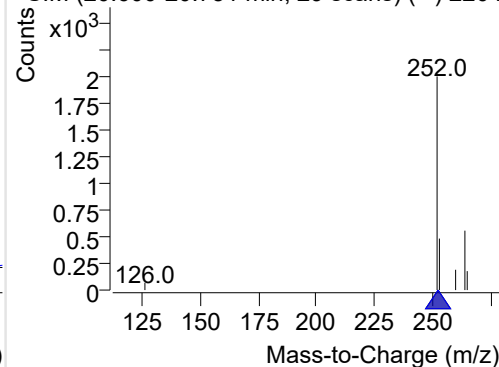
+ Selected Ion (252.0) 220407-PAHs-051.D



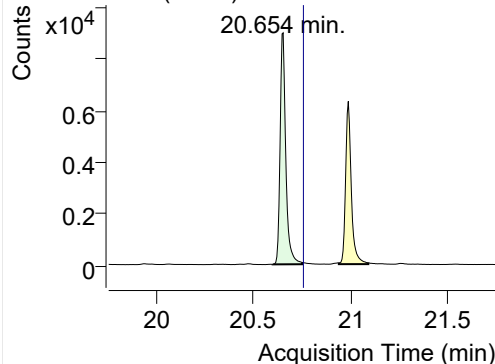
252.0, 253.0



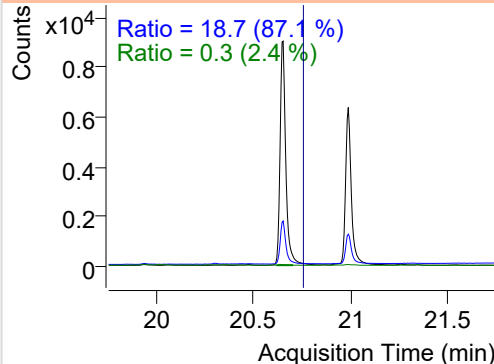
+ SIM (20.600-20.751 min, 29 scans) (\*\*) 2204

**Benzo(a)pyrene**

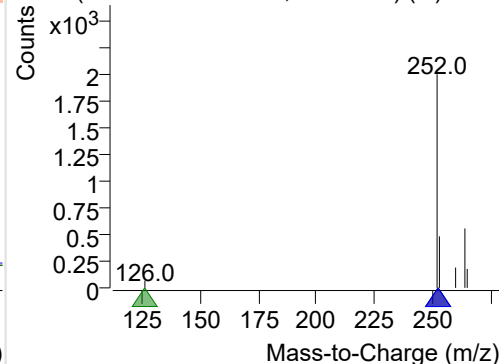
+ Selected Ion (252.0) 220407-PAHs-051.D



252.0, 253.0, 126.0

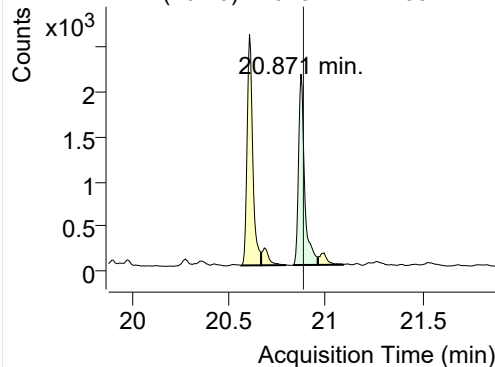


+ SIM (20.600-20.751 min, 29 scans) (\*\*) 2204

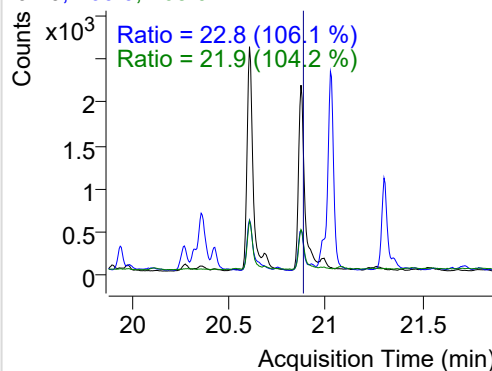


## IS-D12-Perylene

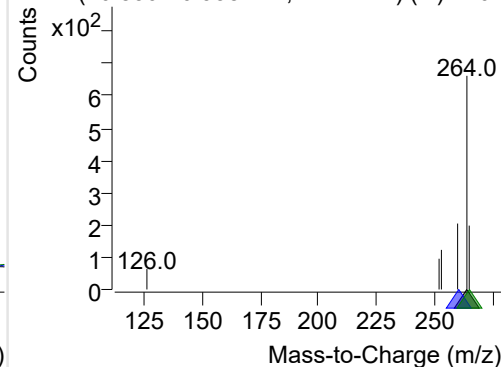
+ Selected Ion (264.0) 220407-PAHs-051.D



264.0, 260.0, 265.0

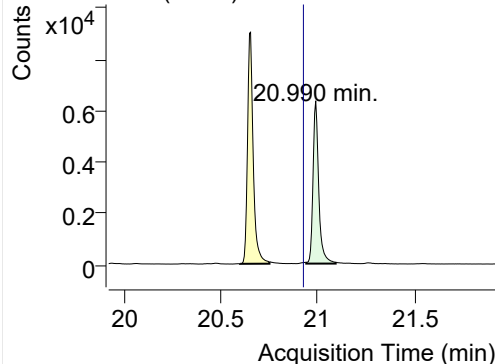


+ SIM (20.830-20.958 min, 24 scans) (\*\*) 2204

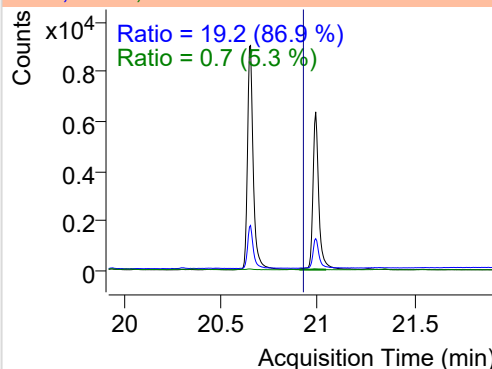


## Perylene

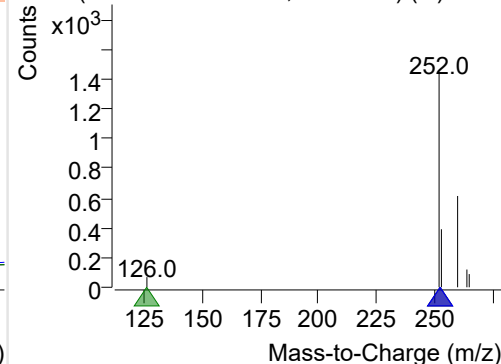
+ Selected Ion (252.0) 220407-PAHs-051.D



252.0, 253.0, 126.0

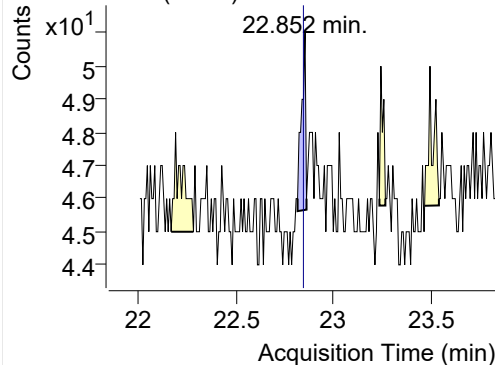


+ SIM (20.941-21.093 min, 29 scans) (\*\*) 2204

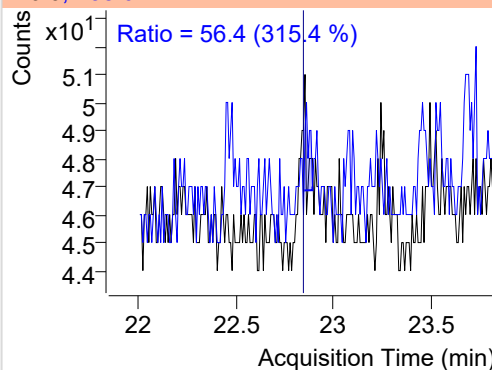


## Indeno(1,2,3-c,d)pyrene

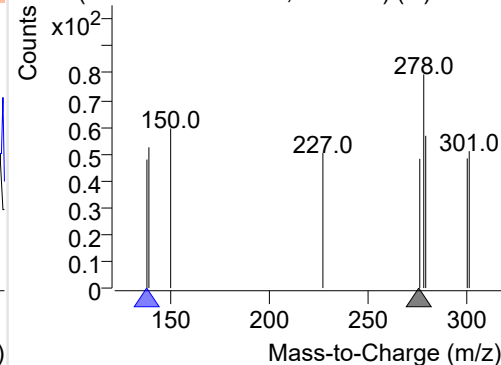
+ Selected Ion (276.0) 220407-PAHs-051.D



276.0, 138.0

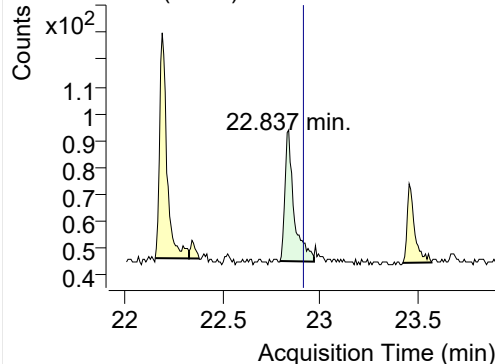


+ SIM (22.814-22.860 min, 7 scans) (\*\*) 22040

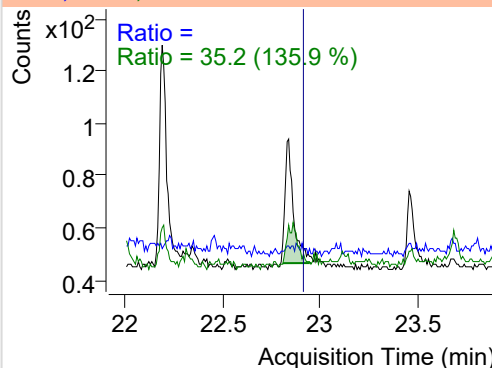


## Dibenz(a,h)anthracene

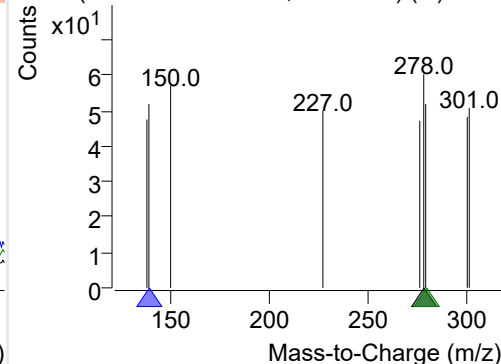
+ Selected Ion (278.0) 220407-PAHs-051.D



278.0, 139.0, 279.0

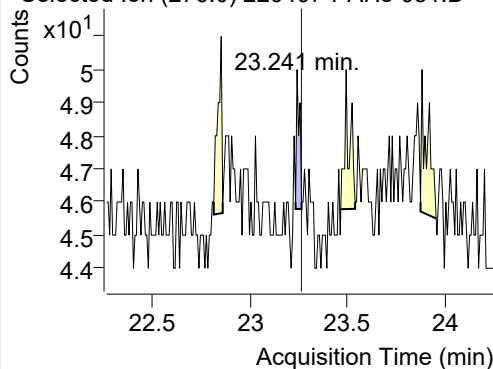


+ SIM (22.792-22.967 min, 23 scans) (\*\*) 2204

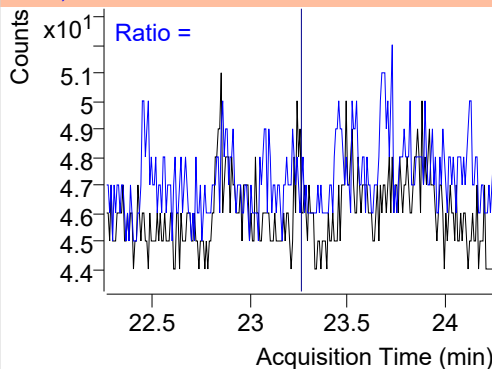


**Benzo(g,h,i)perylene**

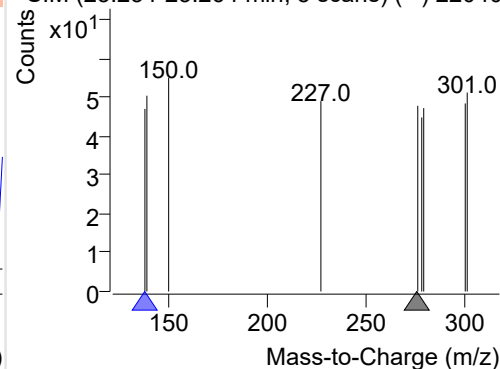
+ Selected Ion (276.0) 220407-PAHs-051.D



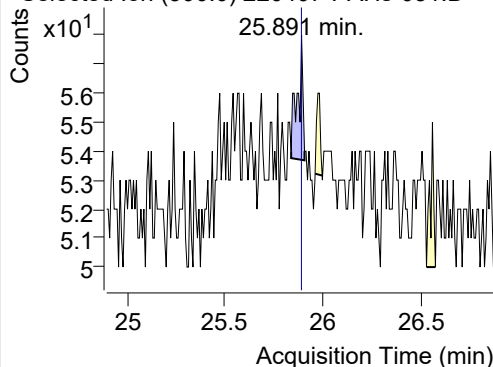
276.0, 138.0



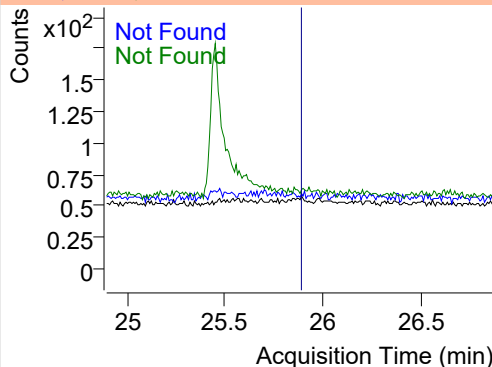
+ SIM (23.234-23.264 min, 5 scans) (\*\*) 22040

**Coronene**

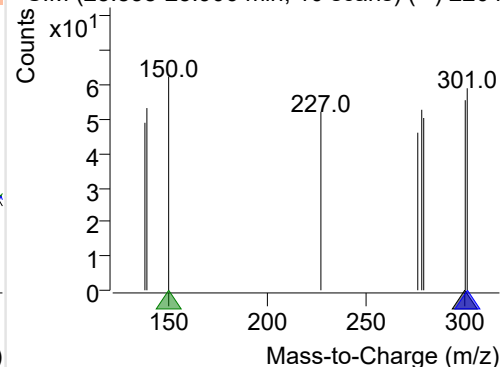
+ Selected Ion (300.0) 220407-PAHs-051.D



300.0, 301.0, 150.0



+ SIM (25.838-25.906 min, 10 scans) (\*\*) 2204





## Quantitative Analysis Sample Based Report

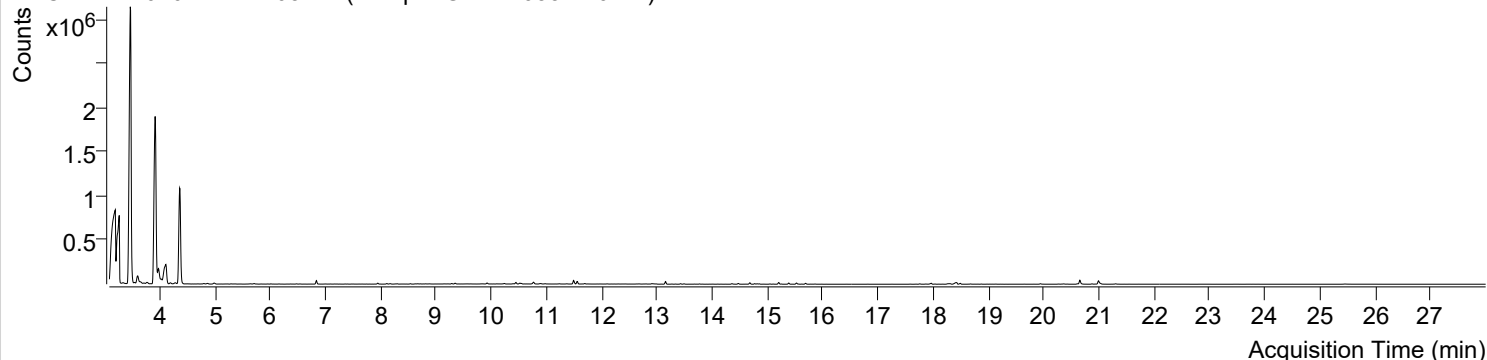


Trusted Answers

Batch Data Path File Name	D:\MassHunter\GCMS\1\data\PAHs\220407-PAHs-Sample\QuantResults\220407-PAHs-Quant.batch.bin		
Analysis Time Stamp	2022-04-13 오후 5:40:30	Analyst Name	DESKTOP-86B7UPG\5975MS
Report Generation Time	2022-04-13 오후 5:40:41	Report Generator Name	DESKTOP-86B7UPG\5975MS
Calibration Last Update	2022-04-13 오후 5:38:35	Batch State	Processed
Analyze Quant Version	10.2	Report Quant Version	10.2
Acq. Date-Time	2022-04-08 오후 1:51:18	Data File	220407-PAHs-052.D
Type	Sample	Name	Sample-Gas-220331-10DIL
Dil.	1	Acq. Method File	PAHs 19mix-Method

## Sample Chromatogram

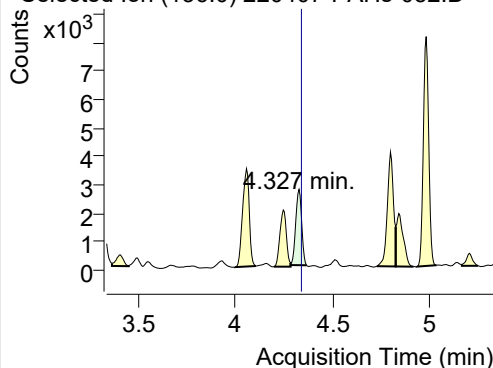
+ TIC SIM 220407-PAHs-052.D (Sample-Gas-220331-10DIL)



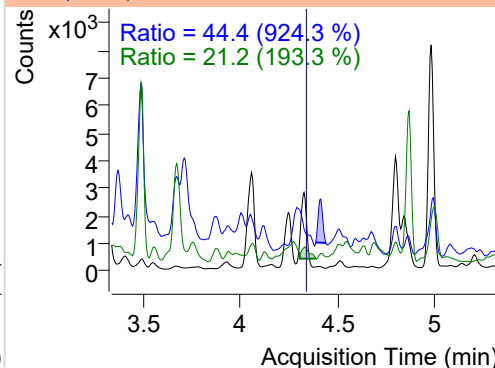
Name	RT	Transition	Resp.	Height	Final Conc. Units	Ratio
IS-D8-Naphthalene	4.327	136.0	5640	2658.81	ND µg/mL	21.2
Naphthalene	4.359	128.0	1955175	874639.28	ND µg/mL	13.4
Acenaphthylene	7.739	152.0	747	526.02	ND µg/mL	48.1
IS-D10-Acenaphthene	8.112	164.0	4041	2700.87	ND µg/mL	97.1
Acenaphthene	8.177	154.0	1856	1158.42	ND µg/mL	122.6
LSS-D10-Fluorene	9.281	176.0	3905	2500.01	ND µg/mL	90.3
Fluorene	9.344	166.0	6883	4458.00	ND µg/mL	93.0
IS-D10-Phenanthrene	11.508	188.0	6688	4428.72	ND µg/mL	18.5
Phenanthrene	11.560	178.0	31783	19519.01	ND µg/mL	17.7
Anthracene	11.697	178.0	3124	1512.33	ND µg/mL	23.9
Fluoranthene	14.354	202.0	6505	3934.36	ND µg/mL	15.4
LSS-D10-Pyrene	14.814	212.0	5661	3399.28	ND µg/mL	16.9
Pyrene	14.852	202.0	4553	2900.31	ND µg/mL	13.0
Benz(a)anthracene	17.807	228.0	449	200.04	ND µg/mL	23.4
IS-D12-Chrysene	17.758	240.0	5324	2945.36	ND µg/mL	18.2
Chrysene	17.807	228.0	449	200.04	ND µg/mL	23.4
Benzo(b)fluoranthene	20.654	252.0	69720	37341.23	ND µg/mL	19.0
Benzo(k)fluoranthene	20.654	252.0	69720	37341.23	ND µg/mL	19.0
SS-D12-Benzo(e)pyrene	20.610	264.0	6187	3138.23	ND µg/mL	36.5
Benzo(e)pyrene	20.654	252.0	69720	37341.23	ND µg/mL	19.0
Benzo(a)pyrene	20.654	252.0	69720	37341.23	ND µg/mL	19.0
IS-D12-Perylene	20.876	264.0	5868	2327.11	ND µg/mL	17.2
Perylene	20.990	252.0	61206	30866.35	ND µg/mL	19.0
Indeno(1,2,3-c,d)pyrene	22.844	276.0	27	7.32	ND µg/mL	
Dibenz(a,h)anthracene	22.837	278.0	488	124.14	ND µg/mL	34.9
Benzo(g,h,i)perylene	23.005	276.0	17	6.76	ND µg/mL	58.0
Coronene	25.448	300.0	57	9.48	ND µg/mL	159.8

## IS-D8-Naphthalene

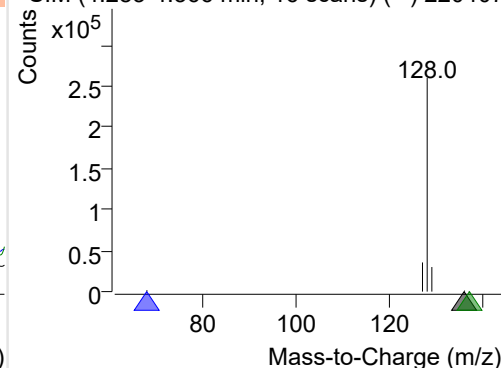
+ Selected Ion (136.0) 220407-PAHs-052.D



136.0, 68.0, 137.0

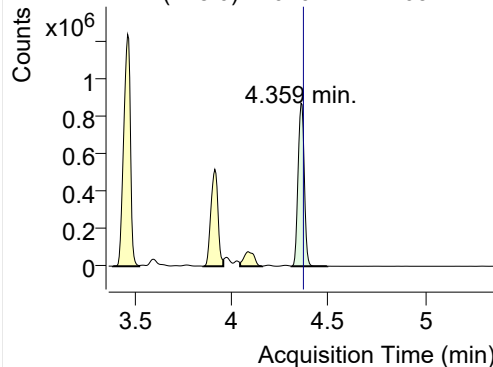


+ SIM (4.283-4.366 min, 16 scans) (\*\*) 220407

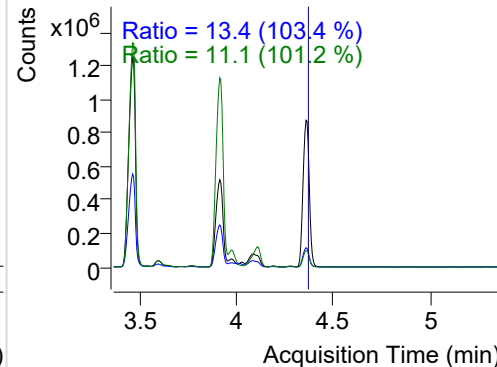


**Naphthalene**

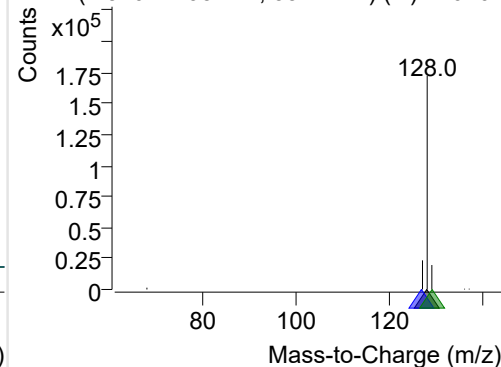
+ Selected Ion (128.0) 220407-PAHs-052.D



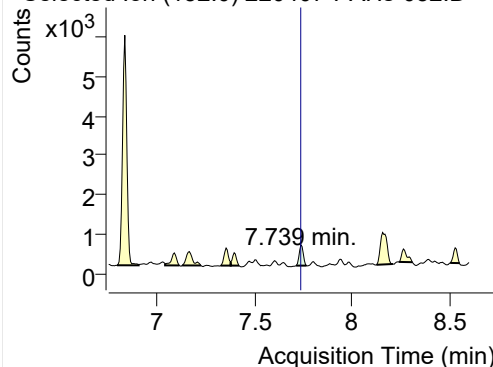
128.0, 127.0, 129.0



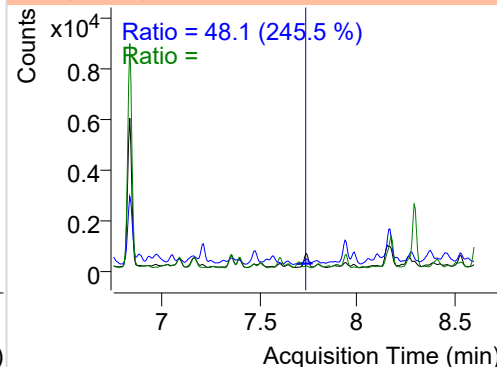
+ SIM (4.310-4.495 min, 35 scans) (\*\*) 220407

**Acenaphthylene**

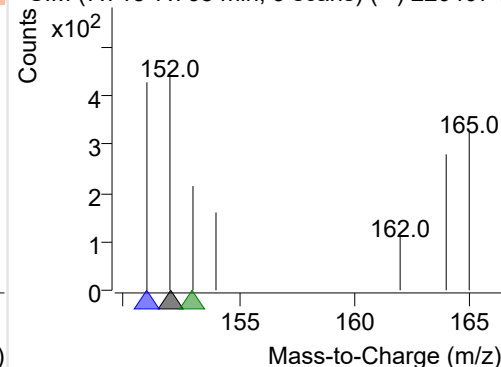
+ Selected Ion (152.0) 220407-PAHs-052.D



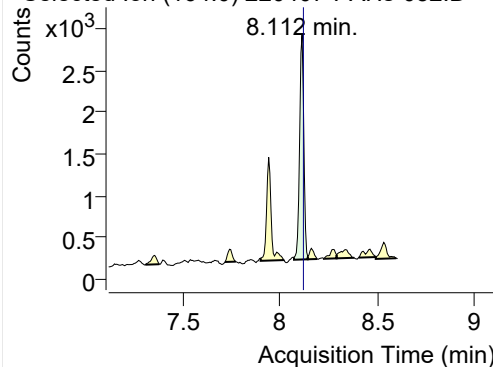
152.0, 151.0, 153.0



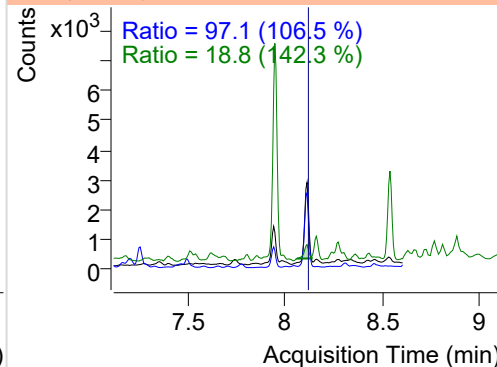
+ SIM (7.715-7.768 min, 9 scans) (\*\*) 220407-I

**IS-D10-Acenaphthene**

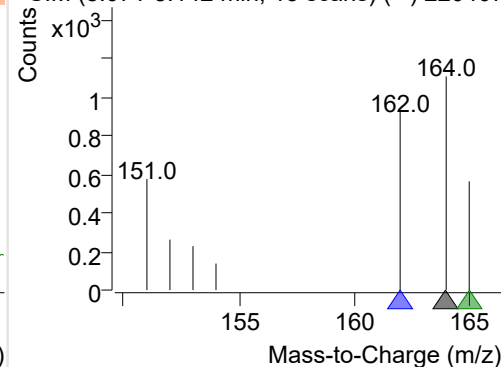
+ Selected Ion (164.0) 220407-PAHs-052.D



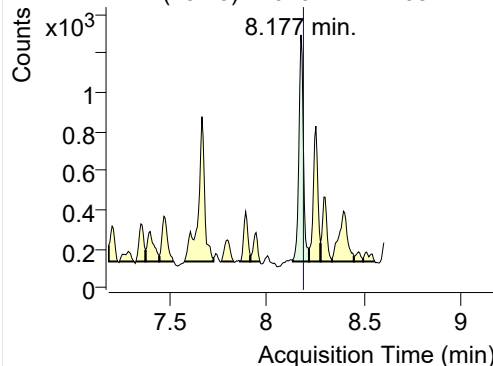
164.0, 162.0, 165.0



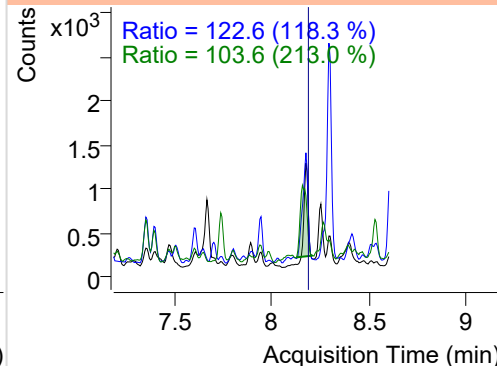
+ SIM (8.071-8.142 min, 13 scans) (\*\*) 220407

**Acenaphthene**

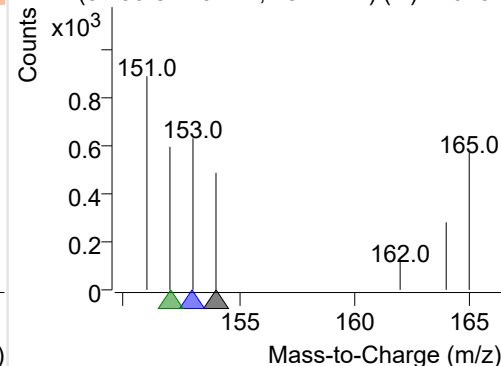
+ Selected Ion (154.0) 220407-PAHs-052.D



154.0, 153.0, 152.0

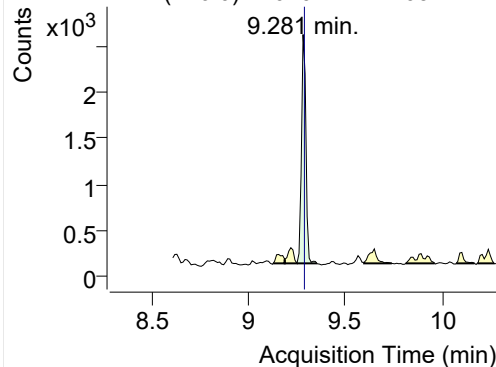


+ SIM (8.136-8.219 min, 15 scans) (\*\*) 220407

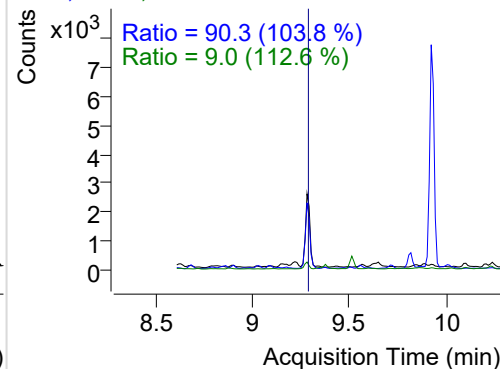


## LSS-D10-Fluorene

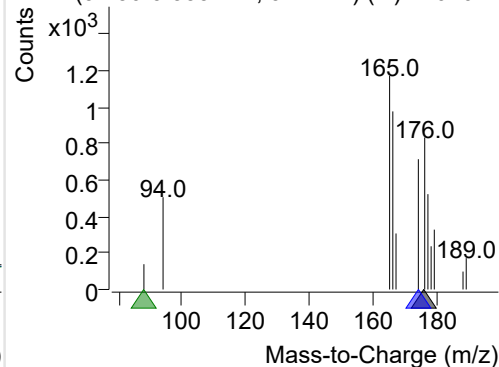
+ Selected Ion (176.0) 220407-PAHs-052.D



176.0, 174.0, 88.0

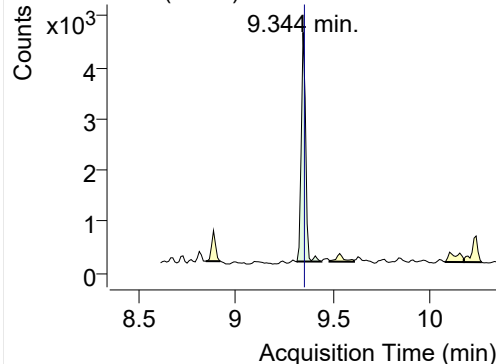


+ SIM (9.250-9.353 min, 9 scans) (\*\*) 220407-I

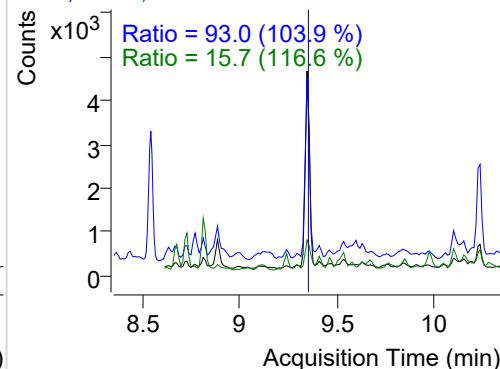


## Fluorene

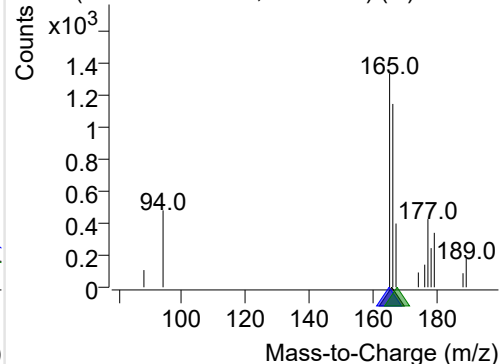
+ Selected Ion (166.0) 220407-PAHs-052.D



166.0, 165.0, 167.0

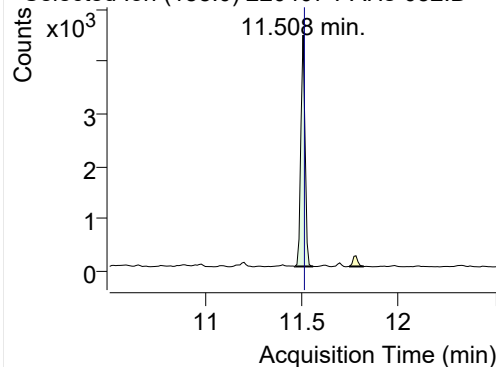


+ SIM (9.313-9.439 min, 12 scans) (\*\*) 220407

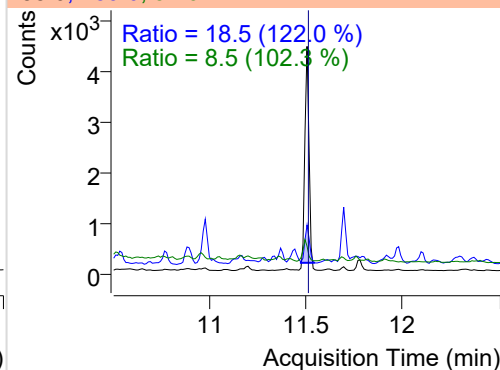


## IS-D10-Phenanthrene

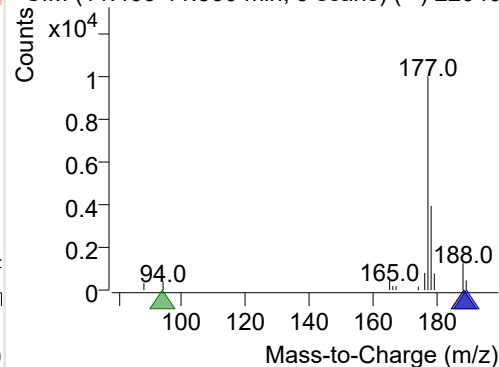
+ Selected Ion (188.0) 220407-PAHs-052.D



188.0, 189.0, 94.0

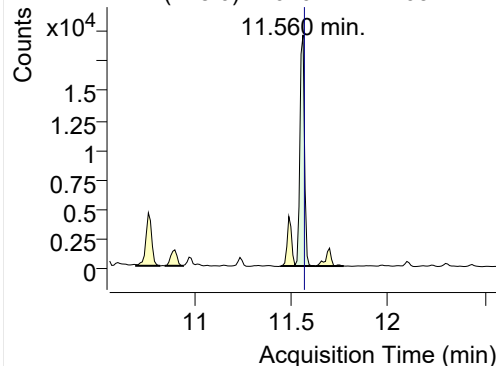


+ SIM (11.466-11.560 min, 9 scans) (\*\*) 22040

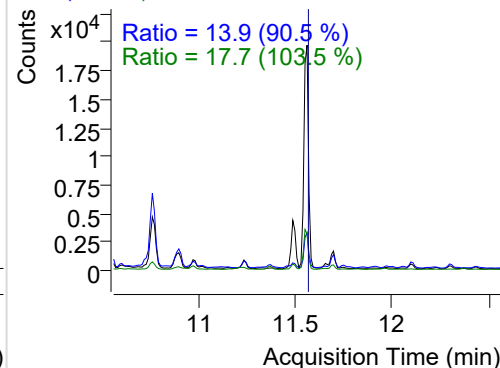


## Phenanthrene

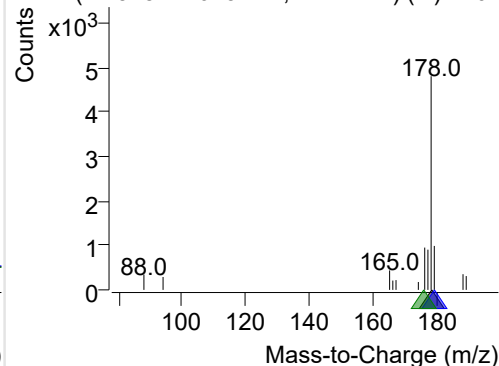
+ Selected Ion (178.0) 220407-PAHs-052.D



178.0, 179.0, 176.0

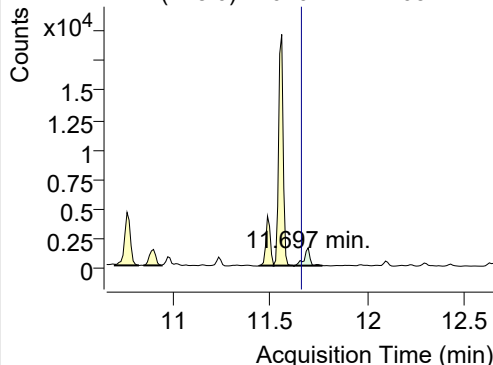


+ SIM (11.518-11.623 min, 11 scans) (\*\*) 2204

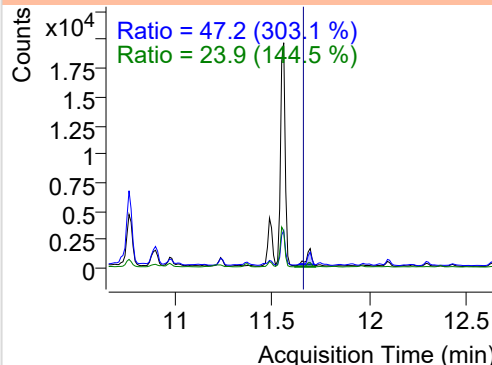


**Anthracene**

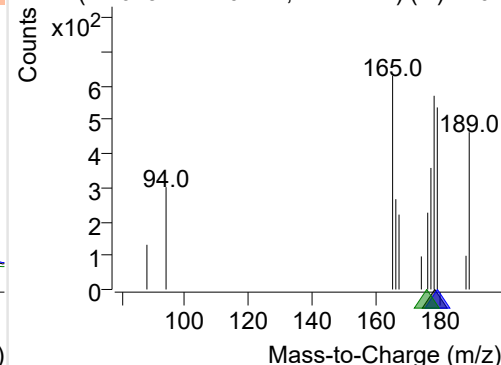
+ Selected Ion (178.0) 220407-PAHs-052.D



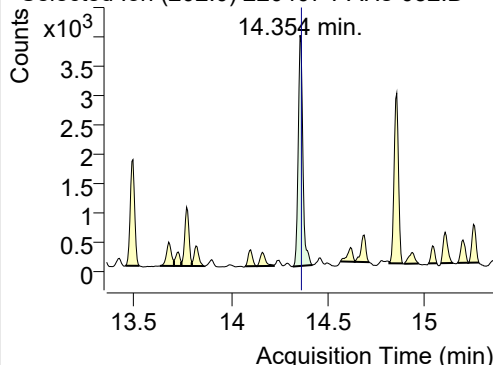
178.0, 179.0, 176.0



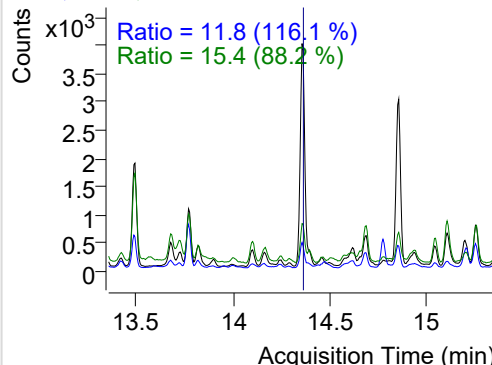
+ SIM (11.623-11.770 min, 14 scans) (\*\*) 2204

**Fluoranthene**

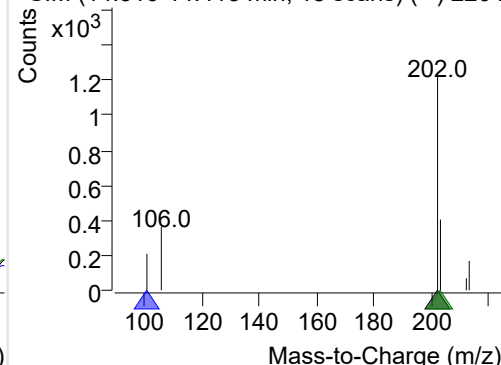
+ Selected Ion (202.0) 220407-PAHs-052.D



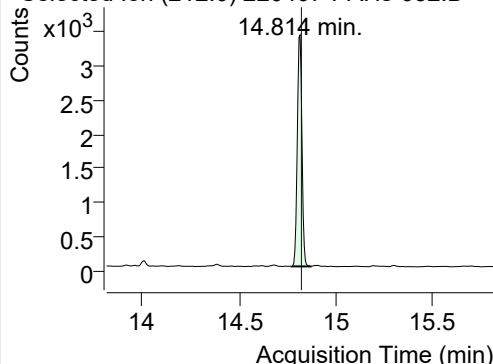
202.0, 101.0, 203.0



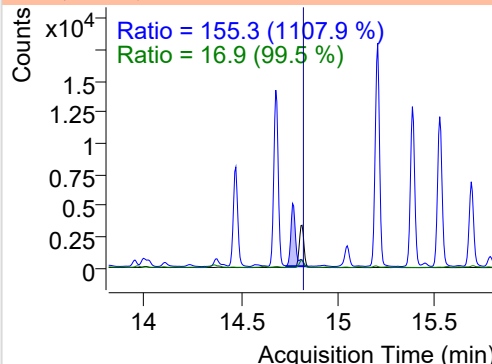
+ SIM (14.316-14.418 min, 18 scans) (\*\*) 2204

**LSS-D10-Pyrene**

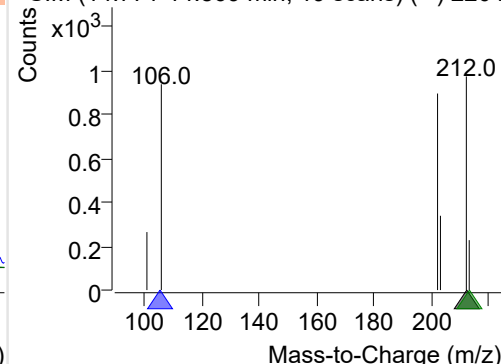
+ Selected Ion (212.0) 220407-PAHs-052.D



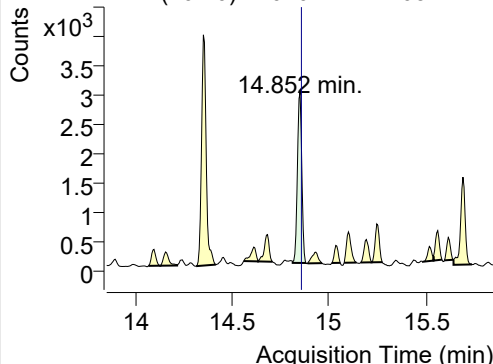
212.0, 106.0, 213.0



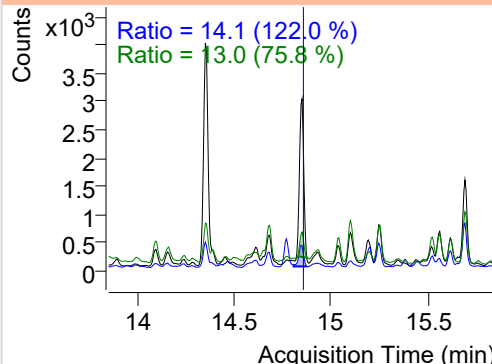
+ SIM (14.771-14.869 min, 19 scans) (\*\*) 2204

**Pyrene**

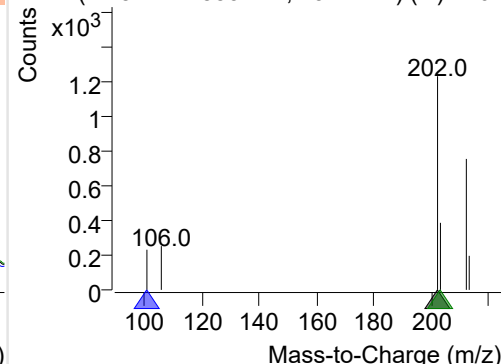
+ Selected Ion (202.0) 220407-PAHs-052.D



202.0, 101.0, 203.0



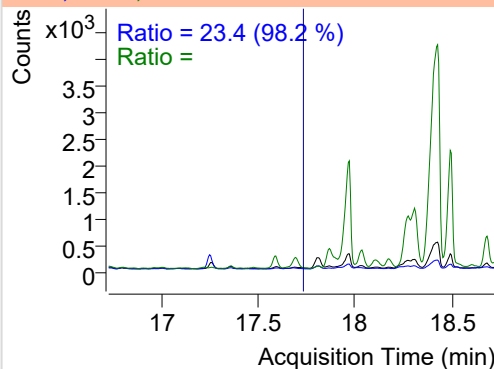
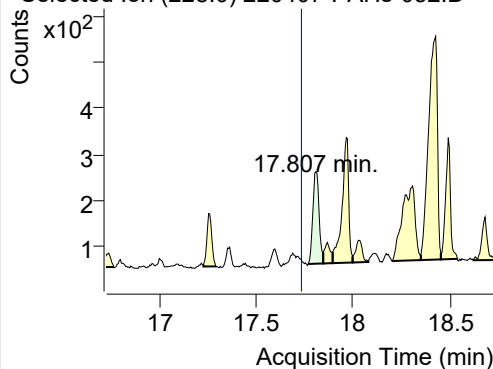
+ SIM (14.814-14.883 min, 13 scans) (\*\*) 2204



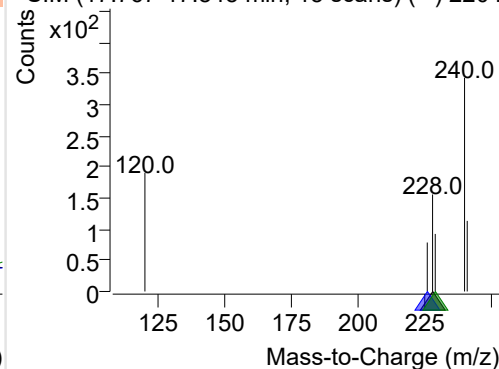
**Benz(a)anthracene**

+ Selected Ion (228.0) 220407-PAHs-052.D

228.0, 226.0, 229.0

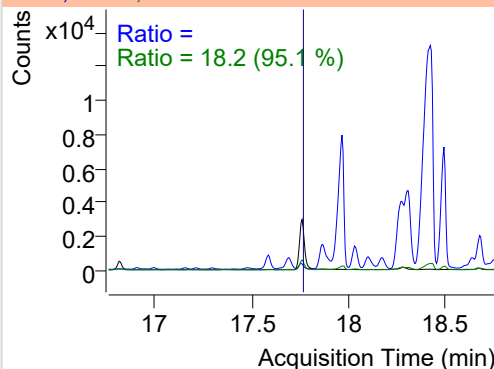
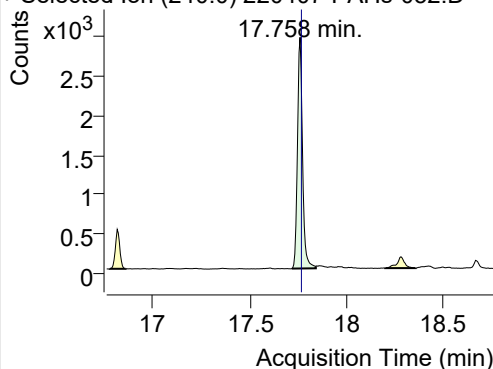


+ SIM (17.767-17.845 min, 15 scans) (\*\*) 2204

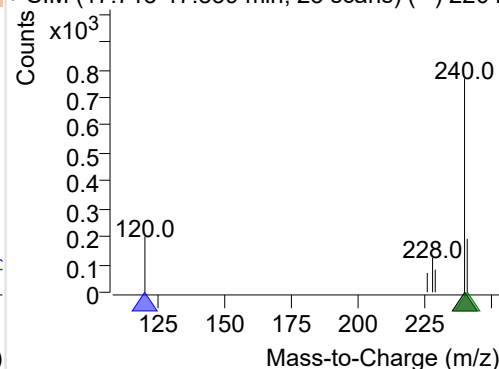
**IS-D12-Chrysene**

+ Selected Ion (240.0) 220407-PAHs-052.D

240.0, 120.0, 241.0

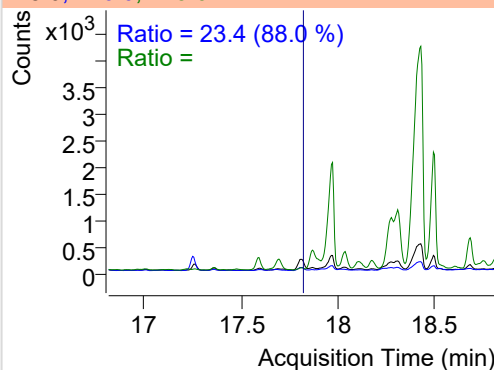
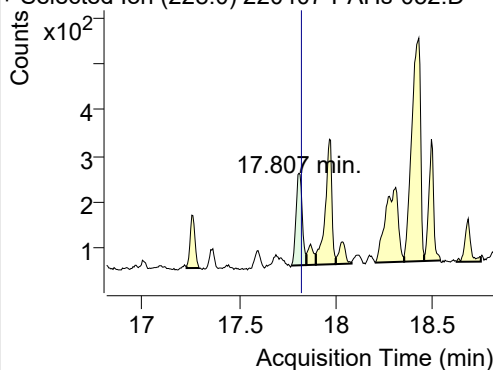


+ SIM (17.715-17.839 min, 23 scans) (\*\*) 2204

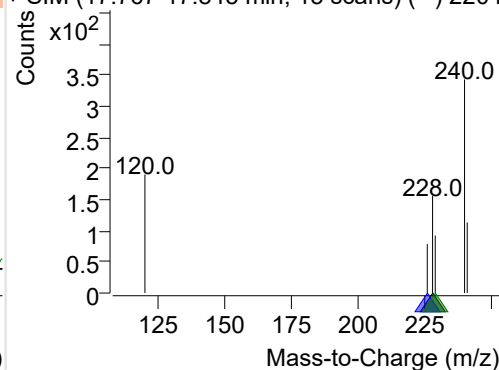
**Chrysene**

+ Selected Ion (228.0) 220407-PAHs-052.D

228.0, 226.0, 229.0

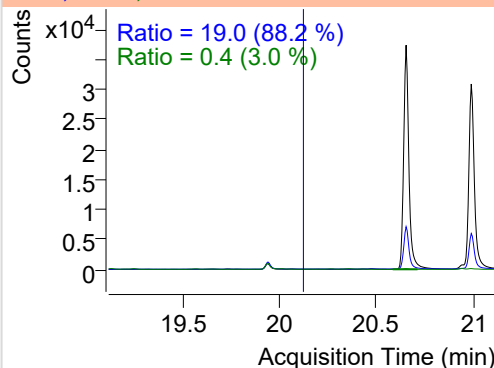
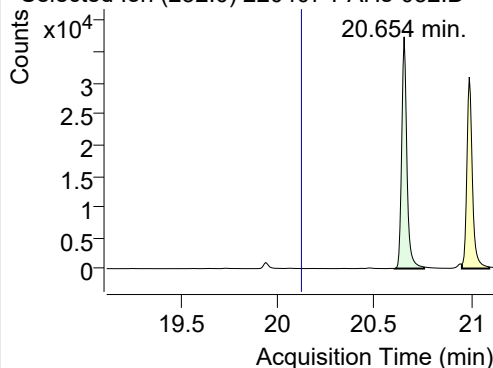


