

## Quantitative Analysis Sample Based Report

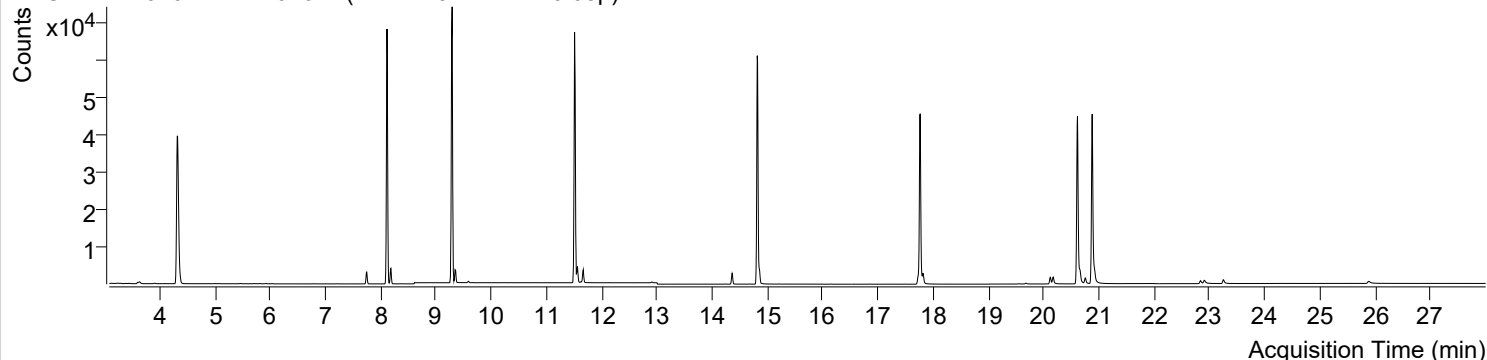


Trusted Answers

Batch Data Path File Name	D:\MassHunter\GCMS\1\data\PAHs\220204-PAHs-Sample\QuantResults\220204-PAHs-Quant.batch.bin		
Analysis Time Stamp	2022-04-13 오후 3:18:46	Analyst Name	DESKTOP-86B7UPG\5975MS
Report Generation Time	2022-04-13 오후 3:19:11	Report Generator Name	DESKTOP-86B7UPG\5975MS
Calibration Last Update	2022-04-13 오후 3:16:00	Batch State	Processed
Analyze Quant Version	10.2	Report Quant Version	10.2
Acq. Date-Time	2022-02-05 오전 3:08:52	Data File	220204-PAHs-026.D
Type	Sample	Name	PAHs-19mix-STD-0.05p
Dil.	1	Acq. Method File	PAHs 19mix-Method

## Sample Chromatogram

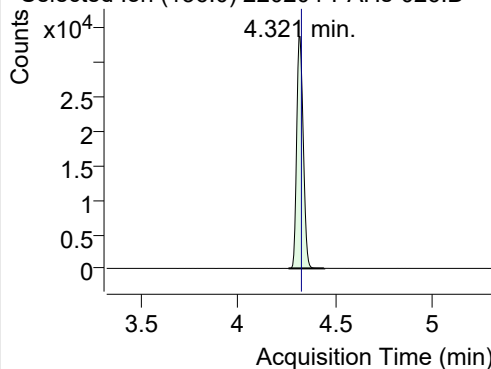
+ TIC SIM 220204-PAHs-026.D (PAHs-19mix-STD-0.05p)



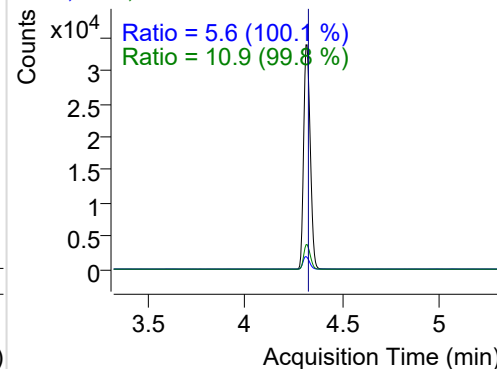
Name	RT	Transition	Resp.	Height	Final Conc. Units	Ratio
IS-D8-Naphthalene	4.321	136.0	79386	33794.17	ND ng/ml	10.9
Naphthalene	4.354	128.0	4667	1995.74	ND ng/ml	14.7
Acenaphthylene	7.745	152.0	3660	2336.40	ND ng/ml	19.8
IS-D10-Acenaphthene	8.112	164.0	48546	33077.19	ND ng/ml	92.5
Acenaphthene	8.183	154.0	2288	1526.41	ND ng/ml	105.5
LSS-D10-Fluorene	9.292	176.0	54756	35258.00	ND µg/mL	89.0
Fluorene	9.344	166.0	2745	1626.80	ND µg/mL	91.8
IS-D10-Phenanthrene	11.508	188.0	84940	53562.55	ND µg/mL	15.0
Phenanthrene	11.560	178.0	4042	2730.18	ND µg/mL	17.7
Anthracene	11.665	178.0	3598	2323.18	ND µg/mL	17.8
Fluoranthene	14.359	202.0	3562	2218.15	ND µg/mL	17.2
LSS-D10-Pyrene	14.814	212.0	73435	45674.83	ND µg/mL	16.9
Pyrene	14.852	202.0	4303	2627.29	ND µg/mL	21.1
Benz(a)anthracene	17.725	228.0	2638	1415.87	ND µg/mL	24.3
IS-D12-Chrysene	17.763	240.0	59958	34706.01	ND µg/mL	19.0
Chrysene	17.818	228.0	3002	1618.44	ND µg/mL	27.8
Benzo(b)fluoranthene	20.117	252.0	2371	1298.03	ND µg/mL	21.5
Benzo(k)fluoranthene	20.171	252.0	2595	1269.18	ND µg/mL	24.5
SS-D12-Benzo(e)pyrene	20.610	264.0	57203	30655.72	ND µg/mL	23.6
Benzo(e)pyrene	20.654	252.0	3121	1655.19	ND µg/mL	23.5
Benzo(a)pyrene	20.752	252.0	1869	990.50	ND µg/mL	25.3
IS-D12-Perylene	20.876	264.0	57585	31293.50	ND µg/mL	22.1
Perylene	20.920	252.0	2719	1389.12	ND µg/mL	25.0
Indeno(1,2,3-c,d)pyrene	22.837	276.0	1391	625.60	ND µg/mL	19.5
Dibenz(a,h)anthracene	22.913	278.0	1377	461.40	ND µg/mL	24.5
Benzo(g,h,i)perylene	23.249	276.0	1961	797.88	ND µg/mL	21.7
Coronene	25.883	300.0	1536	351.39	ND µg/mL	27.5

## IS-D8-Naphthalene

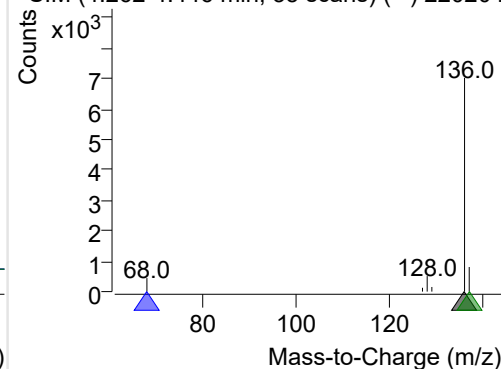
+ Selected Ion (136.0) 220204-PAHs-026.D



136.0, 68.0, 137.0

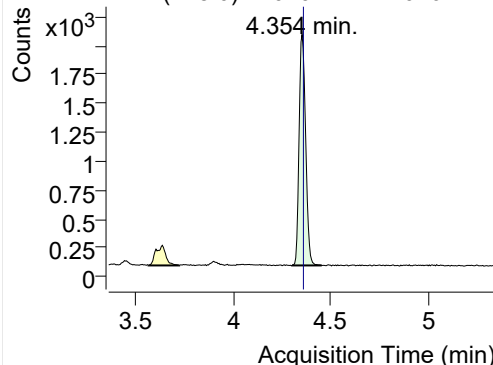


+ SIM (4.262-4.446 min, 35 scans) (\*\*) 220204

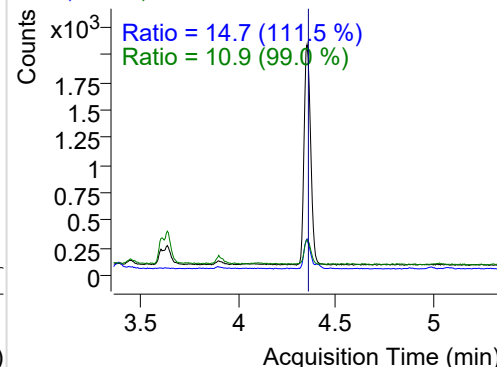


**Naphthalene**

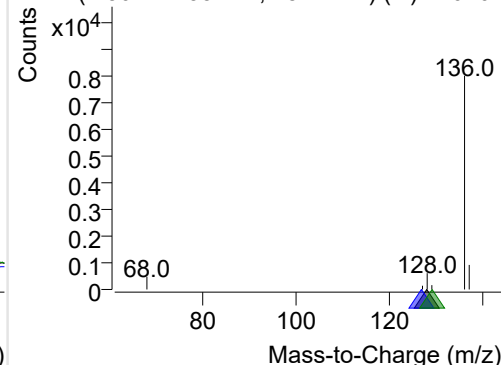
+ Selected Ion (128.0) 220204-PAHs-026.D



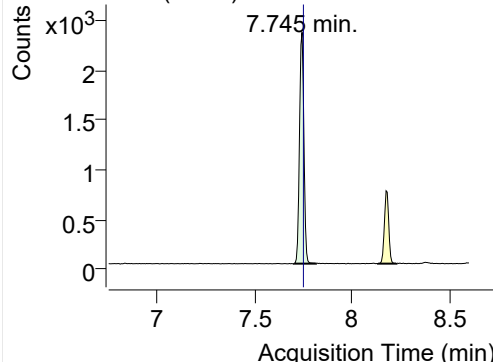
128.0, 127.0, 129.0



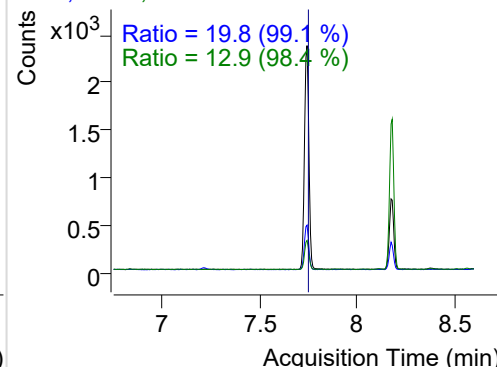
+ SIM (4.302-4.455 min, 28 scans) (\*\*) 220204

**Acenaphthylene**

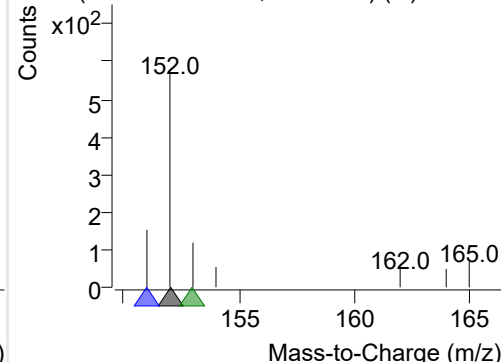
+ Selected Ion (152.0) 220204-PAHs-026.D



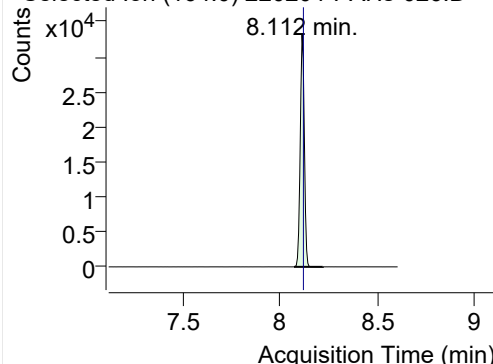
152.0, 151.0, 153.0



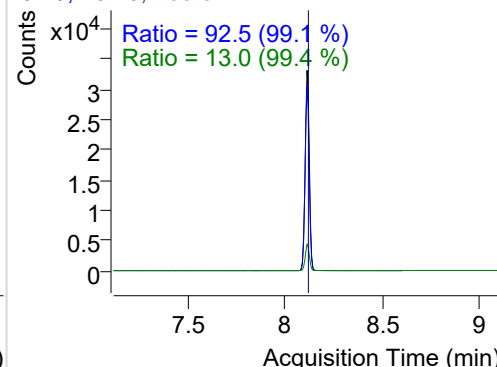
+ SIM (7.704-7.816 min, 20 scans) (\*\*) 220204

**IS-D10-Acenaphthene**

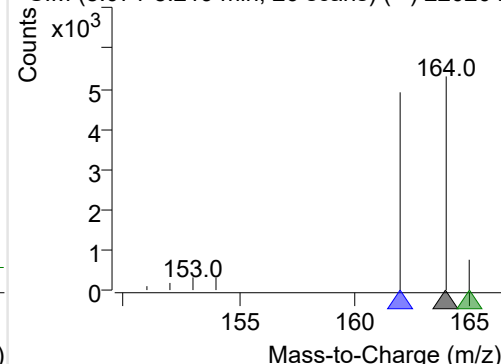
+ Selected Ion (164.0) 220204-PAHs-026.D



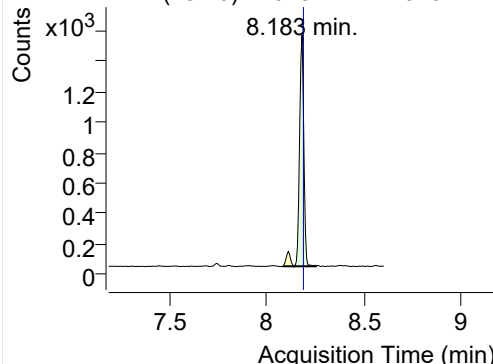
164.0, 162.0, 165.0



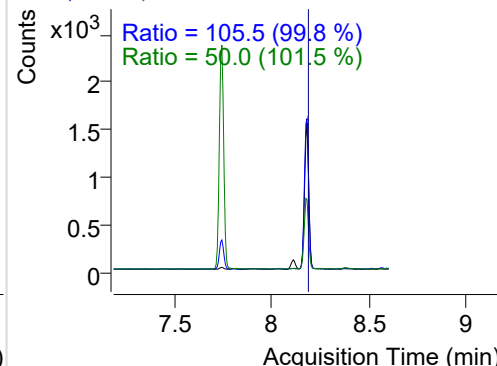
+ SIM (8.071-8.219 min, 26 scans) (\*\*) 220204

**Acenaphthene**

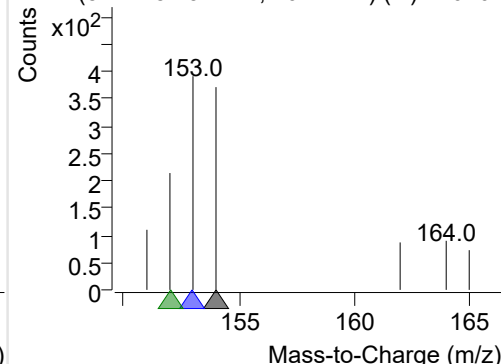
+ Selected Ion (154.0) 220204-PAHs-026.D



154.0, 153.0, 152.0

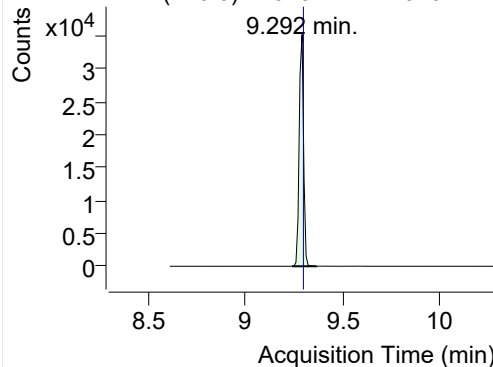


+ SIM (8.142-8.254 min, 20 scans) (\*\*) 220204

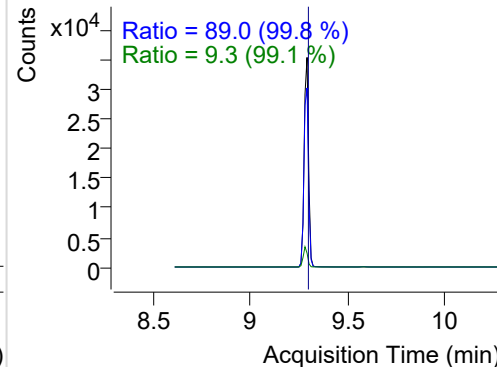


## LSS-D10-Fluorene

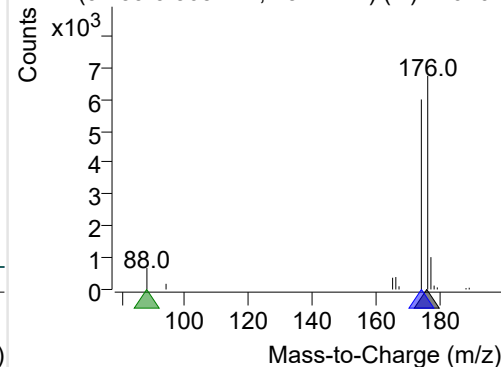
+ Selected Ion (176.0) 220204-PAHs-026.D



176.0, 174.0, 88.0

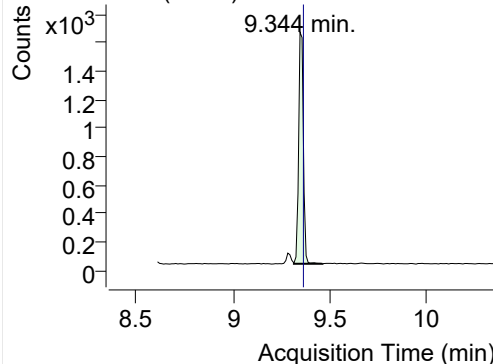


+ SIM (9.239-9.365 min, 13 scans) (\*\*) 220204

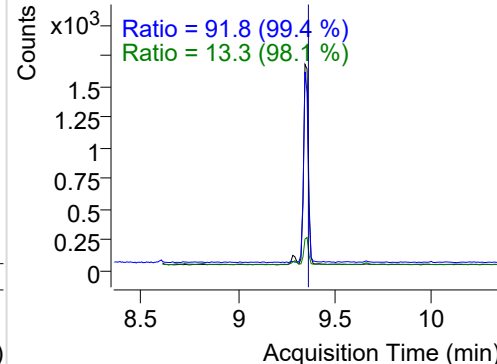


## Fluorene

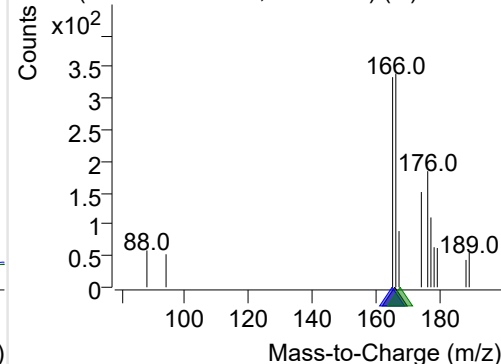
+ Selected Ion (166.0) 220204-PAHs-026.D



166.0, 165.0, 167.0

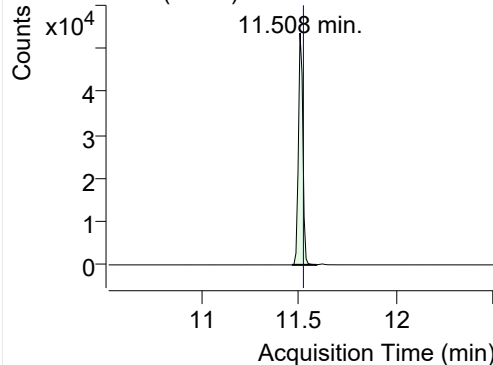


+ SIM (9.313-9.460 min, 15 scans) (\*\*) 220204

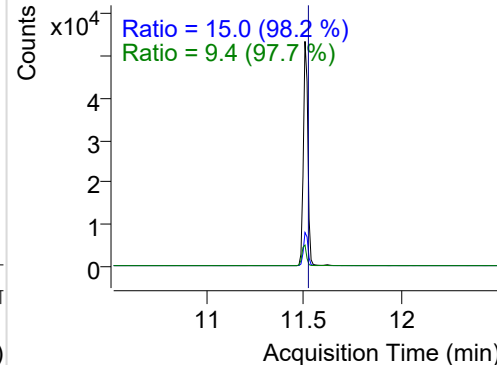


## IS-D10-Phenanthrene

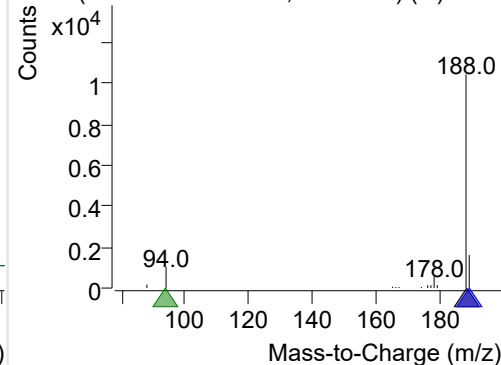
+ Selected Ion (188.0) 220204-PAHs-026.D



188.0, 189.0, 94.0

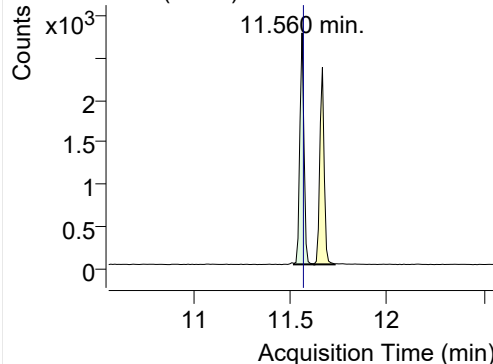


+ SIM (11.466-11.592 min, 13 scans) (\*\*) 2202

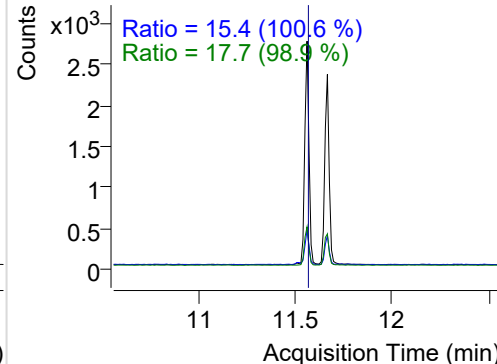


## Phenanthrene

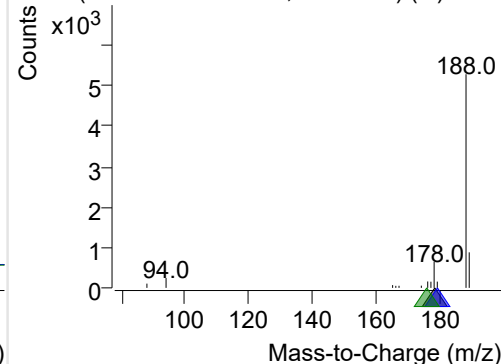
+ Selected Ion (178.0) 220204-PAHs-026.D



178.0, 179.0, 176.0

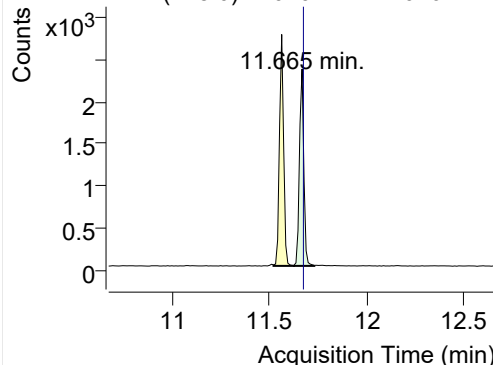


+ SIM (11.518-11.623 min, 11 scans) (\*\*) 2202

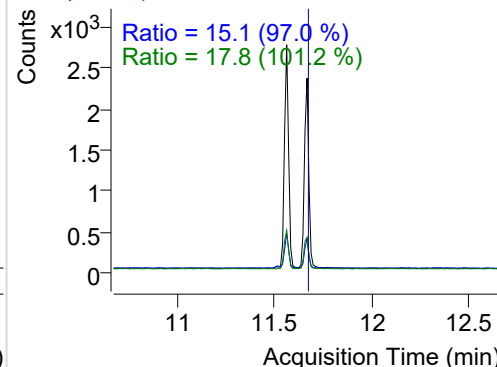


**Anthracene**

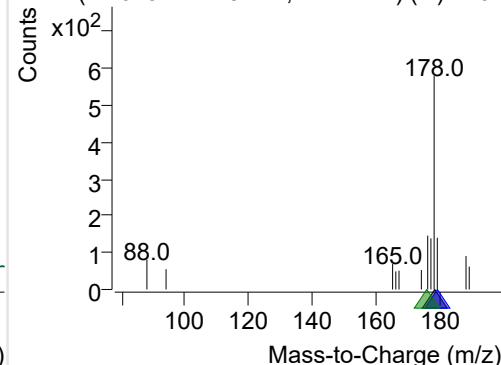
+ Selected Ion (178.0) 220204-PAHs-026.D



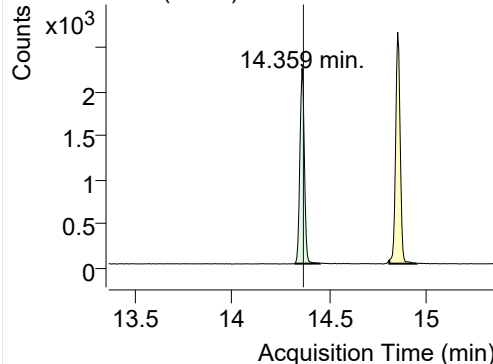
178.0, 179.0, 176.0



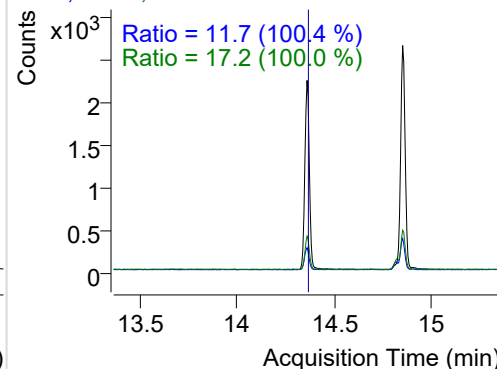
+ SIM (11.623-11.728 min, 11 scans) (\*\*) 2202

**Fluoranthene**

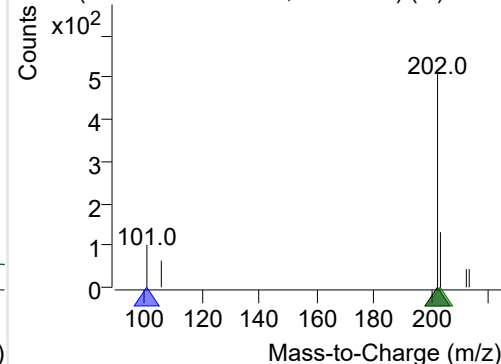
+ Selected Ion (202.0) 220204-PAHs-026.D



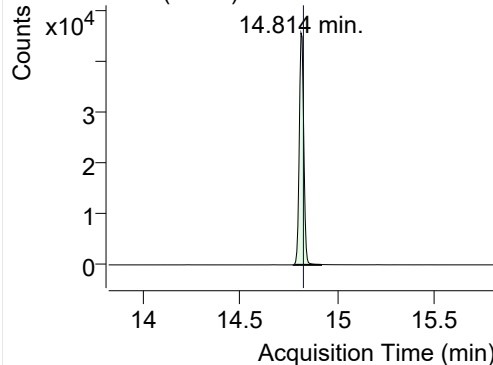
202.0, 101.0, 203.0



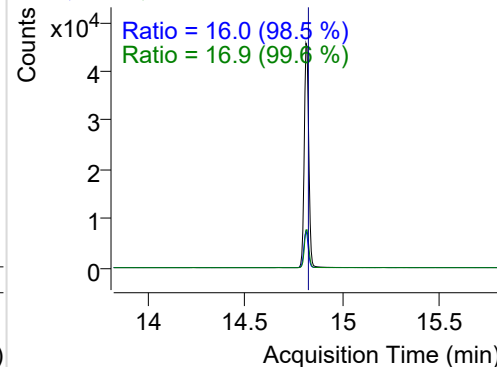
+ SIM (14.321-14.451 min, 24 scans) (\*\*) 2202

**LSS-D10-Pyrene**

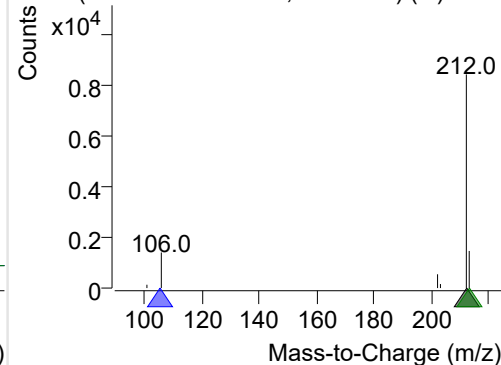
+ Selected Ion (212.0) 220204-PAHs-026.D



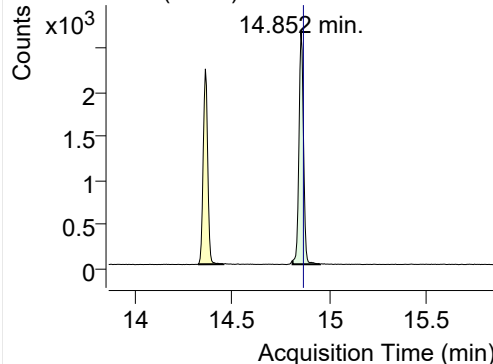
212.0, 106.0, 213.0



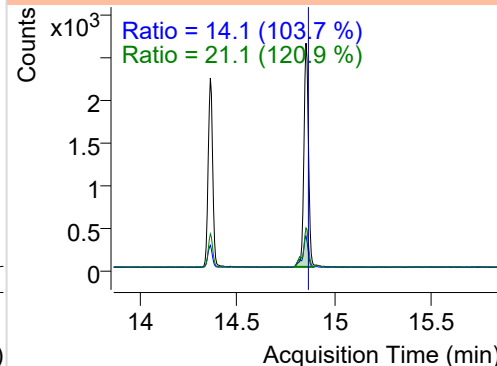
+ SIM (14.776-14.917 min, 27 scans) (\*\*) 2202

**Pyrene**

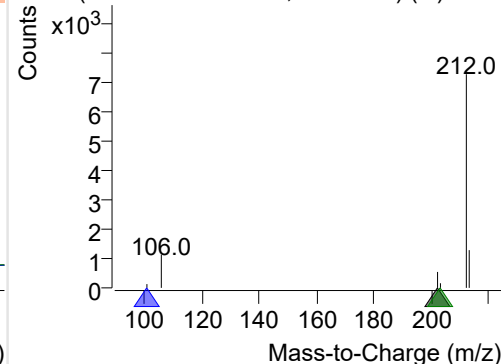
+ Selected Ion (202.0) 220204-PAHs-026.D



202.0, 101.0, 203.0

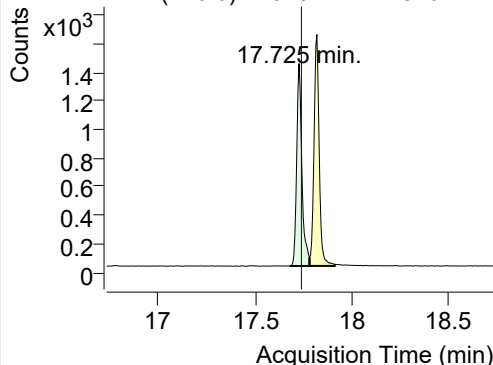


+ SIM (14.809-14.950 min, 27 scans) (\*\*) 2202

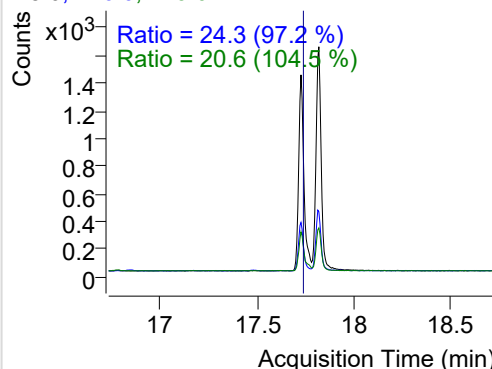


**Benz(a)anthracene**

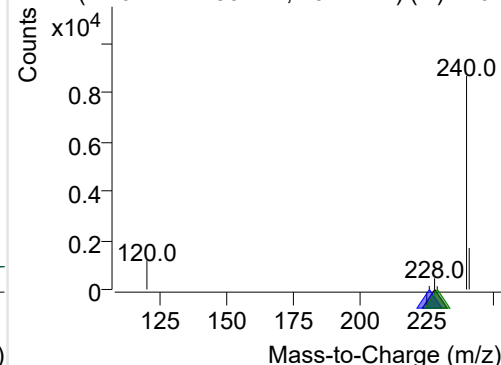
+ Selected Ion (228.0) 220204-PAHs-026.D



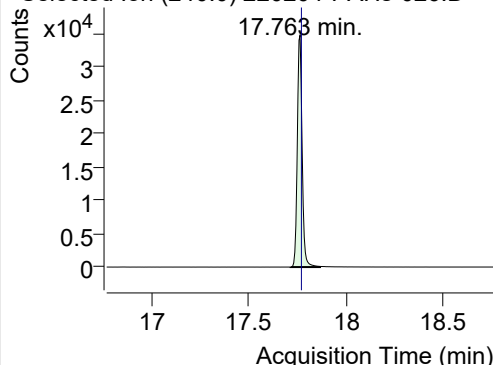
228.0, 226.0, 229.0



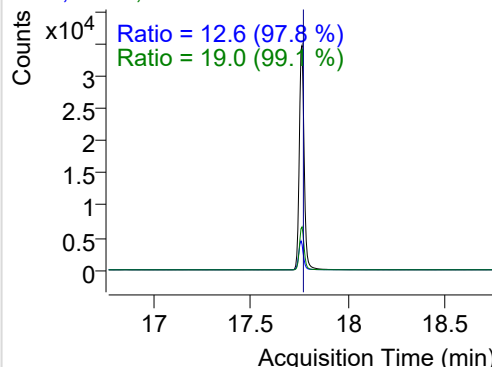
+ SIM (17.677-17.780 min, 20 scans) (\*\*) 2202

**IS-D12-Chrysene**

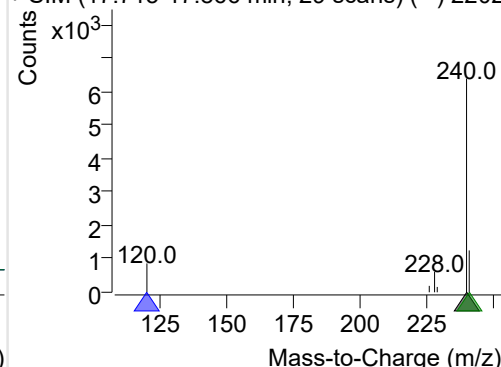
+ Selected Ion (240.0) 220204-PAHs-026.D



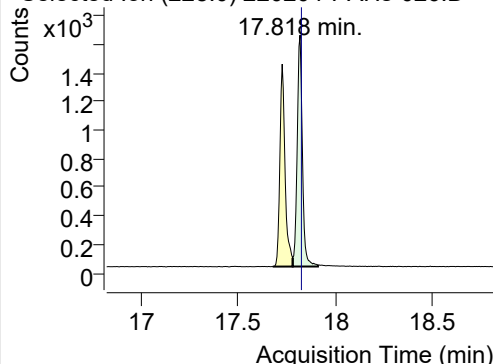
240.0, 120.0, 241.0



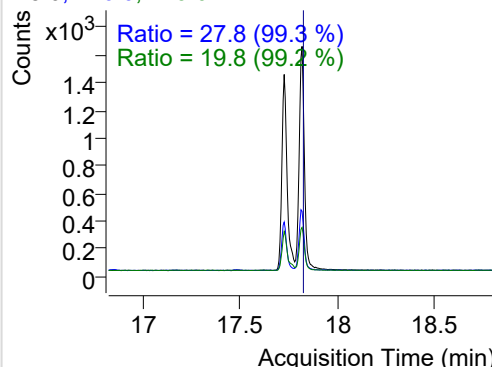
+ SIM (17.715-17.866 min, 29 scans) (\*\*) 2202

**Chrysene**

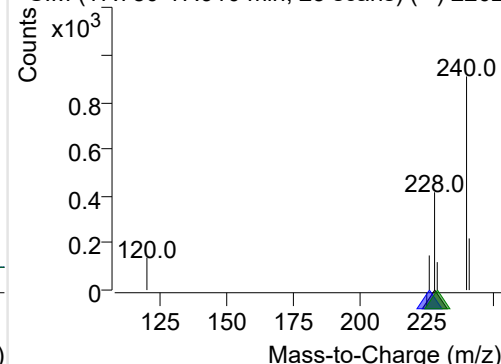
+ Selected Ion (228.0) 220204-PAHs-026.D



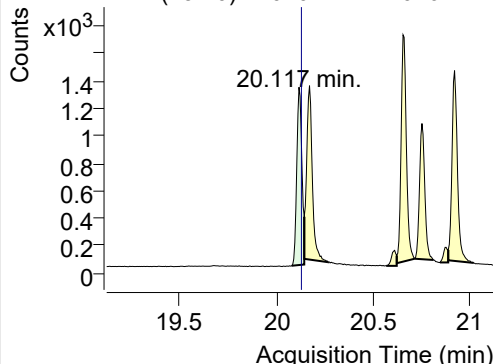
228.0, 226.0, 229.0



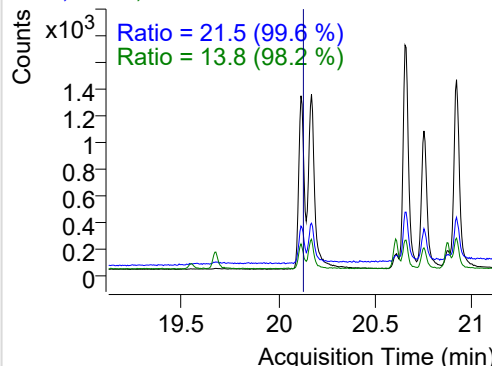
+ SIM (17.780-17.910 min, 25 scans) (\*\*) 2202

**Benzo(b)fluoranthene**

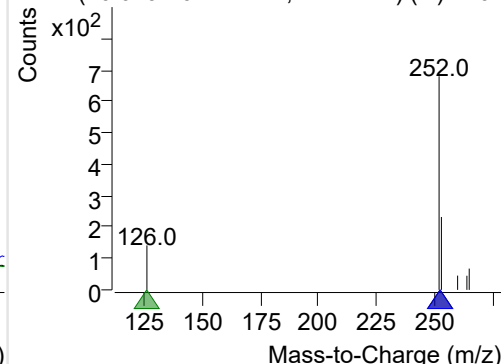
+ Selected Ion (252.0) 220204-PAHs-026.D



252.0, 253.0, 126.0

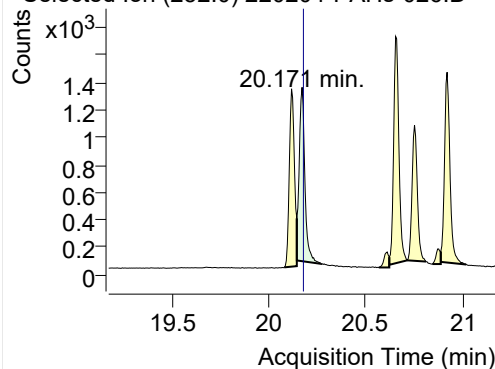


+ SIM (20.079-20.144 min, 12 scans) (\*\*) 2202

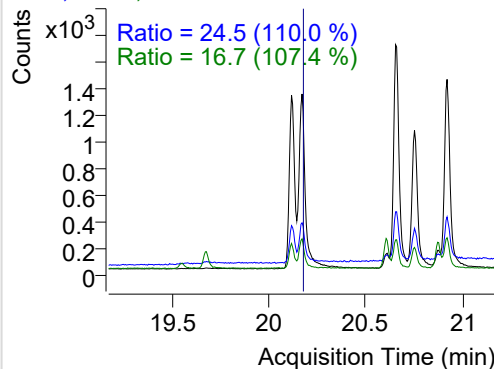


**Benzo(k)fluoranthene**

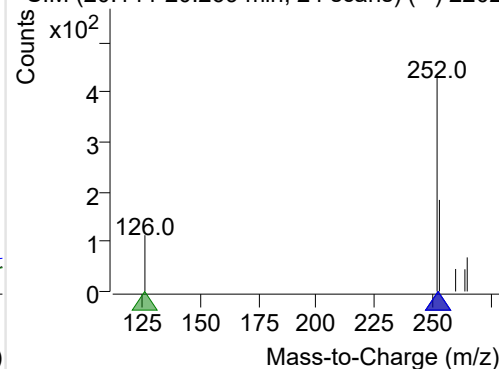
+ Selected Ion (252.0) 220204-PAHs-026.D



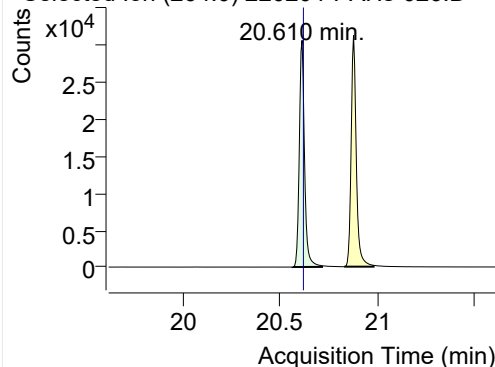
252.0, 253.0, 126.0



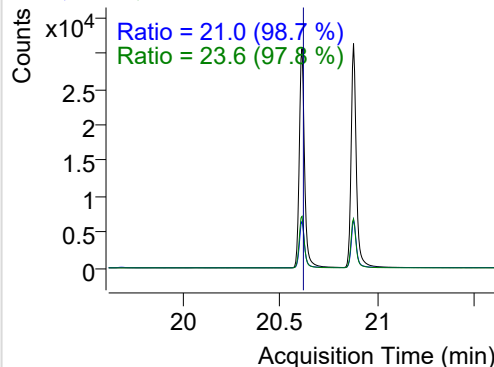
+ SIM (20.144-20.269 min, 24 scans) (\*\*) 2202

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

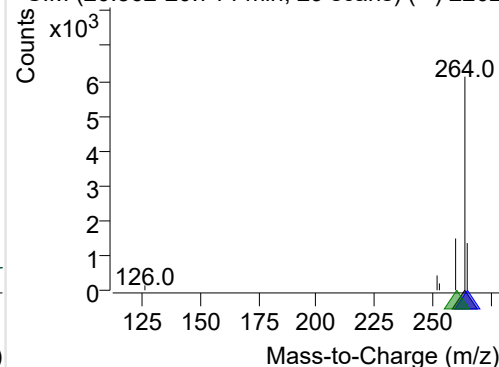
+ Selected Ion (264.0) 220204-PAHs-026.D



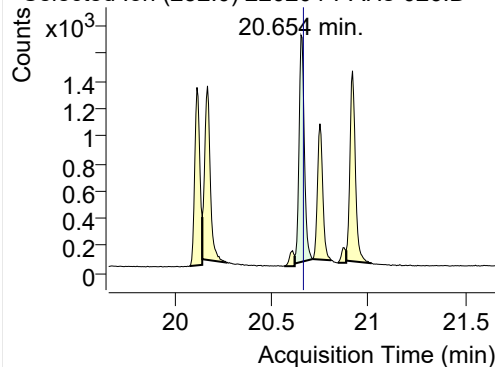
264.0, 265.0, 260.0



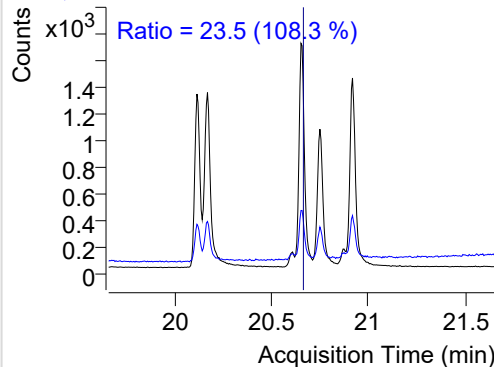
+ SIM (20.562-20.714 min, 29 scans) (\*\*) 2202

**Benzo(e)pyrene**

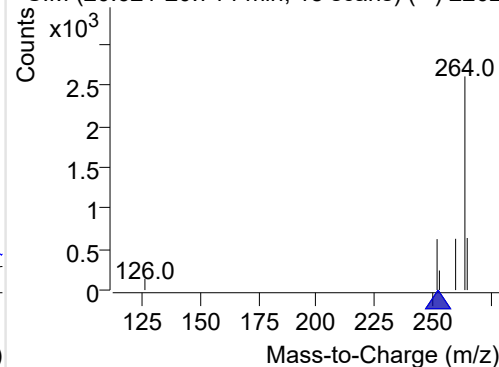
+ Selected Ion (252.0) 220204-PAHs-026.D



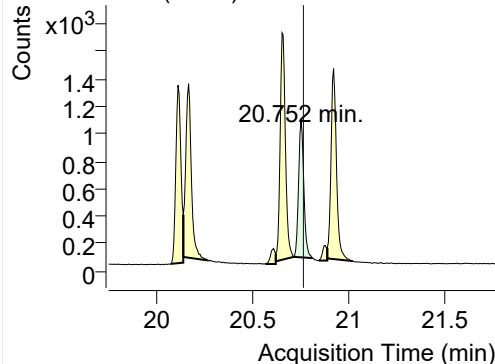
252.0, 253.0



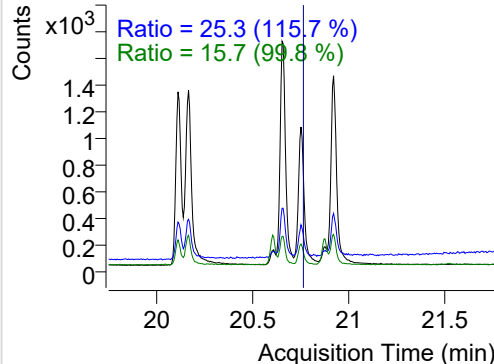
+ SIM (20.621-20.714 min, 18 scans) (\*\*) 2202

**Benzo(a)pyrene**

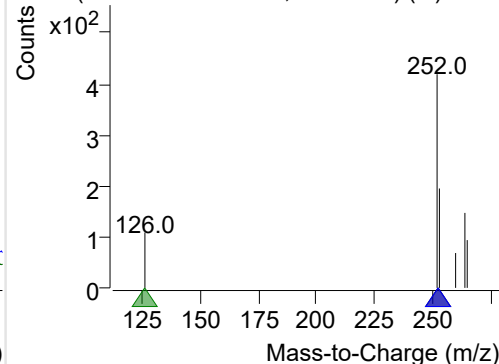
+ Selected Ion (252.0) 220204-PAHs-026.D



252.0, 253.0, 126.0

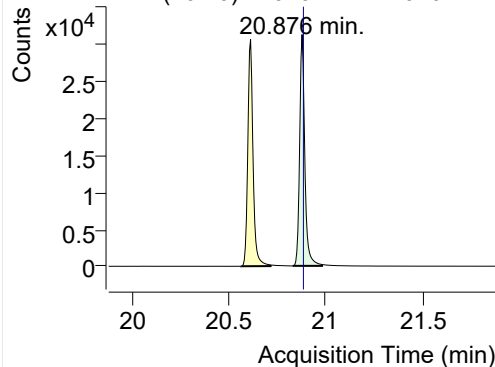


+ SIM (20.714-20.811 min, 18 scans) (\*\*) 2202

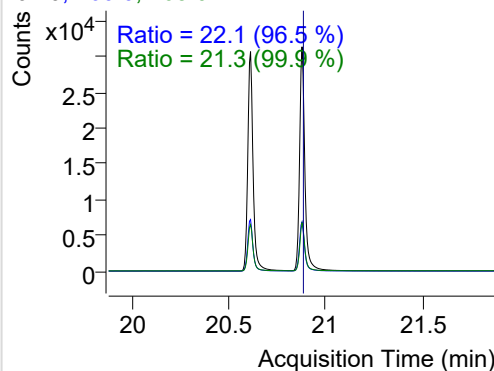


## IS-D12-Perylene

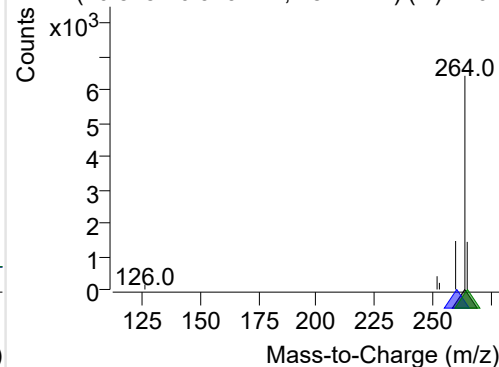
+ Selected Ion (264.0) 220204-PAHs-026.D



264.0, 260.0, 265.0

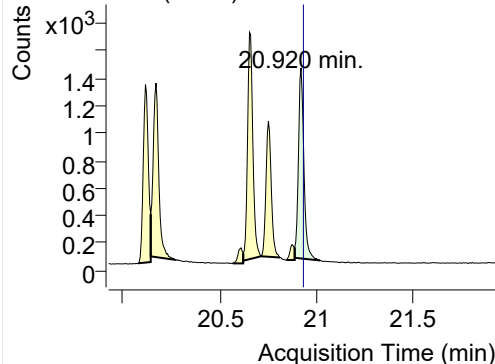


+ SIM (20.828-20.979 min, 28 scans) (\*\*) 2202

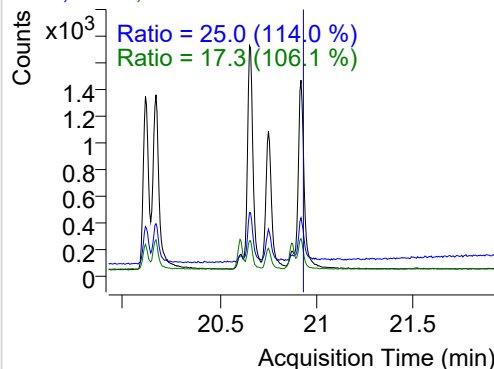


## Perylene

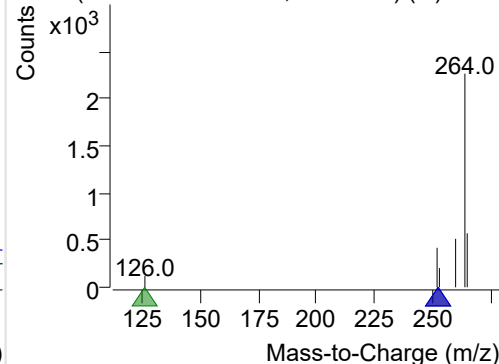
+ Selected Ion (252.0) 220204-PAHs-026.D



252.0, 253.0, 126.0

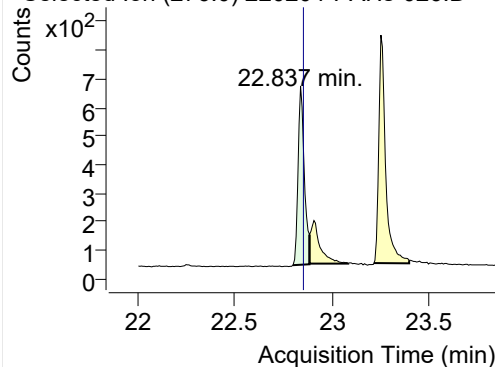


+ SIM (20.887-21.019 min, 25 scans) (\*\*) 2202

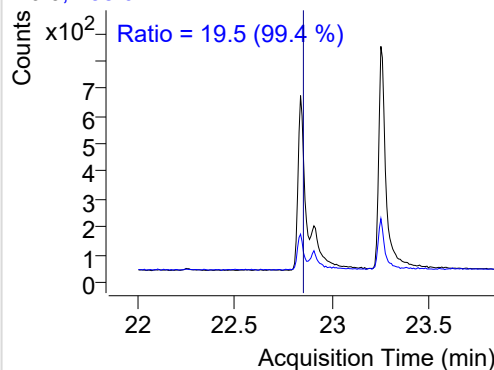


## Indeno(1,2,3-c,d)pyrene

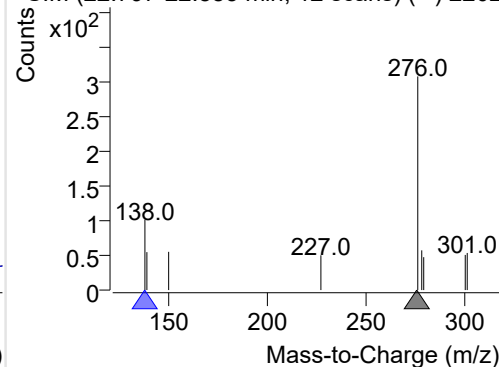
+ Selected Ion (276.0) 220204-PAHs-026.D