+ SIM (17.767-17.845 min, 15 scans) (\*\*) 2204

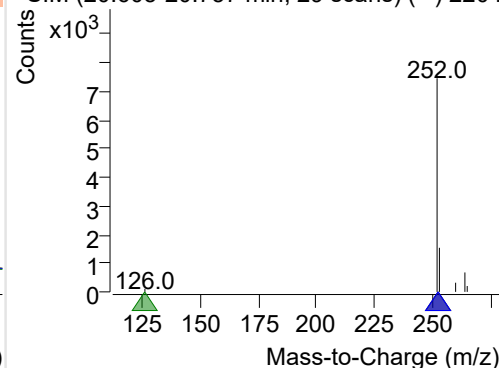
**Benzo(b)fluoranthene**

+ Selected Ion (252.0) 220407-PAHs-052.D

252.0, 253.0, 126.0

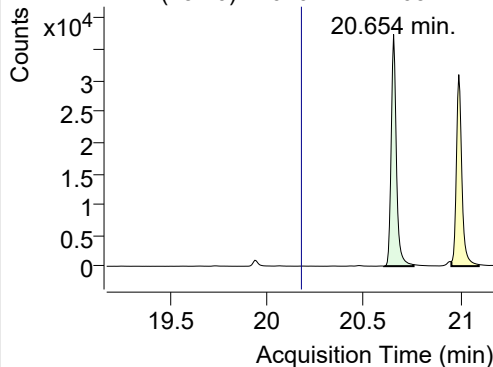


+ SIM (20.605-20.757 min, 29 scans) (\*\*) 2204

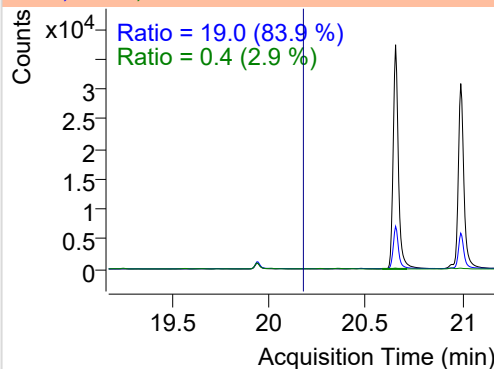


**Benzo(k)fluoranthene**

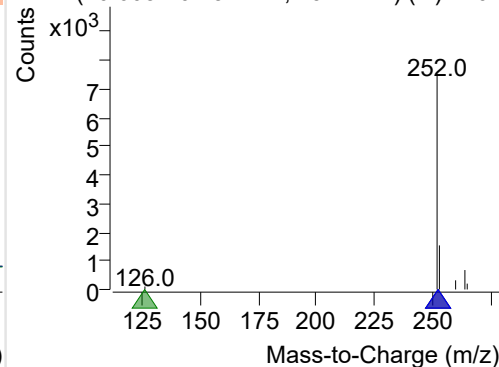
+ Selected Ion (252.0) 220407-PAHs-052.D



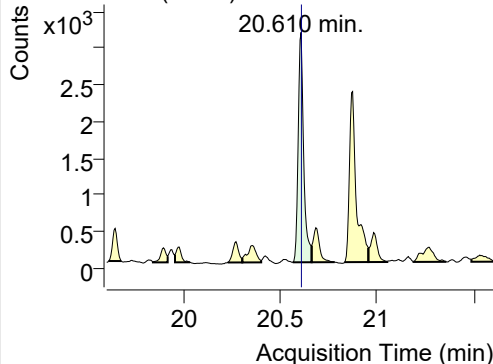
252.0, 253.0, 126.0



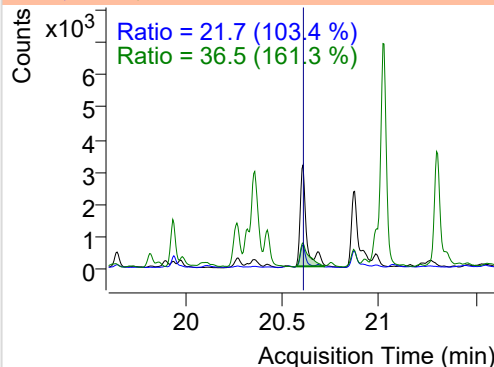
+ SIM (20.605-20.757 min, 29 scans) (\*\*) 2204

**SS-D12-Benzo(e)pyrene**

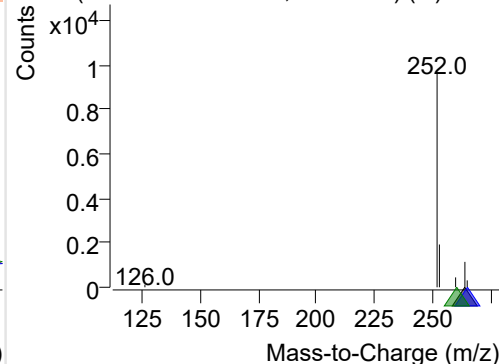
+ Selected Ion (264.0) 220407-PAHs-052.D



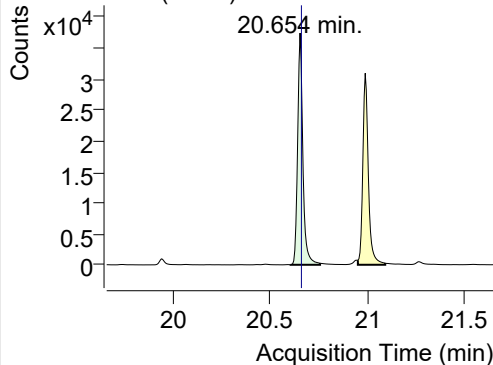
264.0, 265.0, 260.0



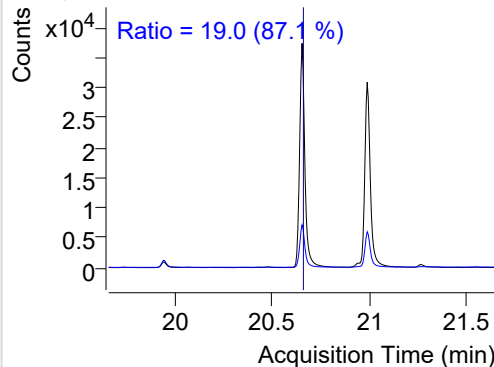
+ SIM (20.567-20.665 min, 18 scans) (\*\*) 2204

**Benzo(e)pyrene**

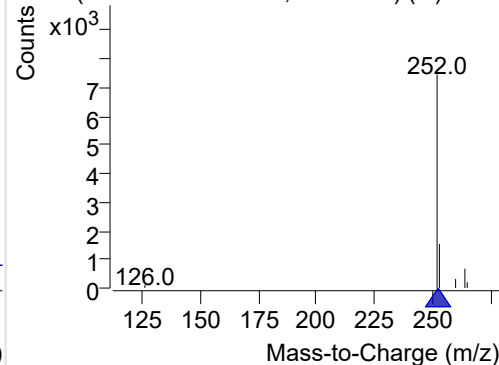
+ Selected Ion (252.0) 220407-PAHs-052.D



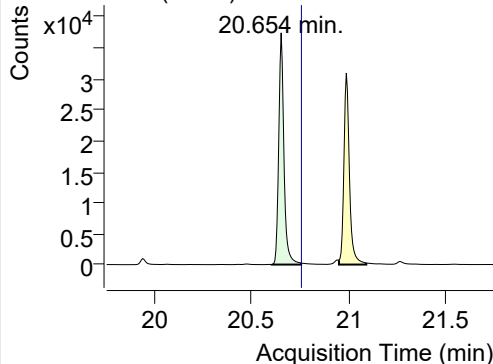
252.0, 253.0



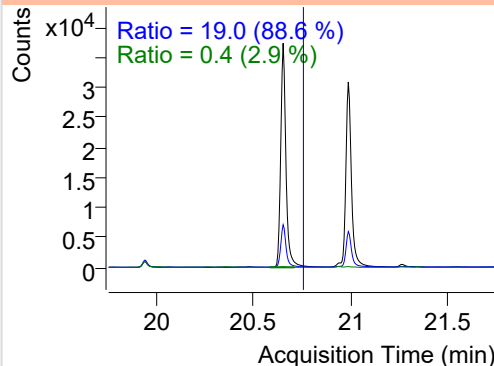
+ SIM (20.605-20.757 min, 29 scans) (\*\*) 2204

**Benzo(a)pyrene**

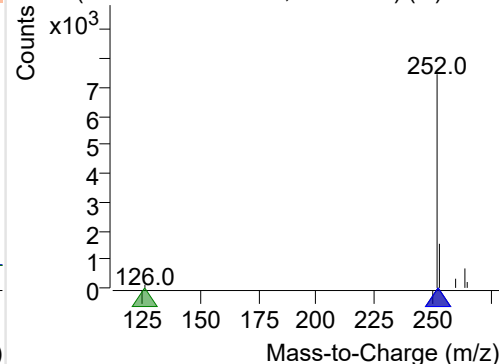
+ Selected Ion (252.0) 220407-PAHs-052.D



252.0, 253.0, 126.0

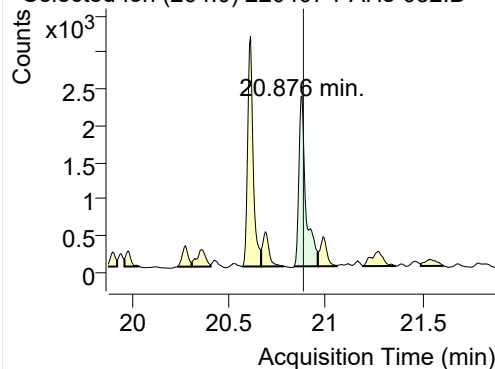


+ SIM (20.605-20.757 min, 29 scans) (\*\*) 2204

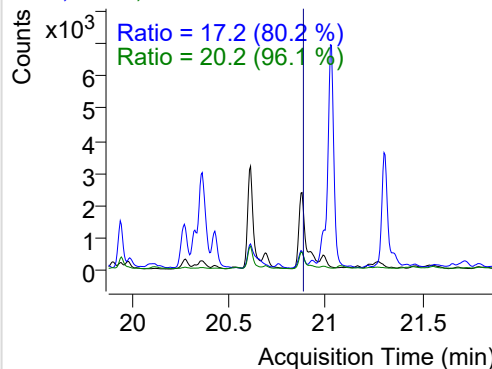


## IS-D12-Perylene

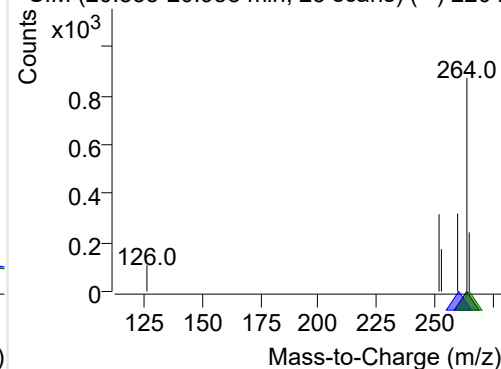
+ Selected Ion (264.0) 220407-PAHs-052.D



264.0, 260.0, 265.0

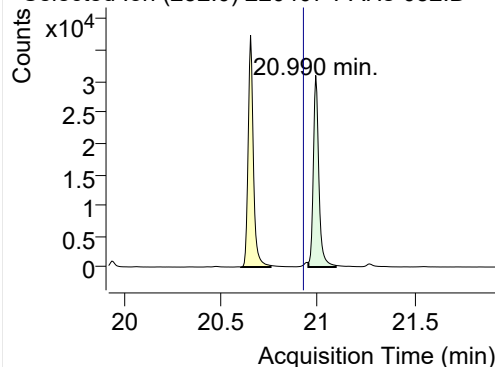


+ SIM (20.835-20.958 min, 23 scans) (\*\*) 2204

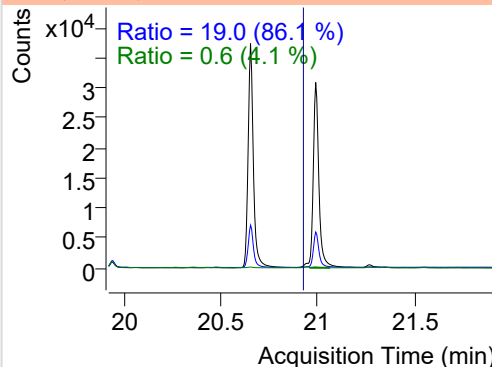


## Perylene

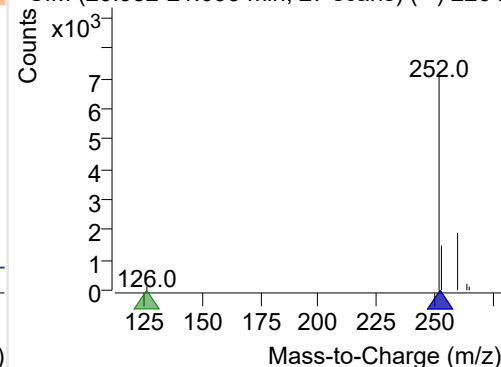
+ Selected Ion (252.0) 220407-PAHs-052.D



252.0, 253.0, 126.0

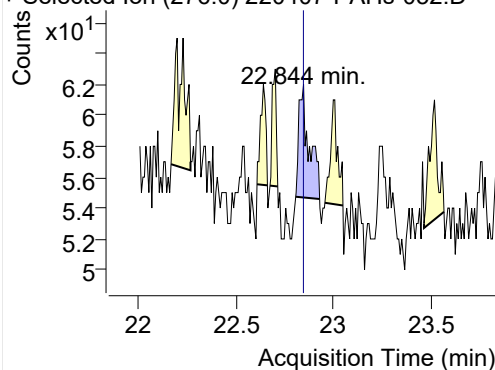


+ SIM (20.952-21.093 min, 27 scans) (\*\*) 2204

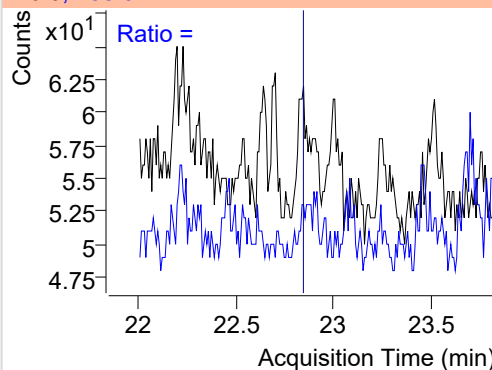


## Indeno(1,2,3-c,d)pyrene

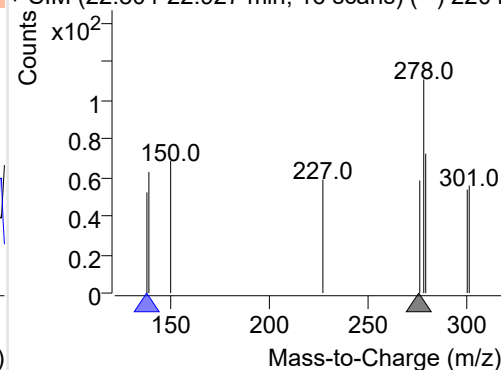
+ Selected Ion (276.0) 220407-PAHs-052.D



276.0, 138.0

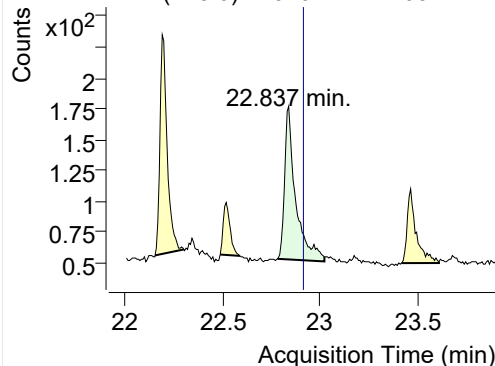


+ SIM (22.804-22.927 min, 16 scans) (\*\*) 2204

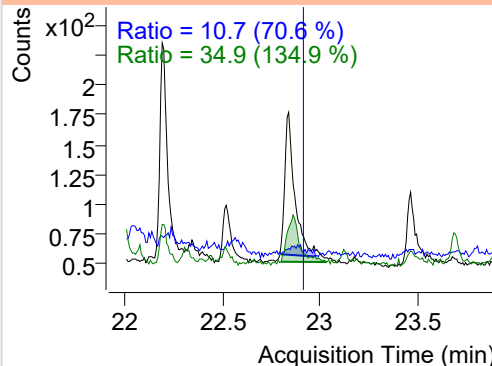


## Dibenz(a,h)anthracene

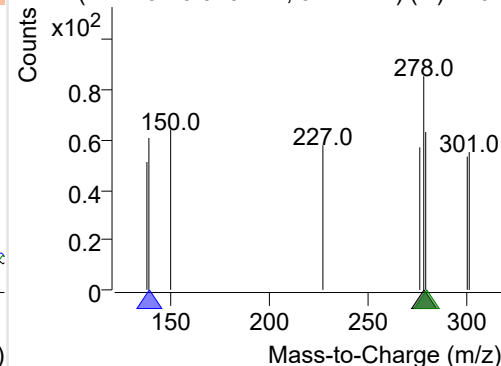
+ Selected Ion (278.0) 220407-PAHs-052.D



278.0, 139.0, 279.0



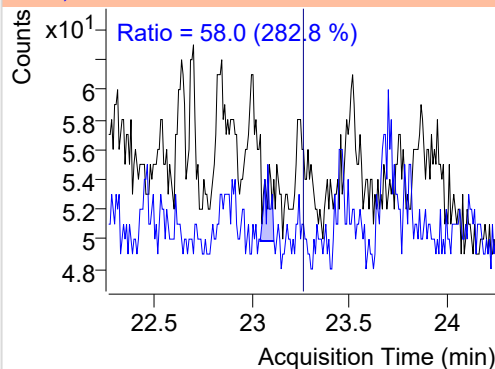
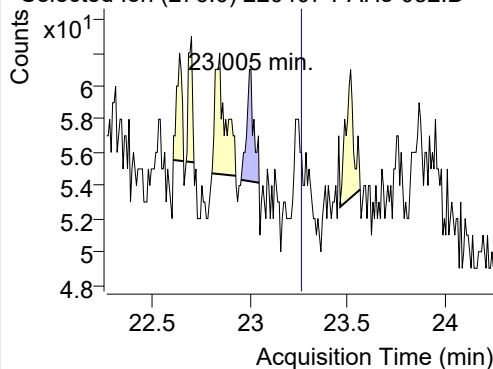
+ SIM (22.779-23.020 min, 32 scans) (\*\*) 2204



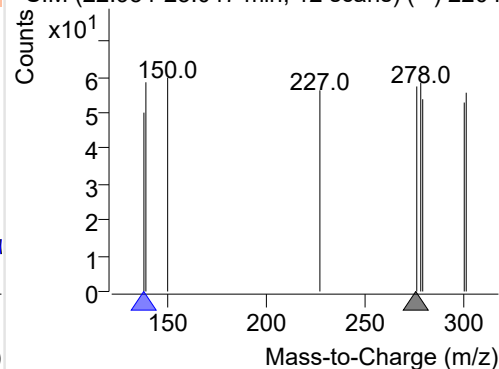
**Benzo(g,h,i)perylene**

+ Selected Ion (276.0) 220407-PAHs-052.D

276.0, 138.0

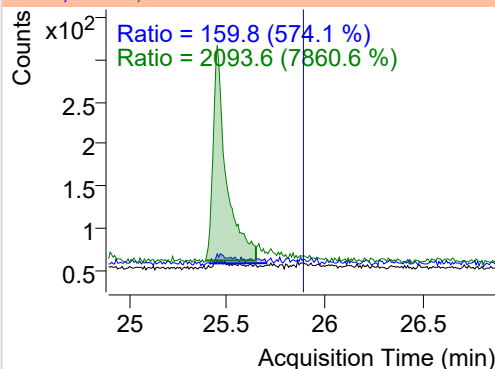
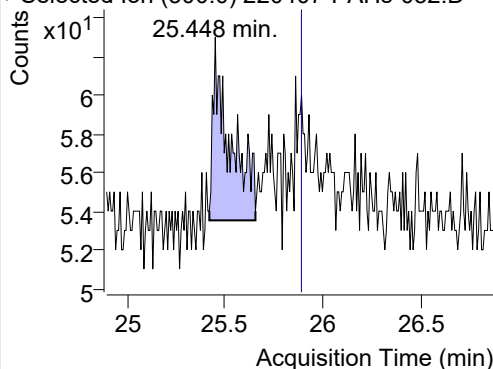


+ SIM (22.954-23.047 min, 12 scans) (\*\*) 2204

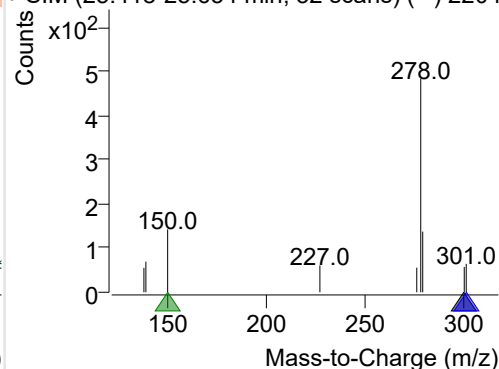
**Coronene**

+ Selected Ion (300.0) 220407-PAHs-052.D

300.0, 301.0, 150.0



+ SIM (25.418-25.654 min, 32 scans) (\*\*) 2204





## Quantitative Analysis Sample Based Report

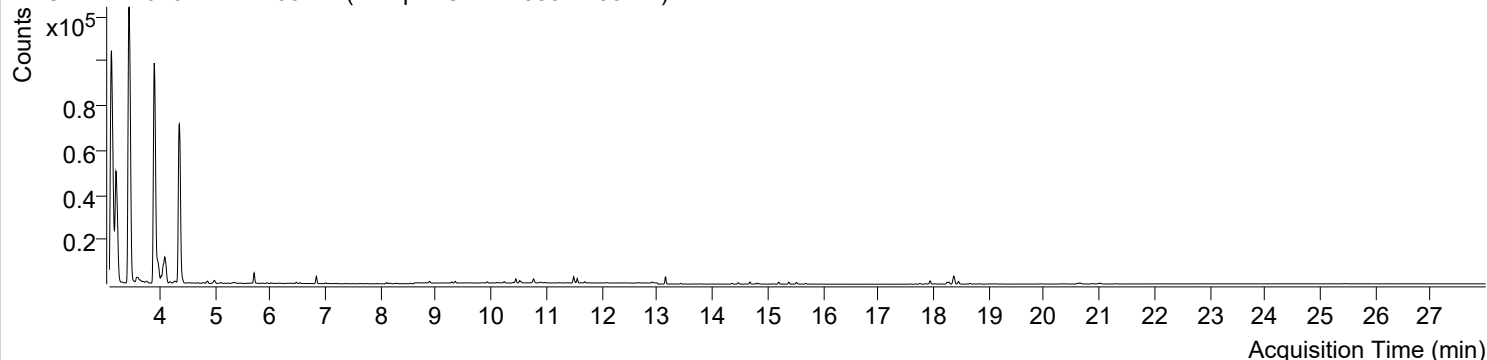


Trusted Answers

Batch Data Path File Name	D:\MassHunter\GCMS\1\data\PAHs\220407-PAHs-Sample\QuantResults\220407-PAHs-Quant.batch.bin		
Analysis Time Stamp	2022-04-13 오후 5:40:30	Analyst Name	DESKTOP-86B7UPG\5975MS
Report Generation Time	2022-04-13 오후 5:40:41	Report Generator Name	DESKTOP-86B7UPG\5975MS
Calibration Last Update	2022-04-13 오후 5:38:35	Batch State	Processed
Analyze Quant Version	10.2	Report Quant Version	10.2
Acq. Date-Time	2022-04-08 오후 2:53:36	Data File	220407-PAHs-054.D
Type	Sample	Name	Sample-Gas-220301-100DIL
Dil.	1	Acq. Method File	PAHs 19mix-Method

## Sample Chromatogram

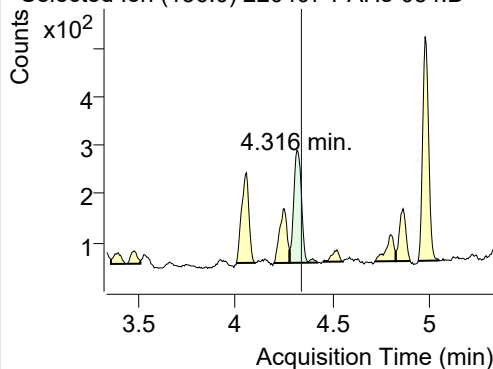
+ TIC SIM 220407-PAHs-054.D (Sample-Gas-220301-100DIL)



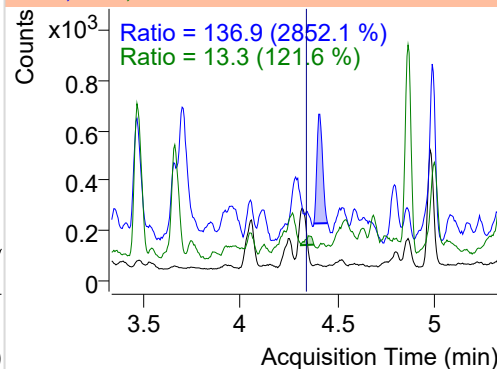
Name	RT	Transition	Resp.	Height	Final Conc. Units	Ratio
IS-D8-Naphthalene	4.316	136.0	647	230.47	ND µg/mL	13.3
Naphthalene	4.354	128.0	154001	57105.13	ND µg/mL	14.5
Acenaphthylene	7.739	152.0	181	121.78	ND µg/mL	22.9
IS-D10-Acenaphthene	8.112	164.0	399	242.27	ND µg/mL	92.8
Acenaphthene	8.177	154.0	102	61.97	ND µg/mL	132.0
LSS-D10-Fluorene	9.286	176.0	362	252.78	ND µg/mL	90.6
Fluorene	9.349	166.0	573	362.13	ND µg/mL	94.8
IS-D10-Phenanthrene	11.502	188.0	695	408.75	ND µg/mL	16.6
Phenanthrene	11.554	178.0	1955	1317.05	ND µg/mL	17.7
Anthracene	11.691	178.0	336	153.05	ND µg/mL	27.4
Fluoranthene	14.353	202.0	409	260.71	ND µg/mL	16.3
LSS-D10-Pyrene	14.814	212.0	501	321.88	ND µg/mL	17.4
Pyrene	14.852	202.0	267	150.93	ND µg/mL	17.1
Benz(a)anthracene	17.942	228.0	73	39.53	ND µg/mL	35.0
IS-D12-Chrysene	17.757	240.0	456	240.17	ND µg/mL	18.6
Chrysene	17.942	228.0	73	39.53	ND µg/mL	35.0
Benzo(b)fluoranthene	20.653	252.0	857	400.86	ND µg/mL	20.0
Benzo(k)fluoranthene	20.653	252.0	857	400.86	ND µg/mL	20.0
SS-D12-Benzo(e)pyrene	20.604	264.0	456	217.33	ND µg/mL	27.2
Benzo(e)pyrene	20.653	252.0	857	400.86	ND µg/mL	20.0
Benzo(a)pyrene	20.653	252.0	857	400.86	ND µg/mL	20.0
IS-D12-Perylene	20.870	264.0	301	152.48	ND µg/mL	23.0
Perylene	20.990	252.0	314	155.69	ND µg/mL	20.1
Indeno(1,2,3-c,d)pyrene		276.0			ND µg/mL	
Dibenz(a,h)anthracene	22.834	278.0	13	7.46	ND µg/mL	
Benzo(g,h,i)perylene		276.0			ND µg/mL	
Coronene	25.858	300.0	22	4.00	ND µg/mL	

## IS-D8-Naphthalene

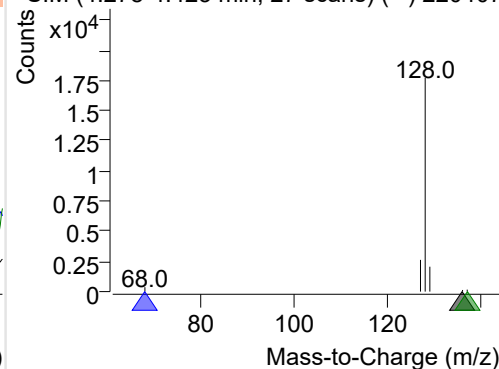
+ Selected Ion (136.0) 220407-PAHs-054.D



136.0, 68.0, 137.0

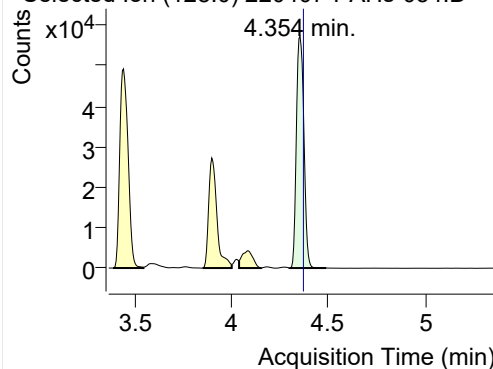


+ SIM (4.278-4.423 min, 27 scans) (\*\*) 220407

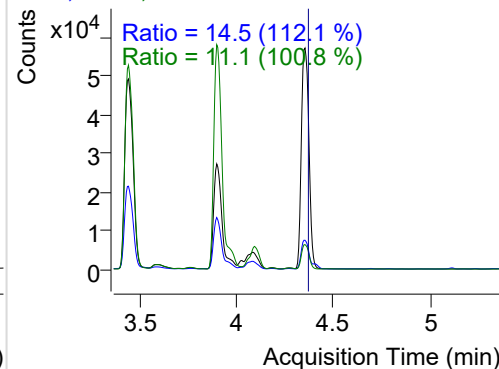


**Naphthalene**

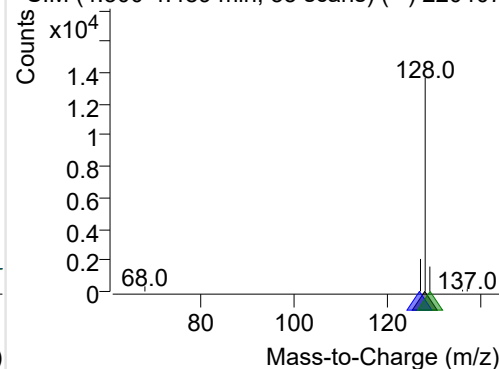
+ Selected Ion (128.0) 220407-PAHs-054.D



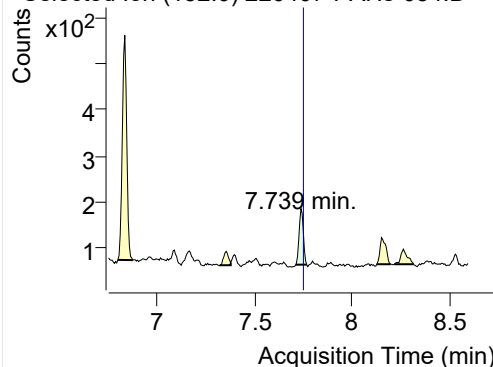
128.0, 127.0, 129.0



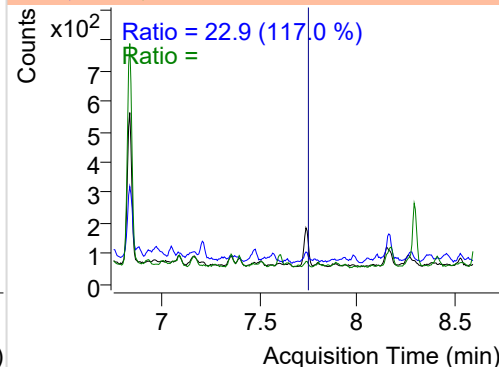
+ SIM (4.300-4.489 min, 35 scans) (\*\*) 220407

**Acenaphthylene**

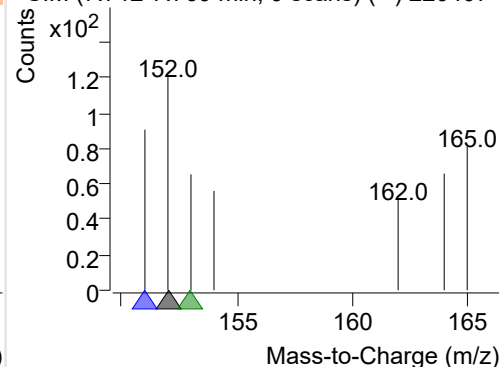
+ Selected Ion (152.0) 220407-PAHs-054.D



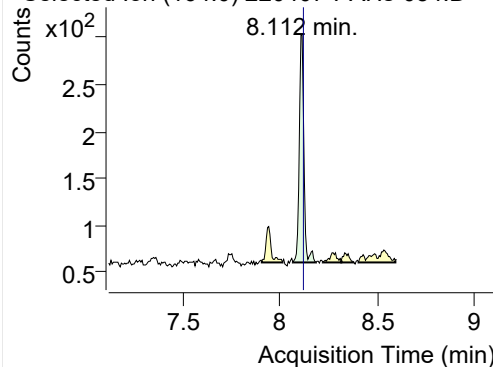
152.0, 151.0, 153.0



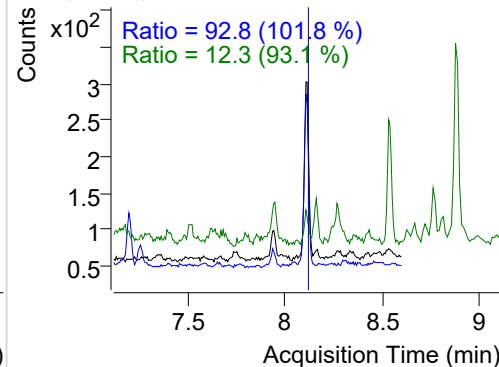
+ SIM (7.712-7.769 min, 9 scans) (\*\*) 220407-I

**IS-D10-Acenaphthene**

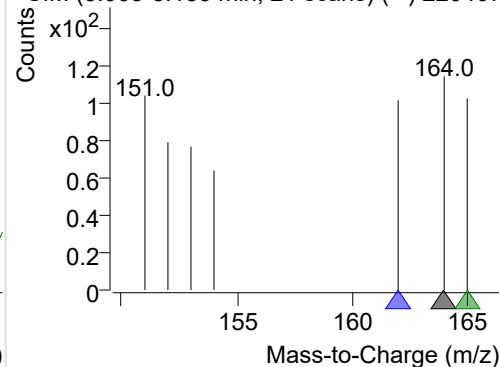
+ Selected Ion (164.0) 220407-PAHs-054.D



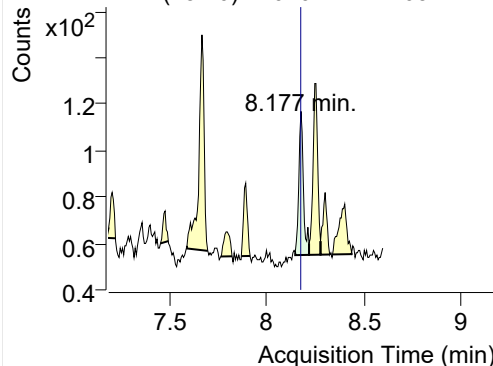
164.0, 162.0, 165.0



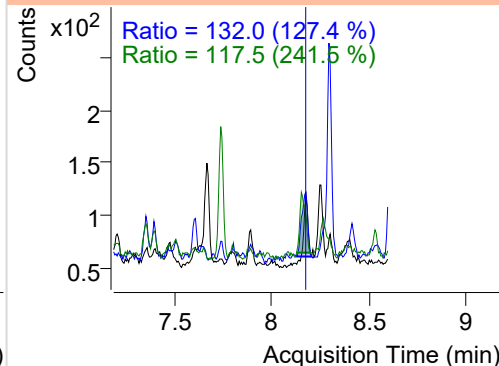
+ SIM (8.065-8.183 min, 21 scans) (\*\*) 220407

**Acenaphthene**

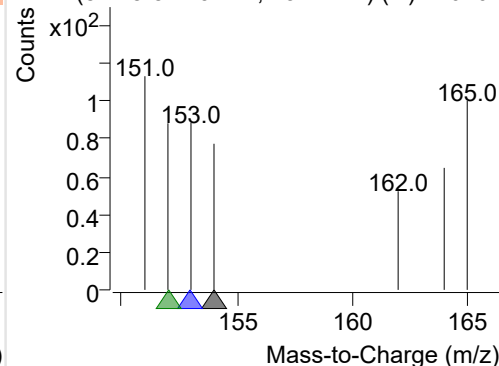
+ Selected Ion (154.0) 220407-PAHs-054.D



154.0, 153.0, 152.0

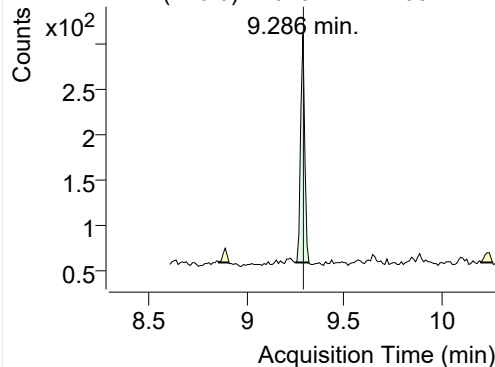


+ SIM (8.148-8.219 min, 13 scans) (\*\*) 220407

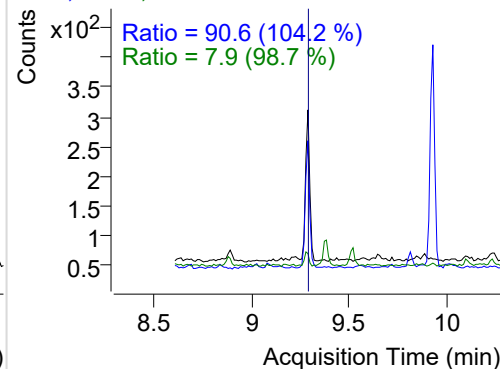


## LSS-D10-Fluorene

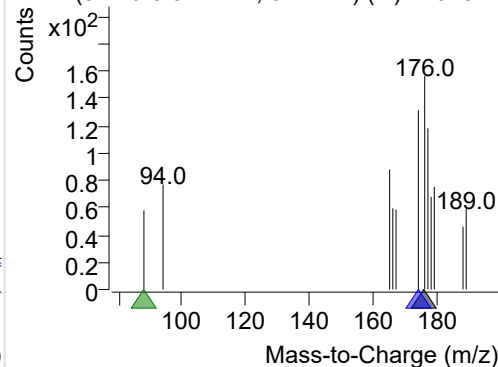
+ Selected Ion (176.0) 220407-PAHs-054.D



176.0, 174.0, 88.0

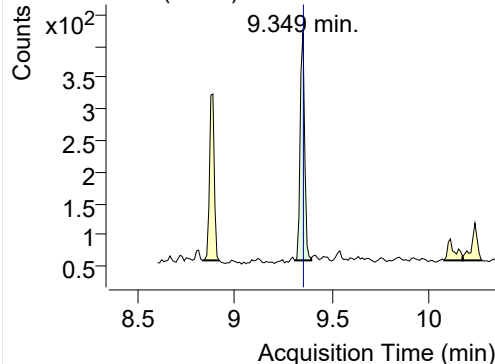


+ SIM (9.246-9.317 min, 6 scans) (\*\*) 220407-I

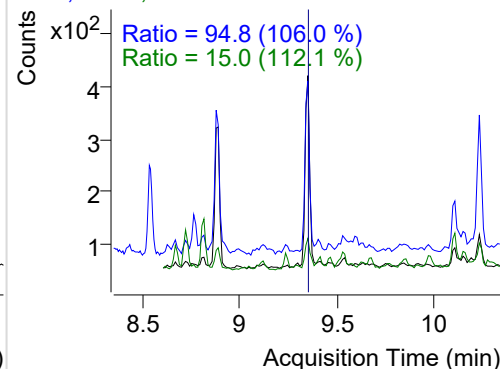


## Fluorene

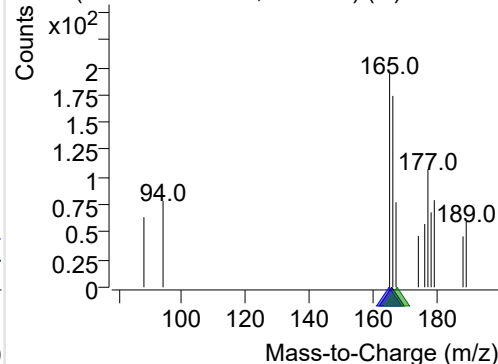
+ Selected Ion (166.0) 220407-PAHs-054.D



166.0, 165.0, 167.0

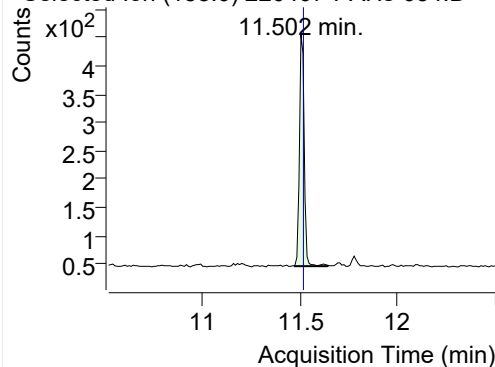


+ SIM (9.309-9.391 min, 8 scans) (\*\*) 220407-I

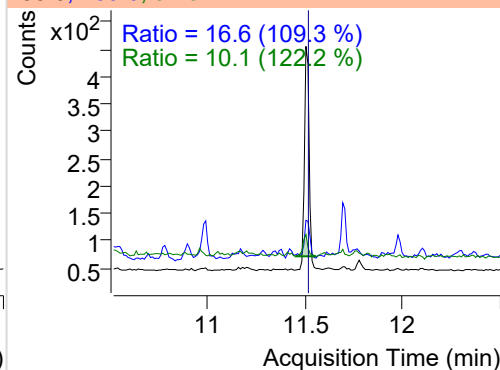


## IS-D10-Phenanthrene

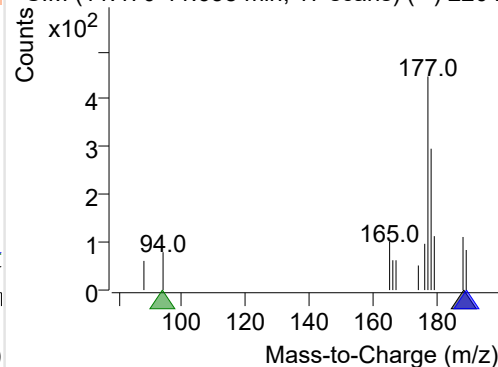
+ Selected Ion (188.0) 220407-PAHs-054.D



188.0, 189.0, 94.0

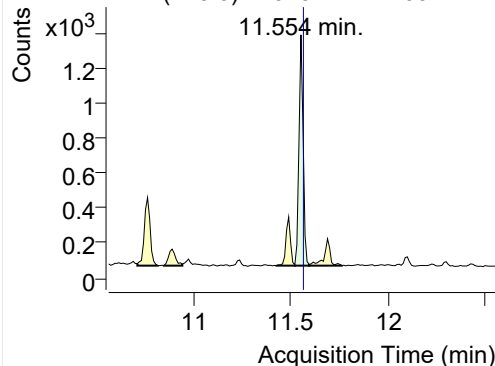


+ SIM (11.470-11.638 min, 17 scans) (\*\*) 2204

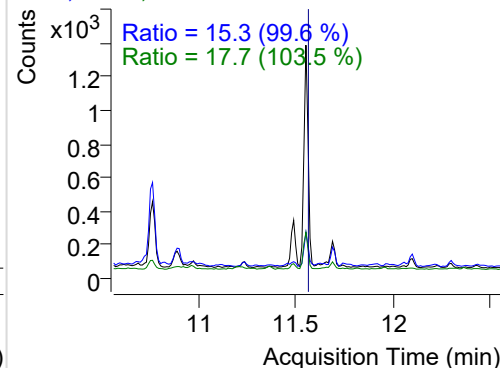


## Phenanthrene

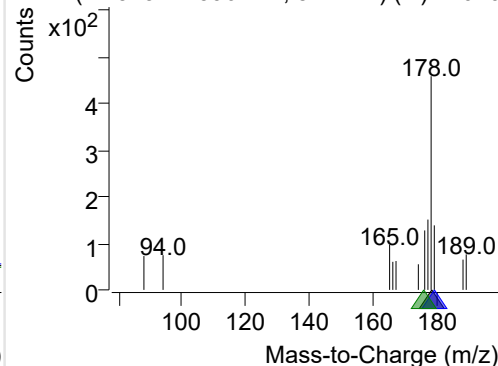
+ Selected Ion (178.0) 220407-PAHs-054.D



178.0, 179.0, 176.0

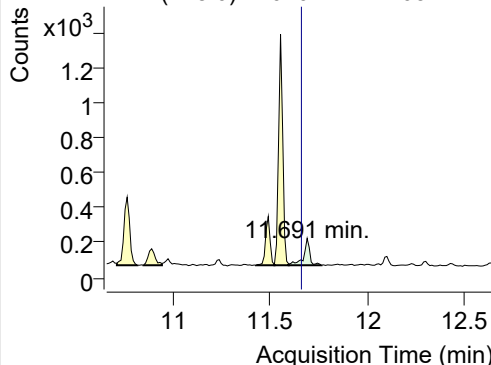


+ SIM (11.523-11.596 min, 8 scans) (\*\*) 22040

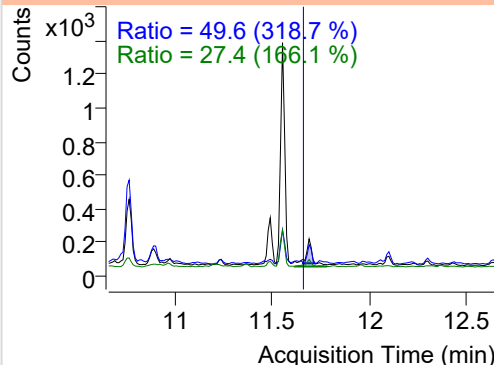


**Anthracene**

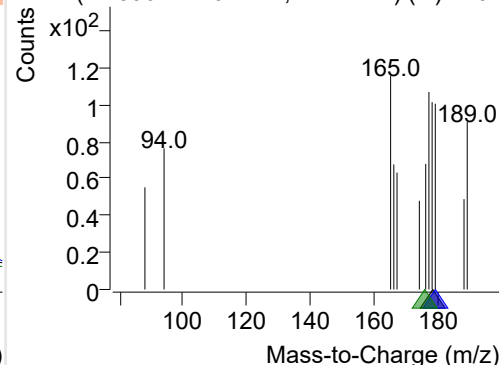
+ Selected Ion (178.0) 220407-PAHs-054.D



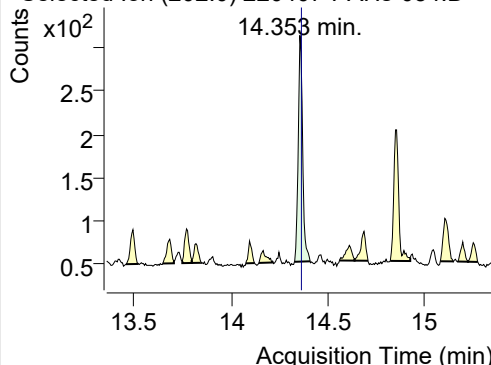
178.0, 179.0, 176.0



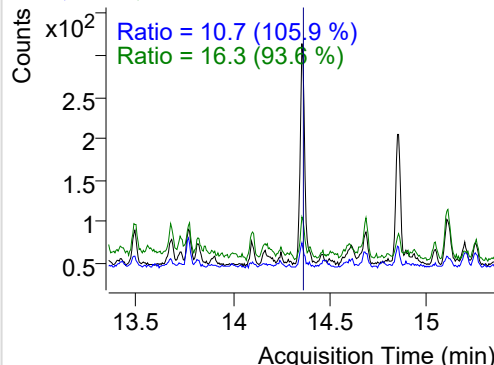
+ SIM (11.596-11.764 min, 17 scans) (\*\*) 2204

**Fluoranthene**

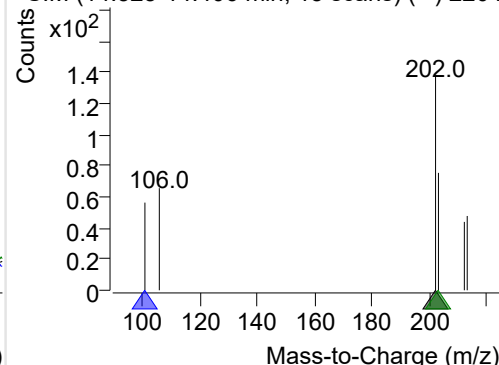
+ Selected Ion (202.0) 220407-PAHs-054.D



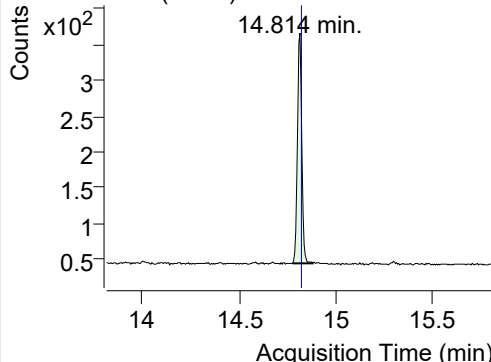
202.0, 101.0, 203.0



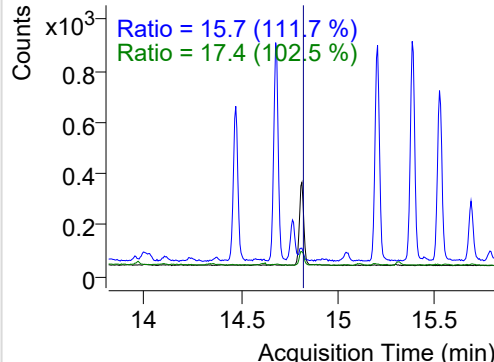
+ SIM (14.325-14.406 min, 15 scans) (\*\*) 2204

**LSS-D10-Pyrene**

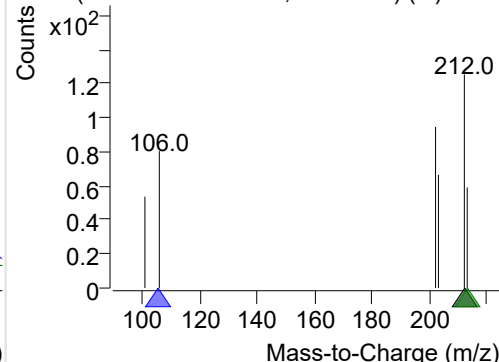
+ Selected Ion (212.0) 220407-PAHs-054.D



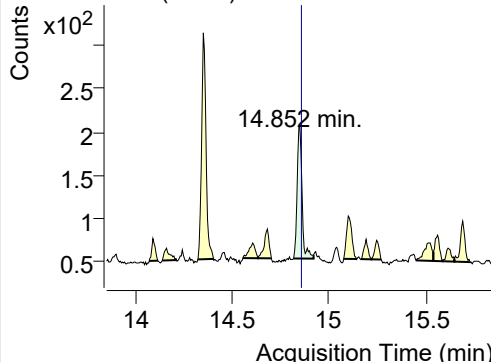
212.0, 106.0, 213.0



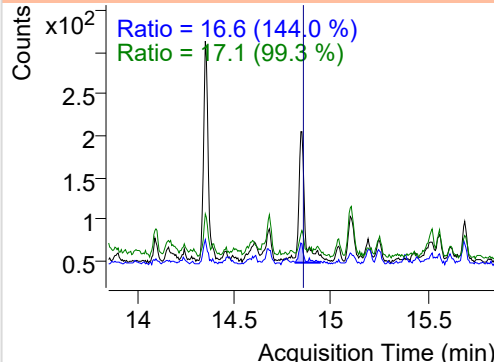
+ SIM (14.776-14.879 min, 19 scans) (\*\*) 2204

**Pyrene**

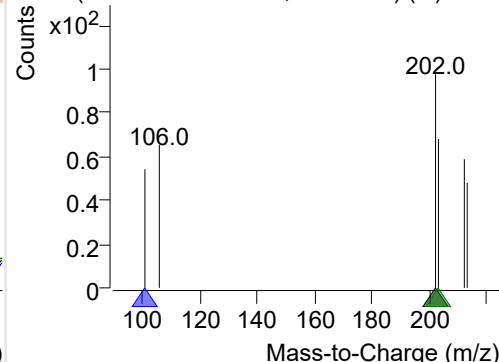
+ Selected Ion (202.0) 220407-PAHs-054.D



202.0, 101.0, 203.0



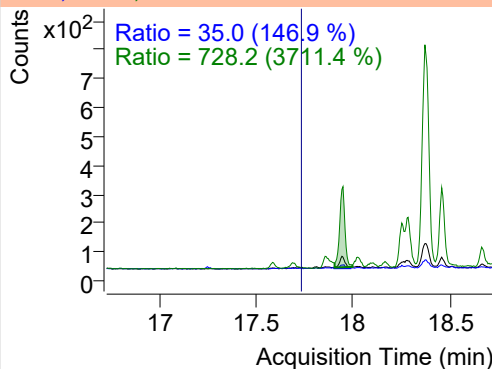
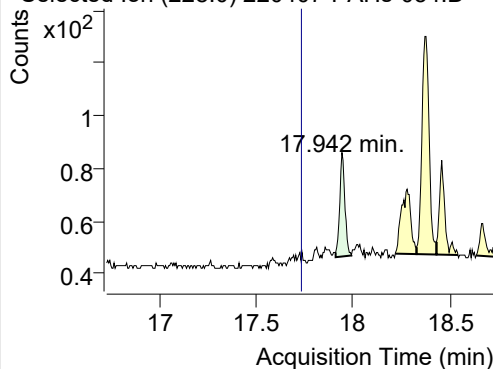
+ SIM (14.819-14.922 min, 19 scans) (\*\*) 2204