276.0, 138.0

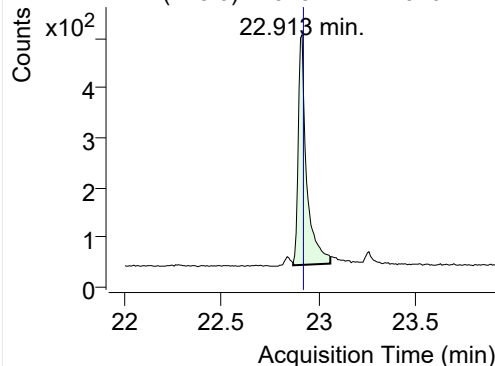


+ SIM (22.797-22.883 min, 12 scans) (\*\*) 2202

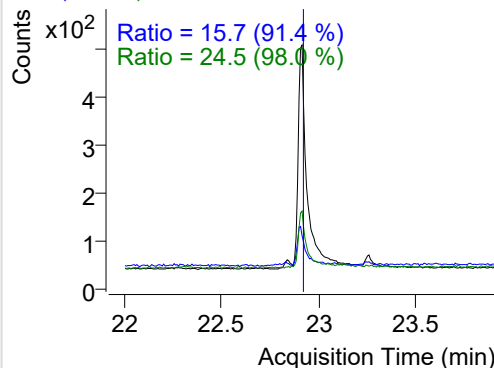


## Dibenz(a,h)anthracene

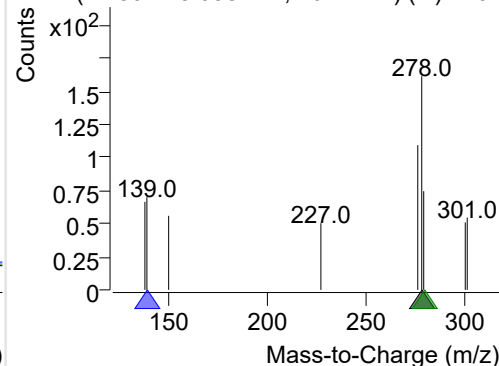
+ Selected Ion (278.0) 220204-PAHs-026.D



278.0, 139.0, 279.0

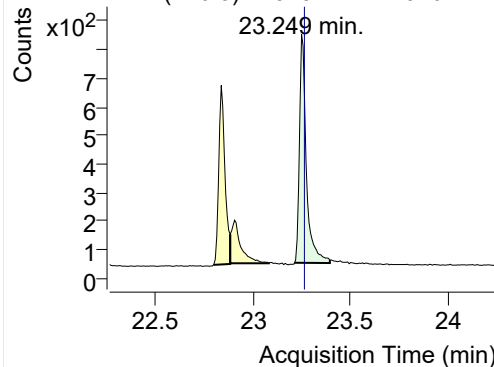


+ SIM (22.867-23.058 min, 26 scans) (\*\*) 2202

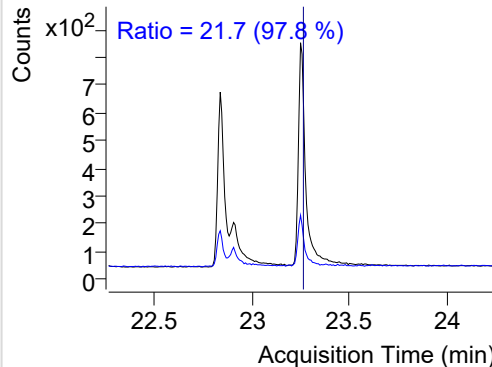


**Benzo(g,h,i)perylene**

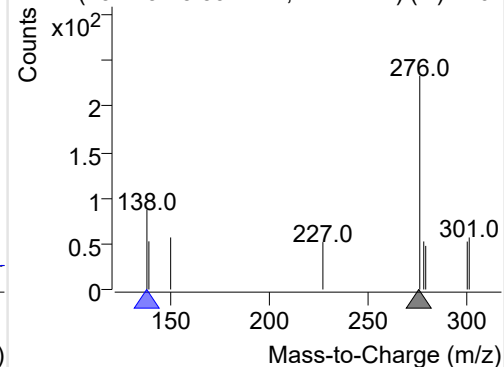
+ Selected Ion (276.0) 220204-PAHs-026.D



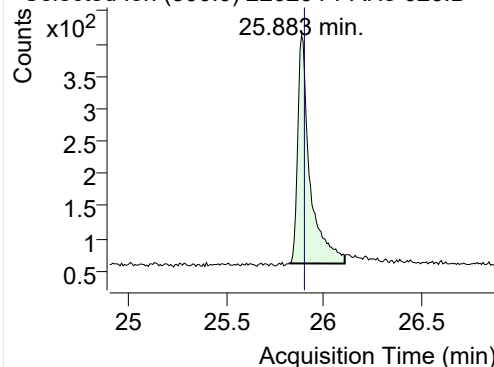
276.0, 138.0



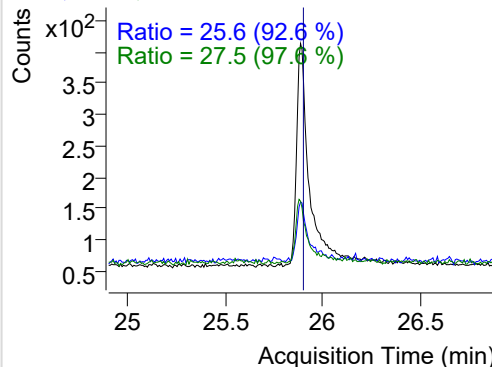
+ SIM (23.213-23.394 min, 24 scans) (\*\*) 2202

**Coronene**

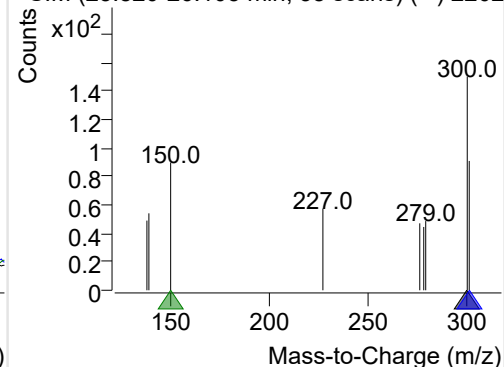
+ Selected Ion (300.0) 220204-PAHs-026.D



300.0, 301.0, 150.0



+ SIM (25.820-26.105 min, 38 scans) (\*\*) 2202





## Quantitative Analysis Sample Based Report

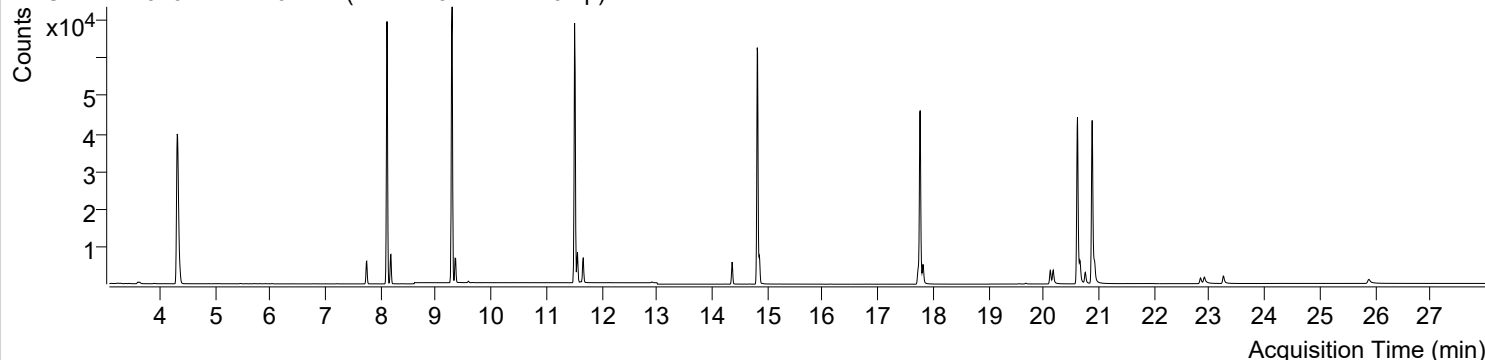


Trusted Answers

Batch Data Path File Name	D:\MassHunter\GCMS\1\data\PAHs\220204-PAHs-Sample\QuantResults\220204-PAHs-Quant.batch.bin		
Analysis Time Stamp	2022-04-13 오후 3:18:46	Analyst Name	DESKTOP-86B7UPG\5975MS
Report Generation Time	2022-04-13 오후 3:19:11	Report Generator Name	DESKTOP-86B7UPG\5975MS
Calibration Last Update	2022-04-13 오후 3:16:00	Batch State	Processed
Analyze Quant Version	10.2	Report Quant Version	10.2
Acq. Date-Time	2022-02-05 오전 3:40:07	Data File	220204-PAHs-027.D
Type	Sample	Name	PAHs-19mix-STD-0.1p
Dil.	1	Acq. Method File	PAHs 19mix-Method

## Sample Chromatogram

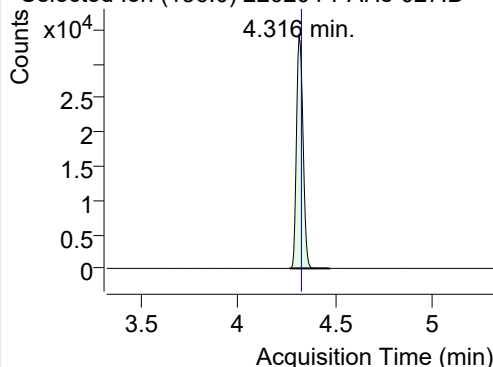
+ TIC SIM 220204-PAHs-027.D (PAHs-19mix-STD-0.1p)



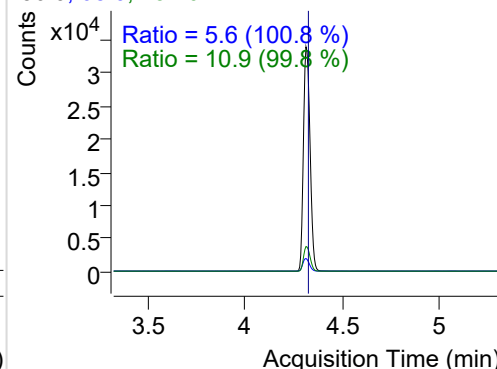
Name	RT	Transition	Resp.	Height	Final Conc. Units	Ratio
IS-D8-Naphthalene	4.316	136.0	79984	33905.61	ND ng/ml	10.9
Naphthalene	4.354	128.0	8503	3598.73	ND ng/ml	14.2
Acenaphthylene	7.745	152.0	6967	4431.69	ND ng/ml	19.9
IS-D10-Acenaphthene	8.112	164.0	48910	33702.65	ND ng/ml	92.5
Acenaphthene	8.183	154.0	4328	2880.20	ND ng/ml	106.6
LSS-D10-Fluorene	9.292	176.0	54994	34873.59	ND µg/mL	88.8
Fluorene	9.355	166.0	5245	3112.17	ND µg/mL	91.8
IS-D10-Phenanthrene	11.508	188.0	86234	54928.45	ND µg/mL	15.1
Phenanthrene	11.560	178.0	7765	5176.53	ND µg/mL	18.0
Anthracene	11.665	178.0	6950	4490.53	ND µg/mL	17.8
Fluoranthene	14.359	202.0	6937	4506.08	ND µg/mL	17.4
LSS-D10-Pyrene	14.814	212.0	73980	46776.00	ND µg/mL	16.8
Pyrene	14.852	202.0	8301	5204.95	ND µg/mL	19.2
Benz(a)anthracene	17.725	228.0	5050	2741.33	ND µg/mL	24.8
IS-D12-Chrysene	17.763	240.0	60634	34969.77	ND µg/mL	19.2
Chrysene	17.817	228.0	5909	3116.20	ND µg/mL	27.7
Benzo(b)fluoranthene	20.117	252.0	4658	2571.47	ND µg/mL	21.8
Benzo(k)fluoranthene	20.171	252.0	5278	2514.76	ND µg/mL	24.6
SS-D12-Benzo(e)pyrene	20.610	264.0	57067	30166.86	ND µg/mL	23.8
Benzo(e)pyrene	20.659	252.0	6372	3248.63	ND µg/mL	21.9
Benzo(a)pyrene	20.751	252.0	3888	1993.96	ND µg/mL	23.8
IS-D12-Perylene	20.876	264.0	57868	29759.22	ND µg/mL	22.1
Perylene	20.920	252.0	5459	2726.63	ND µg/mL	24.1
Indeno(1,2,3-c,d)pyrene	22.837	276.0	2698	1192.33	ND µg/mL	20.3
Dibenz(a,h)anthracene	22.906	278.0	2790	903.91	ND µg/mL	23.7
Benzo(g,h,i)perylene	23.249	276.0	3976	1559.28	ND µg/mL	21.6
Coronene	25.883	300.0	3018	683.39	ND µg/mL	27.1

## IS-D8-Naphthalene

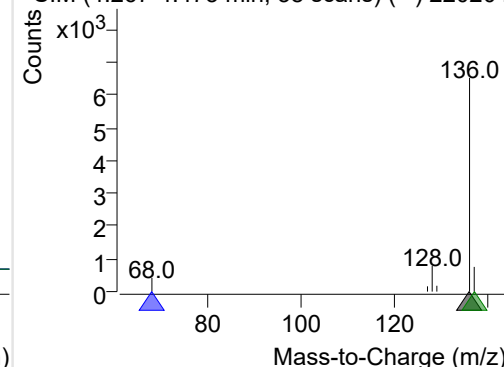
+ Selected Ion (136.0) 220204-PAHs-027.D



136.0, 68.0, 137.0

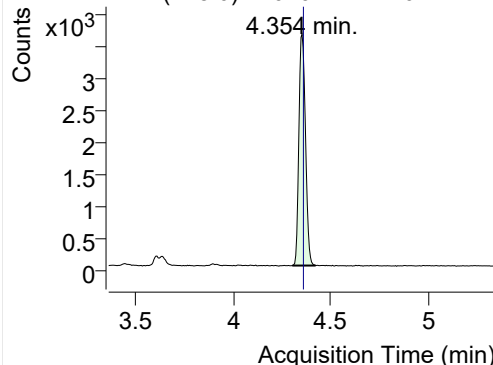


+ SIM (4.267-4.473 min, 38 scans) (\*\*) 220204

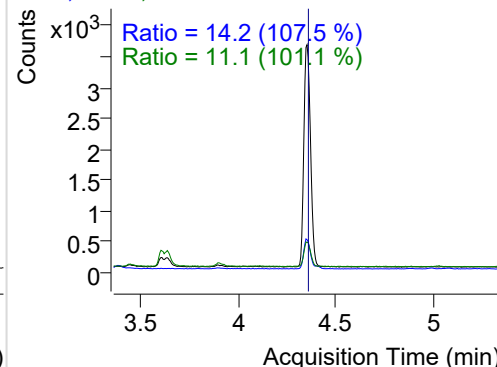


**Naphthalene**

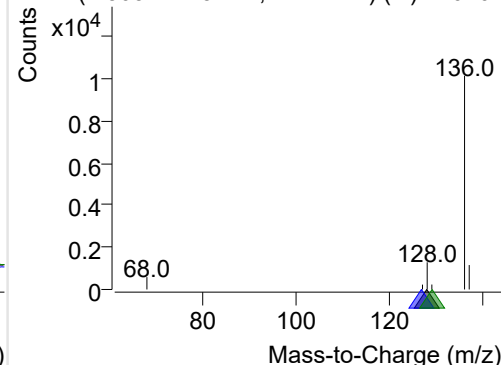
+ Selected Ion (128.0) 220204-PAHs-027.D



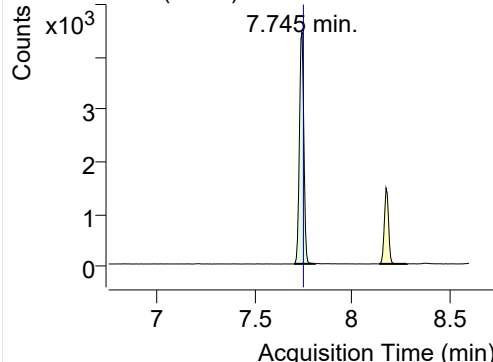
128.0, 127.0, 129.0



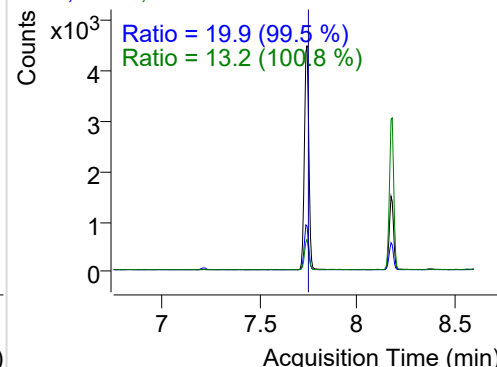
+ SIM (4.303-4.423 min, 22 scans) (\*\*) 220204

**Acenaphthylene**

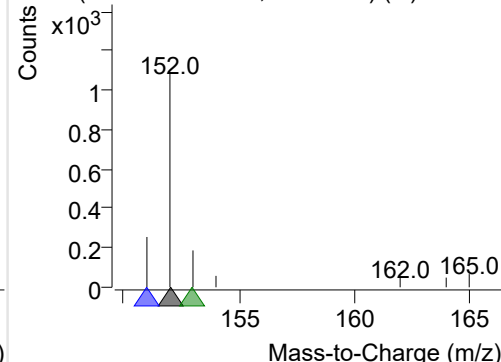
+ Selected Ion (152.0) 220204-PAHs-027.D



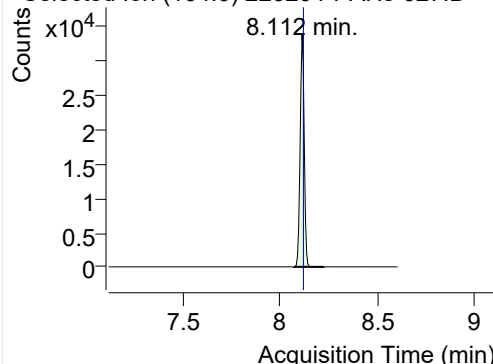
152.0, 151.0, 153.0



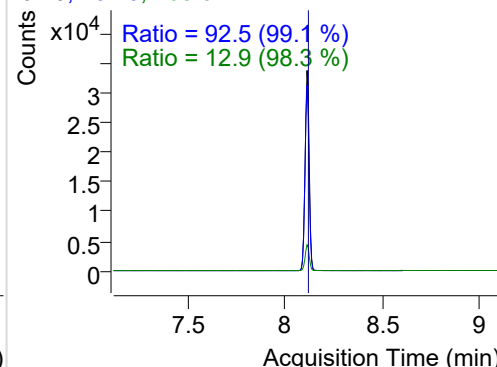
+ SIM (7.704-7.810 min, 19 scans) (\*\*) 220204

**IS-D10-Acenaphthene**

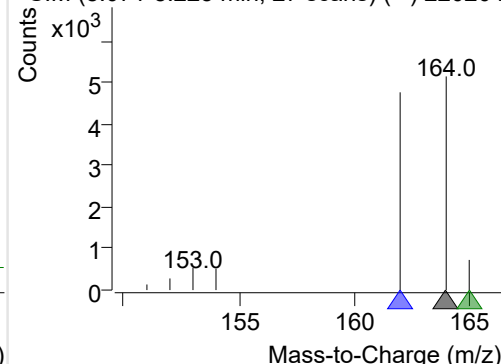
+ Selected Ion (164.0) 220204-PAHs-027.D



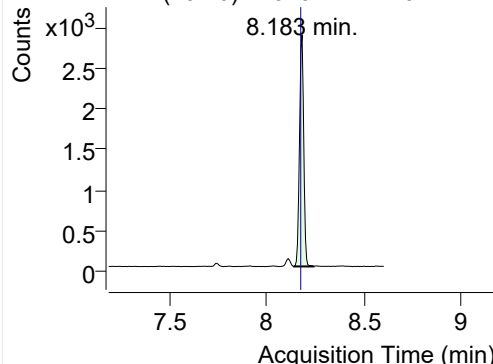
164.0, 162.0, 165.0



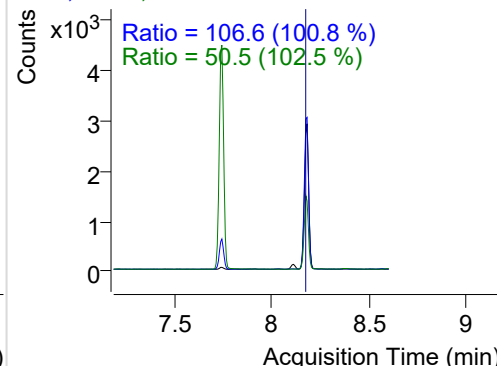
+ SIM (8.071-8.225 min, 27 scans) (\*\*) 220204

**Acenaphthene**

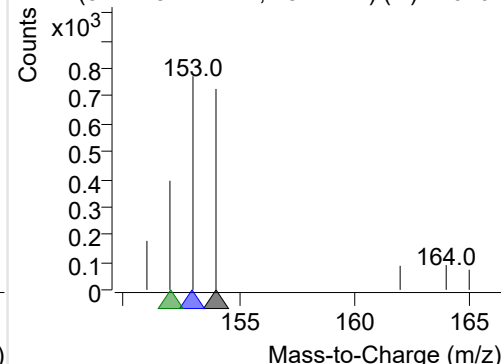
+ Selected Ion (154.0) 220204-PAHs-027.D



154.0, 153.0, 152.0

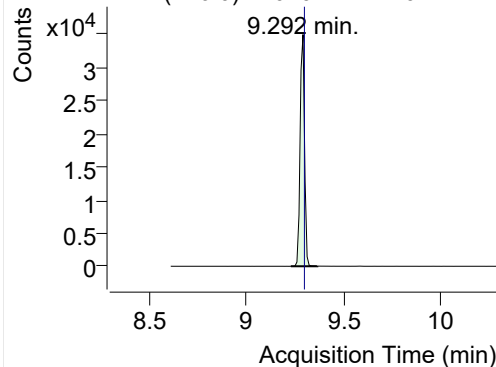


+ SIM (8.142-8.242 min, 18 scans) (\*\*) 220204

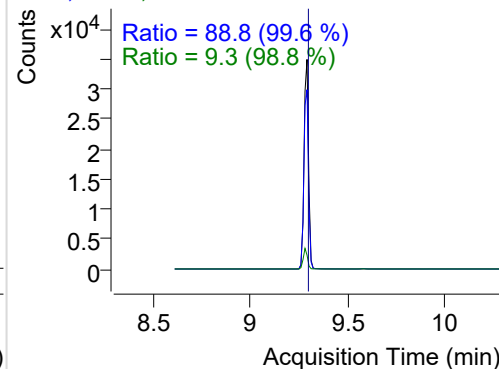


## LSS-D10-Fluorene

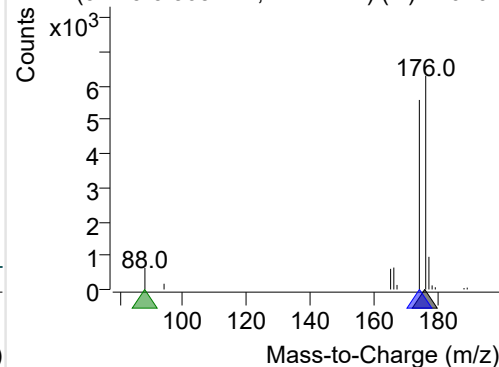
+ Selected Ion (176.0) 220204-PAHs-027.D



176.0, 174.0, 88.0

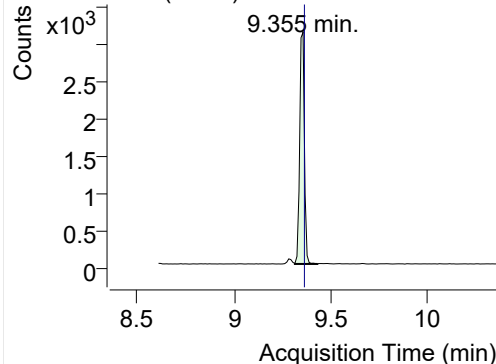


+ SIM (9.229-9.365 min, 14 scans) (\*\*) 220204

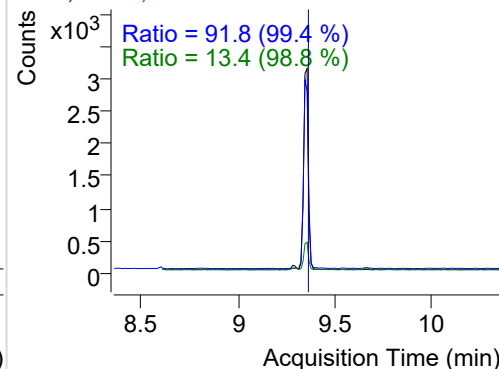


## Fluorene

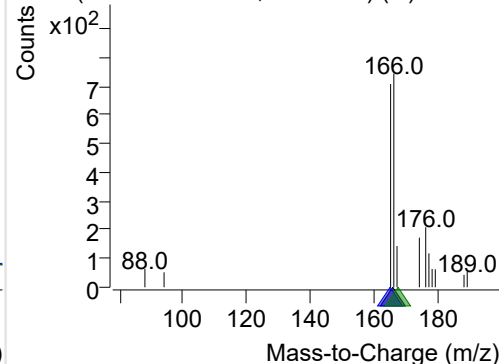
+ Selected Ion (166.0) 220204-PAHs-027.D



166.0, 165.0, 167.0

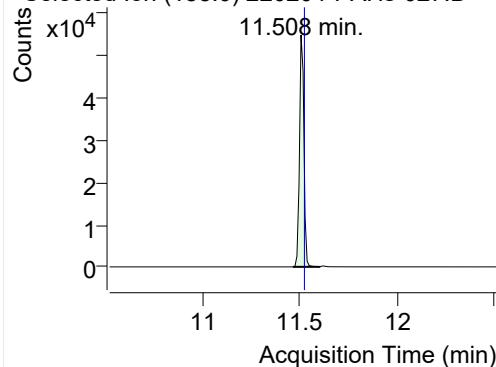


+ SIM (9.313-9.428 min, 12 scans) (\*\*) 220204

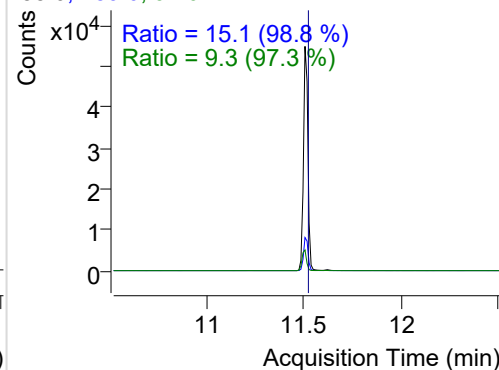


## IS-D10-Phenanthrene

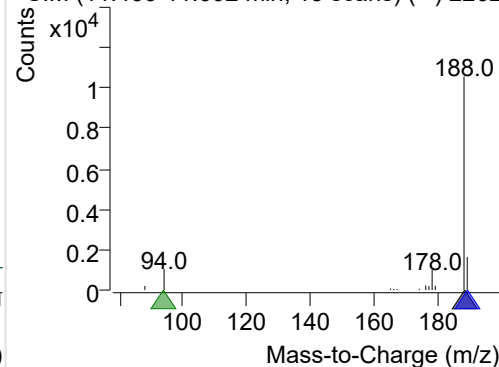
+ Selected Ion (188.0) 220204-PAHs-027.D



188.0, 189.0, 94.0

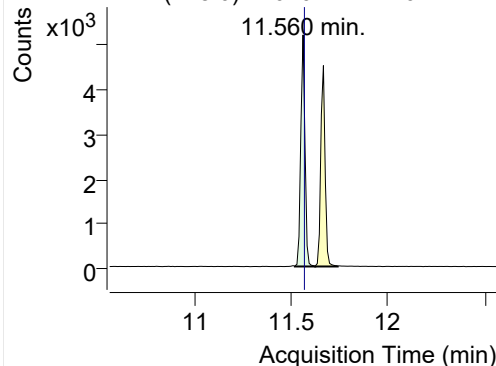


+ SIM (11.466-11.602 min, 13 scans) (\*\*) 2202

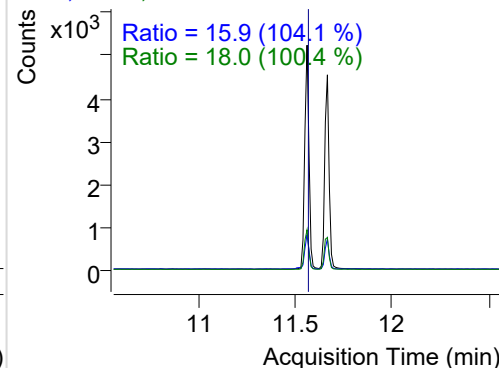


## Phenanthrene

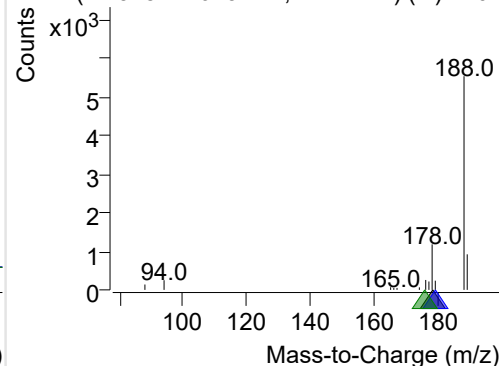
+ Selected Ion (178.0) 220204-PAHs-027.D



178.0, 179.0, 176.0

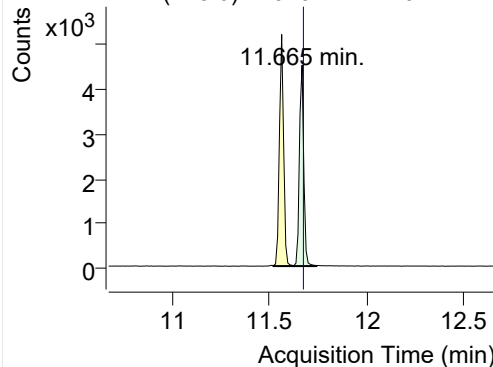


+ SIM (11.518-11.623 min, 11 scans) (\*\*) 2202

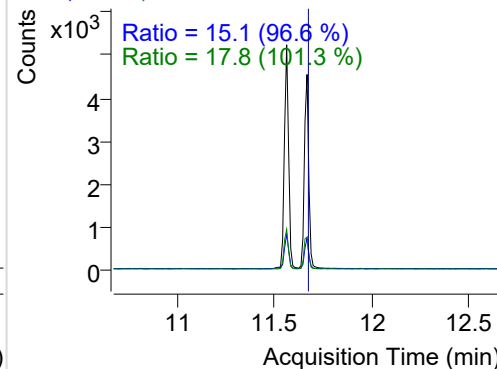


**Anthracene**

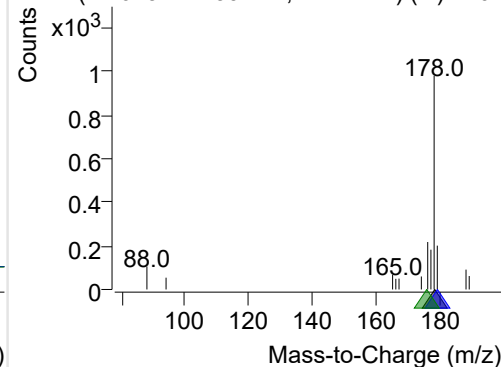
+ Selected Ion (178.0) 220204-PAHs-027.D



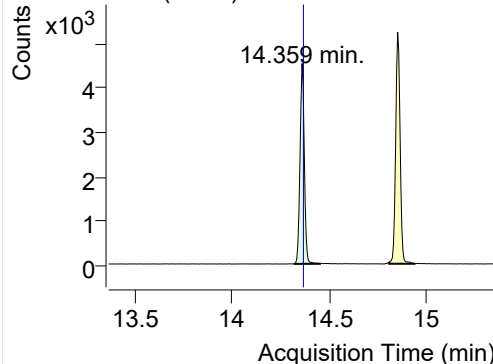
178.0, 179.0, 176.0



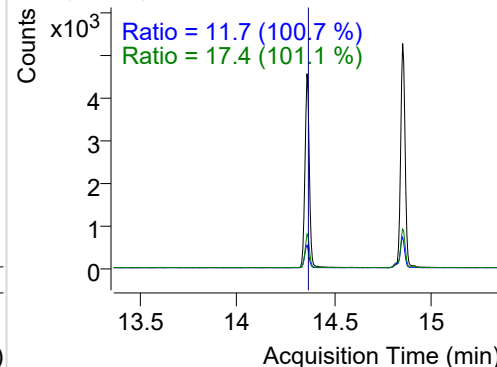
+ SIM (11.623-11.739 min, 12 scans) (\*\*) 2202

**Fluoranthene**

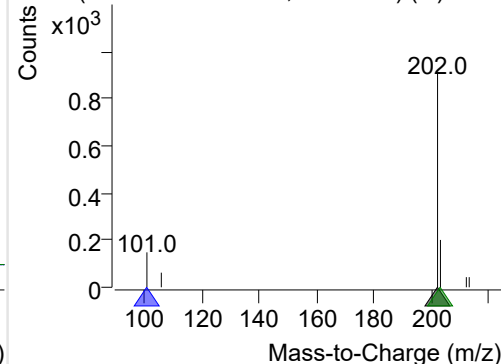
+ Selected Ion (202.0) 220204-PAHs-027.D



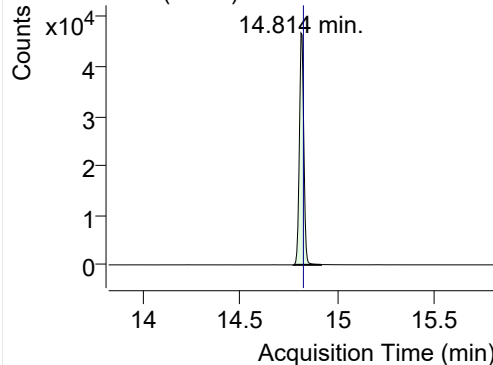
202.0, 101.0, 203.0



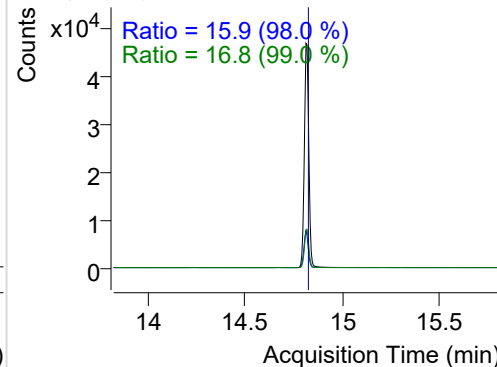
+ SIM (14.317-14.451 min, 25 scans) (\*\*) 2202

**LSS-D10-Pyrene**

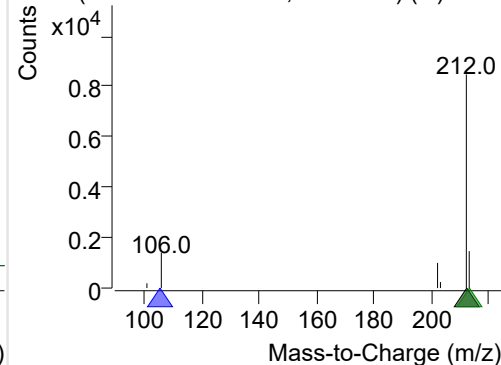
+ Selected Ion (212.0) 220204-PAHs-027.D



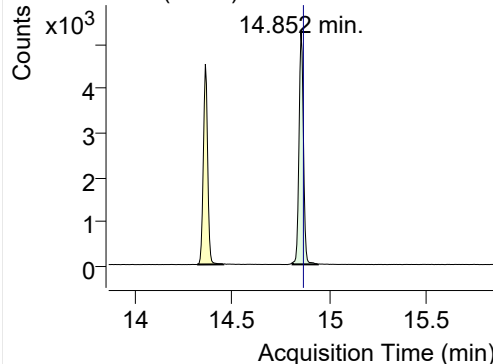
212.0, 106.0, 213.0



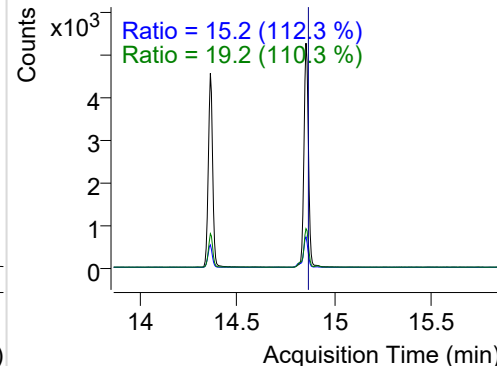
+ SIM (14.776-14.917 min, 27 scans) (\*\*) 2202

**Pyrene**

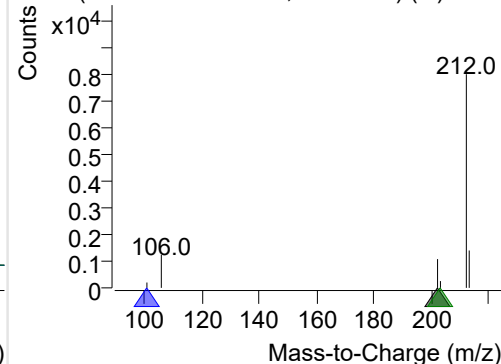
+ Selected Ion (202.0) 220204-PAHs-027.D



202.0, 101.0, 203.0

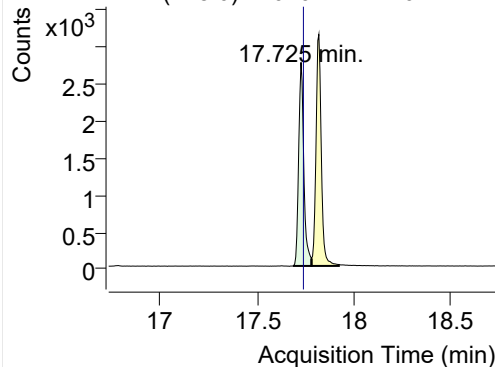


+ SIM (14.809-14.939 min, 25 scans) (\*\*) 2202

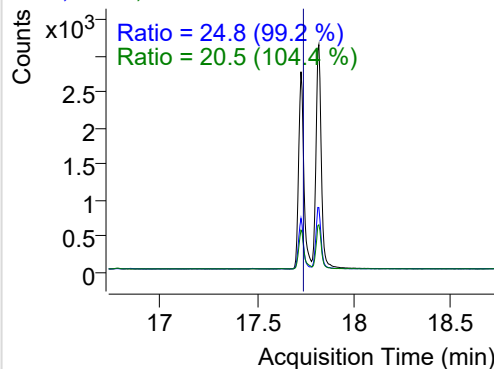


**Benz(a)anthracene**

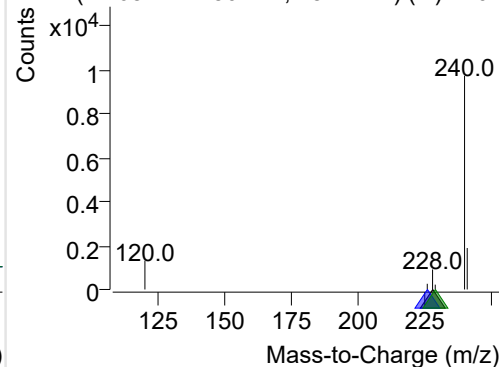
+ Selected Ion (228.0) 220204-PAHs-027.D



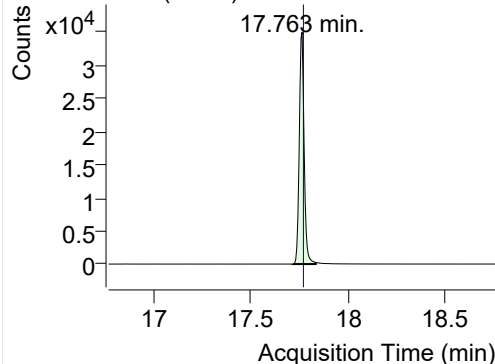
228.0, 226.0, 229.0



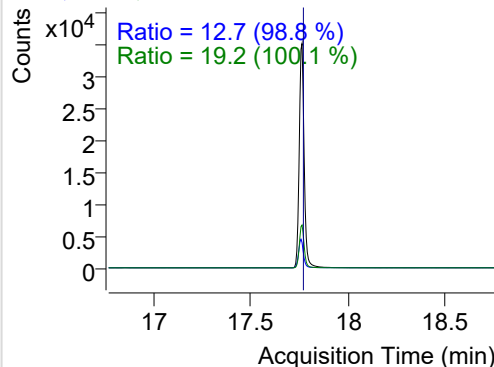
+ SIM (17.684-17.780 min, 18 scans) (\*\*) 2202

**IS-D12-Chrysene**

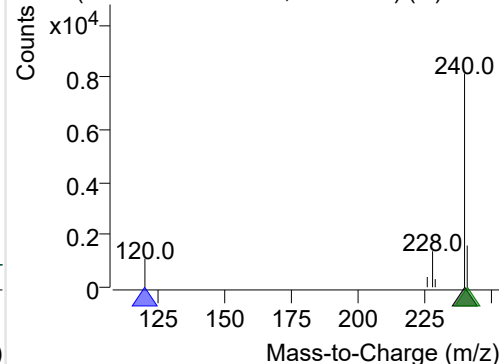
+ Selected Ion (240.0) 220204-PAHs-027.D



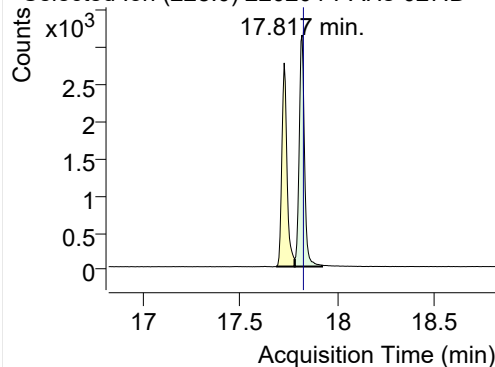
240.0, 120.0, 241.0



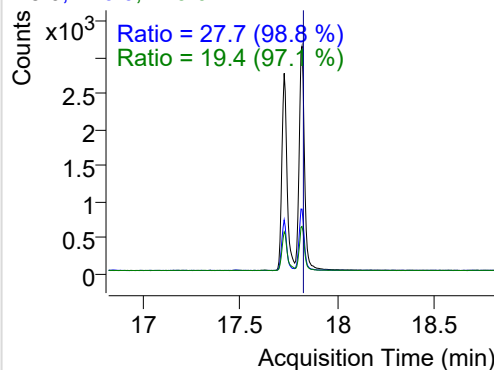
+ SIM (17.714-17.834 min, 23 scans) (\*\*) 2202

**Chrysene**

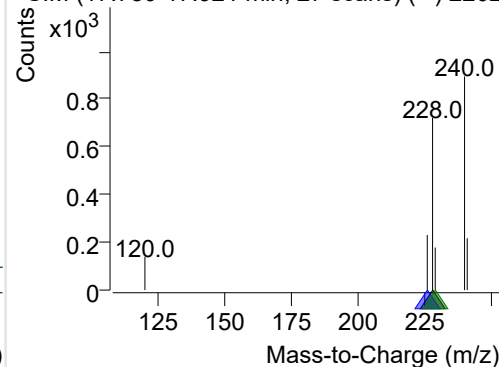
+ Selected Ion (228.0) 220204-PAHs-027.D



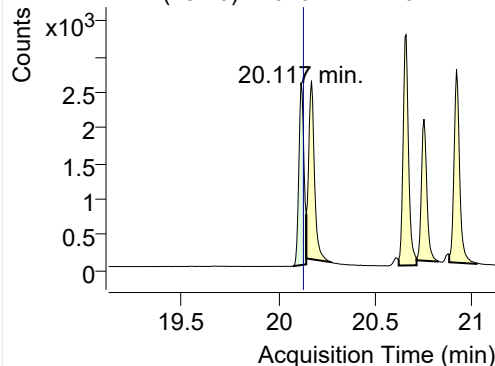
228.0, 226.0, 229.0



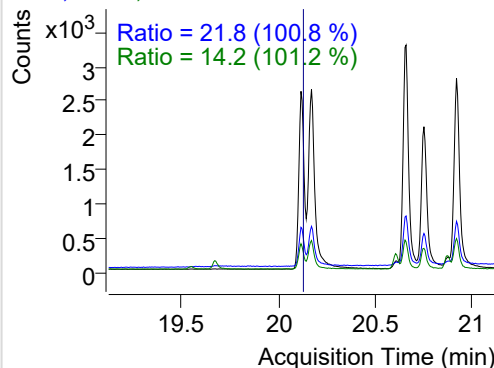
+ SIM (17.780-17.921 min, 27 scans) (\*\*) 2202

**Benzo(b)fluoranthene**

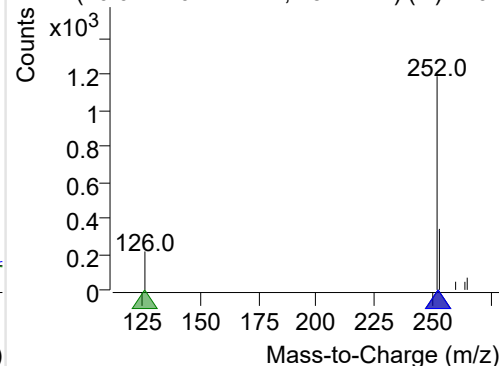
+ Selected Ion (252.0) 220204-PAHs-027.D



252.0, 253.0, 126.0

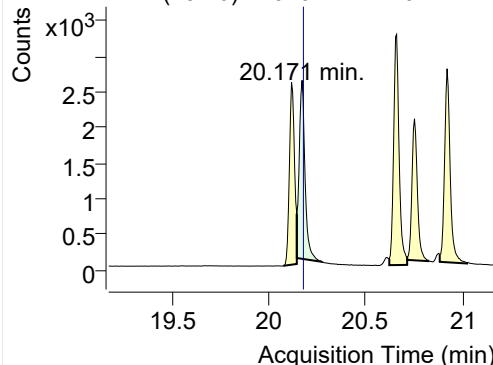


+ SIM (20.074-20.144 min, 13 scans) (\*\*) 2202

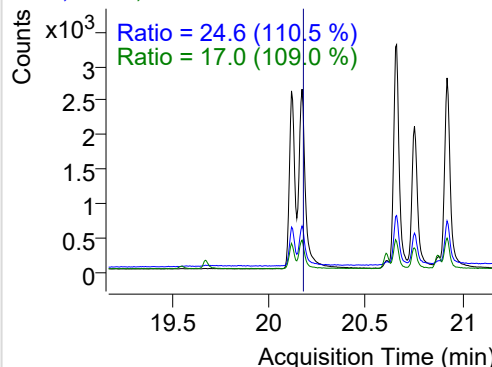


**Benzo(k)fluoranthene**

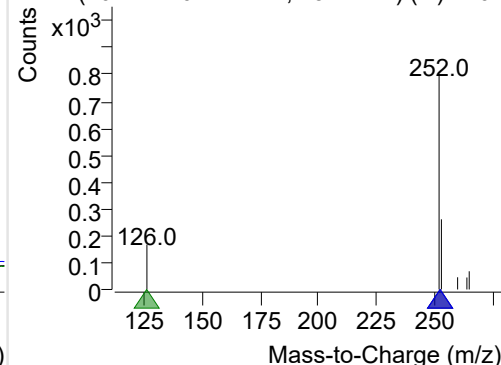
+ Selected Ion (252.0) 220204-PAHs-027.D



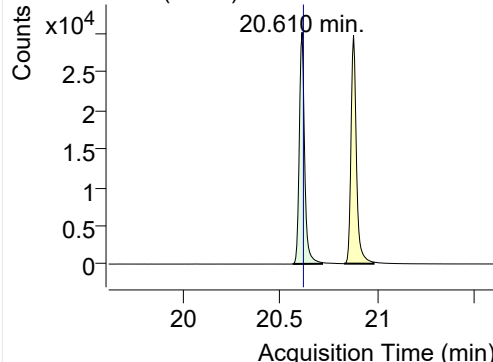
252.0, 253.0, 126.0



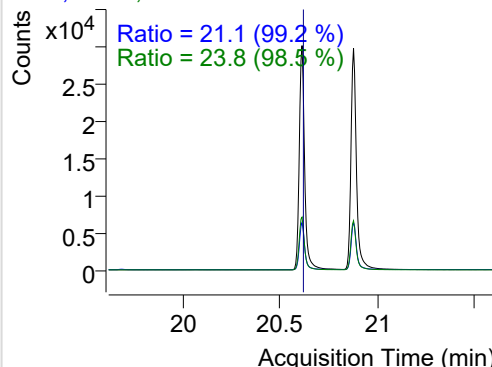
+ SIM (20.144-20.274 min, 25 scans) (\*\*) 2202

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

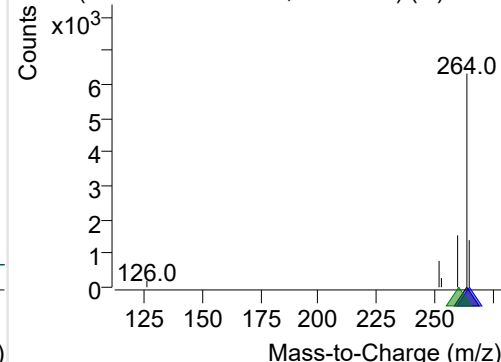
+ Selected Ion (264.0) 220204-PAHs-027.D



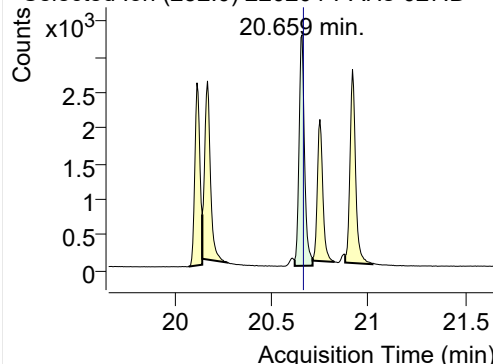
264.0, 265.0, 260.0



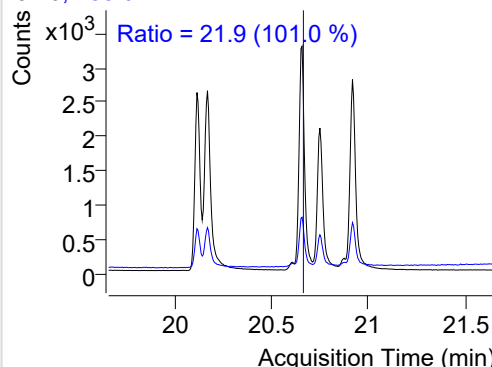
+ SIM (20.562-20.714 min, 28 scans) (\*\*) 2202

**Benzo(e)pyrene**

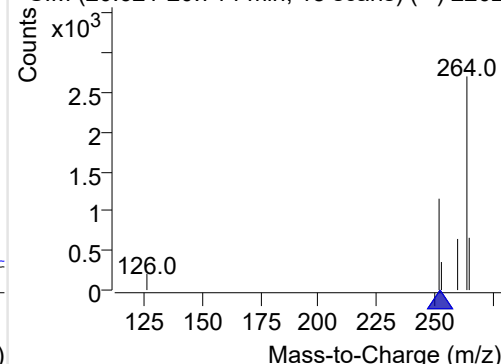
+ Selected Ion (252.0) 220204-PAHs-027.D



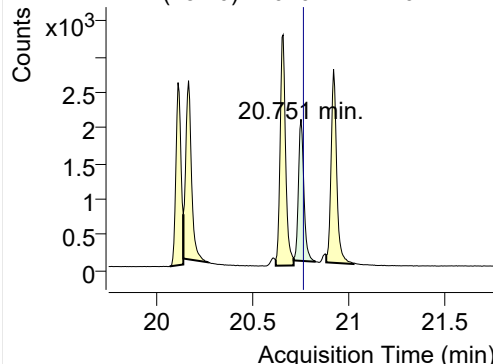
252.0, 253.0



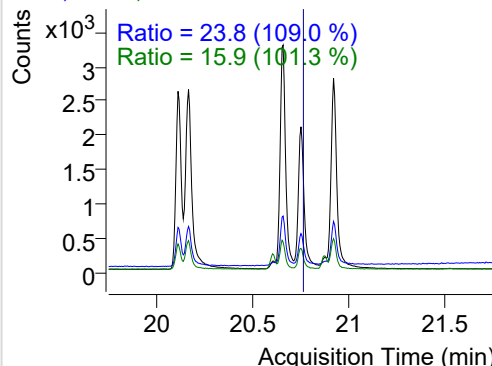
+ SIM (20.621-20.714 min, 18 scans) (\*\*) 2202

**Benzo(a)pyrene**

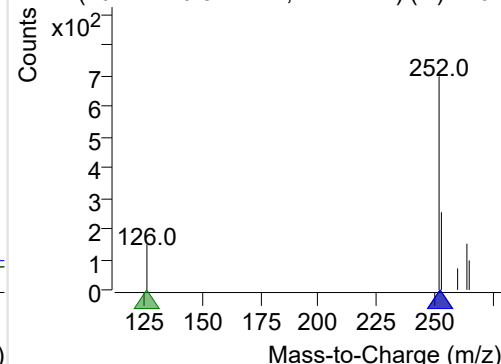
+ Selected Ion (252.0) 220204-PAHs-027.D