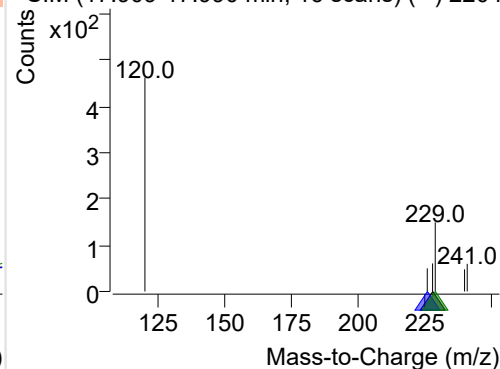
**Benz(a)anthracene**

+ Selected Ion (228.0) 220407-PAHs-054.D

228.0, 226.0, 229.0

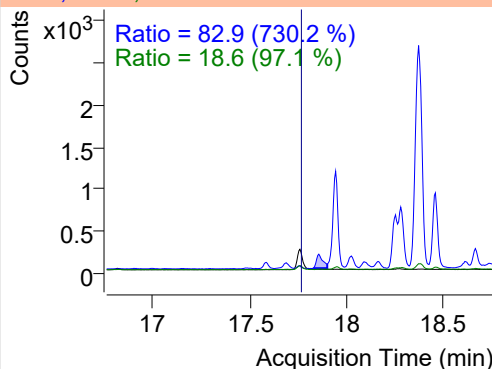
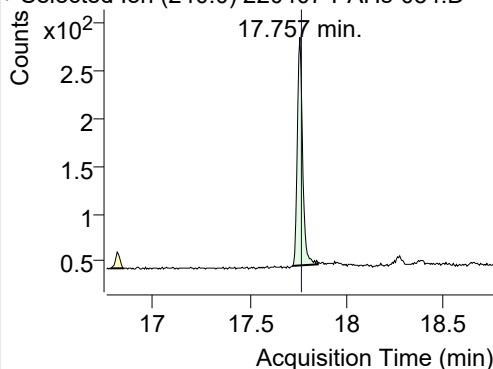


+ SIM (17.909-17.990 min, 16 scans) (\*\*) 2204

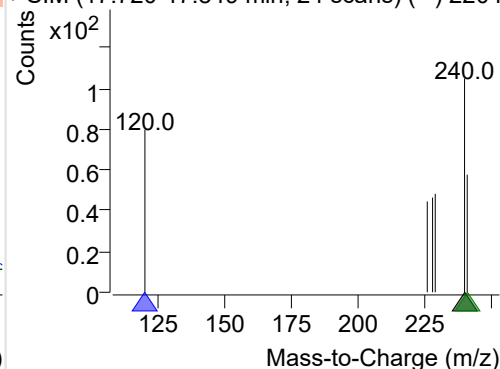
**IS-D12-Chrysene**

+ Selected Ion (240.0) 220407-PAHs-054.D

240.0, 120.0, 241.0

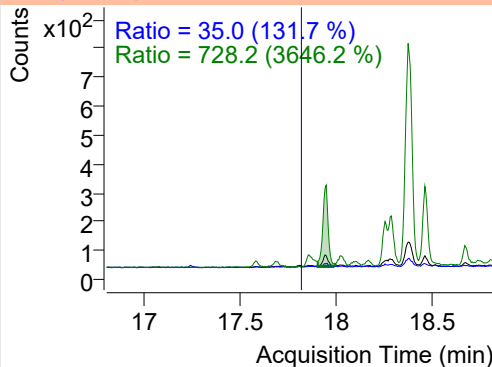
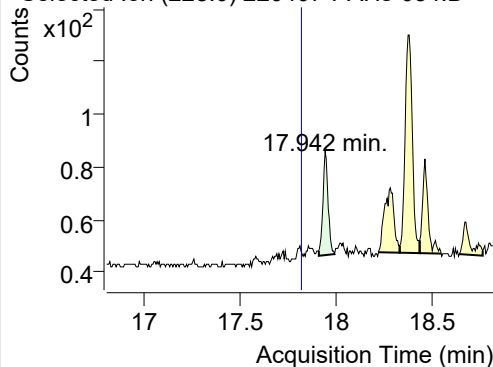


+ SIM (17.720-17.849 min, 24 scans) (\*\*) 2204

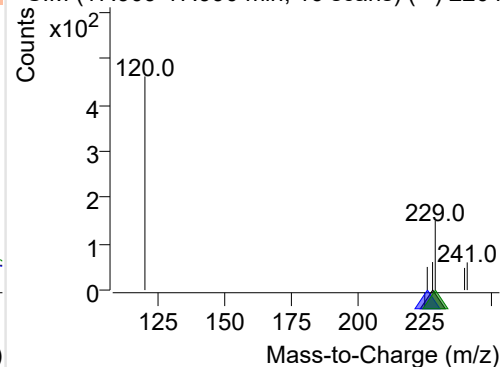
**Chrysene**

+ Selected Ion (228.0) 220407-PAHs-054.D

228.0, 226.0, 229.0

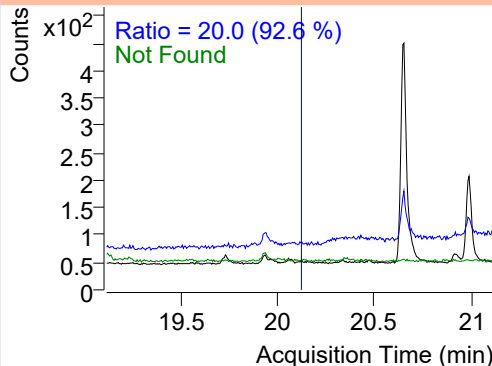
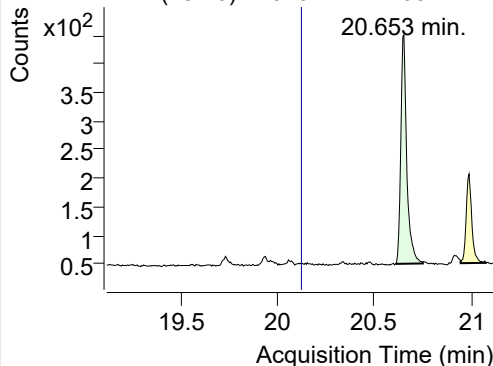


+ SIM (17.909-17.990 min, 16 scans) (\*\*) 2204

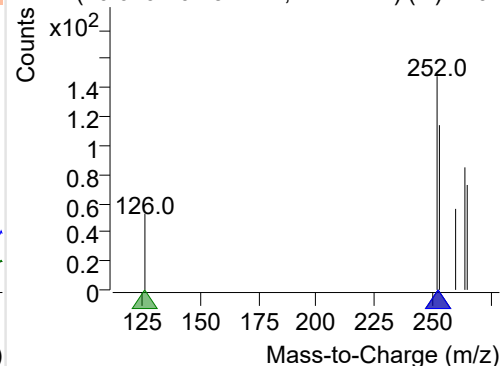
**Benzo(b)fluoranthene**

+ Selected Ion (252.0) 220407-PAHs-054.D

252.0, 253.0, 126.0



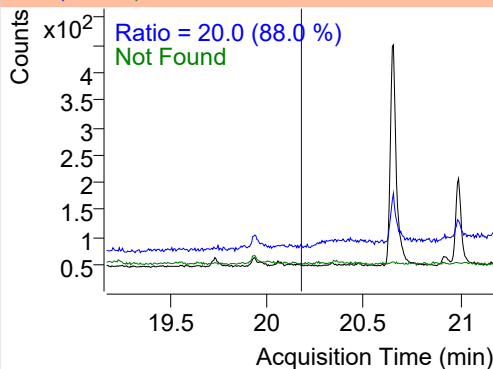
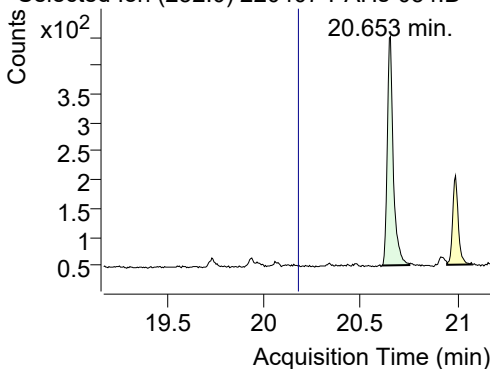
+ SIM (20.610-20.751 min, 27 scans) (\*\*) 2204



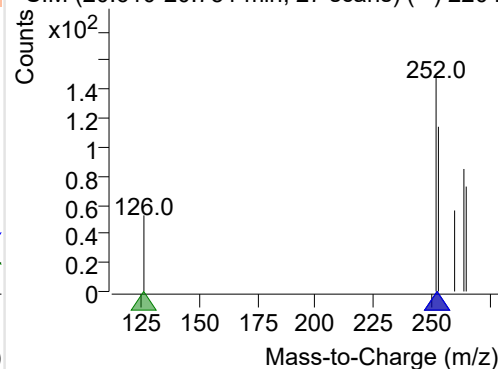
**Benzo(k)fluoranthene**

+ Selected Ion (252.0) 220407-PAHs-054.D

252.0, 253.0, 126.0

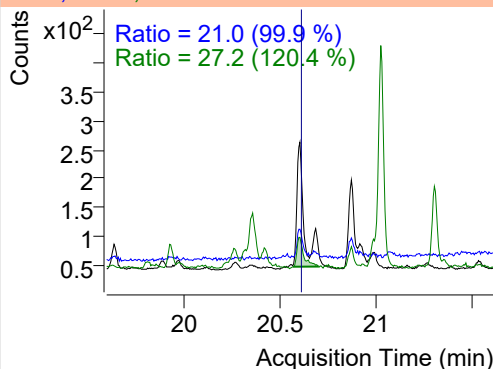
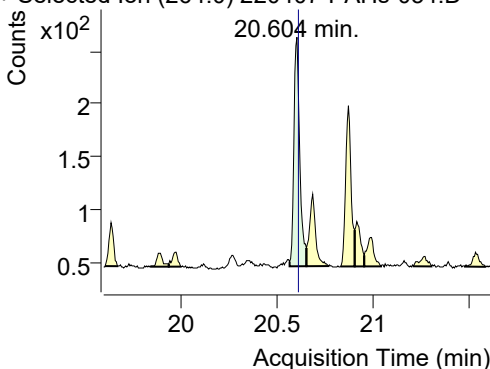


+ SIM (20.610-20.751 min, 27 scans) (\*\*) 2204

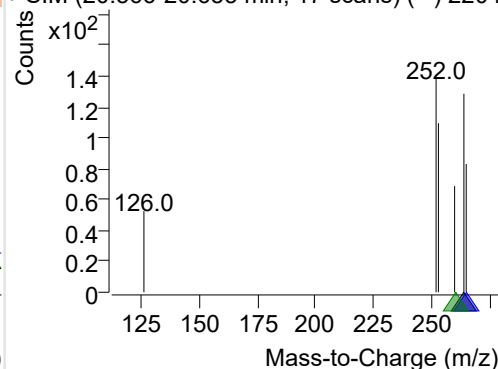
**SS-D12-Benzo(e)pyrene**

+ Selected Ion (264.0) 220407-PAHs-054.D

264.0, 265.0, 260.0

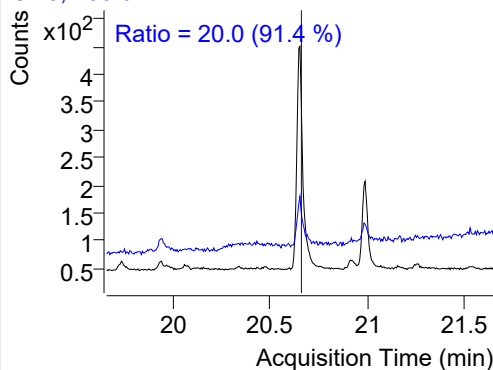
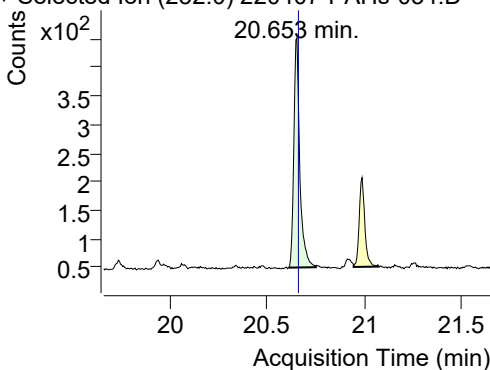


+ SIM (20.566-20.653 min, 17 scans) (\*\*) 2204

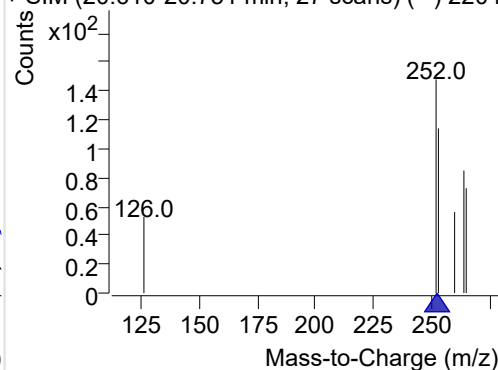
**Benzo(e)pyrene**

+ Selected Ion (252.0) 220407-PAHs-054.D

252.0, 253.0

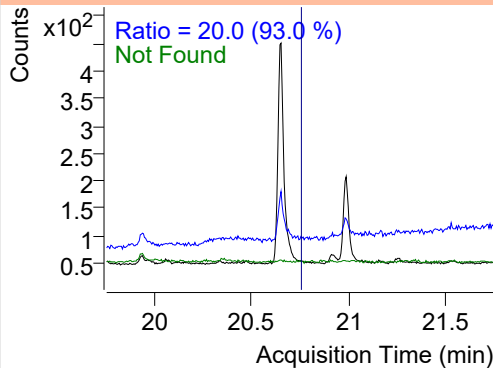
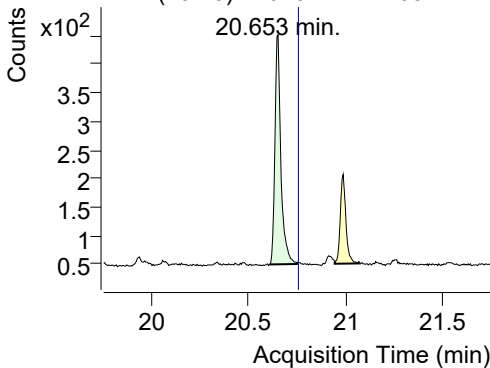


+ SIM (20.610-20.751 min, 27 scans) (\*\*) 2204

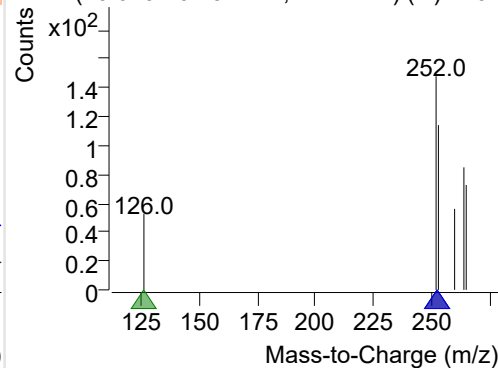
**Benzo(a)pyrene**

+ Selected Ion (252.0) 220407-PAHs-054.D

252.0, 253.0, 126.0

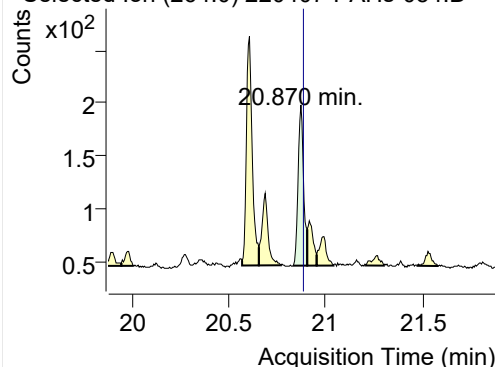


+ SIM (20.610-20.751 min, 27 scans) (\*\*) 2204

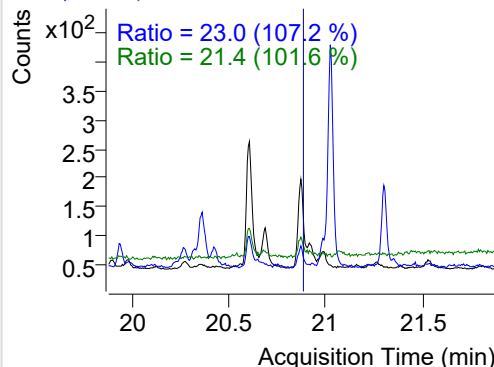


## IS-D12-Perylene

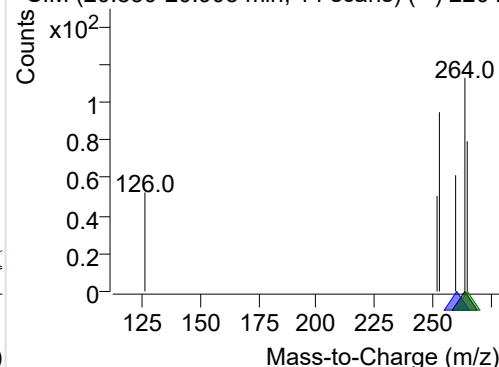
+ Selected Ion (264.0) 220407-PAHs-054.D



264.0, 260.0, 265.0

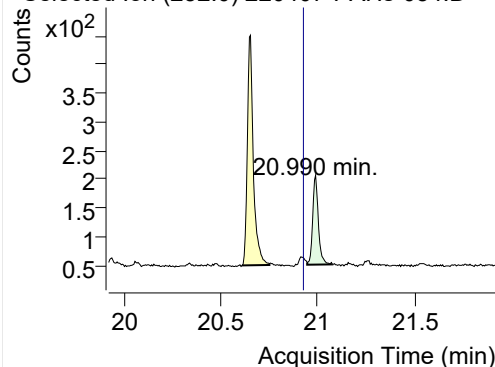


+ SIM (20.830-20.903 min, 14 scans) (\*\*) 2204

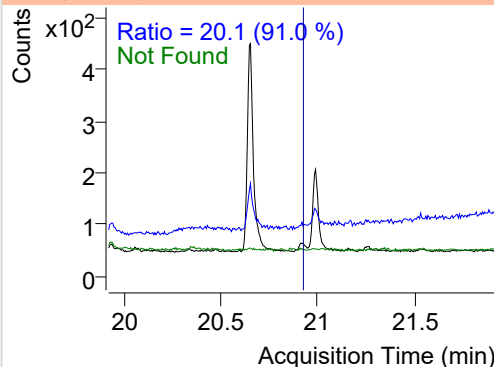


## Perylene

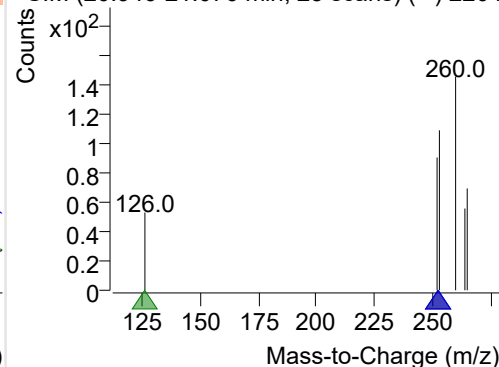
+ Selected Ion (252.0) 220407-PAHs-054.D



252.0, 253.0, 126.0

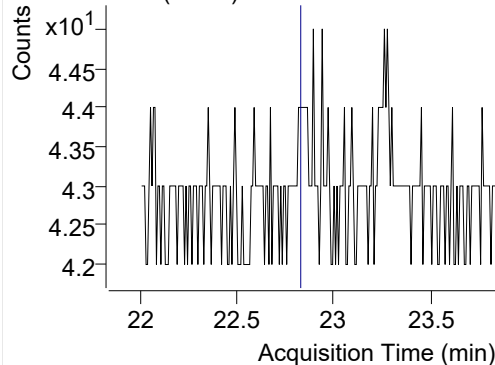


+ SIM (20.946-21.076 min, 25 scans) (\*\*) 2204

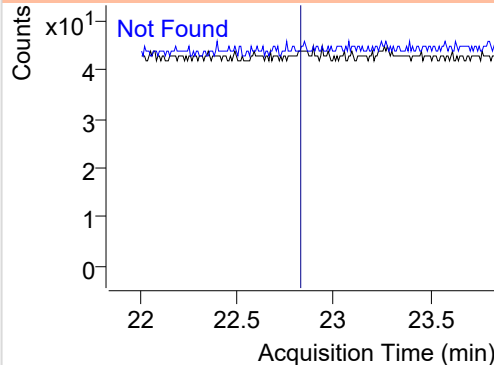


## Indeno(1,2,3-c,d)pyrene

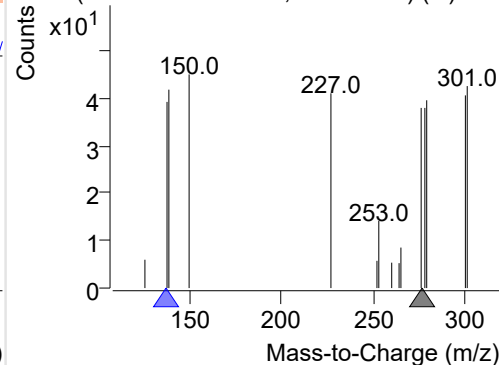
+ Selected Ion (276.0) 220407-PAHs-054.D



276.0, 138.0

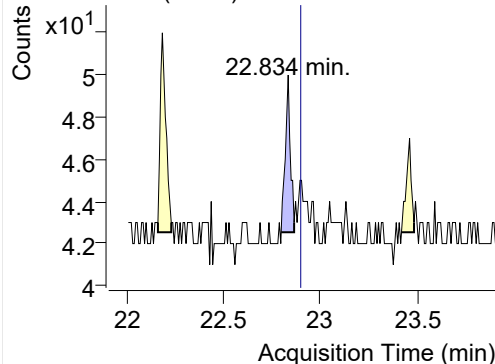


+ SIM (21.837-23.837 min, 271 scans) (\*\*) 220

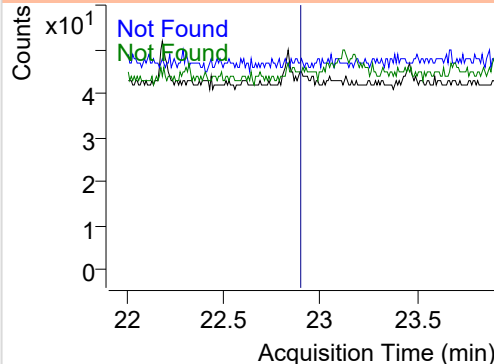


## Dibenz(a,h)anthracene

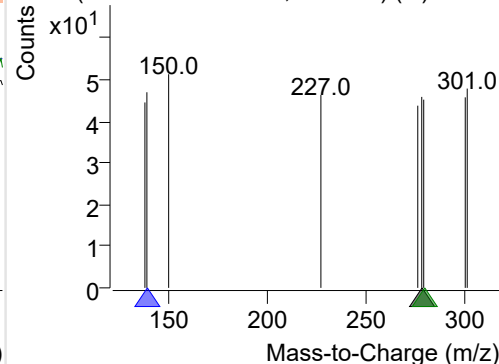
+ Selected Ion (278.0) 220407-PAHs-054.D



278.0, 139.0, 279.0



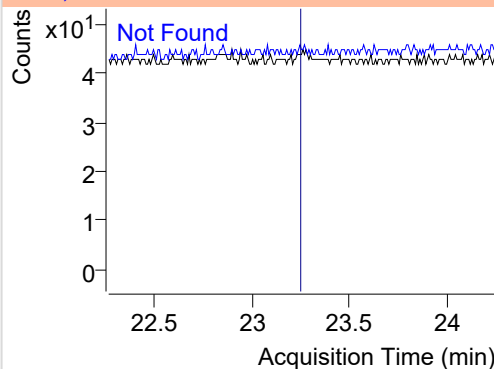
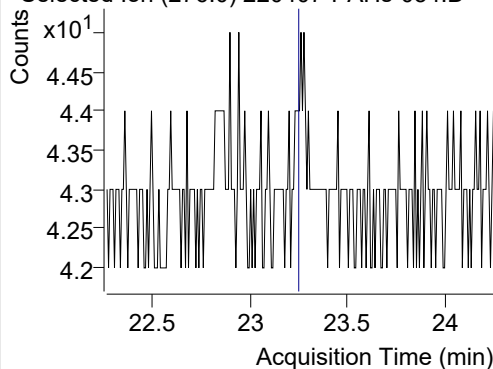
+ SIM (22.798-22.865 min, 9 scans) (\*\*) 22040



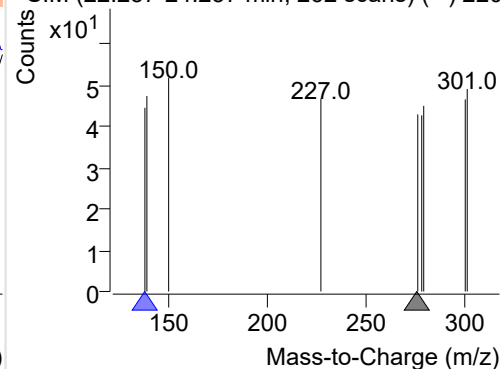
**Benzo(g,h,i)perylene**

+ Selected Ion (276.0) 220407-PAHs-054.D

276.0, 138.0

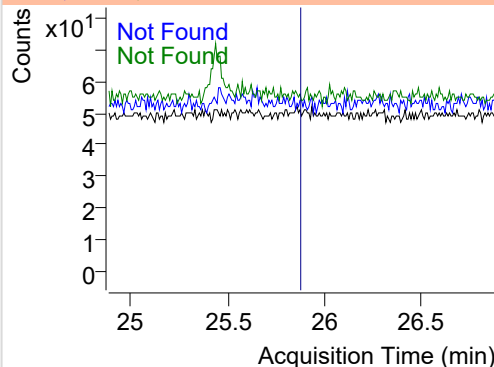
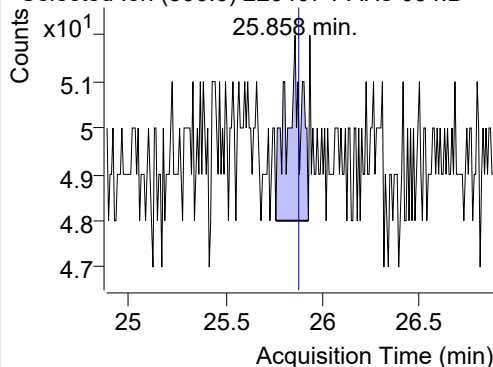


+ SIM (22.257-24.257 min, 262 scans) (\*\*) 220

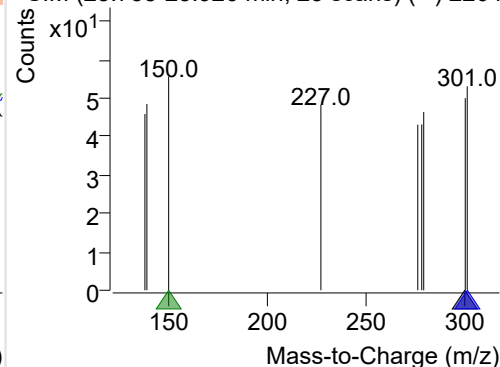
**Coronene**

+ Selected Ion (300.0) 220407-PAHs-054.D

300.0, 301.0, 150.0



+ SIM (25.758-25.926 min, 23 scans) (\*\*) 2204





## Quantitative Analysis Sample Based Report

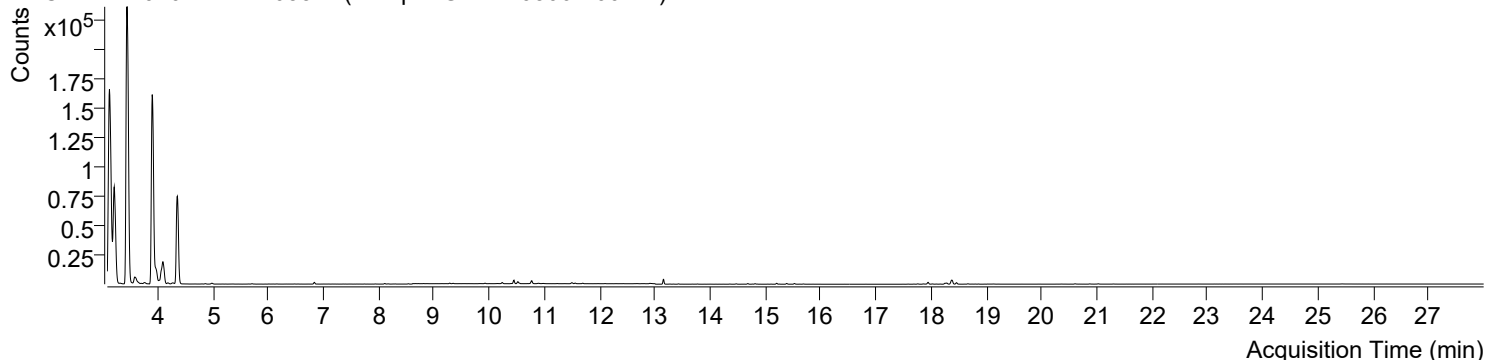


Trusted Answers

Batch Data Path File Name	D:\MassHunter\GCMS\1\data\PAHs\220407-PAHs-Sample\QuantResults\220407-PAHs-Quant.batch.bin		
Analysis Time Stamp	2022-04-13 오후 5:40:30	Analyst Name	DESKTOP-86B7UPG\5975MS
Report Generation Time	2022-04-13 오후 5:40:41	Report Generator Name	DESKTOP-86B7UPG\5975MS
Calibration Last Update	2022-04-13 오후 5:38:35	Batch State	Processed
Analyze Quant Version	10.2	Report Quant Version	10.2
Acq. Date-Time	2022-04-08 오후 3:24:49	Data File	220407-PAHs-055.D
Type	Sample	Name	Sample-Gas-220306-100DIL
Dil.	1	Acq. Method File	PAHs 19mix-Method

## Sample Chromatogram

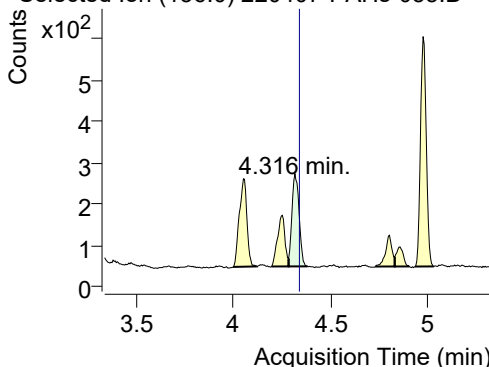
+ TIC SIM 220407-PAHs-055.D (Sample-Gas-220306-100DIL)



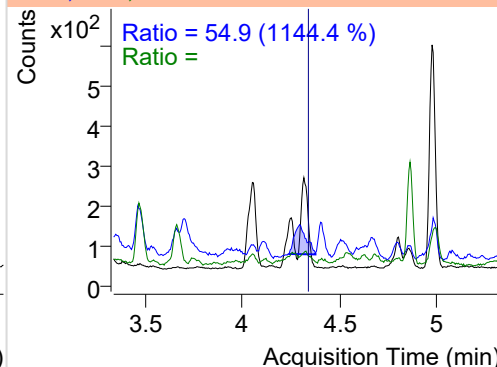
Name	RT	Transition	Resp.	Height	Final Conc. Units	Ratio
IS-D8-Naphthalene	4.316	136.0	570	223.12	ND µg/mL	
Naphthalene	4.354	128.0	162198	60381.01	ND µg/mL	13.3
Acenaphthylene	7.739	152.0	78	55.55	ND µg/mL	21.6
IS-D10-Acenaphthene	8.112	164.0	355	221.41	ND µg/mL	93.0
Acenaphthene	8.177	154.0	77	45.62	ND µg/mL	125.0
LSS-D10-Fluorene	9.281	176.0	351	225.62	ND µg/mL	89.7
Fluorene	9.344	166.0	257	165.53	ND µg/mL	97.2
IS-D10-Phenanthrene	11.508	188.0	584	375.11	ND µg/mL	17.1
Phenanthrene	11.550	178.0	573	329.22	ND µg/mL	17.6
Anthracene	11.697	178.0	217	108.22	ND µg/mL	20.8
Fluoranthene	14.354	202.0	147	93.03	ND µg/mL	14.7
LSS-D10-Pyrene	14.814	212.0	471	292.37	ND µg/mL	16.4
Pyrene	14.847	202.0	115	75.03	ND µg/mL	
Benz(a)anthracene	17.942	228.0	80	36.80	ND µg/mL	32.2
IS-D12-Chrysene	17.758	240.0	404	208.60	ND µg/mL	17.9
Chrysene	17.942	228.0	80	36.80	ND µg/mL	32.2
Benzo(b)fluoranthene	20.063	252.0	5	5.83	ND µg/mL	
Benzo(k)fluoranthene	20.063	252.0	5	5.83	ND µg/mL	
SS-D12-Benzo(e)pyrene	20.605	264.0	365	173.43	ND µg/mL	25.8
Benzo(e)pyrene	20.686	252.0	19	7.83	ND µg/mL	
Benzo(a)pyrene	20.686	252.0	19	7.83	ND µg/mL	
IS-D12-Perylene	20.871	264.0	286	125.75	ND µg/mL	20.4
Perylene	20.914	252.0	10	4.83	ND µg/mL	
Indeno(1,2,3-c,d)pytene		276.0			ND µg/mL	
Dibenz(a,h)anthracene	22.837	278.0	10	4.94	ND µg/mL	
Benzo(g,h,i)perylene		276.0			ND µg/mL	
Coronene	25.532	300.0	108	4.61	ND µg/mL	68.9

## IS-D8-Naphthalene

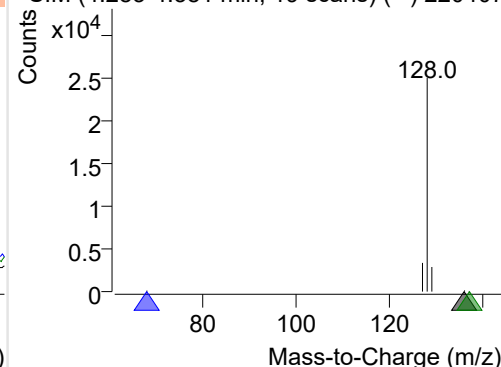
+ Selected Ion (136.0) 220407-PAHs-055.D



136.0, 68.0, 137.0

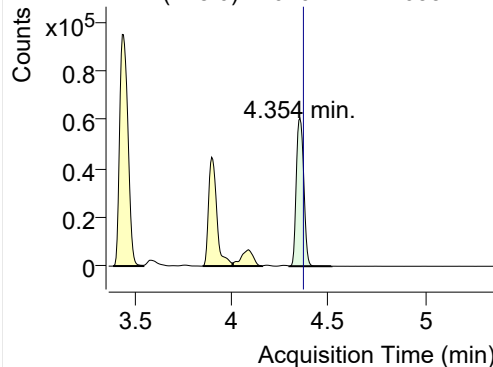


+ SIM (4.283-4.381 min, 19 scans) (\*\*) 220407

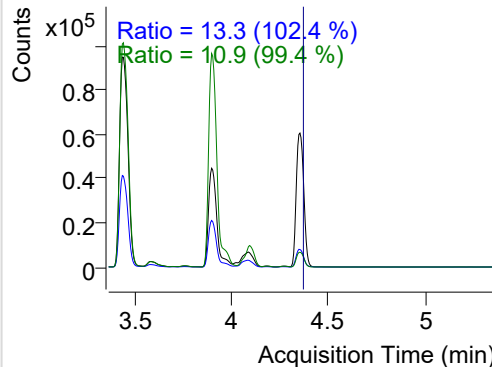


**Naphthalene**

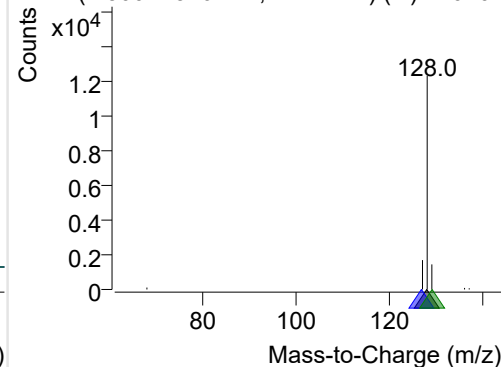
+ Selected Ion (128.0) 220407-PAHs-055.D



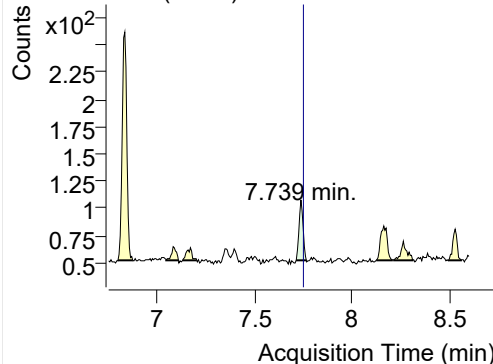
128.0, 127.0, 129.0



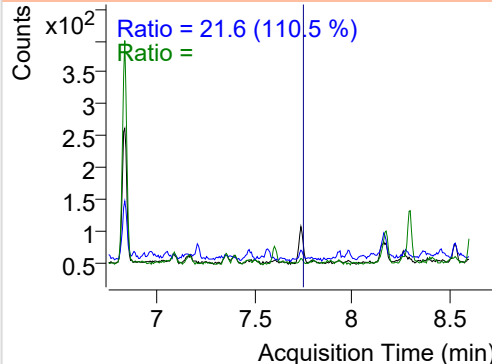
+ SIM (4.300-4.516 min, 41 scans) (\*\*) 220407

**Acenaphthylene**

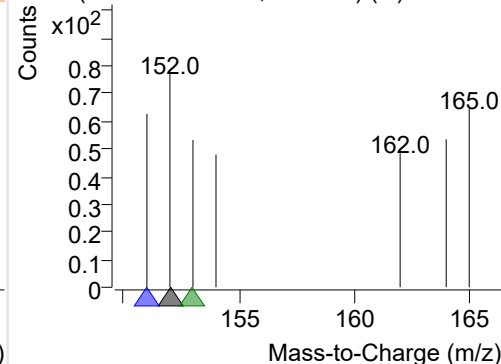
+ Selected Ion (152.0) 220407-PAHs-055.D



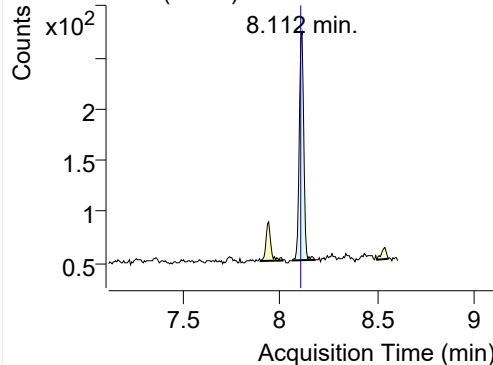
152.0, 151.0, 153.0



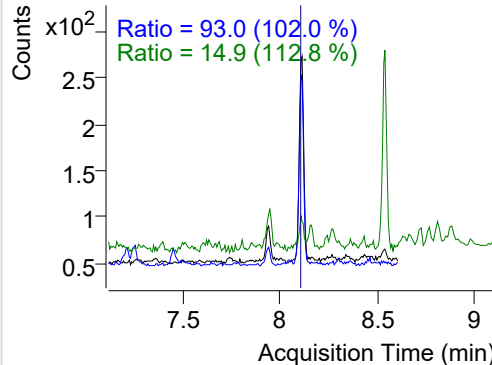
+ SIM (7.714-7.767 min, 9 scans) (\*\*) 220407-I

**IS-D10-Acenaphthene**

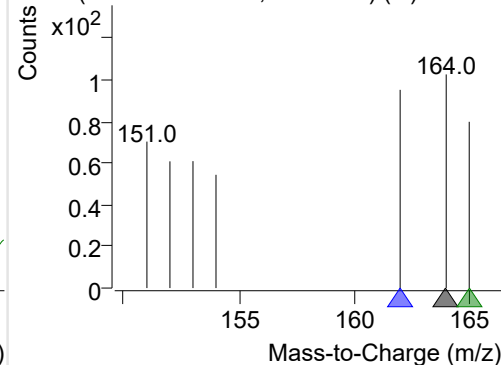
+ Selected Ion (164.0) 220407-PAHs-055.D



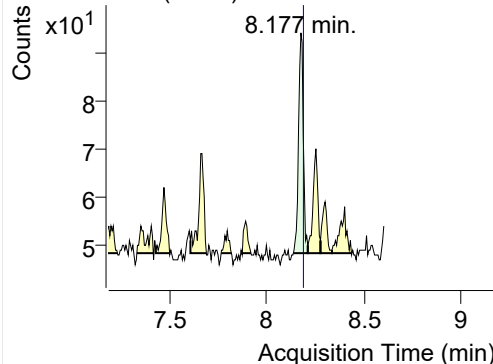
164.0, 162.0, 165.0



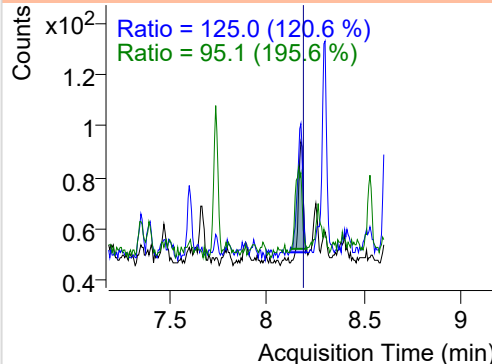
+ SIM (8.061-8.177 min, 20 scans) (\*\*) 220407

**Acenaphthene**

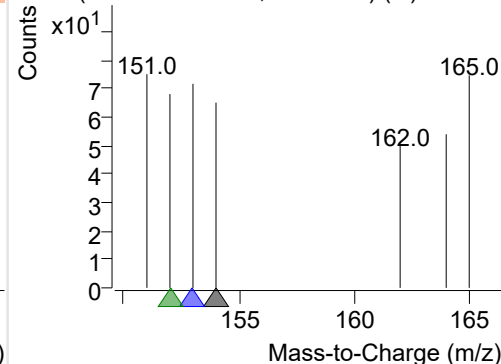
+ Selected Ion (154.0) 220407-PAHs-055.D



154.0, 153.0, 152.0

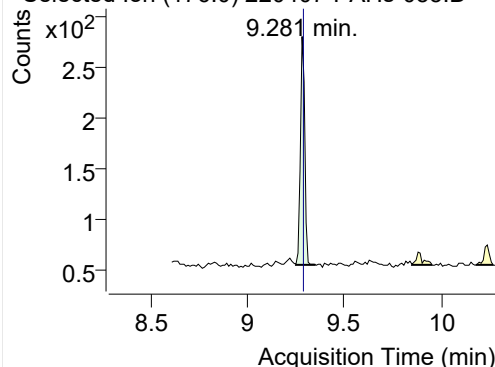


+ SIM (8.138-8.213 min, 13 scans) (\*\*) 220407

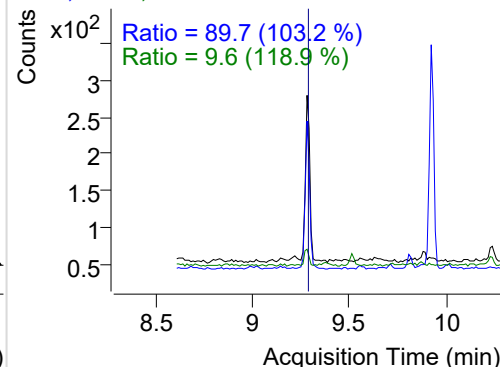


## LSS-D10-Fluorene

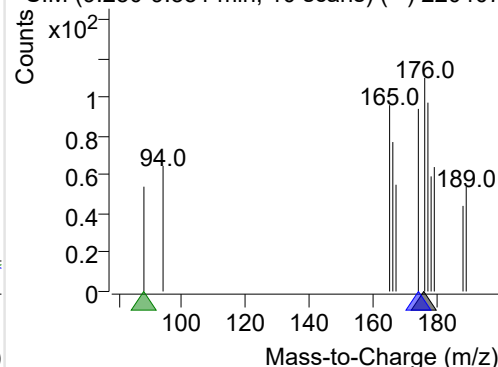
+ Selected Ion (176.0) 220407-PAHs-055.D



176.0, 174.0, 88.0

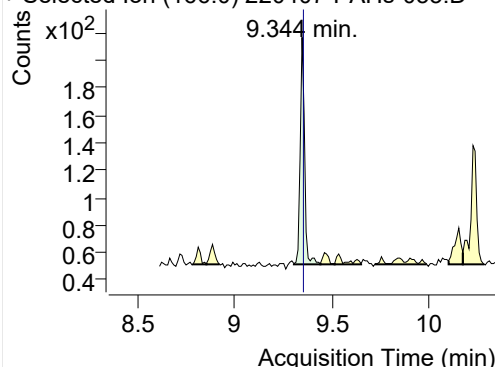


+ SIM (9.250-9.351 min, 10 scans) (\*\*) 220407

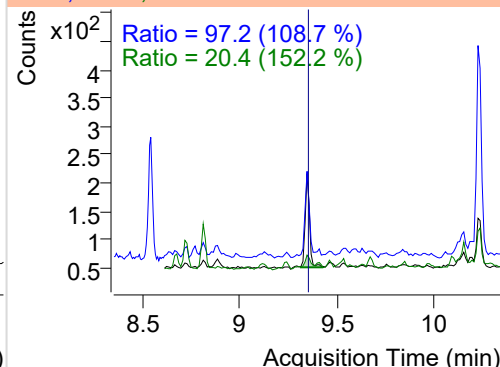


## Fluorene

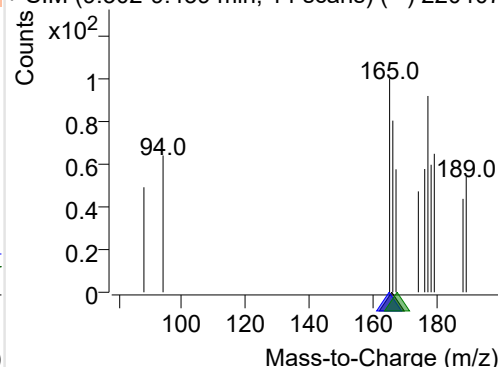
+ Selected Ion (166.0) 220407-PAHs-055.D



166.0, 165.0, 167.0

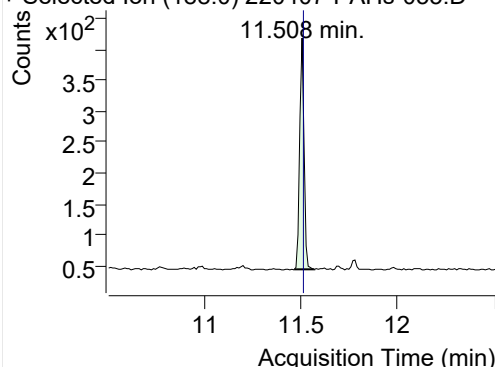


+ SIM (9.302-9.439 min, 14 scans) (\*\*) 220407

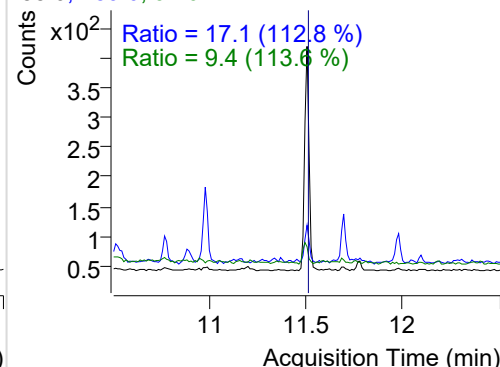


## IS-D10-Phenanthrene

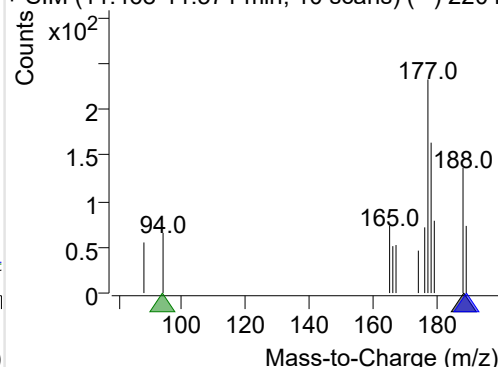
+ Selected Ion (188.0) 220407-PAHs-055.D



188.0, 189.0, 94.0

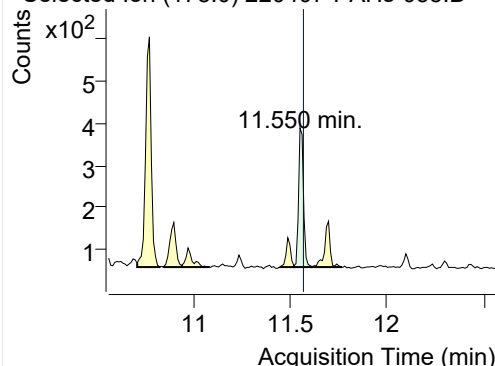


+ SIM (11.468-11.571 min, 10 scans) (\*\*) 2204

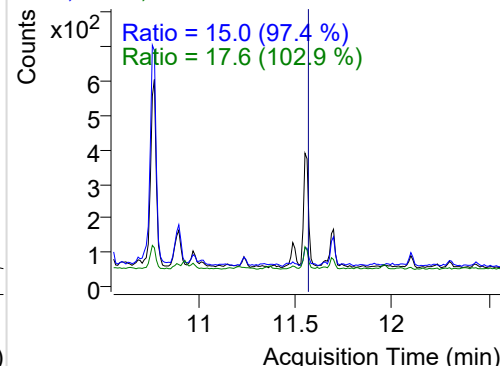


## Phenanthrene

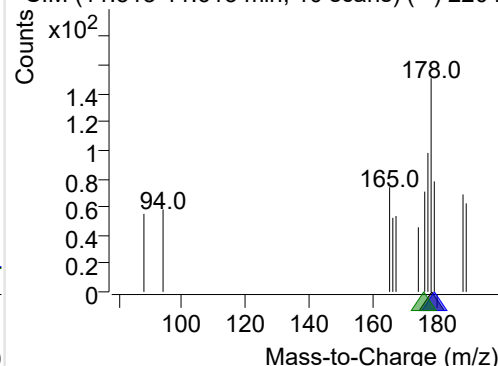
+ Selected Ion (178.0) 220407-PAHs-055.D



178.0, 179.0, 176.0

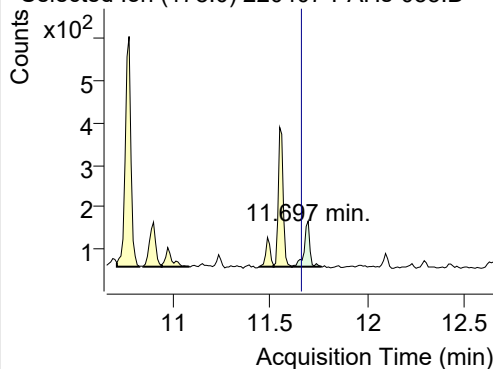


+ SIM (11.518-11.613 min, 10 scans) (\*\*) 2204

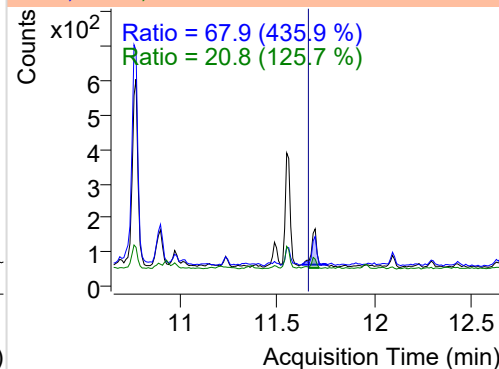


**Anthracene**

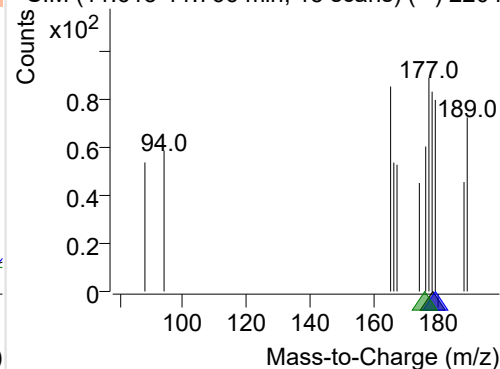
+ Selected Ion (178.0) 220407-PAHs-055.D



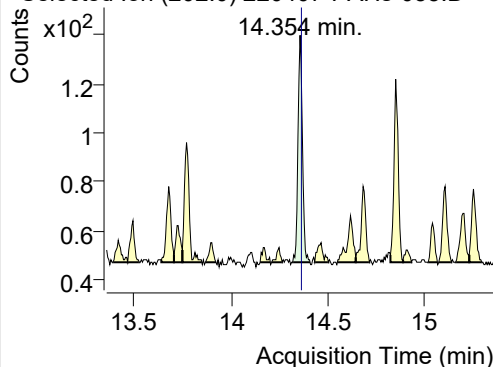
178.0, 179.0, 176.0



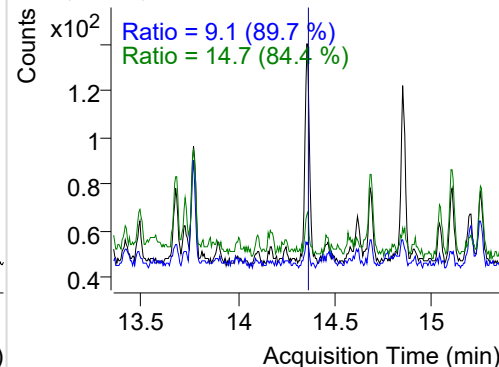
+ SIM (11.613-11.766 min, 15 scans) (\*\*) 2204

**Fluoranthene**

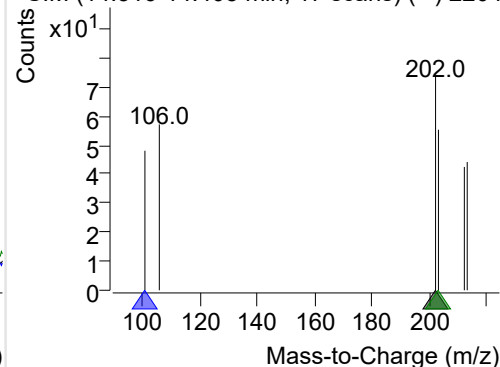
+ Selected Ion (202.0) 220407-PAHs-055.D