252.0, 253.0, 126.0

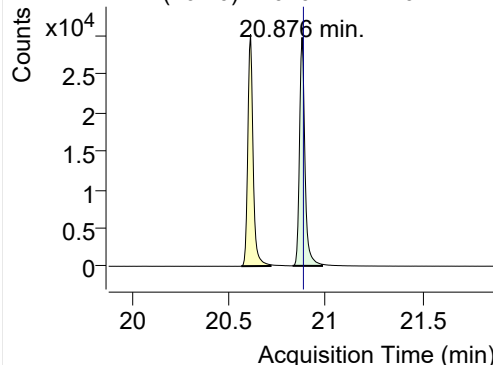


+ SIM (20.714-20.827 min, 21 scans) (\*\*) 2202

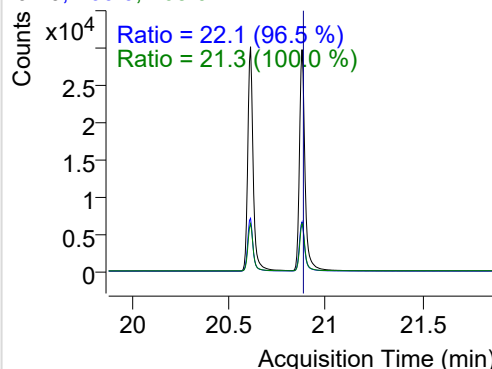


## IS-D12-Perylene

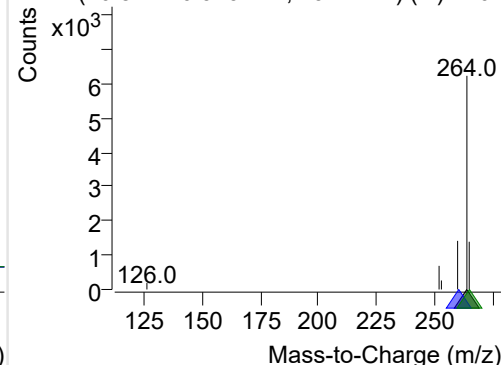
+ Selected Ion (264.0) 220204-PAHs-027.D



264.0, 260.0, 265.0

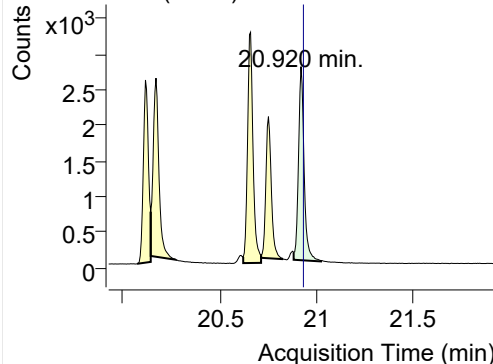


+ SIM (20.827-20.979 min, 29 scans) (\*\*) 2202

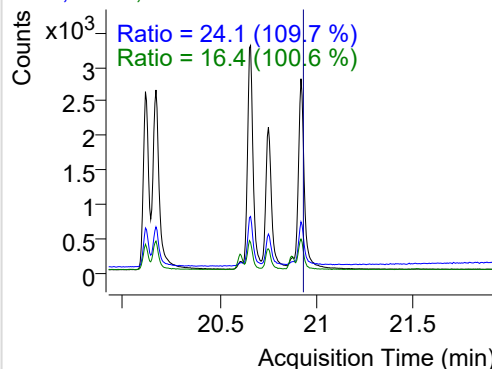


## Perylene

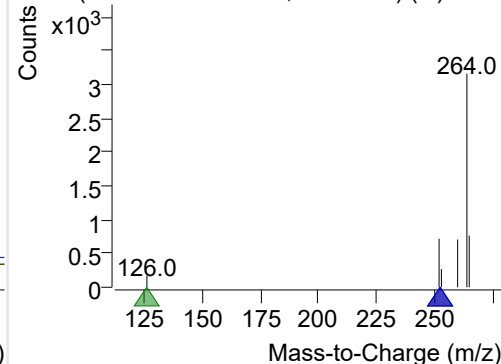
+ Selected Ion (252.0) 220204-PAHs-027.D



252.0, 253.0, 126.0

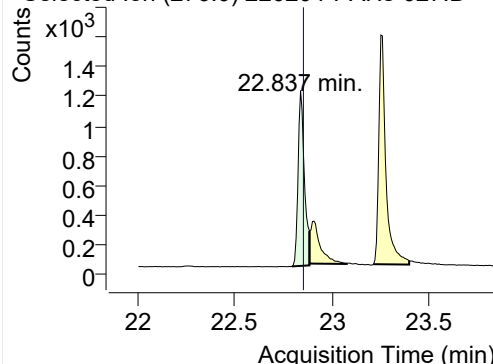


+ SIM (20.882-21.023 min, 27 scans) (\*\*) 2202

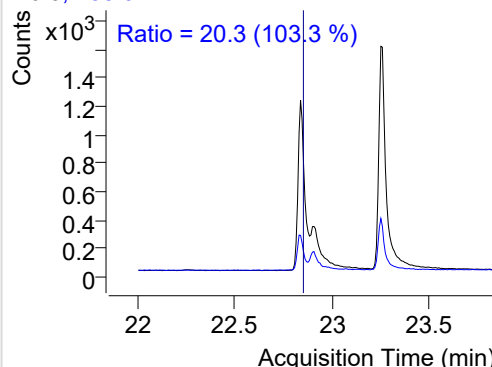


## Indeno(1,2,3-c,d)pyrene

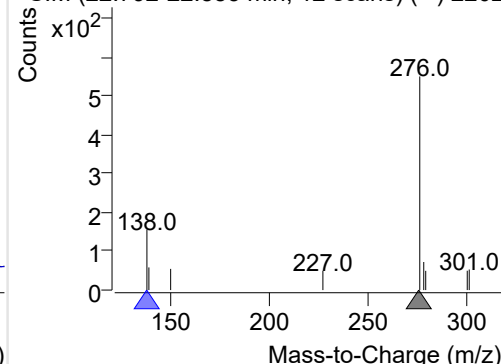
+ Selected Ion (276.0) 220204-PAHs-027.D



276.0, 138.0

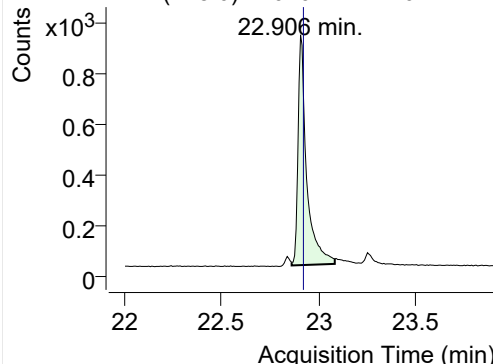


+ SIM (22.792-22.883 min, 12 scans) (\*\*) 2202

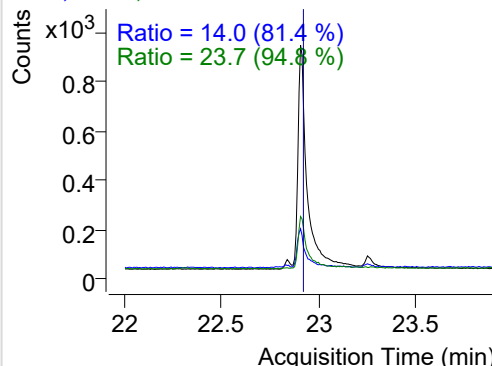


## Dibenz(a,h)anthracene

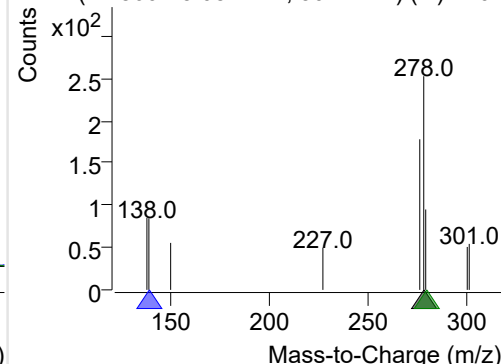
+ Selected Ion (278.0) 220204-PAHs-027.D



278.0, 139.0, 279.0

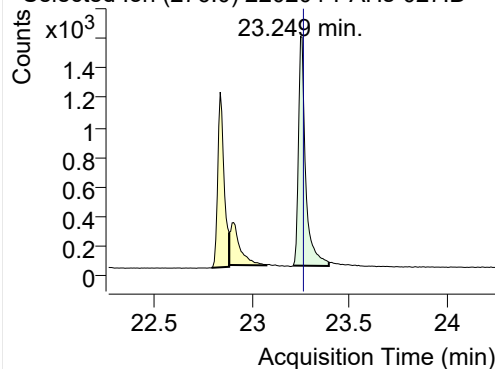


+ SIM (22.860-23.081 min, 30 scans) (\*\*) 2202

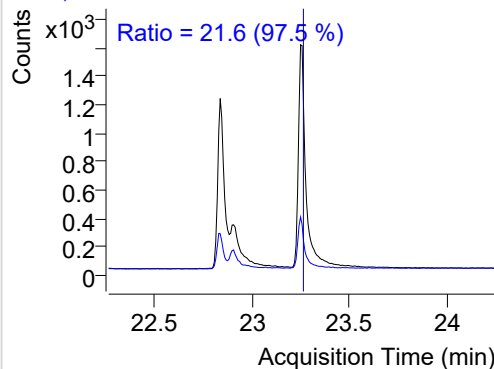


**Benzo(g,h,i)perylene**

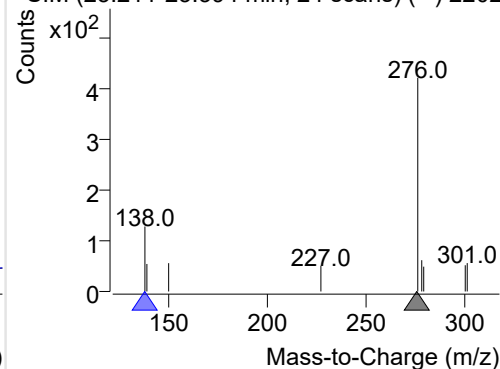
+ Selected Ion (276.0) 220204-PAHs-027.D



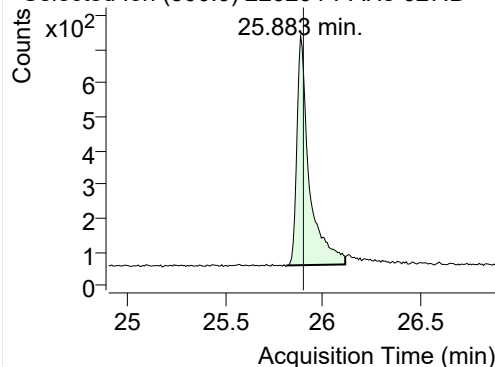
276.0, 138.0



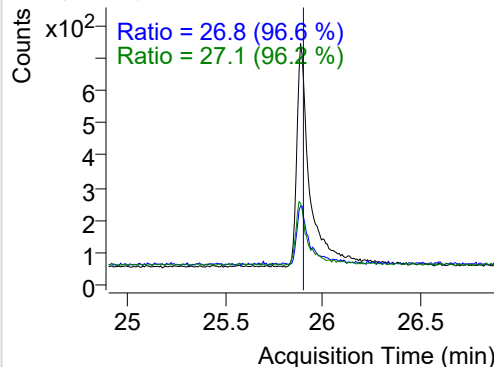
+ SIM (23.211-23.394 min, 24 scans) (\*\*) 2202

**Coronene**

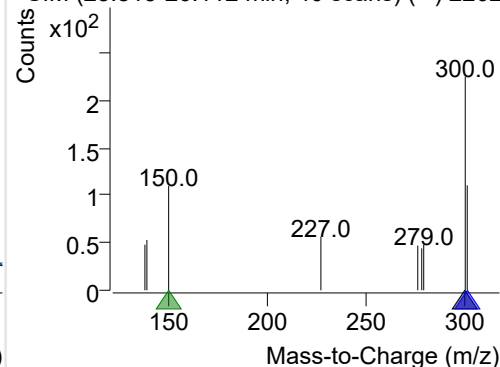
+ Selected Ion (300.0) 220204-PAHs-027.D



300.0, 301.0, 150.0



+ SIM (25.815-26.112 min, 40 scans) (\*\*) 2202





## Quantitative Analysis Sample Based Report

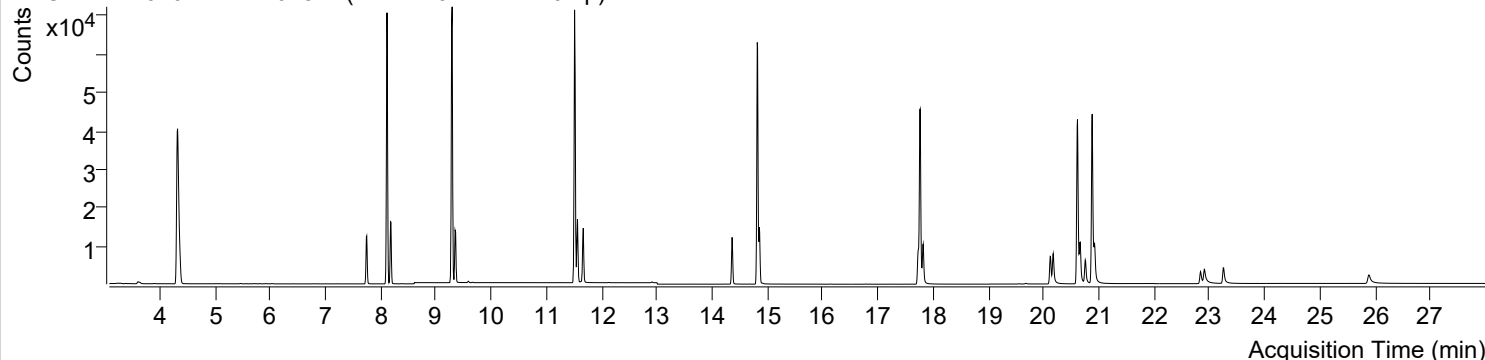


Trusted Answers

Batch Data Path File Name	D:\MassHunter\GCMS\1\data\PAHs\220204-PAHs-Sample\QuantResults\220204-PAHs-Quant.batch.bin		
Analysis Time Stamp	2022-04-13 오후 3:18:46	Analyst Name	DESKTOP-86B7UPG\5975MS
Report Generation Time	2022-04-13 오후 3:19:11	Report Generator Name	DESKTOP-86B7UPG\5975MS
Calibration Last Update	2022-04-13 오후 3:16:00	Batch State	Processed
Analyze Quant Version	10.2	Report Quant Version	10.2
Acq. Date-Time	2022-02-05 오전 4:11:12	Data File	220204-PAHs-028.D
Type	Sample	Name	PAHs-19mix-STD-0.2p
Dil.	1	Acq. Method File	PAHs 19mix-Method

## Sample Chromatogram

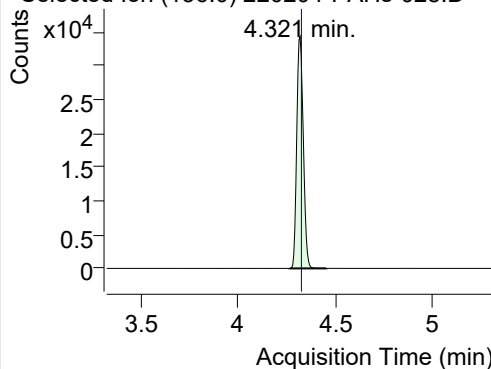
+ TIC SIM 220204-PAHs-028.D (PAHs-19mix-STD-0.2p)



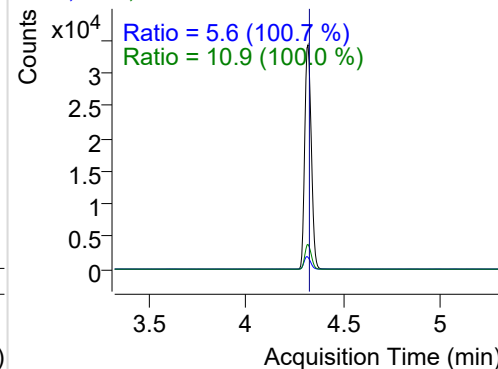
Name	RT	Transition	Resp.	Height	Final Conc. Units	Ratio
IS-D8-Naphthalene	4.321	136.0	80428	34281.82	ND ng/ml	10.9
Naphthalene	4.354	128.0	17137	7370.11	ND ng/ml	13.6
Acenaphthylene	7.745	152.0	14520	9334.11	ND ng/ml	19.9
IS-D10-Acenaphthene	8.112	164.0	49239	34109.86	ND ng/ml	92.6
Acenaphthene	8.183	154.0	9005	5980.19	ND ng/ml	105.2
LSS-D10-Fluorene	9.292	176.0	54105	34218.33	ND µg/mL	88.9
Fluorene	9.344	166.0	10995	6511.16	ND µg/mL	90.7
IS-D10-Phenanthrene	11.508	188.0	86318	56636.43	ND µg/mL	15.3
Phenanthrene	11.560	178.0	16236	10786.33	ND µg/mL	17.8
Anthracene	11.665	178.0	14687	9563.31	ND µg/mL	17.2
Fluoranthene	14.359	202.0	14653	9393.82	ND µg/mL	17.5
LSS-D10-Pyrene	14.820	212.0	72930	46859.13	ND µg/mL	16.9
Pyrene	14.852	202.0	17173	10710.75	ND µg/mL	18.0
Benz(a)anthracene	17.725	228.0	10786	5811.50	ND µg/mL	24.7
IS-D12-Chrysene	17.763	240.0	62043	34394.36	ND µg/mL	19.0
Chrysene	17.817	228.0	12504	6638.42	ND µg/mL	27.2
Benzo(b)fluoranthene	20.117	252.0	10069	5236.75	ND µg/mL	21.5
Benzo(k)fluoranthene	20.171	252.0	13135	5735.64	ND µg/mL	22.0
SS-D12-Benzo(e)pyrene	20.610	264.0	57424	29219.68	ND µg/mL	23.8
Benzo(e)pyrene	20.659	252.0	13415	6780.83	ND µg/mL	21.6
Benzo(a)pyrene	20.751	252.0	8895	4265.26	ND µg/mL	21.3
IS-D12-Perylene	20.876	264.0	57856	30277.48	ND µg/mL	22.3
Perylene	20.920	252.0	11615	5630.19	ND µg/mL	22.5
Indeno(1,2,3-c,d)pyrene	22.837	276.0	5776	2472.14	ND µg/mL	20.1
Dibenz(a,h)anthracene	22.906	278.0	6262	1885.75	ND µg/mL	23.4
Benzo(g,h,i)perylene	23.257	276.0	8613	3220.36	ND µg/mL	22.3
Coronene	25.883	300.0	6456	1417.49	ND µg/mL	26.8

## IS-D8-Naphthalene

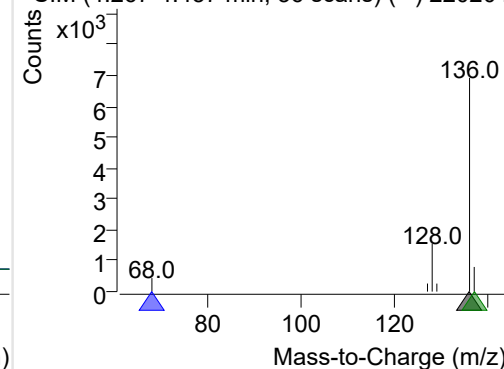
+ Selected Ion (136.0) 220204-PAHs-028.D



136.0, 68.0, 137.0

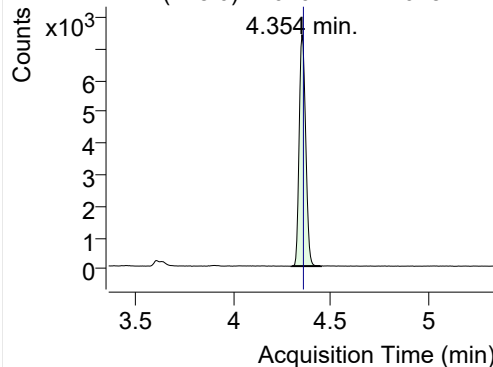


+ SIM (4.267-4.457 min, 36 scans) (\*\*) 220204

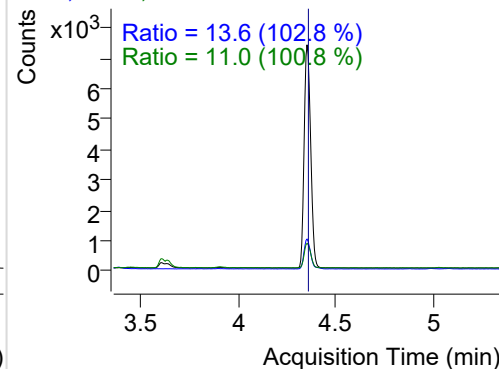


**Naphthalene**

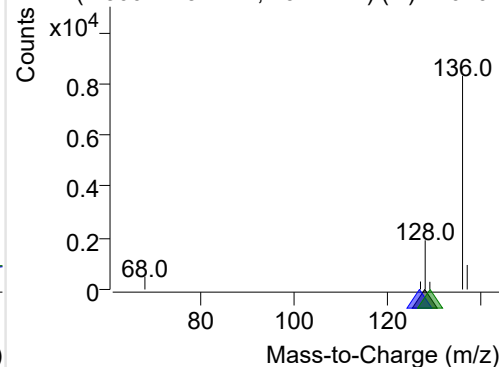
+ Selected Ion (128.0) 220204-PAHs-028.D



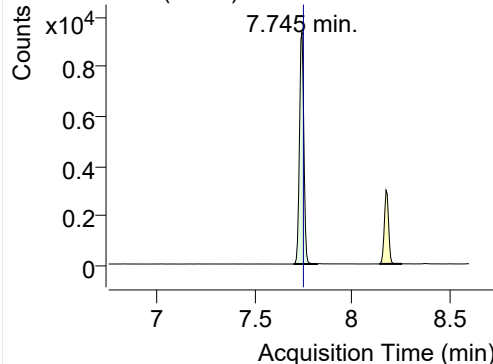
128.0, 127.0, 129.0



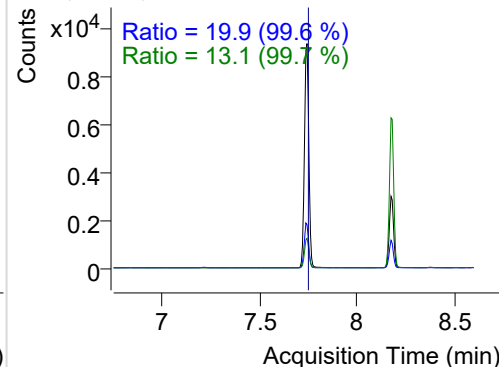
+ SIM (4.300-4.451 min, 29 scans) (\*\*) 220204

**Acenaphthylene**

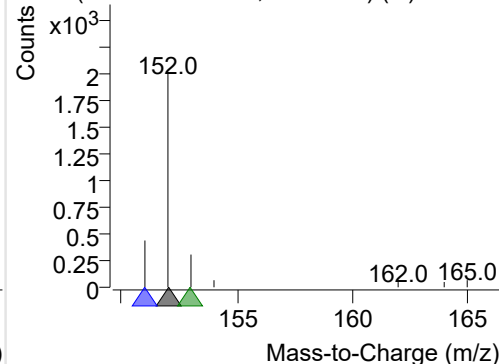
+ Selected Ion (152.0) 220204-PAHs-028.D



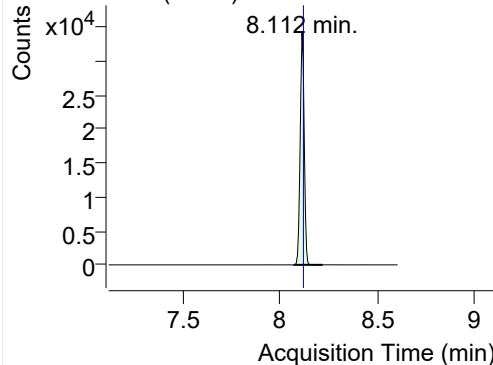
152.0, 151.0, 153.0



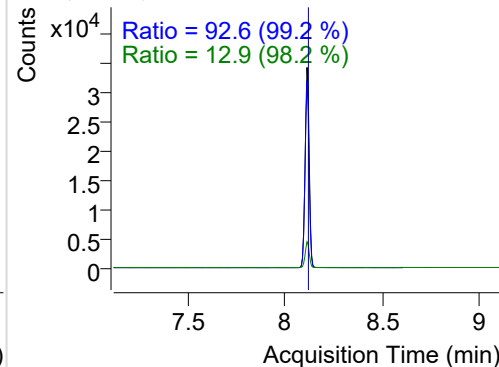
+ SIM (7.701-7.822 min, 21 scans) (\*\*) 220204

**IS-D10-Acenaphthene**

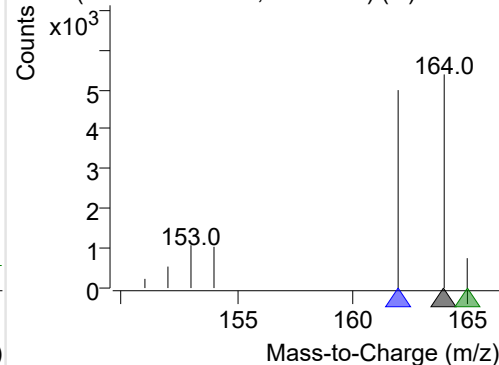
+ Selected Ion (164.0) 220204-PAHs-028.D



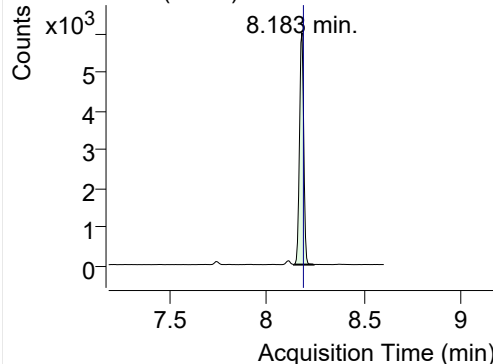
164.0, 162.0, 165.0



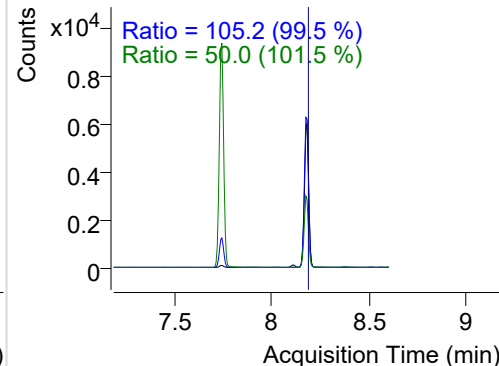
+ SIM (8.071-8.219 min, 26 scans) (\*\*) 220204

**Acenaphthene**

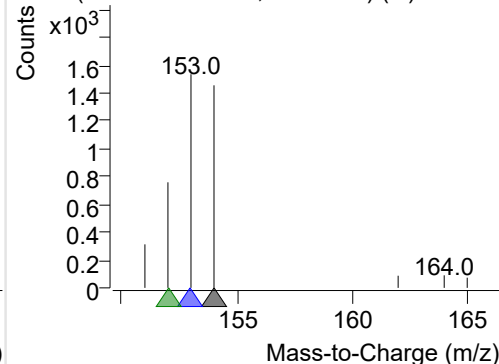
+ Selected Ion (154.0) 220204-PAHs-028.D



154.0, 153.0, 152.0

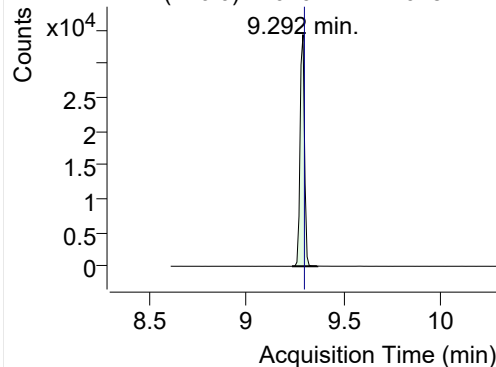


+ SIM (8.142-8.242 min, 18 scans) (\*\*) 220204

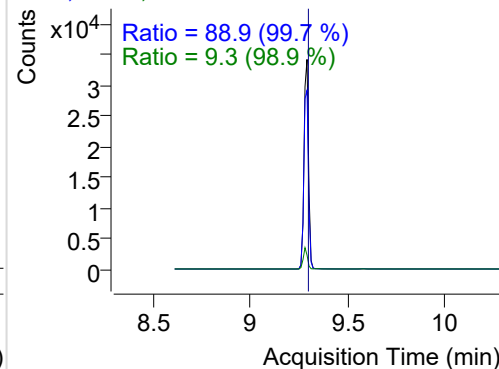


## LSS-D10-Fluorene

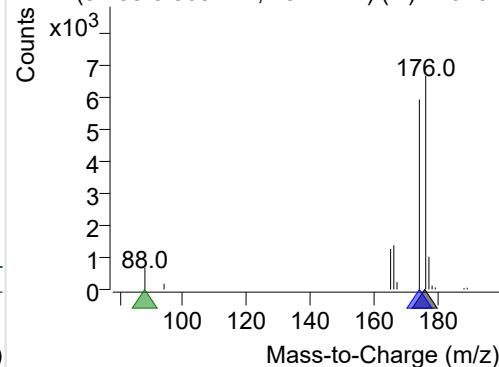
+ Selected Ion (176.0) 220204-PAHs-028.D



176.0, 174.0, 88.0

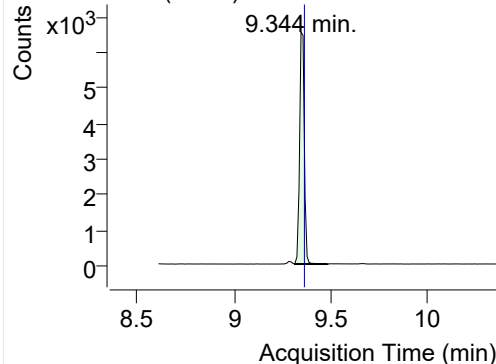


+ SIM (9.235-9.365 min, 13 scans) (\*\*) 220204

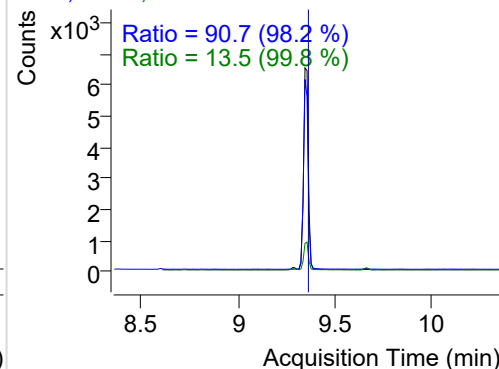


## Fluorene

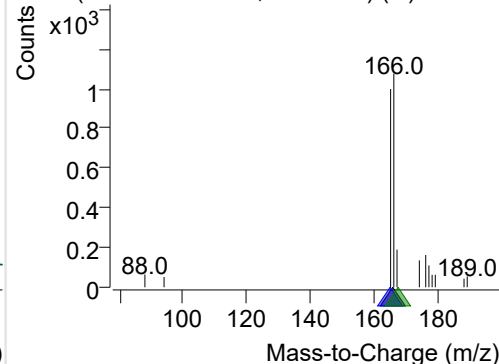
+ Selected Ion (166.0) 220204-PAHs-028.D



166.0, 165.0, 167.0

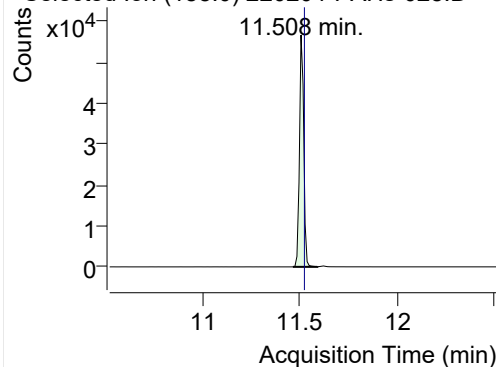


+ SIM (9.313-9.481 min, 17 scans) (\*\*) 220204

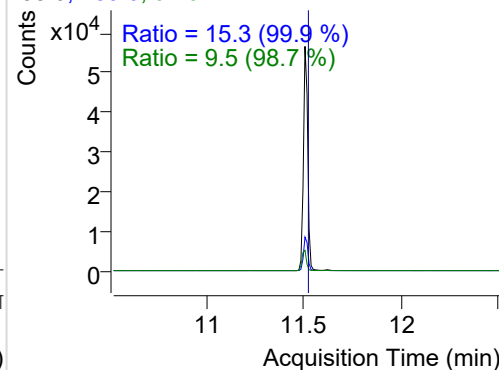


## IS-D10-Phenanthrene

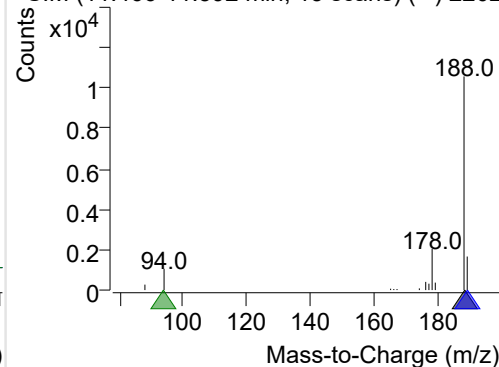
+ Selected Ion (188.0) 220204-PAHs-028.D



188.0, 189.0, 94.0

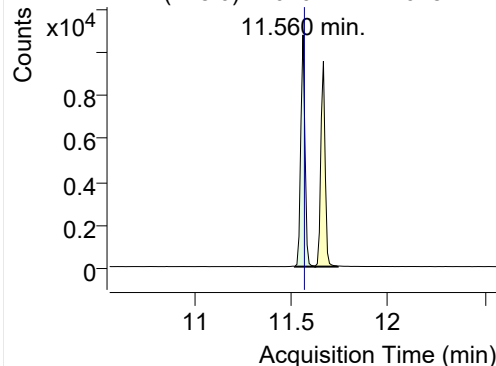


+ SIM (11.466-11.592 min, 13 scans) (\*\*) 2202

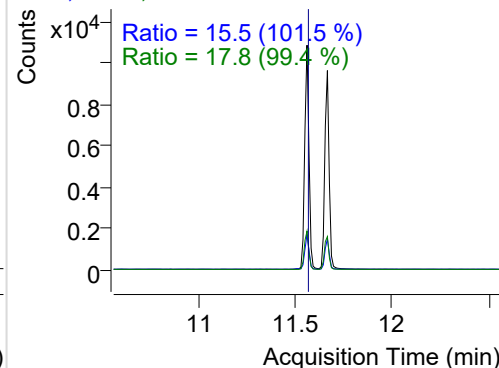


## Phenanthrene

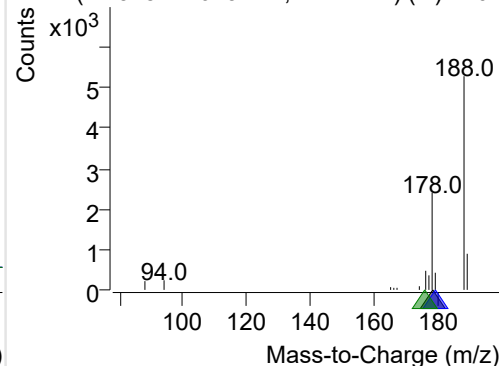
+ Selected Ion (178.0) 220204-PAHs-028.D



178.0, 179.0, 176.0

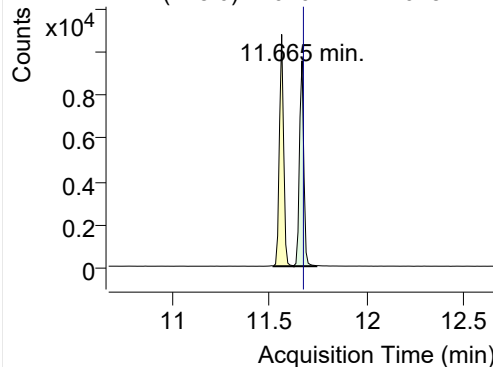


+ SIM (11.518-11.623 min, 11 scans) (\*\*) 2202

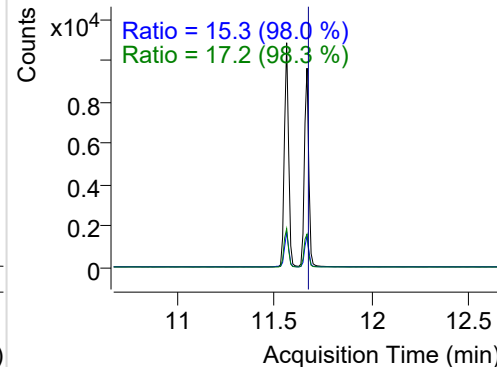


**Anthracene**

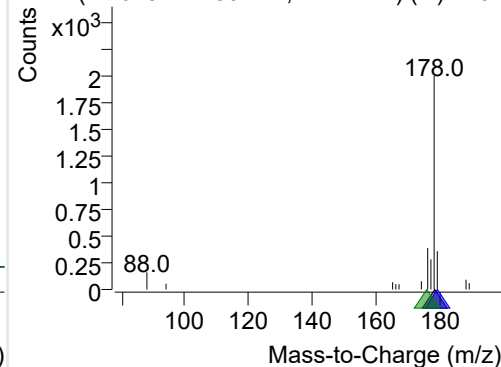
+ Selected Ion (178.0) 220204-PAHs-028.D



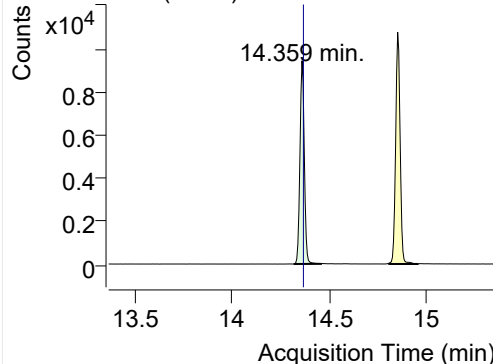
178.0, 179.0, 176.0



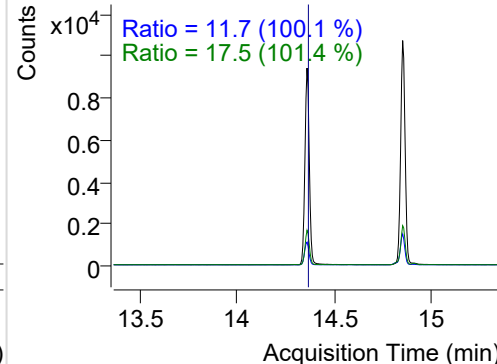
+ SIM (11.623-11.739 min, 12 scans) (\*\*) 2202

**Fluoranthene**

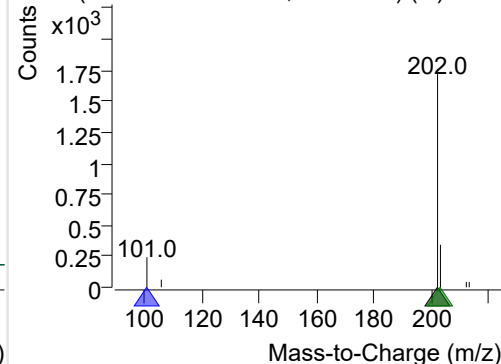
+ Selected Ion (202.0) 220204-PAHs-028.D



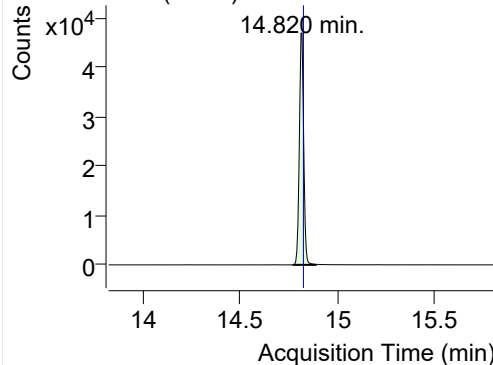
202.0, 101.0, 203.0



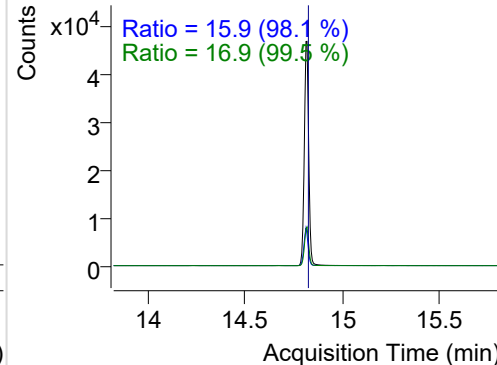
+ SIM (14.316-14.457 min, 27 scans) (\*\*) 2202

**LSS-D10-Pyrene**

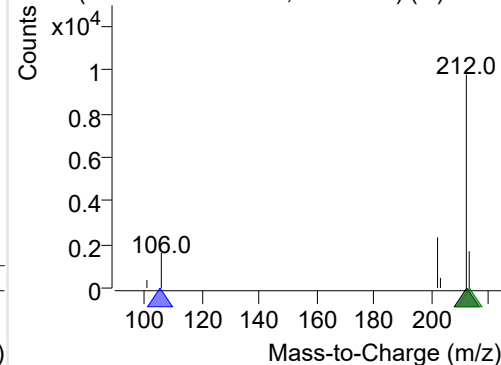
+ Selected Ion (212.0) 220204-PAHs-028.D



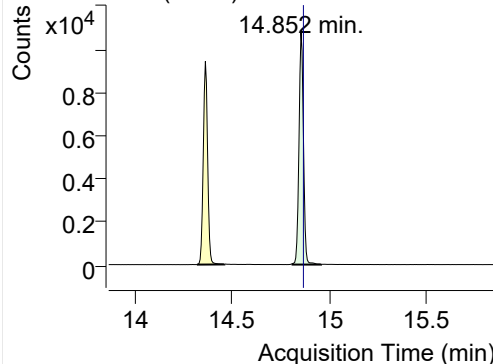
212.0, 106.0, 213.0



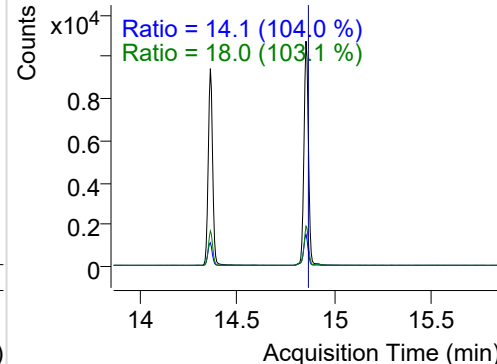
+ SIM (14.771-14.890 min, 23 scans) (\*\*) 2202

**Pyrene**

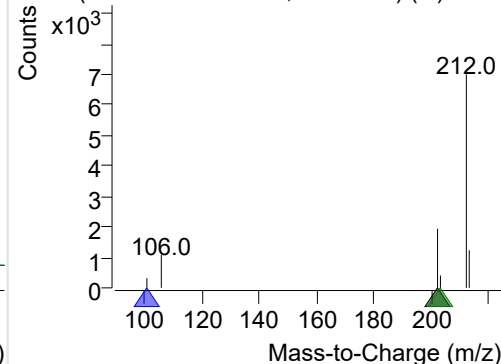
+ Selected Ion (202.0) 220204-PAHs-028.D



202.0, 101.0, 203.0

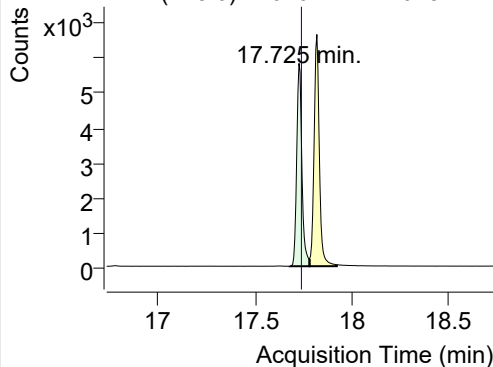


+ SIM (14.809-14.955 min, 28 scans) (\*\*) 2202

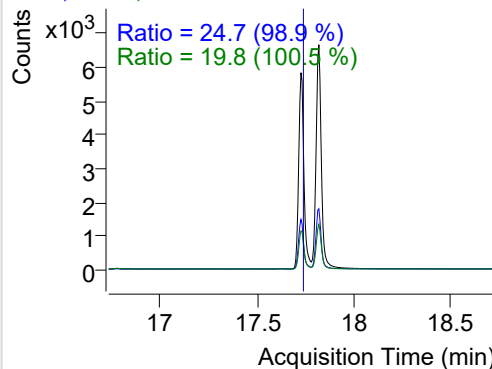


**Benz(a)anthracene**

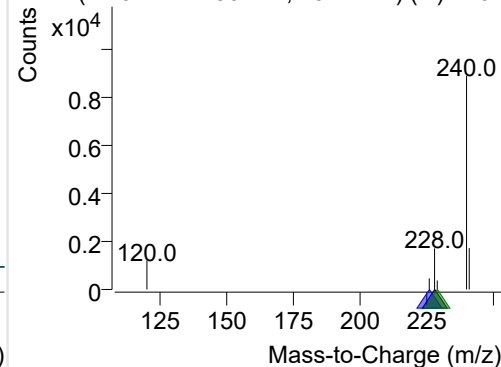
+ Selected Ion (228.0) 220204-PAHs-028.D



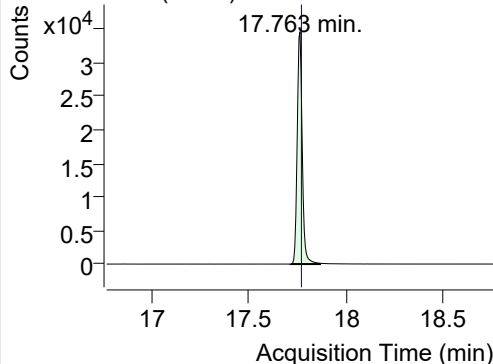
228.0, 226.0, 229.0



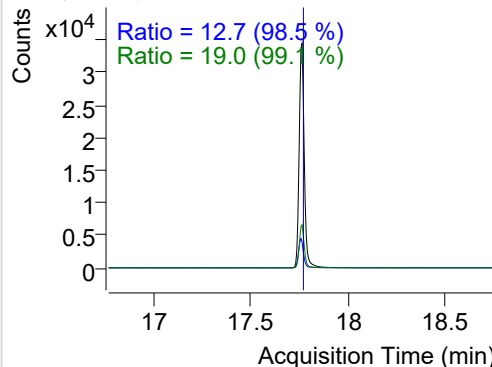
+ SIM (17.677-17.780 min, 20 scans) (\*\*) 2202

**IS-D12-Chrysene**

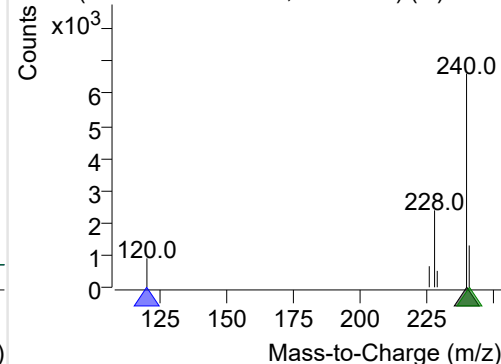
+ Selected Ion (240.0) 220204-PAHs-028.D



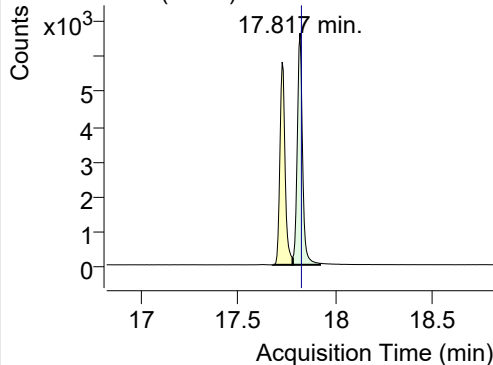
240.0, 120.0, 241.0



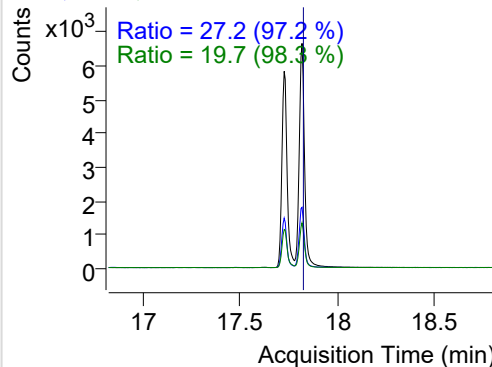
+ SIM (17.714-17.866 min, 29 scans) (\*\*) 2202

**Chrysene**

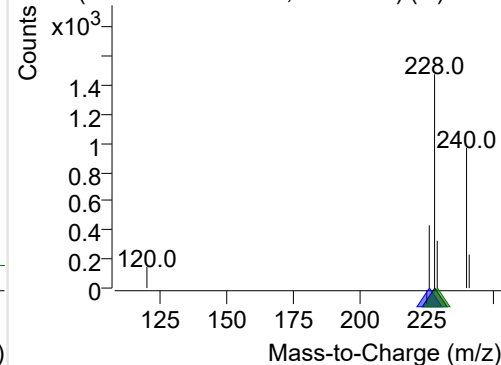
+ Selected Ion (228.0) 220204-PAHs-028.D



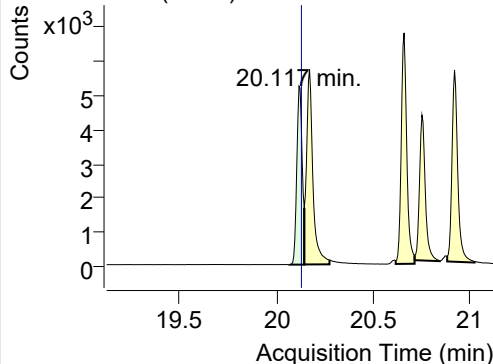
228.0, 226.0, 229.0



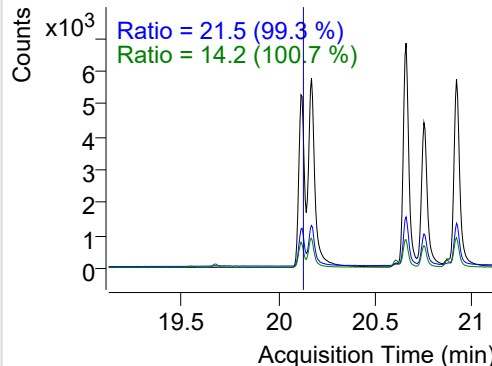
+ SIM (17.780-17.920 min, 27 scans) (\*\*) 2202

**Benzo(b)fluoranthene**

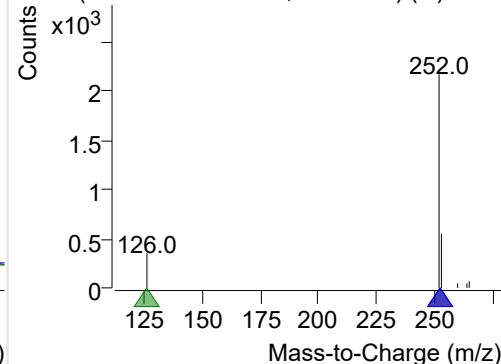
+ Selected Ion (252.0) 220204-PAHs-028.D



252.0, 253.0, 126.0

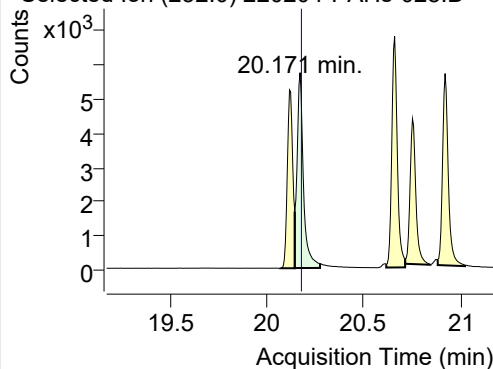


+ SIM (20.068-20.144 min, 15 scans) (\*\*) 2202

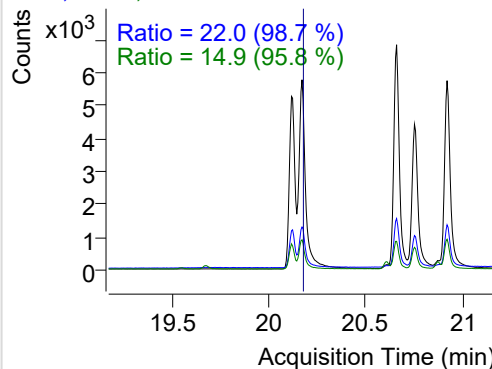


**Benzo(k)fluoranthene**

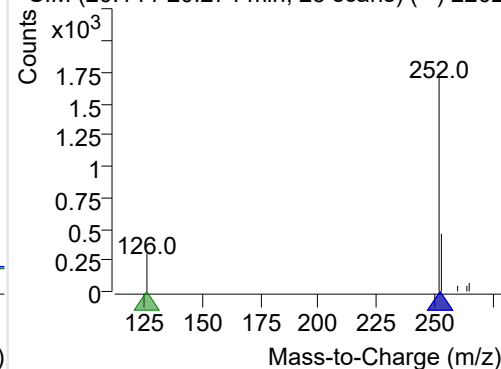
+ Selected Ion (252.0) 220204-PAHs-028.D