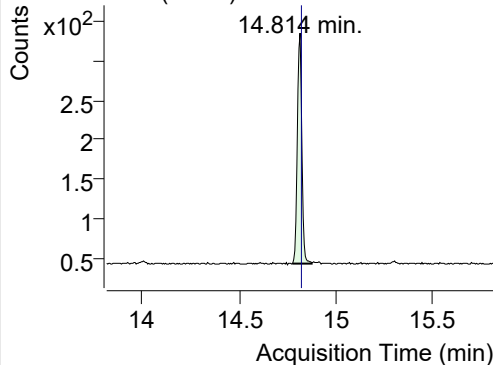
202.0, 101.0, 203.0



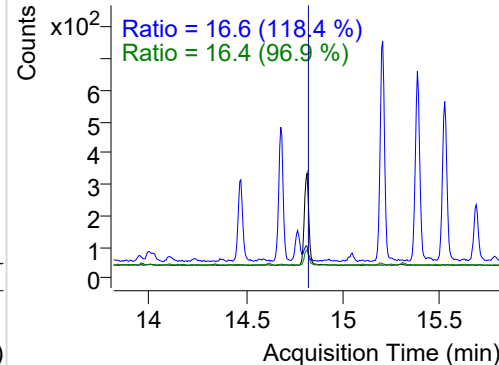
+ SIM (14.316-14.405 min, 17 scans) (\*\*) 2204

**LSS-D10-Pyrene**

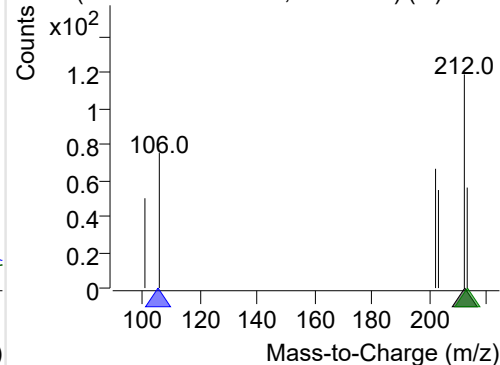
+ Selected Ion (212.0) 220407-PAHs-055.D



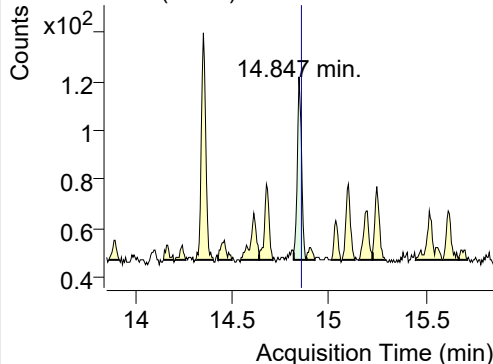
212.0, 106.0, 213.0



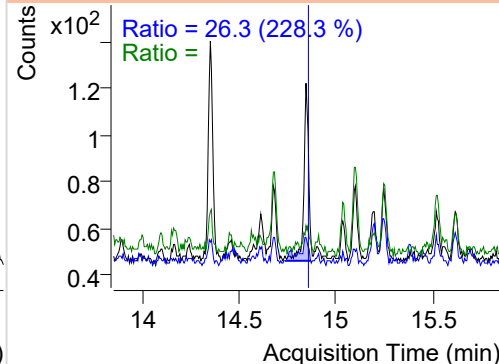
+ SIM (14.774-14.874 min, 19 scans) (\*\*) 2204

**Pyrene**

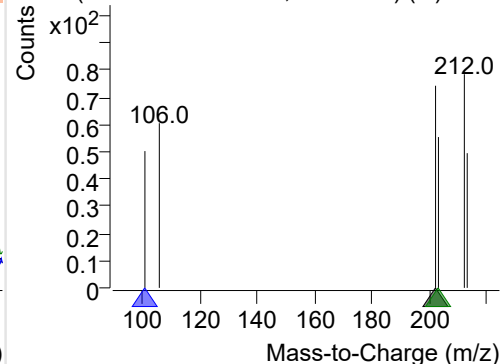
+ Selected Ion (202.0) 220407-PAHs-055.D



202.0, 101.0, 203.0



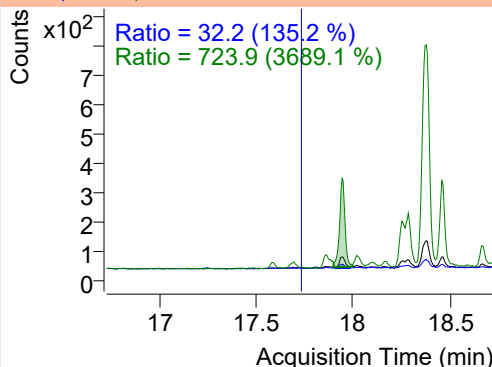
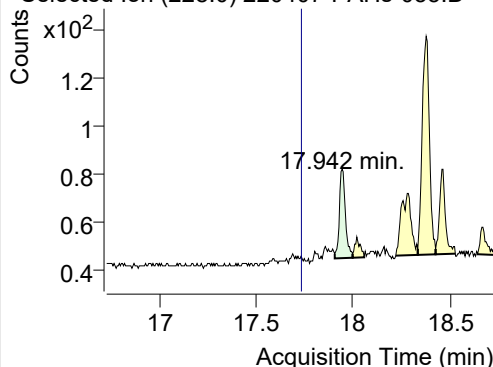
+ SIM (14.820-14.885 min, 13 scans) (\*\*) 2204



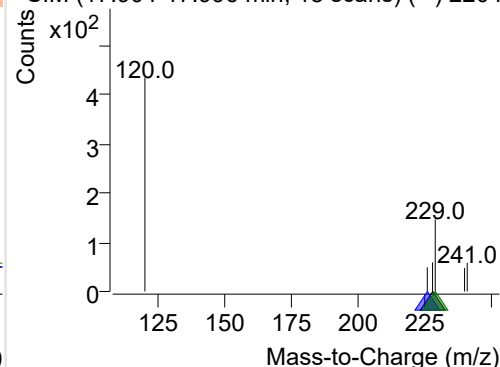
**Benz(a)anthracene**

+ Selected Ion (228.0) 220407-PAHs-055.D

228.0, 226.0, 229.0

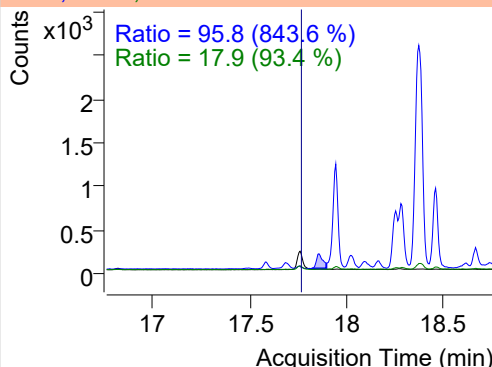
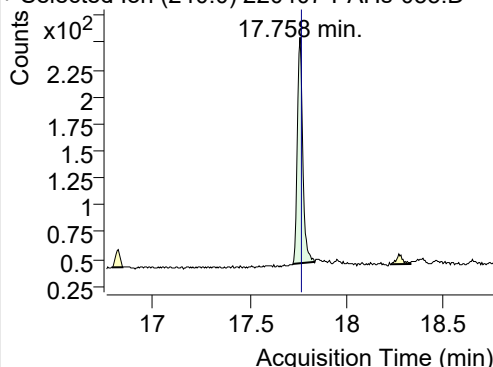


+ SIM (17.904-17.996 min, 18 scans) (\*\*) 2204

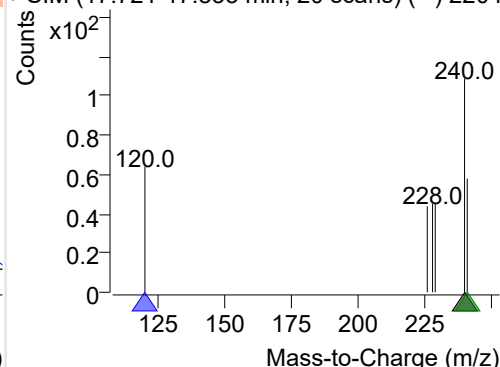
**IS-D12-Chrysene**

+ Selected Ion (240.0) 220407-PAHs-055.D

240.0, 120.0, 241.0

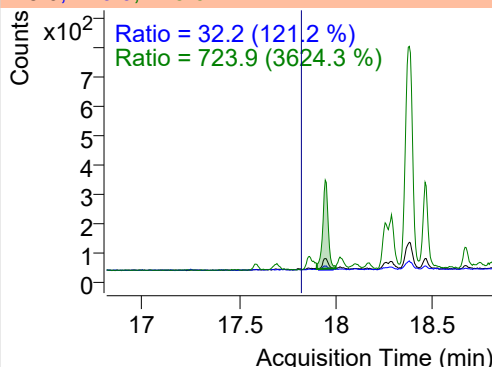
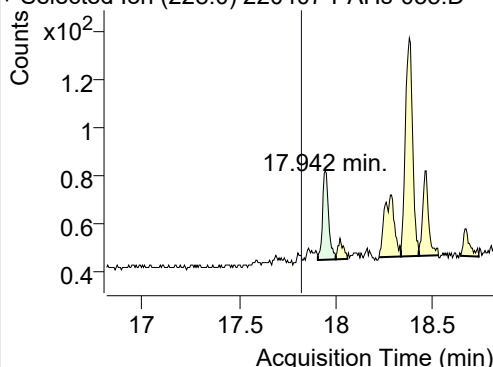


+ SIM (17.721-17.833 min, 20 scans) (\*\*) 2204

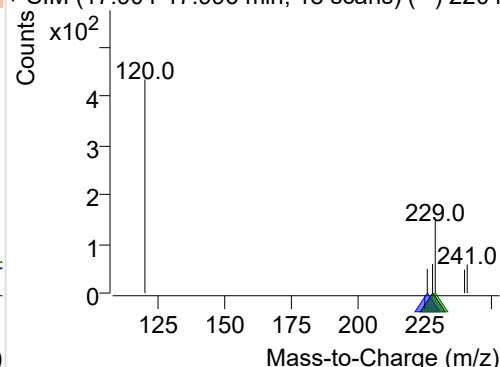
**Chrysene**

+ Selected Ion (228.0) 220407-PAHs-055.D

228.0, 226.0, 229.0

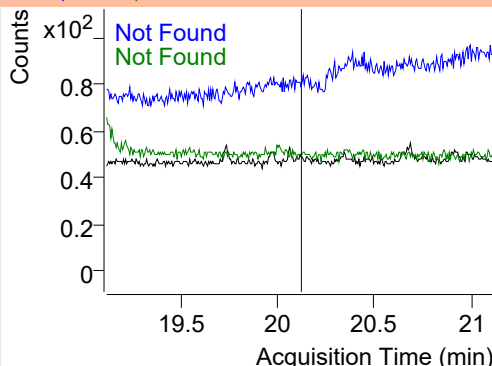
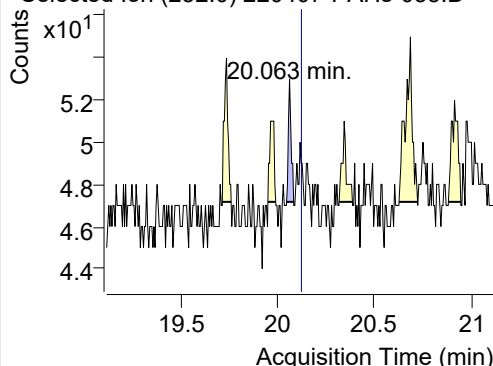


+ SIM (17.904-17.996 min, 18 scans) (\*\*) 2204

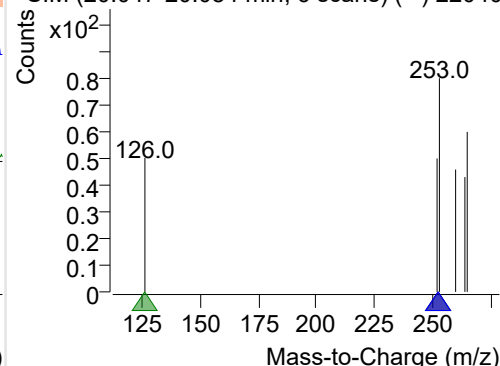
**Benzo(b)fluoranthene**

+ Selected Ion (252.0) 220407-PAHs-055.D

252.0, 253.0, 126.0



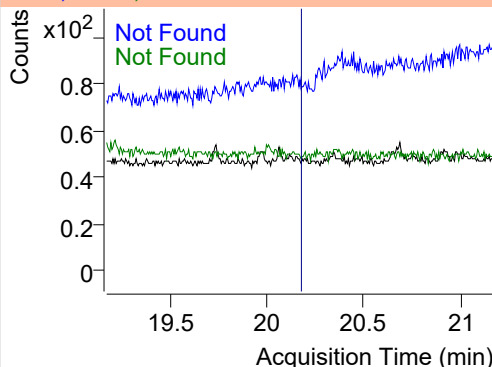
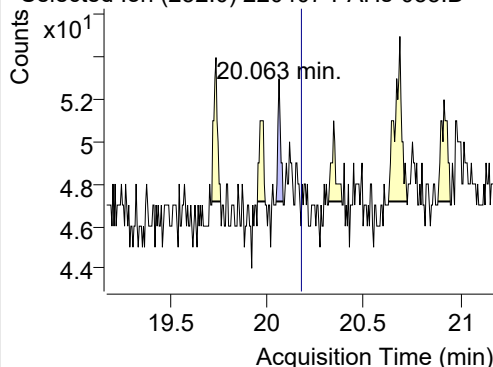
+ SIM (20.047-20.084 min, 6 scans) (\*\*) 22040



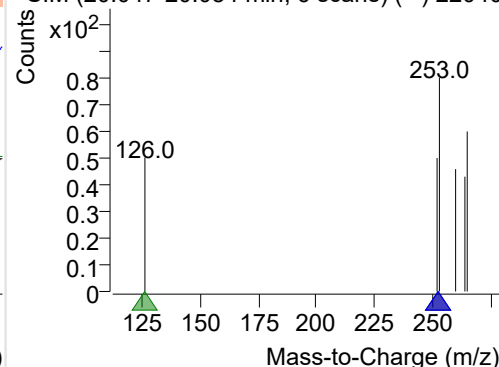
**Benzo(k)fluoranthene**

+ Selected Ion (252.0) 220407-PAHs-055.D

252.0, 253.0, 126.0

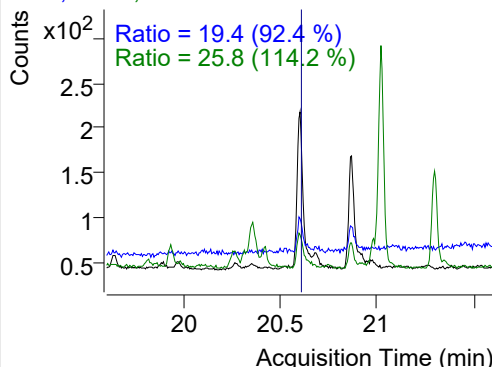
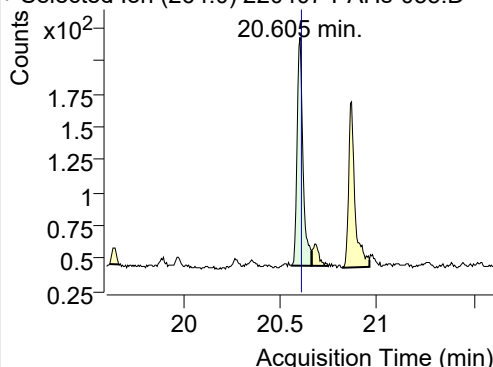


+ SIM (20.047-20.084 min, 6 scans) (\*\*) 22040

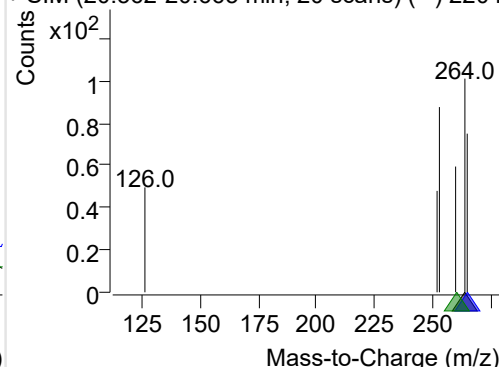
**SS-D12-Benzo(e)pyrene**

+ Selected Ion (264.0) 220407-PAHs-055.D

264.0, 265.0, 260.0

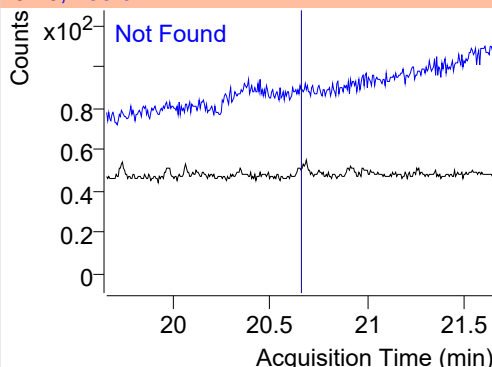
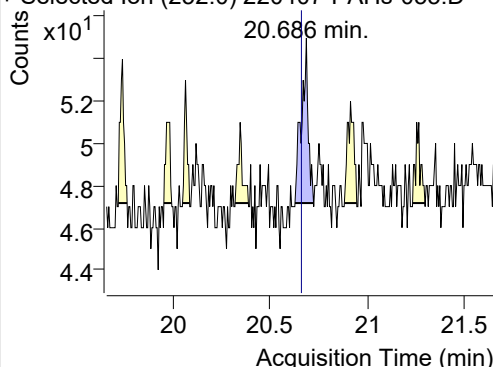


+ SIM (20.562-20.665 min, 20 scans) (\*\*) 2204

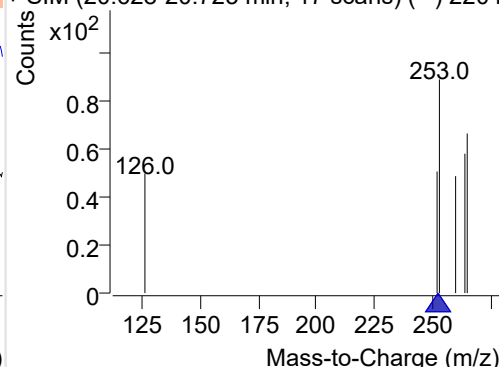
**Benzo(e)pyrene**

+ Selected Ion (252.0) 220407-PAHs-055.D

252.0, 253.0

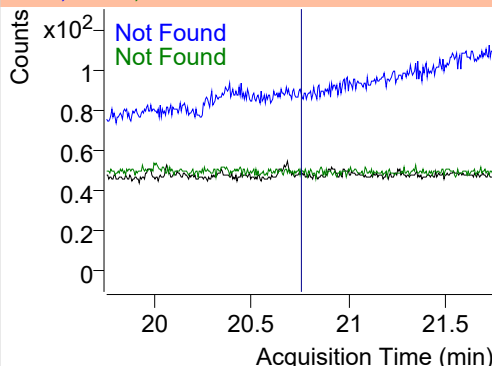
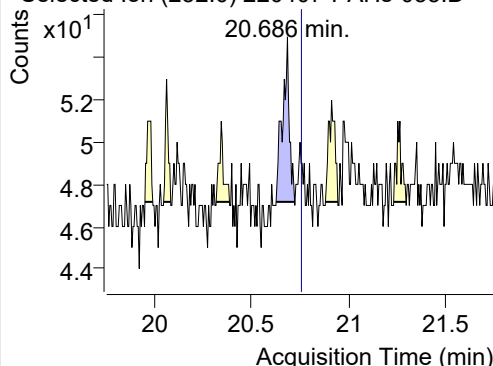


+ SIM (20.628-20.723 min, 17 scans) (\*\*) 2204

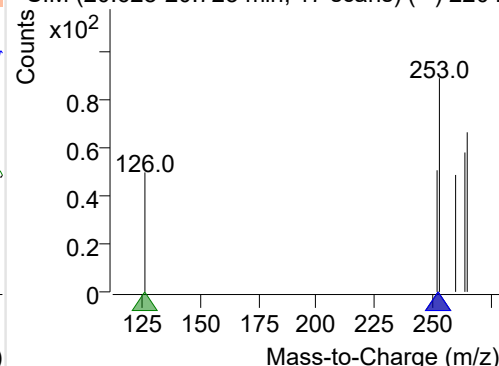
**Benzo(a)pyrene**

+ Selected Ion (252.0) 220407-PAHs-055.D

252.0, 253.0, 126.0



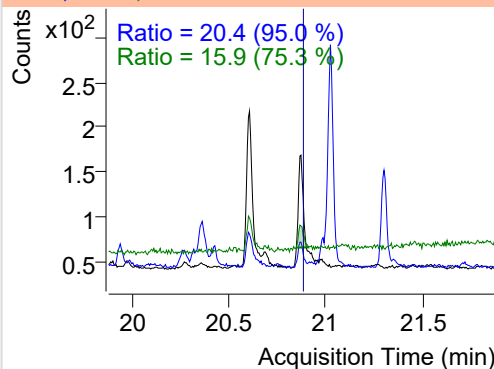
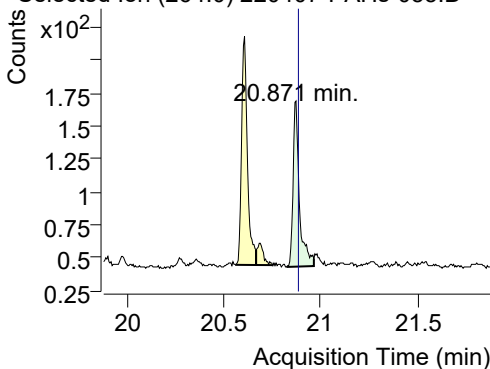
+ SIM (20.628-20.723 min, 17 scans) (\*\*) 2204



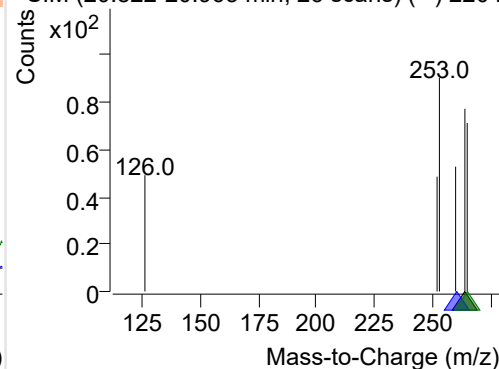
## IS-D12-Perylene

+ Selected Ion (264.0) 220407-PAHs-055.D

264.0, 260.0, 265.0



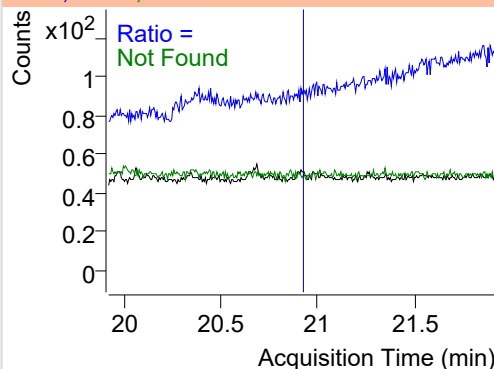
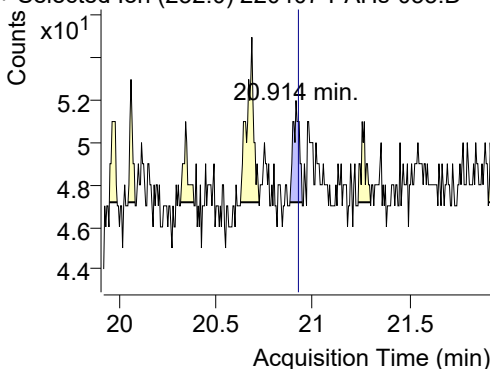
+ SIM (20.822-20.963 min, 26 scans) (\*\*) 2204



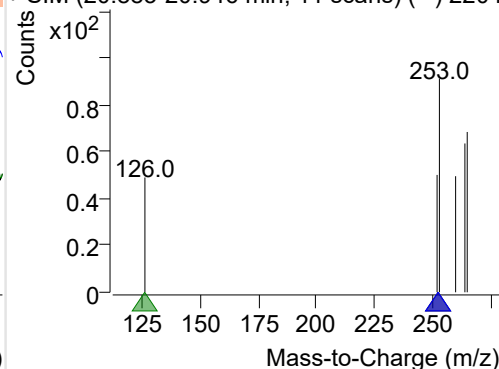
## Perylene

+ Selected Ion (252.0) 220407-PAHs-055.D

252.0, 253.0, 126.0



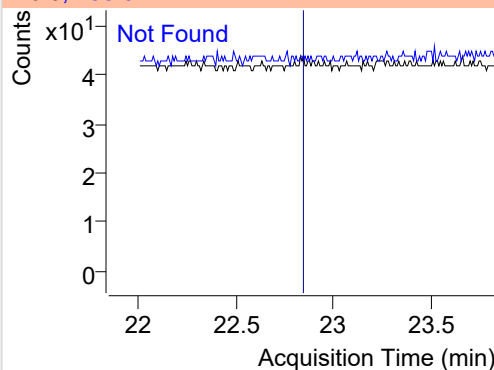
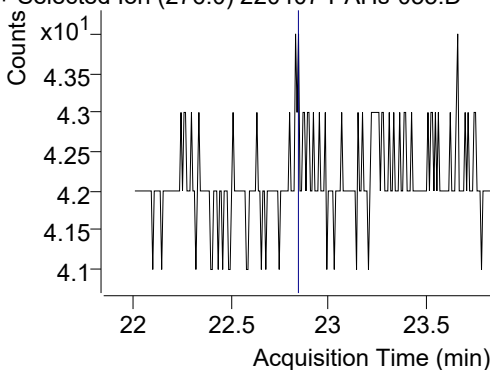
+ SIM (20.883-20.946 min, 11 scans) (\*\*) 2204



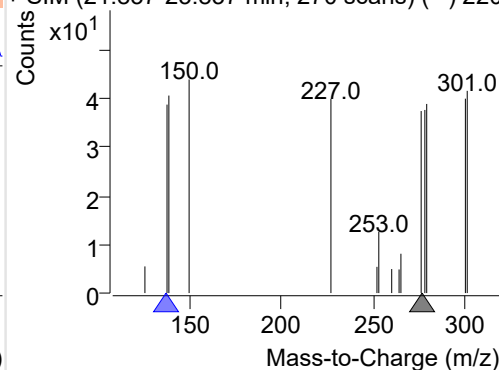
## Indeno(1,2,3-c,d)pyrene

+ Selected Ion (276.0) 220407-PAHs-055.D

276.0, 138.0



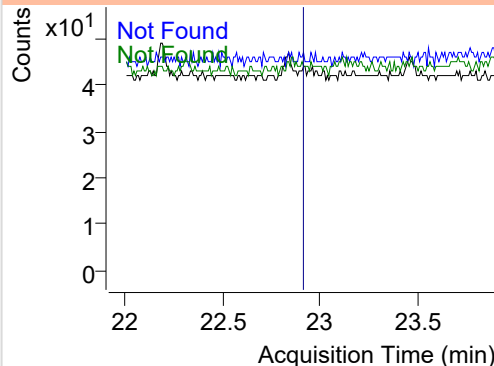
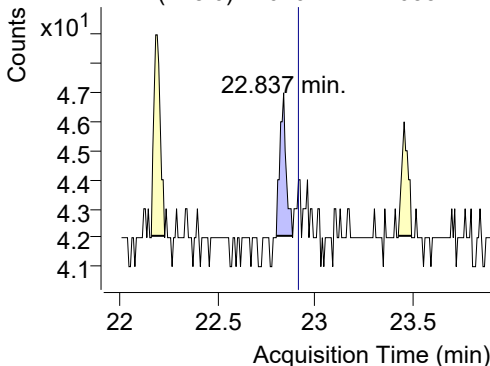
+ SIM (21.837-23.837 min, 270 scans) (\*\*) 220



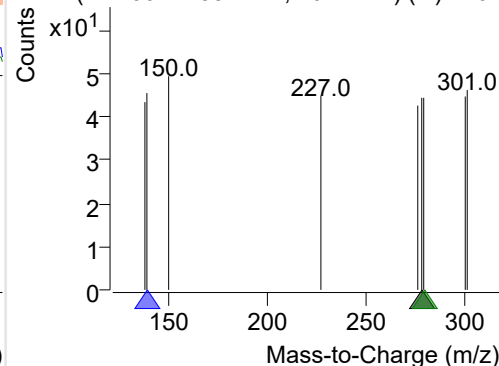
## Dibenz(a,h)anthracene

+ Selected Ion (278.0) 220407-PAHs-055.D

278.0, 139.0, 279.0



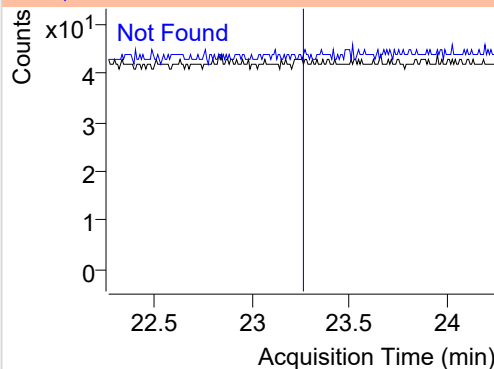
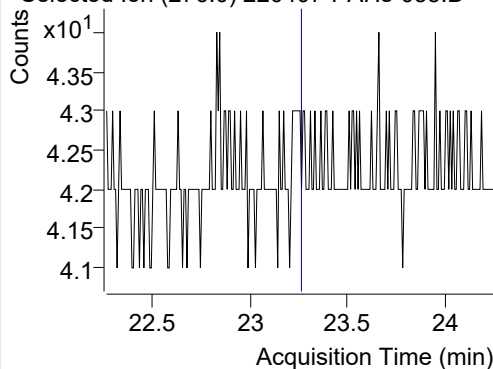
+ SIM (22.799-22.882 min, 10 scans) (\*\*) 2204



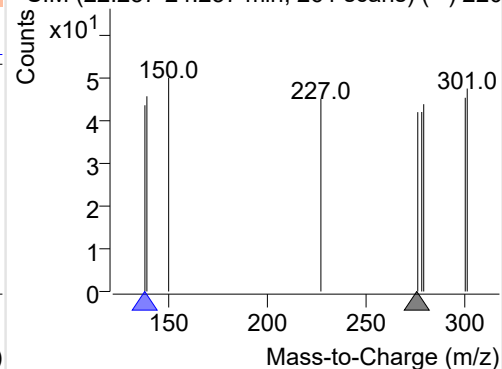
**Benzo(g,h,i)perylene**

+ Selected Ion (276.0) 220407-PAHs-055.D

276.0, 138.0

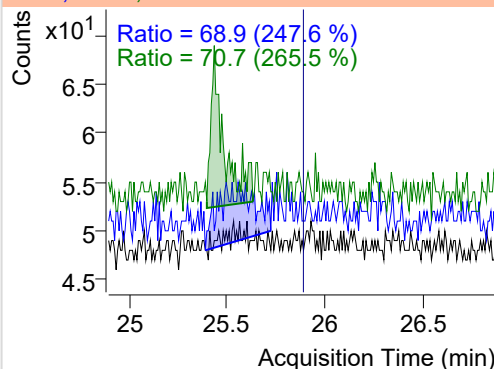
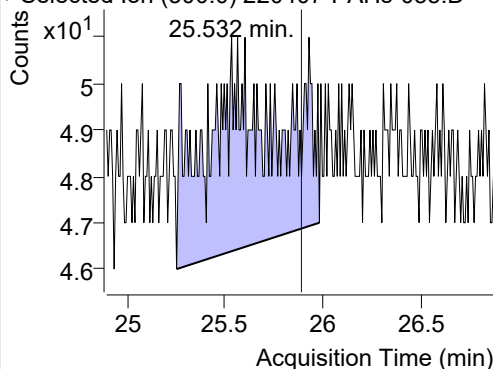


+ SIM (22.257-24.257 min, 261 scans) (\*\*) 220

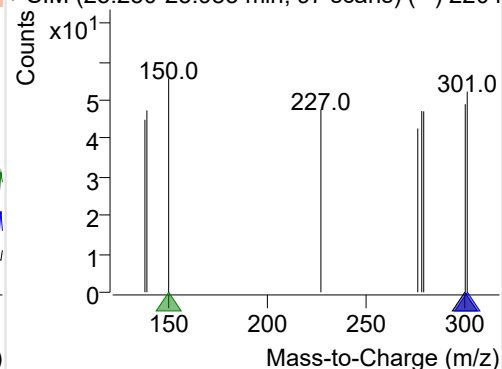
**Coronene**

+ Selected Ion (300.0) 220407-PAHs-055.D

300.0, 301.0, 150.0



+ SIM (25.250-25.983 min, 97 scans) (\*\*) 2204





## Quantitative Analysis Sample Based Report

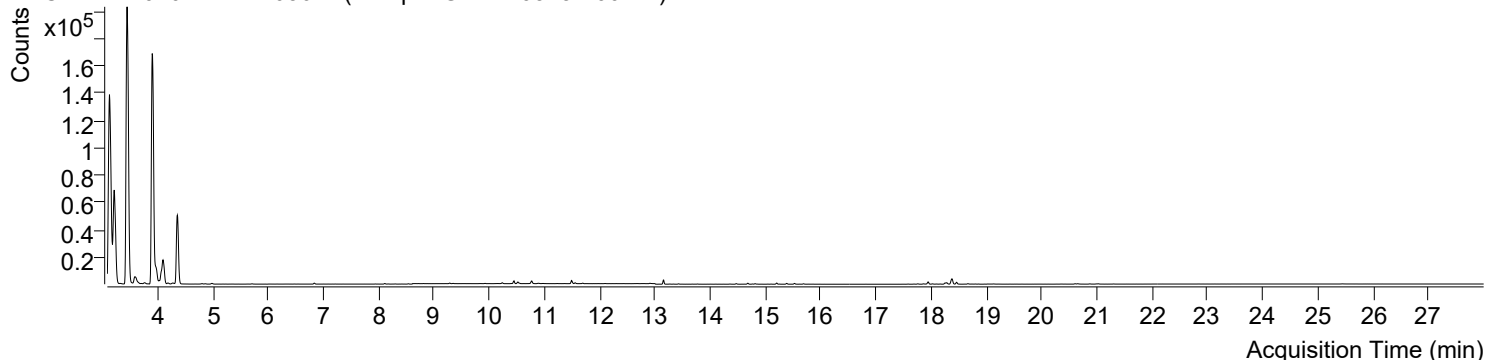


Trusted Answers

Batch Data Path File Name	D:\MassHunter\GCMS\1\data\PAHs\220407-PAHs-Sample\QuantResults\220407-PAHs-Quant.batch.bin		
Analysis Time Stamp	2022-04-13 오후 5:40:30	Analyst Name	DESKTOP-86B7UPG\5975MS
Report Generation Time	2022-04-13 오후 5:40:41	Report Generator Name	DESKTOP-86B7UPG\5975MS
Calibration Last Update	2022-04-13 오후 5:38:35	Batch State	Processed
Analyze Quant Version	10.2	Report Quant Version	10.2
Acq. Date-Time	2022-04-08 오후 3:55:55	Data File	220407-PAHs-056.D
Type	Sample	Name	Sample-Gas-220313-100DIL
Dil.	1	Acq. Method File	PAHs 19mix-Method

## Sample Chromatogram

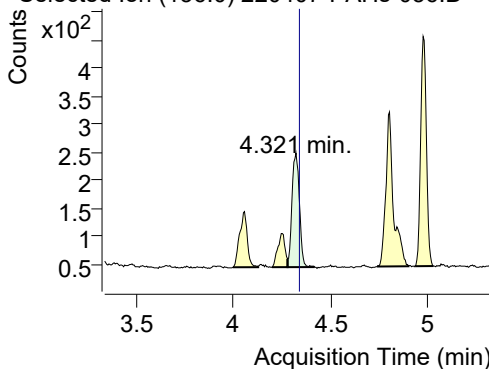
+ TIC SIM 220407-PAHs-056.D (Sample-Gas-220313-100DIL)



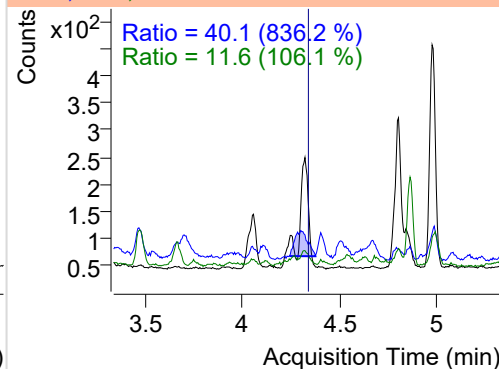
Name	RT	Transition	Resp.	Height	Final Conc. Units	Ratio
IS-D8-Naphthalene	4.321	136.0	540	202.69	ND µg/mL	11.6
Naphthalene	4.354	128.0	105272	40519.97	ND µg/mL	13.3
Acenaphthylene	7.739	152.0	16	13.41	ND µg/mL	
IS-D10-Acenaphthene	8.112	164.0	316	197.71	ND µg/mL	94.0
Acenaphthene	8.177	154.0	34	22.79	ND µg/mL	149.1
LSS-D10-Fluorene	9.281	176.0	298	189.75	ND µg/mL	91.8
Fluorene	9.344	166.0	147	97.04	ND µg/mL	91.7
IS-D10-Phenanthrene	11.508	188.0	552	368.68	ND µg/mL	14.5
Phenanthrene	11.560	178.0	676	381.69	ND µg/mL	17.4
Anthracene	11.697	178.0	181	90.69	ND µg/mL	22.5
Fluoranthene	14.354	202.0	112	68.82	ND µg/mL	16.4
LSS-D10-Pyrene	14.814	212.0	414	250.35	ND µg/mL	17.0
Pyrene	14.852	202.0	88	57.82	ND µg/mL	17.3
Benz(a)anthracene	17.948	228.0	75	39.96	ND µg/mL	36.4
IS-D12-Chrysene	17.758	240.0	380	194.46	ND µg/mL	16.7
Chrysene	17.948	228.0	75	39.96	ND µg/mL	36.4
Benzo(b)fluoranthene	20.654	252.0	421	200.68	ND µg/mL	20.1
Benzo(k)fluoranthene	20.654	252.0	421	200.68	ND µg/mL	20.1
SS-D12-Benzo(e)pyrene	20.605	264.0	428	188.36	ND µg/mL	26.0
Benzo(e)pyrene	20.654	252.0	421	200.68	ND µg/mL	20.1
Benzo(a)pyrene	20.654	252.0	421	200.68	ND µg/mL	20.1
IS-D12-Perylene	20.871	264.0	253	111.10	ND µg/mL	16.0
Perylene	20.990	252.0	169	84.77	ND µg/mL	23.0
Indeno(1,2,3-c,d)pyrene	22.837	276.0	4	2.59	ND µg/mL	
Dibenz(a,h)anthracene	22.829	278.0	18	5.92	ND µg/mL	
Benzo(g,h,i)perylene	22.837	276.0	4	2.59	ND µg/mL	
Coronene	26.097	300.0	3	4.00	ND µg/mL	

## IS-D8-Naphthalene

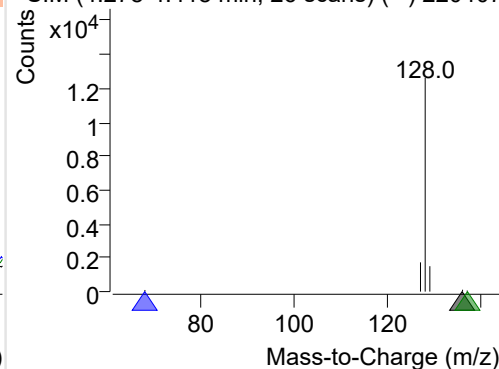
+ Selected Ion (136.0) 220407-PAHs-056.D



136.0, 68.0, 137.0

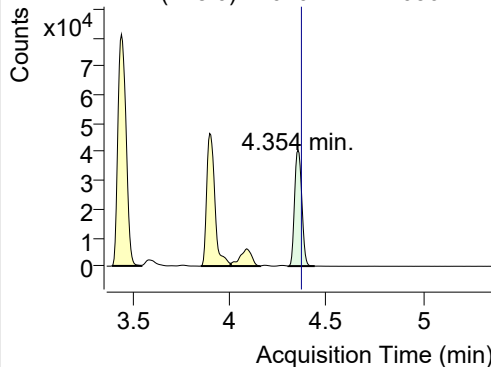


+ SIM (4.278-4.418 min, 26 scans) (\*\*) 220407

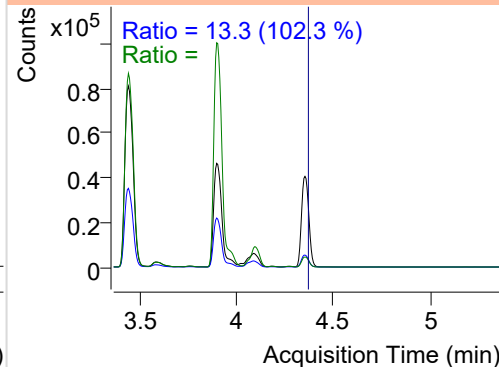


**Naphthalene**

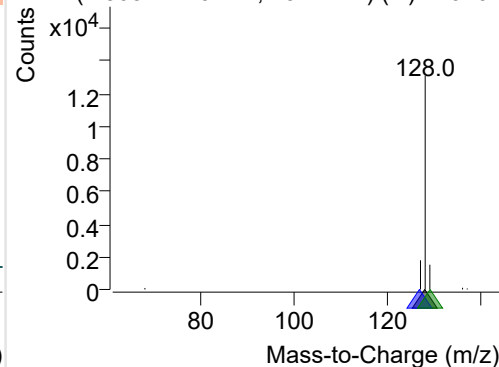
+ Selected Ion (128.0) 220407-PAHs-056.D



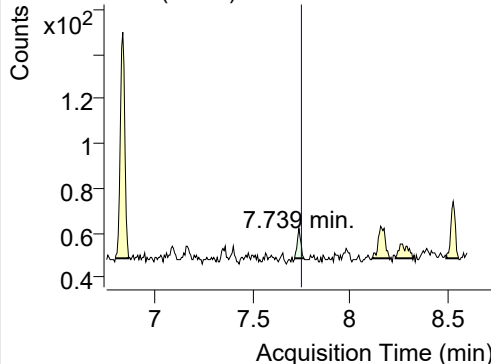
128.0, 127.0, 129.0



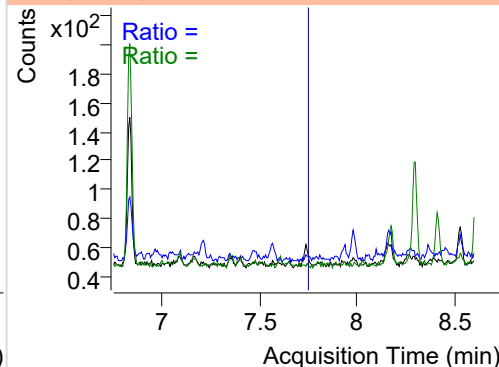
+ SIM (4.305-4.440 min, 25 scans) (\*\*) 220407

**Acenaphthylene**

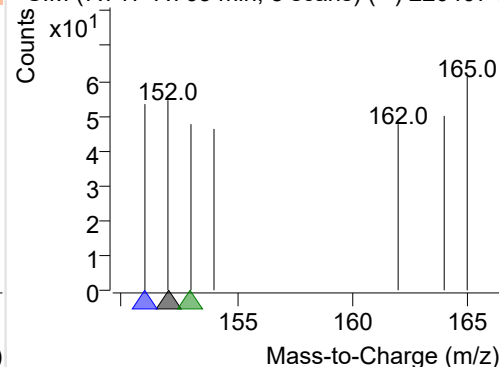
+ Selected Ion (152.0) 220407-PAHs-056.D



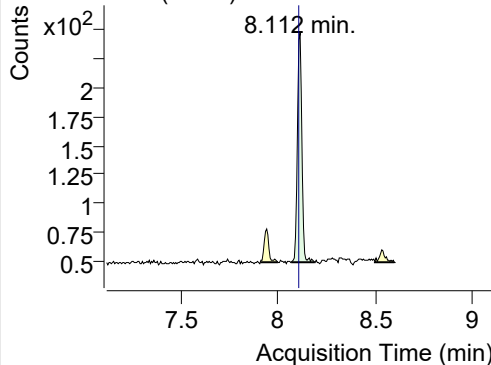
152.0, 151.0, 153.0



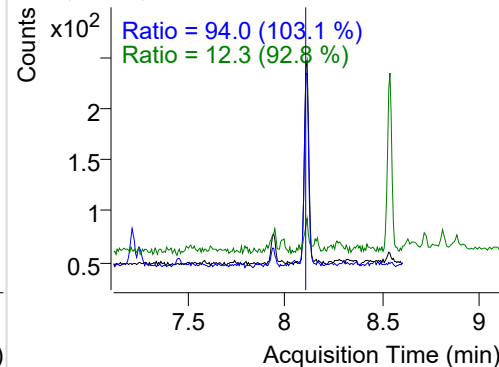
+ SIM (7.717-7.765 min, 8 scans) (\*\*) 220407-I

**IS-D10-Acenaphthene**

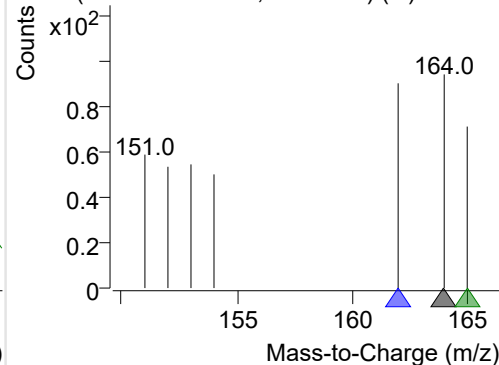
+ Selected Ion (164.0) 220407-PAHs-056.D



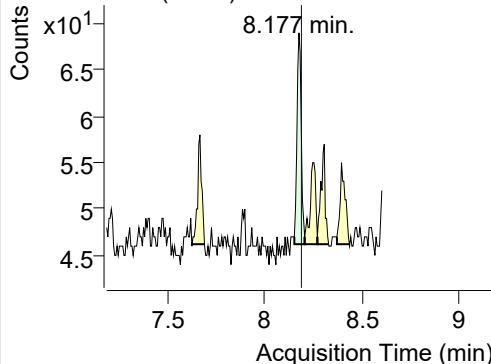
164.0, 162.0, 165.0



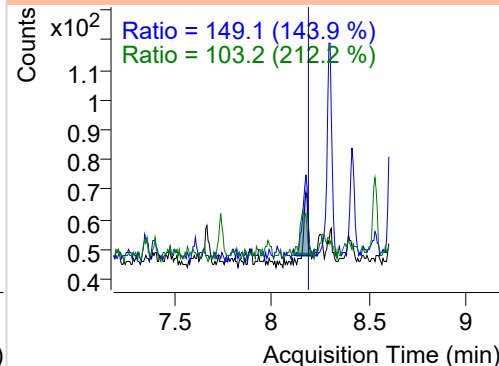
+ SIM (8.067-8.187 min, 20 scans) (\*\*) 220407

**Acenaphthene**

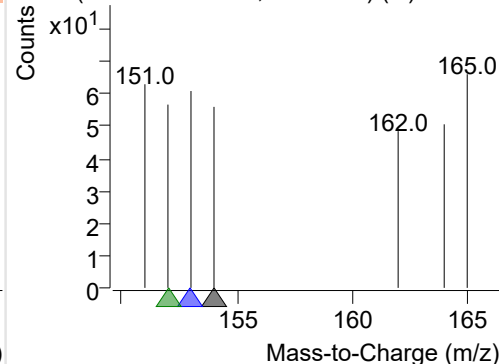
+ Selected Ion (154.0) 220407-PAHs-056.D



154.0, 153.0, 152.0

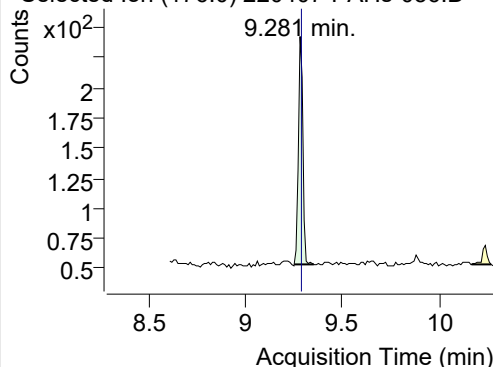


+ SIM (8.154-8.207 min, 10 scans) (\*\*) 220407

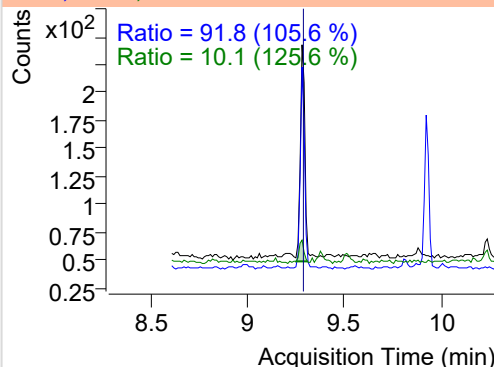


## LSS-D10-Fluorene

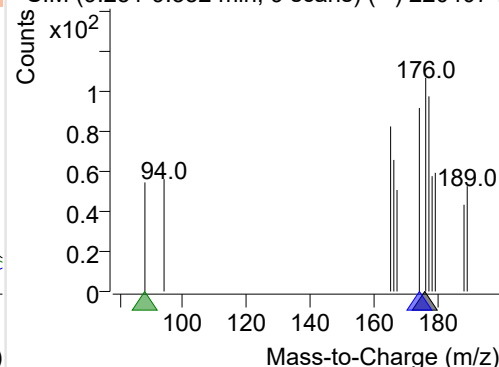
+ Selected Ion (176.0) 220407-PAHs-056.D



176.0, 174.0, 88.0

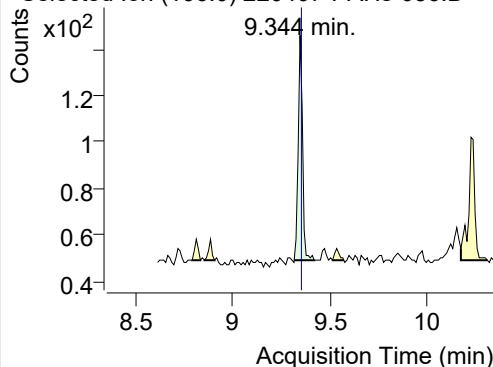


+ SIM (9.251-9.352 min, 9 scans) (\*\*) 220407-I

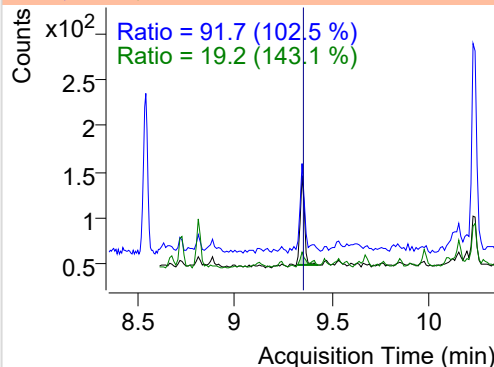


## Fluorene

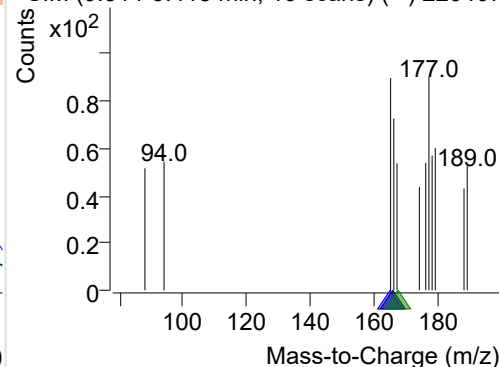
+ Selected Ion (166.0) 220407-PAHs-056.D



166.0, 165.0, 167.0

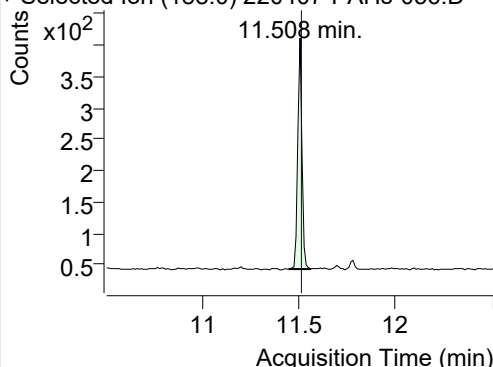


+ SIM (9.314-9.418 min, 10 scans) (\*\*) 220407

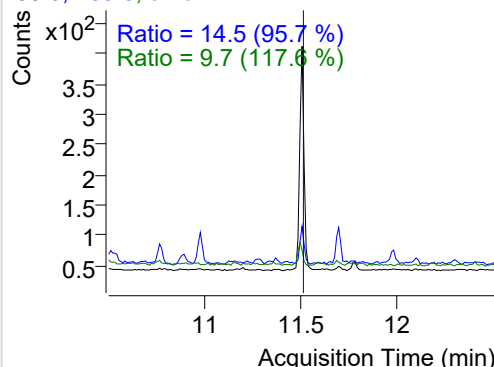


## IS-D10-Phenanthrene

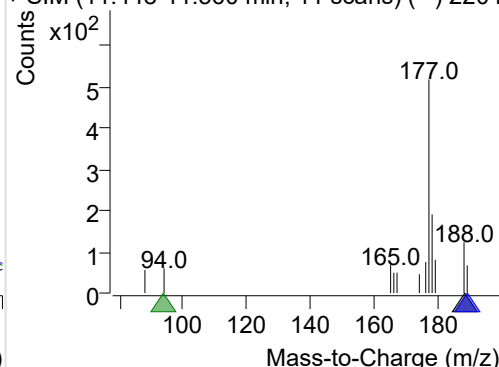
+ Selected Ion (188.0) 220407-PAHs-056.D