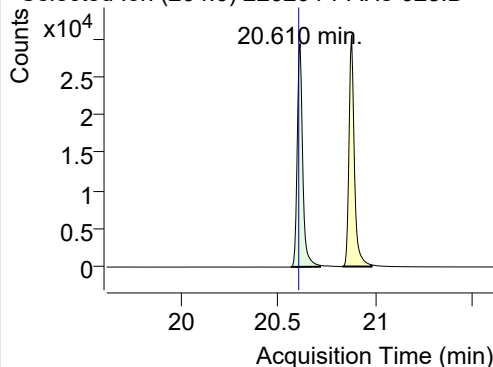
252.0, 253.0, 126.0



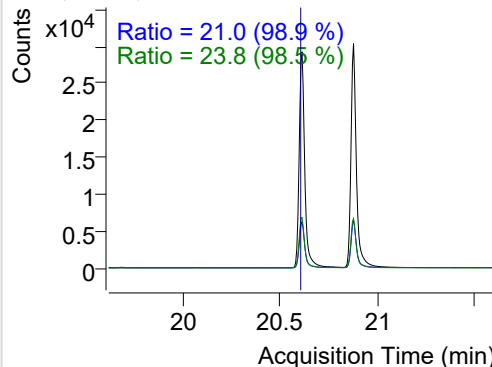
+ SIM (20.144-20.274 min, 25 scans) (\*\*) 2202

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

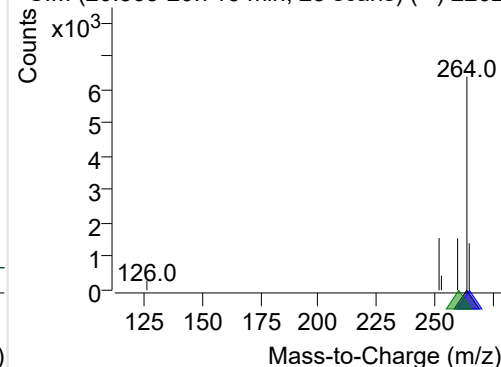
+ Selected Ion (264.0) 220204-PAHs-028.D



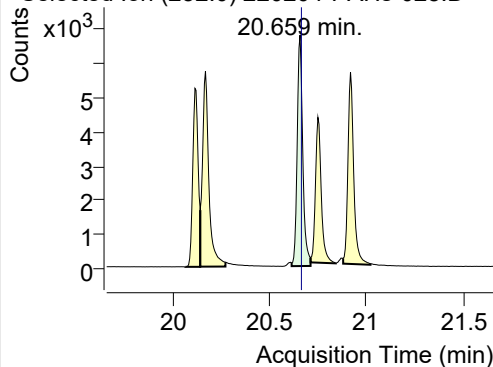
264.0, 265.0, 260.0



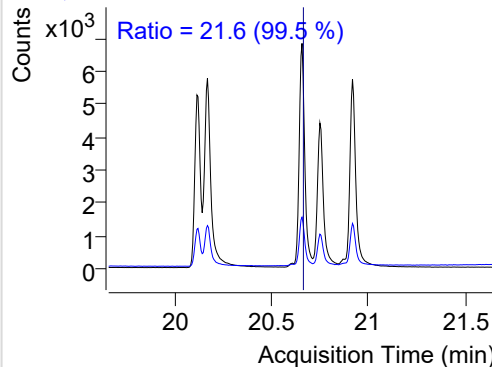
+ SIM (20.563-20.713 min, 28 scans) (\*\*) 2202

**Benzo(e)pyrene**

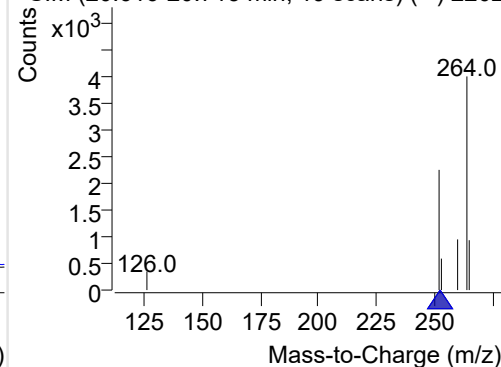
+ Selected Ion (252.0) 220204-PAHs-028.D



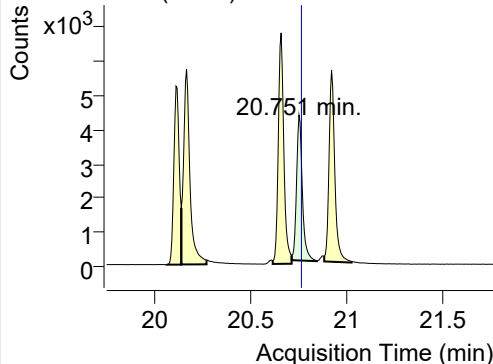
252.0, 253.0



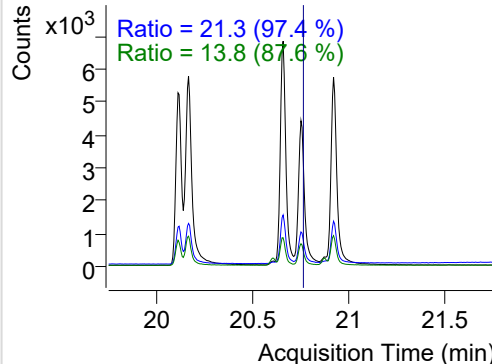
+ SIM (20.616-20.713 min, 19 scans) (\*\*) 2202

**Benzo(a)pyrene**

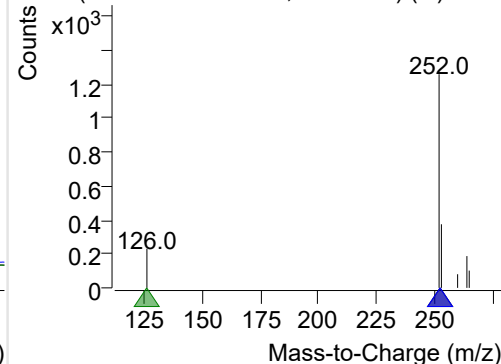
+ Selected Ion (252.0) 220204-PAHs-028.D



252.0, 253.0, 126.0

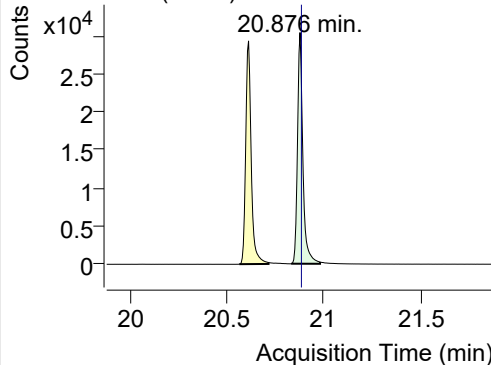


+ SIM (20.713-20.844 min, 25 scans) (\*\*) 2202

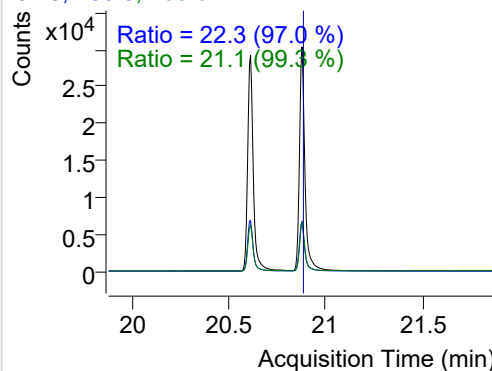


## IS-D12-Perylene

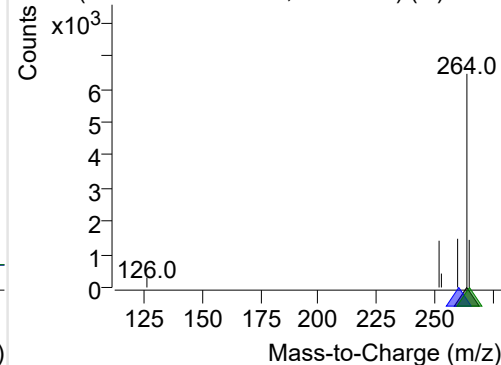
+ Selected Ion (264.0) 220204-PAHs-028.D



264.0, 260.0, 265.0

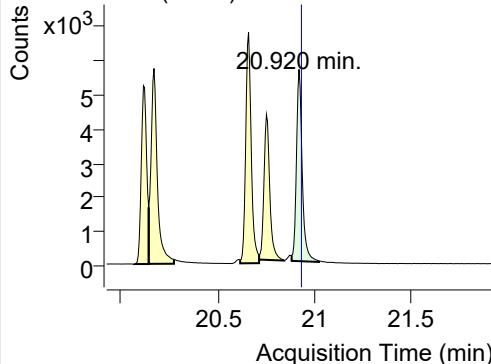


+ SIM (20.830-20.979 min, 28 scans) (\*\*) 2202

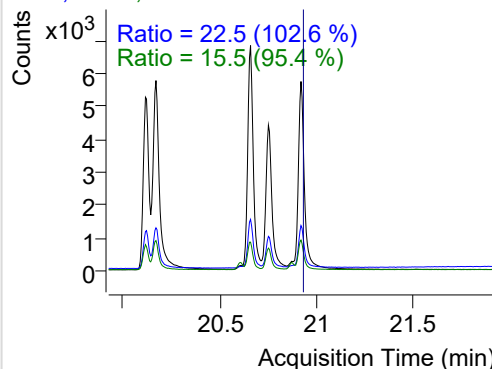


## Perylene

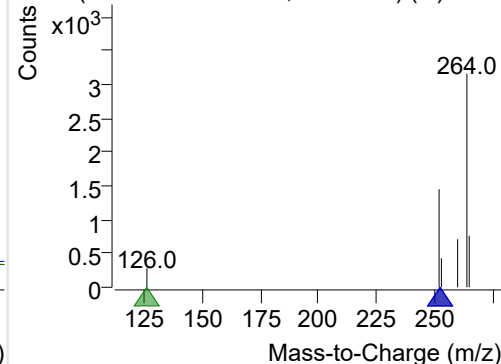
+ Selected Ion (252.0) 220204-PAHs-028.D



252.0, 253.0, 126.0

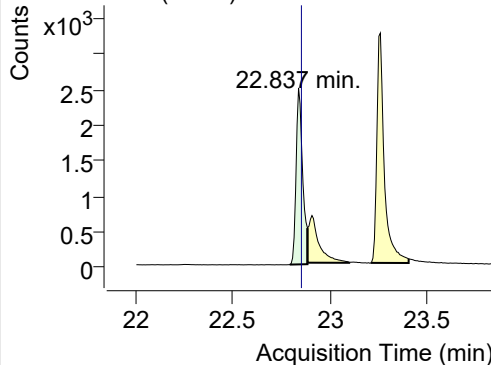


+ SIM (20.882-21.023 min, 27 scans) (\*\*) 2202

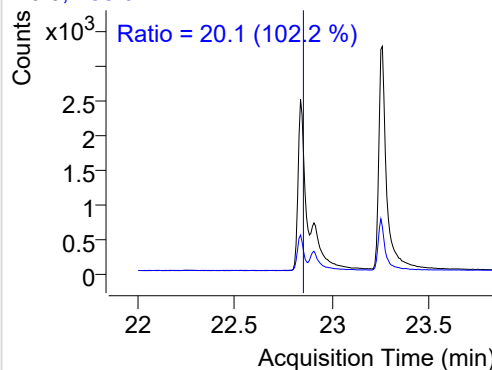


## Indeno(1,2,3-c,d)pyrene

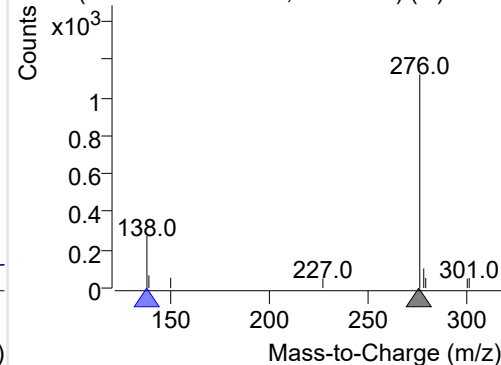
+ Selected Ion (276.0) 220204-PAHs-028.D



276.0, 138.0

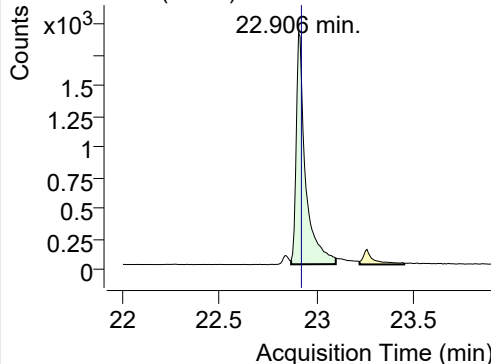


+ SIM (22.791-22.883 min, 12 scans) (\*\*) 2202

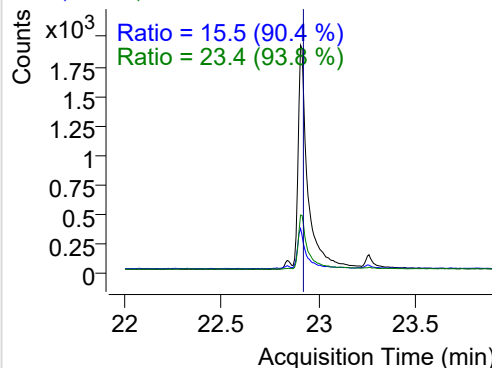


## Dibenz(a,h)anthracene

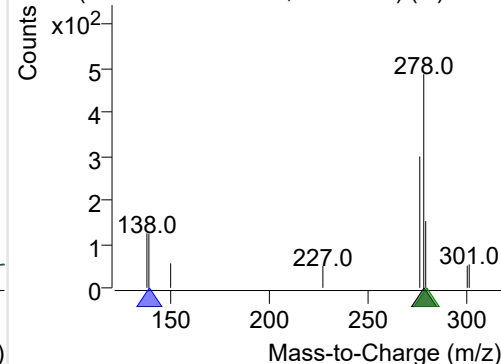
+ Selected Ion (278.0) 220204-PAHs-028.D



278.0, 139.0, 279.0

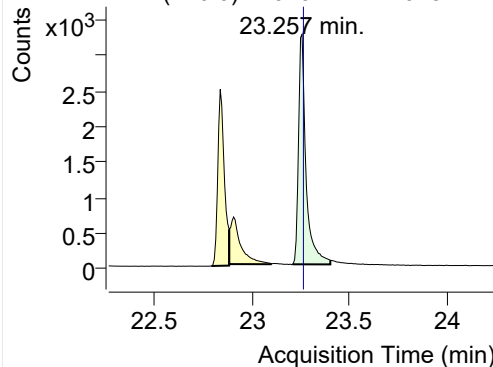


+ SIM (22.867-23.096 min, 31 scans) (\*\*) 2202

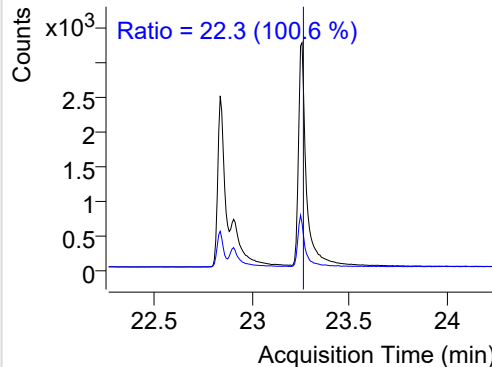


**Benzo(g,h,i)perylene**

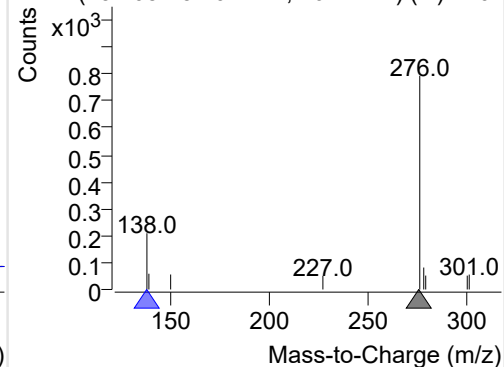
+ Selected Ion (276.0) 220204-PAHs-028.D



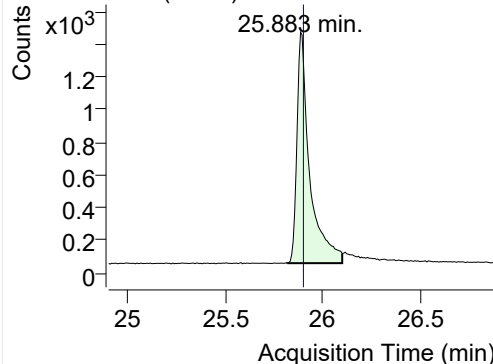
276.0, 138.0



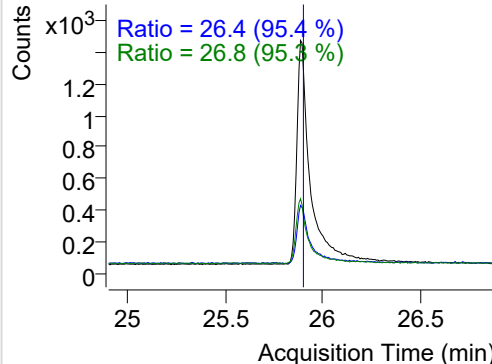
+ SIM (23.208-23.402 min, 26 scans) (\*\*) 2202

**Coronene**

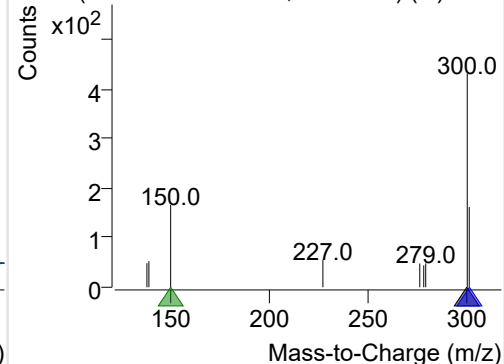
+ Selected Ion (300.0) 220204-PAHs-028.D



300.0, 301.0, 150.0



+ SIM (25.815-26.097 min, 38 scans) (\*\*) 2202





## Quantitative Analysis Sample Based Report

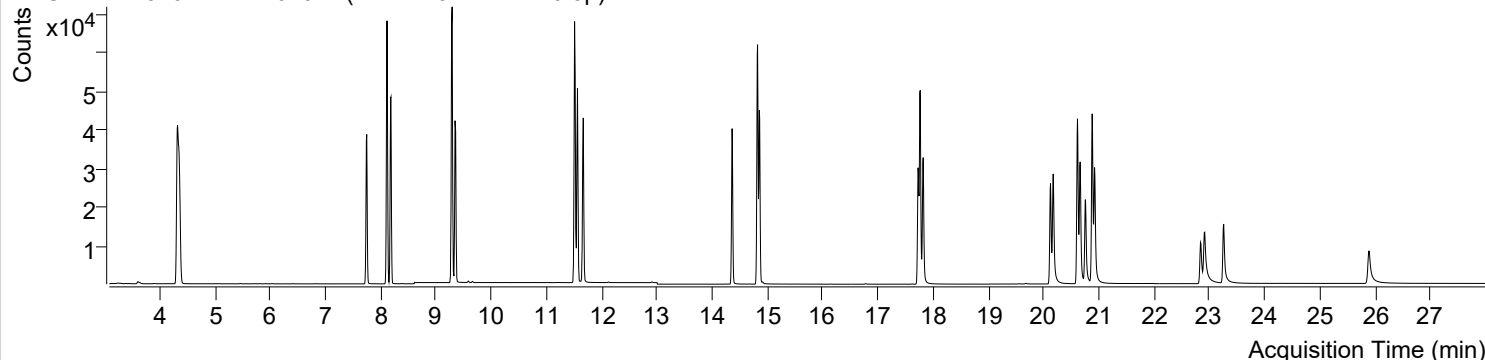


Trusted Answers

Batch Data Path File Name	D:\MassHunter\GCMS\1\data\PAHs\220204-PAHs-Sample\QuantResults\220204-PAHs-Quant.batch.bin		
Analysis Time Stamp	2022-04-13 오후 3:18:46	Analyst Name	DESKTOP-86B7UPG\5975MS
Report Generation Time	2022-04-13 오후 3:19:11	Report Generator Name	DESKTOP-86B7UPG\5975MS
Calibration Last Update	2022-04-13 오후 3:16:00	Batch State	Processed
Analyze Quant Version	10.2	Report Quant Version	10.2
Acq. Date-Time	2022-02-05 오전 4:42:25	Data File	220204-PAHs-029.D
Type	Sample	Name	PAHs-19mix-STD-0.5p
Dil.	1	Acq. Method File	PAHs 19mix-Method

## Sample Chromatogram

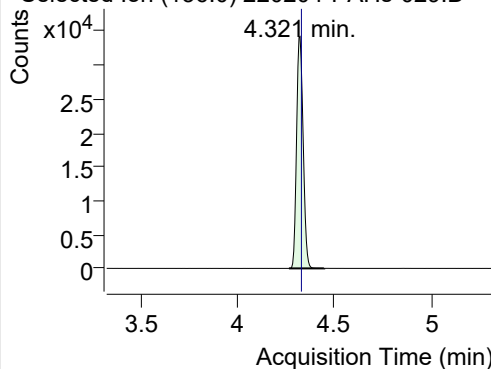
+ TIC SIM 220204-PAHs-029.D (PAHs-19mix-STD-0.5p)



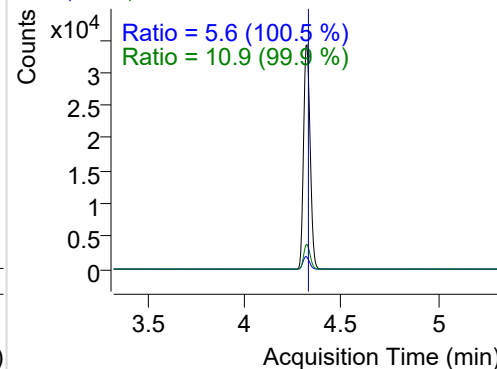
Name	RT	Transition	Resp.	Height	Final Conc. Units	Ratio
IS-D8-Naphthalene	4.321	136.0	80291	34152.15	ND ng/ml	10.9
Naphthalene	4.354	128.0	49402	21218.72	ND ng/ml	13.3
Acenaphthylene	7.745	152.0	44241	28924.12	ND ng/ml	19.9
IS-D10-Acenaphthene	8.112	164.0	49068	33053.45	ND ng/ml	92.8
Acenaphthene	8.183	154.0	26901	17959.73	ND ng/ml	106.0
LSS-D10-Fluorene	9.292	176.0	54508	34163.61	ND µg/mL	88.5
Fluorene	9.344	166.0	33174	19935.03	ND µg/mL	91.2
IS-D10-Phenanthrene	11.508	188.0	86401	53890.70	ND µg/mL	15.1
Phenanthrene	11.560	178.0	49108	33208.64	ND µg/mL	17.8
Anthracene	11.665	178.0	45054	28872.00	ND µg/mL	17.3
Fluoranthene	14.359	202.0	47437	31150.75	ND µg/mL	17.3
LSS-D10-Pyrene	14.820	212.0	73705	46570.93	ND µg/mL	16.9
Pyrene	14.852	202.0	52970	33639.49	ND µg/mL	17.6
Benz(a)anthracene	17.725	228.0	36229	20551.13	ND µg/mL	24.9
IS-D12-Chrysene	17.763	240.0	65056	37115.42	ND µg/mL	19.0
Chrysene	17.817	228.0	39080	21647.13	ND µg/mL	27.8
Benzo(b)fluoranthene	20.122	252.0	33763	19137.00	ND µg/mL	21.6
Benzo(k)fluoranthene	20.171	252.0	46222	20742.62	ND µg/mL	22.1
SS-D12-Benzo(e)pyrene	20.610	264.0	57995	29219.32	ND µg/mL	23.6
Benzo(e)pyrene	20.659	252.0	42403	21818.00	ND µg/mL	21.8
Benzo(a)pyrene	20.751	252.0	33573	15615.51	ND µg/mL	21.1
IS-D12-Perylene	20.876	264.0	60256	29919.09	ND µg/mL	22.0
Perylene	20.920	252.0	39554	19237.20	ND µg/mL	21.6
Indeno(1,2,3-c,d)pyrene	22.837	276.0	20556	8533.75	ND µg/mL	19.6
Dibenz(a,h)anthracene	22.913	278.0	22374	7002.31	ND µg/mL	24.0
Benzo(g,h,i)perylene	23.257	276.0	31145	12290.36	ND µg/mL	21.4
Coronene	25.891	300.0	22991	5492.01	ND µg/mL	27.0

## IS-D8-Naphthalene

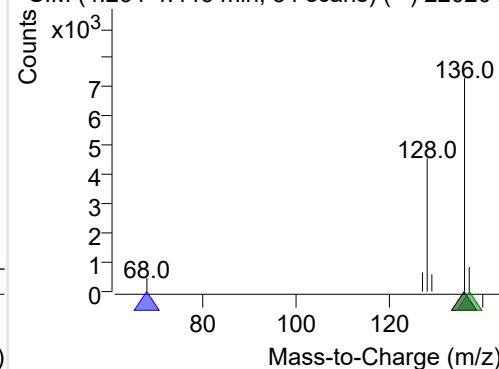
+ Selected Ion (136.0) 220204-PAHs-029.D



136.0, 68.0, 137.0

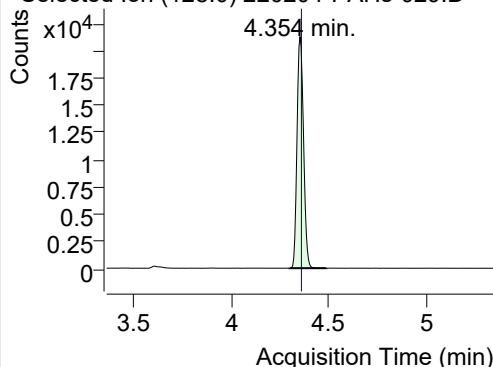


+ SIM (4.264-4.446 min, 34 scans) (\*\*) 220204

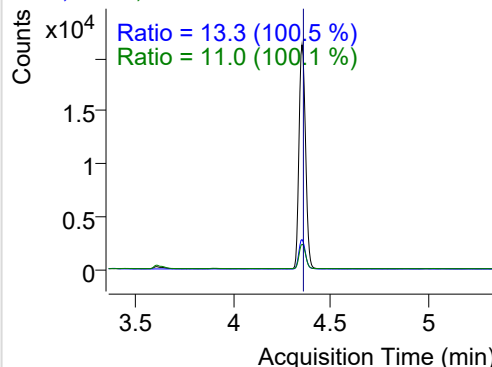


**Naphthalene**

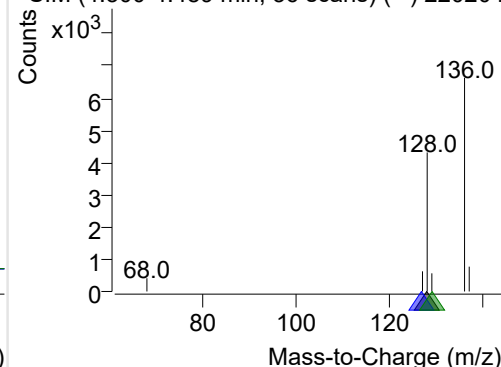
+ Selected Ion (128.0) 220204-PAHs-029.D



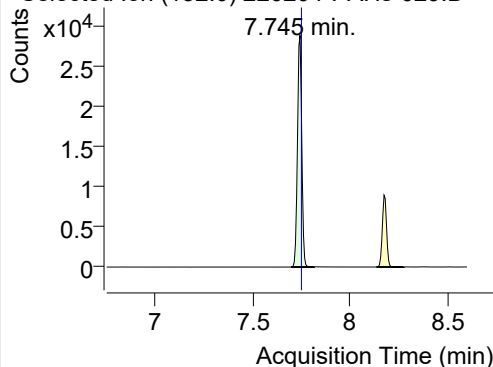
128.0, 127.0, 129.0



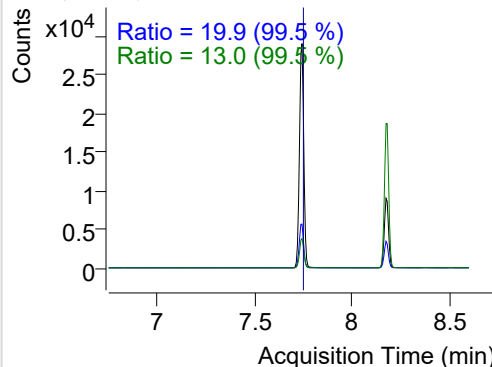
+ SIM (4.300-4.489 min, 36 scans) (\*\*) 220204

**Acenaphthylene**

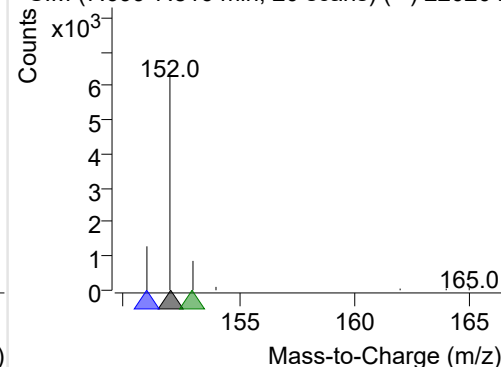
+ Selected Ion (152.0) 220204-PAHs-029.D



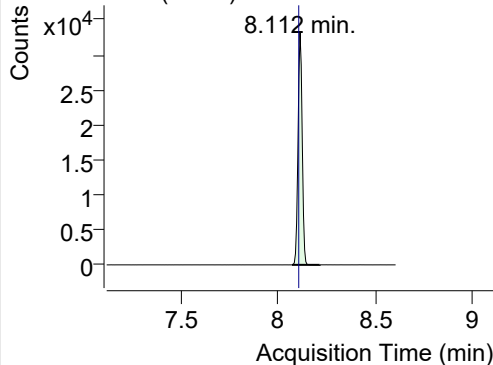
152.0, 151.0, 153.0



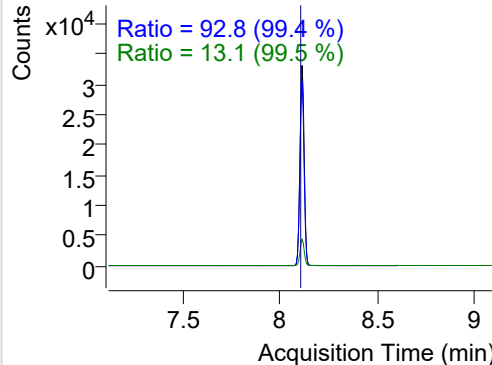
+ SIM (7.699-7.816 min, 20 scans) (\*\*) 220204

**IS-D10-Acenaphthene**

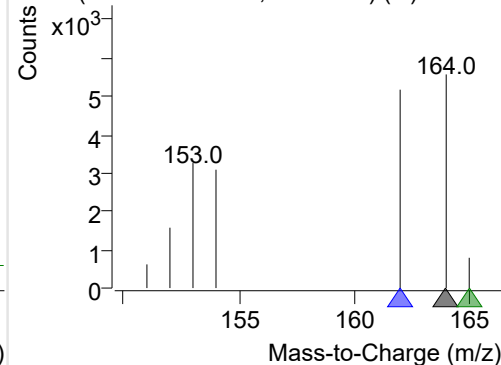
+ Selected Ion (164.0) 220204-PAHs-029.D



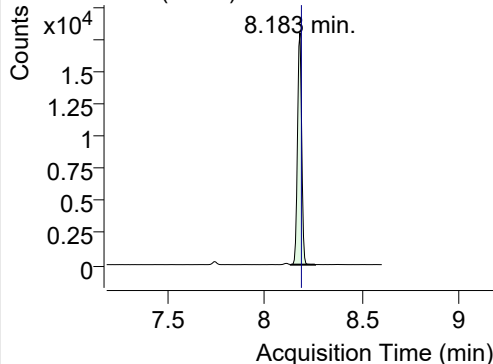
164.0, 162.0, 165.0



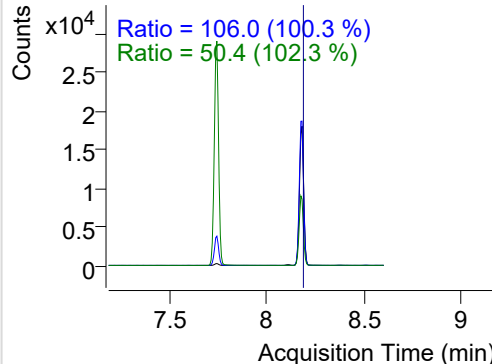
+ SIM (8.071-8.213 min, 25 scans) (\*\*) 220204

**Acenaphthene**

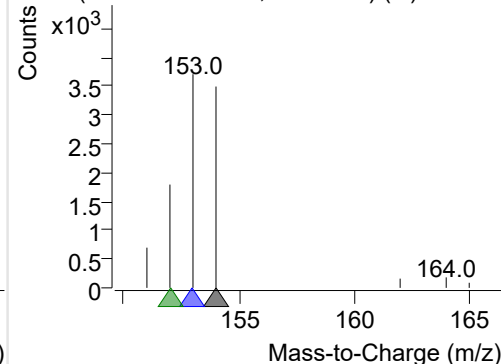
+ Selected Ion (154.0) 220204-PAHs-029.D



154.0, 153.0, 152.0

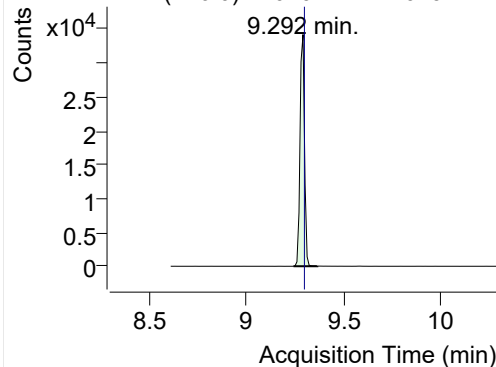


+ SIM (8.136-8.260 min, 22 scans) (\*\*) 220204

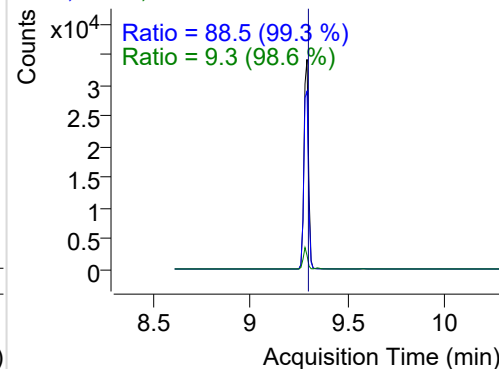


## LSS-D10-Fluorene

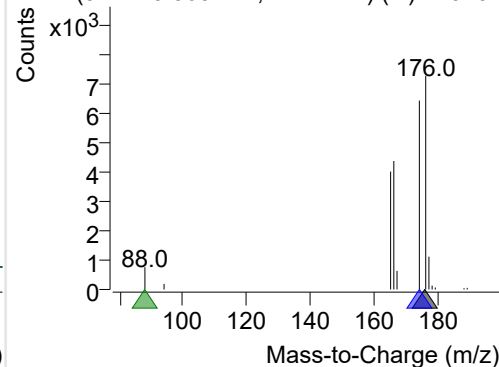
+ Selected Ion (176.0) 220204-PAHs-029.D



176.0, 174.0, 88.0

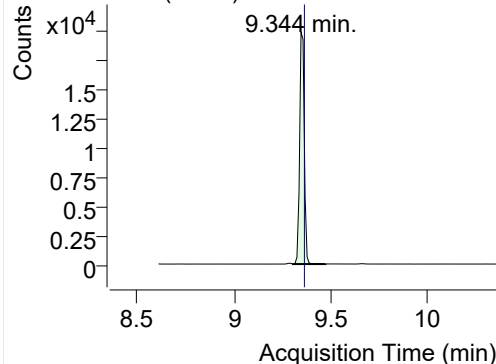


+ SIM (9.242-9.365 min, 12 scans) (\*\*) 220204

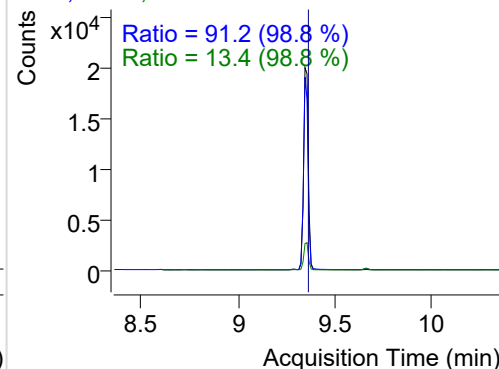


## Fluorene

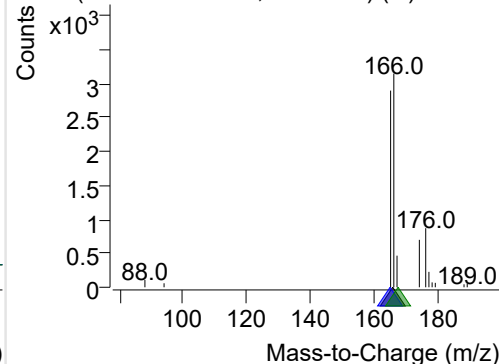
+ Selected Ion (166.0) 220204-PAHs-029.D



166.0, 165.0, 167.0

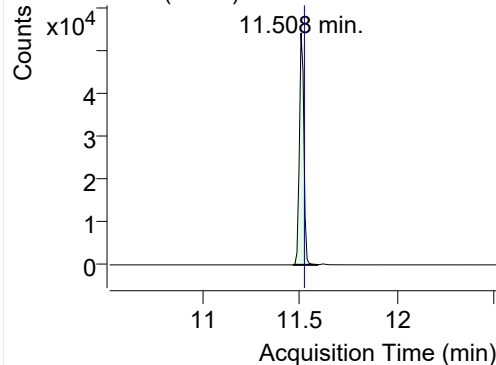


+ SIM (9.302-9.470 min, 17 scans) (\*\*) 220204

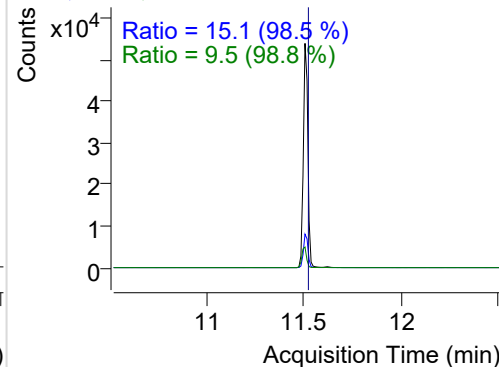


## IS-D10-Phenanthrene

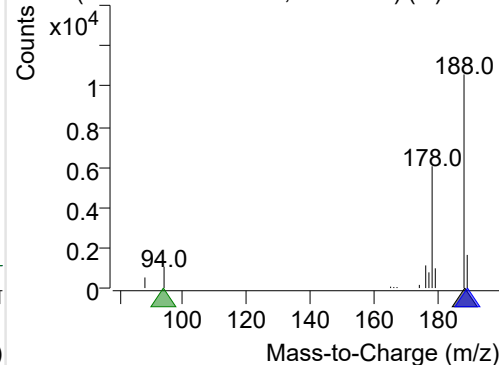
+ Selected Ion (188.0) 220204-PAHs-029.D



188.0, 189.0, 94.0

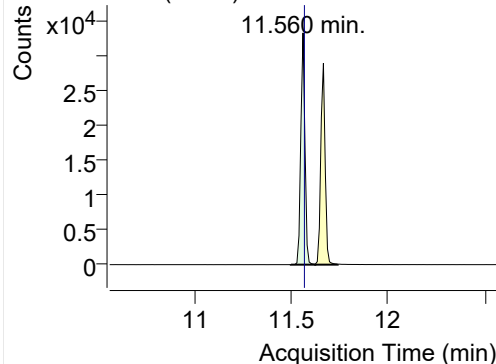


+ SIM (11.466-11.592 min, 13 scans) (\*\*) 2202

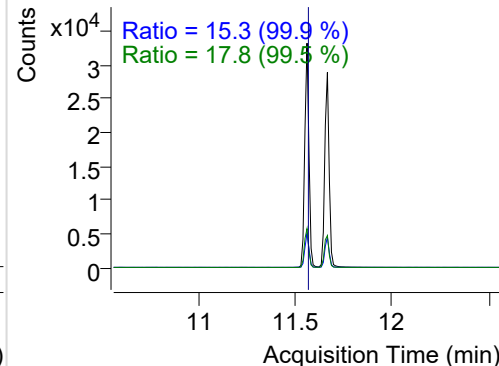


## Phenanthrene

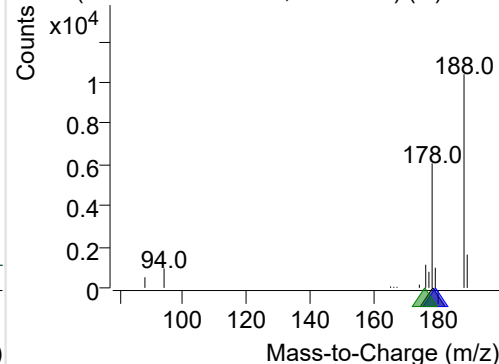
+ Selected Ion (178.0) 220204-PAHs-029.D



178.0, 179.0, 176.0

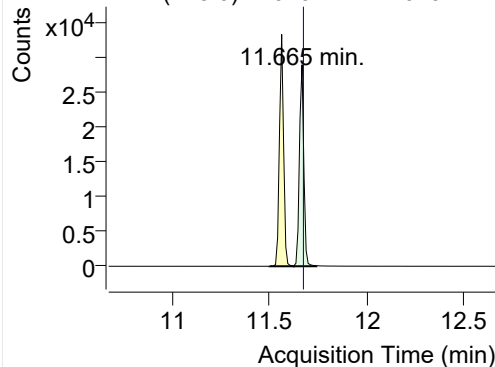


+ SIM (11.497-11.623 min, 13 scans) (\*\*) 2202

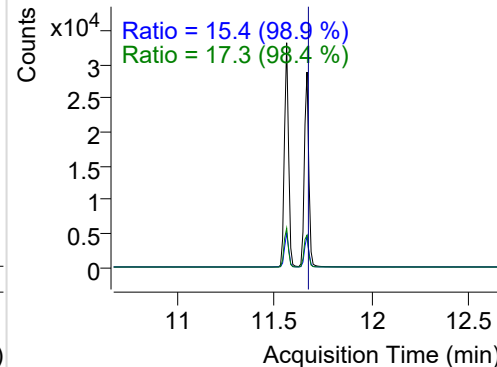


**Anthracene**

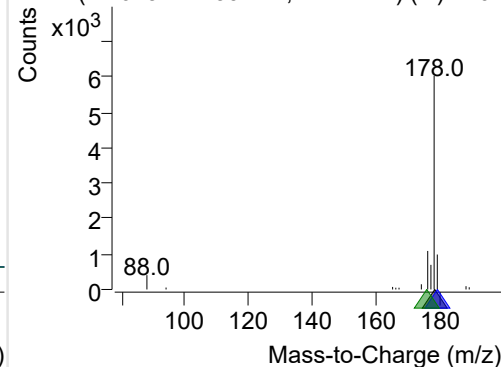
+ Selected Ion (178.0) 220204-PAHs-029.D



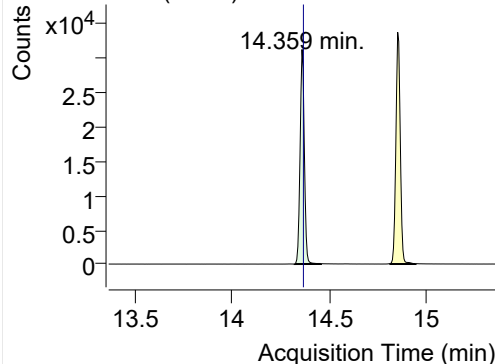
178.0, 179.0, 176.0



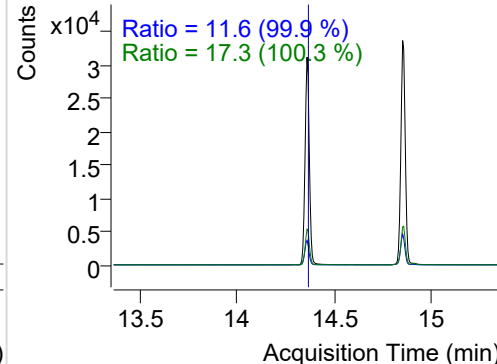
+ SIM (11.623-11.739 min, 12 scans) (\*\*) 2202

**Fluoranthene**

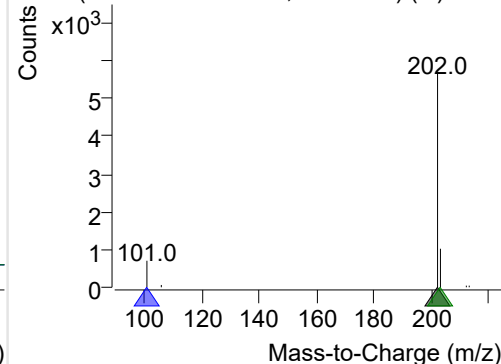
+ Selected Ion (202.0) 220204-PAHs-029.D



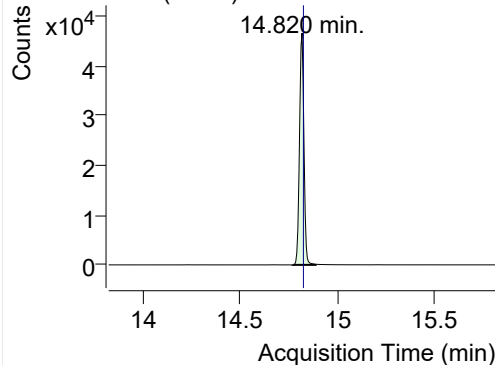
202.0, 101.0, 203.0



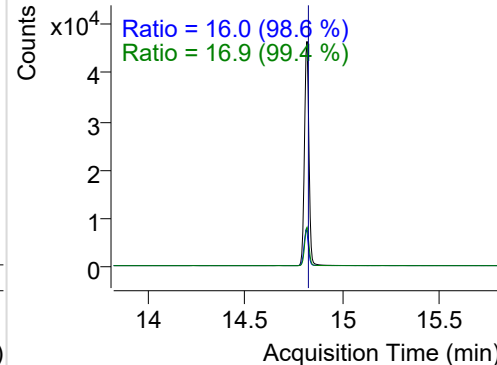
+ SIM (14.321-14.457 min, 26 scans) (\*\*) 2202

**LSS-D10-Pyrene**

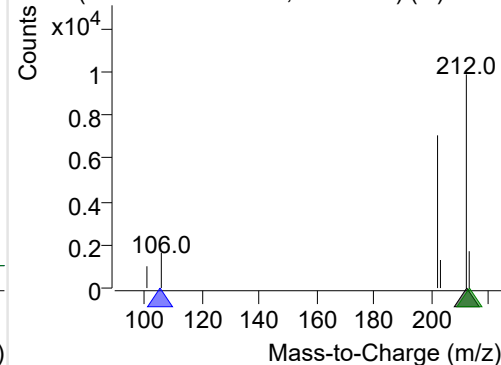
+ Selected Ion (212.0) 220204-PAHs-029.D



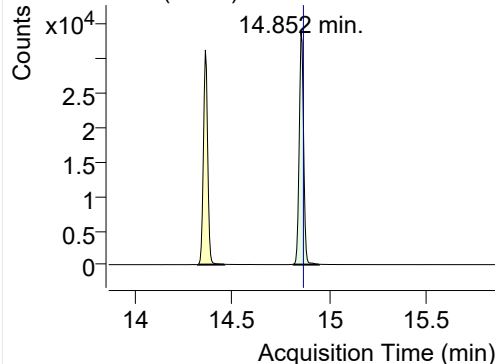
212.0, 106.0, 213.0



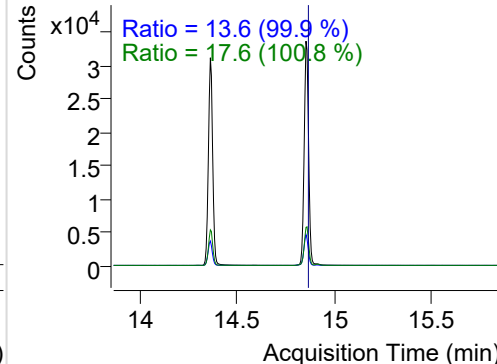
+ SIM (14.771-14.890 min, 23 scans) (\*\*) 2202

**Pyrene**

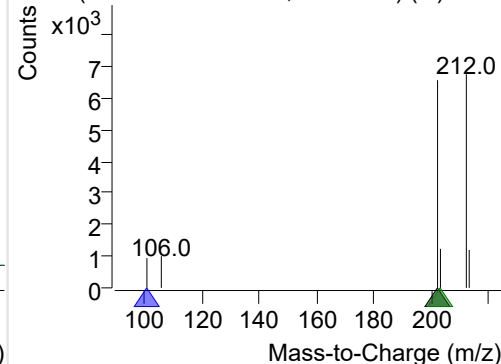
+ Selected Ion (202.0) 220204-PAHs-029.D



202.0, 101.0, 203.0

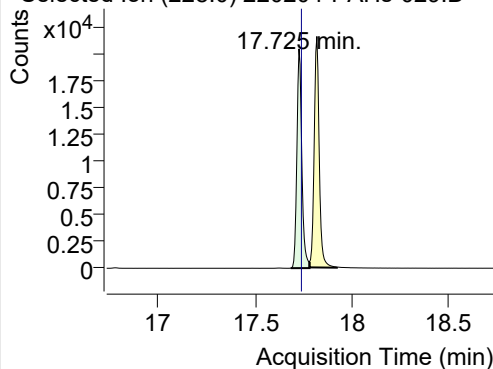


+ SIM (14.814-14.944 min, 25 scans) (\*\*) 2202

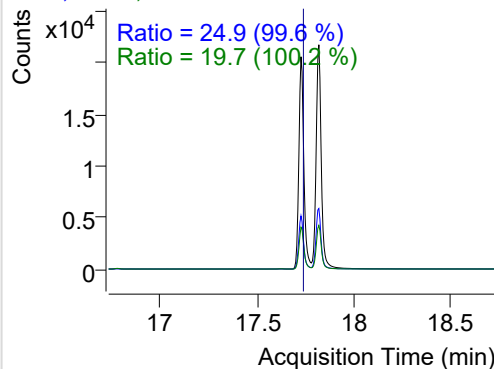


**Benz(a)anthracene**

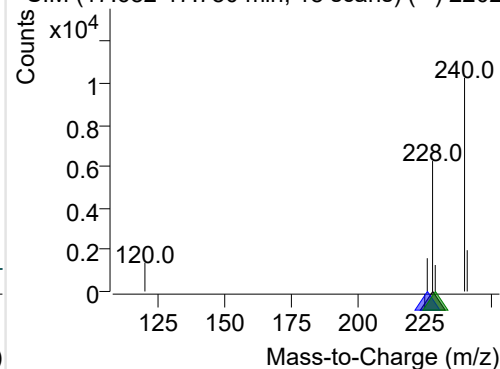
+ Selected Ion (228.0) 220204-PAHs-029.D



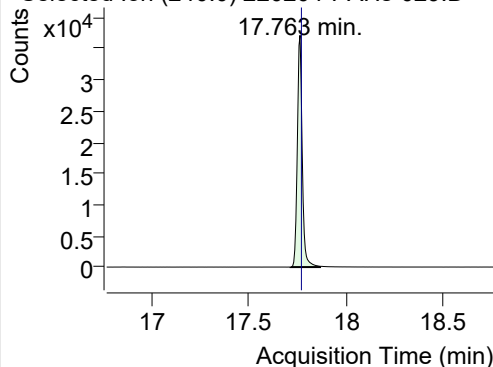
228.0, 226.0, 229.0



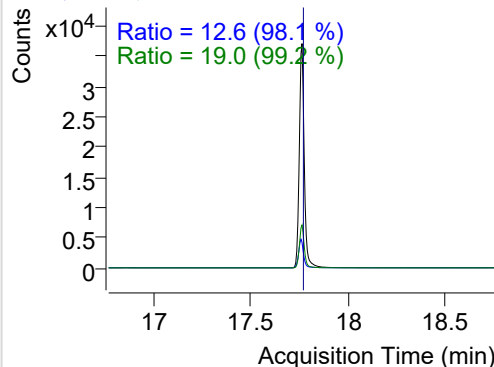
+ SIM (17.682-17.780 min, 18 scans) (\*\*) 2202

**IS-D12-Chrysene**

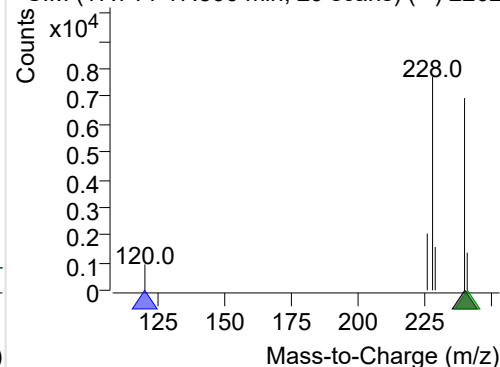
+ Selected Ion (240.0) 220204-PAHs-029.D