188.0, 189.0, 94.0

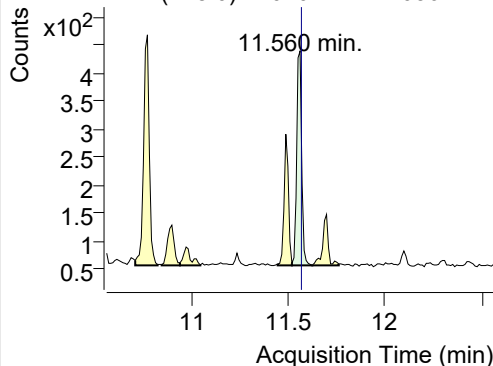


+ SIM (11.448-11.560 min, 11 scans) (\*\*) 2204

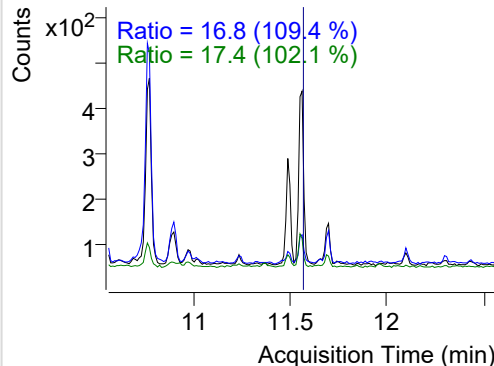


## Phenanthrene

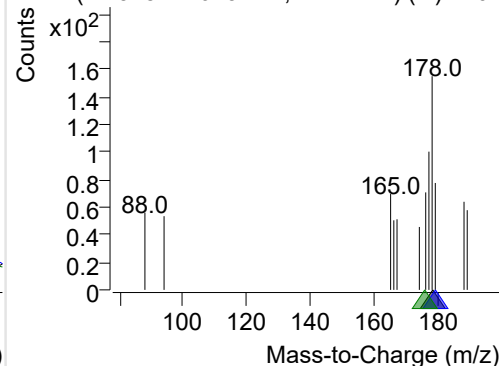
+ Selected Ion (178.0) 220407-PAHs-056.D



178.0, 179.0, 176.0

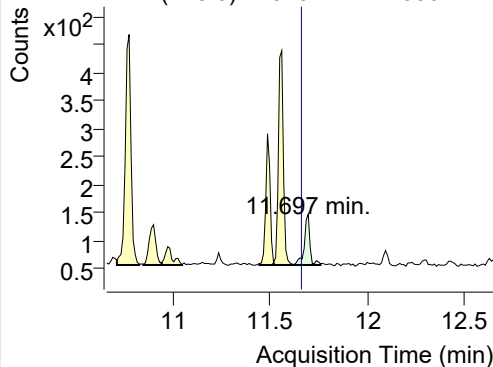


+ SIM (11.518-11.623 min, 11 scans) (\*\*) 2204

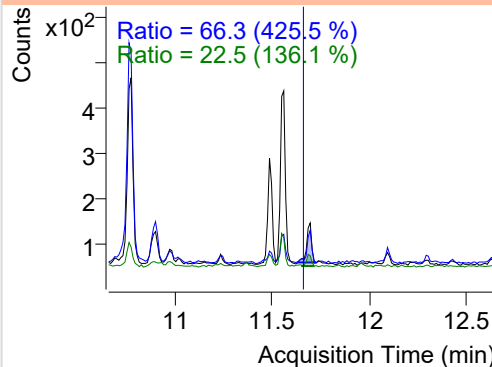


**Anthracene**

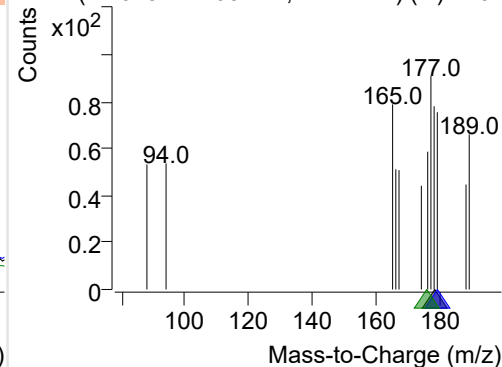
+ Selected Ion (178.0) 220407-PAHs-056.D



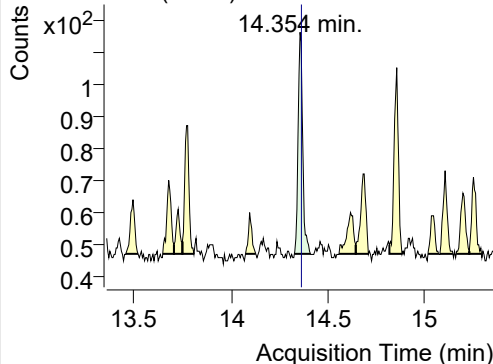
178.0, 179.0, 176.0



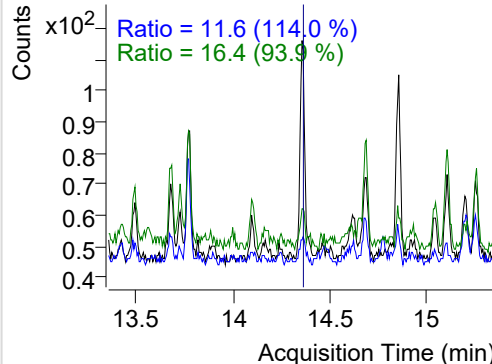
+ SIM (11.623-11.760 min, 14 scans) (\*\*) 2204

**Fluoranthene**

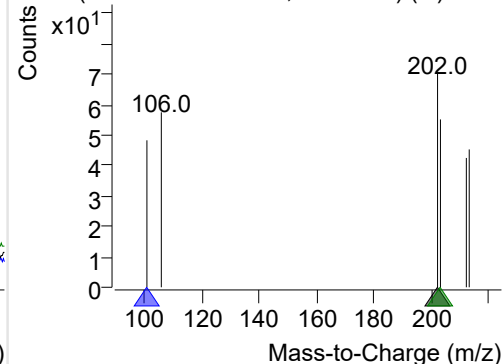
+ Selected Ion (202.0) 220407-PAHs-056.D



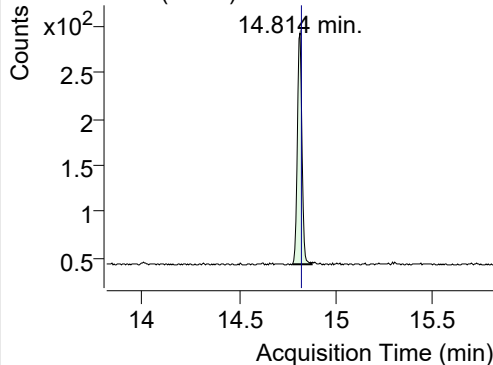
202.0, 101.0, 203.0



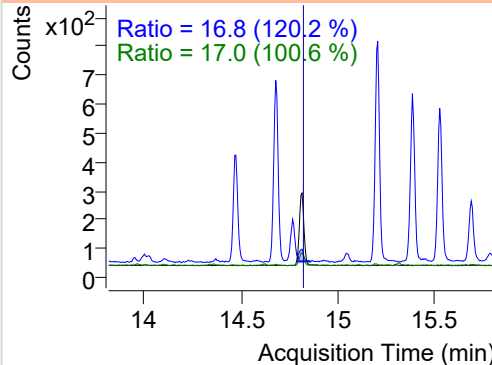
+ SIM (14.324-14.407 min, 15 scans) (\*\*) 2204

**LSS-D10-Pyrene**

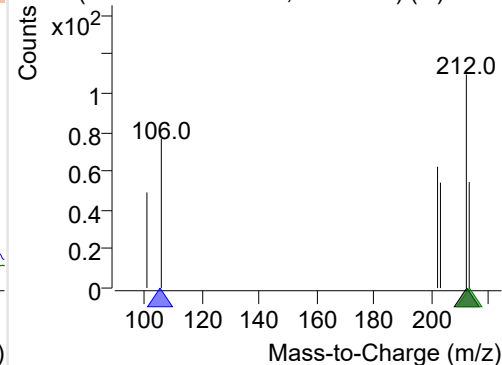
+ Selected Ion (212.0) 220407-PAHs-056.D



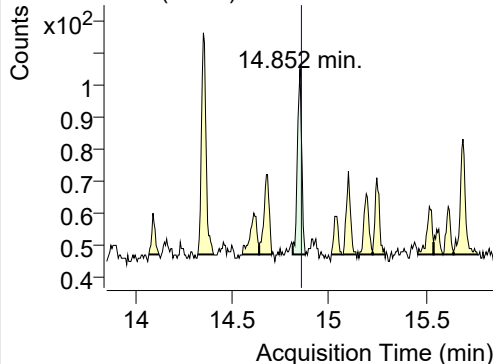
212.0, 106.0, 213.0



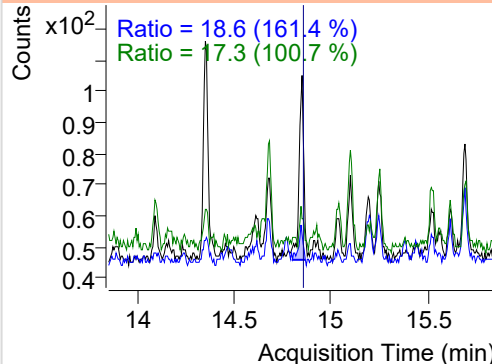
+ SIM (14.775-14.874 min, 19 scans) (\*\*) 2204

**Pyrene**

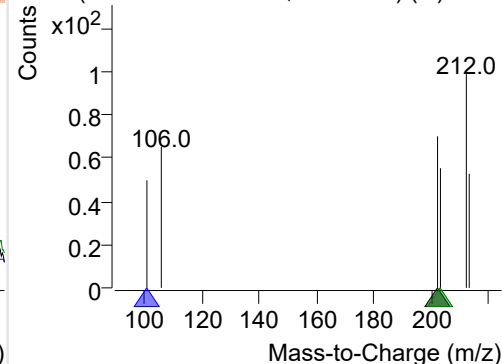
+ Selected Ion (202.0) 220407-PAHs-056.D



202.0, 101.0, 203.0



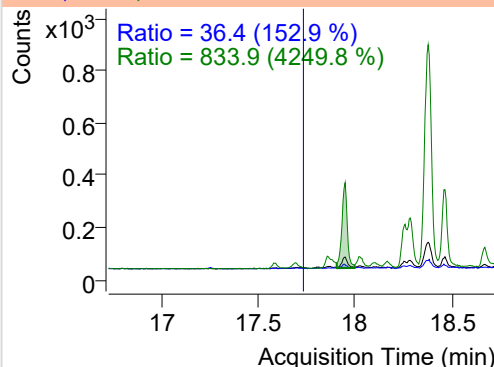
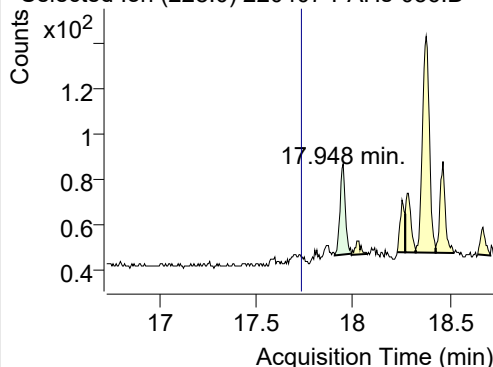
+ SIM (14.814-14.879 min, 12 scans) (\*\*) 2204



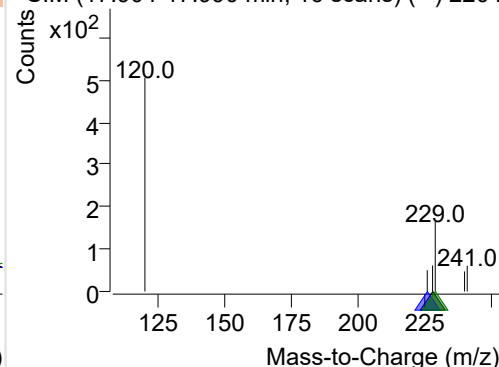
**Benz(a)anthracene**

+ Selected Ion (228.0) 220407-PAHs-056.D

228.0, 226.0, 229.0

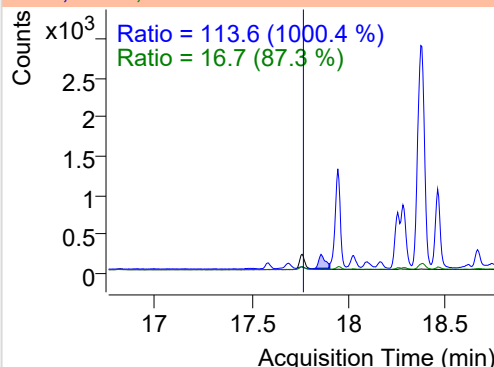
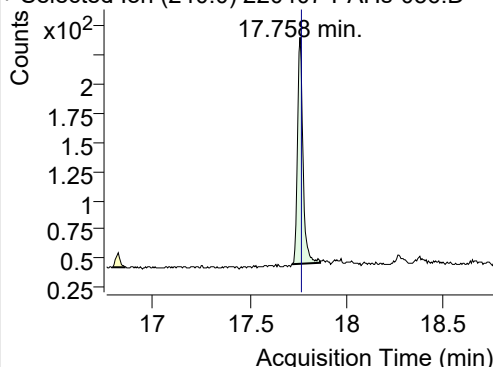


+ SIM (17.904-17.990 min, 16 scans) (\*\*) 2204

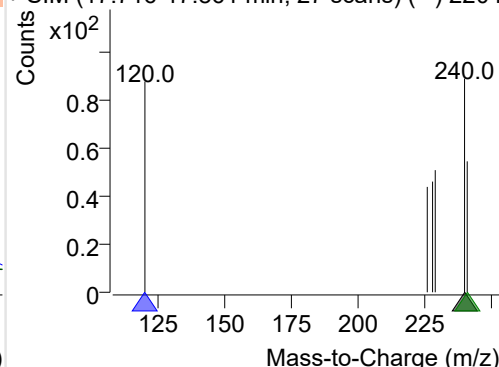
**IS-D12-Chrysene**

+ Selected Ion (240.0) 220407-PAHs-056.D

240.0, 120.0, 241.0

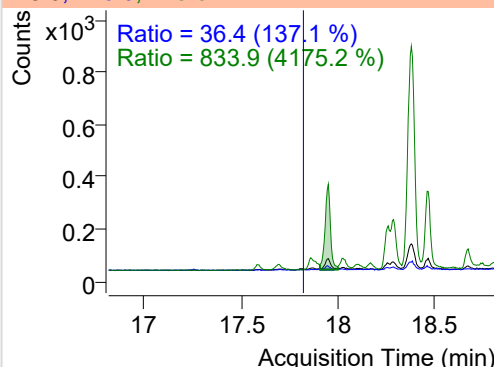
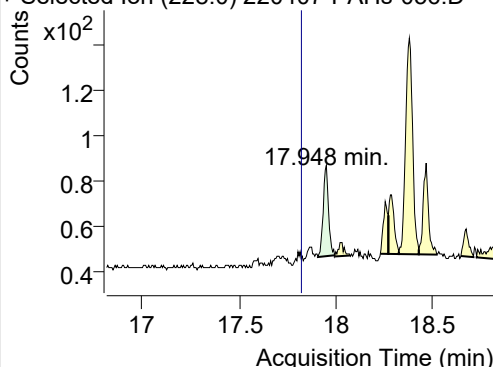


+ SIM (17.716-17.861 min, 27 scans) (\*\*) 2204

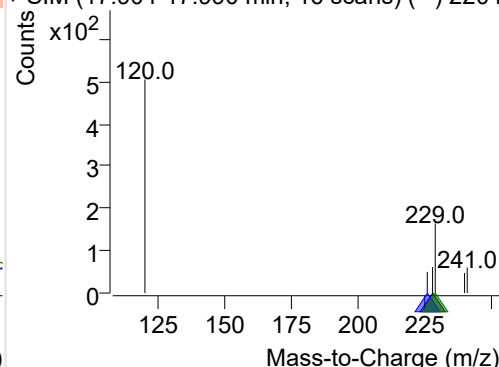
**Chrysene**

+ Selected Ion (228.0) 220407-PAHs-056.D

228.0, 226.0, 229.0

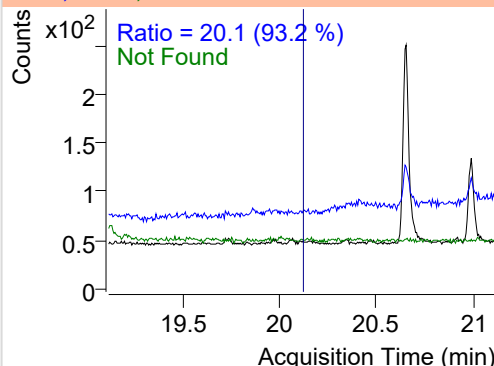
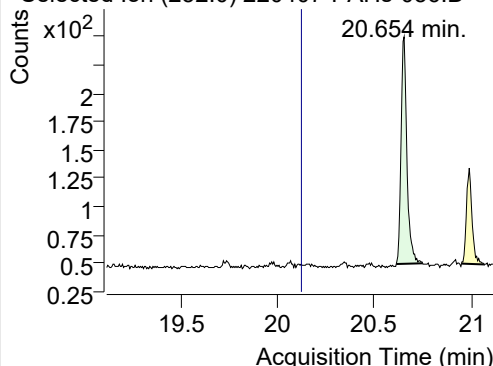


+ SIM (17.904-17.990 min, 16 scans) (\*\*) 2204

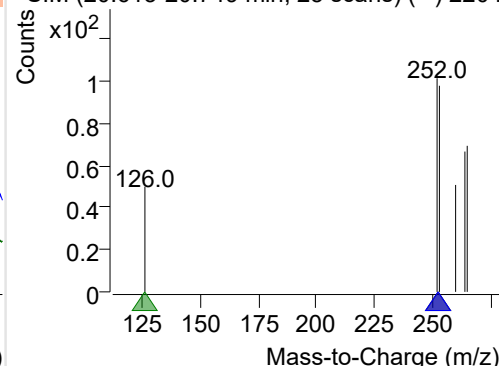
**Benzo(b)fluoranthene**

+ Selected Ion (252.0) 220407-PAHs-056.D

252.0, 253.0, 126.0

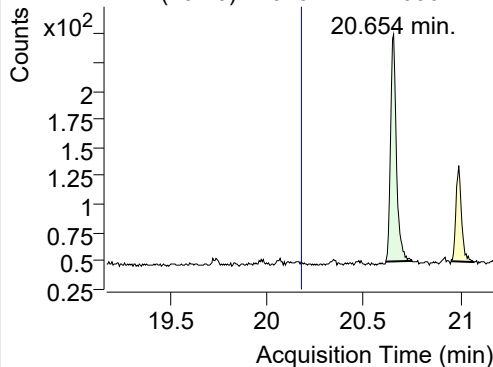


+ SIM (20.613-20.749 min, 25 scans) (\*\*) 2204

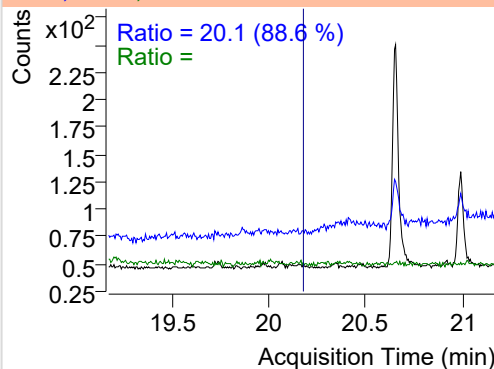


**Benzo(k)fluoranthene**

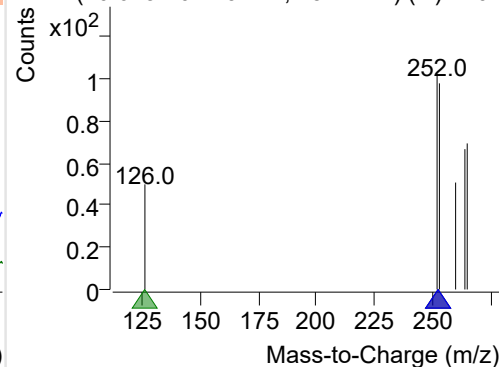
+ Selected Ion (252.0) 220407-PAHs-056.D



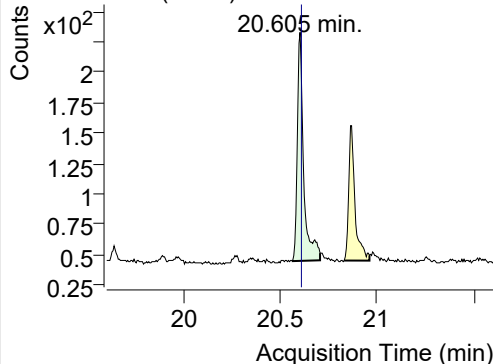
252.0, 253.0, 126.0



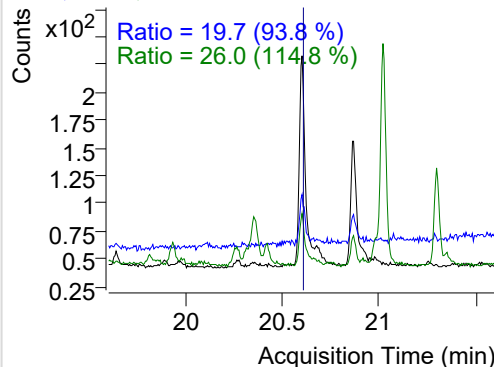
+ SIM (20.613-20.749 min, 25 scans) (\*\*) 2204

**SS-D12-Benzo(e)pyrene**

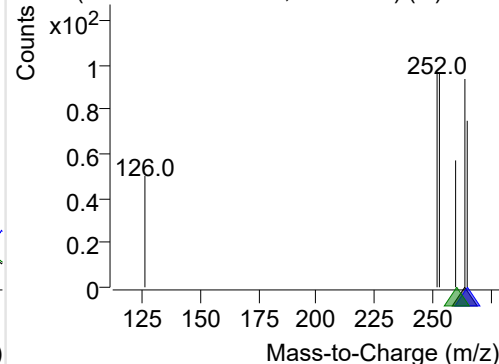
+ Selected Ion (264.0) 220407-PAHs-056.D



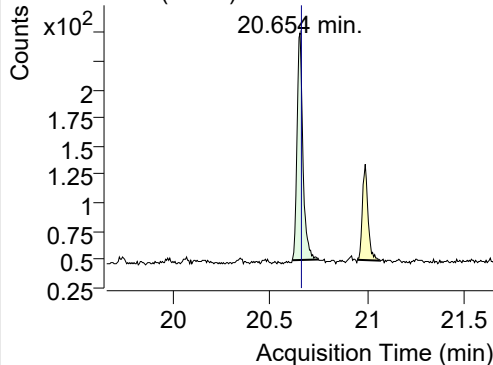
264.0, 265.0, 260.0



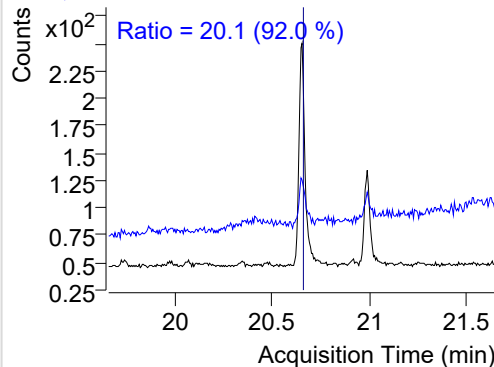
+ SIM (20.567-20.708 min, 27 scans) (\*\*) 2204

**Benzo(e)pyrene**

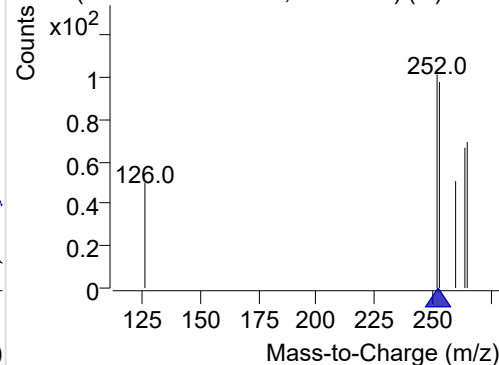
+ Selected Ion (252.0) 220407-PAHs-056.D



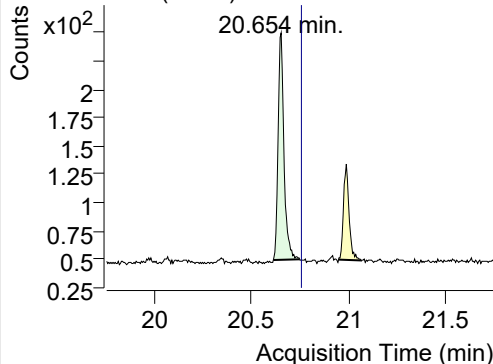
252.0, 253.0



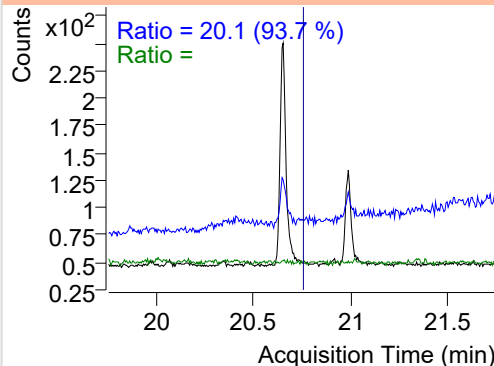
+ SIM (20.613-20.749 min, 25 scans) (\*\*) 2204

**Benzo(a)pyrene**

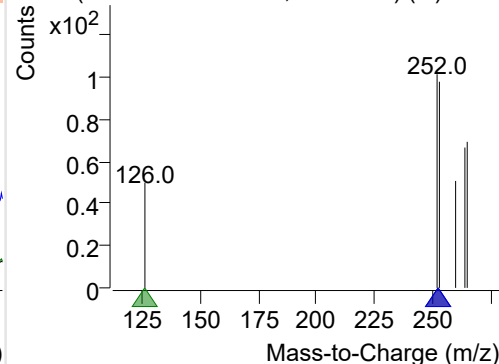
+ Selected Ion (252.0) 220407-PAHs-056.D



252.0, 253.0, 126.0



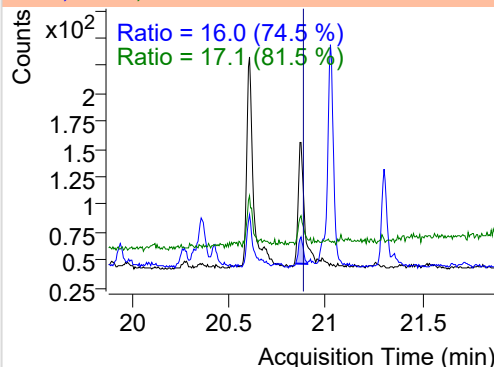
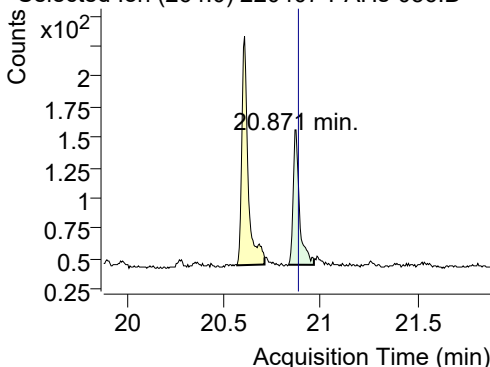
+ SIM (20.613-20.749 min, 25 scans) (\*\*) 2204



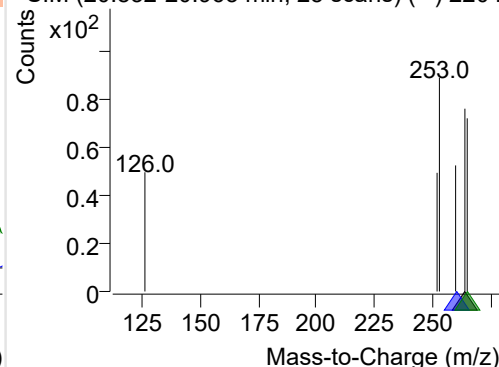
## IS-D12-Perylene

+ Selected Ion (264.0) 220407-PAHs-056.D

264.0, 260.0, 265.0



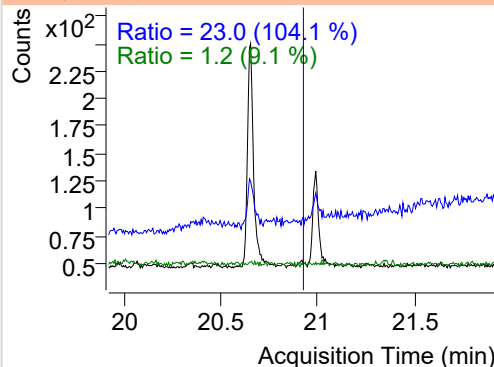
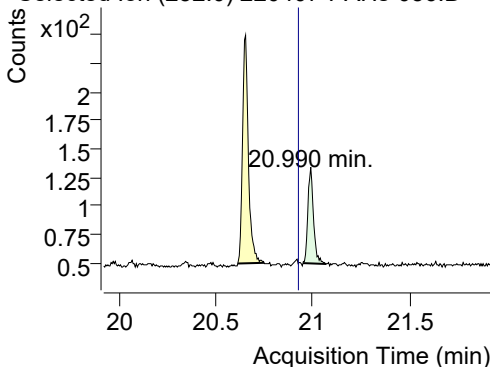
+ SIM (20.832-20.963 min, 25 scans) (\*\*) 2204



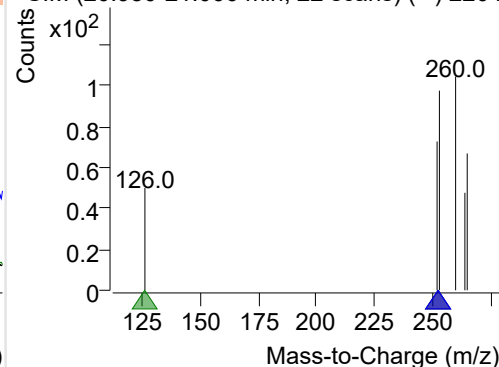
## Perylene

+ Selected Ion (252.0) 220407-PAHs-056.D

252.0, 253.0, 126.0



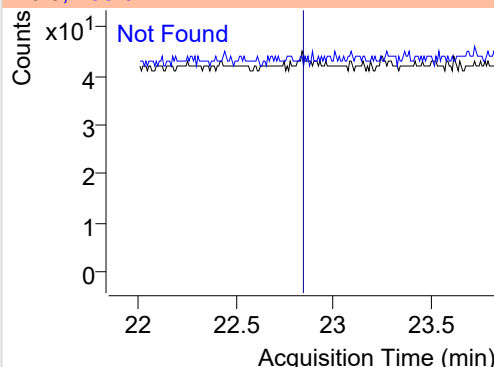
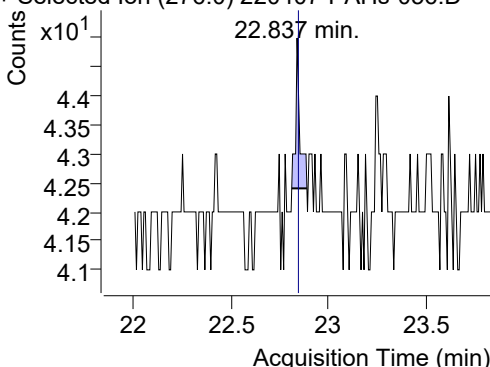
+ SIM (20.950-21.066 min, 22 scans) (\*\*) 2204



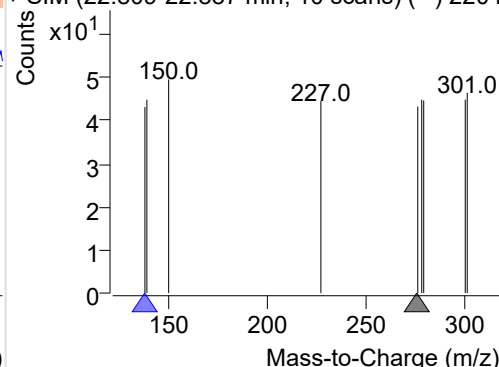
## Indeno(1,2,3-c,d)pyrene

+ Selected Ion (276.0) 220407-PAHs-056.D

276.0, 138.0



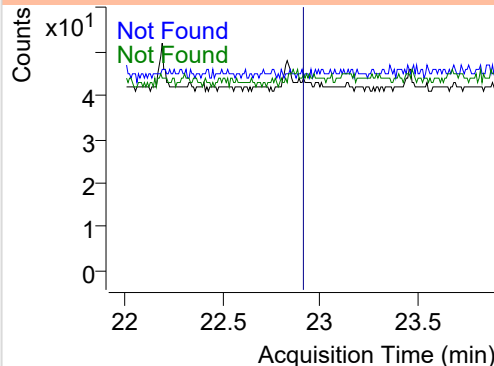
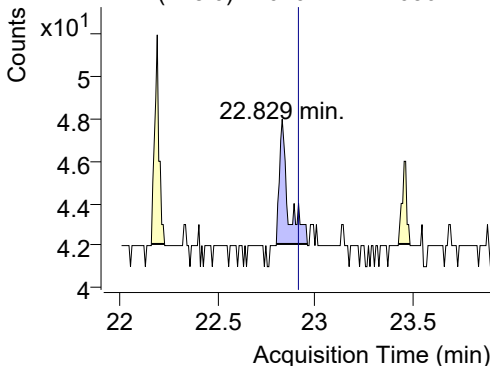
+ SIM (22.809-22.887 min, 10 scans) (\*\*) 2204



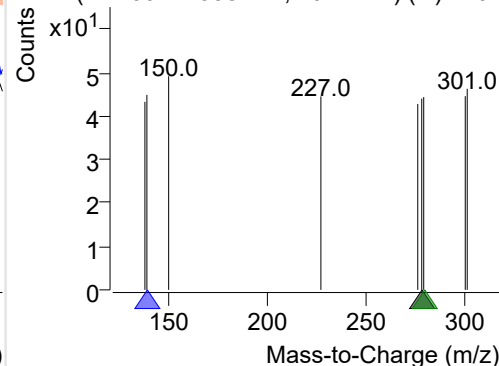
## Dibenz(a,h)anthracene

+ Selected Ion (278.0) 220407-PAHs-056.D

278.0, 139.0, 279.0



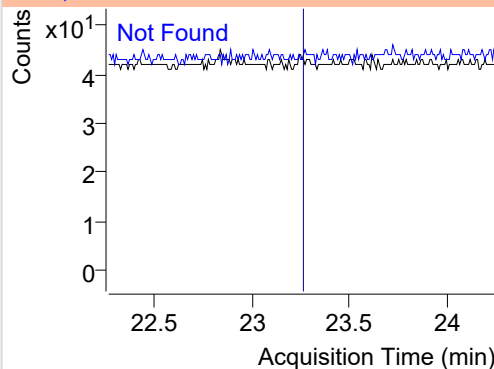
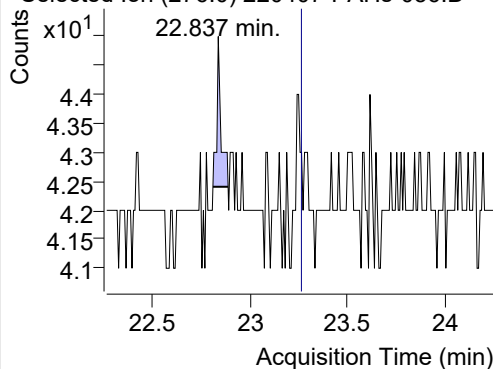
+ SIM (22.799-22.958 min, 20 scans) (\*\*) 2204



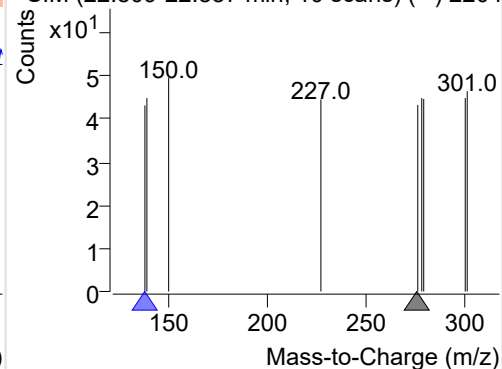
**Benzo(g,h,i)perylene**

+ Selected Ion (276.0) 220407-PAHs-056.D

276.0, 138.0

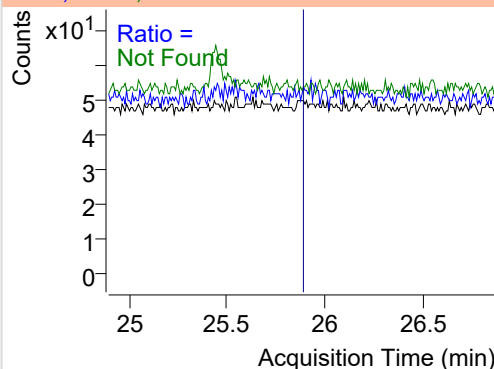
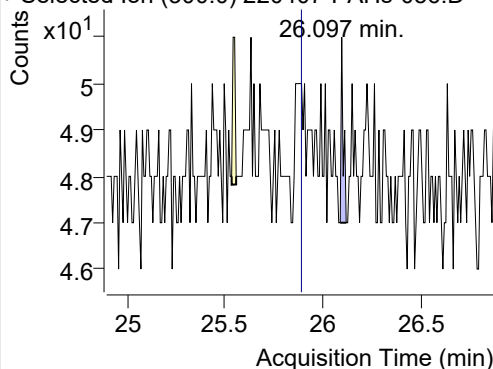


+ SIM (22.809-22.887 min, 10 scans) (\*\*) 2204

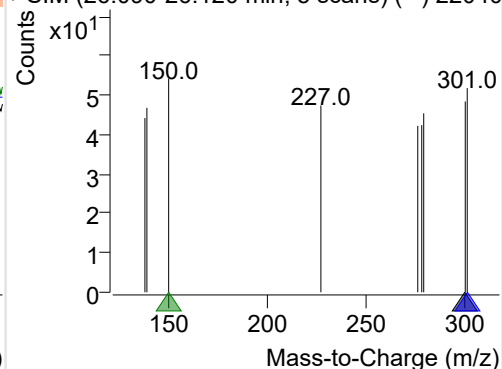
**Coronene**

+ Selected Ion (300.0) 220407-PAHs-056.D

300.0, 301.0, 150.0



+ SIM (26.090-26.120 min, 5 scans) (\*\*) 22040





## Quantitative Analysis Sample Based Report

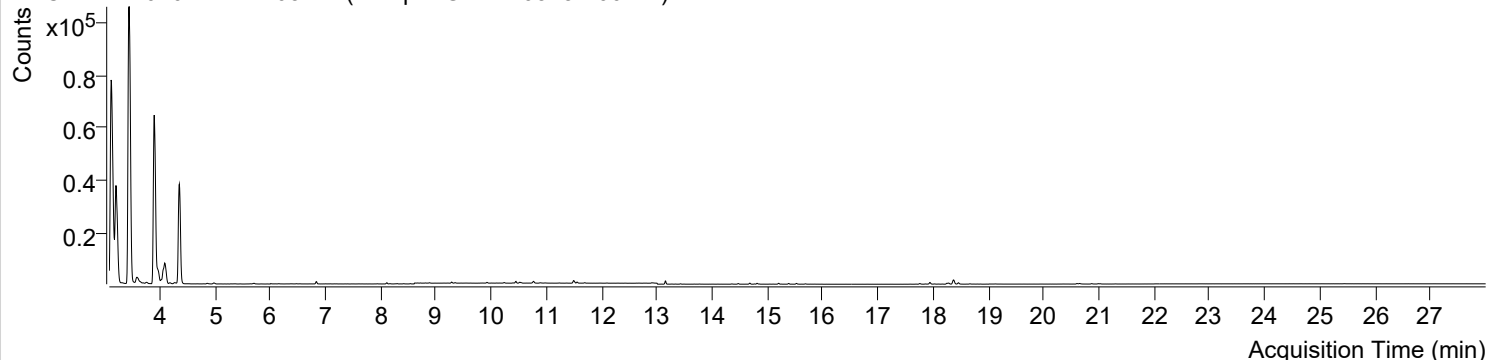


Trusted Answers

Batch Data Path File Name	D:\MassHunter\GCMS\1\data\PAHs\220407-PAHs-Sample\QuantResults\220407-PAHs-Quant.batch.bin		
Analysis Time Stamp	2022-04-13 오후 5:40:30	Analyst Name	DESKTOP-86B7UPG\5975MS
Report Generation Time	2022-04-13 오후 5:40:41	Report Generator Name	DESKTOP-86B7UPG\5975MS
Calibration Last Update	2022-04-13 오후 5:38:35	Batch State	Processed
Analyze Quant Version	10.2	Report Quant Version	10.2
Acq. Date-Time	2022-04-08 오후 4:27:09	Data File	220407-PAHs-057.D
Type	Sample	Name	Sample-Gas-220325-100DIL
Dil.	1	Acq. Method File	PAHs 19mix-Method

## Sample Chromatogram

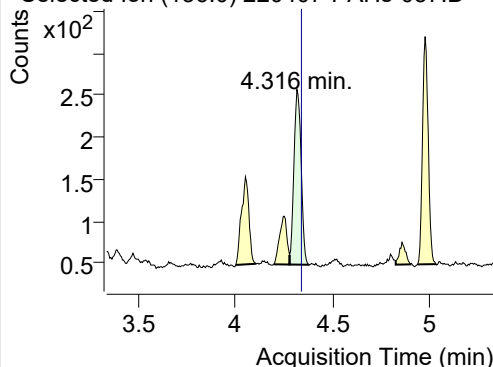
+ TIC SIM 220407-PAHs-057.D (Sample-Gas-220325-100DIL)



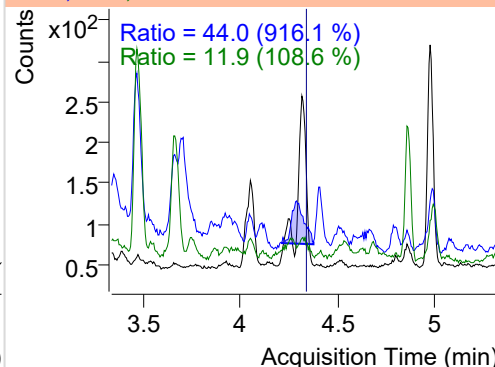
Name	RT	Transition	Resp.	Height	Final Conc. Units	Ratio
IS-D8-Naphthalene	4.316	136.0	537	208.47	ND µg/mL	11.9
Naphthalene	4.354	128.0	80959	30597.73	ND µg/mL	13.3
Acenaphthylene	8.159	152.0	38	17.08	ND µg/mL	161.5
IS-D10-Acenaphthene	8.112	164.0	316	210.81	ND µg/mL	94.3
Acenaphthene	8.177	154.0	30	19.02	ND µg/mL	131.6
LSS-D10-Fluorene	9.281	176.0	288	192.13	ND µg/mL	90.9
Fluorene	9.344	166.0	129	87.11	ND µg/mL	94.1
IS-D10-Phenanthrene	11.508	188.0	551	354.79	ND µg/mL	17.6
Phenanthrene	11.550	178.0	436	257.12	ND µg/mL	17.8
Anthracene	11.697	178.0	91	44.12	ND µg/mL	17.2
Fluoranthene	14.354	202.0	117	72.11	ND µg/mL	12.7
LSS-D10-Pyrene	14.814	212.0	385	229.69	ND µg/mL	17.2
Pyrene	14.852	202.0	74	45.11	ND µg/mL	16.4
Benz(a)anthracene	17.942	228.0	32	18.56	ND µg/mL	30.6
IS-D12-Chrysene	17.758	240.0	358	174.32	ND µg/mL	17.1
Chrysene	17.942	228.0	32	18.56	ND µg/mL	30.6
Benzo(b)fluoranthene	20.648	252.0	350	164.25	ND µg/mL	19.4
Benzo(k)fluoranthene	20.648	252.0	350	164.25	ND µg/mL	19.4
SS-D12-Benzo(e)pyrene	20.600	264.0	315	137.88	ND µg/mL	20.9
Benzo(e)pyrene	20.648	252.0	350	164.25	ND µg/mL	19.4
Benzo(a)pyrene	20.648	252.0	350	164.25	ND µg/mL	19.4
IS-D12-Perylene	20.871	264.0	213	98.99	ND µg/mL	17.7
Perylene	20.990	252.0	188	89.25	ND µg/mL	15.2
Indeno(1,2,3-c,d)pyrene		276.0			ND µg/mL	
Dibenz(a,h)anthracene		278.0			ND µg/mL	
Benzo(g,h,i)perylene		276.0			ND µg/mL	
Coronene		300.0			ND µg/mL	

## IS-D8-Naphthalene

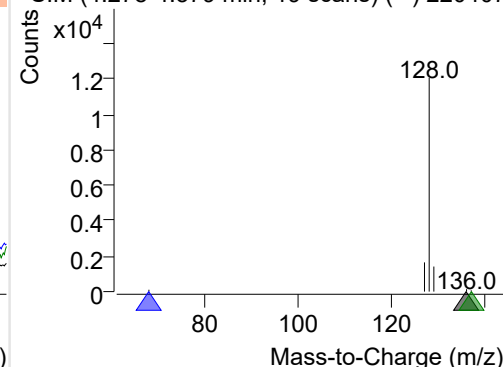
+ Selected Ion (136.0) 220407-PAHs-057.D



136.0, 68.0, 137.0

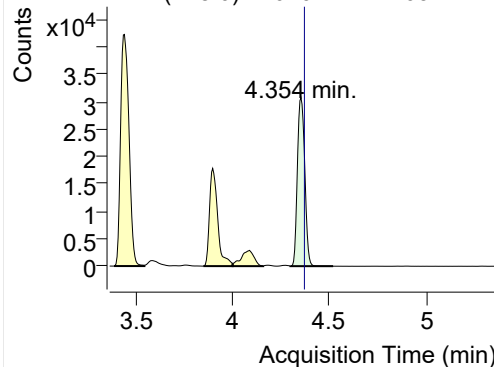


+ SIM (4.278-4.379 min, 19 scans) (\*\*) 220407

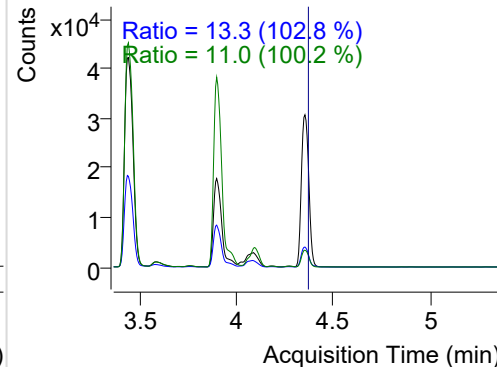


**Naphthalene**

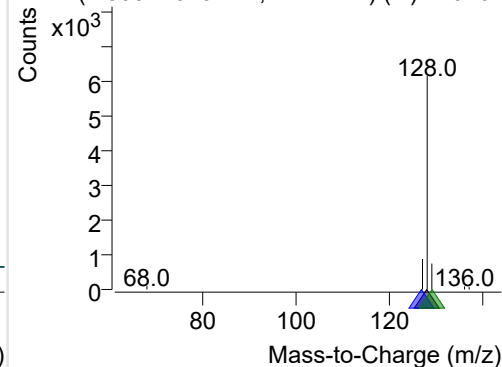
+ Selected Ion (128.0) 220407-PAHs-057.D



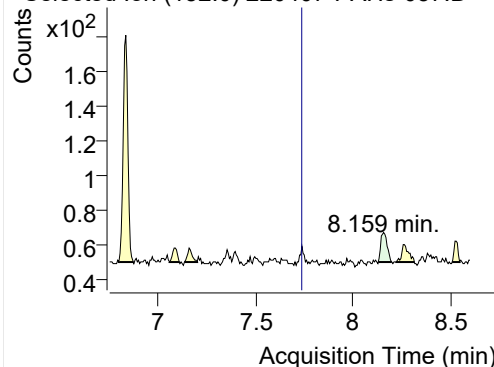
128.0, 127.0, 129.0



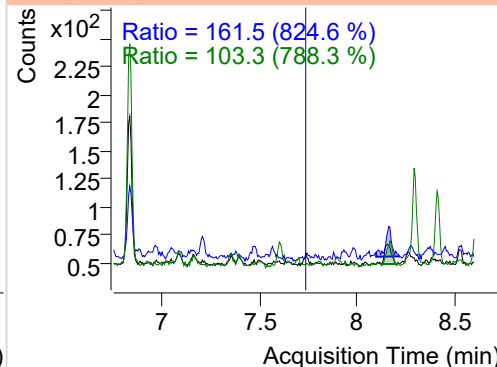
+ SIM (4.300-4.519 min, 41 scans) (\*\*) 220407

**Acenaphthylene**

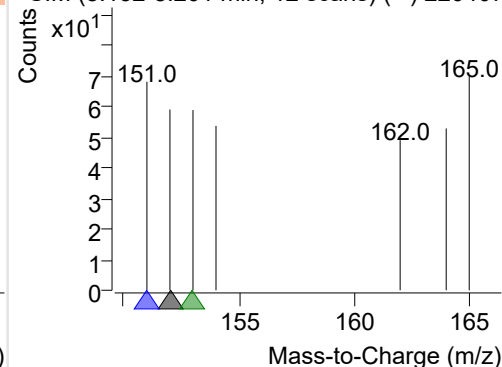
+ Selected Ion (152.0) 220407-PAHs-057.D



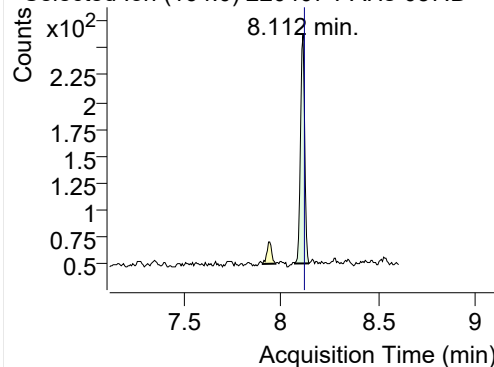
152.0, 151.0, 153.0



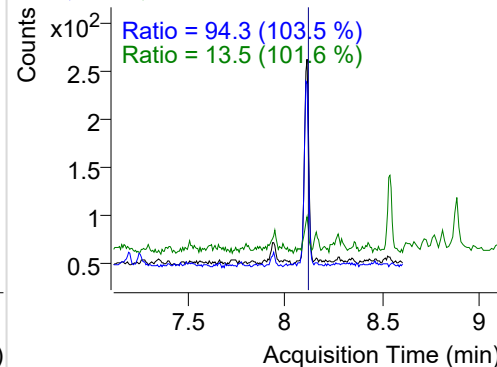
+ SIM (8.132-8.201 min, 12 scans) (\*\*) 220407

**IS-D10-Acenaphthene**

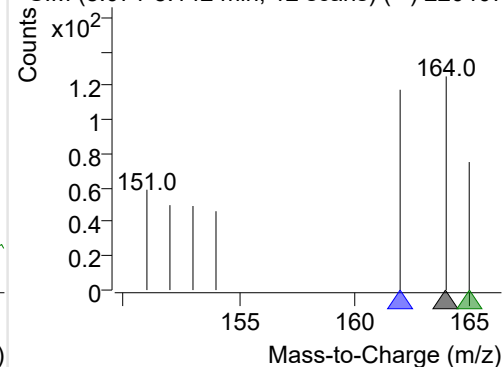
+ Selected Ion (164.0) 220407-PAHs-057.D



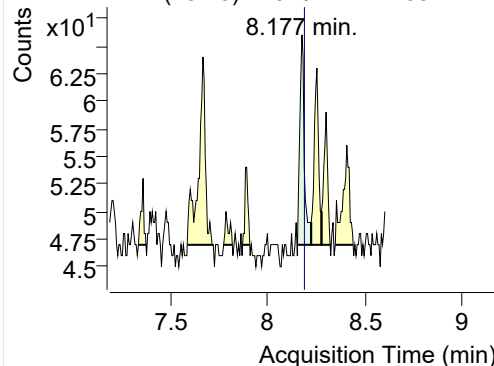
164.0, 162.0, 165.0



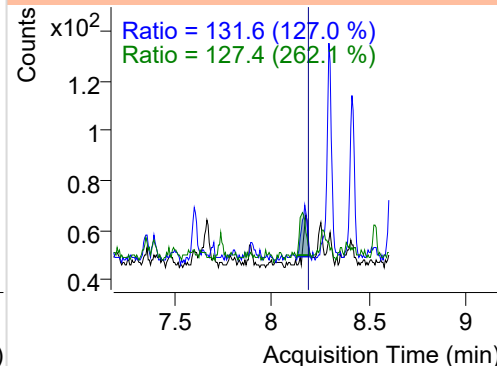
+ SIM (8.071-8.142 min, 12 scans) (\*\*) 220407

**Acenaphthene**

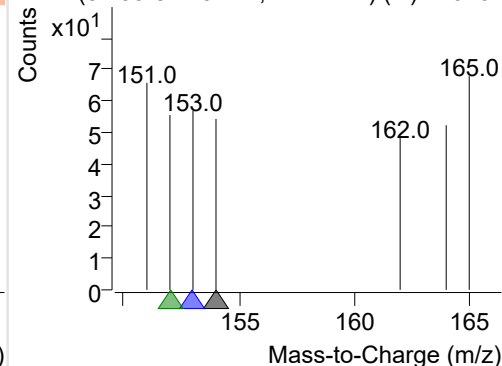
+ Selected Ion (154.0) 220407-PAHs-057.D