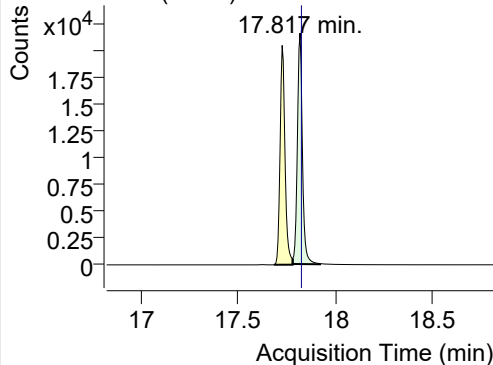
240.0, 120.0, 241.0



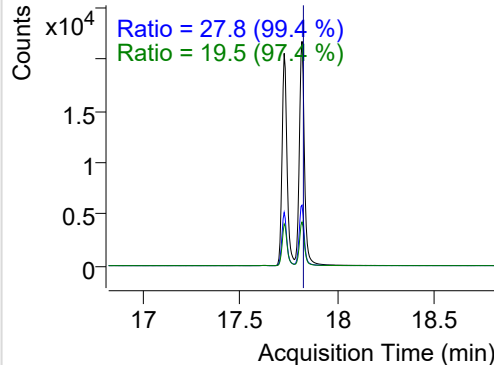
+ SIM (17.714-17.866 min, 29 scans) (\*\*) 2202

**Chrysene**

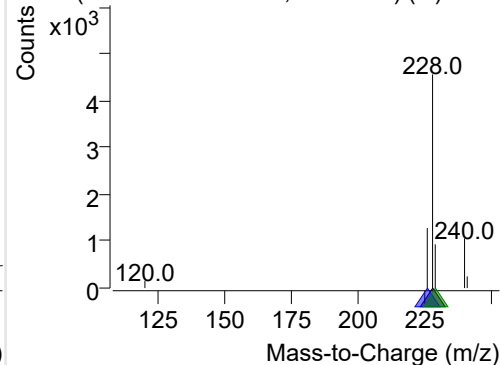
+ Selected Ion (228.0) 220204-PAHs-029.D



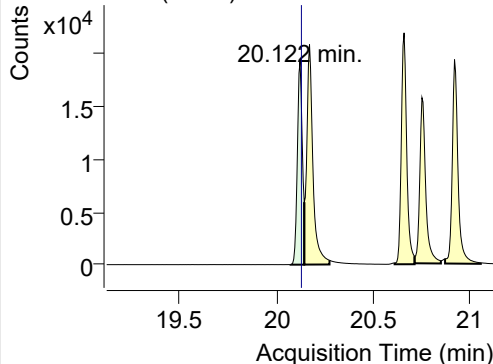
228.0, 226.0, 229.0



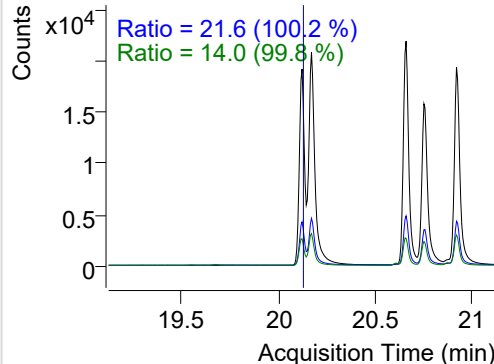
+ SIM (17.780-17.920 min, 27 scans) (\*\*) 2202

**Benzo(b)fluoranthene**

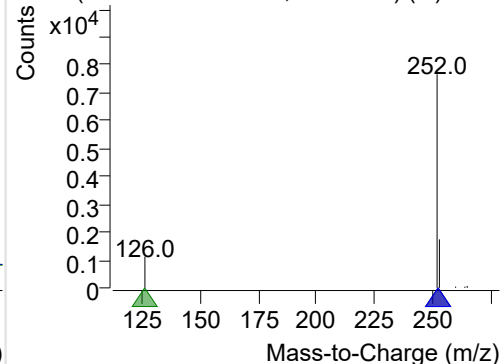
+ Selected Ion (252.0) 220204-PAHs-029.D



252.0, 253.0, 126.0

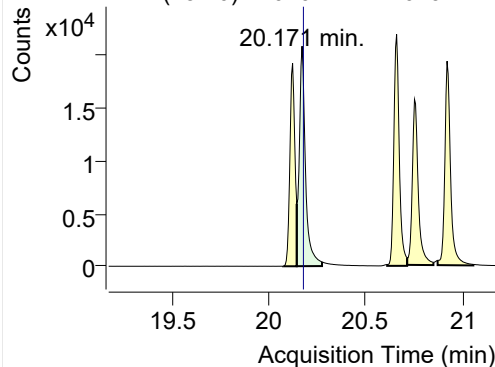


+ SIM (20.073-20.144 min, 14 scans) (\*\*) 2202

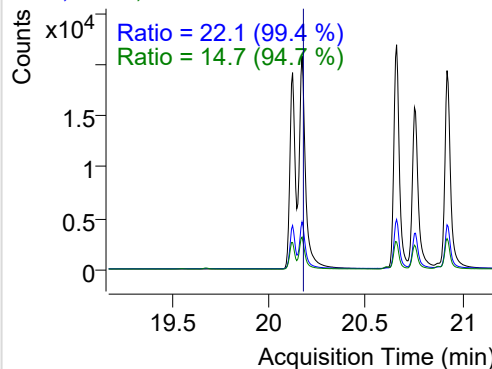


**Benzo(k)fluoranthene**

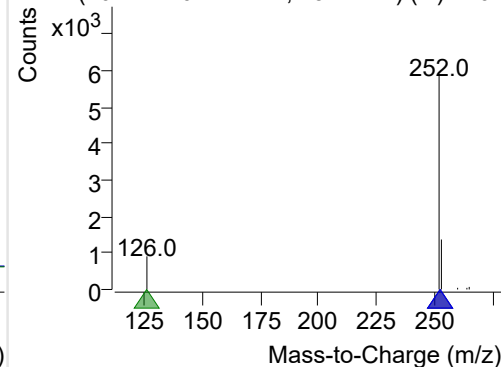
+ Selected Ion (252.0) 220204-PAHs-029.D



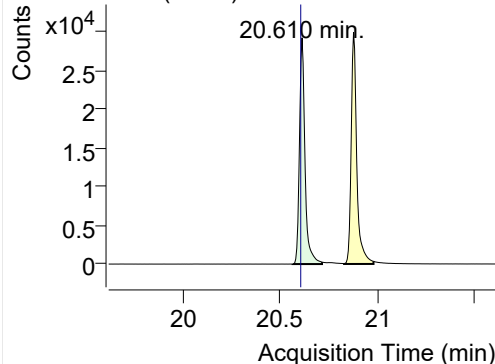
252.0, 253.0, 126.0



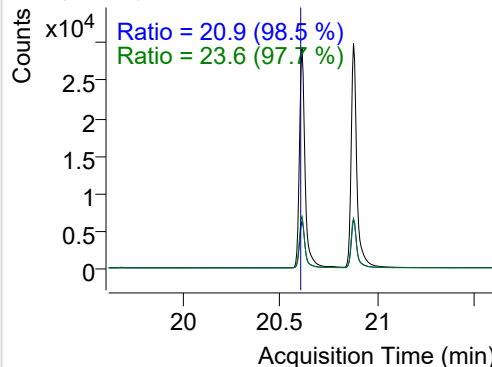
+ SIM (20.144-20.274 min, 25 scans) (\*\*) 2202

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

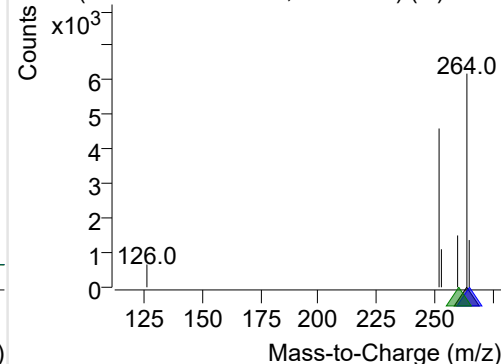
+ Selected Ion (264.0) 220204-PAHs-029.D



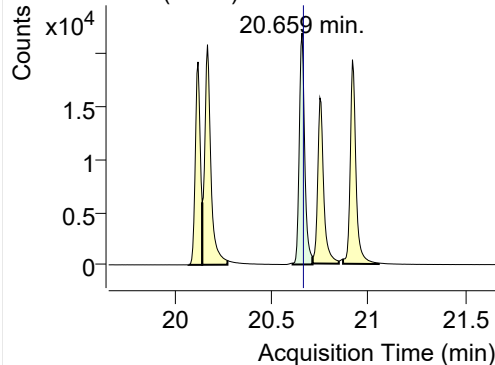
264.0, 265.0, 260.0



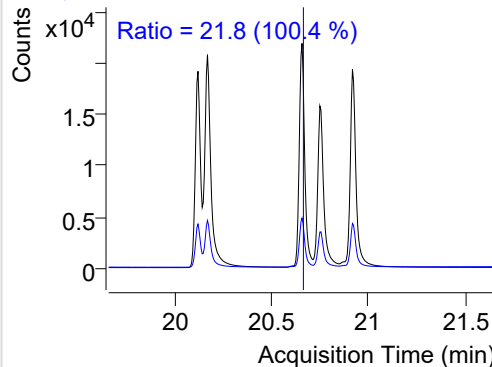
+ SIM (20.562-20.713 min, 29 scans) (\*\*) 2202

**Benzo(e)pyrene**

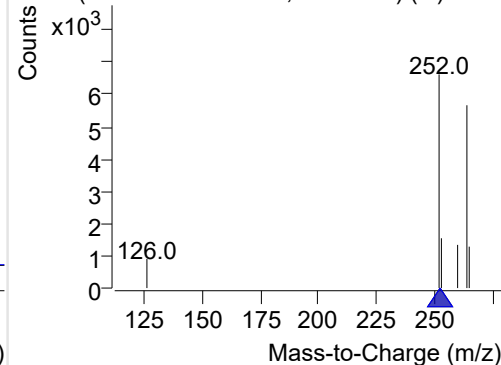
+ Selected Ion (252.0) 220204-PAHs-029.D



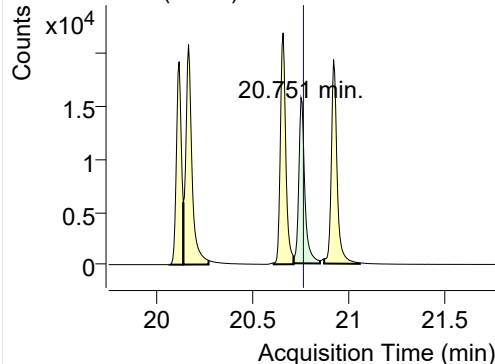
252.0, 253.0



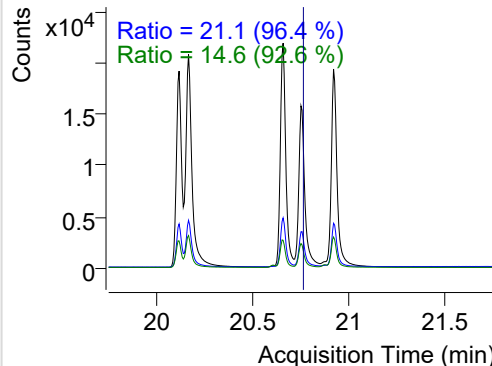
+ SIM (20.610-20.713 min, 20 scans) (\*\*) 2202

**Benzo(a)pyrene**

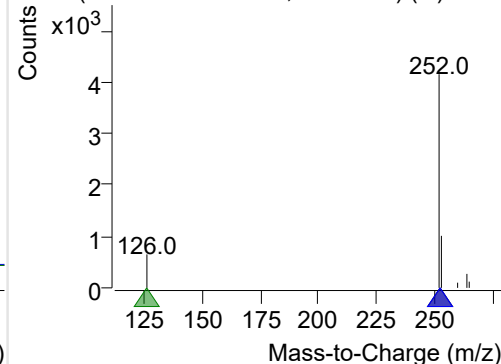
+ Selected Ion (252.0) 220204-PAHs-029.D



252.0, 253.0, 126.0

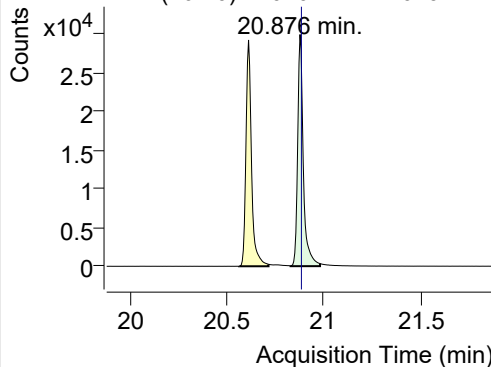


+ SIM (20.713-20.849 min, 26 scans) (\*\*) 2202

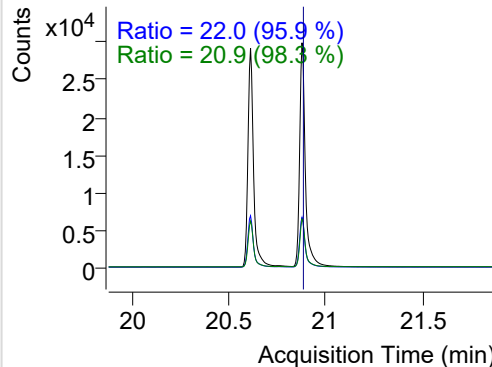


## IS-D12-Perylene

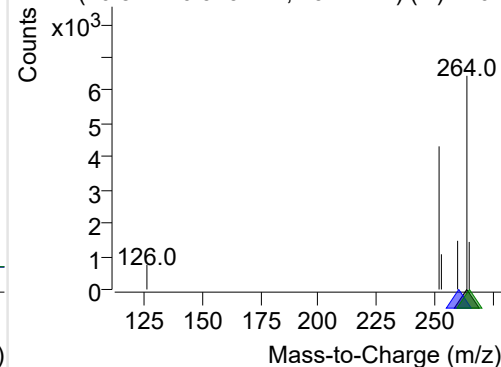
+ Selected Ion (264.0) 220204-PAHs-029.D



264.0, 260.0, 265.0

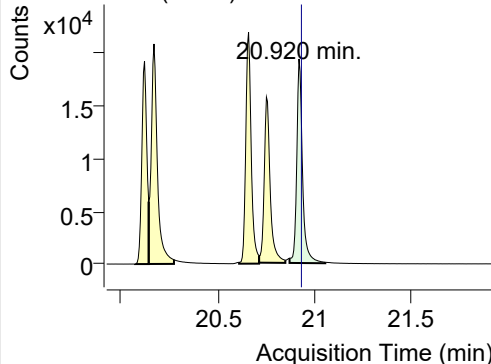


+ SIM (20.827-20.979 min, 29 scans) (\*\*) 2202

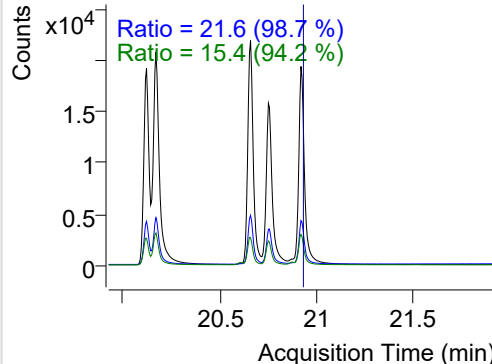


## Perylene

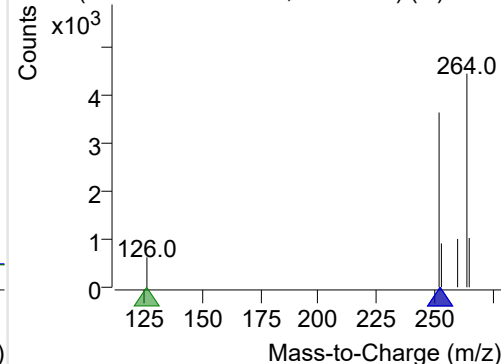
+ Selected Ion (252.0) 220204-PAHs-029.D



252.0, 253.0, 126.0

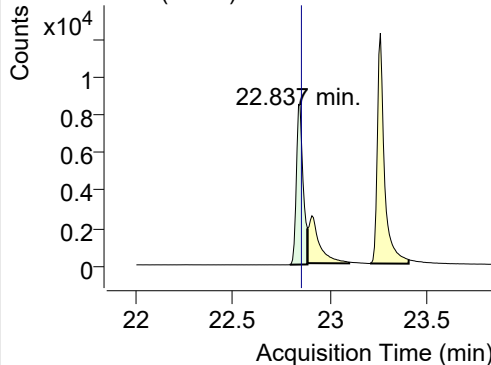


+ SIM (20.871-21.055 min, 35 scans) (\*\*) 2202

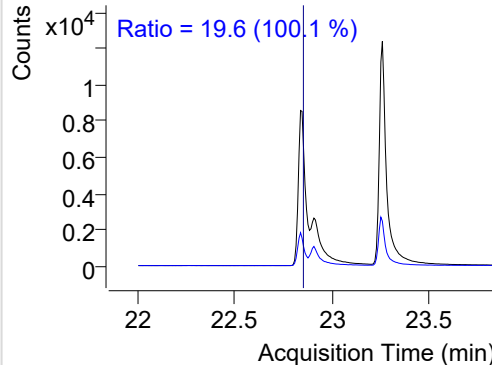


## Indeno(1,2,3-c,d)pyrene

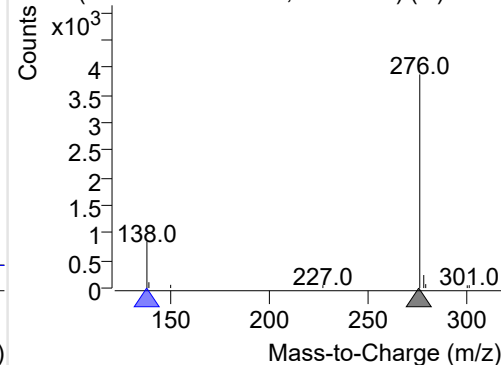
+ Selected Ion (276.0) 220204-PAHs-029.D



276.0, 138.0

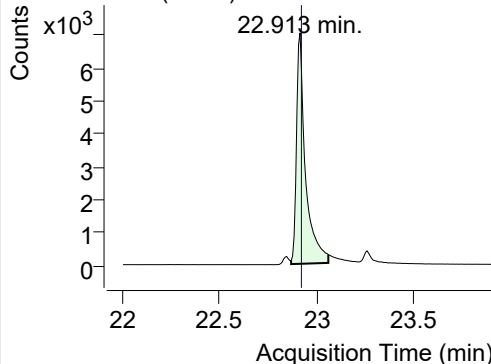


+ SIM (22.792-22.883 min, 12 scans) (\*\*) 2202

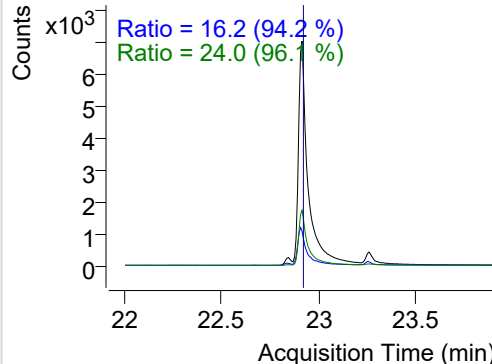


## Dibenz(a,h)anthracene

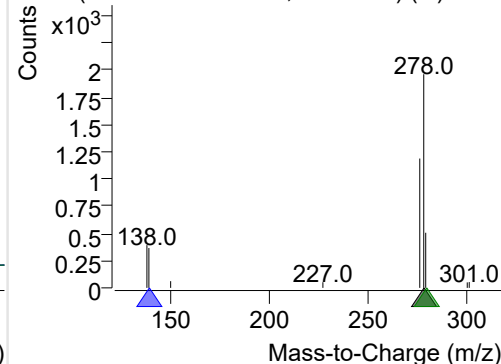
+ Selected Ion (278.0) 220204-PAHs-029.D



278.0, 139.0, 279.0

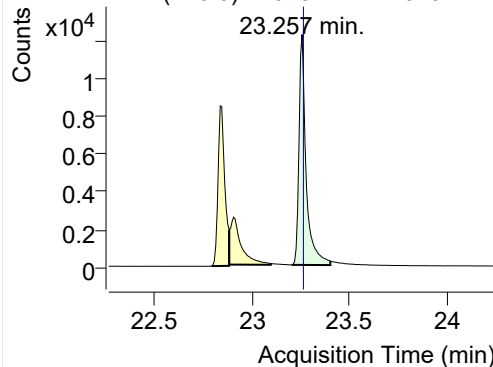


+ SIM (22.867-23.058 min, 26 scans) (\*\*) 2202

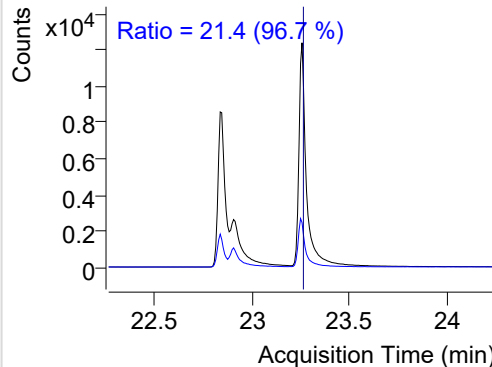


**Benzo(g,h,i)perylene**

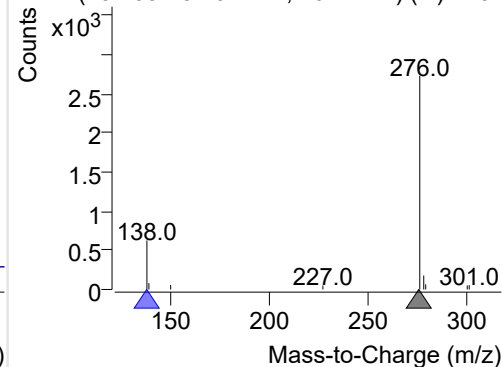
+ Selected Ion (276.0) 220204-PAHs-029.D



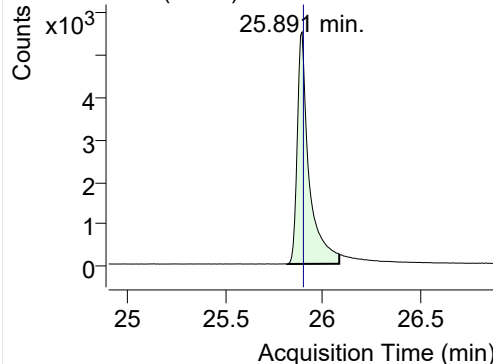
276.0, 138.0



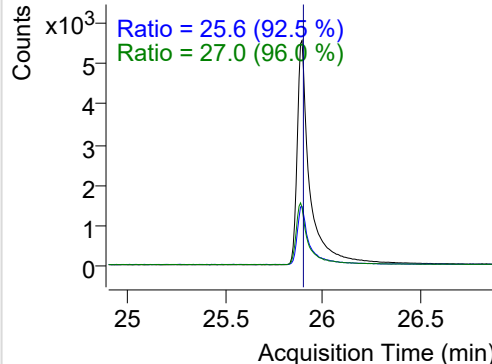
+ SIM (23.203-23.402 min, 26 scans) (\*\*) 2202

**Coronene**

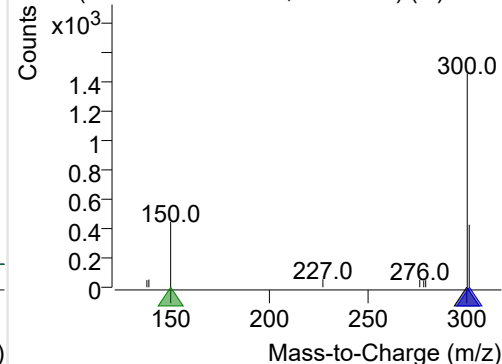
+ Selected Ion (300.0) 220204-PAHs-029.D



300.0, 301.0, 150.0



+ SIM (25.815-26.082 min, 36 scans) (\*\*) 2202





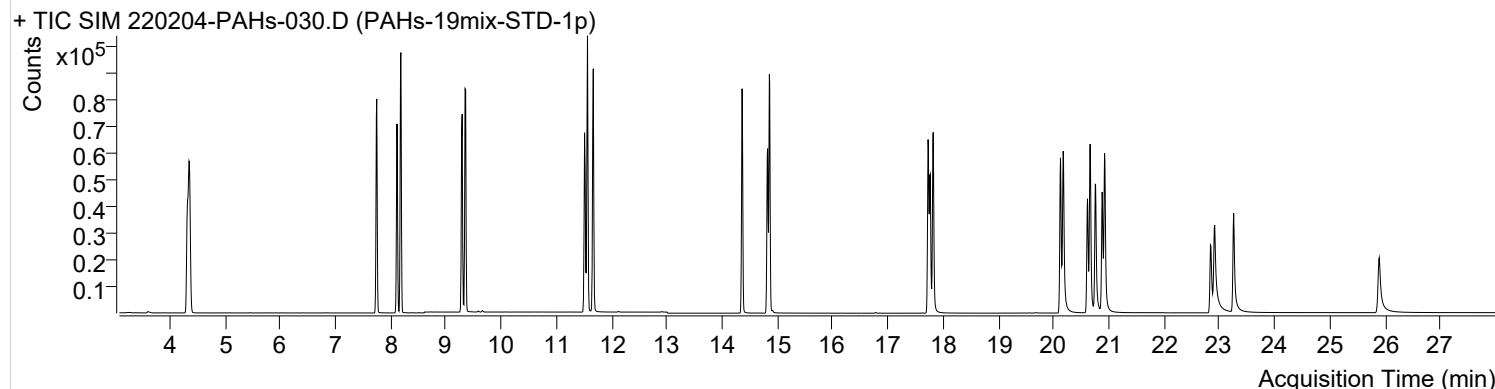
## Quantitative Analysis Sample Based Report



Trusted Answers

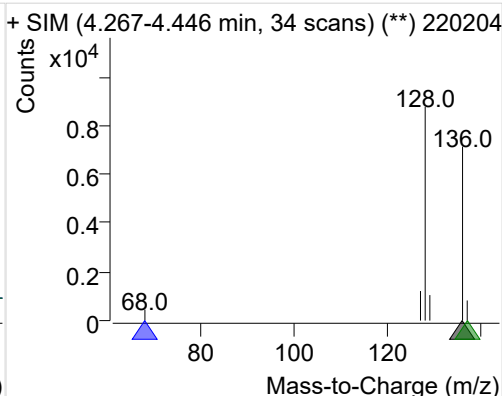
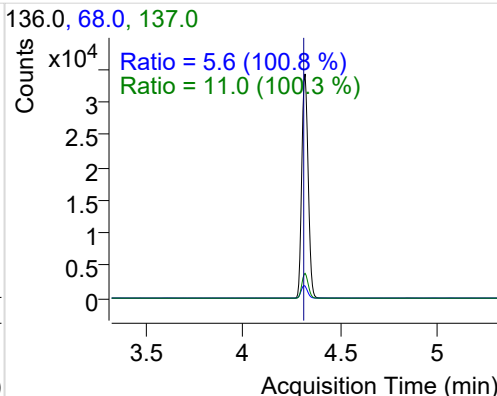
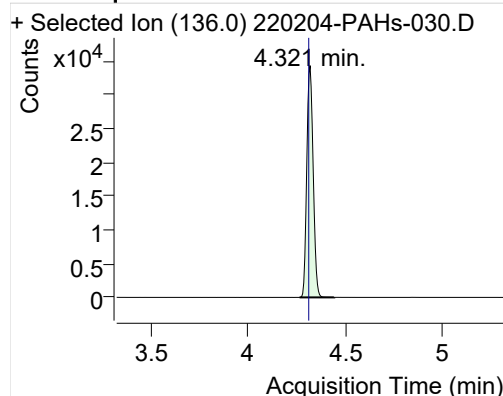
Batch Data Path File Name	D:\MassHunter\GCMS\1\data\PAHs\220204-PAHs-Sample\QuantResults\220204-PAHs-Quant.batch.bin		
Analysis Time Stamp	2022-04-13 오후 3:18:46	Analyst Name	DESKTOP-86B7UPG\5975MS
Report Generation Time	2022-04-13 오후 3:19:11	Report Generator Name	DESKTOP-86B7UPG\5975MS
Calibration Last Update	2022-04-13 오후 3:16:00	Batch State	Processed
Analyze Quant Version	10.2	Report Quant Version	10.2
Acq. Date-Time	2022-02-05 오전 5:13:34	Data File	220204-PAHs-030.D
Type	Sample	Name	PAHs-19mix-STD-1p
Dil.	1	Acq. Method File	PAHs 19mix-Method

## Sample Chromatogram



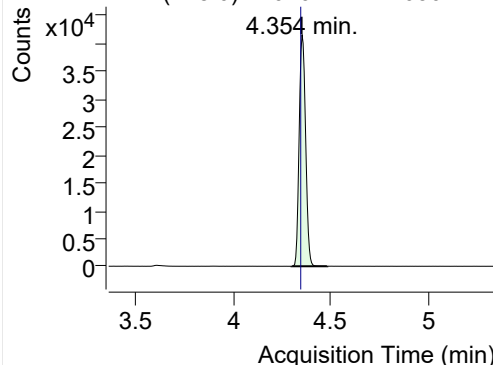
Name	RT	Transition	Resp.	Height	Final Conc. Units	Ratio
IS-D8-Naphthalene	4.321	136.0	78359	34264.92	ND ng/ml	11.0
Naphthalene	4.354	128.0	95934	41608.81	ND ng/ml	13.3
Acenaphthylene	7.745	152.0	89754	59668.10	ND ng/ml	19.8
IS-D10-Acenaphthene	8.112	164.0	48547	34097.46	ND ng/ml	93.3
Acenaphthene	8.183	154.0	54352	36268.64	ND ng/ml	105.5
LSS-D10-Fluorene	9.292	176.0	54226	35350.94	ND µg/mL	89.1
Fluorene	9.355	166.0	66943	41132.13	ND µg/mL	91.4
IS-D10-Phenanthrene	11.508	188.0	86545	53737.83	ND µg/mL	14.8
Phenanthrene	11.560	178.0	97729	68348.00	ND µg/mL	17.8
Anthracene	11.665	178.0	93042	61792.78	ND µg/mL	17.0
Fluoranthene	14.359	202.0	99061	64914.57	ND µg/mL	17.3
LSS-D10-Pyrene	14.820	212.0	73115	45939.61	ND µg/mL	16.9
Pyrene	14.852	202.0	107029	67212.76	ND µg/mL	17.2
Benz(a)anthracene	17.725	228.0	78347	44509.95	ND µg/mL	25.0
IS-D12-Chrysene	17.763	240.0	66311	36865.56	ND µg/mL	19.0
Chrysene	17.818	228.0	81694	45085.72	ND µg/mL	27.5
Benzo(b)fluoranthene	20.122	252.0	73389	42670.59	ND µg/mL	22.8
Benzo(k)fluoranthene	20.171	252.0	101415	44064.66	ND µg/mL	21.0
SS-D12-Benzo(e)pyrene	20.611	264.0	58370	29050.83	ND µg/mL	23.3
Benzo(e)pyrene	20.659	252.0	87569	44931.72	ND µg/mL	22.0
Benzo(a)pyrene	20.752	252.0	73940	34392.35	ND µg/mL	21.9
IS-D12-Perylene	20.876	264.0	61237	30296.08	ND µg/mL	22.2
Perylene	20.920	252.0	82666	39984.13	ND µg/mL	22.2
Indeno(1,2,3-c,d)pyrene	22.844	276.0	47548	20485.00	ND µg/mL	19.5
Dibenz(a,h)anthracene	22.913	278.0	56751	17398.11	ND µg/mL	22.6
Benzo(g,h,i)perylene	23.257	276.0	75309	29676.65	ND µg/mL	20.7
Coronene	25.891	300.0	53572	13495.23	ND µg/mL	27.0

## IS-D8-Naphthalene

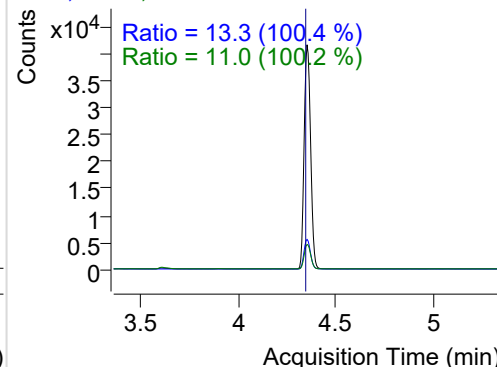


**Naphthalene**

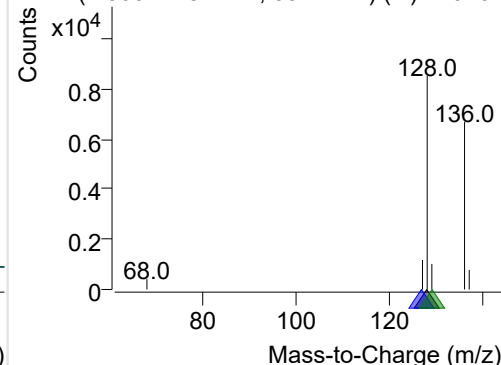
+ Selected Ion (128.0) 220204-PAHs-030.D



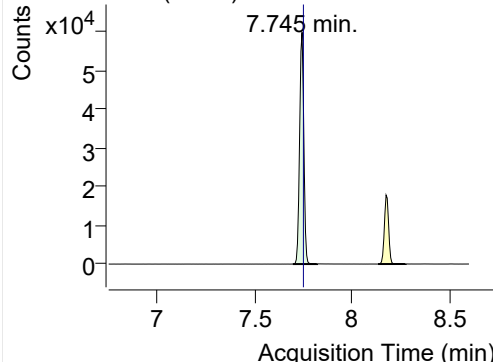
128.0, 127.0, 129.0



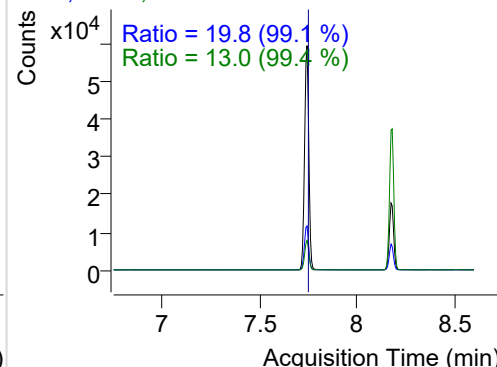
+ SIM (4.300-4.484 min, 35 scans) (\*\*) 220204

**Acenaphthylene**

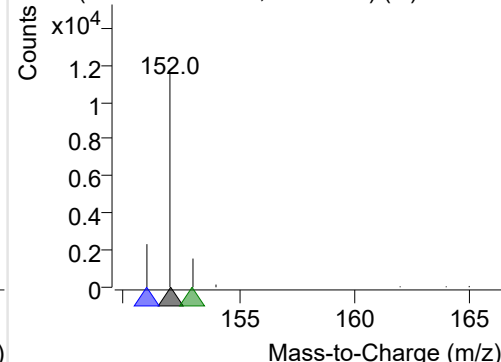
+ Selected Ion (152.0) 220204-PAHs-030.D



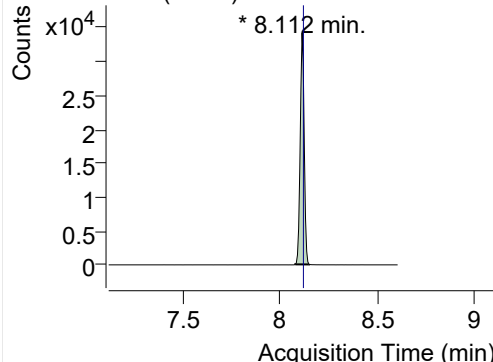
152.0, 151.0, 153.0



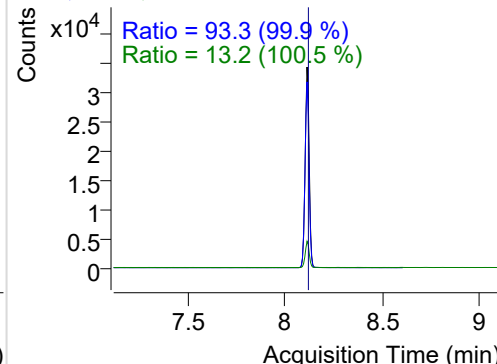
+ SIM (7.698-7.822 min, 22 scans) (\*\*) 220204

**IS-D10-Acenaphthene**

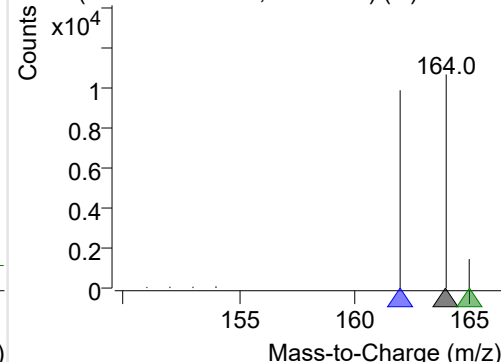
+ Selected Ion (164.0) 220204-PAHs-030.D



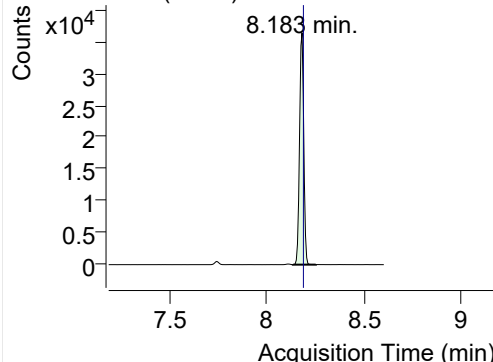
164.0, 162.0, 165.0



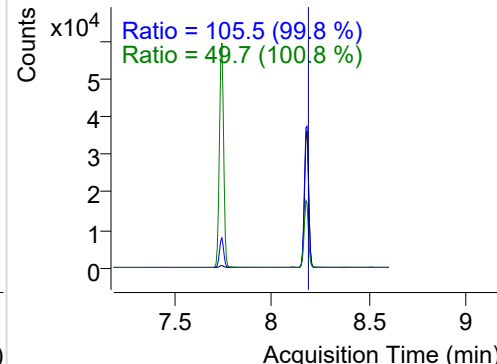
+ SIM (8.077-8.148 min, 13 scans) (\*\*) 220204

**Acenaphthene**

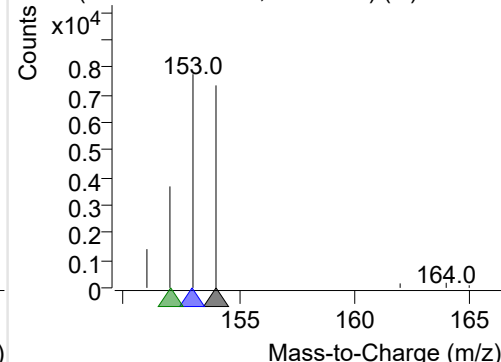
+ Selected Ion (154.0) 220204-PAHs-030.D



154.0, 153.0, 152.0

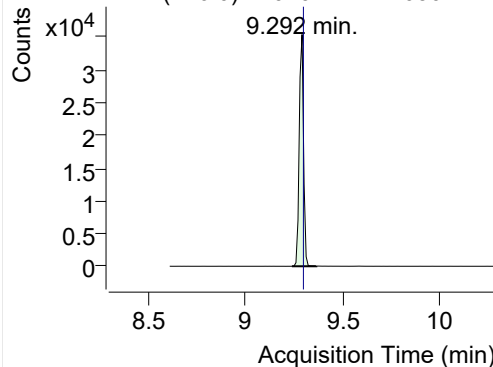


+ SIM (8.136-8.254 min, 21 scans) (\*\*) 220204

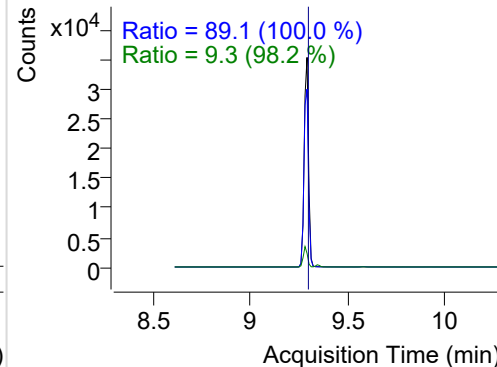


**LSS-D10-Fluorene**

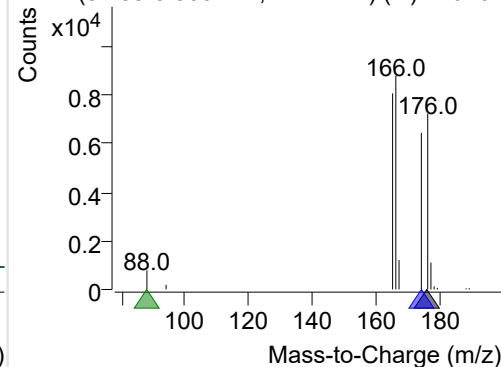
+ Selected Ion (176.0) 220204-PAHs-030.D



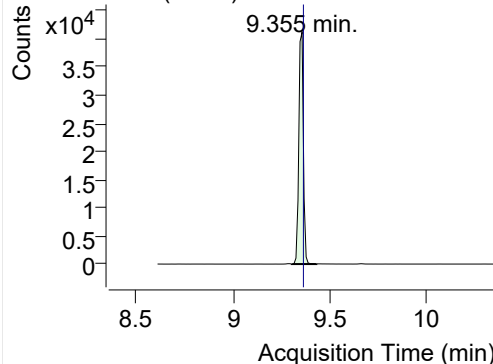
176.0, 174.0, 88.0



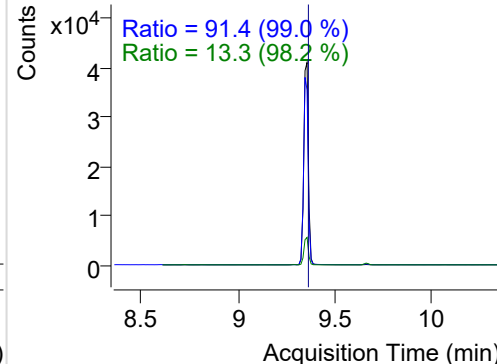
+ SIM (9.239-9.365 min, 12 scans) (\*\*) 220204

**Fluorene**

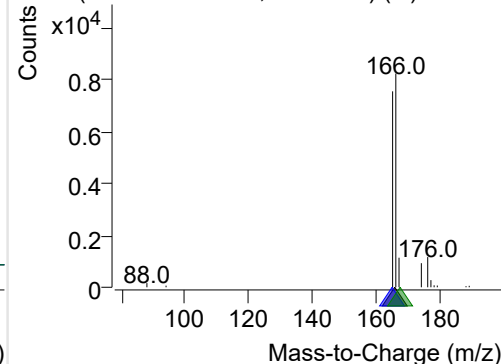
+ Selected Ion (166.0) 220204-PAHs-030.D



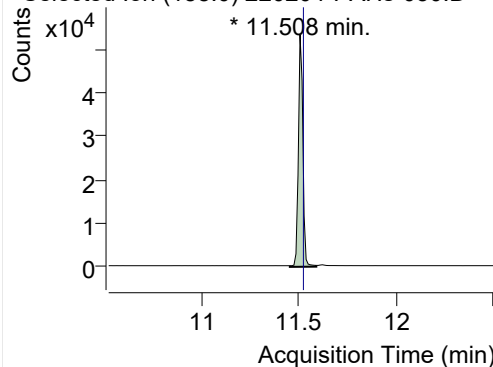
166.0, 165.0, 167.0



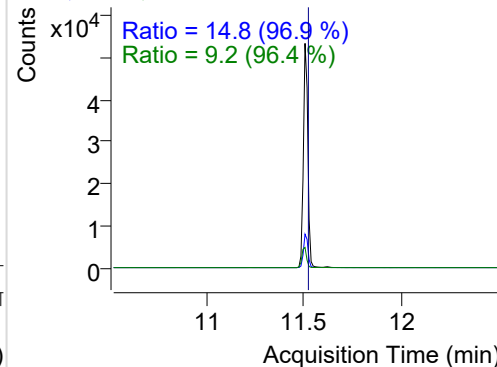
+ SIM (9.302-9.428 min, 13 scans) (\*\*) 220204

**IS-D10-Phenanthrene**

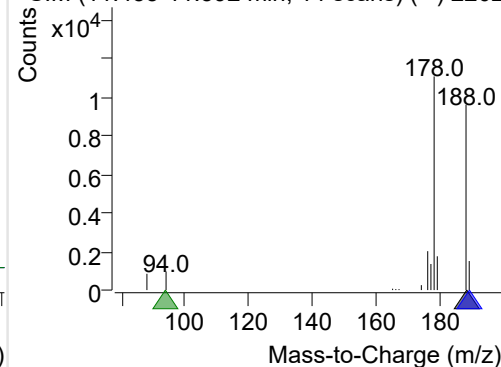
+ Selected Ion (188.0) 220204-PAHs-030.D



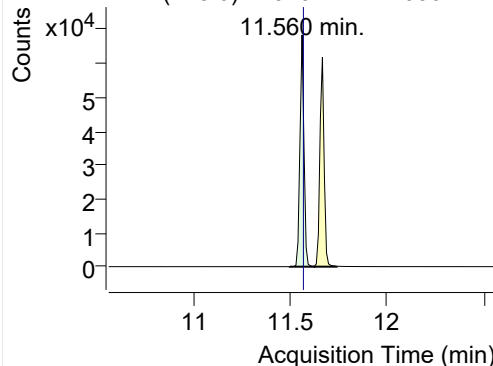
188.0, 189.0, 94.0



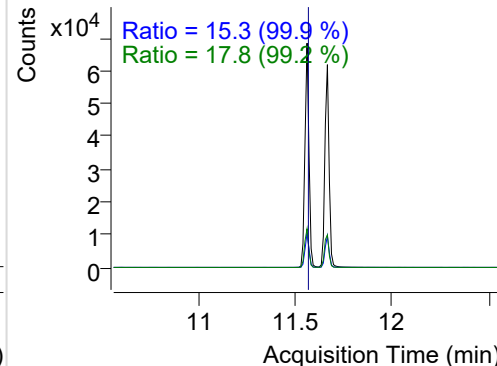
+ SIM (11.455-11.592 min, 14 scans) (\*\*) 2202

**Phenanthrene**

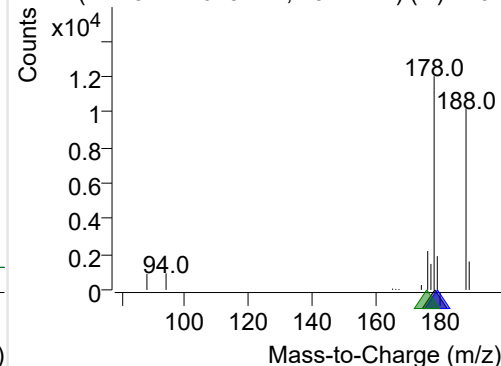
+ Selected Ion (178.0) 220204-PAHs-030.D



178.0, 179.0, 176.0

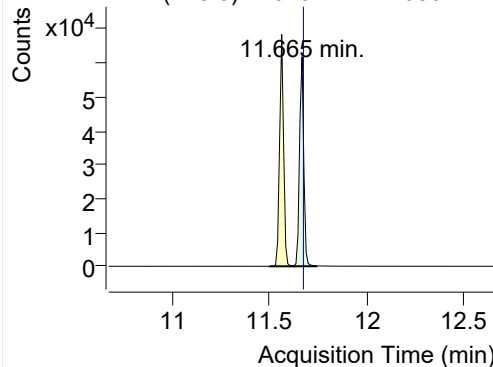


+ SIM (11.497-11.623 min, 13 scans) (\*\*) 2202

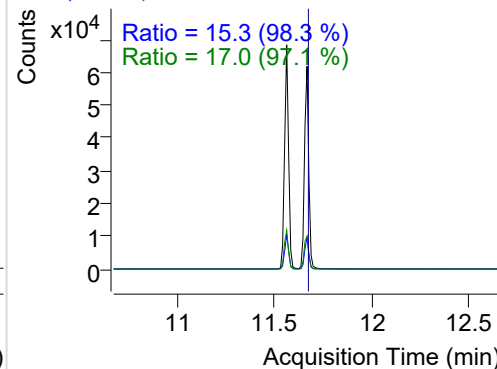


**Anthracene**

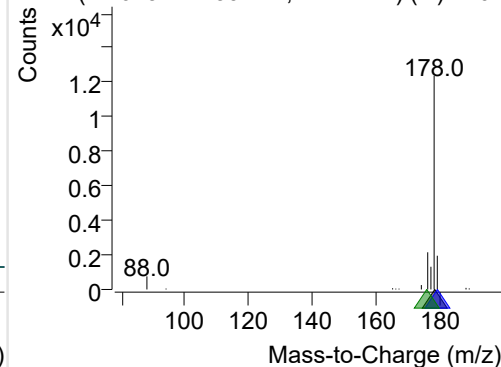
+ Selected Ion (178.0) 220204-PAHs-030.D



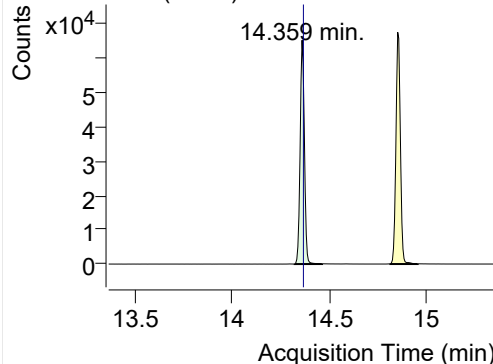
178.0, 179.0, 176.0



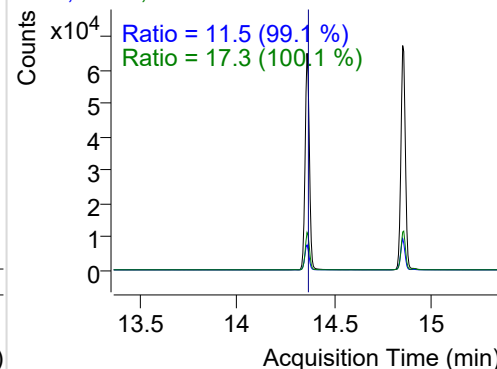
+ SIM (11.623-11.739 min, 12 scans) (\*\*) 2202

**Fluoranthene**

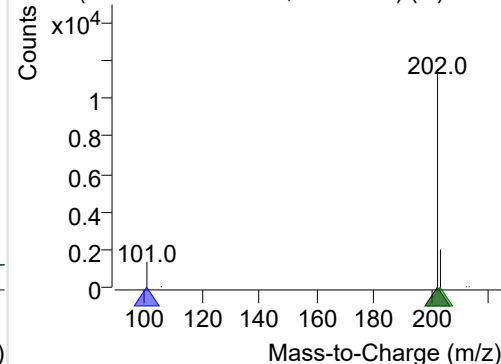
+ Selected Ion (202.0) 220204-PAHs-030.D



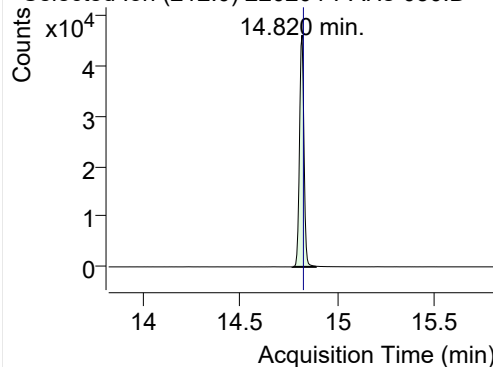
202.0, 101.0, 203.0



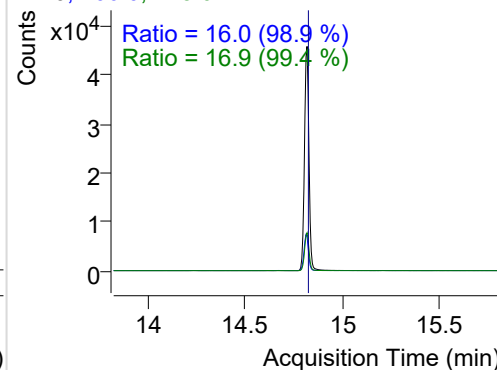
+ SIM (14.321-14.462 min, 27 scans) (\*\*) 2202

**LSS-D10-Pyrene**

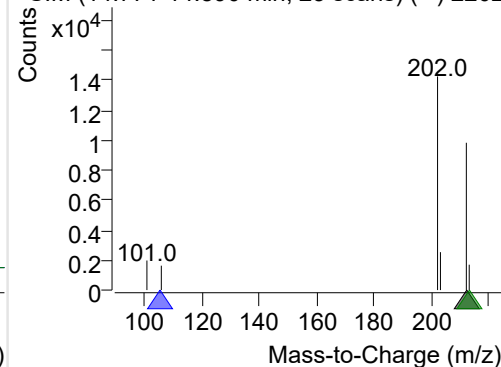
+ Selected Ion (212.0) 220204-PAHs-030.D



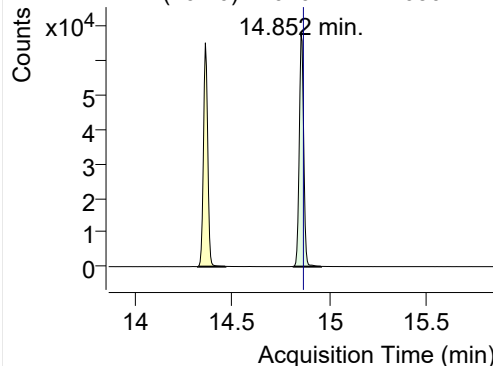
212.0, 106.0, 213.0



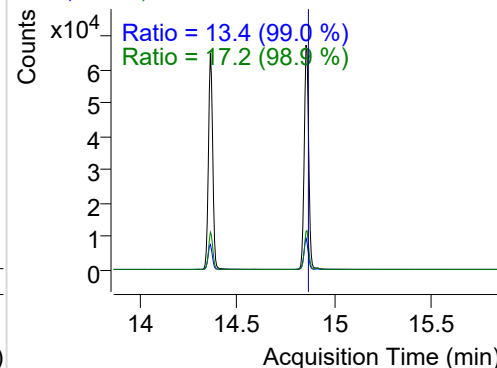
+ SIM (14.771-14.890 min, 23 scans) (\*\*) 2202