154.0, 153.0, 152.0

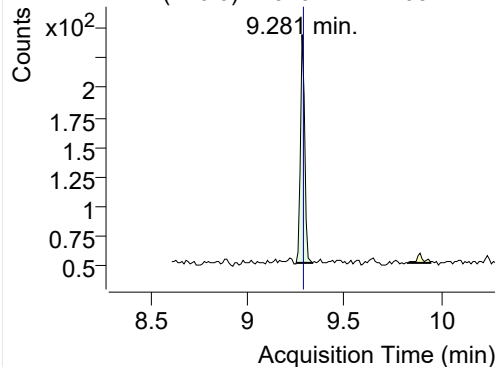


+ SIM (8.155-8.225 min, 12 scans) (\*\*) 220407

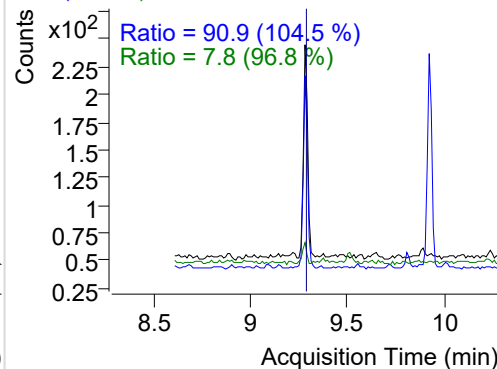


## LSS-D10-Fluorene

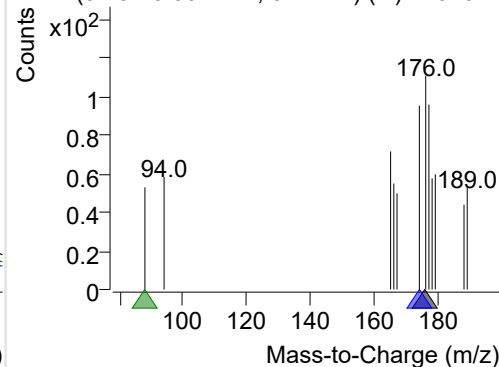
+ Selected Ion (176.0) 220407-PAHs-057.D



176.0, 174.0, 88.0

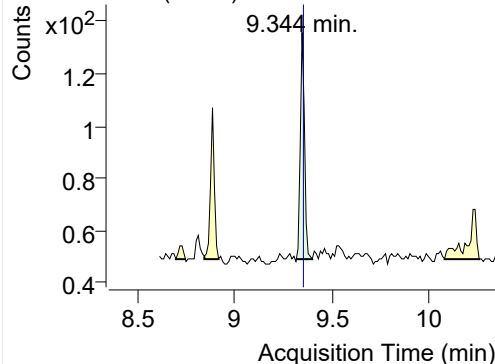


+ SIM (9.251-9.334 min, 8 scans) (\*\*) 220407-I

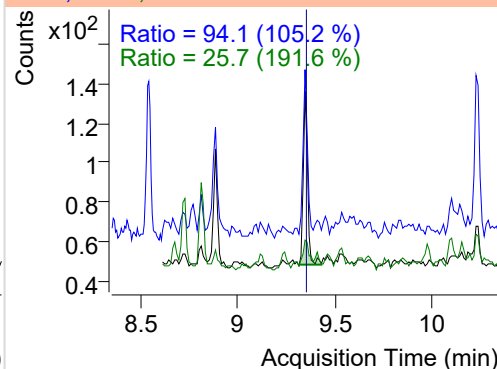


## Fluorene

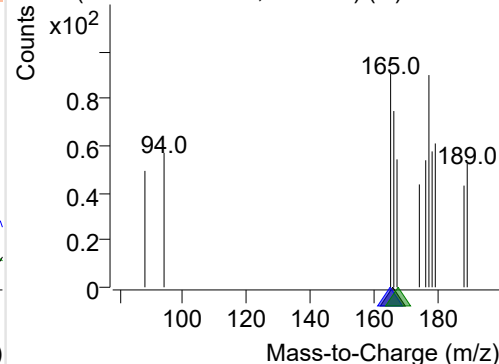
+ Selected Ion (166.0) 220407-PAHs-057.D



166.0, 165.0, 167.0

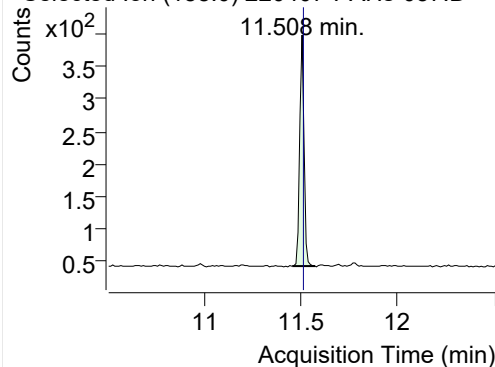


+ SIM (9.315-9.397 min, 8 scans) (\*\*) 220407-I

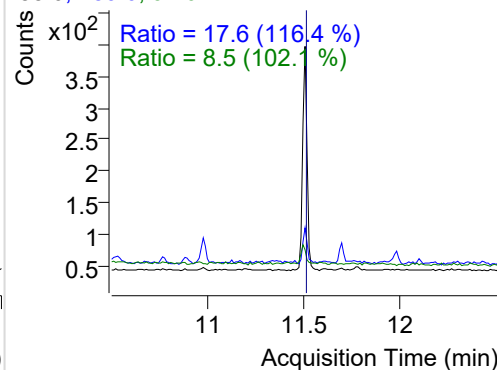


## IS-D10-Phenanthrene

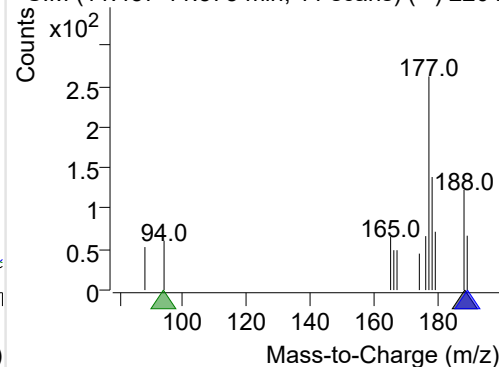
+ Selected Ion (188.0) 220407-PAHs-057.D



188.0, 189.0, 94.0

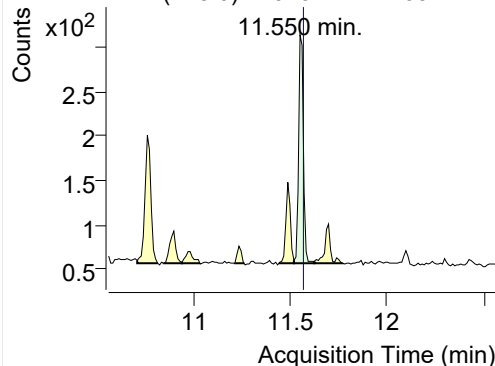


+ SIM (11.457-11.575 min, 11 scans) (\*\*) 2204

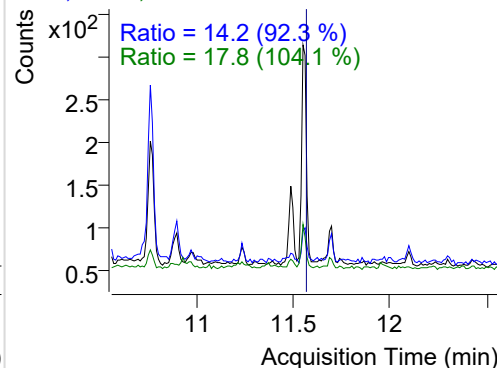


## Phenanthrene

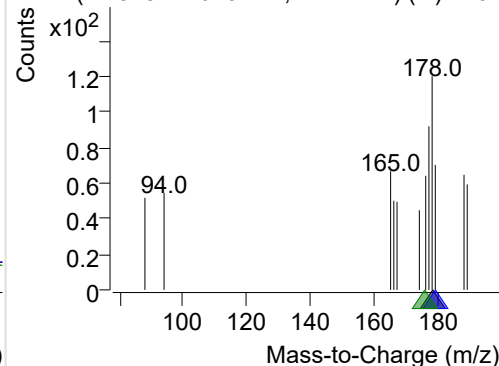
+ Selected Ion (178.0) 220407-PAHs-057.D



178.0, 179.0, 176.0

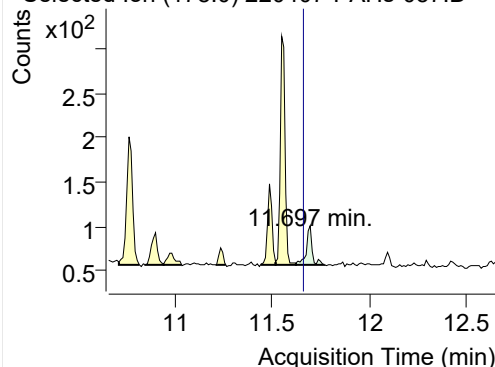


+ SIM (11.518-11.623 min, 11 scans) (\*\*) 2204

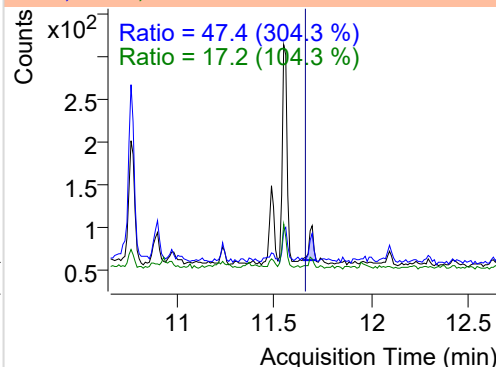


**Anthracene**

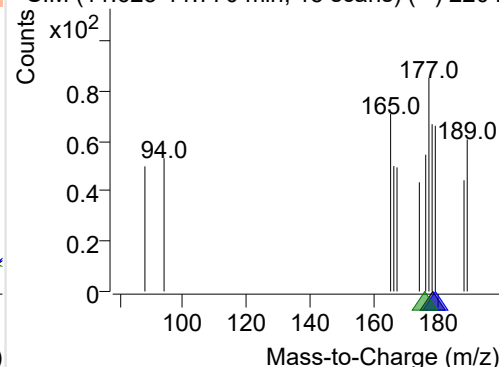
+ Selected Ion (178.0) 220407-PAHs-057.D



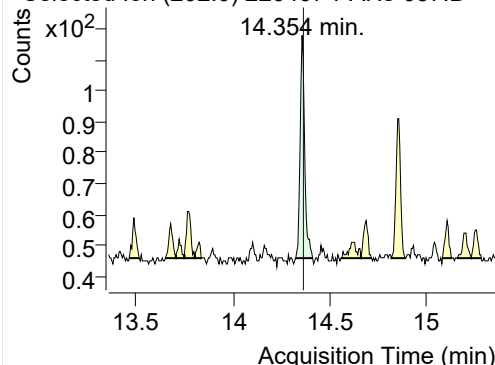
178.0, 179.0, 176.0



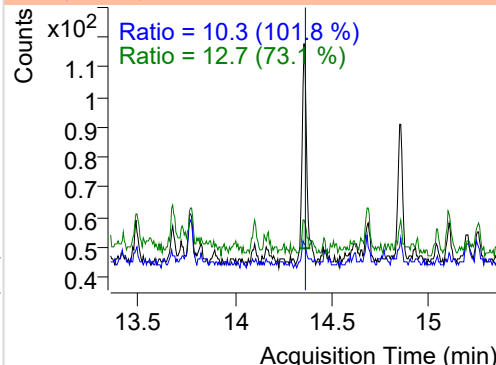
+ SIM (11.623-11.770 min, 15 scans) (\*\*) 2204

**Fluoranthene**

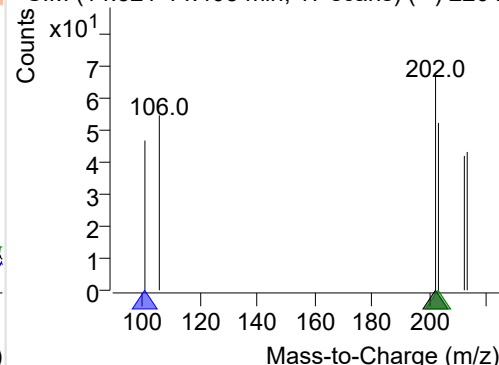
+ Selected Ion (202.0) 220407-PAHs-057.D



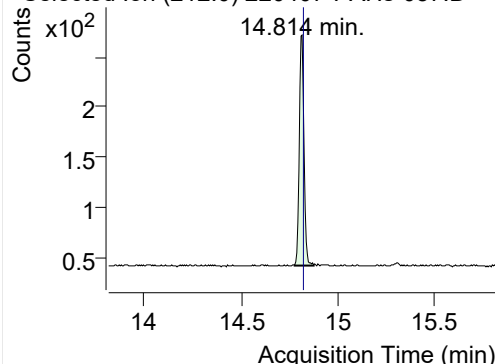
202.0, 101.0, 203.0



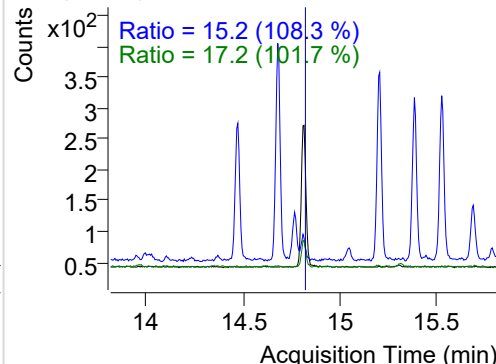
+ SIM (14.321-14.408 min, 17 scans) (\*\*) 2204

**LSS-D10-Pyrene**

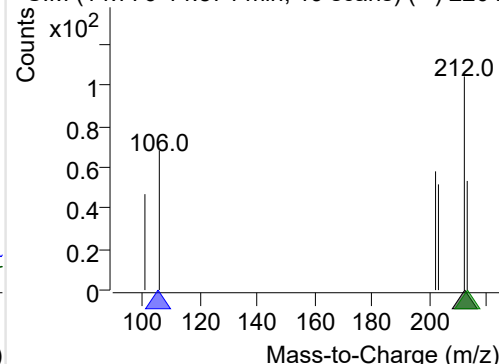
+ Selected Ion (212.0) 220407-PAHs-057.D



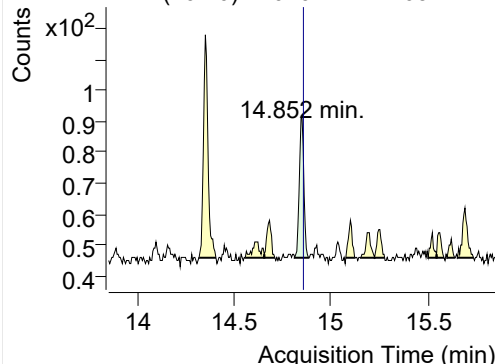
212.0, 106.0, 213.0



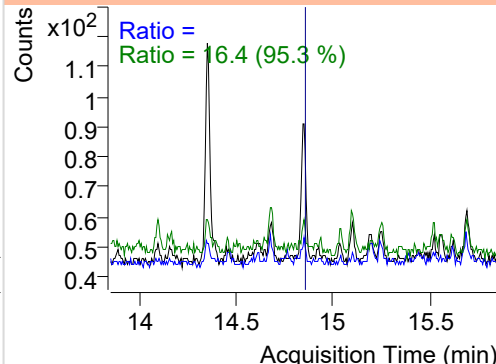
+ SIM (14.776-14.874 min, 19 scans) (\*\*) 2204

**Pyrene**

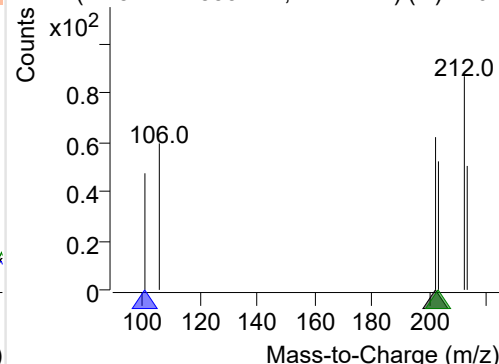
+ Selected Ion (202.0) 220407-PAHs-057.D



202.0, 101.0, 203.0



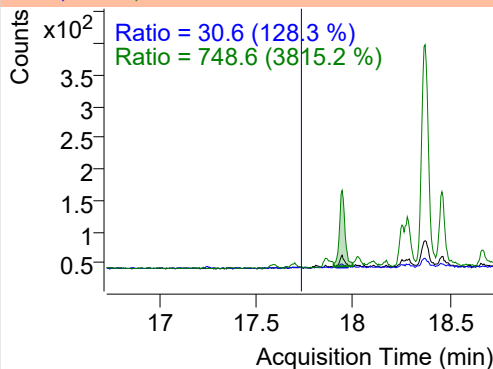
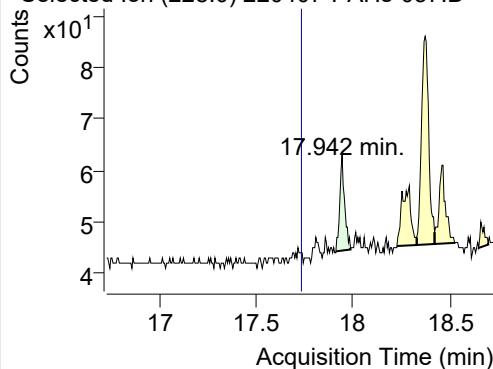
+ SIM (14.814-14.885 min, 14 scans) (\*\*) 2204



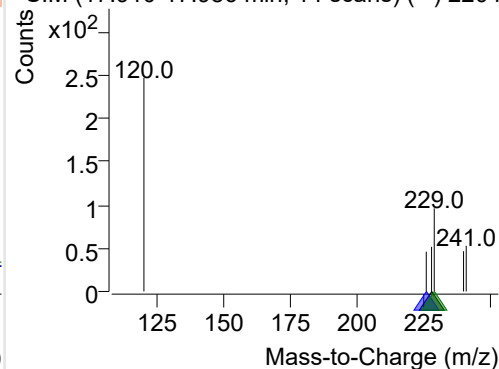
**Benz(a)anthracene**

+ Selected Ion (228.0) 220407-PAHs-057.D

228.0, 226.0, 229.0

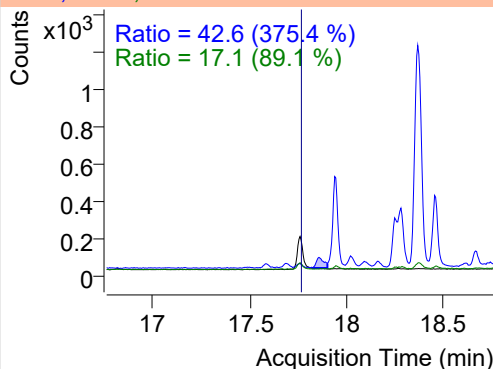
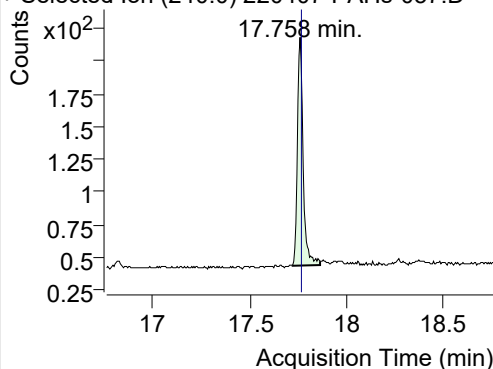


+ SIM (17.910-17.986 min, 14 scans) (\*\*) 2204

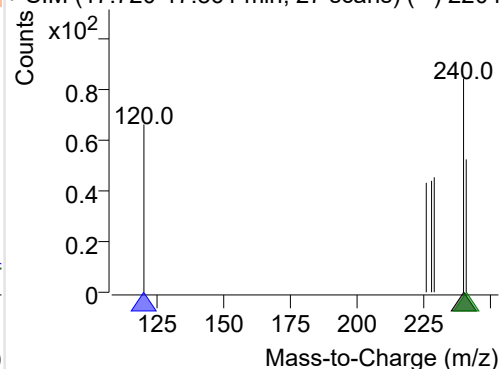
**IS-D12-Chrysene**

+ Selected Ion (240.0) 220407-PAHs-057.D

240.0, 120.0, 241.0

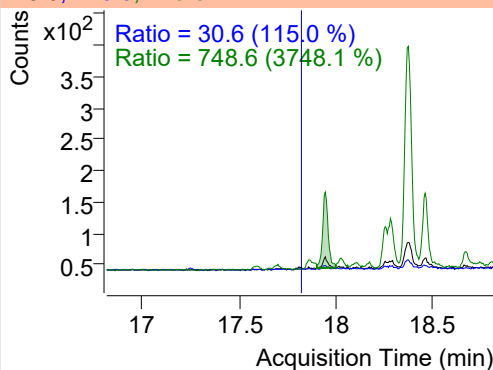
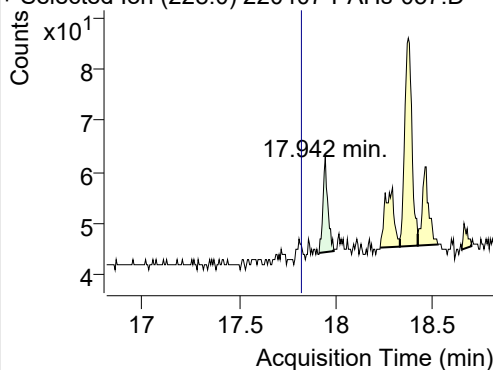


+ SIM (17.720-17.861 min, 27 scans) (\*\*) 2204

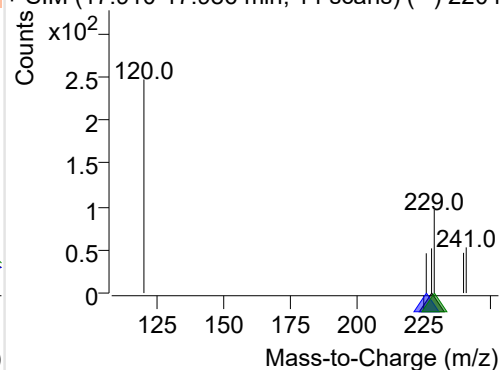
**Chrysene**

+ Selected Ion (228.0) 220407-PAHs-057.D

228.0, 226.0, 229.0

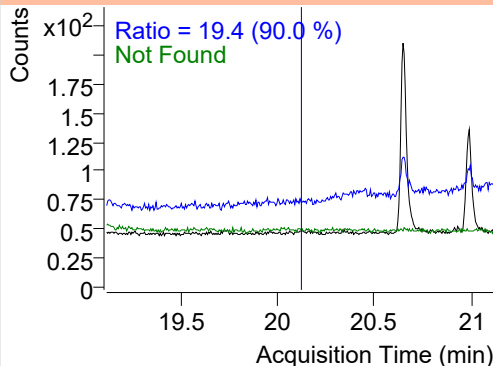
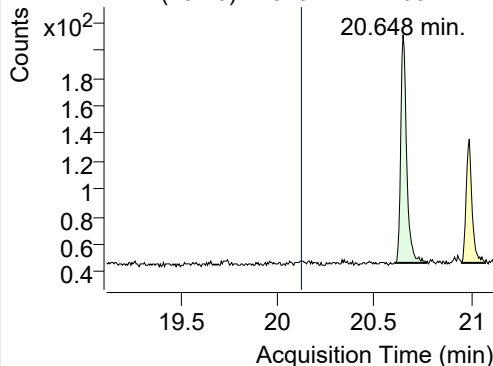


+ SIM (17.910-17.986 min, 14 scans) (\*\*) 2204

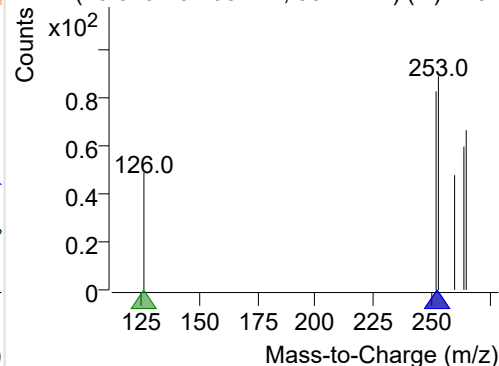
**Benzo(b)fluoranthene**

+ Selected Ion (252.0) 220407-PAHs-057.D

252.0, 253.0, 126.0



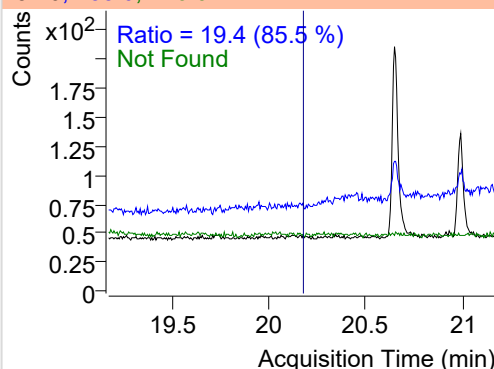
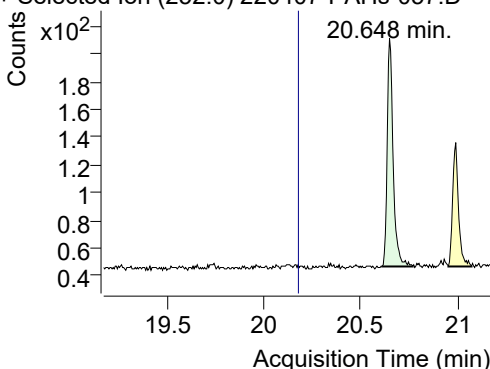
+ SIM (20.610-20.768 min, 30 scans) (\*\*) 2204



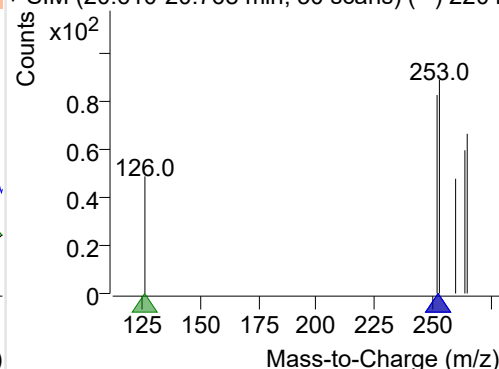
**Benzo(k)fluoranthene**

+ Selected Ion (252.0) 220407-PAHs-057.D

252.0, 253.0, 126.0

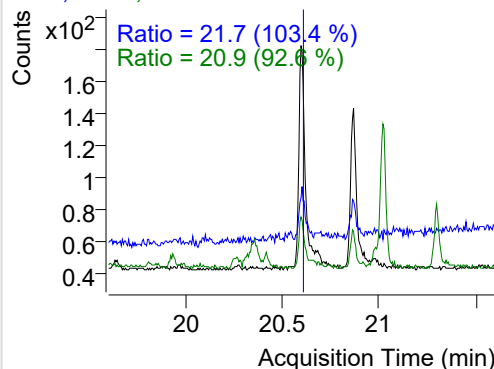
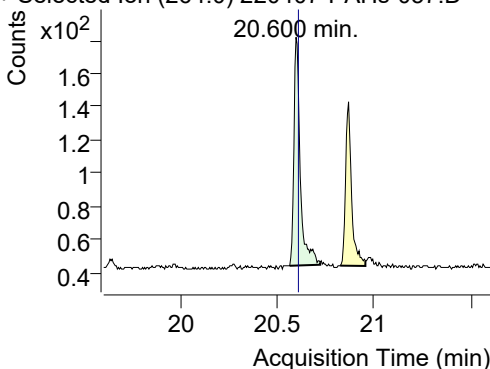


+ SIM (20.610-20.768 min, 30 scans) (\*\*) 2204

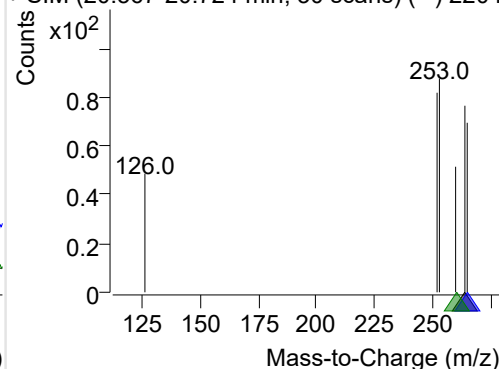
**SS-D12-Benzo(e)pyrene**

+ Selected Ion (264.0) 220407-PAHs-057.D

264.0, 265.0, 260.0

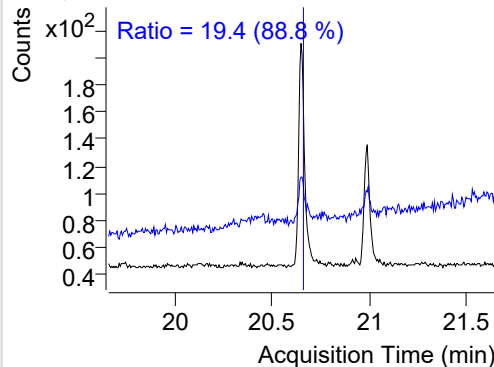
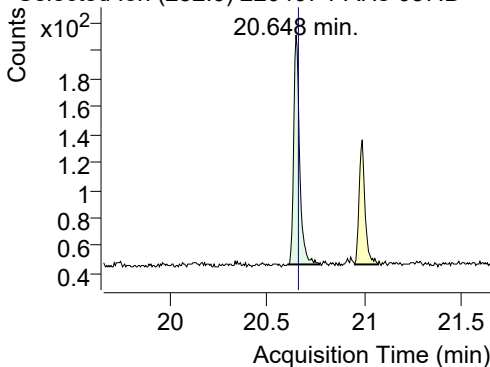


+ SIM (20.567-20.724 min, 30 scans) (\*\*) 2204

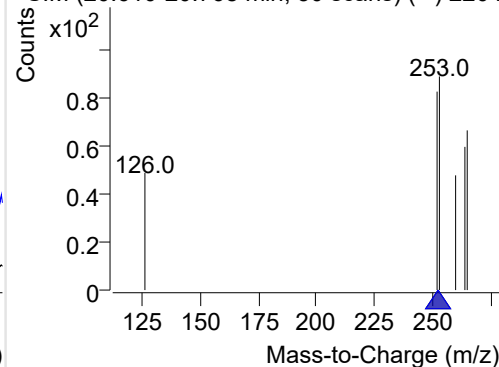
**Benzo(e)pyrene**

+ Selected Ion (252.0) 220407-PAHs-057.D

252.0, 253.0

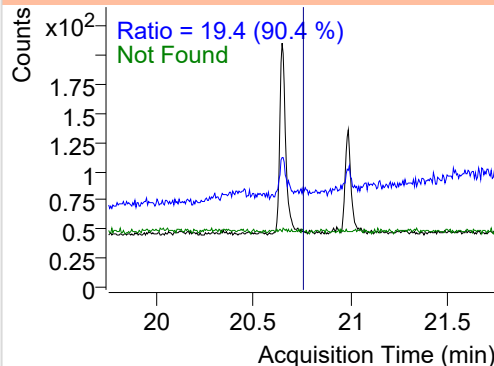
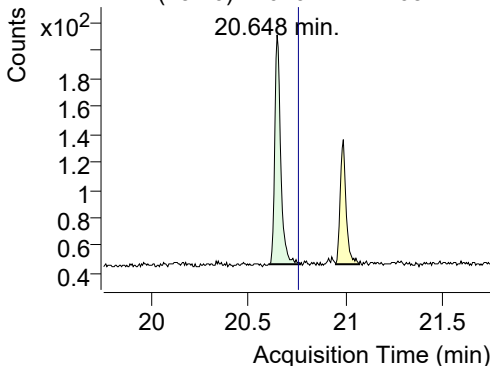


+ SIM (20.610-20.768 min, 30 scans) (\*\*) 2204

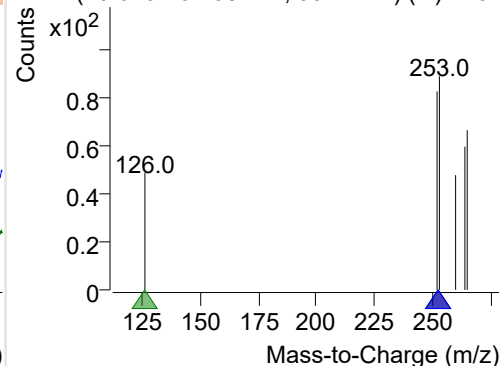
**Benzo(a)pyrene**

+ Selected Ion (252.0) 220407-PAHs-057.D

252.0, 253.0, 126.0

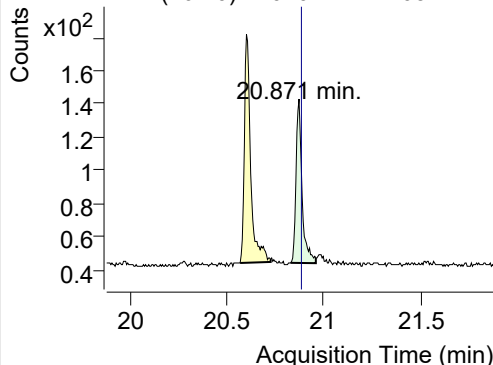


+ SIM (20.610-20.768 min, 30 scans) (\*\*) 2204

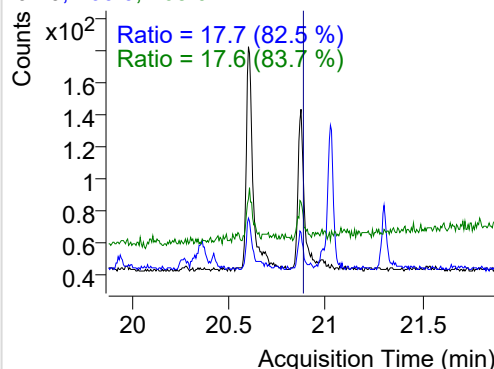


## IS-D12-Perylene

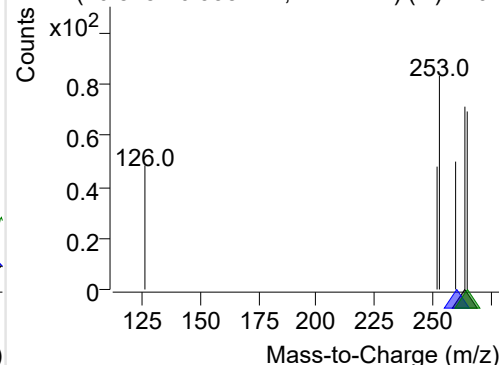
+ Selected Ion (264.0) 220407-PAHs-057.D



264.0, 260.0, 265.0

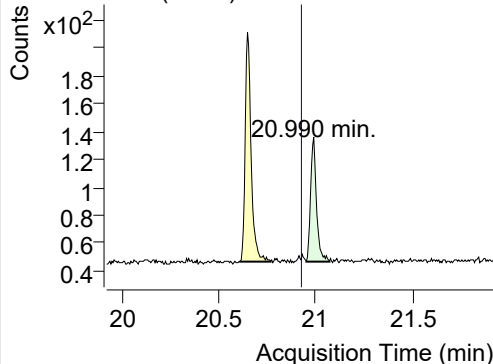


+ SIM (20.828-20.958 min, 24 scans) (\*\*) 2204

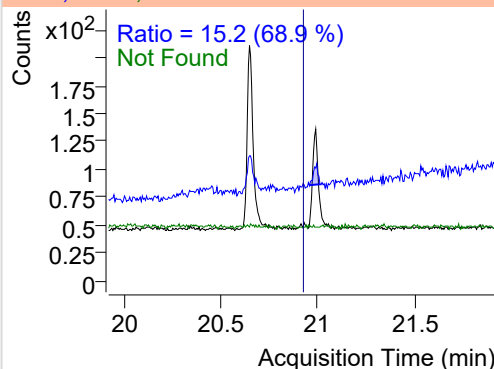


## Perylene

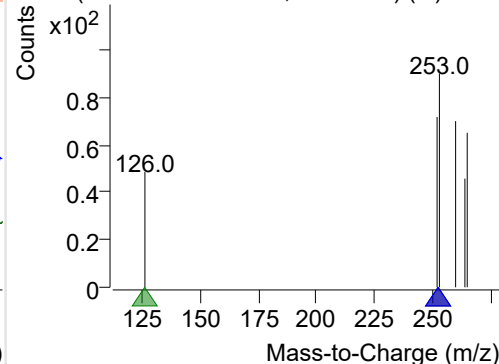
+ Selected Ion (252.0) 220407-PAHs-057.D



252.0, 253.0, 126.0

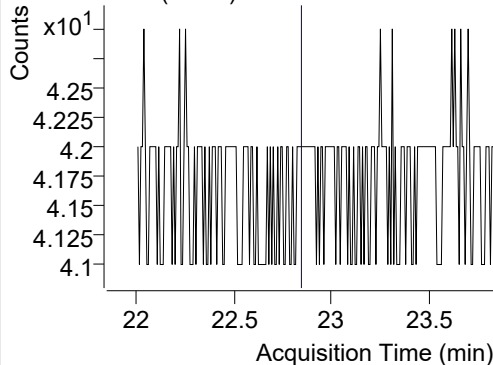


+ SIM (20.952-21.072 min, 23 scans) (\*\*) 2204

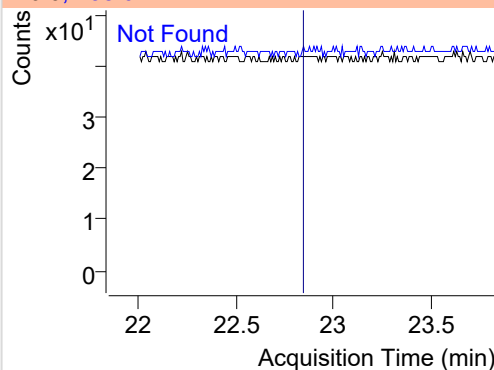


## Indeno(1,2,3-c,d)pyrene

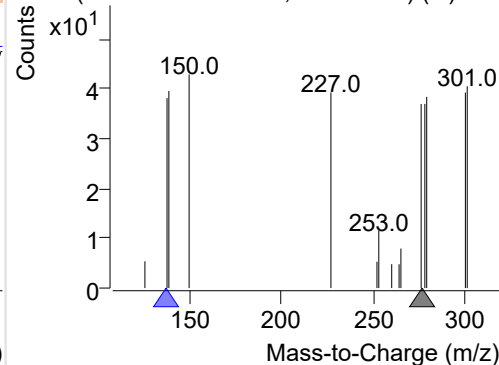
+ Selected Ion (276.0) 220407-PAHs-057.D



276.0, 138.0

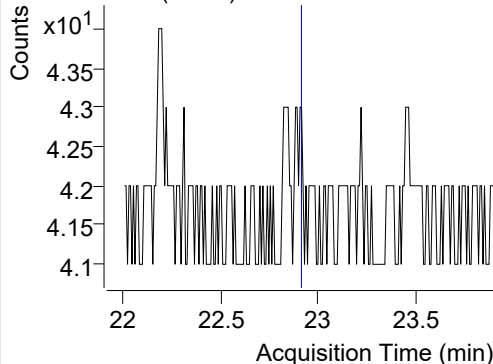


+ SIM (21.837-23.837 min, 270 scans) (\*\*) 220

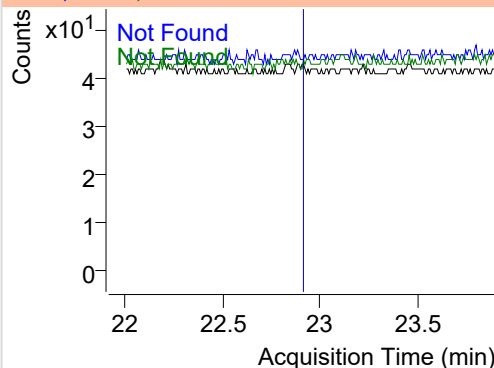


## Dibenz(a,h)anthracene

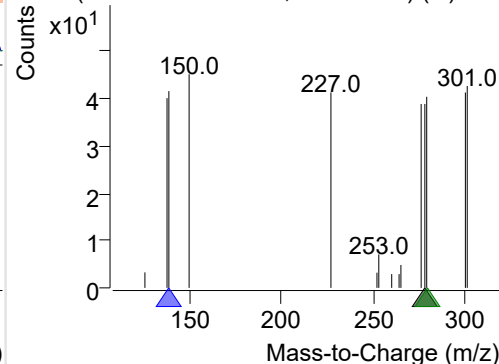
+ Selected Ion (278.0) 220407-PAHs-057.D



278.0, 139.0, 279.0



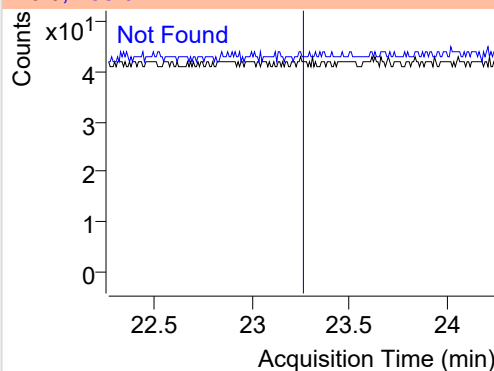
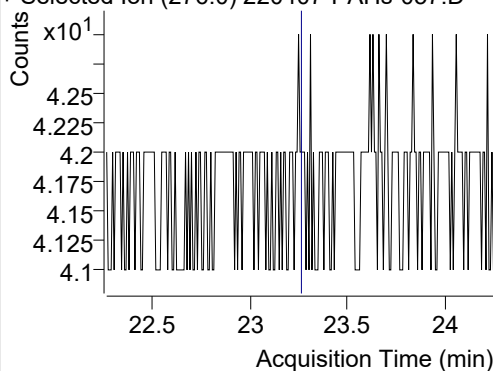
+ SIM (21.906-23.906 min, 267 scans) (\*\*) 220



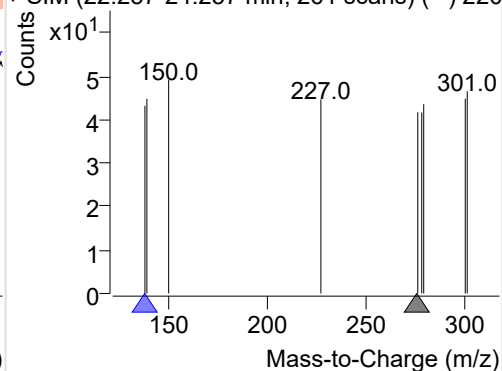
**Benzo(g,h,i)perylene**

+ Selected Ion (276.0) 220407-PAHs-057.D

276.0, 138.0

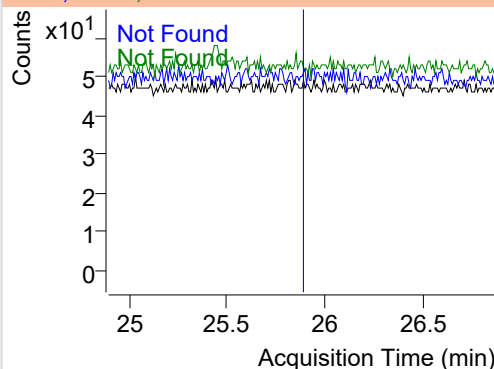
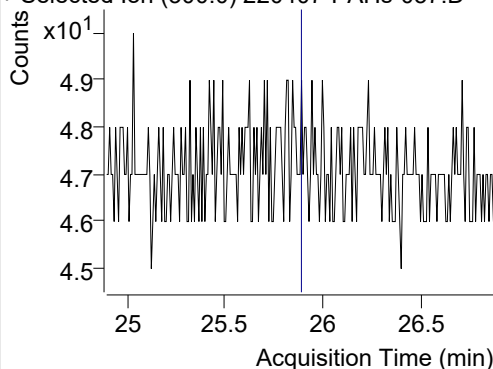


+ SIM (22.257-24.257 min, 261 scans) (\*\*) 220

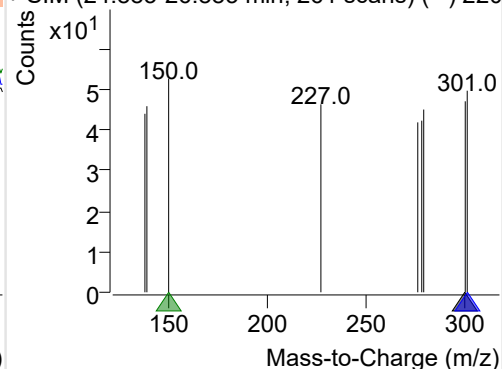
**Coronene**

+ Selected Ion (300.0) 220407-PAHs-057.D

300.0, 301.0, 150.0



+ SIM (24.883-26.883 min, 261 scans) (\*\*) 220





## Quantitative Analysis Sample Based Report

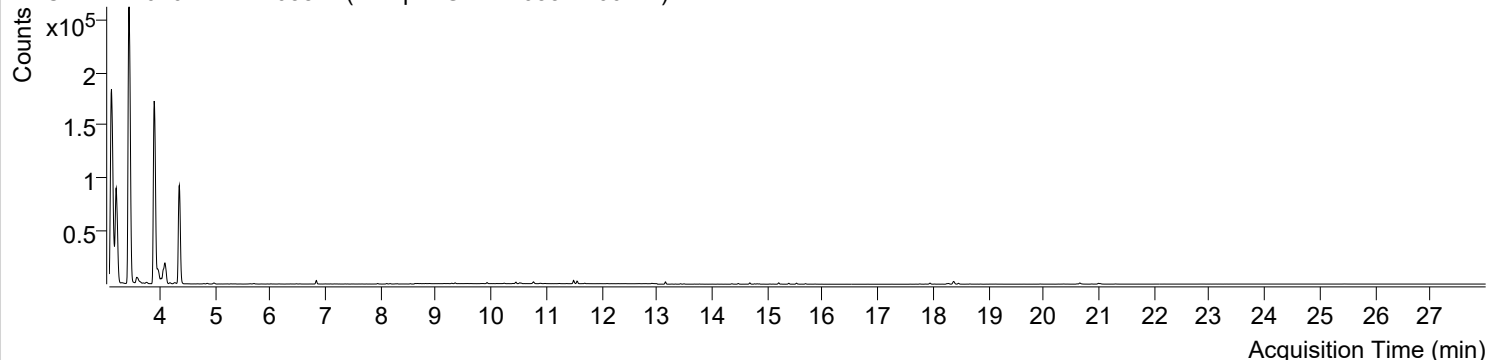


Trusted Answers

Batch Data Path File Name	D:\MassHunter\GCMS\1\data\PAHs\220407-PAHs-Sample\QuantResults\220407-PAHs-Quant.batch.bin		
Analysis Time Stamp	2022-04-13 오후 5:40:30	Analyst Name	DESKTOP-86B7UPG\5975MS
Report Generation Time	2022-04-13 오후 5:40:41	Report Generator Name	DESKTOP-86B7UPG\5975MS
Calibration Last Update	2022-04-13 오후 5:38:35	Batch State	Processed
Analyze Quant Version	10.2	Report Quant Version	10.2
Acq. Date-Time	2022-04-08 오후 4:58:18	Data File	220407-PAHs-058.D
Type	Sample	Name	Sample-Gas-220331-100DIL
Dil.	1	Acq. Method File	PAHs 19mix-Method

## Sample Chromatogram

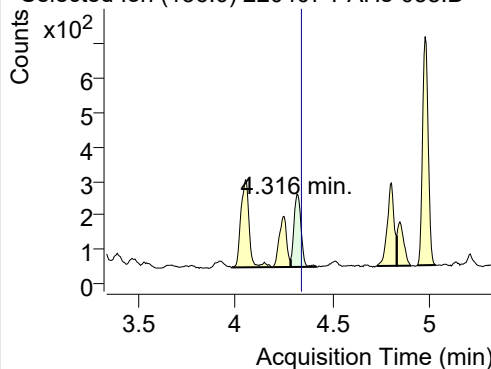
+ TIC SIM 220407-PAHs-058.D (Sample-Gas-220331-100DIL)



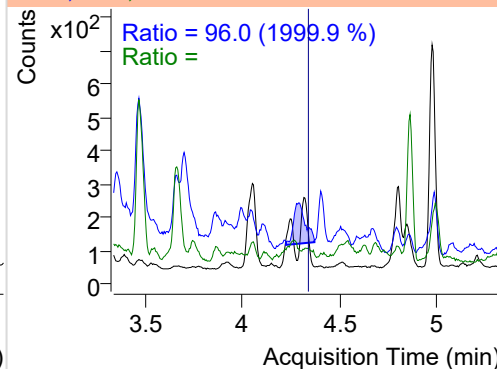
Name	RT	Transition	Resp.	Height	Final Conc. Units	Ratio
IS-D8-Naphthalene	4.316	136.0	538	210.68	ND µg/mL	
Naphthalene	4.354	128.0	185001	74843.86	ND µg/mL	13.1
Acenaphthylene	7.745	152.0	53	39.03	ND µg/mL	
IS-D10-Acenaphthene	8.112	164.0	335	201.90	ND µg/mL	94.8
Acenaphthene	8.177	154.0	136	86.70	ND µg/mL	141.4
LSS-D10-Fluorene	9.281	176.0	307	196.08	ND µg/mL	93.1
Fluorene	9.344	166.0	539	349.98	ND µg/mL	99.3
IS-D10-Phenanthrene	11.508	188.0	562	365.04	ND µg/mL	19.6
Phenanthrene	11.560	178.0	2687	1540.69	ND µg/mL	18.0
Anthracene	11.697	178.0	260	111.89	ND µg/mL	23.1
Fluoranthene	14.354	202.0	478	286.50	ND µg/mL	18.7
LSS-D10-Pyrene	14.809	212.0	446	274.05	ND µg/mL	16.2
Pyrene	14.847	202.0	352	219.50	ND µg/mL	16.1
Benz(a)anthracene	17.807	228.0	29	14.26	ND µg/mL	17.8
IS-D12-Chrysene	17.758	240.0	378	178.53	ND µg/mL	17.1
Chrysene	17.807	228.0	29	14.26	ND µg/mL	17.8
Benzo(b)fluoranthene	20.654	252.0	1992	877.73	ND µg/mL	20.5
Benzo(k)fluoranthene	20.654	252.0	1992	877.73	ND µg/mL	20.5
SS-D12-Benzo(e)pyrene	20.605	264.0	398	169.47	ND µg/mL	28.3
Benzo(e)pyrene	20.654	252.0	1992	877.73	ND µg/mL	20.5
Benzo(a)pyrene	20.654	252.0	1992	877.73	ND µg/mL	20.5
IS-D12-Perylene	20.871	264.0	217	104.42	ND µg/mL	19.4
Perylene	20.990	252.0	1362	558.09	ND µg/mL	20.2
Indeno(1,2,3-c,d)pyrene		276.0			ND µg/mL	
Dibenz(a,h)anthracene	22.829	278.0	8	5.29	ND µg/mL	87.4
Benzo(g,h,i)perylene		276.0			ND µg/mL	
Coronene	25.952	300.0	76	4.00	ND µg/mL	

## IS-D8-Naphthalene

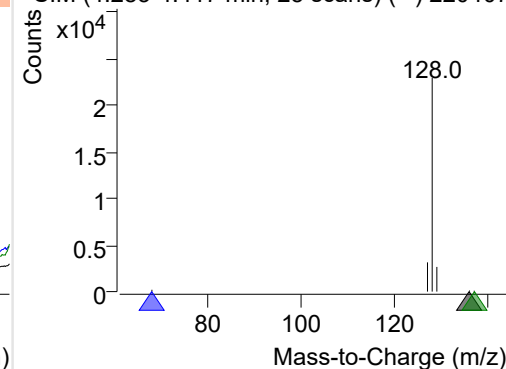
+ Selected Ion (136.0) 220407-PAHs-058.D



136.0, 68.0, 137.0

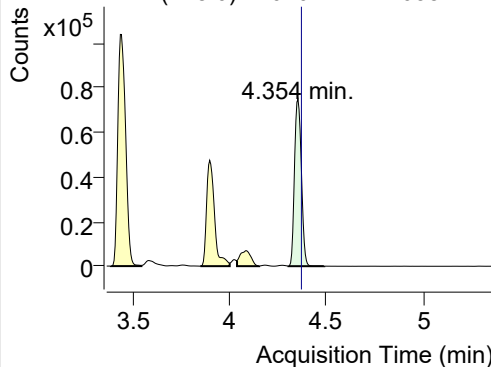


+ SIM (4.283-4.417 min, 25 scans) (\*\*) 220407

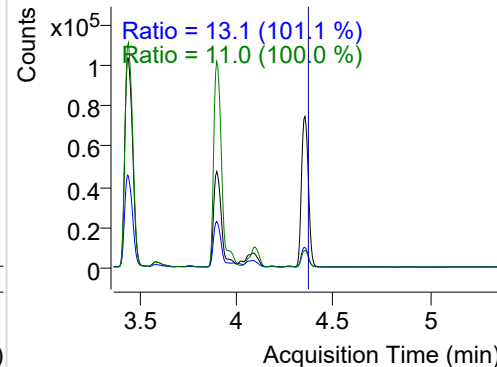


**Naphthalene**

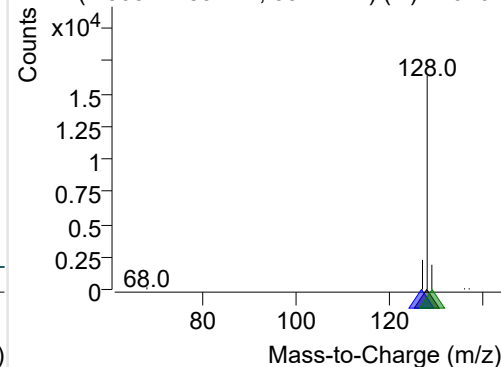
+ Selected Ion (128.0) 220407-PAHs-058.D



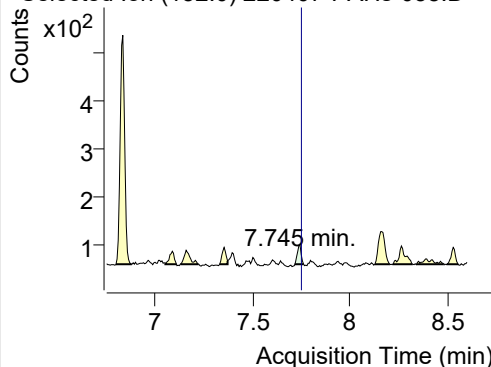
128.0, 127.0, 129.0



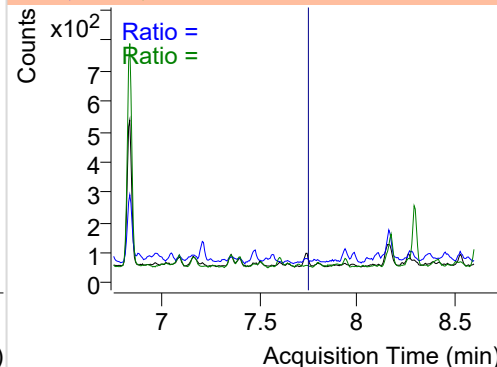
+ SIM (4.305-4.489 min, 35 scans) (\*\*) 220407

**Acenaphthylene**

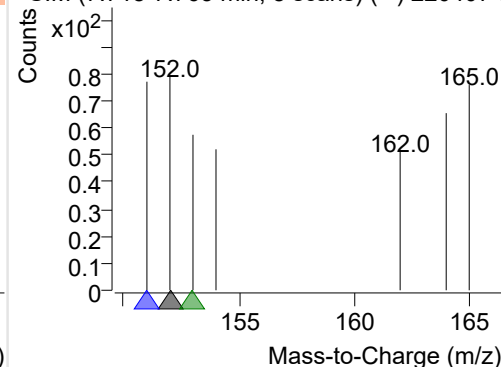
+ Selected Ion (152.0) 220407-PAHs-058.D



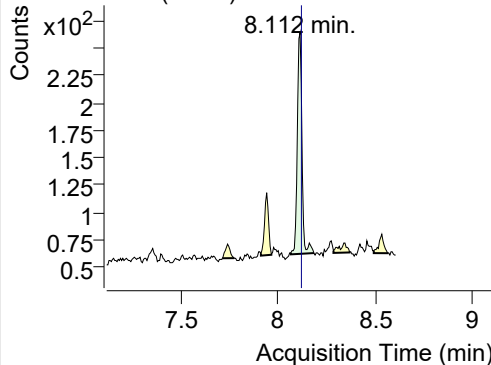
152.0, 151.0, 153.0



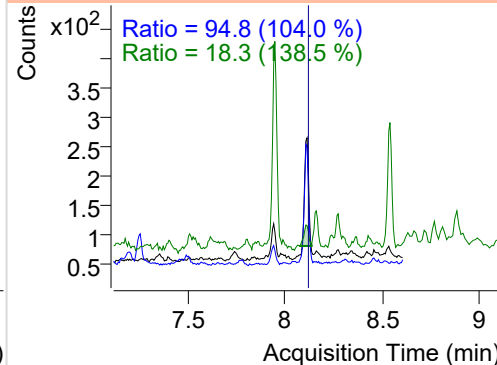
+ SIM (7.718-7.763 min, 8 scans) (\*\*) 220407-I

**IS-D10-Acenaphthene**

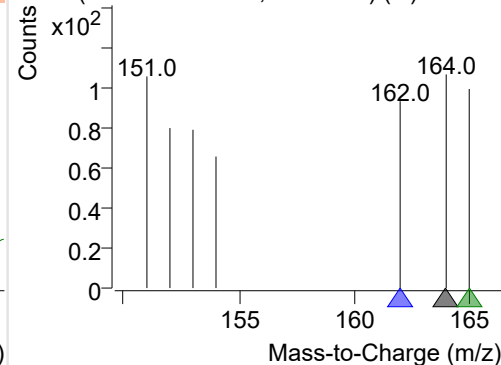
+ Selected Ion (164.0) 220407-PAHs-058.D



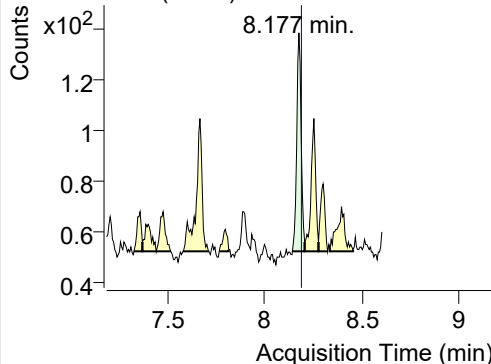
164.0, 162.0, 165.0



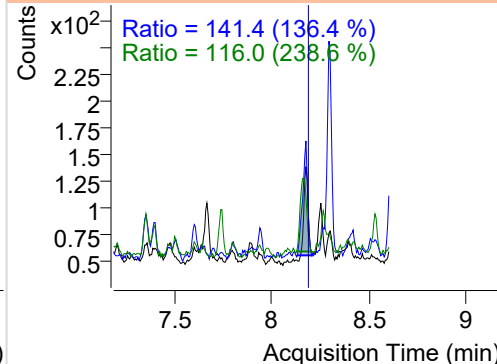
+ SIM (8.065-8.184 min, 21 scans) (\*\*) 220407

**Acenaphthene**

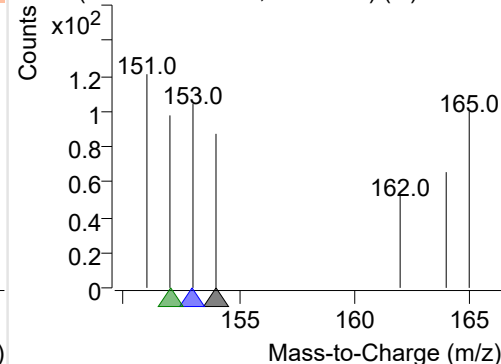
+ Selected Ion (154.0) 220407-PAHs-058.D



154.0, 153.0, 152.0

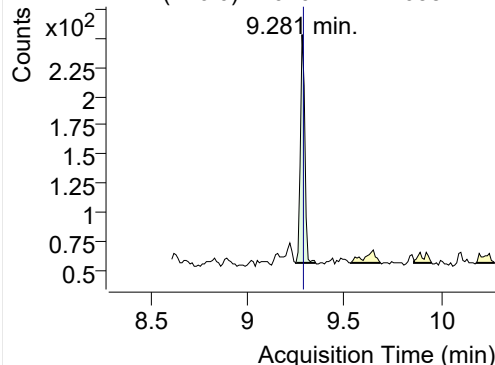


+ SIM (8.144-8.207 min, 11 scans) (\*\*) 220407

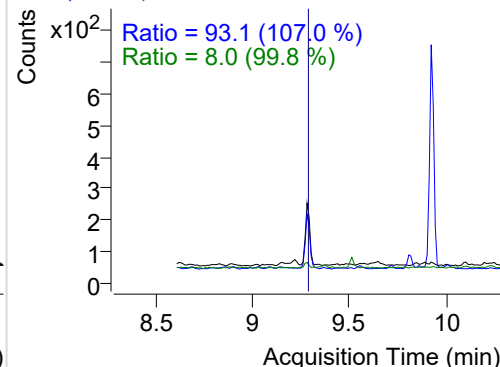


## LSS-D10-Fluorene

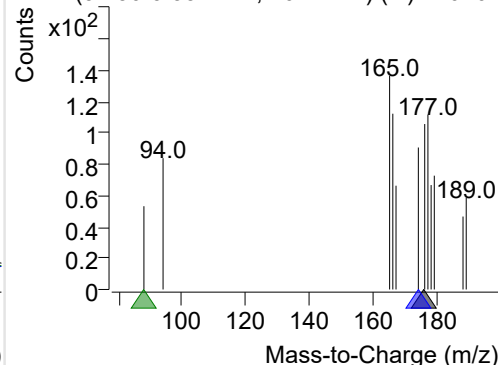
+ Selected Ion (176.0) 220407-PAHs-058.D



176.0, 174.0, 88.0

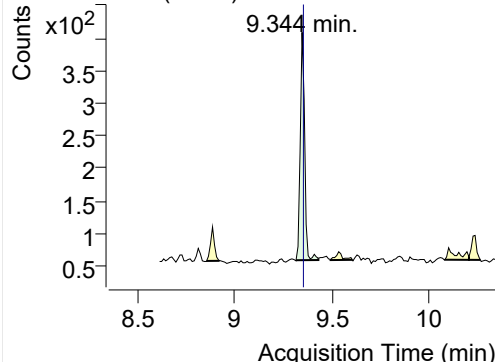


+ SIM (9.250-9.352 min, 10 scans) (\*\*) 220407

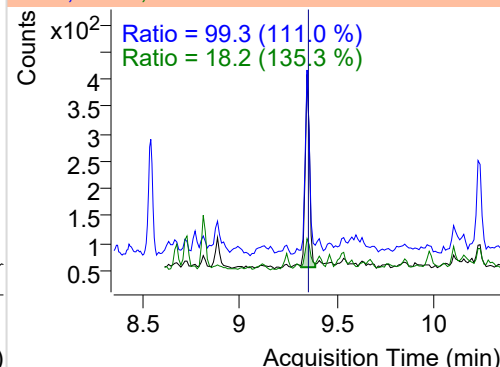


## Fluorene

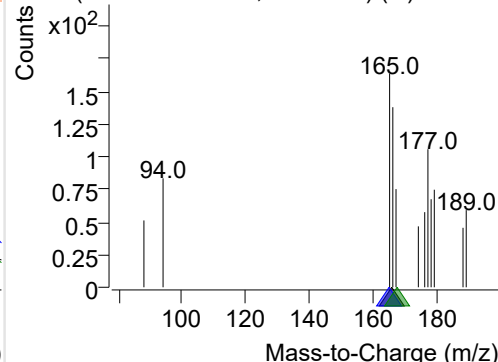
+ Selected Ion (166.0) 220407-PAHs-058.D



166.0, 165.0, 167.0

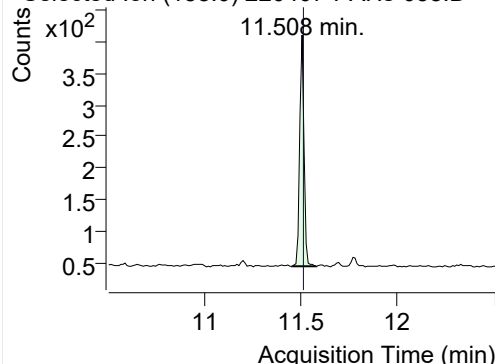


+ SIM (9.313-9.428 min, 11 scans) (\*\*) 220407

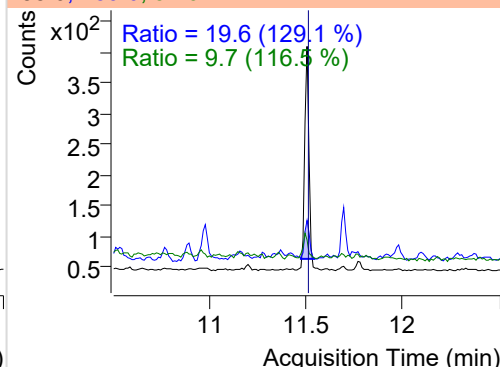


## IS-D10-Phenanthrene

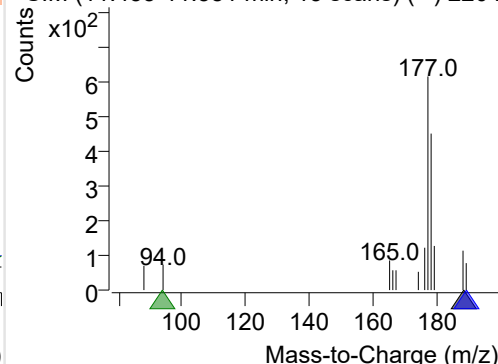
+ Selected Ion (188.0) 220407-PAHs-058.D



188.0, 189.0, 94.0

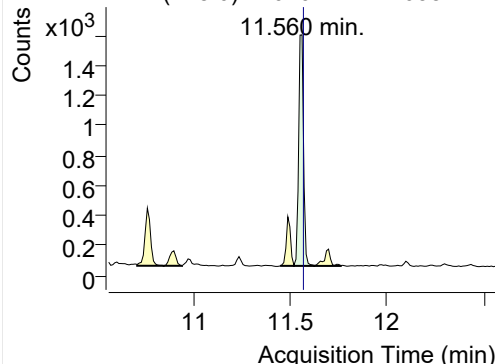


+ SIM (11.455-11.581 min, 13 scans) (\*\*) 2204

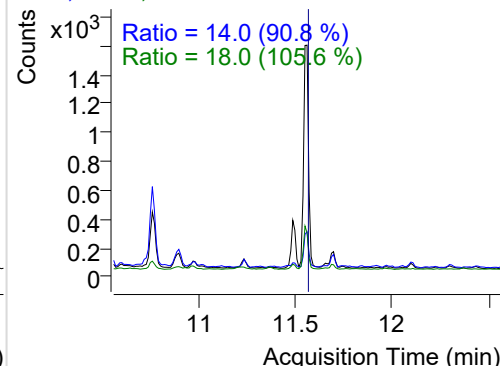


## Phenanthrene

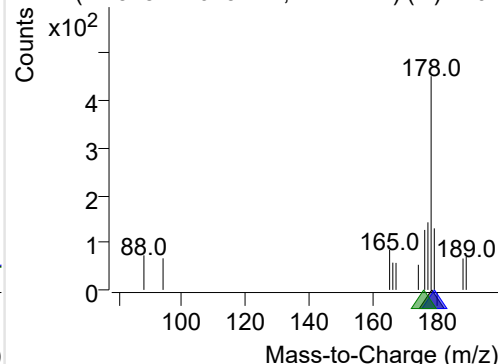
+ Selected Ion (178.0) 220407-PAHs-058.D



178.0, 179.0, 176.0

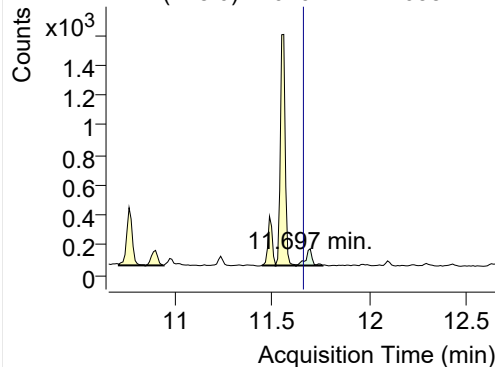


+ SIM (11.518-11.623 min, 11 scans) (\*\*) 2204

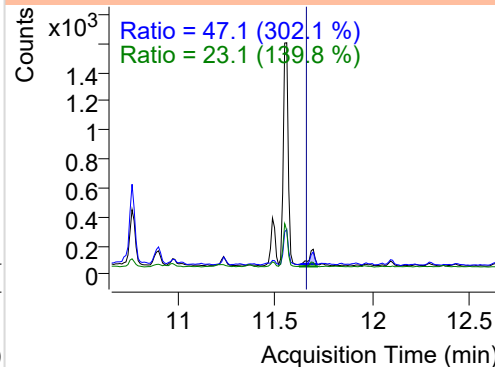


**Anthracene**

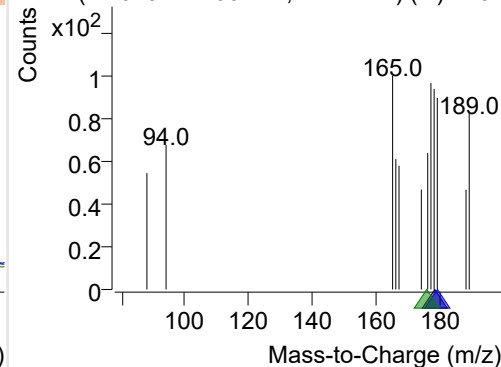
+ Selected Ion (178.0) 220407-PAHs-058.D



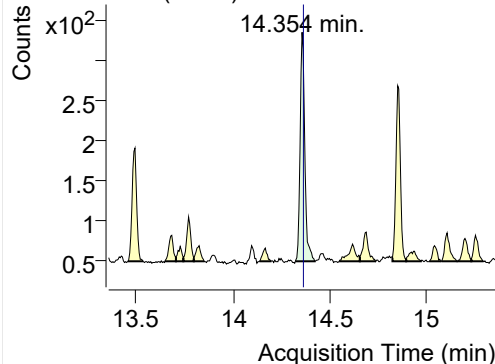
178.0, 179.0, 176.0



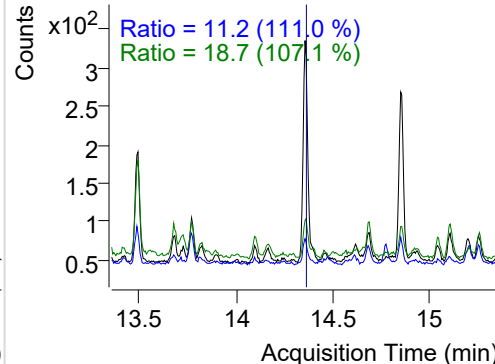
+ SIM (11.623-11.760 min, 14 scans) (\*\*) 2204

**Fluoranthene**

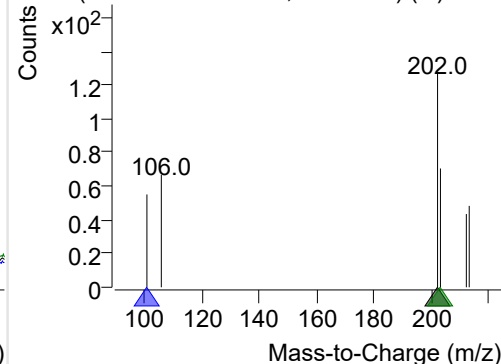
+ Selected Ion (202.0) 220407-PAHs-058.D



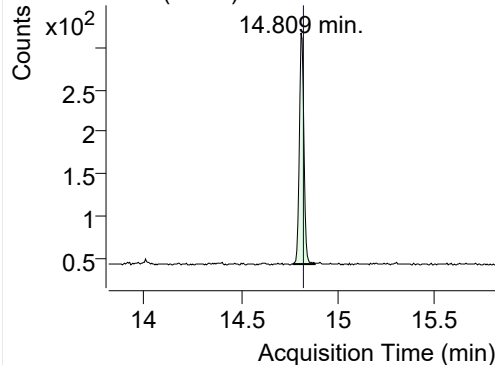
202.0, 101.0, 203.0



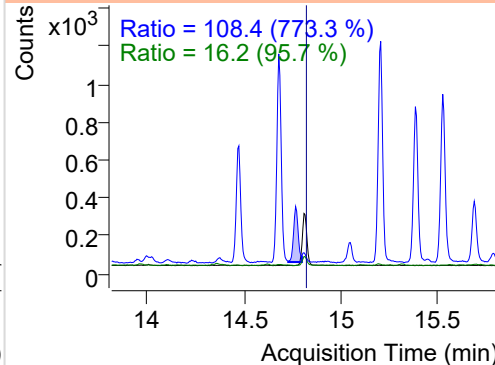
+ SIM (14.319-14.419 min, 19 scans) (\*\*) 2204

**LSS-D10-Pyrene**

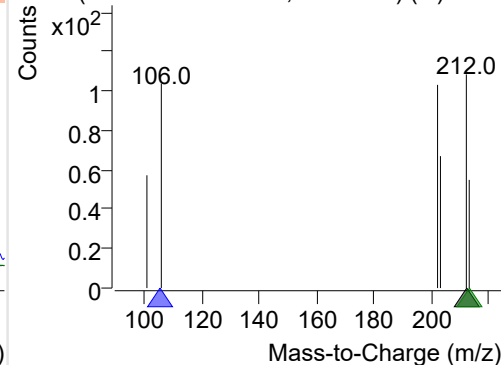
+ Selected Ion (212.0) 220407-PAHs-058.D



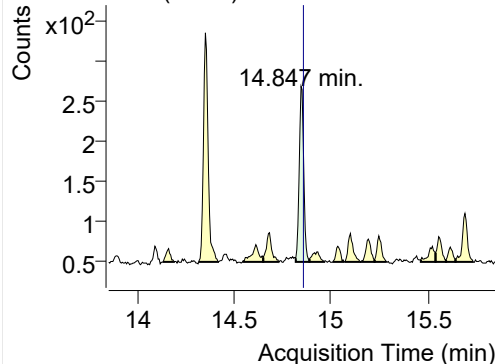
212.0, 106.0, 213.0



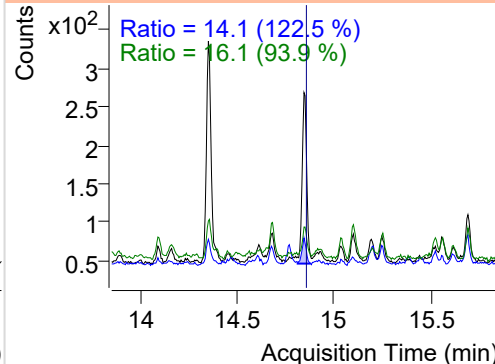
+ SIM (14.771-14.879 min, 21 scans) (\*\*) 2204

**Pyrene**

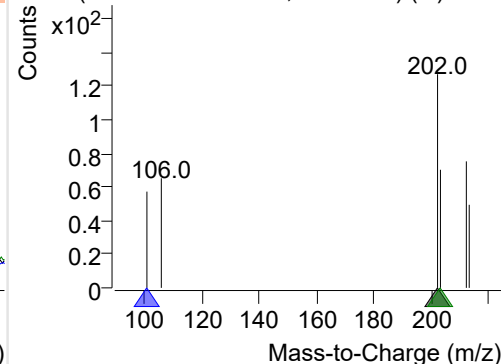
+ Selected Ion (202.0) 220407-PAHs-058.D



202.0, 101.0, 203.0



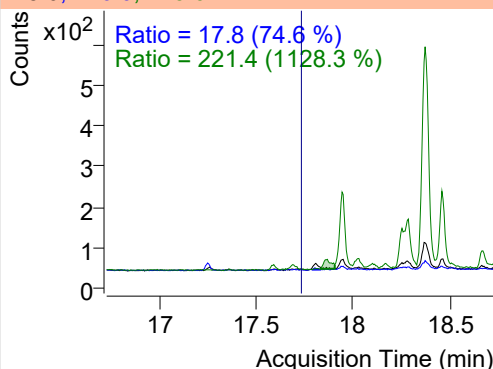
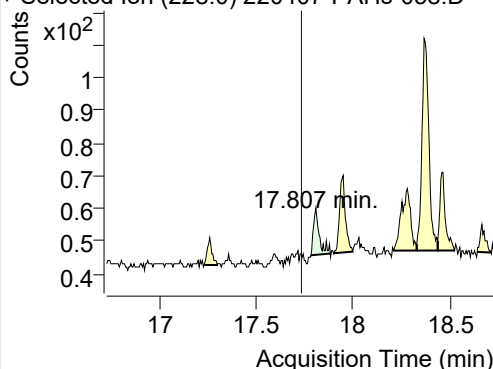
+ SIM (14.820-14.890 min, 14 scans) (\*\*) 2204



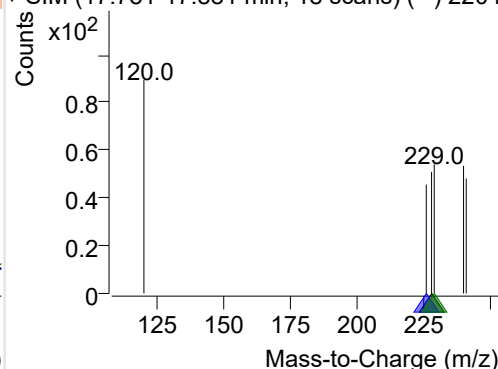
**Benz(a)anthracene**

+ Selected Ion (228.0) 220407-PAHs-058.D

228.0, 226.0, 229.0

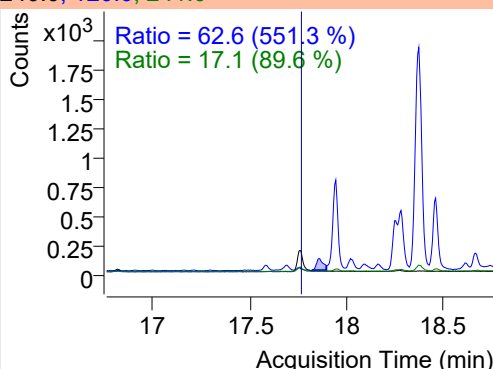
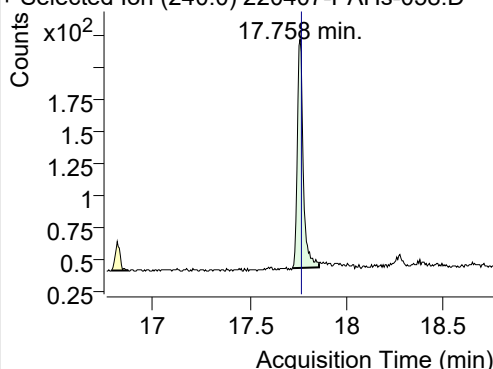


+ SIM (17.781-17.881 min, 18 scans) (\*\*) 2204

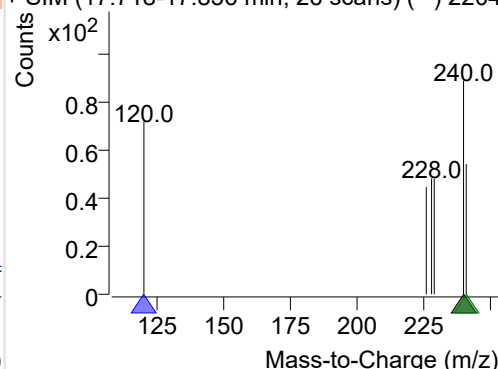
**IS-D12-Chrysene**

+ Selected Ion (240.0) 220407-PAHs-058.D

240.0, 120.0, 241.0

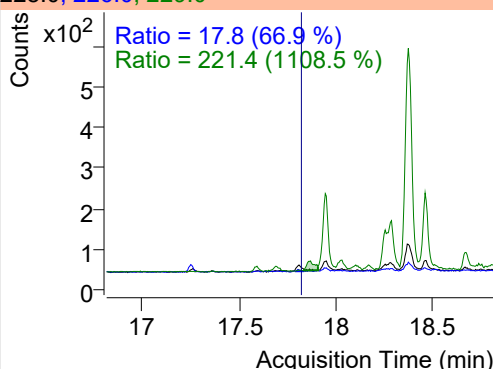
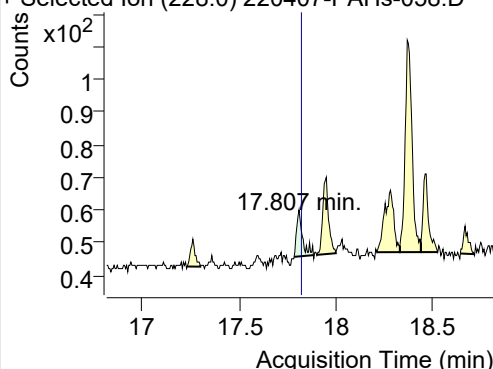


+ SIM (17.718-17.856 min, 26 scans) (\*\*) 2204

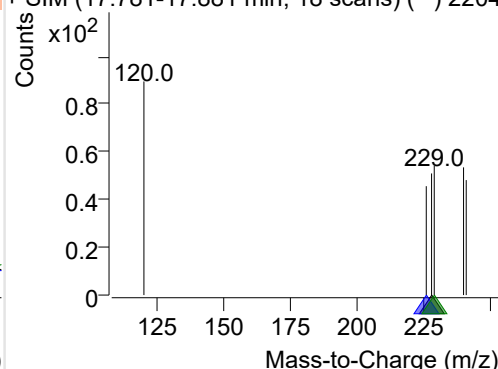
**Chrysene**

+ Selected Ion (228.0) 220407-PAHs-058.D

228.0, 226.0, 229.0

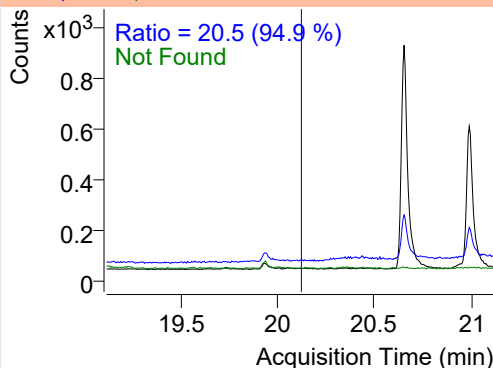
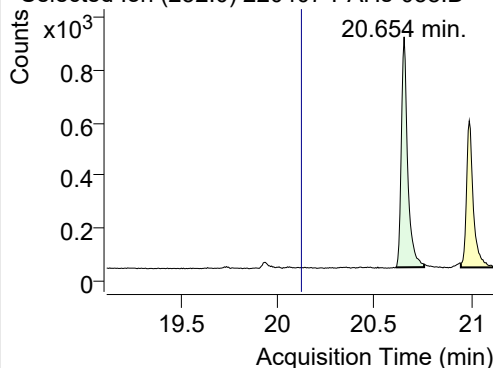


+ SIM (17.781-17.881 min, 18 scans) (\*\*) 2204

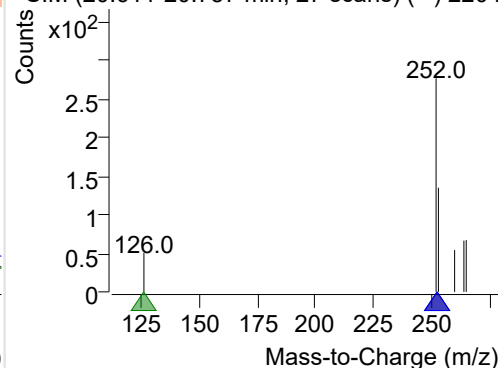
**Benzo(b)fluoranthene**

+ Selected Ion (252.0) 220407-PAHs-058.D

252.0, 253.0, 126.0

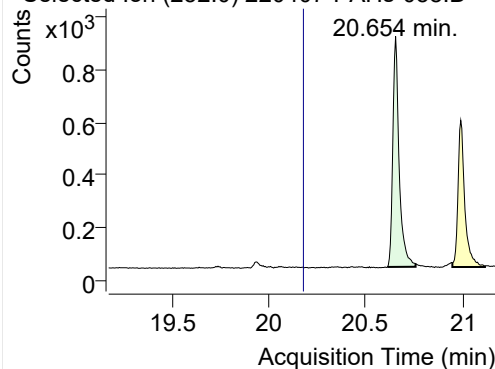


+ SIM (20.611-20.757 min, 27 scans) (\*\*) 2204

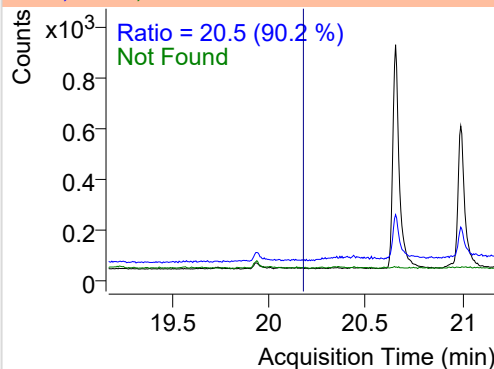


**Benzo(k)fluoranthene**

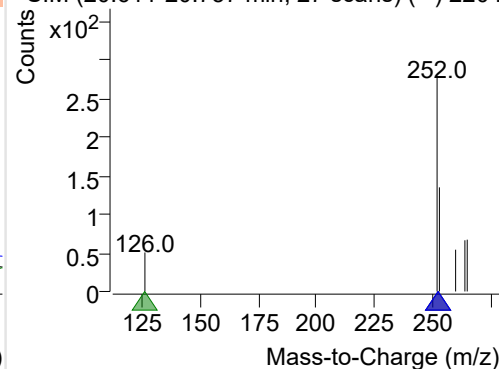
+ Selected Ion (252.0) 220407-PAHs-058.D



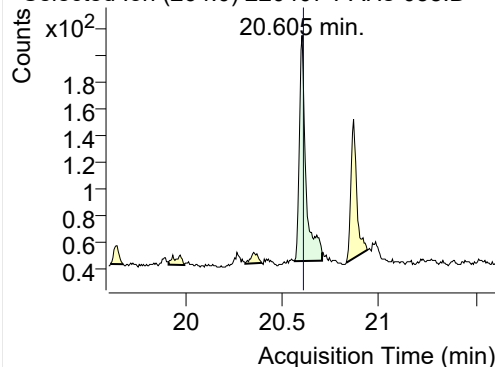
252.0, 253.0, 126.0



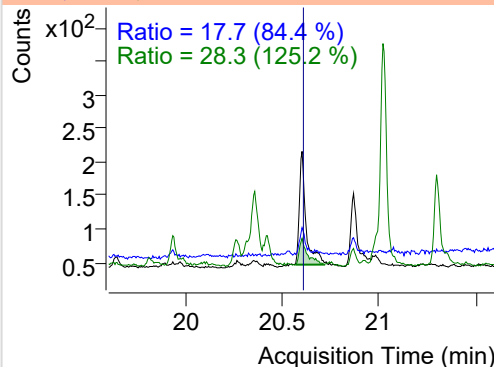
+ SIM (20.611-20.757 min, 27 scans) (\*\*) 2204

**SS-D12-Benzo(e)pyrene**

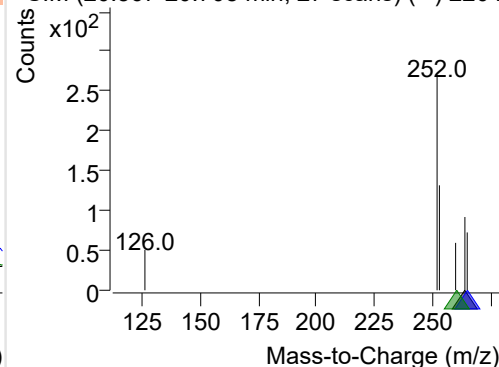
+ Selected Ion (264.0) 220407-PAHs-058.D



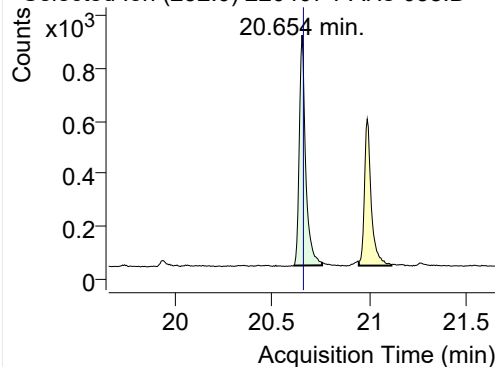
264.0, 265.0, 260.0



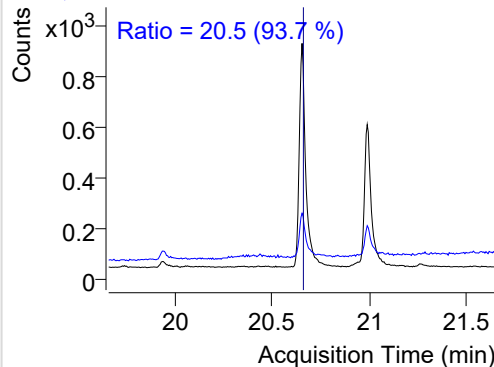
+ SIM (20.567-20.708 min, 27 scans) (\*\*) 2204

**Benzo(e)pyrene**

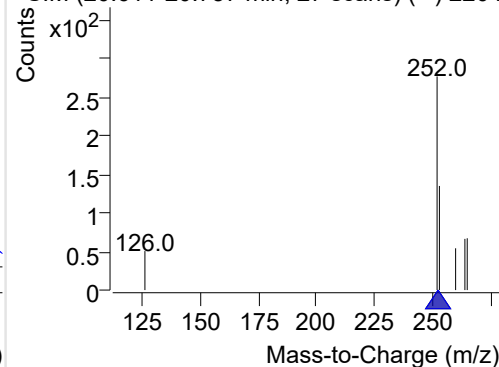
+ Selected Ion (252.0) 220407-PAHs-058.D



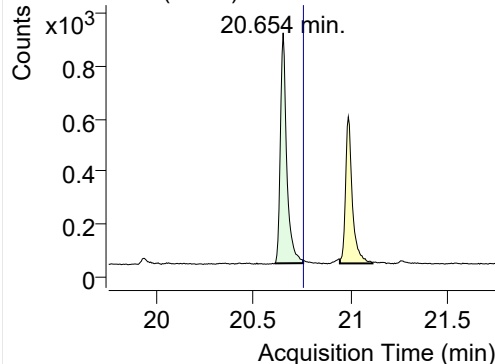
252.0, 253.0



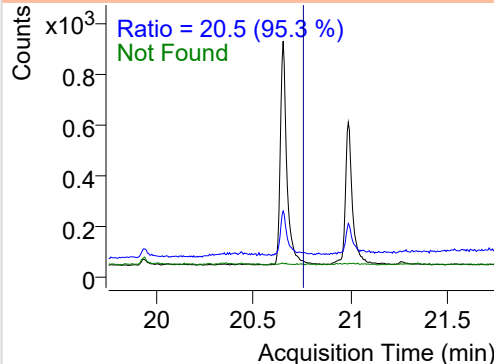
+ SIM (20.611-20.757 min, 27 scans) (\*\*) 2204

**Benzo(a)pyrene**

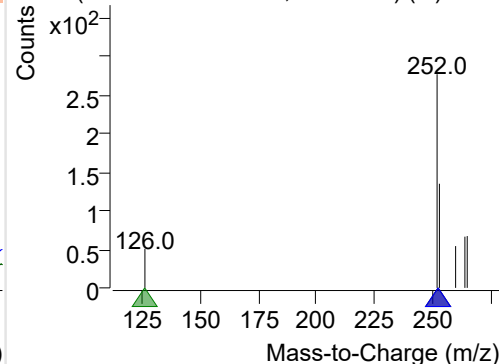
+ Selected Ion (252.0) 220407-PAHs-058.D



252.0, 253.0, 126.0



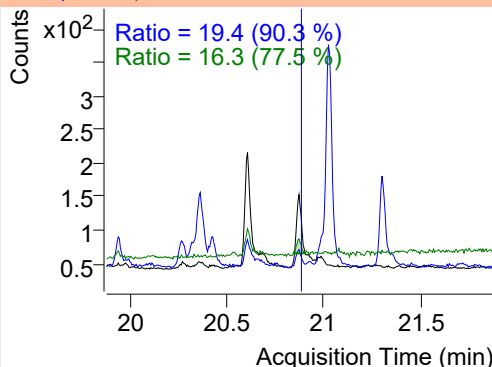
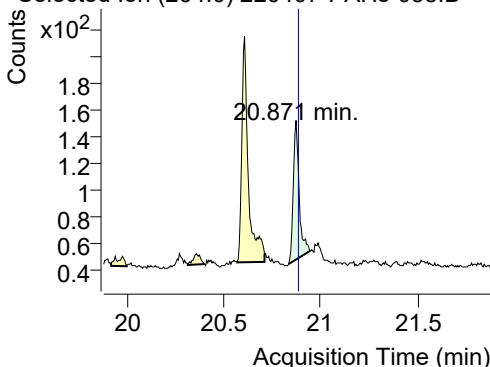
+ SIM (20.611-20.757 min, 27 scans) (\*\*) 2204



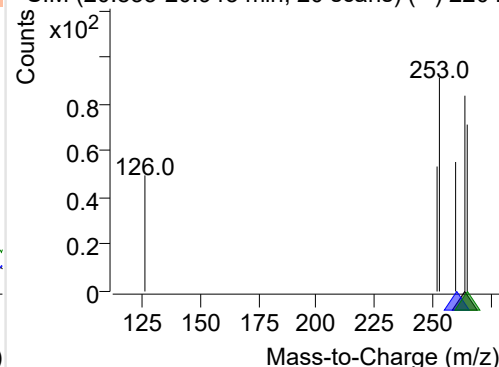
## IS-D12-Perylene

+ Selected Ion (264.0) 220407-PAHs-058.D

264.0, 260.0, 265.0



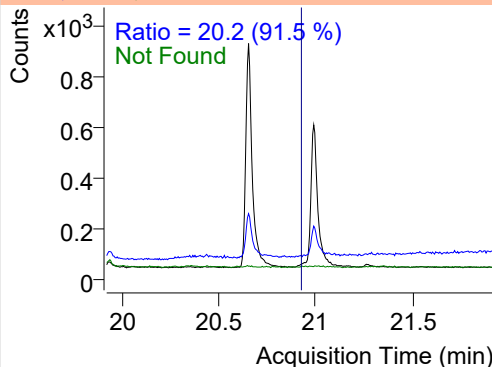
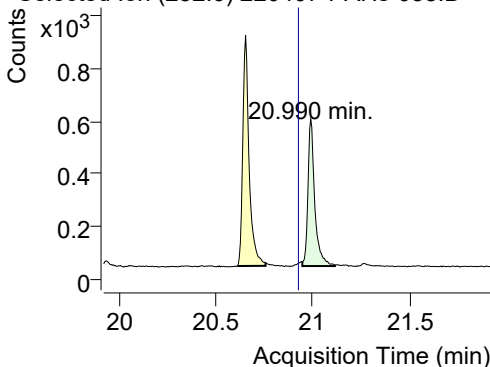
+ SIM (20.833-20.943 min, 20 scans) (\*\*) 2204



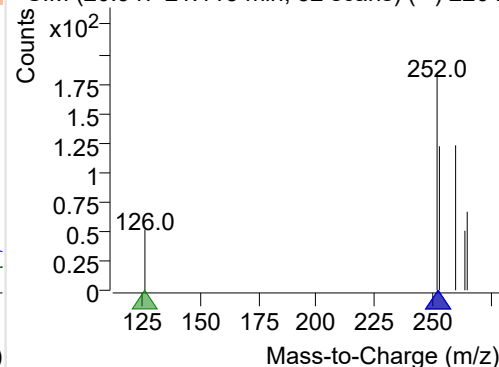
## Perylene

+ Selected Ion (252.0) 220407-PAHs-058.D

252.0, 253.0, 126.0



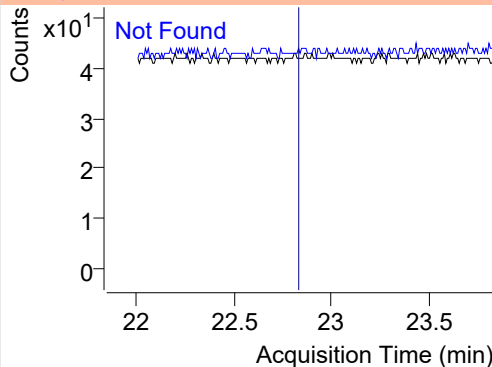
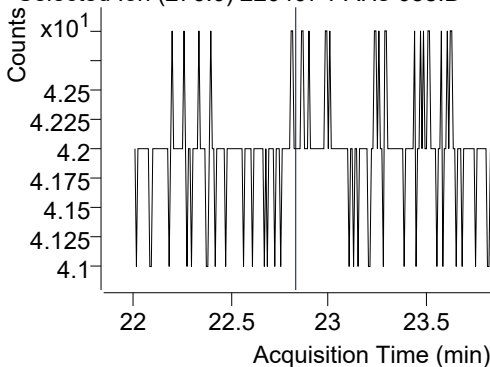
+ SIM (20.947-21.115 min, 32 scans) (\*\*) 2204



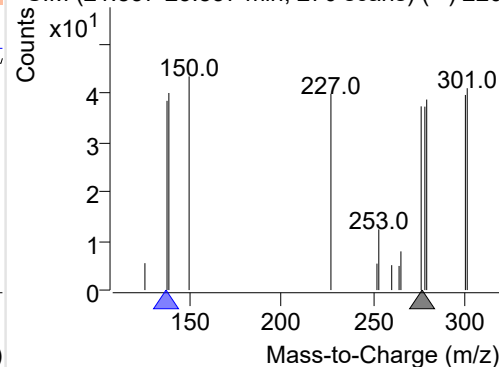
## Indeno(1,2,3-c,d)pyrene

+ Selected Ion (276.0) 220407-PAHs-058.D

276.0, 138.0



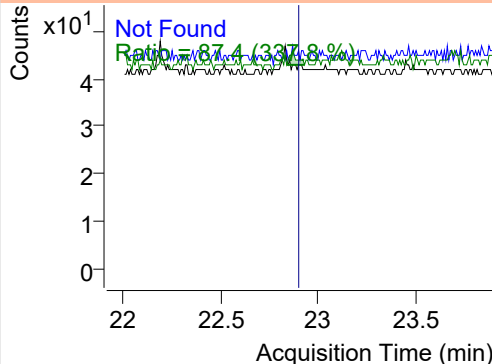
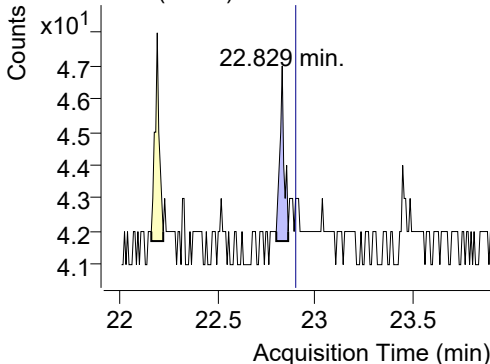
+ SIM (21.837-23.837 min, 270 scans) (\*\*) 220



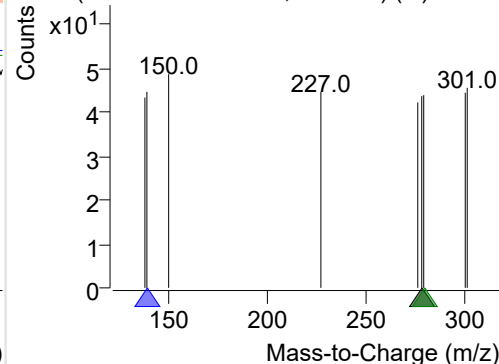
## Dibenz(a,h)anthracene

+ Selected Ion (278.0) 220407-PAHs-058.D

278.0, 139.0, 279.0



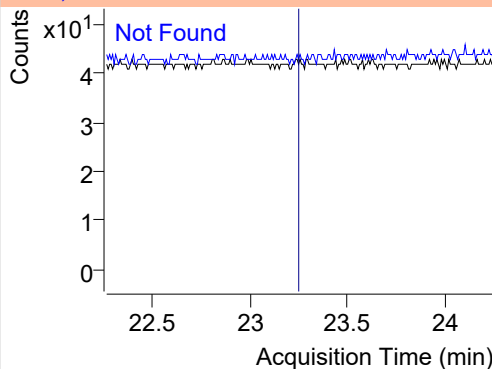
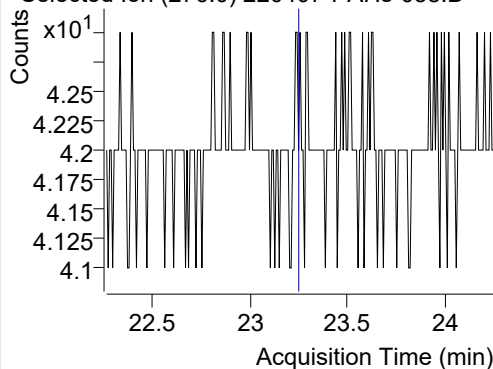
+ SIM (22.799-22.860 min, 9 scans) (\*\*) 22040



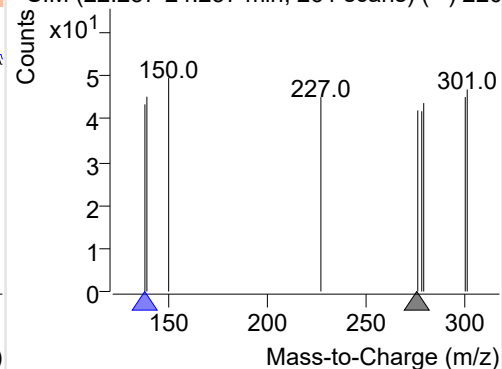
**Benzo(g,h,i)perylene**

+ Selected Ion (276.0) 220407-PAHs-058.D

276.0, 138.0

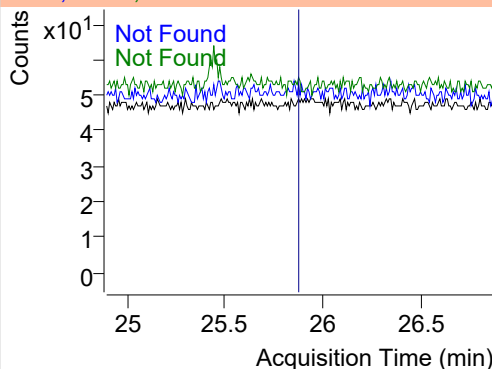
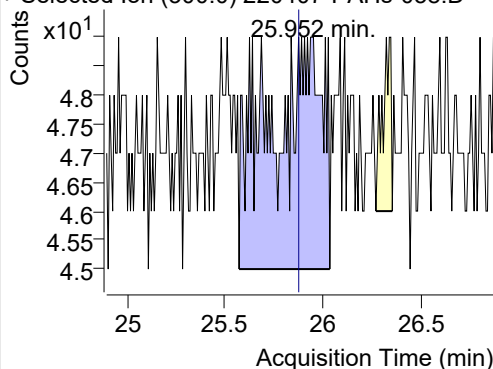


+ SIM (22.257-24.257 min, 261 scans) (\*\*) 220

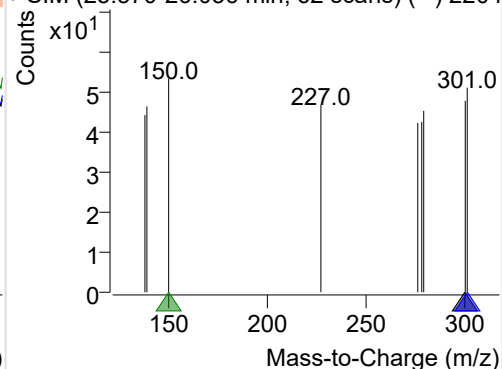
**Coronene**

+ Selected Ion (300.0) 220407-PAHs-058.D

300.0, 301.0, 150.0



+ SIM (25.570-26.036 min, 62 scans) (\*\*) 2204





## Quantitative Analysis Sample Based Report

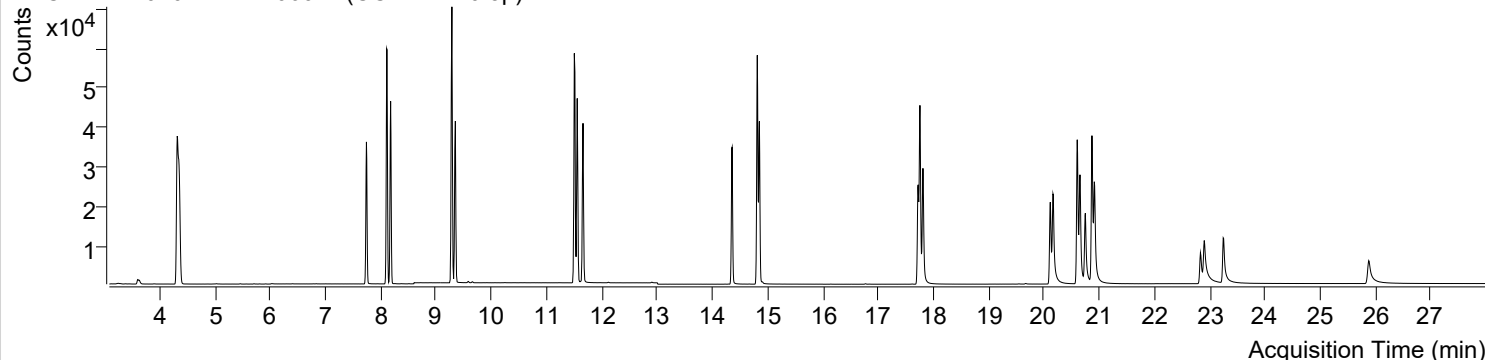


Trusted Answers

Batch Data Path File Name	D:\MassHunter\GCMS\1\data\PAHs\220407-PAHs-Sample\QuantResults\220407-PAHs-Quant.batch.bin		
Analysis Time Stamp	2022-04-13 오후 5:40:30	Analyst Name	DESKTOP-86B7UPG\5975MS
Report Generation Time	2022-04-13 오후 5:40:41	Report Generator Name	DESKTOP-86B7UPG\5975MS
Calibration Last Update	2022-04-13 오후 5:38:35	Batch State	Processed
Analyze Quant Version	10.2	Report Quant Version	10.2
Acq. Date-Time	2022-04-08 오후 6:00:37	Data File	220407-PAHs-060.D
Type	Sample	Name	CCV-STD-0.5p
Dil.	1	Acq. Method File	PAHs 19mix-Method

## Sample Chromatogram

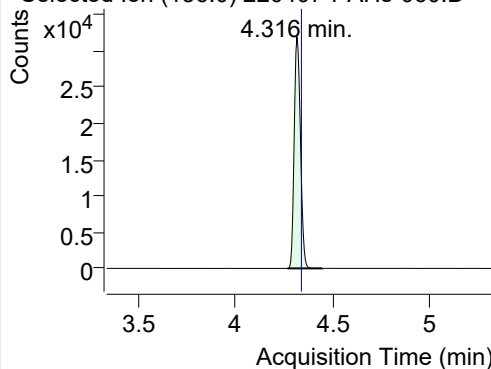
+ TIC SIM 220407-PAHs-060.D (CCV-STD-0.5p)



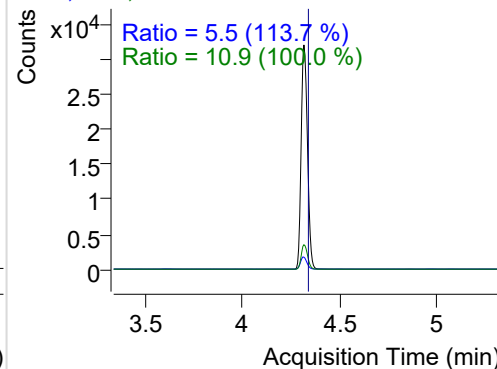
Name	RT	Transition	Resp.	Height	Final Conc. Units	Ratio
IS-D8-Naphthalene	4.316	136.0	71679	31930.25	ND µg/mL	10.9
Naphthalene	4.354	128.0	45262	19926.33	ND µg/mL	13.3
Acenaphthylene	7.739	152.0	40020	26881.38	ND µg/mL	19.7
IS-D10-Acenaphthene	8.112	164.0	44392	29320.46	ND µg/mL	91.7
Acenaphthene	8.177	154.0	24820	16985.74	ND µg/mL	104.8
LSS-D10-Fluorene	9.286	176.0	49732	33244.64	ND µg/mL	88.3
Fluorene	9.349	166.0	30840	20289.68	ND µg/mL	90.4
IS-D10-Phenanthrene	11.502	188.0	77761	46138.68	ND µg/mL	15.1
Phenanthrene	11.554	178.0	45453	30798.88	ND µg/mL	17.7
Anthracene	11.659	178.0	41403	27429.64	ND µg/mL	17.1
Fluoranthene	14.358	202.0	43563	27176.83	ND µg/mL	17.3
LSS-D10-Pyrene	14.814	212.0	67074	43652.29	ND µg/mL	16.9
Pyrene	14.851	202.0	49146	31148.36	ND µg/mL	17.4
Benz(a)anthracene	17.725	228.0	32867	17020.13	ND µg/mL	24.8
IS-D12-Chrysene	17.757	240.0	60233	32714.34	ND µg/mL	19.0
Chrysene	17.811	228.0	37787	19106.83	ND µg/mL	27.0
Benzo(b)fluoranthene	20.116	252.0	27929	15348.40	ND µg/mL	23.1
Benzo(k)fluoranthene	20.165	252.0	45232	16722.88	ND µg/mL	20.6
SS-D12-Benzo(e)pyrene	20.604	264.0	52992	25062.54	ND µg/mL	23.2
Benzo(e)pyrene	20.653	252.0	38520	18307.56	ND µg/mL	21.8
Benzo(a)pyrene	20.751	252.0	31058	12860.83	ND µg/mL	19.5
IS-D12-Perylene	20.870	264.0	55637	25396.02	ND µg/mL	21.5
Perylene	20.913	252.0	37971	15578.72	ND µg/mL	20.3
Indeno(1,2,3-c,d)pyrene	22.834	276.0	15954	6354.60	ND µg/mL	19.2
Dibenz(a,h)anthracene	22.903	278.0	20307	5423.09	ND µg/mL	22.9
Benzo(g,h,i)perylene	23.254	276.0	28249	9095.86	ND µg/mL	20.4
Coronene	25.880	300.0	19380	3799.13	ND µg/mL	26.2