**Pyrene**

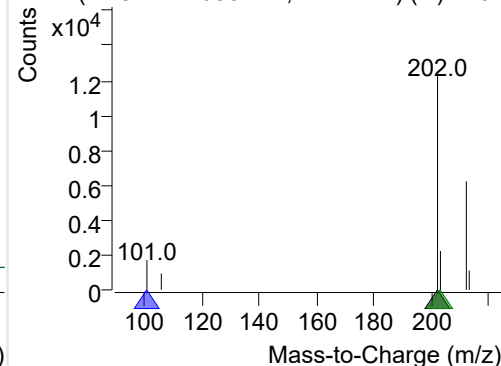
+ Selected Ion (202.0) 220204-PAHs-030.D



202.0, 101.0, 203.0

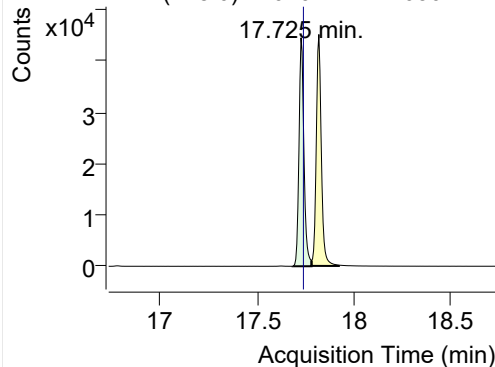


+ SIM (14.814-14.955 min, 27 scans) (\*\*) 2202

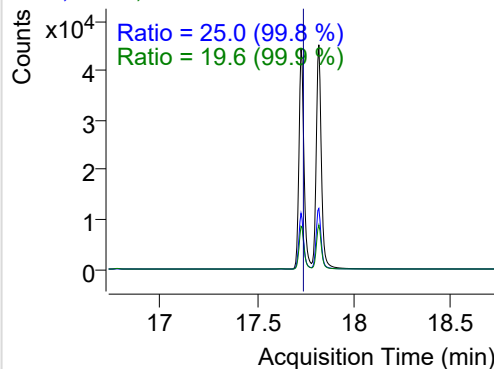


**Benz(a)anthracene**

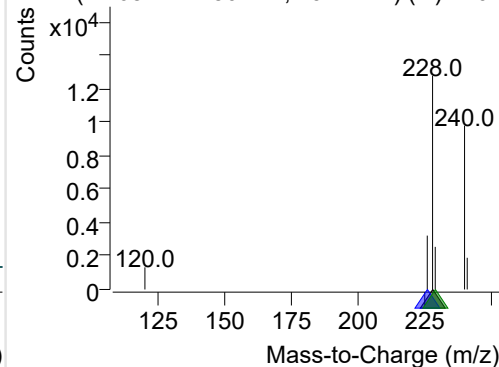
+ Selected Ion (228.0) 220204-PAHs-030.D



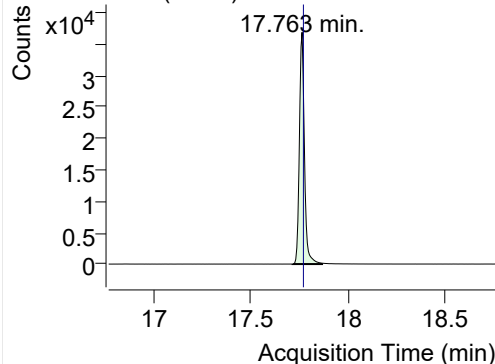
228.0, 226.0, 229.0



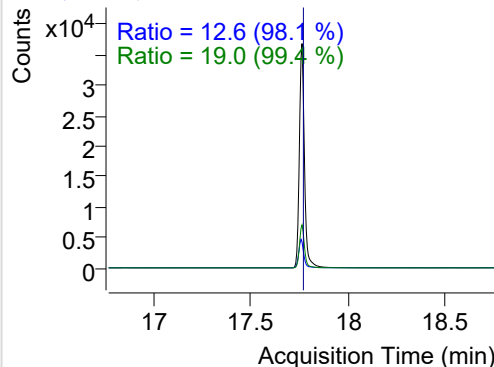
+ SIM (17.682-17.780 min, 19 scans) (\*\*) 2202

**IS-D12-Chrysene**

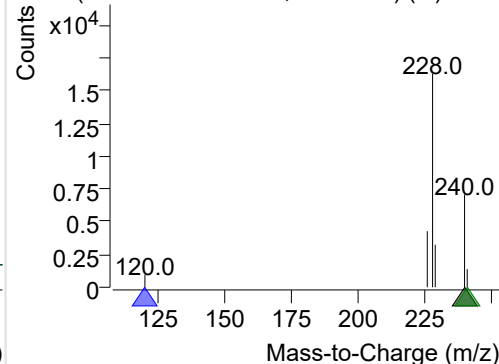
+ Selected Ion (240.0) 220204-PAHs-030.D



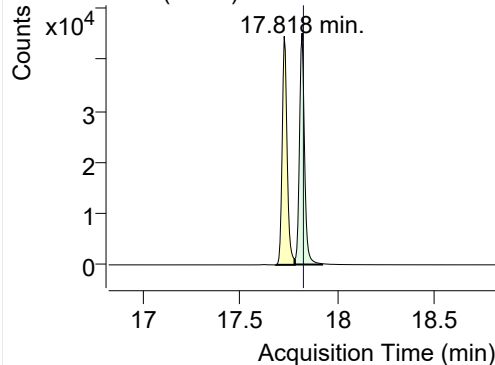
240.0, 120.0, 241.0



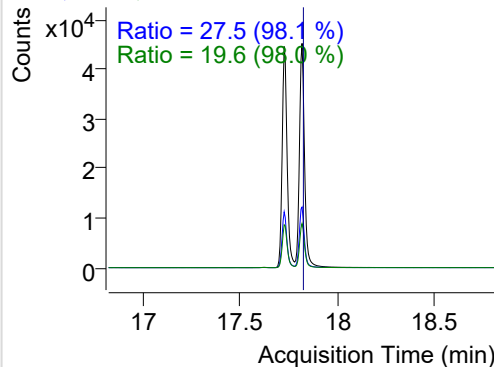
+ SIM (17.715-17.866 min, 29 scans) (\*\*) 2202

**Chrysene**

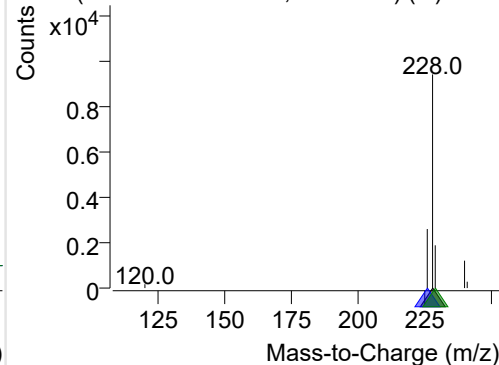
+ Selected Ion (228.0) 220204-PAHs-030.D



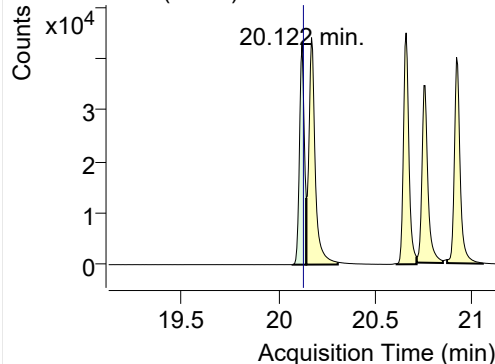
228.0, 226.0, 229.0



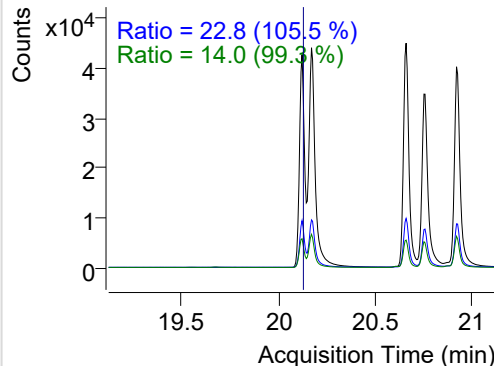
+ SIM (17.780-17.921 min, 27 scans) (\*\*) 2202

**Benzo(b)fluoranthene**

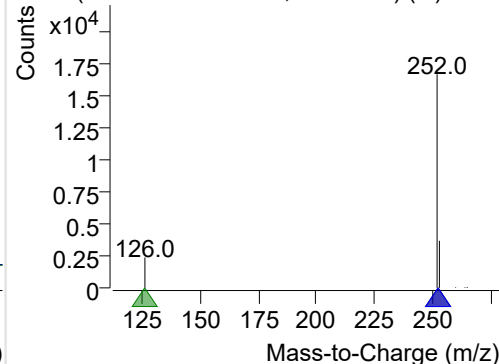
+ Selected Ion (252.0) 220204-PAHs-030.D



252.0, 253.0, 126.0

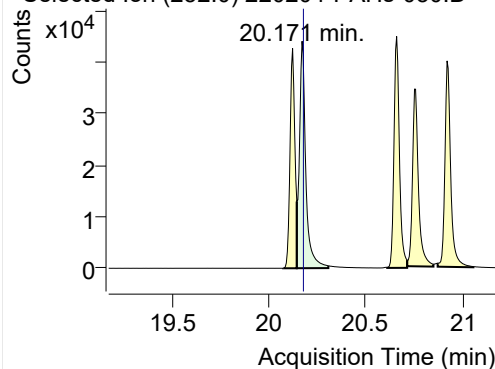


+ SIM (20.073-20.144 min, 14 scans) (\*\*) 2202

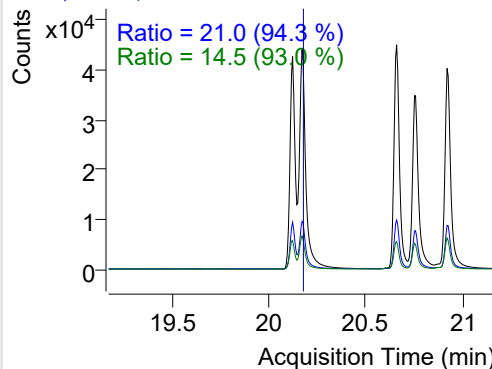


**Benzo(k)fluoranthene**

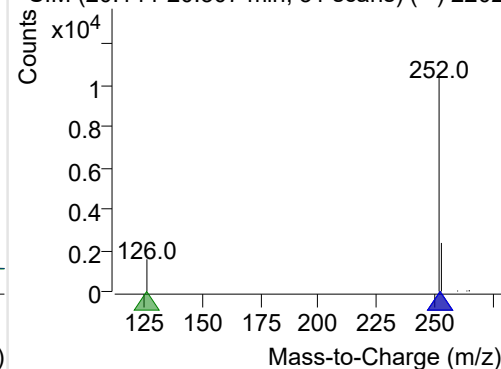
+ Selected Ion (252.0) 220204-PAHs-030.D



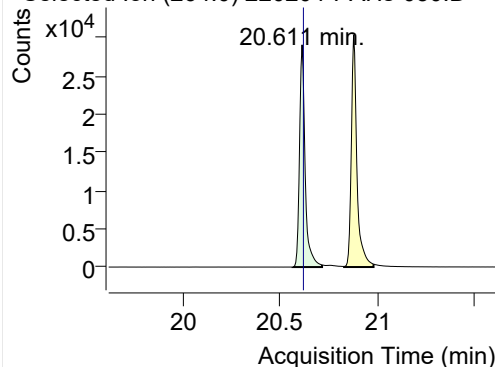
252.0, 253.0, 126.0



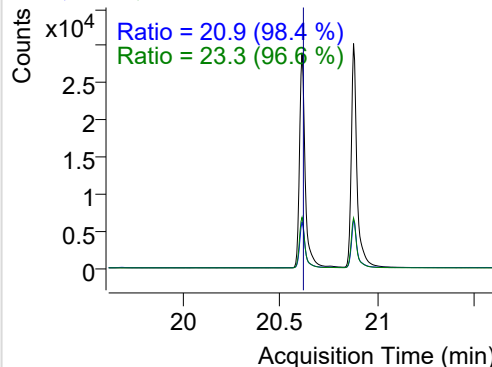
+ SIM (20.144-20.307 min, 31 scans) (\*\*) 2202

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

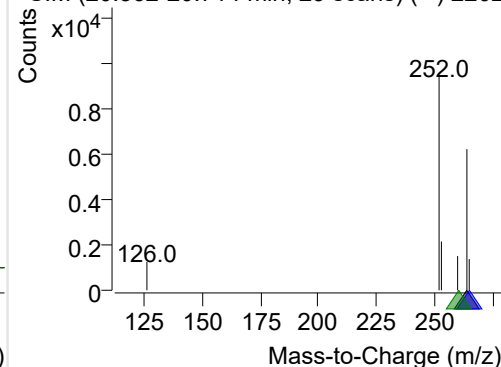
+ Selected Ion (264.0) 220204-PAHs-030.D



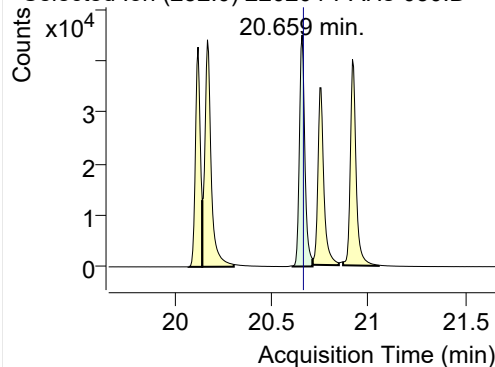
264.0, 265.0, 260.0



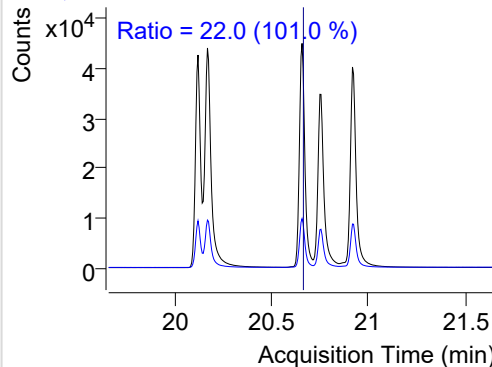
+ SIM (20.562-20.714 min, 29 scans) (\*\*) 2202

**Benzo(e)pyrene**

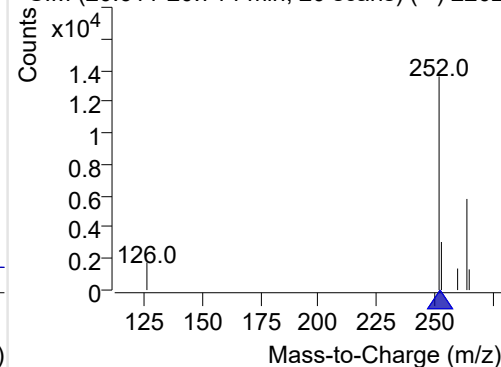
+ Selected Ion (252.0) 220204-PAHs-030.D



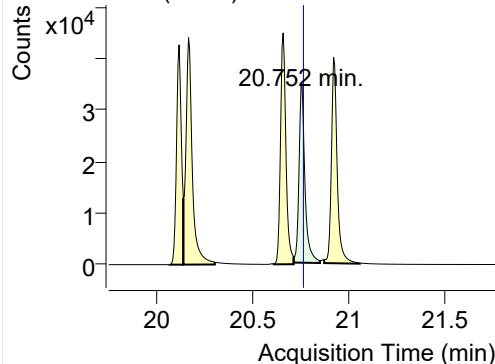
252.0, 253.0



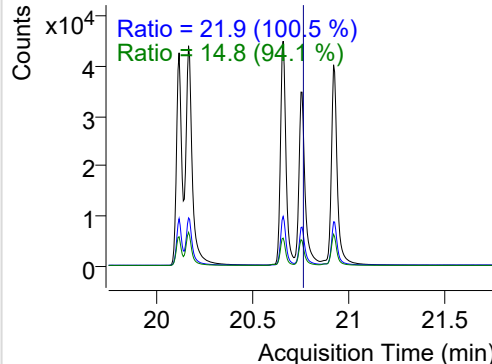
+ SIM (20.611-20.714 min, 20 scans) (\*\*) 2202

**Benzo(a)pyrene**

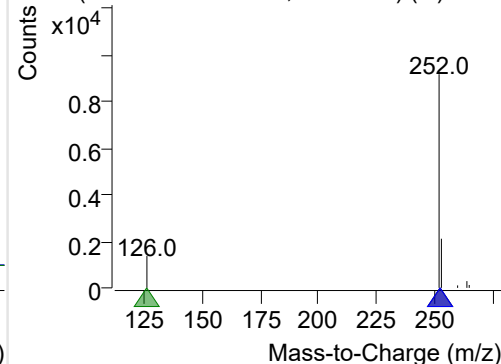
+ Selected Ion (252.0) 220204-PAHs-030.D



252.0, 253.0, 126.0

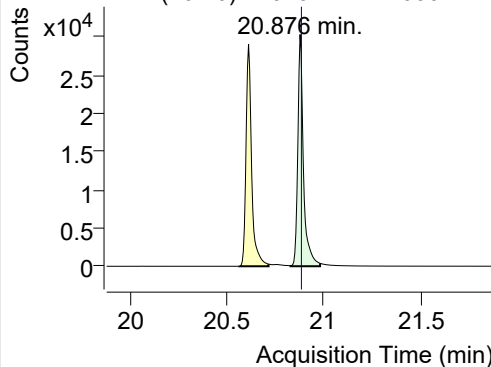


+ SIM (20.714-20.849 min, 26 scans) (\*\*) 2202

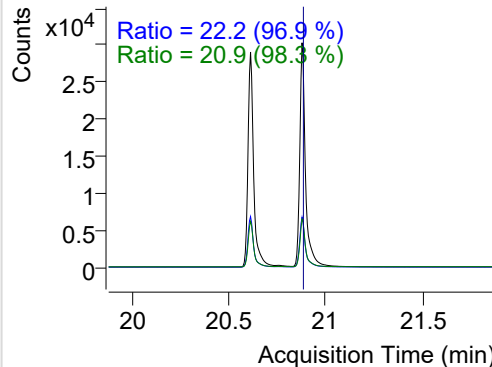


## IS-D12-Perylene

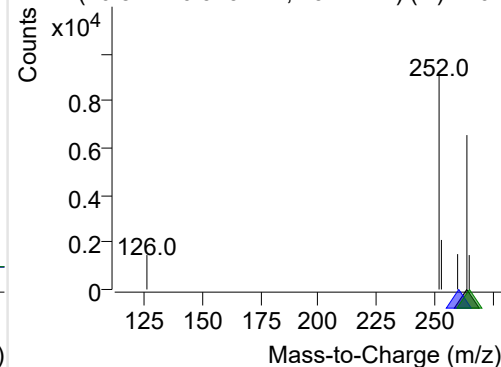
+ Selected Ion (264.0) 220204-PAHs-030.D



264.0, 260.0, 265.0

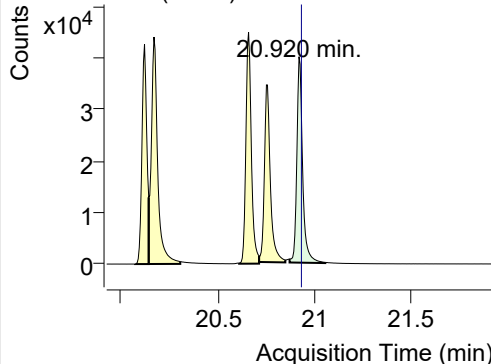


+ SIM (20.827-20.979 min, 29 scans) (\*\*) 2202

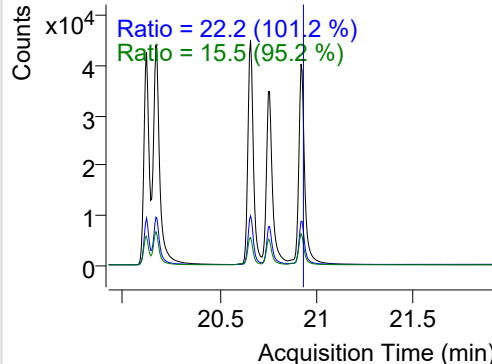


## Perylene

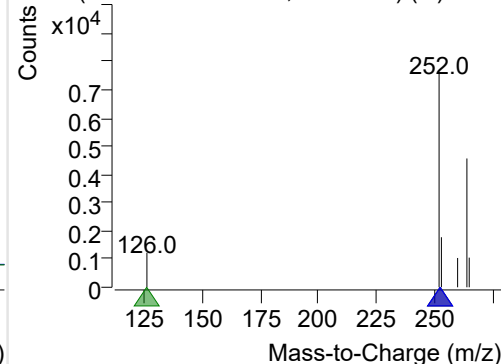
+ Selected Ion (252.0) 220204-PAHs-030.D



252.0, 253.0, 126.0

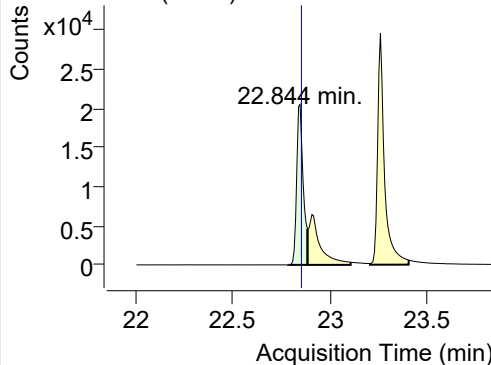


+ SIM (20.871-21.055 min, 35 scans) (\*\*) 2202

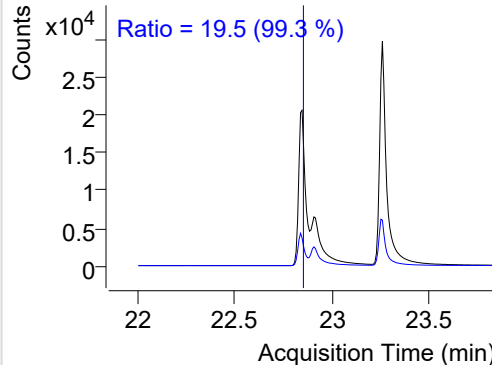


## Indeno(1,2,3-c,d)pyrene

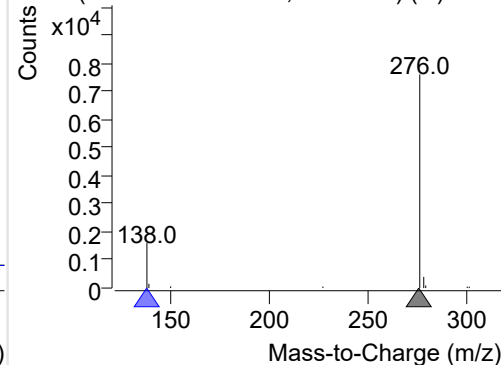
+ Selected Ion (276.0) 220204-PAHs-030.D



276.0, 138.0

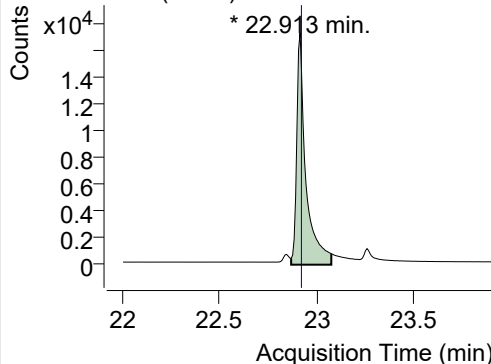


+ SIM (22.783-22.883 min, 14 scans) (\*\*) 2202

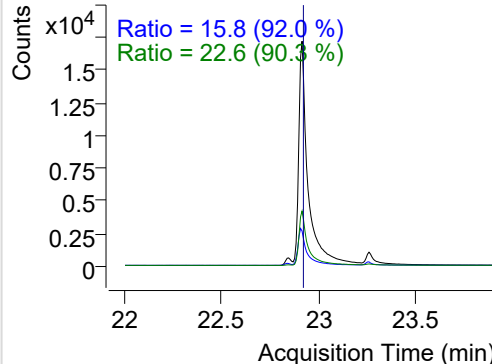


## Dibenz(a,h)anthracene

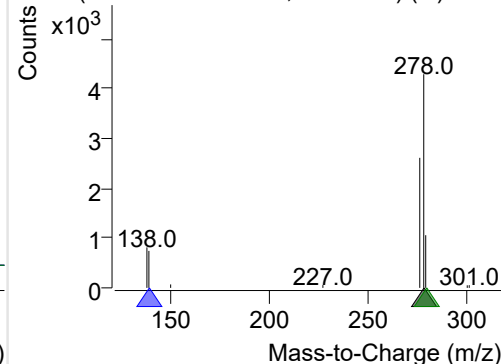
+ Selected Ion (278.0) 220204-PAHs-030.D



278.0, 139.0, 279.0

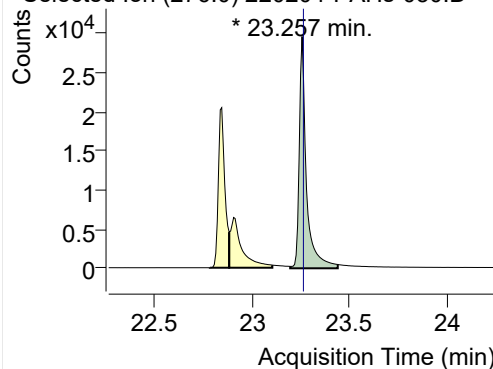


+ SIM (22.867-23.074 min, 28 scans) (\*\*) 2202

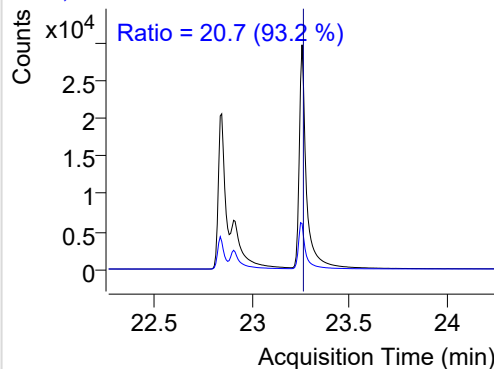


**Benzo(g,h,i)perylene**

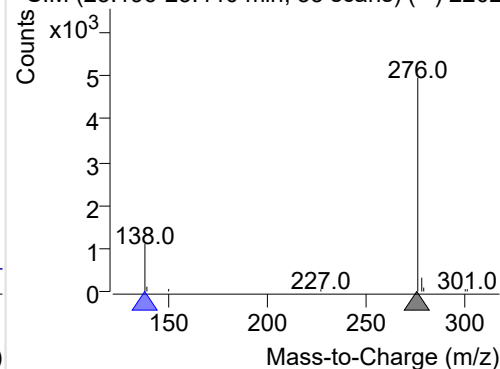
+ Selected Ion (276.0) 220204-PAHs-030.D



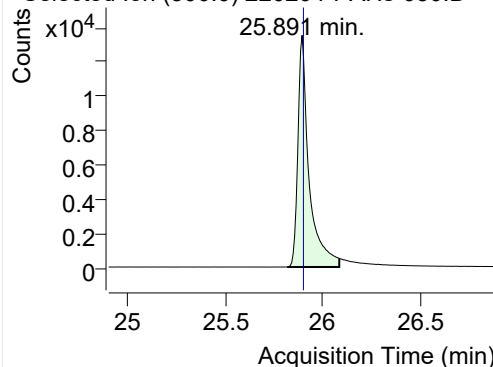
276.0, 138.0



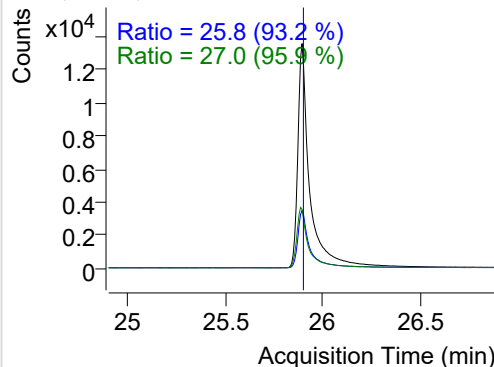
+ SIM (23.196-23.440 min, 33 scans) (\*\*) 2202

**Coronene**

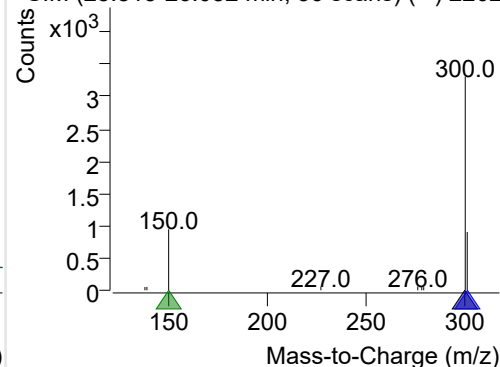
+ Selected Ion (300.0) 220204-PAHs-030.D



300.0, 301.0, 150.0



+ SIM (25.815-26.082 min, 36 scans) (\*\*) 2202





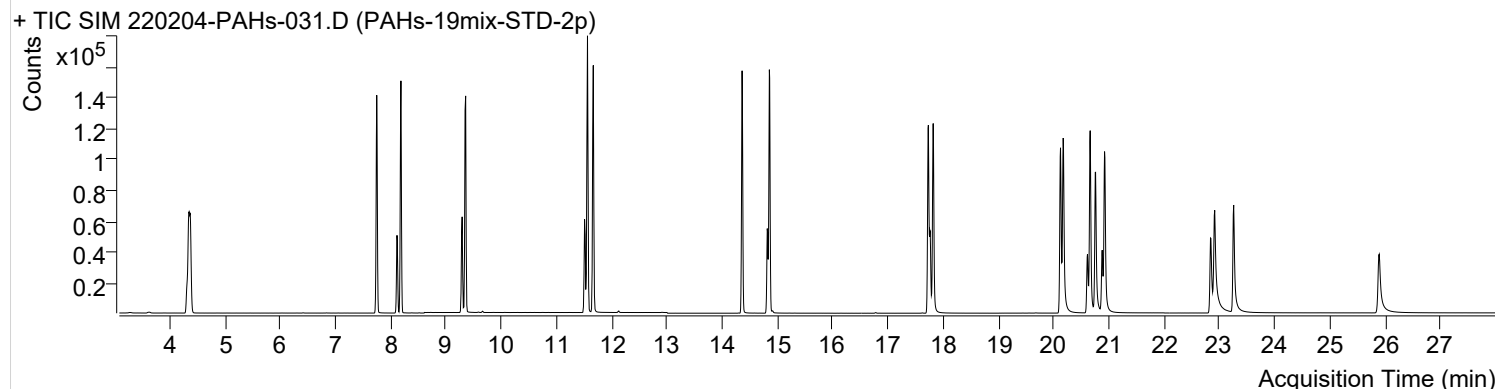
## Quantitative Analysis Sample Based Report



Trusted Answers

Batch Data Path File Name	D:\MassHunter\GCMS\1\data\PAHs\220204-PAHs-Sample\QuantResults\220204-PAHs-Quant.batch.bin		
Analysis Time Stamp	2022-04-13 오후 3:18:46	Analyst Name	DESKTOP-86B7UPG\5975MS
Report Generation Time	2022-04-13 오후 3:19:11	Report Generator Name	DESKTOP-86B7UPG\5975MS
Calibration Last Update	2022-04-13 오후 3:16:00	Batch State	Processed
Analyze Quant Version	10.2	Report Quant Version	10.2
Acq. Date-Time	2022-02-05 오전 5:44:47	Data File	220204-PAHs-031.D
Type	Sample	Name	PAHs-19mix-STD-2p
Dil.	1	Acq. Method File	PAHs 19mix-Method

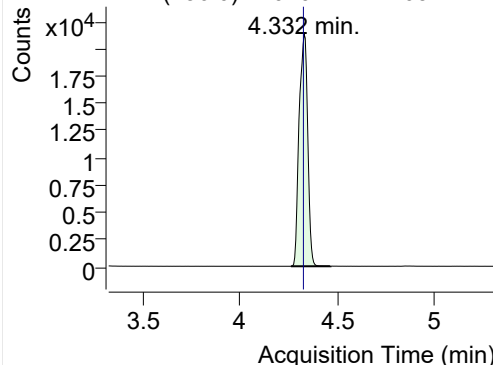
## Sample Chromatogram



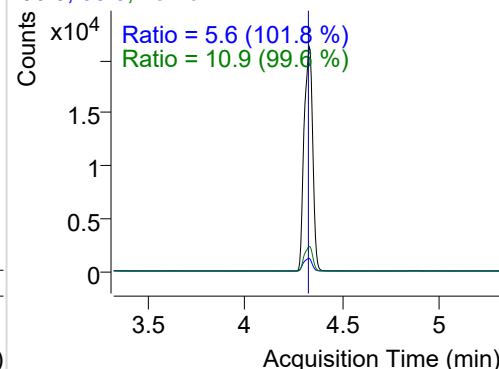
Name	RT	Transition	Resp.	Height	Final Conc. Units	Ratio
IS-D8-Naphthalene	4.332	136.0	65276	21270.95	ND ng/ml	10.9
Naphthalene	4.370	128.0	152419	50391.02	ND ng/ml	13.2
Acenaphthylene	7.745	152.0	160109	105963.18	ND ng/ml	19.8
IS-D10-Acenaphthene	8.112	164.0	37593	24434.18	ND ng/ml	91.5
Acenaphthene	8.183	154.0	81161	55665.65	ND ng/ml	104.3
LSS-D10-Fluorene	9.292	176.0	44724	29556.04	ND µg/mL	88.9
Fluorene	9.355	166.0	110665	70007.02	ND µg/mL	90.8
IS-D10-Phenanthrene	11.508	188.0	74605	47558.09	ND µg/mL	15.7
Phenanthrene	11.560	178.0	176342	118975.17	ND µg/mL	17.9
Anthracene	11.665	178.0	165504	109558.26	ND µg/mL	17.1
Fluoranthene	14.359	202.0	184472	122421.73	ND µg/mL	17.3
LSS-D10-Pyrene	14.814	212.0	65470	40938.84	ND µg/mL	16.9
Pyrene	14.852	202.0	188370	120177.07	ND µg/mL	17.3
Benz(a)anthracene	17.731	228.0	148647	84114.37	ND µg/mL	24.9
IS-D12-Chrysene	17.763	240.0	63348	35487.93	ND µg/mL	19.0
Chrysene	17.818	228.0	152020	83095.69	ND µg/mL	26.9
Benzo(b)fluoranthene	20.122	252.0	140088	79332.86	ND µg/mL	22.8
Benzo(k)fluoranthene	20.171	252.0	188208	83127.90	ND µg/mL	20.9
SS-D12-Benzo(e)pyrene	20.611	264.0	53775	26043.30	ND µg/mL	23.5
Benzo(e)pyrene	20.659	252.0	160740	86295.03	ND µg/mL	21.7
Benzo(a)pyrene	20.757	252.0	143565	66820.51	ND µg/mL	20.5
IS-D12-Perylene	20.876	264.0	56253	26672.98	ND µg/mL	22.2
Perylene	20.920	252.0	156871	73309.65	ND µg/mL	21.0
Indeno(1,2,3-c,d)pyrene	22.845	276.0	90784	39736.06	ND µg/mL	19.6
Dibenz(a,h)anthracene	22.913	278.0	101473	34939.80	ND µg/mL	25.0
Benzo(g,h,i)perylene	23.257	276.0	135864	55993.29	ND µg/mL	21.7
Coronene	25.891	300.0	97357	25163.15	ND µg/mL	27.0

## IS-D8-Naphthalene

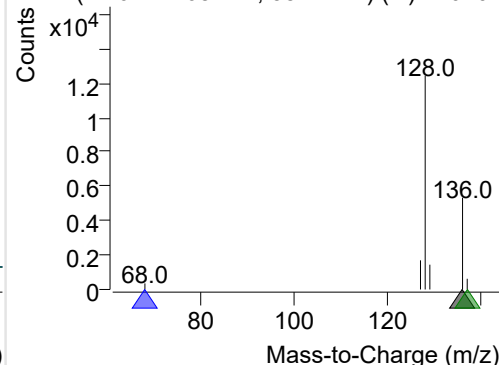
+ Selected Ion (136.0) 220204-PAHs-031.D



136.0, 68.0, 137.0

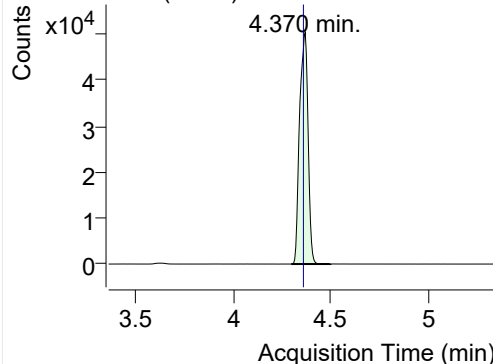


+ SIM (4.264-4.468 min, 38 scans) (\*\*) 220204

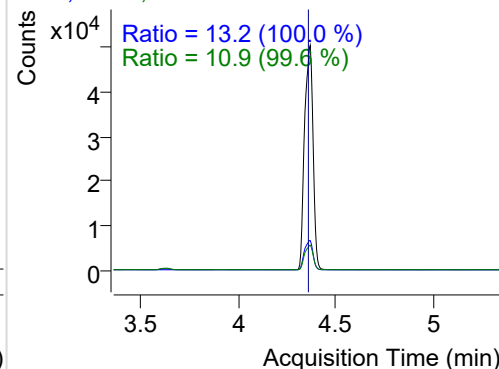


## Naphthalene

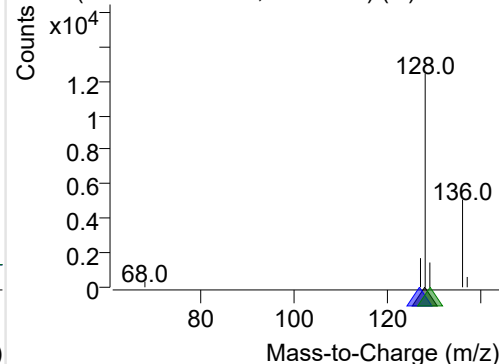
+ Selected Ion (128.0) 220204-PAHs-031.D



128.0, 127.0, 129.0

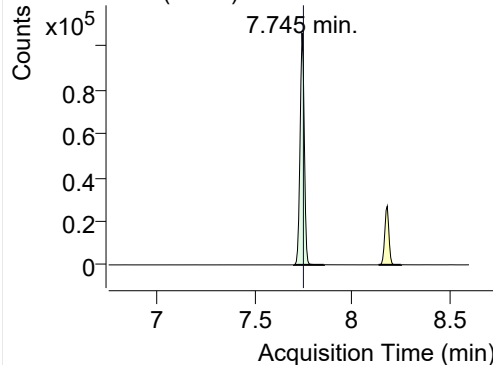


+ SIM (4.298-4.500 min, 38 scans) (\*\*) 220204

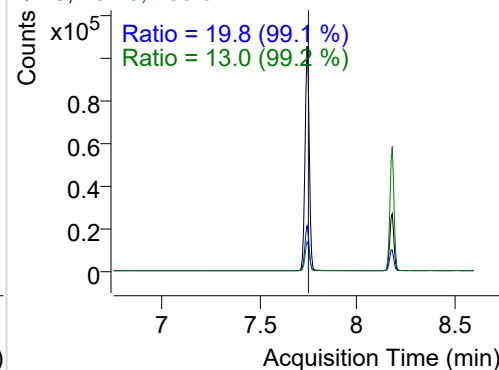


## Acenaphthylene

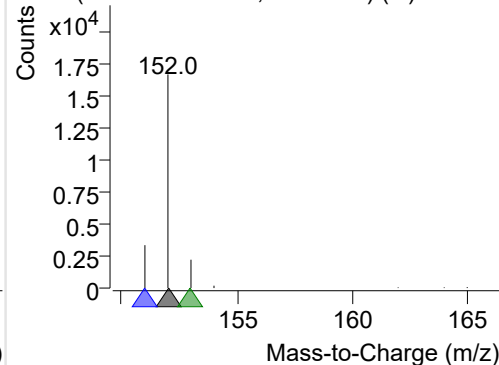
+ Selected Ion (152.0) 220204-PAHs-031.D



152.0, 151.0, 153.0

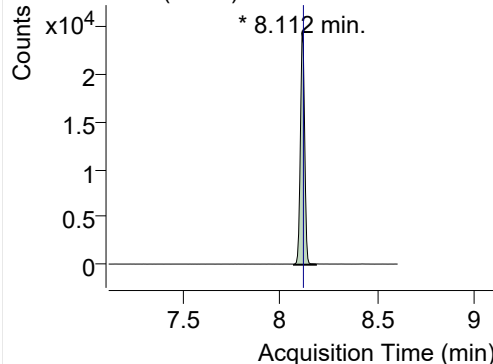


+ SIM (7.704-7.858 min, 27 scans) (\*\*) 220204

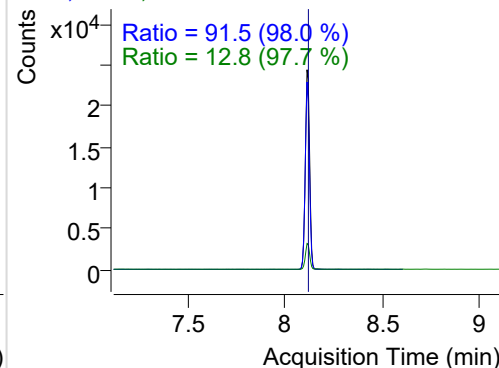


## IS-D10-Acenaphthene

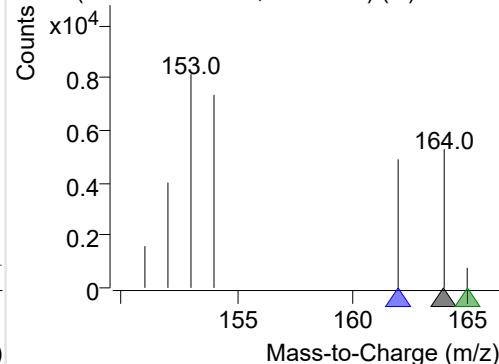
+ Selected Ion (164.0) 220204-PAHs-031.D



164.0, 162.0, 165.0

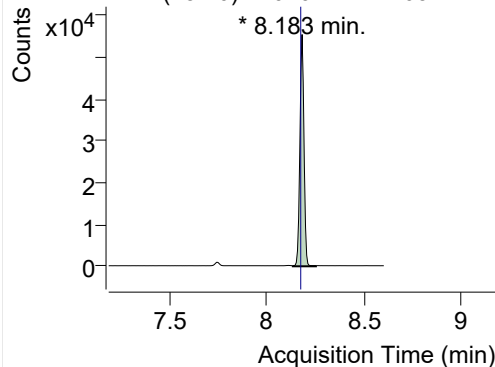


+ SIM (8.071-8.183 min, 20 scans) (\*\*) 220204

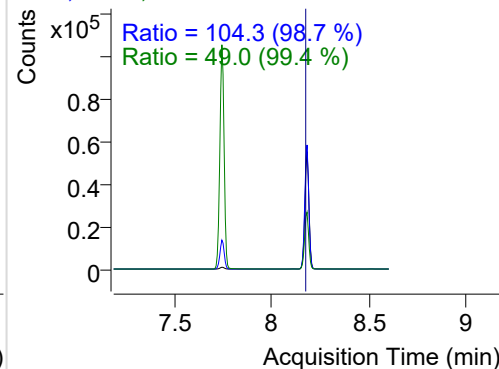


**Acenaphthene**

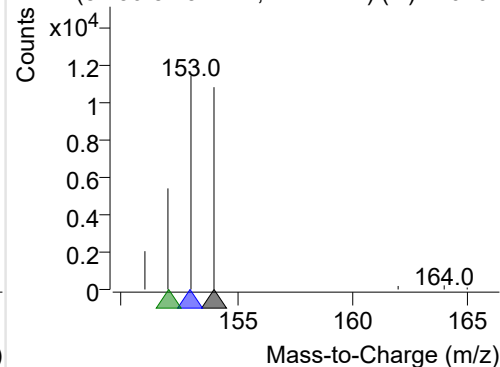
+ Selected Ion (154.0) 220204-PAHs-031.D



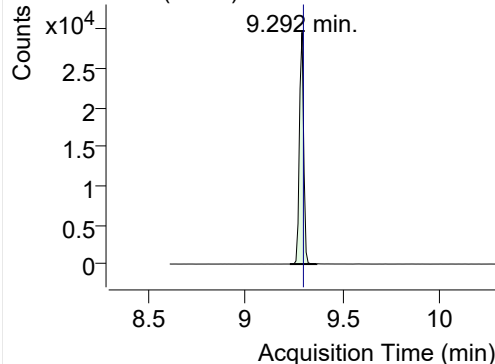
154.0, 153.0, 152.0



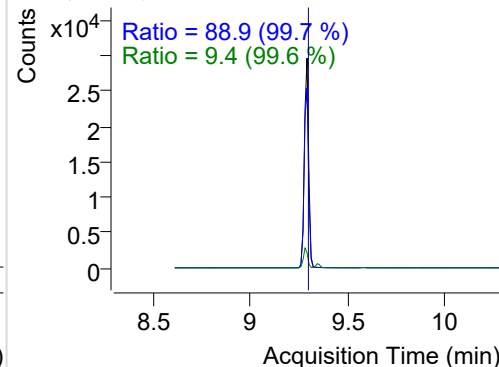
+ SIM (8.136-8.254 min, 21 scans) (\*\*) 220204

**LSS-D10-Fluorene**

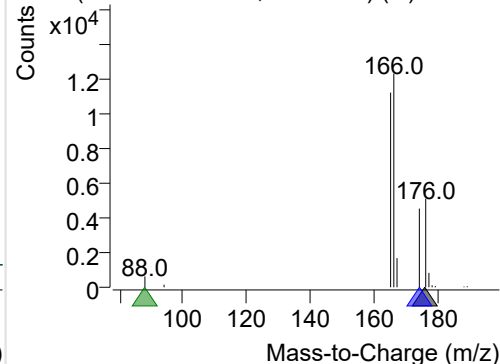
+ Selected Ion (176.0) 220204-PAHs-031.D



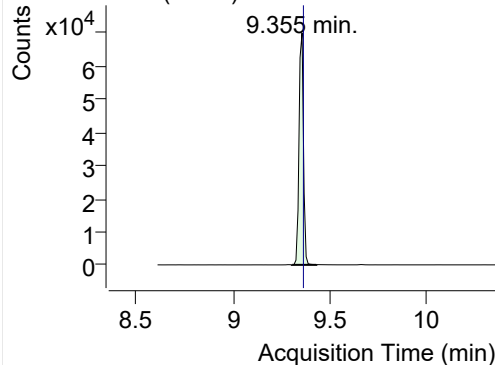
176.0, 174.0, 88.0



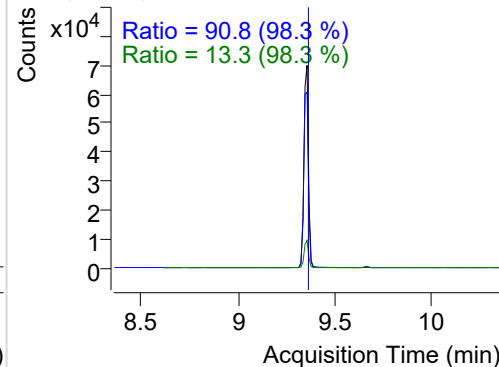
+ SIM (9.229-9.366 min, 14 scans) (\*\*) 220204

**Fluorene**

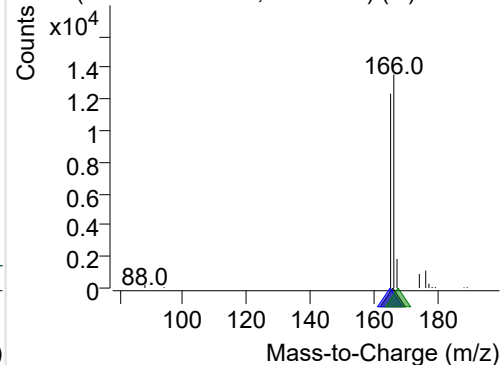
+ Selected Ion (166.0) 220204-PAHs-031.D



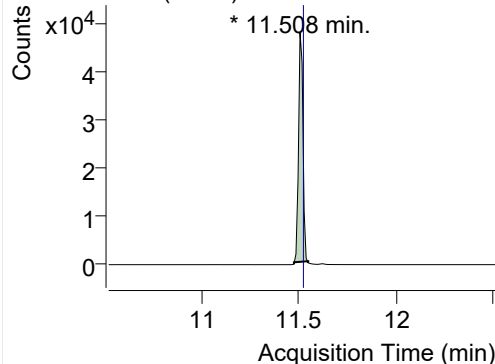
166.0, 165.0, 167.0



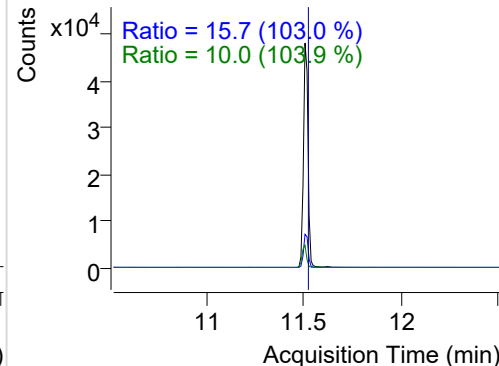
+ SIM (9.302-9.429 min, 13 scans) (\*\*) 220204

**IS-D10-Phenanthrene**

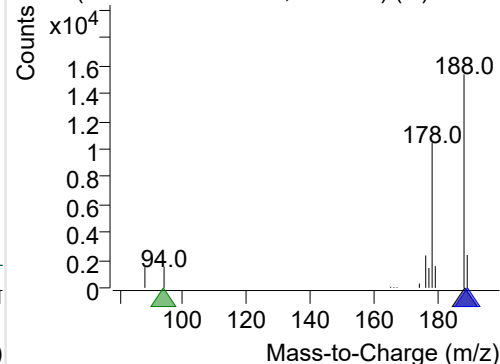
+ Selected Ion (188.0) 220204-PAHs-031.D



188.0, 189.0, 94.0

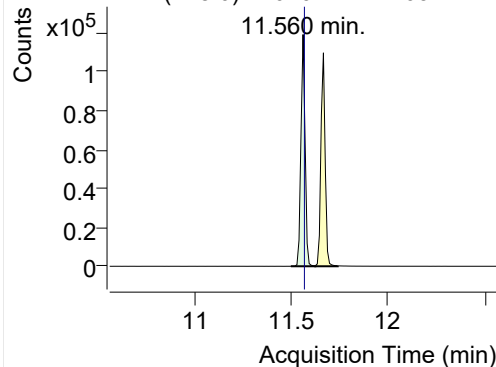


+ SIM (11.476-11.550 min, 8 scans) (\*\*) 220204

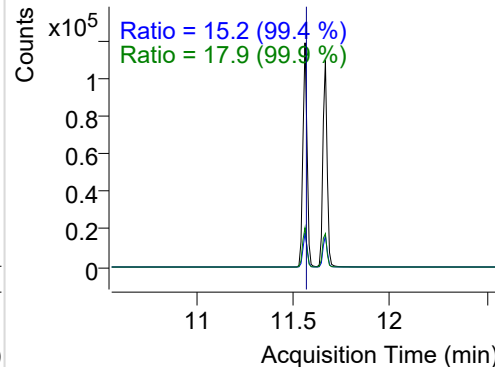


**Phenanthrene**

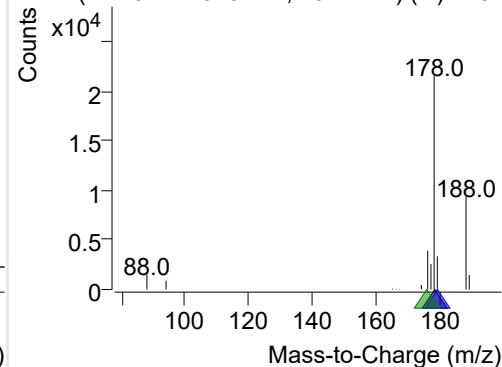
+ Selected Ion (178.0) 220204-PAHs-031.D



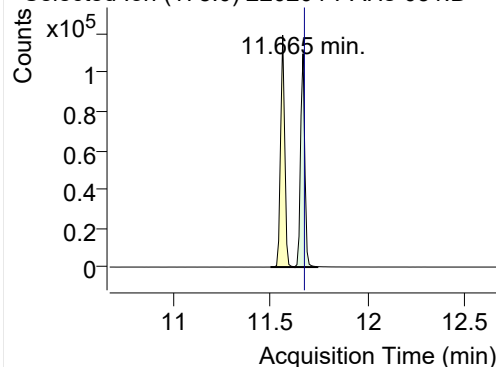
178.0, 179.0, 176.0



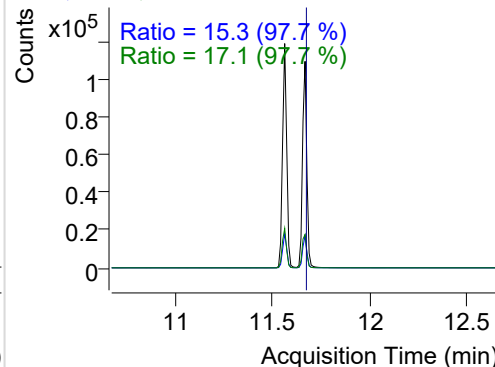
+ SIM (11.497-11.623 min, 13 scans) (\*\*) 2202