## IS-D8-Naphthalene

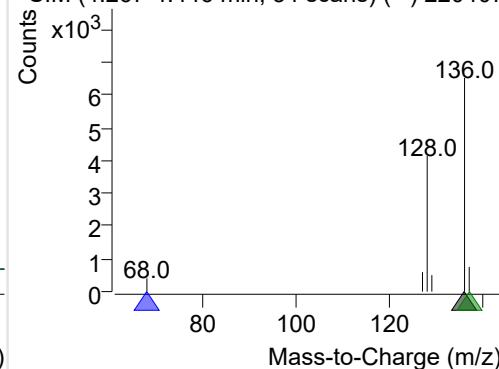
+ Selected Ion (136.0) 220407-PAHs-060.D



136.0, 68.0, 137.0

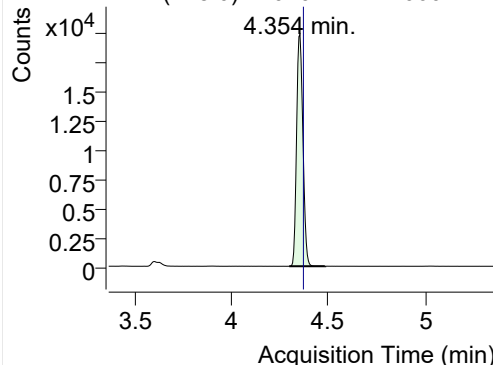


+ SIM (4.267-4.446 min, 34 scans) (\*\*) 220407

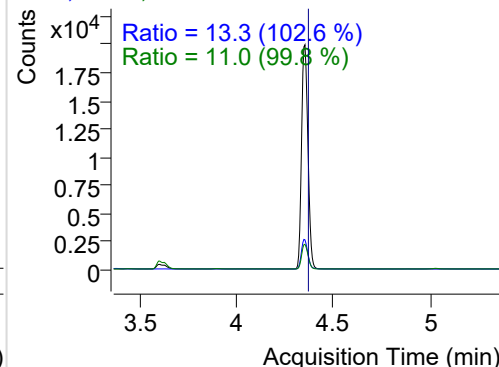


**Naphthalene**

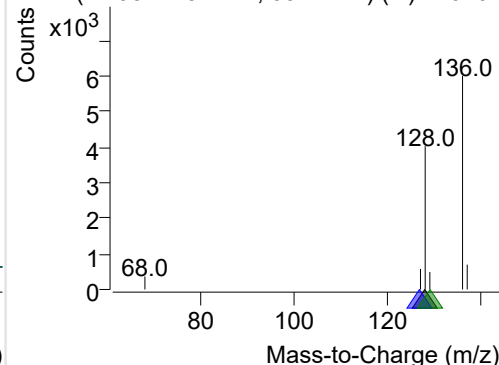
+ Selected Ion (128.0) 220407-PAHs-060.D



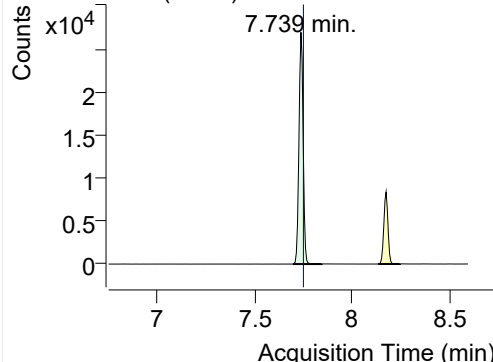
128.0, 127.0, 129.0



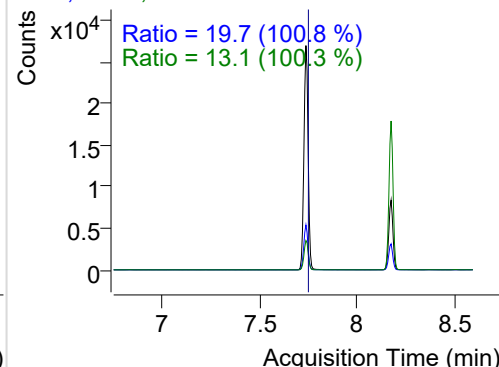
+ SIM (4.298-4.484 min, 35 scans) (\*\*) 220407

**Acenaphthylene**

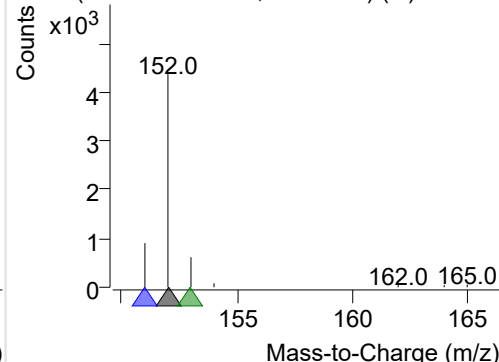
+ Selected Ion (152.0) 220407-PAHs-060.D



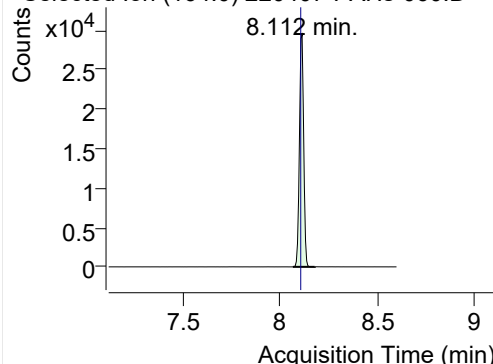
152.0, 151.0, 153.0



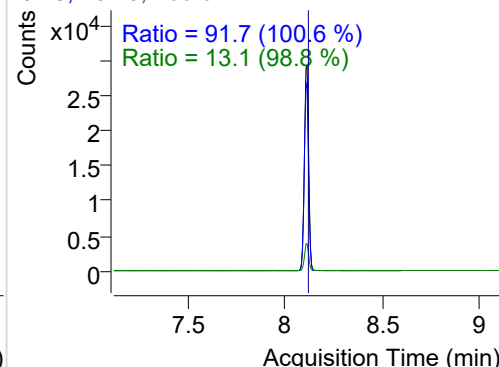
+ SIM (7.698-7.846 min, 26 scans) (\*\*) 220407

**IS-D10-Acenaphthene**

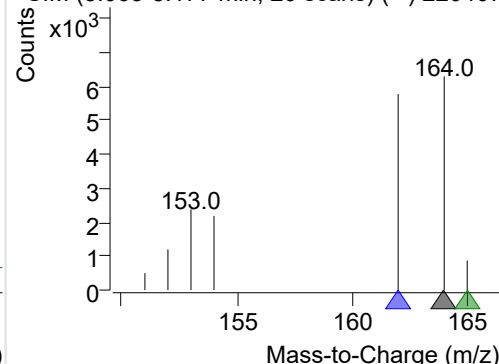
+ Selected Ion (164.0) 220407-PAHs-060.D



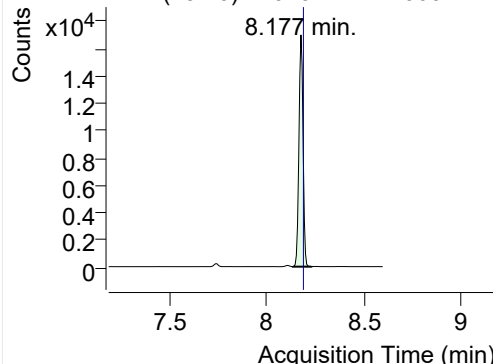
164.0, 162.0, 165.0



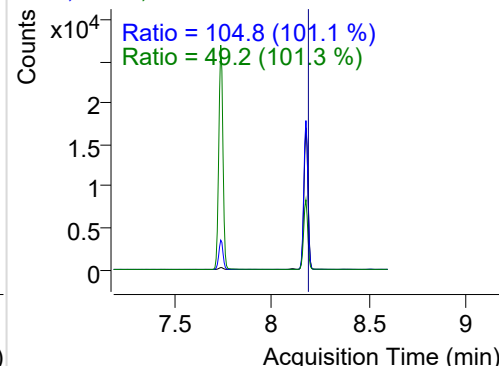
+ SIM (8.065-8.177 min, 20 scans) (\*\*) 220407

**Acenaphthene**

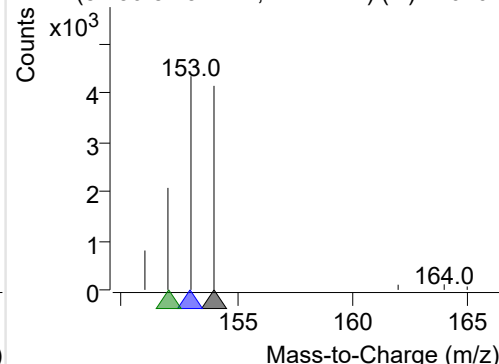
+ Selected Ion (154.0) 220407-PAHs-060.D



154.0, 153.0, 152.0

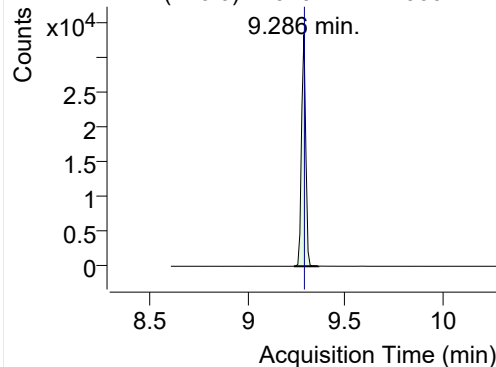


+ SIM (8.136-8.231 min, 17 scans) (\*\*) 220407

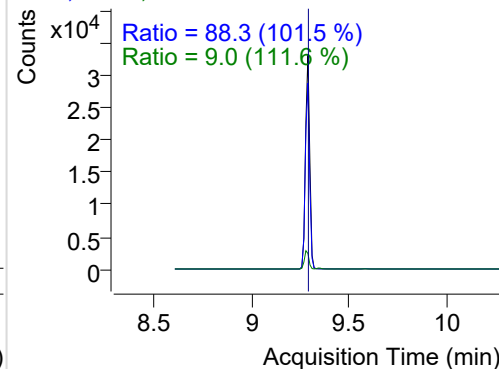


## LSS-D10-Fluorene

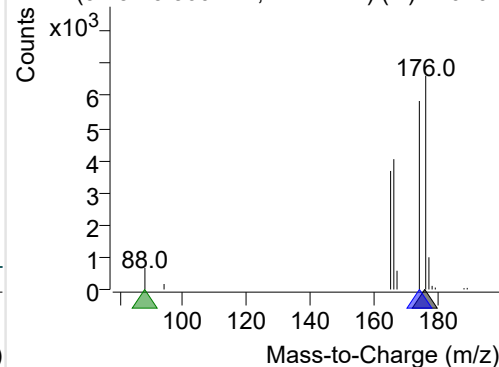
+ Selected Ion (176.0) 220407-PAHs-060.D



176.0, 174.0, 88.0

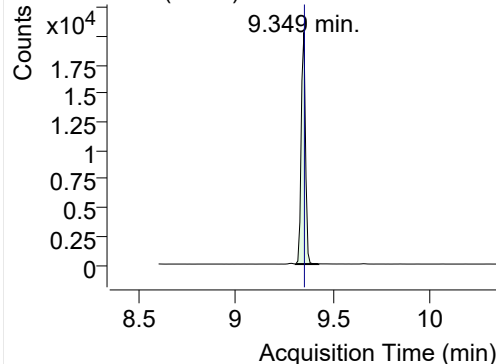


+ SIM (9.234-9.360 min, 12 scans) (\*\*) 220407

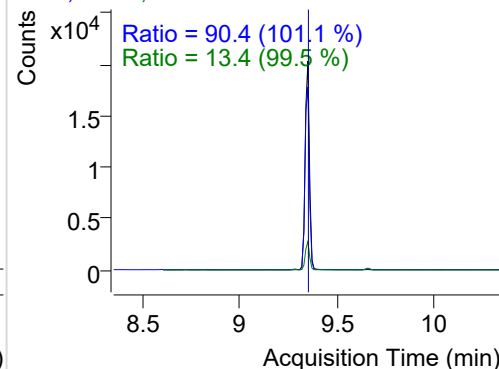


## Fluorene

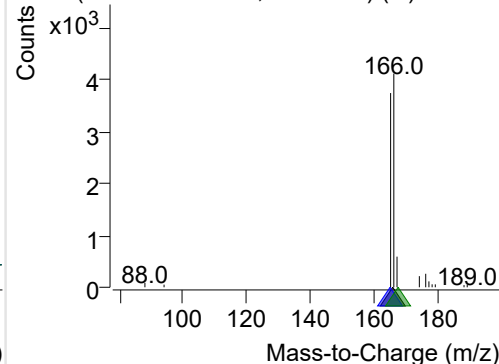
+ Selected Ion (166.0) 220407-PAHs-060.D



166.0, 165.0, 167.0

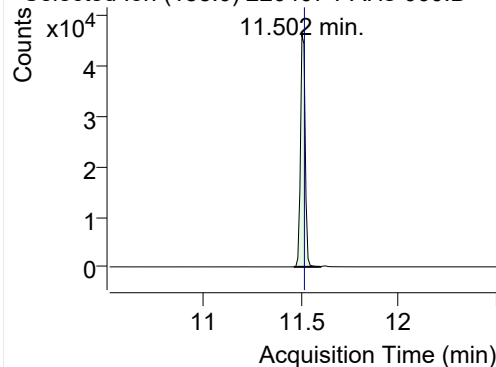


+ SIM (9.307-9.423 min, 12 scans) (\*\*) 220407

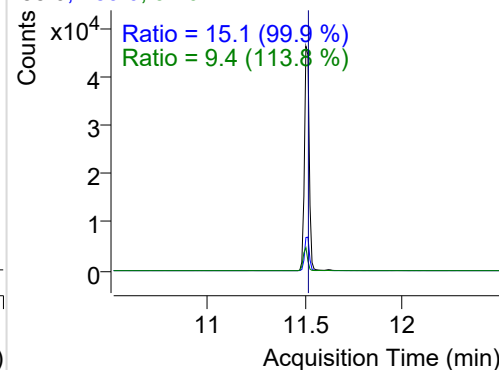


## IS-D10-Phenanthrene

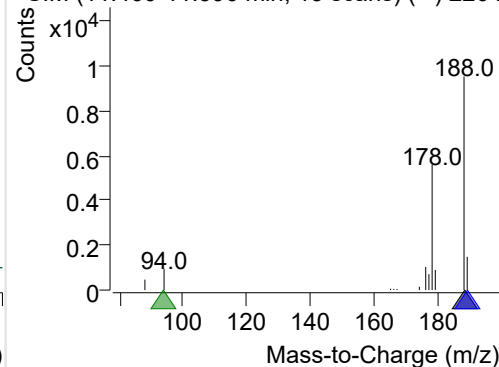
+ Selected Ion (188.0) 220407-PAHs-060.D



188.0, 189.0, 94.0

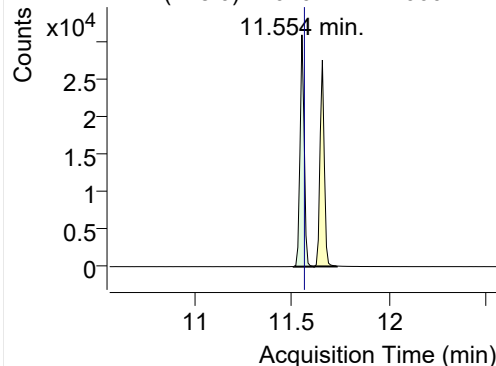


+ SIM (11.460-11.596 min, 13 scans) (\*\*) 2204

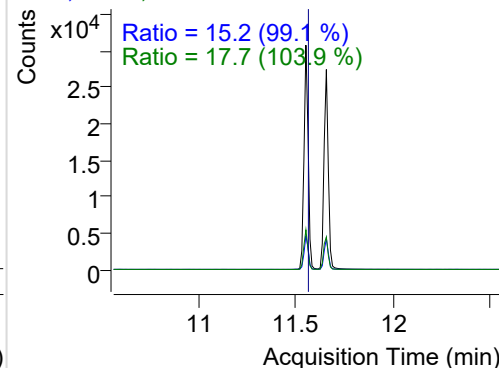


## Phenanthrene

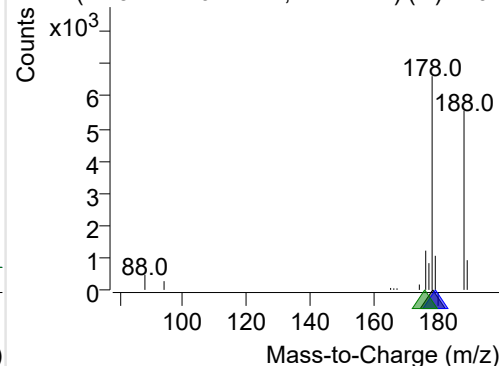
+ Selected Ion (178.0) 220407-PAHs-060.D



178.0, 179.0, 176.0

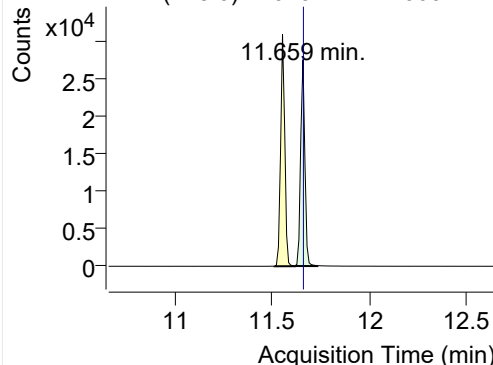


+ SIM (11.512-11.617 min, 11 scans) (\*\*) 2204

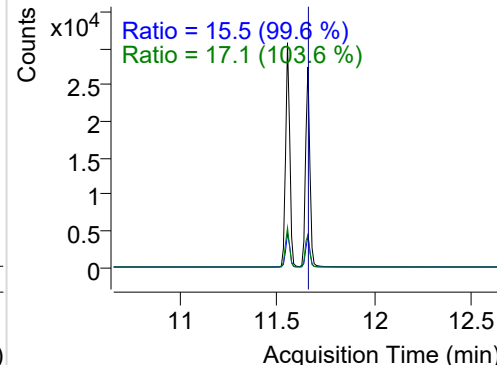


**Anthracene**

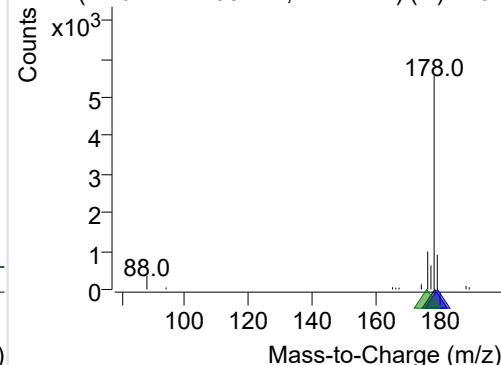
+ Selected Ion (178.0) 220407-PAHs-060.D



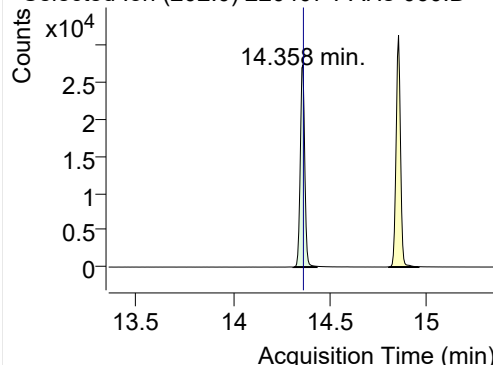
178.0, 179.0, 176.0



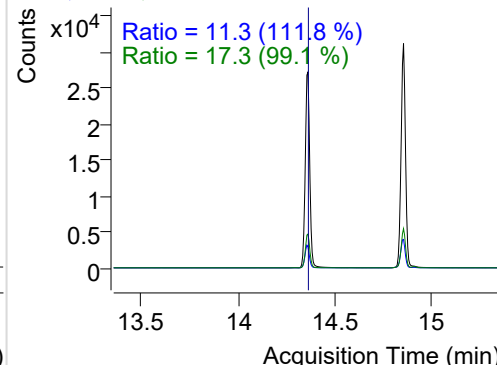
+ SIM (11.617-11.733 min, 12 scans) (\*\*) 2204

**Fluoranthene**

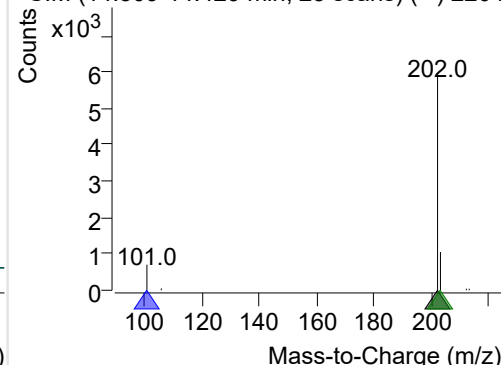
+ Selected Ion (202.0) 220407-PAHs-060.D



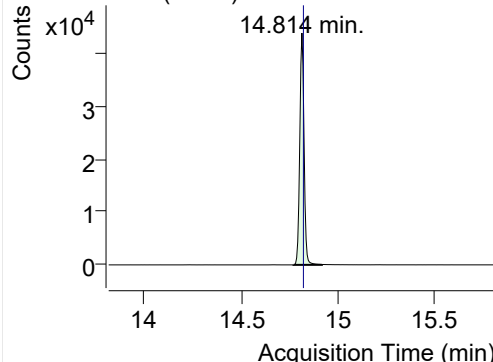
202.0, 101.0, 203.0



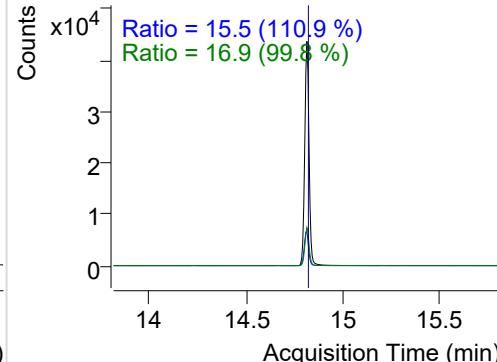
+ SIM (14.309-14.429 min, 23 scans) (\*\*) 2204

**LSS-D10-Pyrene**

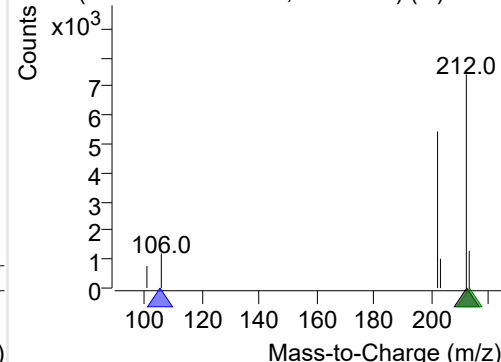
+ Selected Ion (212.0) 220407-PAHs-060.D



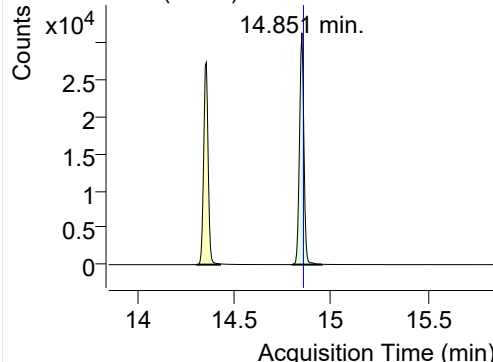
212.0, 106.0, 213.0



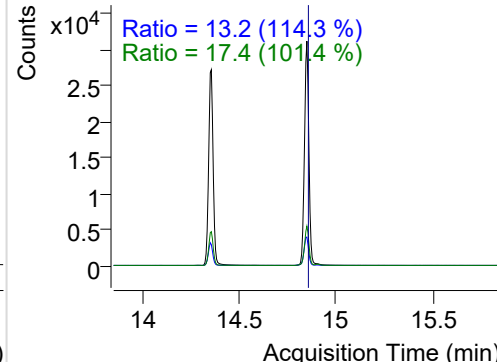
+ SIM (14.770-14.916 min, 28 scans) (\*\*) 2204

**Pyrene**

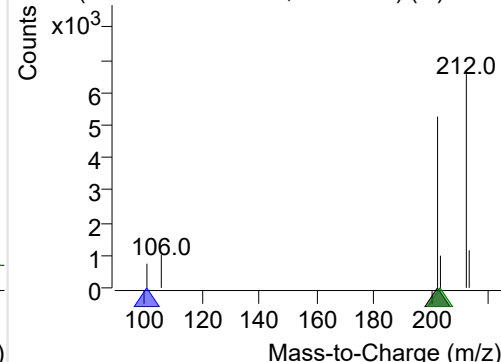
+ Selected Ion (202.0) 220407-PAHs-060.D



202.0, 101.0, 203.0

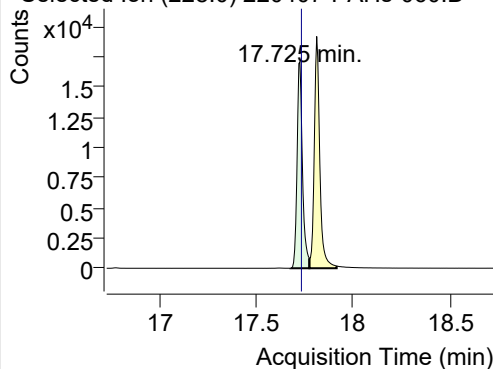


+ SIM (14.803-14.954 min, 29 scans) (\*\*) 2204

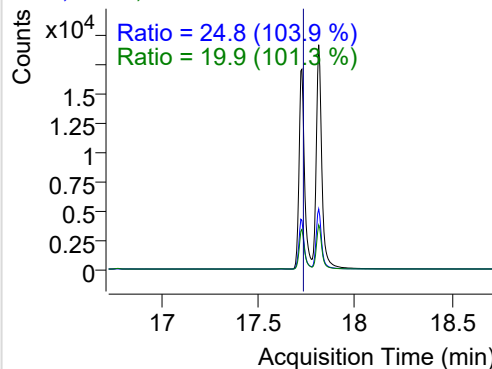


**Benz(a)anthracene**

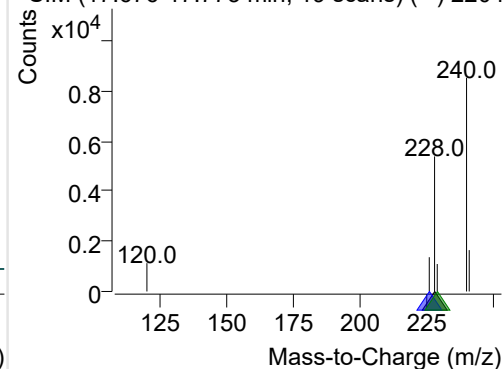
+ Selected Ion (228.0) 220407-PAHs-060.D



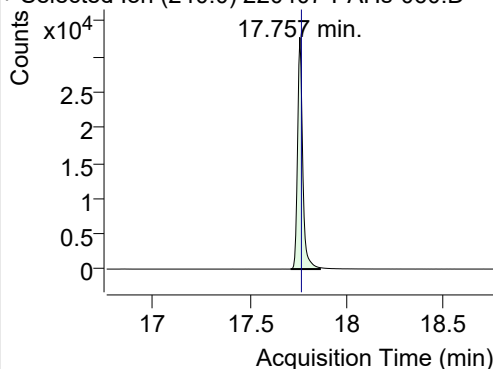
228.0, 226.0, 229.0



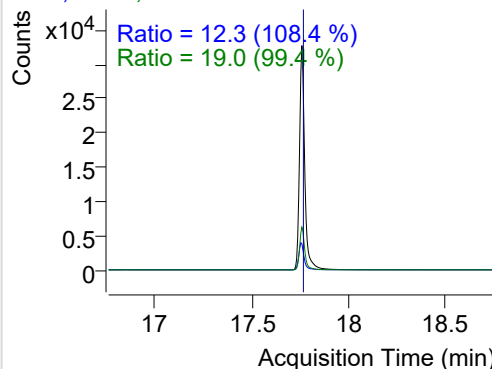
+ SIM (17.676-17.773 min, 19 scans) (\*\*) 2204

**IS-D12-Chrysene**

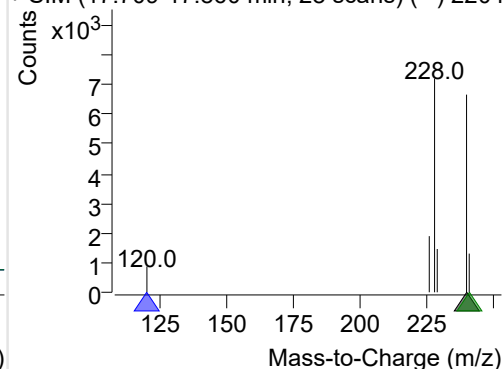
+ Selected Ion (240.0) 220407-PAHs-060.D



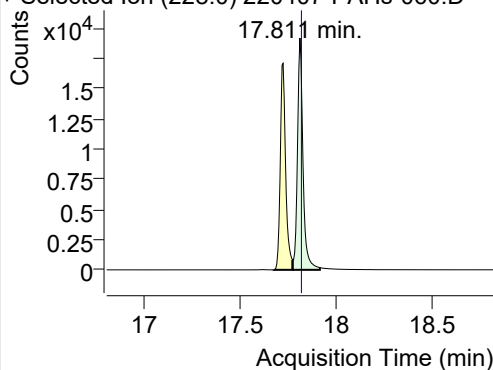
240.0, 120.0, 241.0



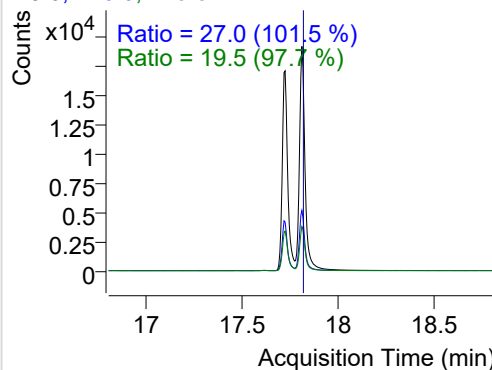
+ SIM (17.709-17.860 min, 28 scans) (\*\*) 2204

**Chrysene**

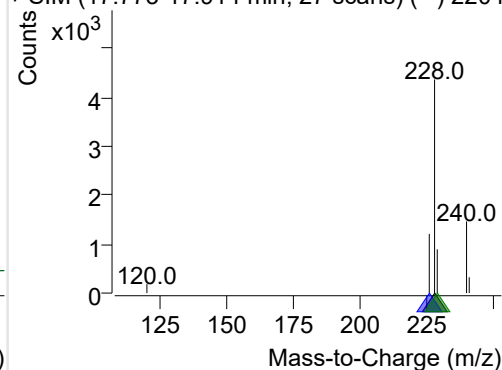
+ Selected Ion (228.0) 220407-PAHs-060.D



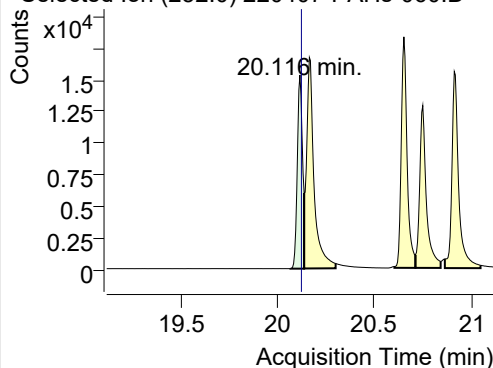
228.0, 226.0, 229.0



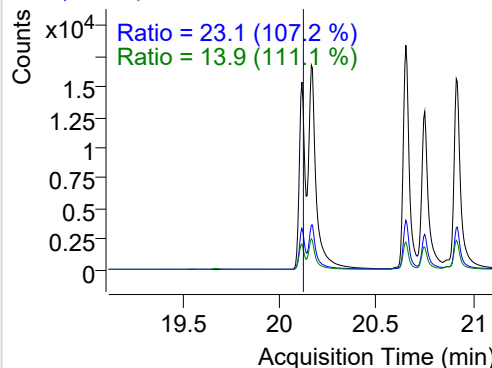
+ SIM (17.773-17.914 min, 27 scans) (\*\*) 2204

**Benzo(b)fluoranthene**

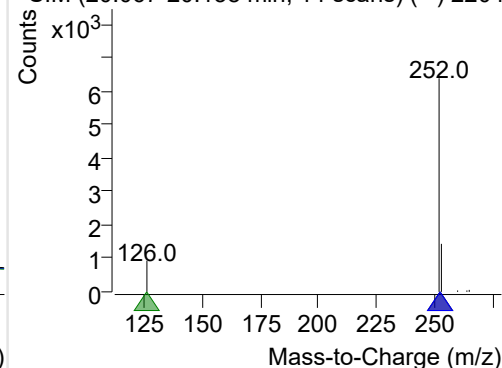
+ Selected Ion (252.0) 220407-PAHs-060.D



252.0, 253.0, 126.0

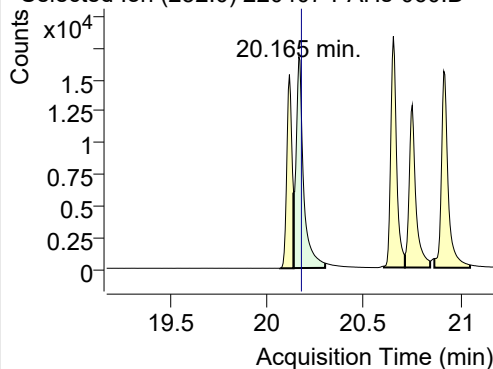


+ SIM (20.067-20.138 min, 14 scans) (\*\*) 2204

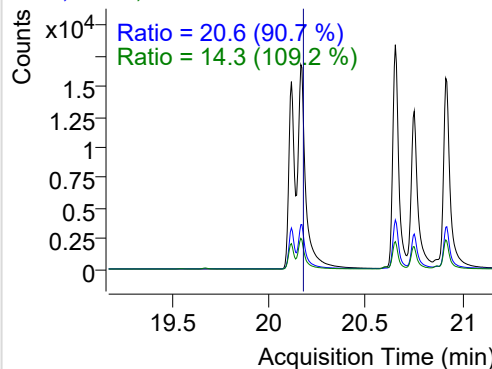


**Benzo(k)fluoranthene**

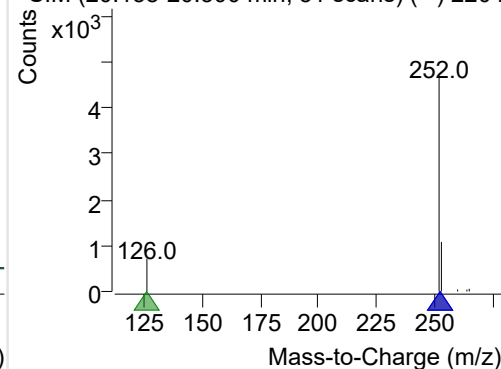
+ Selected Ion (252.0) 220407-PAHs-060.D



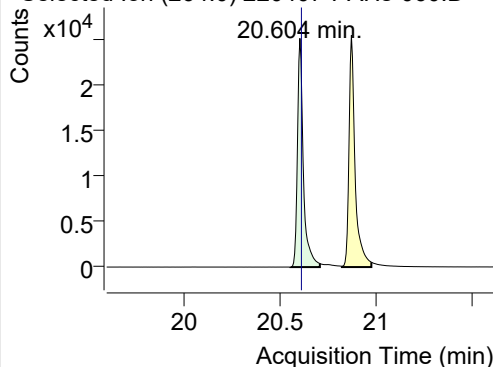
252.0, 253.0, 126.0



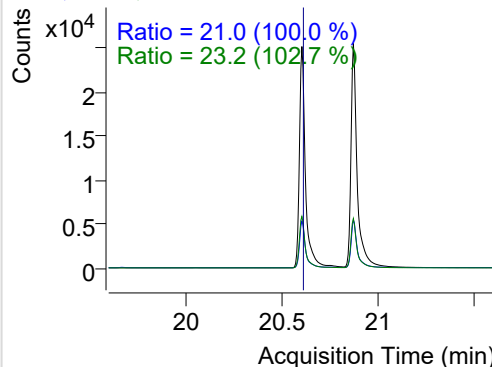
+ SIM (20.138-20.300 min, 31 scans) (\*\*) 2204

**SS-D12-Benzo(e)pyrene**

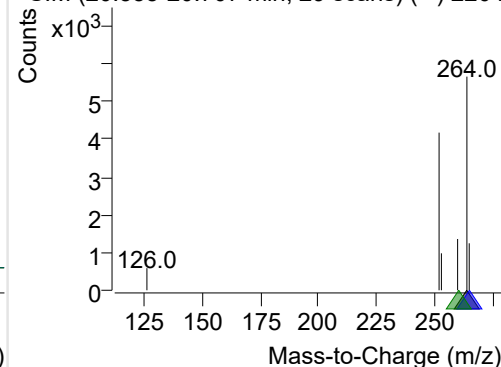
+ Selected Ion (264.0) 220407-PAHs-060.D



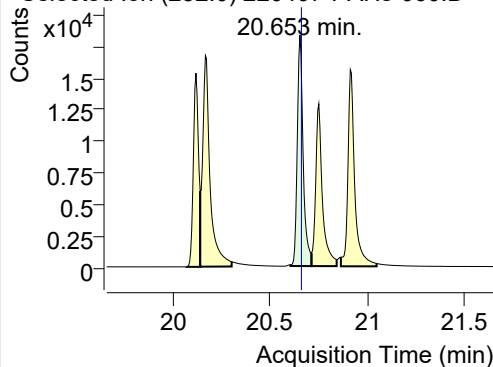
264.0, 265.0, 260.0



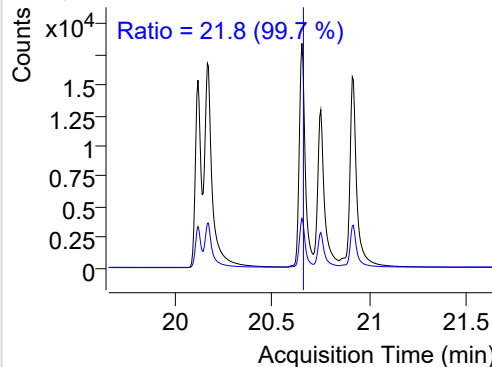
+ SIM (20.555-20.707 min, 29 scans) (\*\*) 2204

**Benzo(e)pyrene**

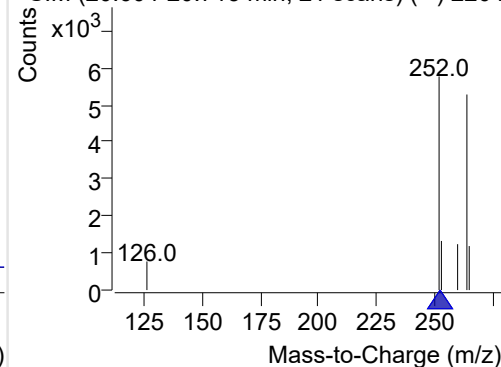
+ Selected Ion (252.0) 220407-PAHs-060.D



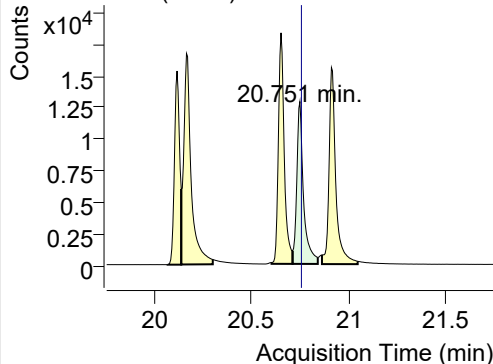
252.0, 253.0



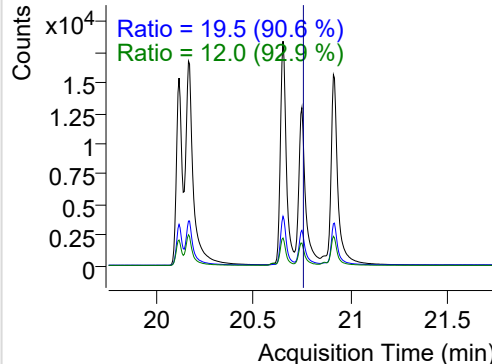
+ SIM (20.604-20.713 min, 21 scans) (\*\*) 2204

**Benzo(a)pyrene**

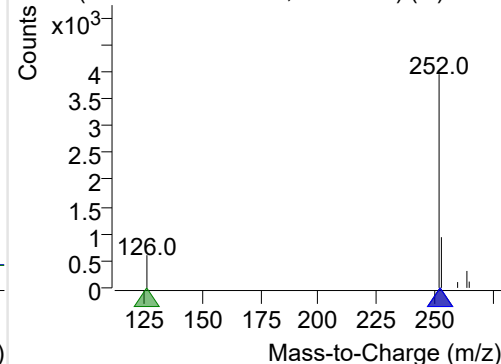
+ Selected Ion (252.0) 220407-PAHs-060.D



252.0, 253.0, 126.0

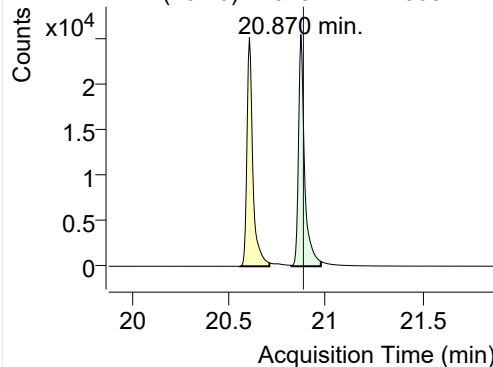


+ SIM (20.713-20.843 min, 25 scans) (\*\*) 2204

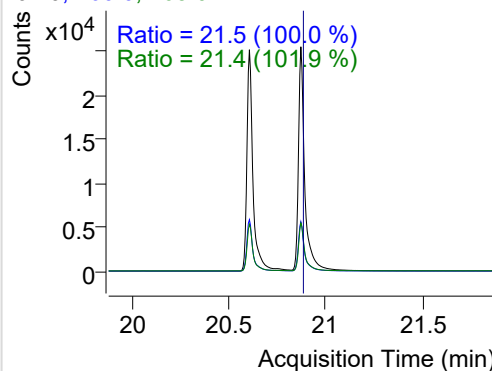


## IS-D12-Perylene

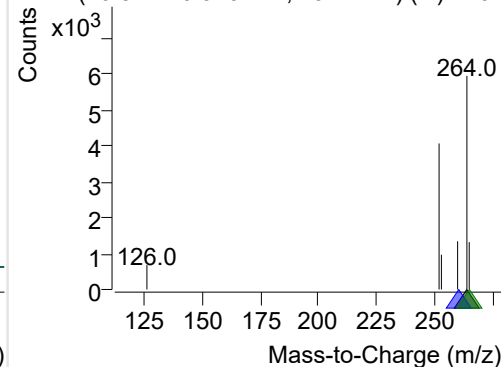
+ Selected Ion (264.0) 220407-PAHs-060.D



264.0, 260.0, 265.0

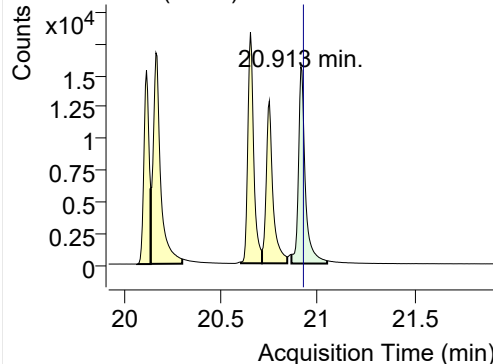


+ SIM (20.821-20.973 min, 29 scans) (\*\*) 2204

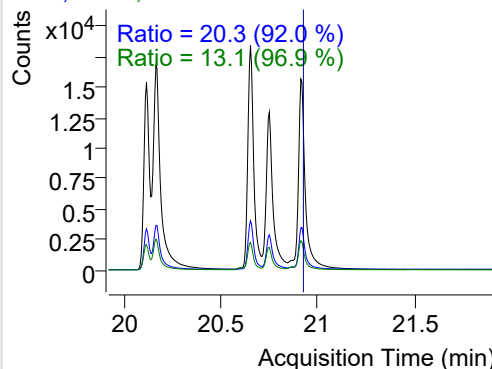


## Perylene

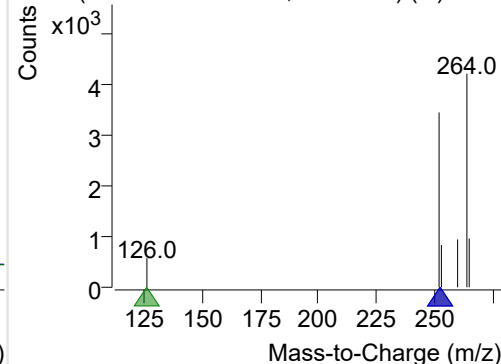
+ Selected Ion (252.0) 220407-PAHs-060.D



252.0, 253.0, 126.0

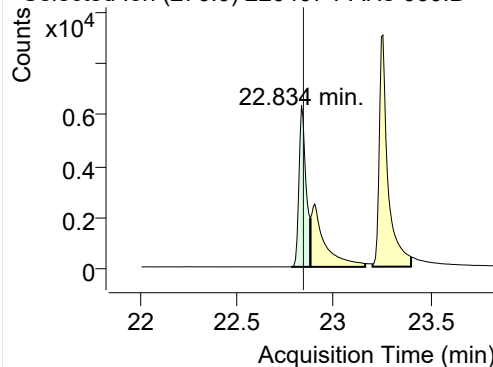


+ SIM (20.865-21.049 min, 35 scans) (\*\*) 2204

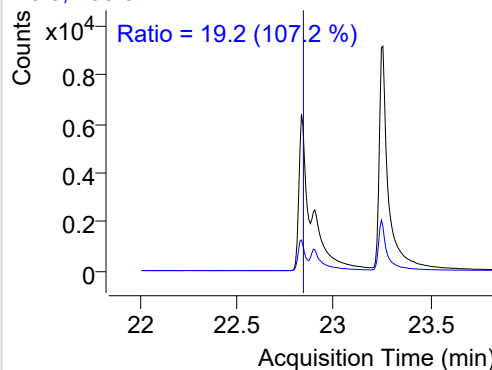


## Indeno(1,2,3-c,d)pyrene

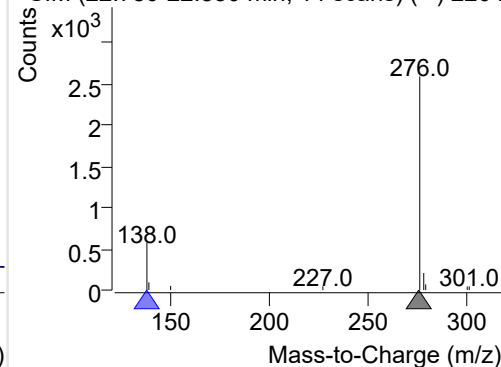
+ Selected Ion (276.0) 220407-PAHs-060.D



276.0, 138.0

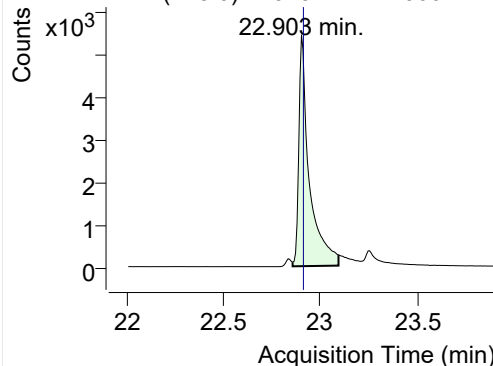


+ SIM (22.780-22.880 min, 14 scans) (\*\*) 2204

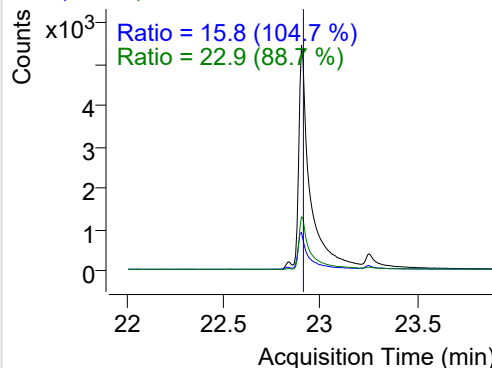


## Dibenz(a,h)anthracene

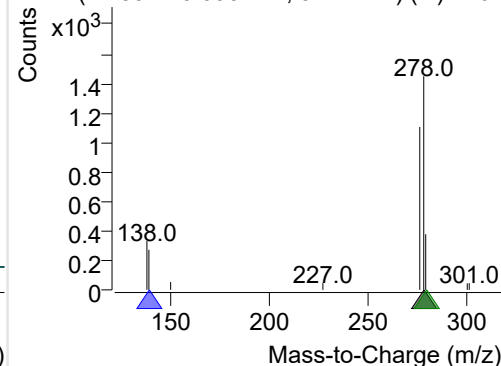
+ Selected Ion (278.0) 220407-PAHs-060.D



278.0, 139.0, 279.0

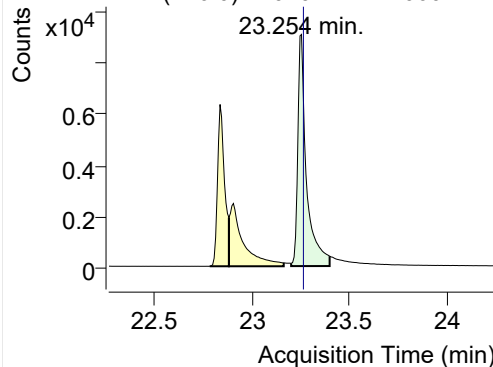


+ SIM (22.857-23.093 min, 32 scans) (\*\*) 2204

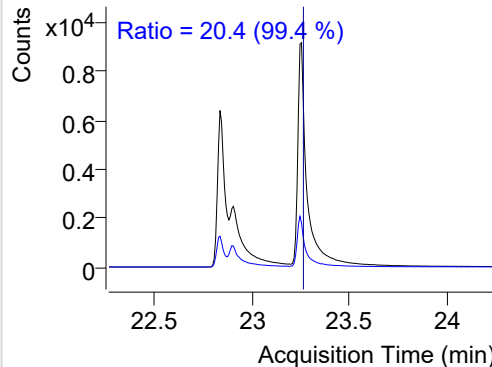


**Benzo(g,h,i)perylene**

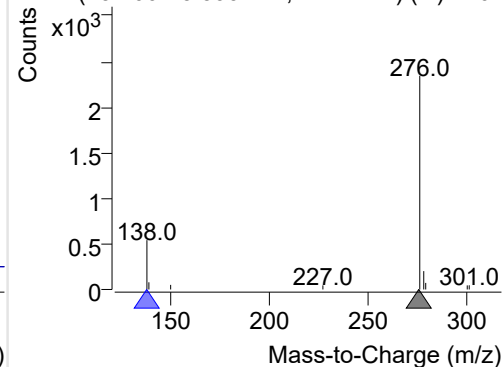
+ Selected Ion (276.0) 220407-PAHs-060.D



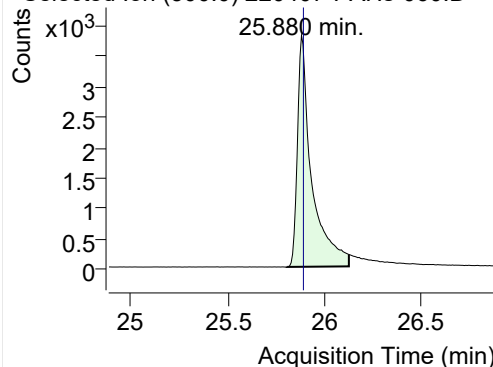
276.0, 138.0



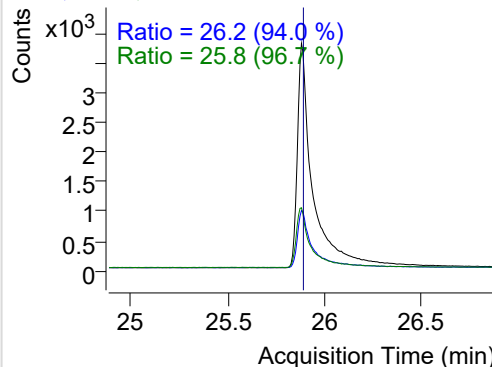
+ SIM (23.200-23.399 min, 27 scans) (\*\*) 2204

**Coronene**

+ Selected Ion (300.0) 220407-PAHs-060.D



300.0, 301.0, 150.0



+ SIM (25.804-26.125 min, 43 scans) (\*\*) 2204