**Anthracene**

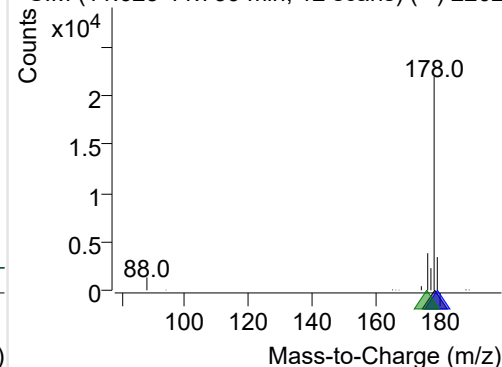
+ Selected Ion (178.0) 220204-PAHs-031.D



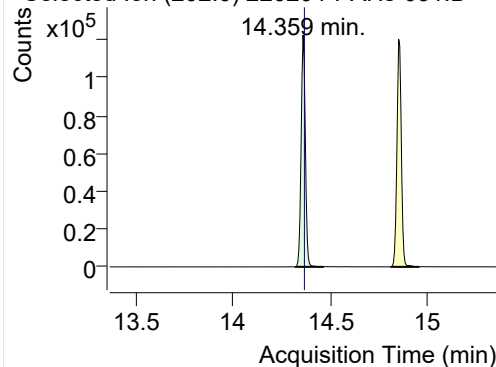
178.0, 179.0, 176.0



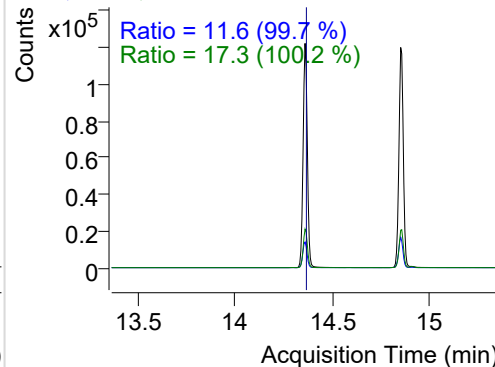
+ SIM (11.623-11.739 min, 12 scans) (\*\*) 2202

**Fluoranthene**

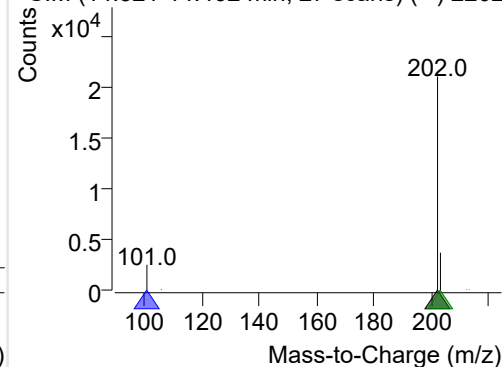
+ Selected Ion (202.0) 220204-PAHs-031.D



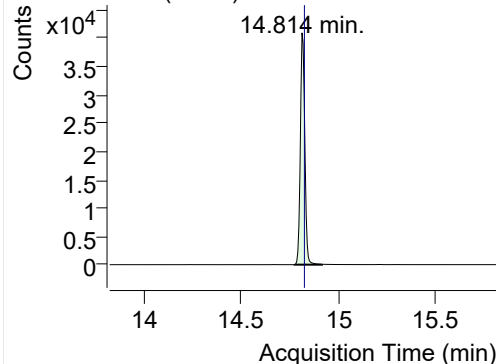
202.0, 101.0, 203.0



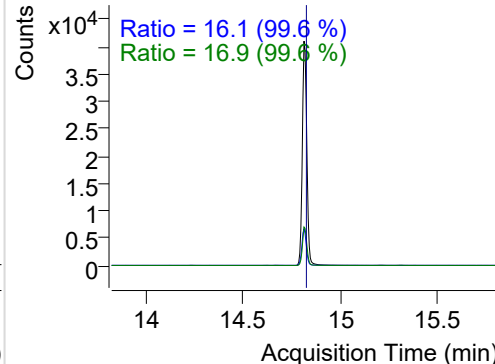
+ SIM (14.321-14.462 min, 27 scans) (\*\*) 2202

**LSS-D10-Pyrene**

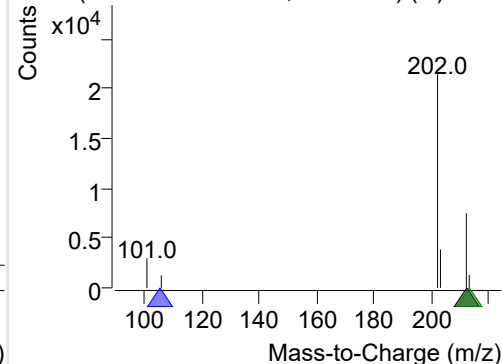
+ Selected Ion (212.0) 220204-PAHs-031.D



212.0, 106.0, 213.0

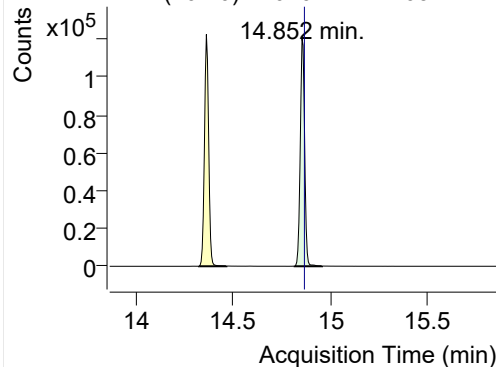


+ SIM (14.776-14.917 min, 27 scans) (\*\*) 2202

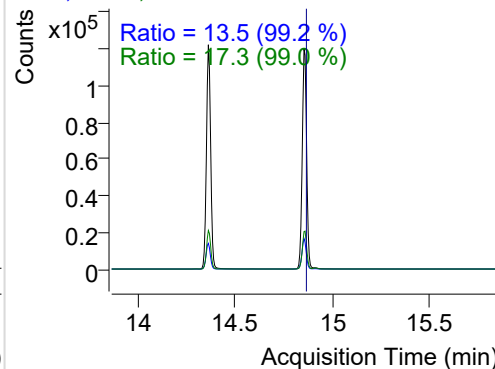


**Pyrene**

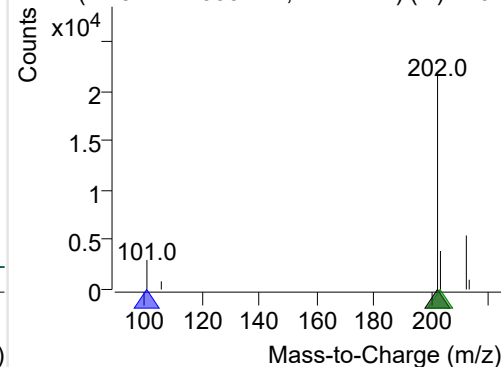
+ Selected Ion (202.0) 220204-PAHs-031.D



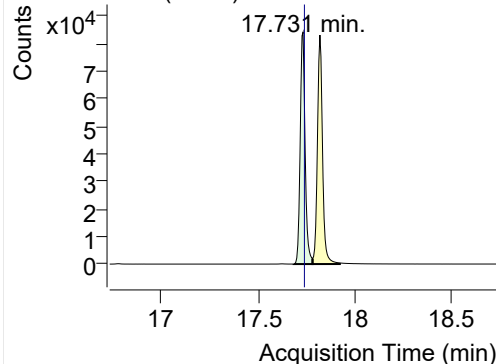
202.0, 101.0, 203.0



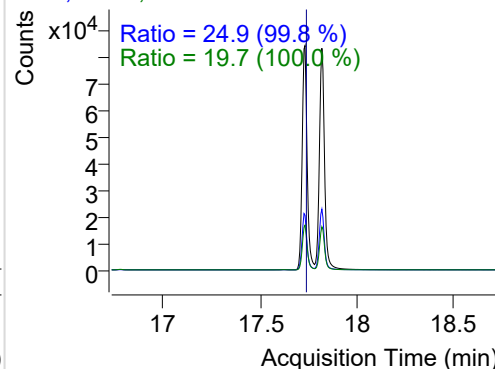
+ SIM (14.814-14.955 min, 27 scans) (\*\*) 2202

**Benz(a)anthracene**

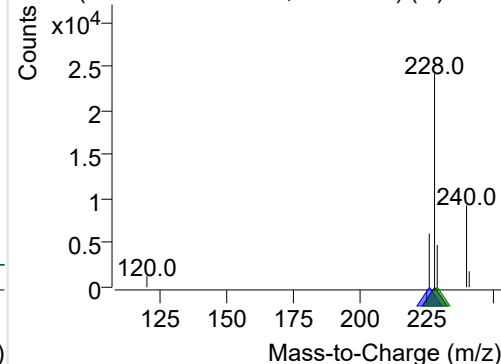
+ Selected Ion (228.0) 220204-PAHs-031.D



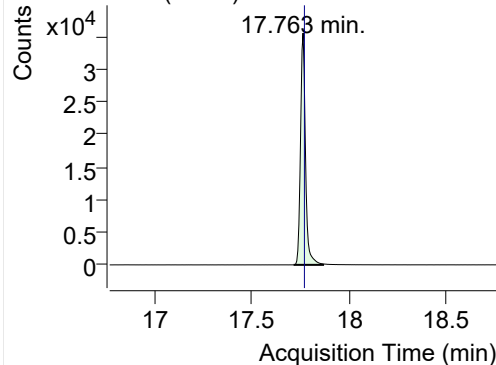
228.0, 226.0, 229.0



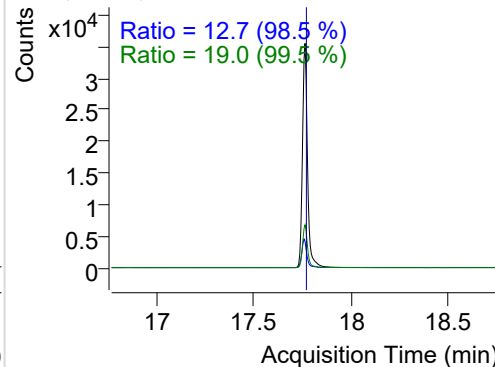
+ SIM (17.682-17.780 min, 19 scans) (\*\*) 2202

**IS-D12-Chrysene**

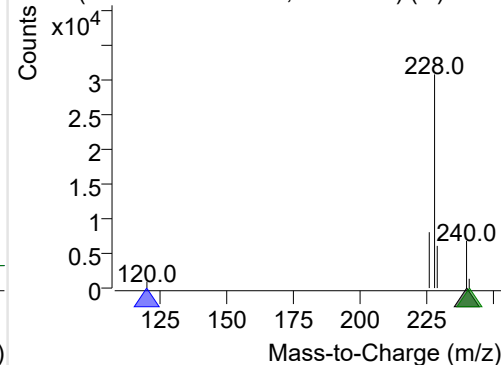
+ Selected Ion (240.0) 220204-PAHs-031.D



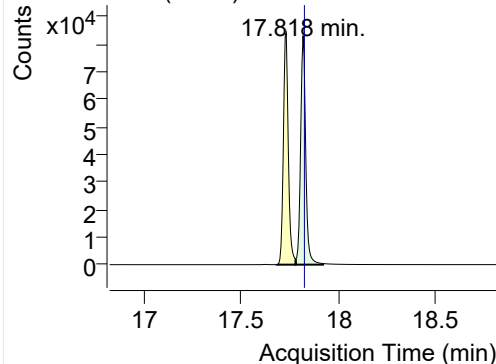
240.0, 120.0, 241.0



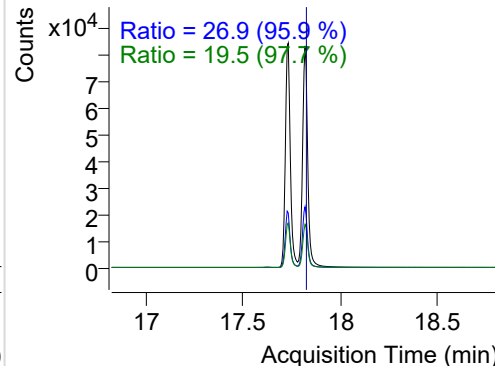
+ SIM (17.715-17.866 min, 29 scans) (\*\*) 2202

**Chrysene**

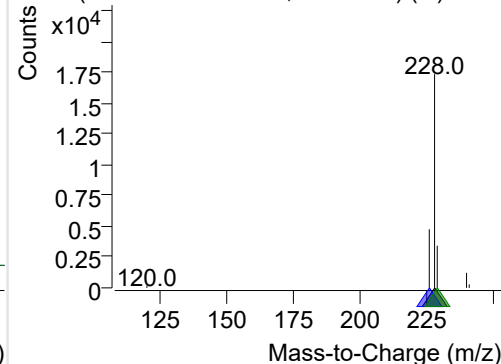
+ Selected Ion (228.0) 220204-PAHs-031.D



228.0, 226.0, 229.0

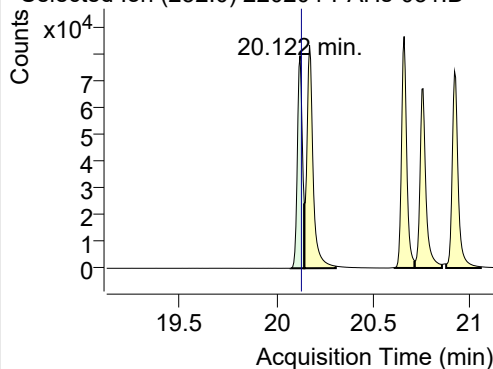


+ SIM (17.780-17.921 min, 27 scans) (\*\*) 2202

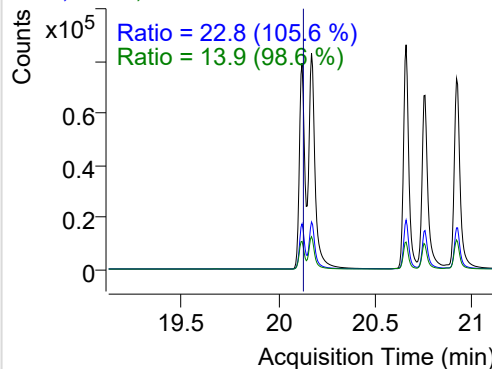


**Benzo(b)fluoranthene**

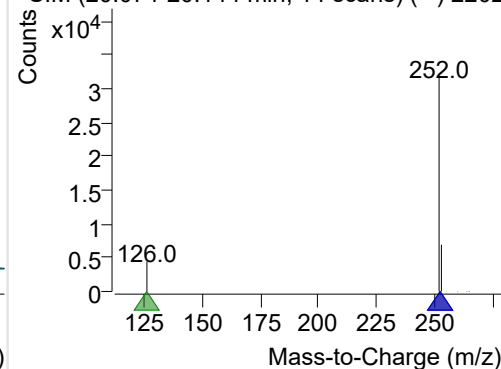
+ Selected Ion (252.0) 220204-PAHs-031.D



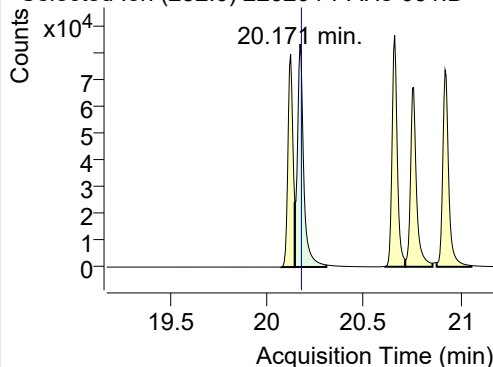
252.0, 253.0, 126.0



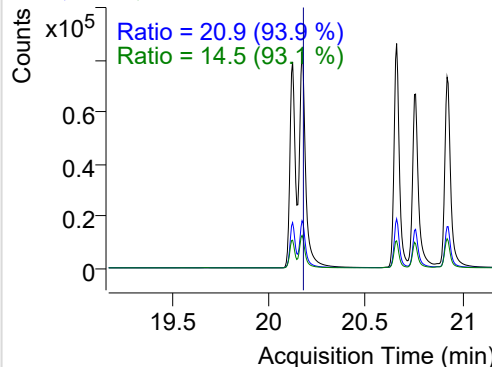
+ SIM (20.074-20.144 min, 14 scans) (\*\*) 2202

**Benzo(k)fluoranthene**

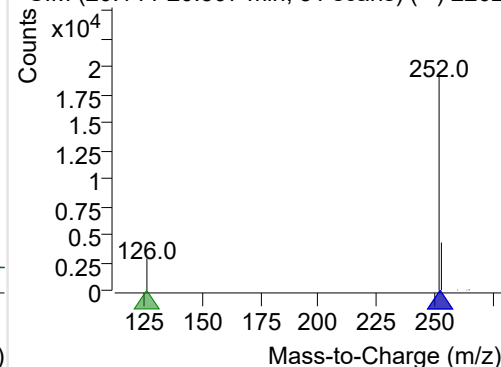
+ Selected Ion (252.0) 220204-PAHs-031.D



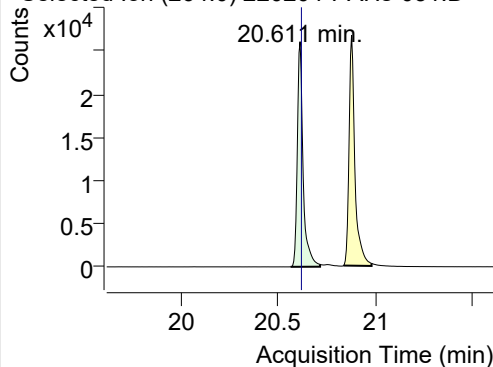
252.0, 253.0, 126.0



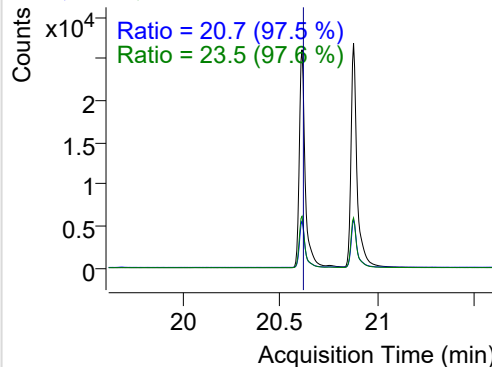
+ SIM (20.144-20.307 min, 31 scans) (\*\*) 2202

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

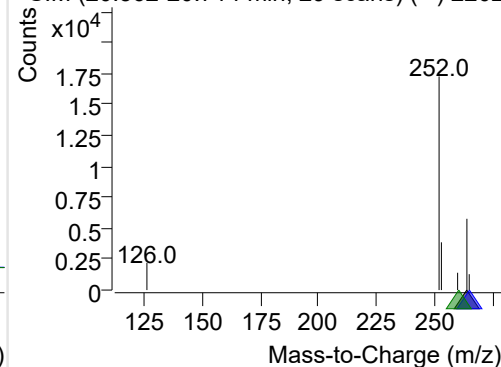
+ Selected Ion (264.0) 220204-PAHs-031.D



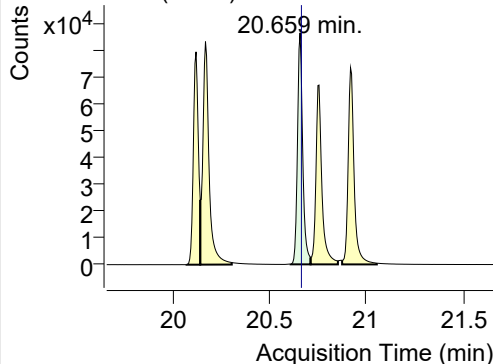
264.0, 265.0, 260.0



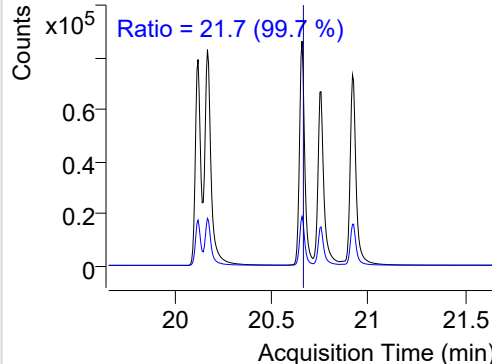
+ SIM (20.562-20.714 min, 29 scans) (\*\*) 2202

**Benzo(e)pyrene**

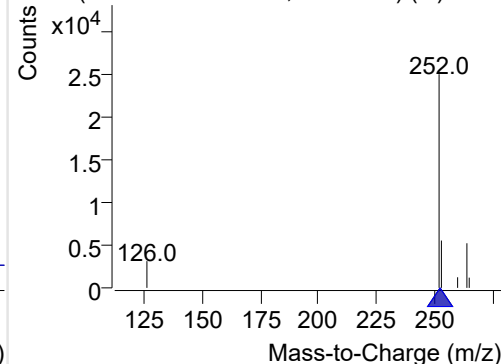
+ Selected Ion (252.0) 220204-PAHs-031.D



252.0, 253.0

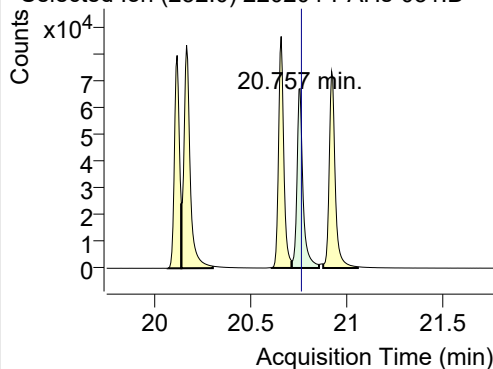


+ SIM (20.611-20.714 min, 20 scans) (\*\*) 2202

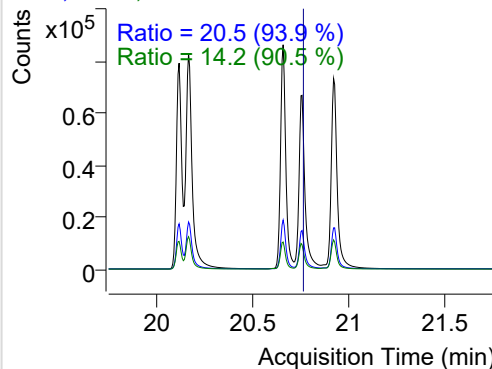


**Benzo(a)pyrene**

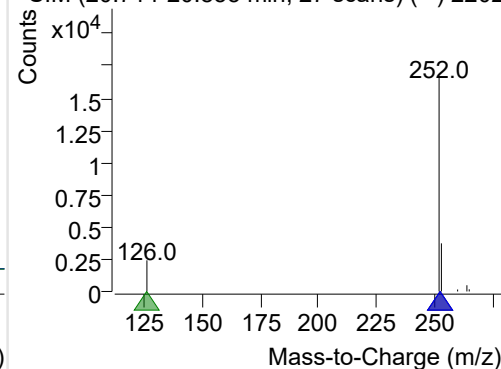
+ Selected Ion (252.0) 220204-PAHs-031.D



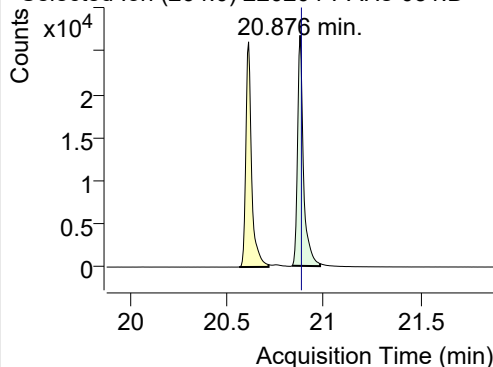
252.0, 253.0, 126.0



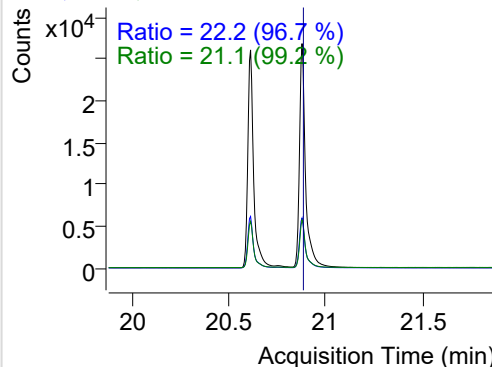
+ SIM (20.714-20.855 min, 27 scans) (\*\*) 2202

**IS-D12-Perylene**

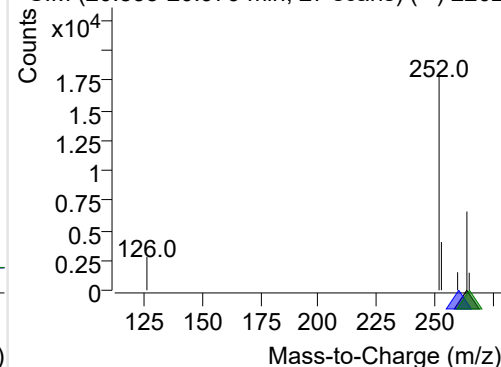
+ Selected Ion (264.0) 220204-PAHs-031.D



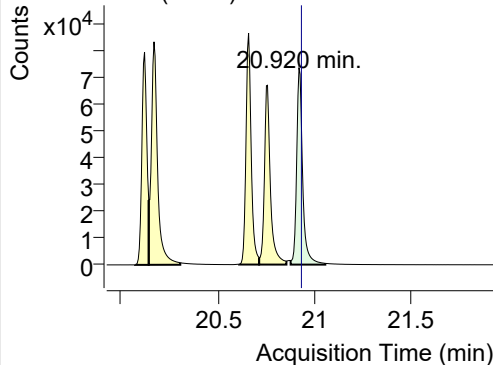
264.0, 260.0, 265.0



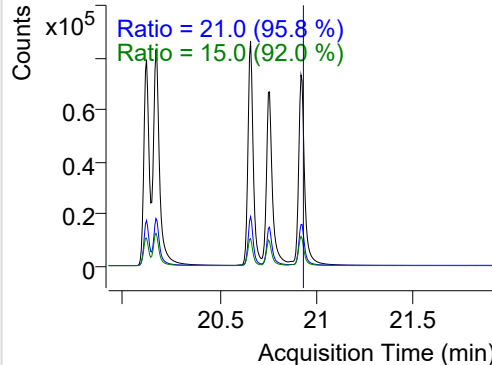
+ SIM (20.835-20.979 min, 27 scans) (\*\*) 2202

**Perylene**

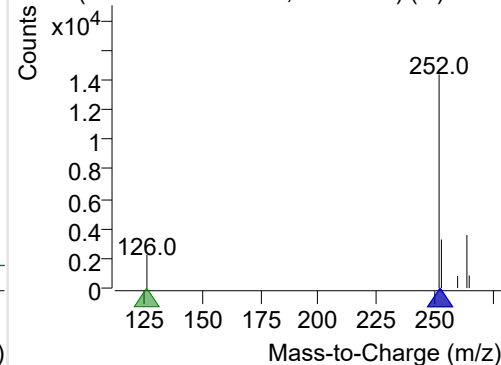
+ Selected Ion (252.0) 220204-PAHs-031.D



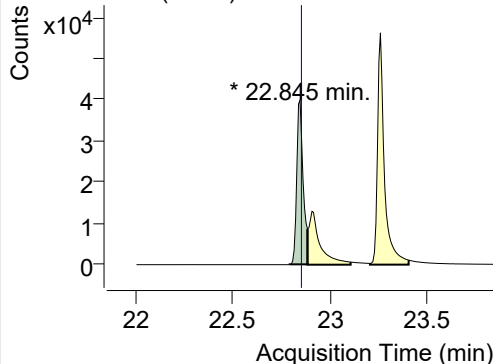
252.0, 253.0, 126.0



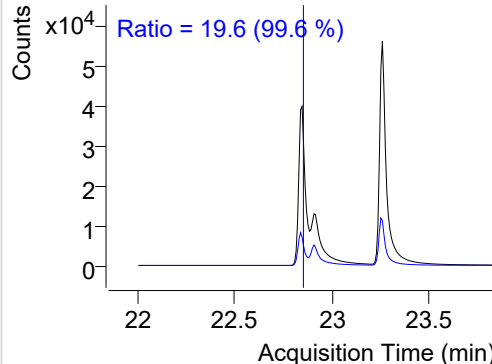
+ SIM (20.876-21.055 min, 34 scans) (\*\*) 2202

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

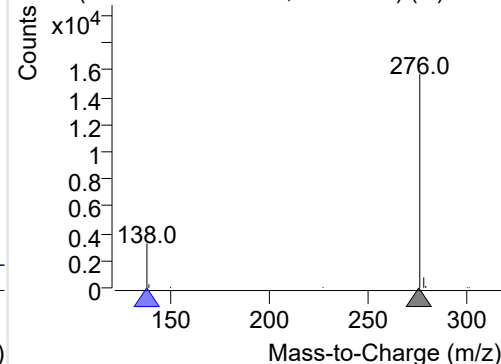
+ Selected Ion (276.0) 220204-PAHs-031.D



276.0, 138.0

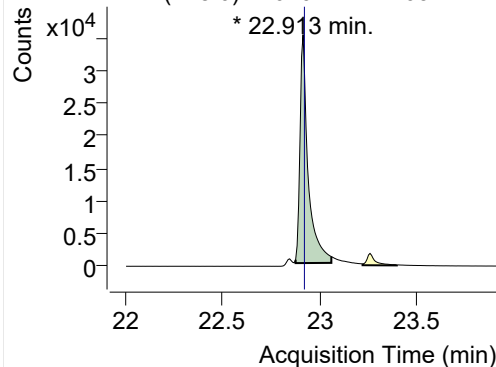


+ SIM (22.791-22.883 min, 13 scans) (\*\*) 2202

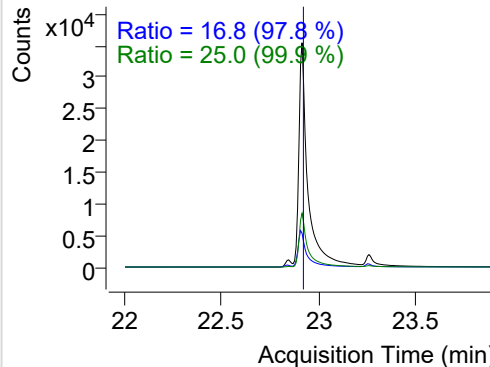


**Dibenz(a,h)anthracene**

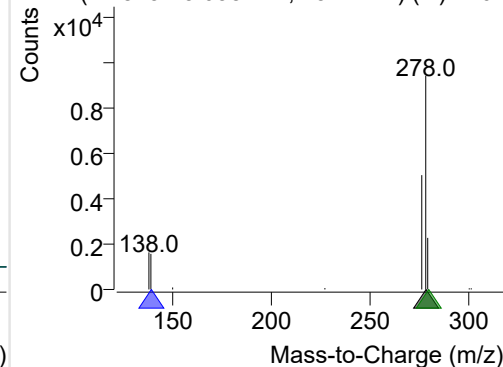
+ Selected Ion (278.0) 220204-PAHs-031.D



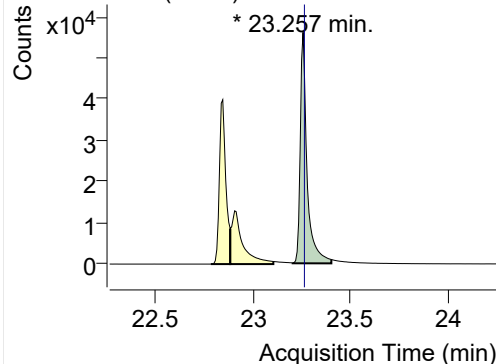
278.0, 139.0, 279.0



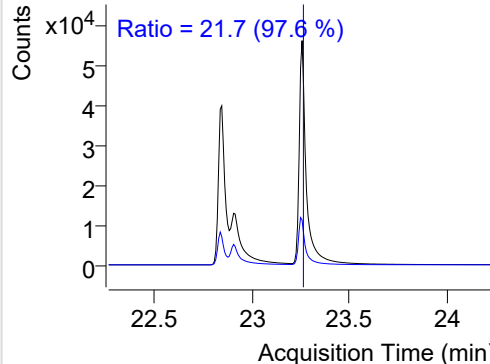
+ SIM (22.875-23.058 min, 25 scans) (\*\*) 2202

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

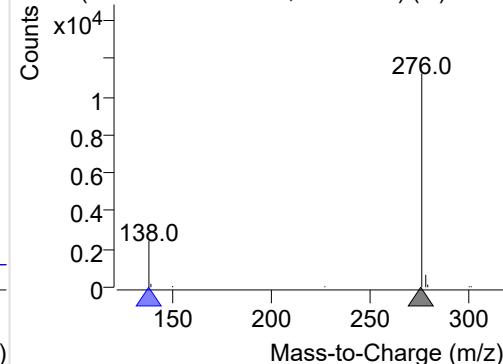
+ Selected Ion (276.0) 220204-PAHs-031.D



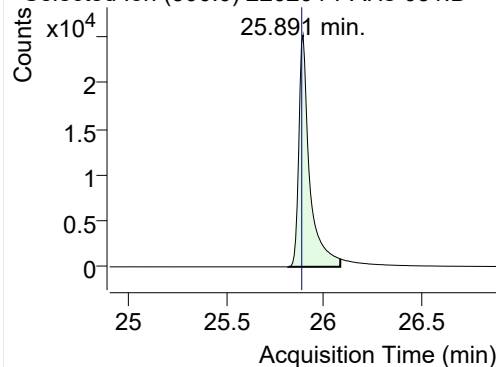
276.0, 138.0



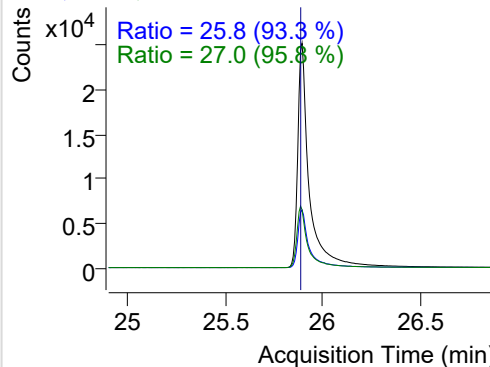
+ SIM (23.203-23.402 min, 27 scans) (\*\*) 2202

**Coronene**

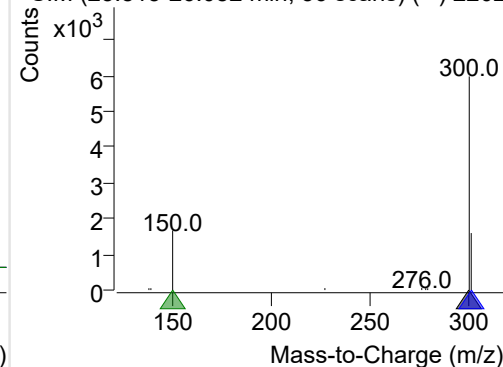
+ Selected Ion (300.0) 220204-PAHs-031.D



300.0, 301.0, 150.0



+ SIM (25.815-26.082 min, 36 scans) (\*\*) 2202





## Quantitative Analysis Sample Based Report

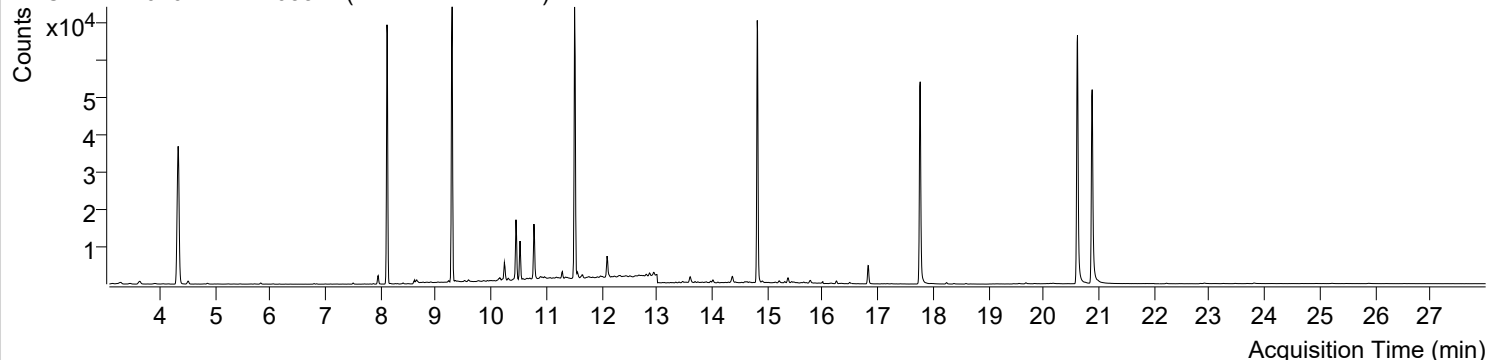


Trusted Answers

Batch Data Path File Name	D:\MassHunter\GCMS\1\data\PAHs\220204-PAHs-Sample\QuantResults\220204-PAHs-Quant.batch.bin		
Analysis Time Stamp	2022-04-13 오후 3:18:46	Analyst Name	DESKTOP-86B7UPG\5975MS
Report Generation Time	2022-04-13 오후 3:19:11	Report Generator Name	DESKTOP-86B7UPG\5975MS
Calibration Last Update	2022-04-13 오후 3:16:00	Batch State	Processed
Analyze Quant Version	10.2	Report Quant Version	10.2
Acq. Date-Time	2022-02-05 오전 6:47:12	Data File	220204-PAHs-033.D
Type	Sample	Name	Method blank-PM
Dil.	1	Acq. Method File	PAHs 19mix-Method

## Sample Chromatogram

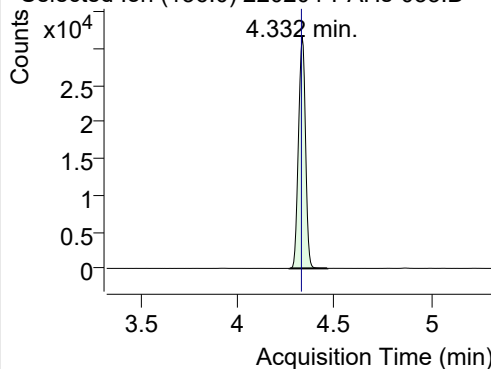
+ TIC SIM 220204-PAHs-033.D (Method blank-PM)



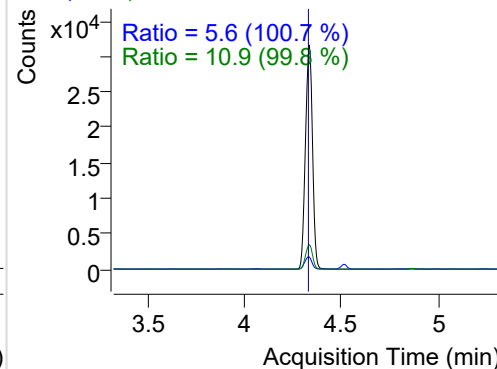
Name	RT	Transition	Resp.	Height	Final Conc. Units	Ratio
IS-D8-Naphthalene	4.332	136.0	79258	31573.62	ND ng/ml	10.9
Naphthalene	4.365	128.0	697	265.50	ND ng/ml	15.9
Acenaphthylene	7.745	152.0	20	10.10	ND ng/ml	
IS-D10-Acenaphthene	8.112	164.0	50539	33499.39	ND ng/ml	92.0
Acenaphthene	8.183	154.0	45	35.59	ND ng/ml	169.0
LSS-D10-Fluorene	9.292	176.0	54202	35241.26	ND µg/mL	88.0
Fluorene	9.355	166.0	184	122.53	ND µg/mL	115.3
IS-D10-Phenanthrene	11.508	188.0	92563	57637.85	ND µg/mL	15.0
Phenanthrene	11.560	178.0	1477	952.72	ND µg/mL	18.4
Anthracene	11.655	178.0	364	212.08	ND µg/mL	24.7
Fluoranthene	14.359	202.0	808	484.88	ND µg/mL	37.6
LSS-D10-Pyrene	14.814	212.0	81827	52601.95	ND µg/mL	16.9
Pyrene	14.852	202.0	791	385.53	ND µg/mL	62.9
Benz(a)anthracene	17.758	228.0	313	113.74	ND µg/mL	8.2
IS-D12-Chrysene	17.763	240.0	74631	41323.57	ND µg/mL	18.9
Chrysene	17.817	228.0	209	84.35	ND µg/mL	13.5
Benzo(b)fluoranthene	20.122	252.0	99	52.46	ND µg/mL	
Benzo(k)fluoranthene	20.171	252.0	211	67.33	ND µg/mL	44.6
SS-D12-Benzo(e)pyrene	20.610	264.0	90239	45831.54	ND µg/mL	22.6
Benzo(e)pyrene	20.654	252.0	91	45.81	ND µg/mL	
Benzo(a)pyrene	20.751	252.0	105	43.63	ND µg/mL	
IS-D12-Perylene	20.876	264.0	74321	35852.50	ND µg/mL	21.9
Perylene	20.920	252.0	132	49.77	ND µg/mL	
Indeno(1,2,3-c,d)pyrene	22.837	276.0	146	55.73	ND µg/mL	
Dibenz(a,h)anthracene	22.905	278.0	363	81.34	ND µg/mL	22.9
Benzo(g,h,i)perylene	23.249	276.0	120	42.99	ND µg/mL	20.0
Coronene	25.876	300.0	309	50.85	ND µg/mL	29.7

## IS-D8-Naphthalene

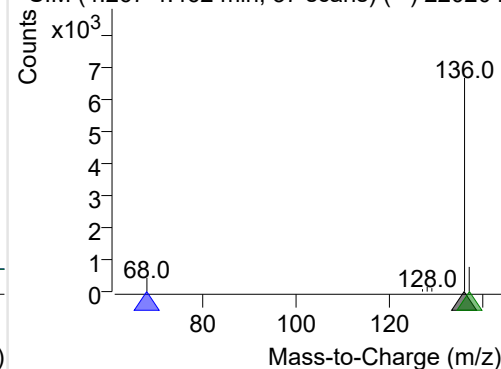
+ Selected Ion (136.0) 220204-PAHs-033.D



136.0, 68.0, 137.0

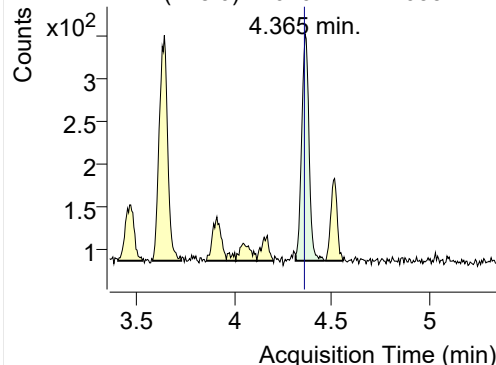


+ SIM (4.267-4.462 min, 37 scans) (\*\*) 220204

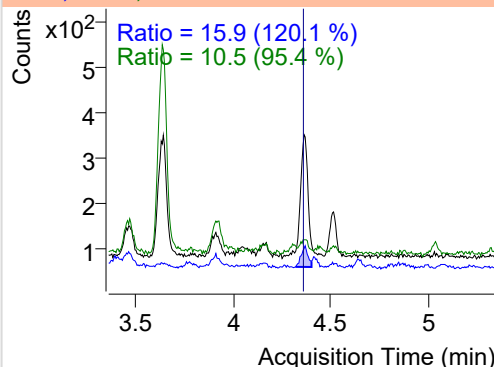


**Naphthalene**

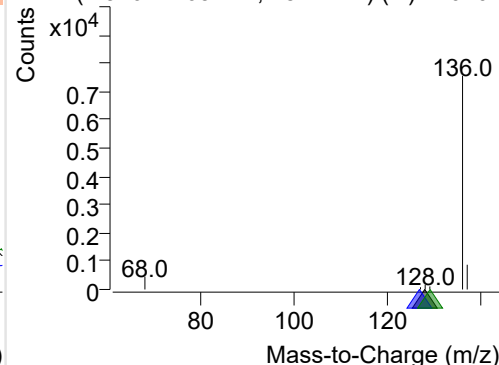
+ Selected Ion (128.0) 220204-PAHs-033.D



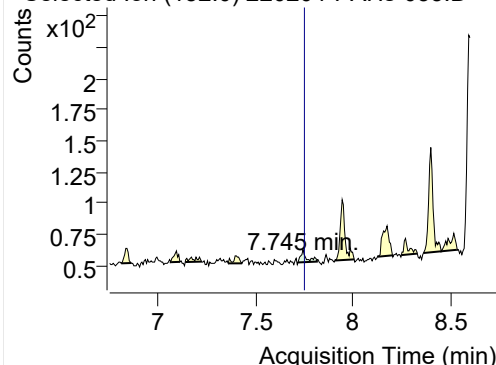
128.0, 127.0, 129.0



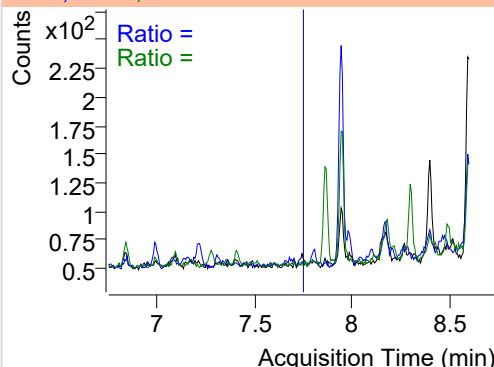
+ SIM (4.316-4.465 min, 28 scans) (\*\*) 220204

**Acenaphthylene**

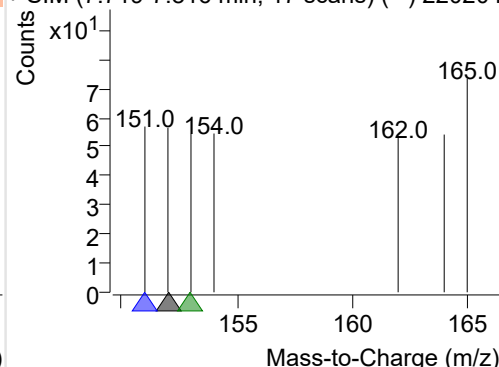
+ Selected Ion (152.0) 220204-PAHs-033.D



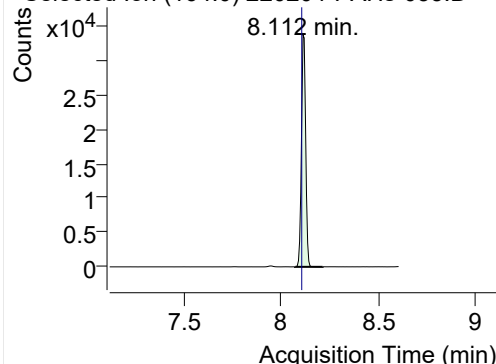
152.0, 151.0, 153.0



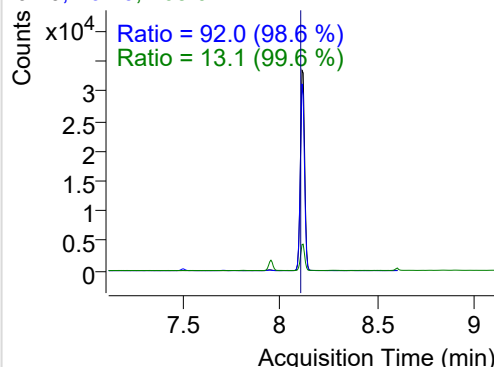
+ SIM (7.719-7.816 min, 17 scans) (\*\*) 220204

**IS-D10-Acenaphthene**

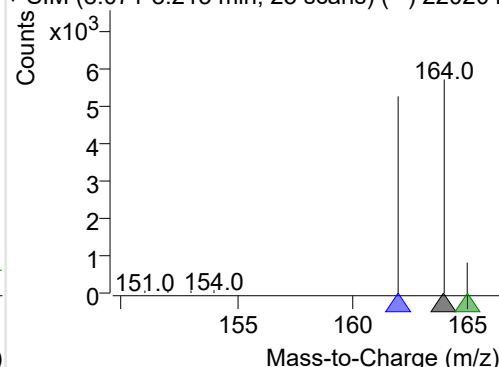
+ Selected Ion (164.0) 220204-PAHs-033.D



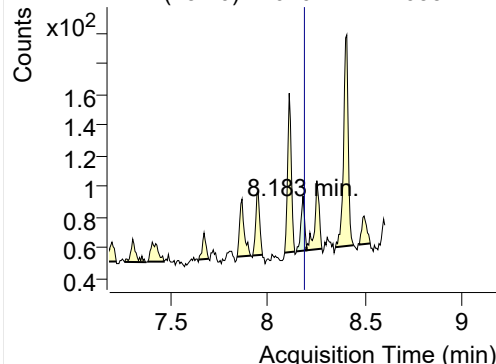
164.0, 162.0, 165.0



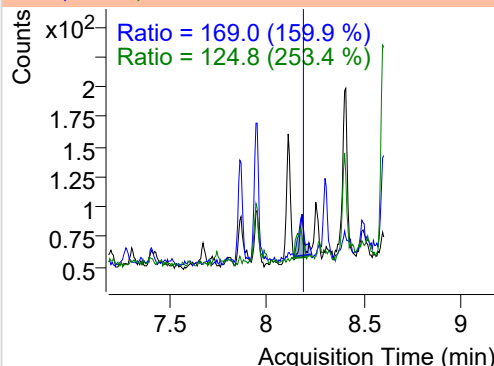
+ SIM (8.071-8.213 min, 25 scans) (\*\*) 220204

**Acenaphthene**

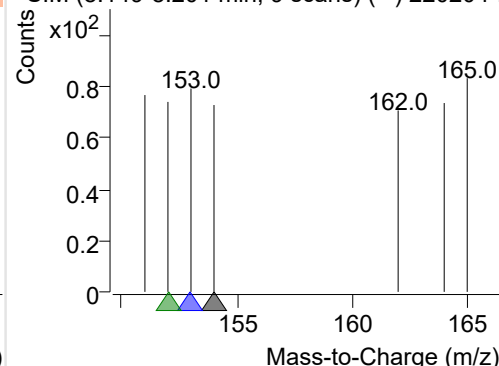
+ Selected Ion (154.0) 220204-PAHs-033.D



154.0, 153.0, 152.0

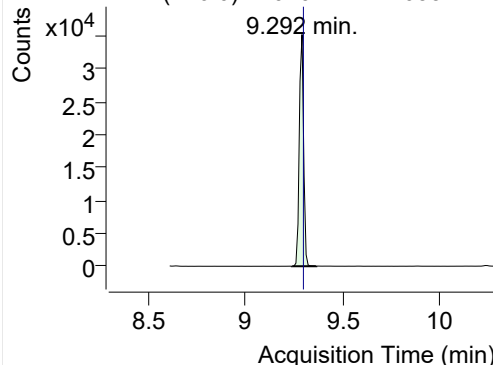


+ SIM (8.149-8.201 min, 9 scans) (\*\*) 220204-I

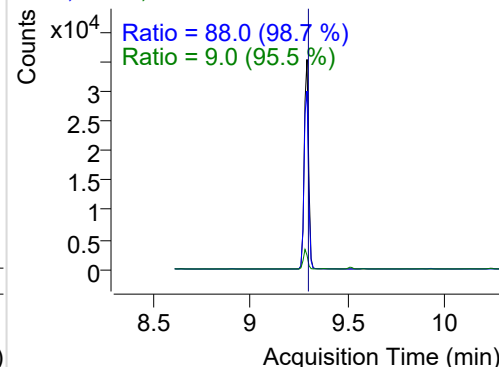


## LSS-D10-Fluorene

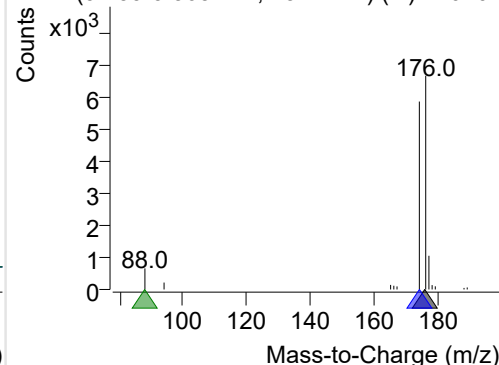
+ Selected Ion (176.0) 220204-PAHs-033.D



176.0, 174.0, 88.0

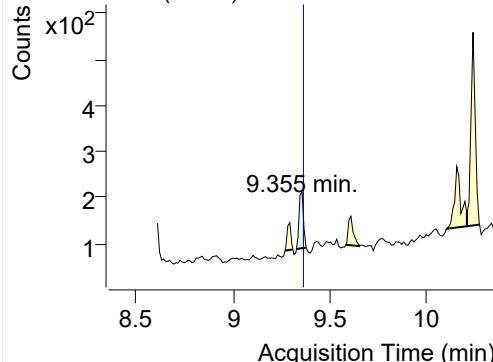


+ SIM (9.239-9.365 min, 13 scans) (\*\*) 220204

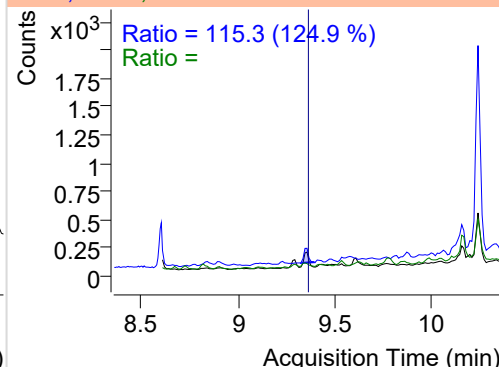


## Fluorene

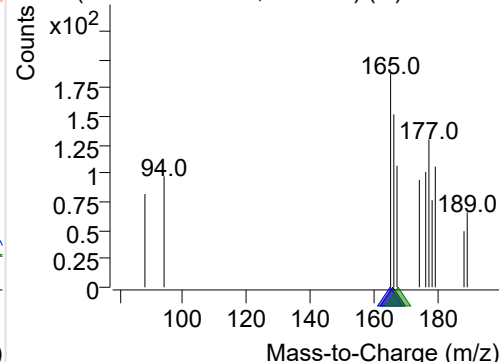
+ Selected Ion (166.0) 220204-PAHs-033.D



166.0, 165.0, 167.0

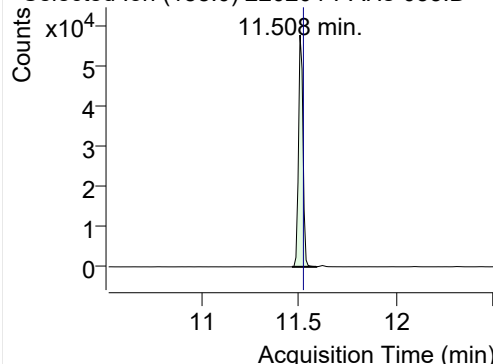


+ SIM (9.326-9.376 min, 5 scans) (\*\*) 220204-I

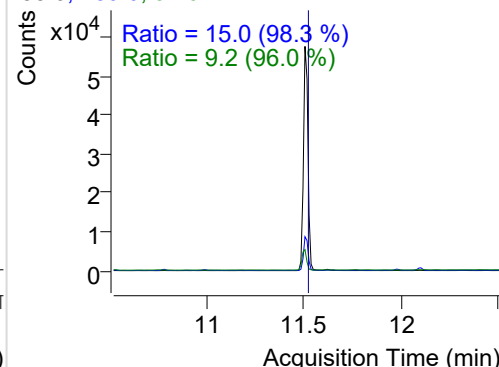


## IS-D10-Phenanthrene

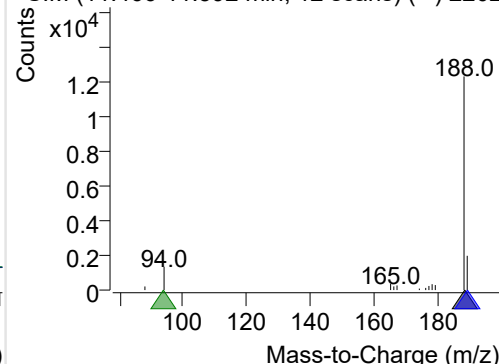
+ Selected Ion (188.0) 220204-PAHs-033.D



188.0, 189.0, 94.0

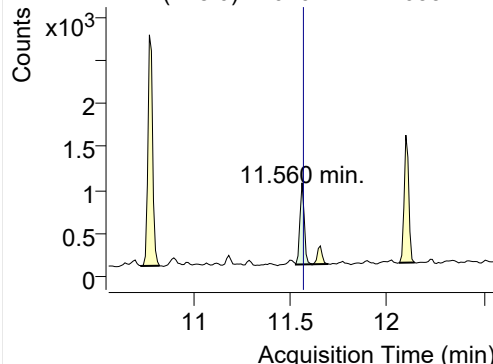


+ SIM (11.466-11.592 min, 12 scans) (\*\*) 2202

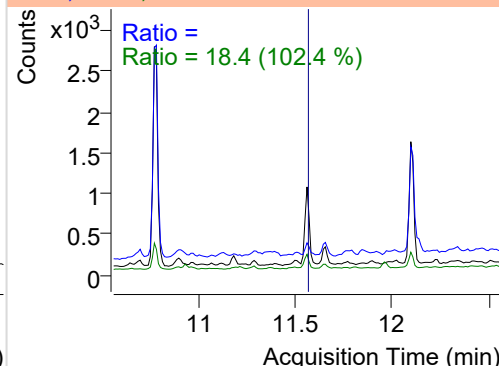


## Phenanthrene

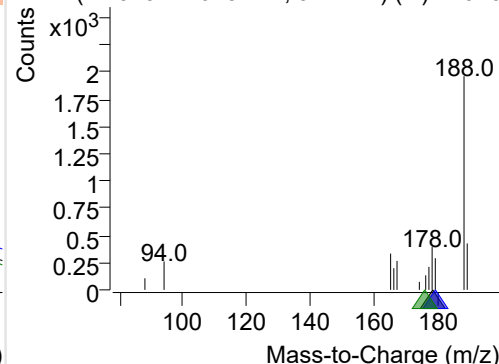
+ Selected Ion (178.0) 220204-PAHs-033.D



178.0, 179.0, 176.0

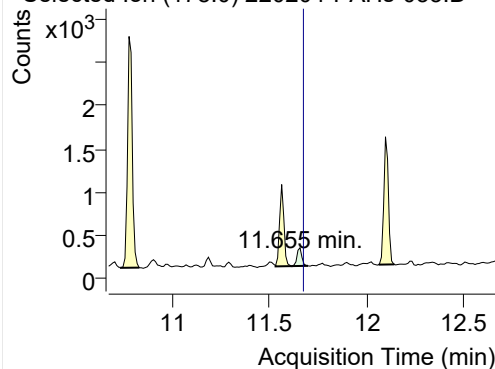


+ SIM (11.529-11.613 min, 9 scans) (\*\*) 22020

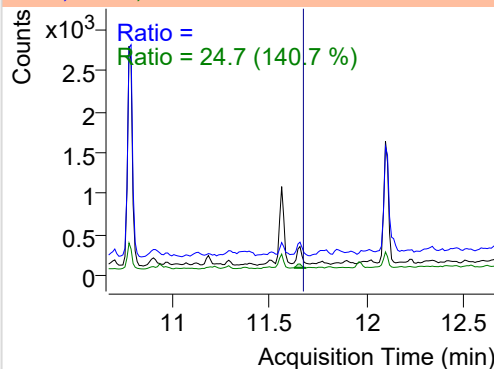


**Anthracene**

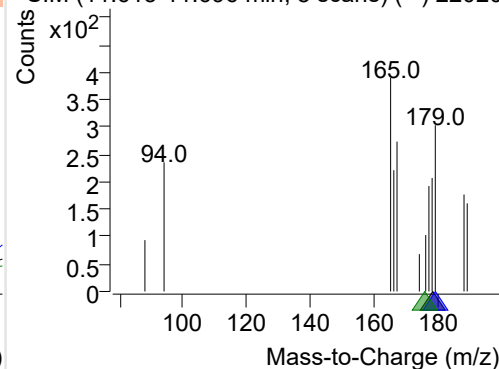
+ Selected Ion (178.0) 220204-PAHs-033.D



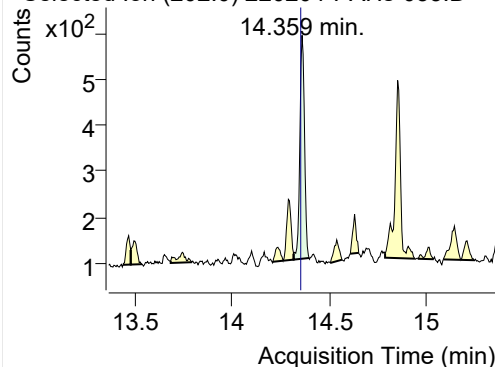
178.0, 179.0, 176.0



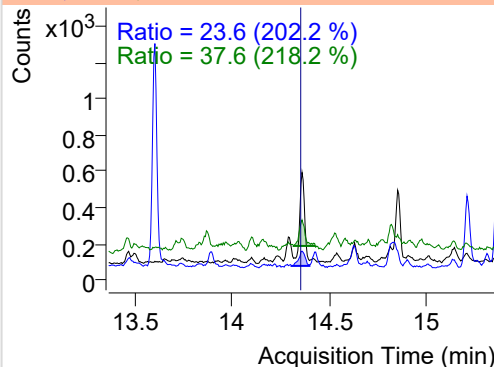
+ SIM (11.613-11.696 min, 8 scans) (\*\*) 22020

**Fluoranthene**

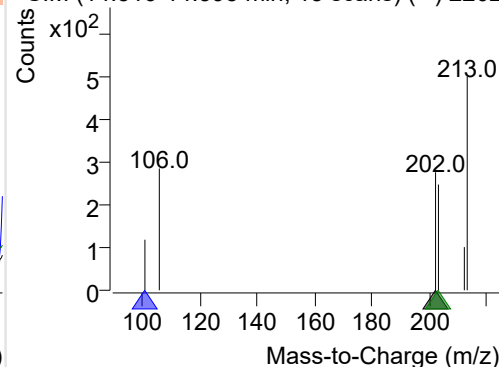
+ Selected Ion (202.0) 220204-PAHs-033.D



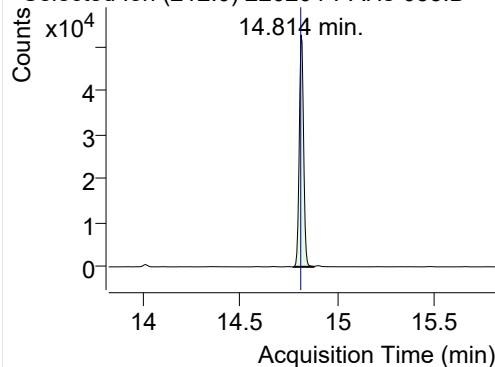
202.0, 101.0, 203.0



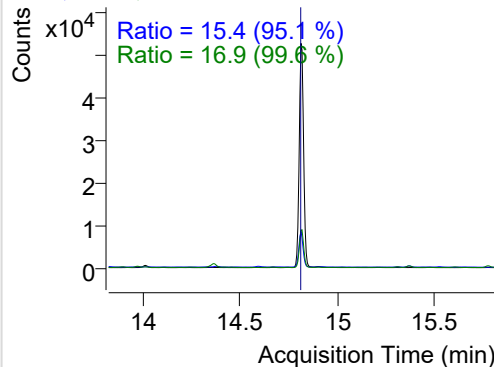
+ SIM (14.316-14.395 min, 15 scans) (\*\*) 2202

**LSS-D10-Pyrene**

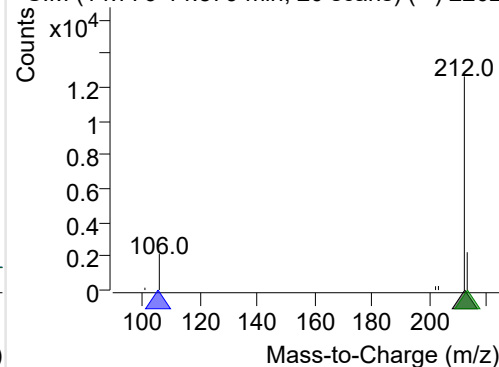
+ Selected Ion (212.0) 220204-PAHs-033.D



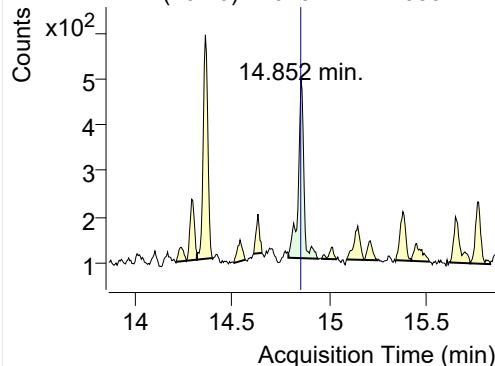
212.0, 106.0, 213.0



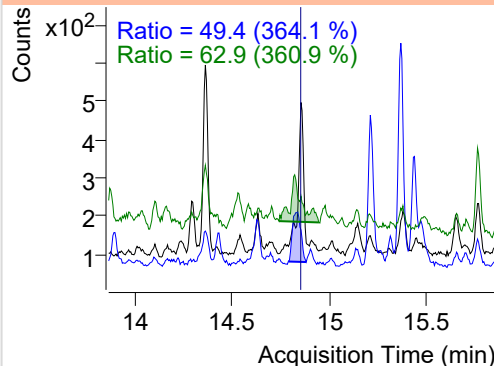
+ SIM (14.776-14.879 min, 20 scans) (\*\*) 2202

**Pyrene**

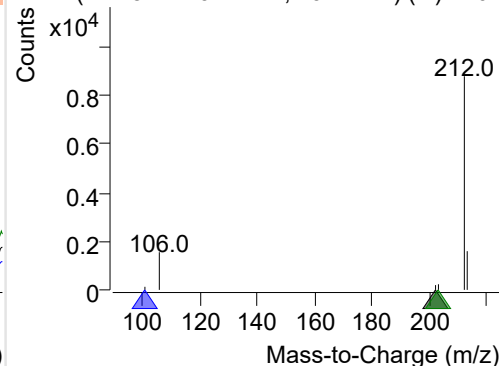
+ Selected Ion (202.0) 220204-PAHs-033.D



202.0, 101.0, 203.0



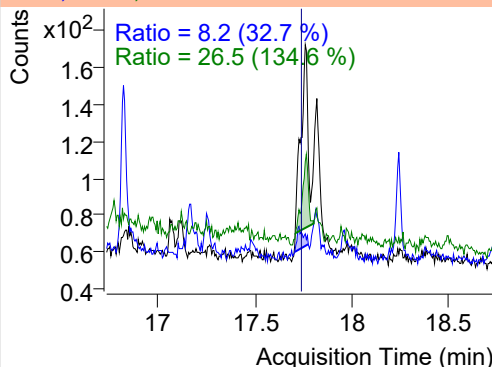
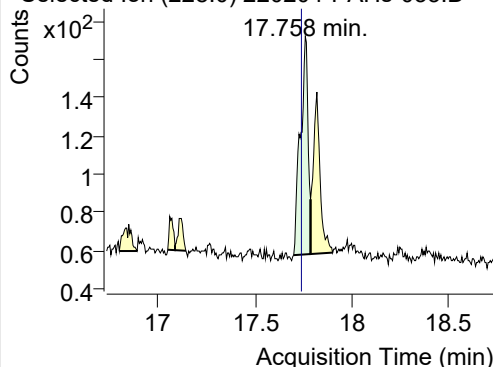
+ SIM (14.787-14.941 min, 29 scans) (\*\*) 2202



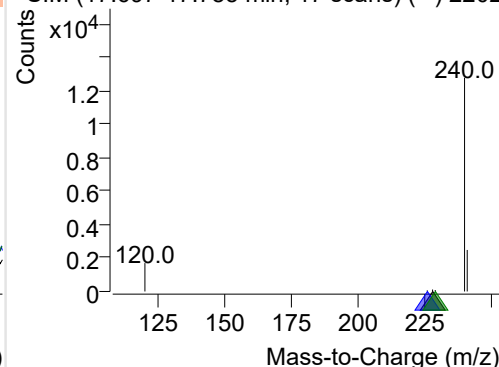
**Benz(a)anthracene**

+ Selected Ion (228.0) 220204-PAHs-033.D

228.0, 226.0, 229.0

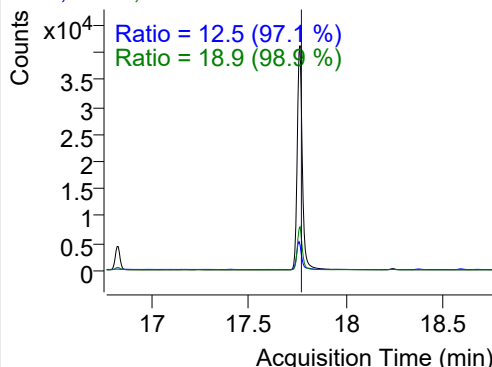
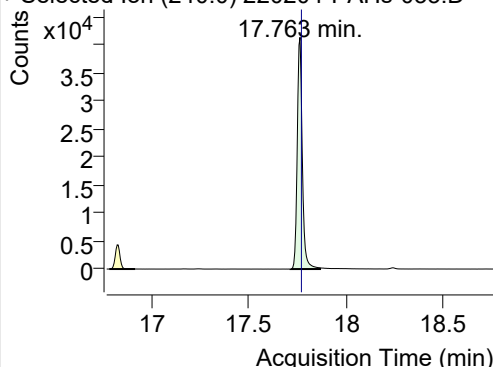


+ SIM (17.697-17.785 min, 17 scans) (\*\*) 2202

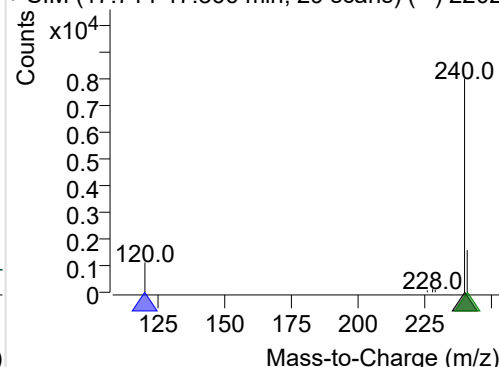
**IS-D12-Chrysene**

+ Selected Ion (240.0) 220204-PAHs-033.D

240.0, 120.0, 241.0

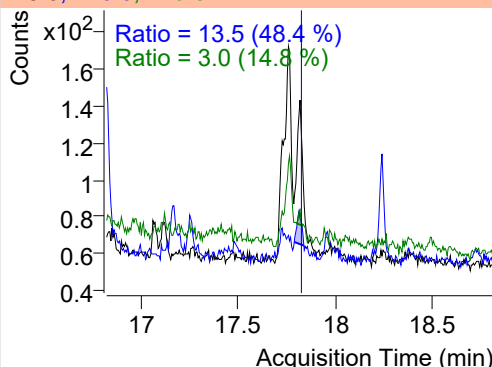
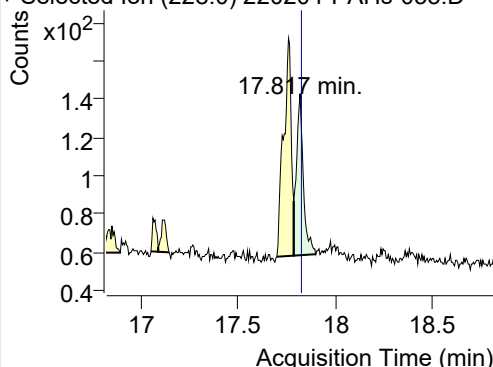


+ SIM (17.714-17.866 min, 29 scans) (\*\*) 2202

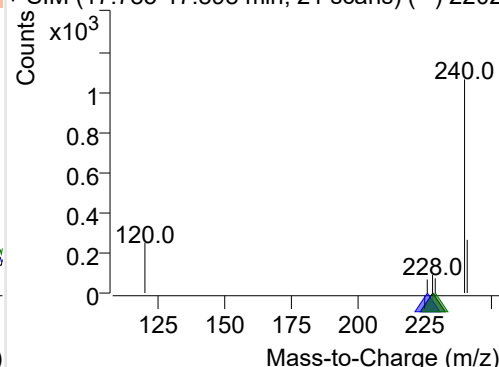
**Chrysene**

+ Selected Ion (228.0) 220204-PAHs-033.D

228.0, 226.0, 229.0

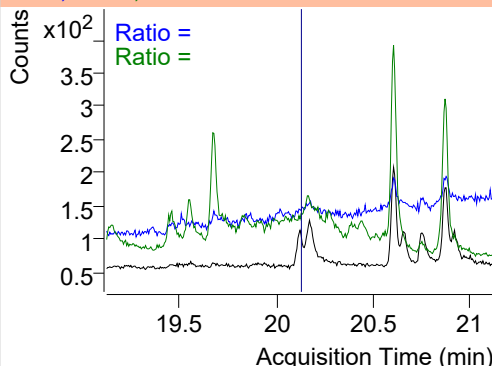
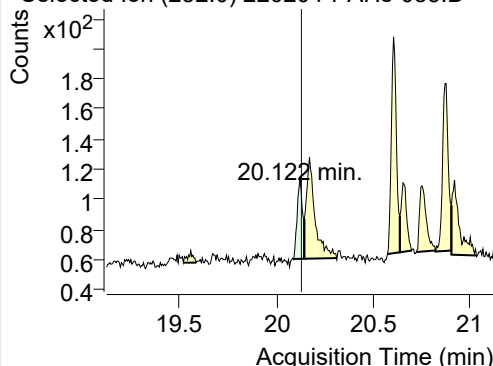


+ SIM (17.785-17.898 min, 21 scans) (\*\*) 2202

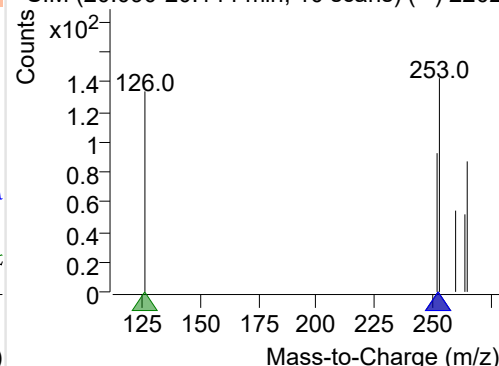
**Benzo(b)fluoranthene**

+ Selected Ion (252.0) 220204-PAHs-033.D

252.0, 253.0, 126.0



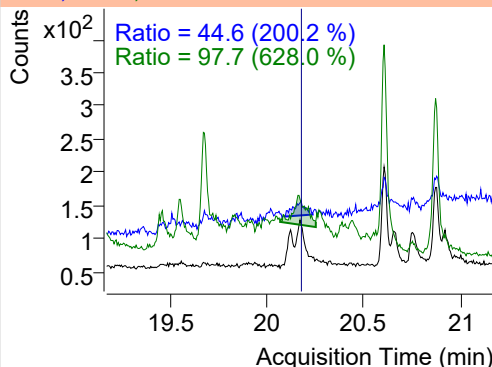
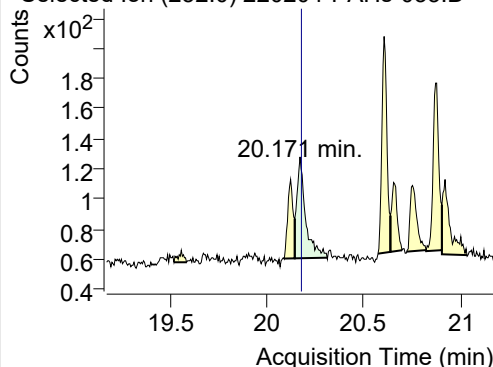
+ SIM (20.090-20.144 min, 10 scans) (\*\*) 2202



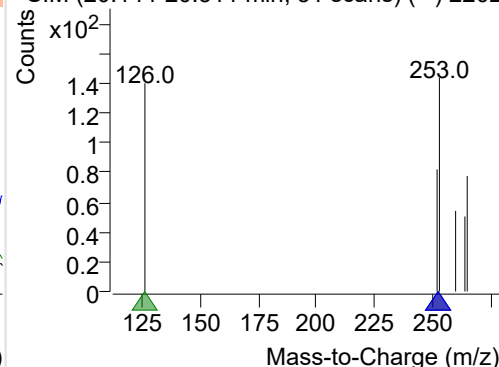
**Benzo(k)fluoranthene**

+ Selected Ion (252.0) 220204-PAHs-033.D

252.0, 253.0, 126.0

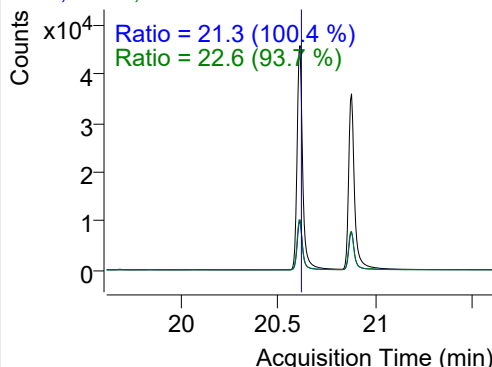
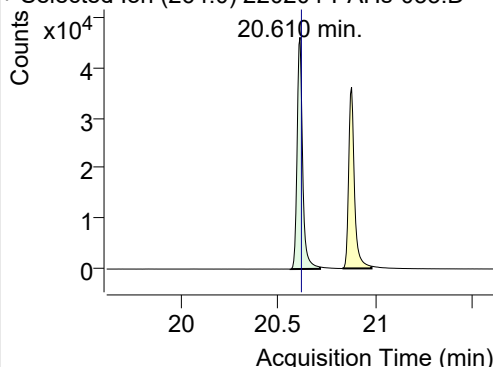


+ SIM (20.144-20.311 min, 31 scans) (\*\*) 2202

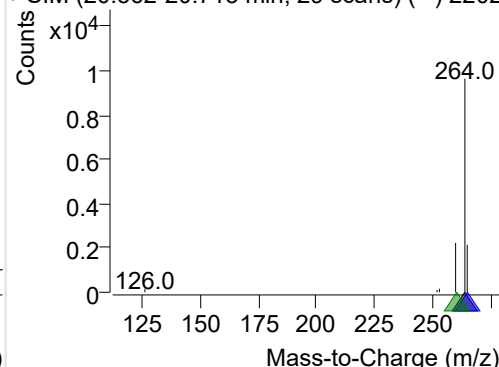
**SS-D12-Benzo(e)pyrene**

+ Selected Ion (264.0) 220204-PAHs-033.D

264.0, 265.0, 260.0

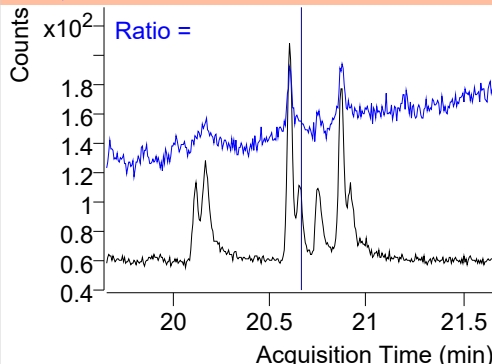
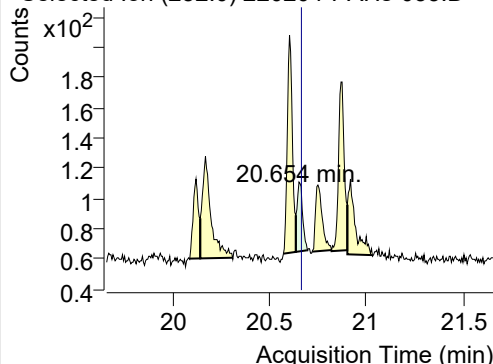


+ SIM (20.562-20.713 min, 29 scans) (\*\*) 2202

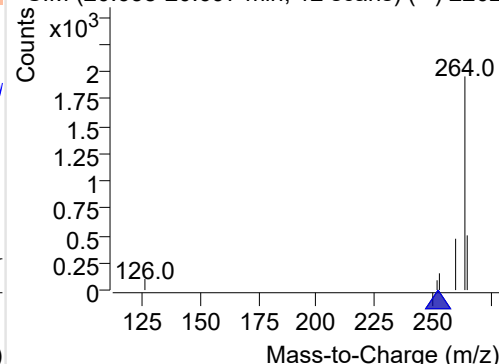
**Benzo(e)pyrene**

+ Selected Ion (252.0) 220204-PAHs-033.D

252.0, 253.0

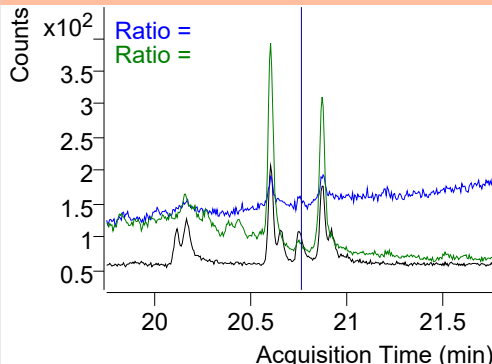
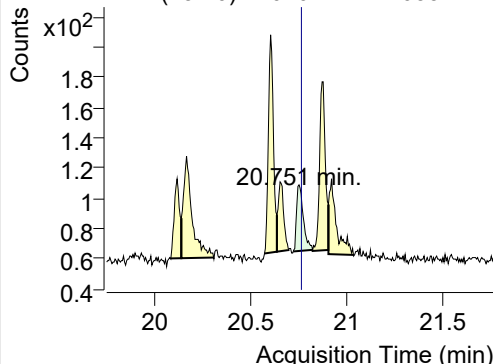


+ SIM (20.638-20.697 min, 12 scans) (\*\*) 2202

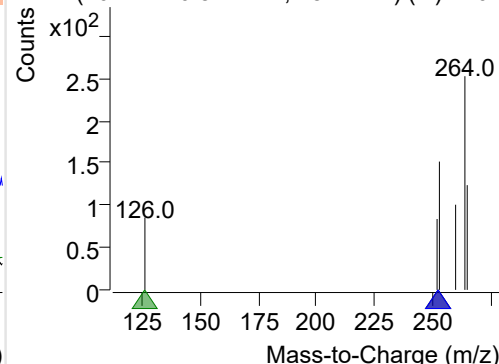
**Benzo(a)pyrene**

+ Selected Ion (252.0) 220204-PAHs-033.D

252.0, 253.0, 126.0

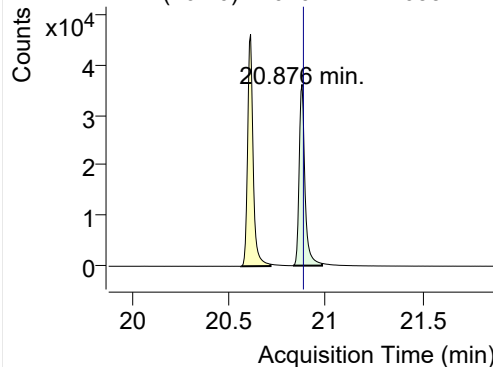


+ SIM (20.722-20.822 min, 18 scans) (\*\*) 2202

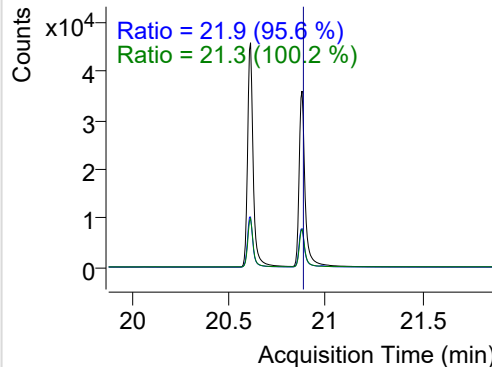


## IS-D12-Perylene

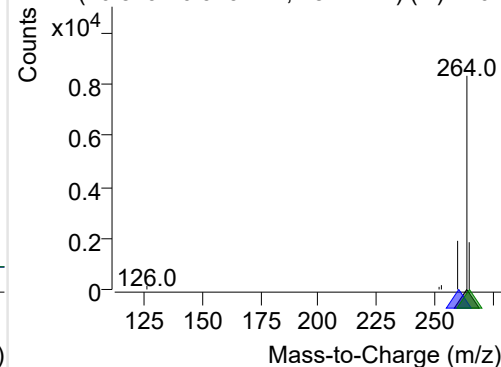
+ Selected Ion (264.0) 220204-PAHs-033.D



264.0, 260.0, 265.0

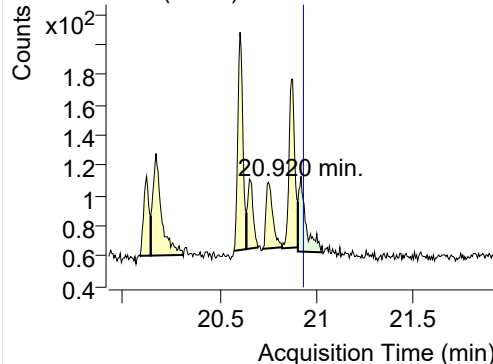


+ SIM (20.829-20.979 min, 28 scans) (\*\*) 2202

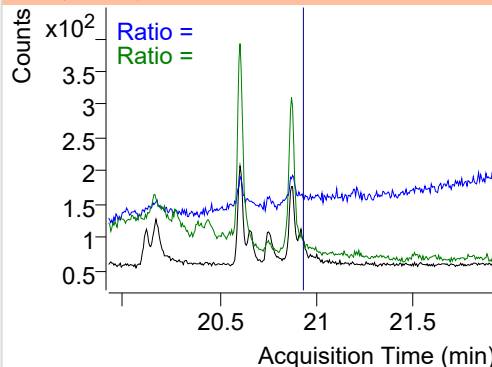


## Perylene

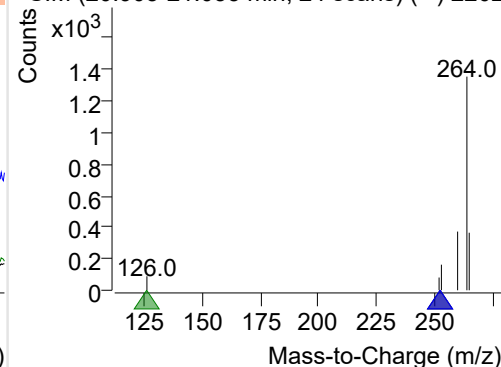
+ Selected Ion (252.0) 220204-PAHs-033.D



252.0, 253.0, 126.0

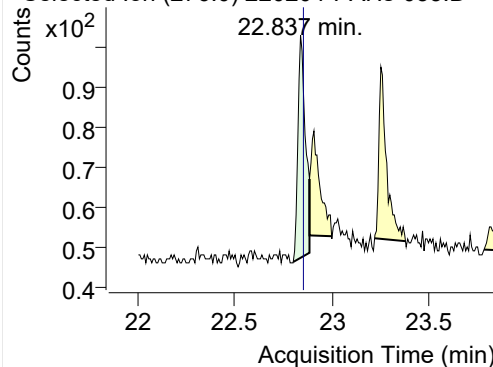


+ SIM (20.903-21.033 min, 24 scans) (\*\*) 2202

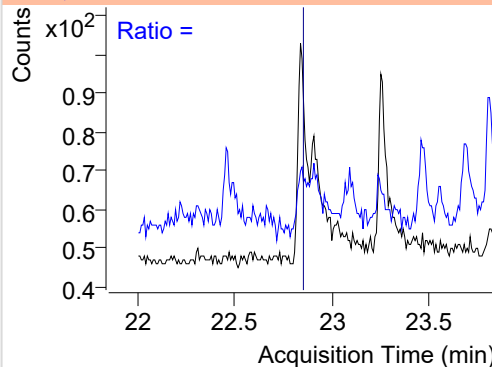


## Indeno(1,2,3-c,d)pyrene

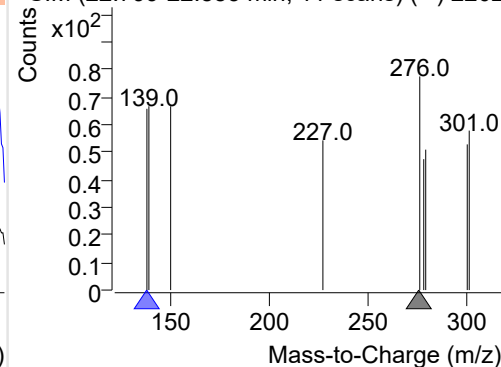
+ Selected Ion (276.0) 220204-PAHs-033.D



276.0, 138.0

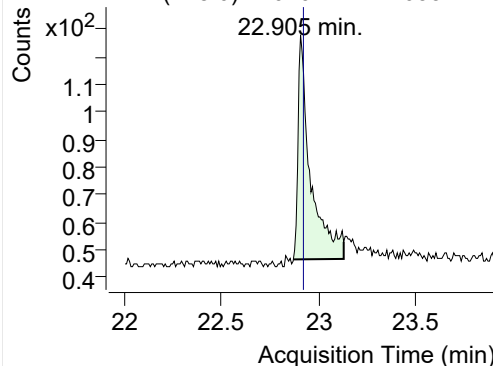


+ SIM (22.799-22.883 min, 11 scans) (\*\*) 2202

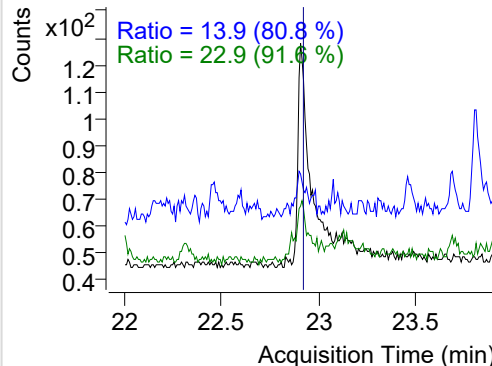


## Dibenz(a,h)anthracene

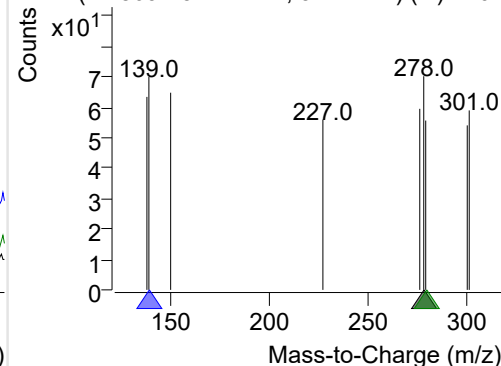
+ Selected Ion (278.0) 220204-PAHs-033.D



278.0, 139.0, 279.0

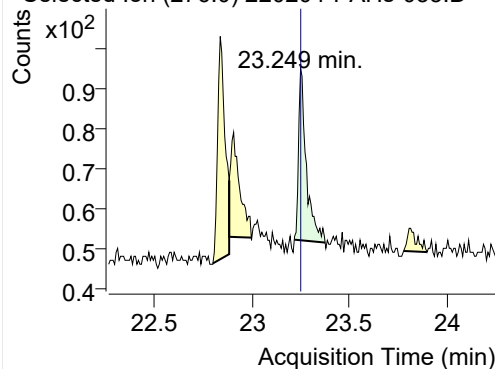


+ SIM (22.869-23.127 min, 34 scans) (\*\*) 2202

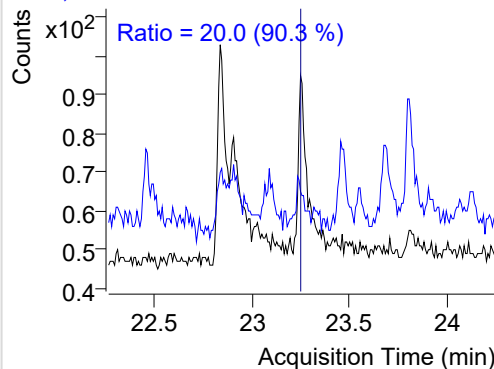


**Benzo(g,h,i)perylene**

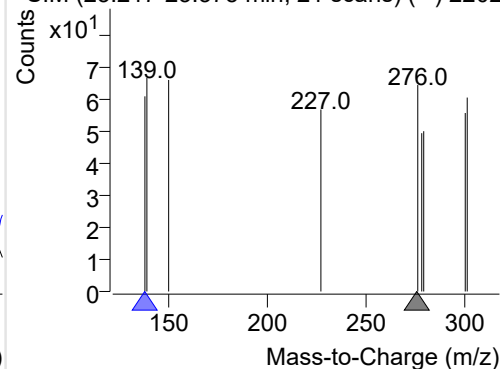
+ Selected Ion (276.0) 220204-PAHs-033.D



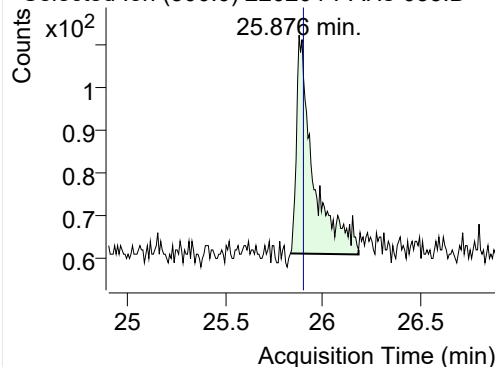
276.0, 138.0



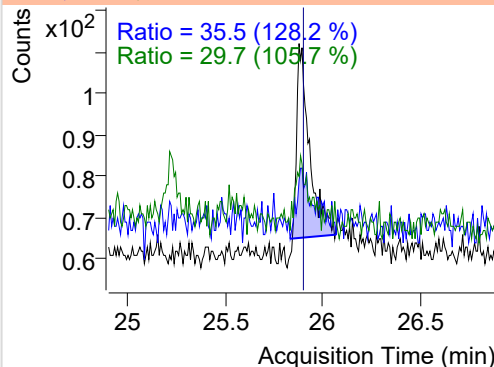
+ SIM (23.217-23.375 min, 21 scans) (\*\*) 2202

**Coronene**

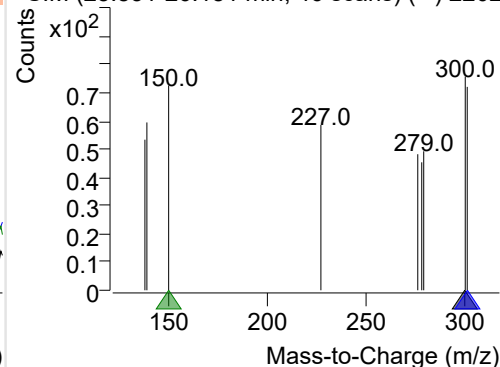
+ Selected Ion (300.0) 220204-PAHs-033.D



300.0, 301.0, 150.0



+ SIM (25.831-26.181 min, 46 scans) (\*\*) 2202





## Quantitative Analysis Sample Based Report

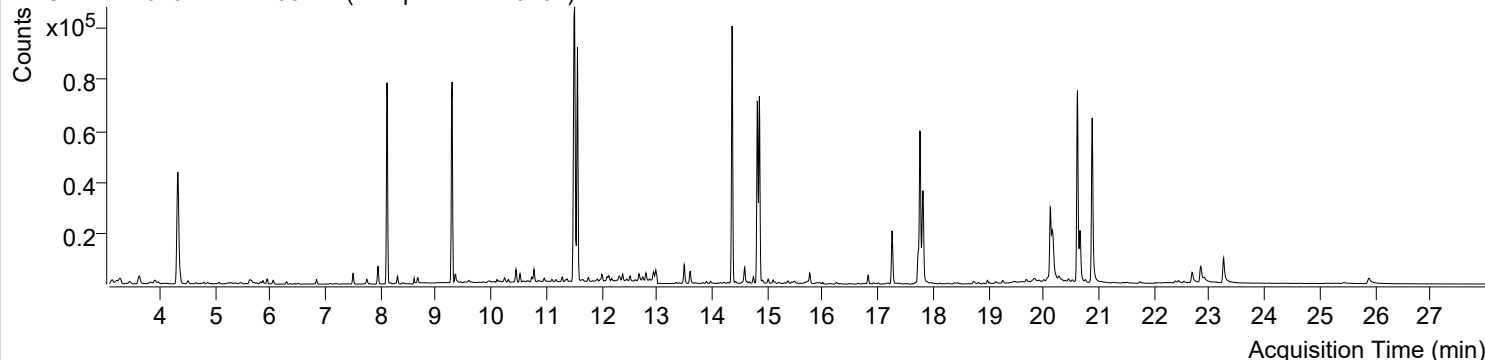


Trusted Answers

Batch Data Path File Name	D:\MassHunter\GCMS\1\data\PAHs\220204-PAHs-Sample\QuantResults\220204-PAHs-Quant.batch.bin		
Analysis Time Stamp	2022-04-13 오후 3:18:46	Analyst Name	DESKTOP-86B7UPG\5975MS
Report Generation Time	2022-04-13 오후 3:19:11	Report Generator Name	DESKTOP-86B7UPG\5975MS
Calibration Last Update	2022-04-13 오후 3:16:00	Batch State	Processed
Analyze Quant Version	10.2	Report Quant Version	10.2
Acq. Date-Time	2022-02-05 오전 7:18:21	Data File	220204-PAHs-034.D
Type	Sample	Name	Sample-PM-220107
Dil.	1	Acq. Method File	PAHs 19mix-Method

## Sample Chromatogram

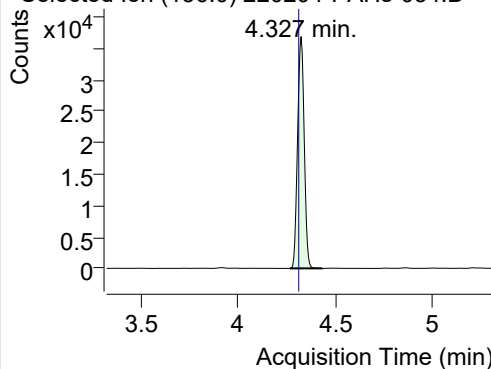
+ TIC SIM 220204-PAHs-034.D (Sample-PM-220107)



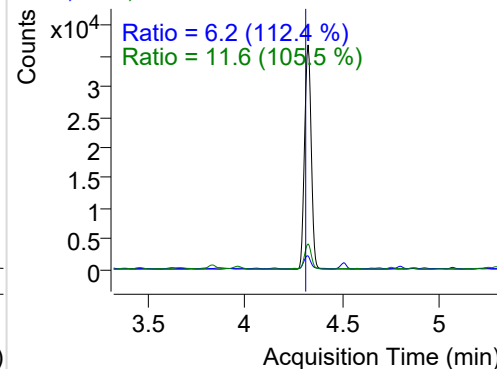
Name	RT	Transition	Resp.	Height	Final Conc. Units	Ratio
IS-D8-Naphthalene	4.327	136.0	87540	36799.93	ND ng/ml	11.6
Naphthalene	4.359	128.0	7141	2921.41	ND ng/ml	27.7
Acenaphthylene	7.745	152.0	1823	1183.31	ND ng/ml	36.6
IS-D10-Acenaphthene	8.112	164.0	56611	37964.29	ND ng/ml	92.1
Acenaphthene	8.183	154.0	250	134.30	ND ng/ml	109.5
LSS-D10-Fluorene	9.292	176.0	58375	37455.17	ND µg/mL	88.4
Fluorene	9.355	166.0	2627	1517.45	ND µg/mL	95.8
IS-D10-Phenanthrene	11.508	188.0	100904	65181.93	ND µg/mL	15.2
Phenanthrene	11.560	178.0	89308	60702.08	ND µg/mL	17.6
Anthracene	11.665	178.0	535	316.60	ND µg/mL	
Fluoranthene	14.359	202.0	118504	77659.68	ND µg/mL	17.2
LSS-D10-Pyrene	14.814	212.0	84726	52818.62	ND µg/mL	17.3
Pyrene	14.852	202.0	83301	54720.90	ND µg/mL	21.3
Benz(a)anthracene	17.725	228.0	15632	8383.29	ND µg/mL	25.7
IS-D12-Chrysene	17.763	240.0	81294	44471.57	ND µg/mL	18.9
Chrysene	17.812	228.0	52217	23816.12	ND µg/mL	27.2
Benzo(b)fluoranthene	20.117	252.0	37861	20911.29	ND µg/mL	21.3
Benzo(k)fluoranthene	20.155	252.0	37449	13355.89	ND µg/mL	19.2
SS-D12-Benzo(e)pyrene	20.610	264.0	96192	51192.43	ND µg/mL	22.7
Benzo(e)pyrene	20.659	252.0	26332	13193.07	ND µg/mL	21.5
Benzo(a)pyrene	20.752	252.0	1284	603.98	ND µg/mL	
IS-D12-Perylene	20.876	264.0	88432	44298.82	ND µg/mL	22.0
Perylene	20.920	252.0	338	188.02	ND µg/mL	
Indeno(1,2,3-c,d)pyrene	22.844	276.0	16308	5052.08	ND µg/mL	20.9
Dibenz(a,h)anthracene	22.906	278.0	1250	527.77	ND µg/mL	28.7
Benzo(g,h,i)perylene	23.257	276.0	20506	7709.11	ND µg/mL	21.4
Coronene	25.883	300.0	6920	1363.98	ND µg/mL	23.5

## IS-D8-Naphthalene

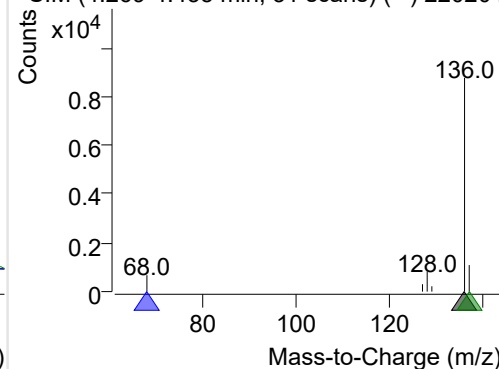
+ Selected Ion (136.0) 220204-PAHs-034.D



136.0, 68.0, 137.0

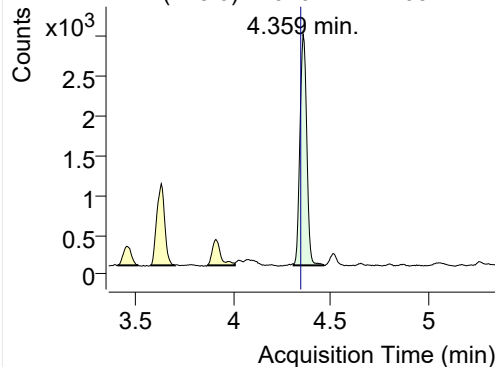


+ SIM (4.269-4.435 min, 31 scans) (\*\*) 220204

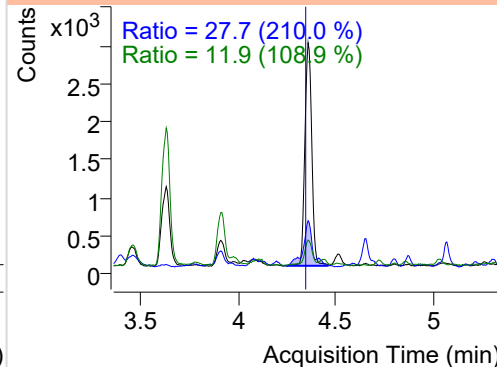


**Naphthalene**

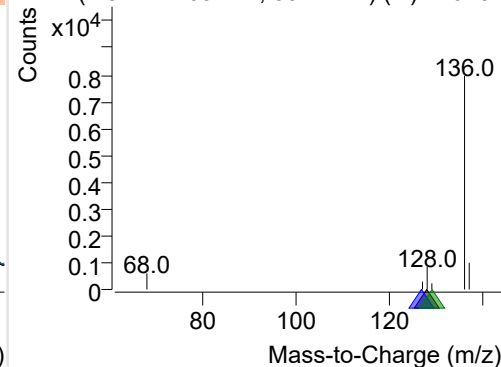
+ Selected Ion (128.0) 220204-PAHs-034.D



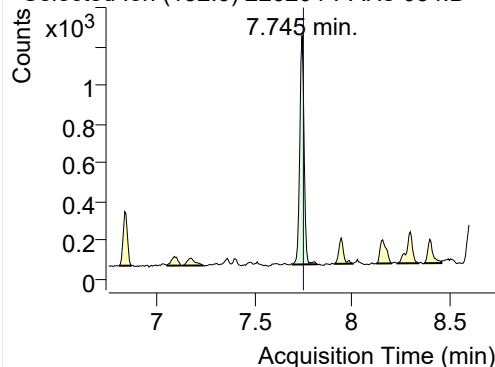
128.0, 127.0, 129.0



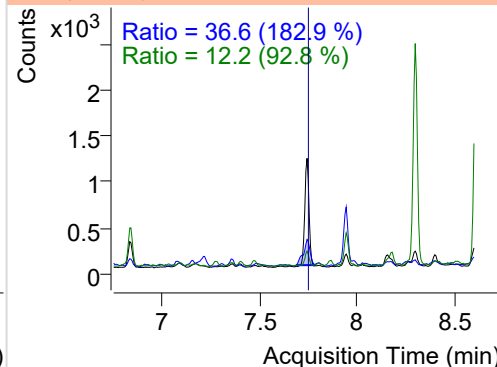
+ SIM (4.311-4.469 min, 30 scans) (\*\*) 220204

**Acenaphthylene**

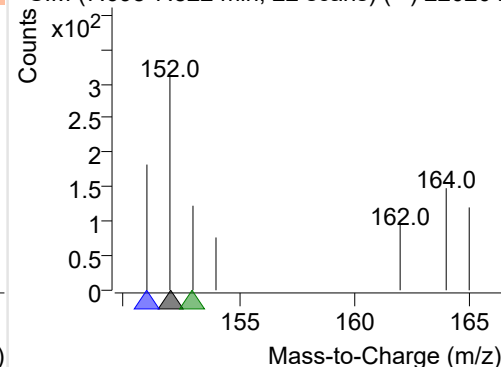
+ Selected Ion (152.0) 220204-PAHs-034.D



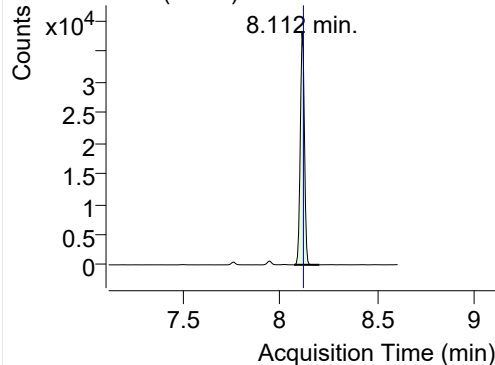
152.0, 151.0, 153.0



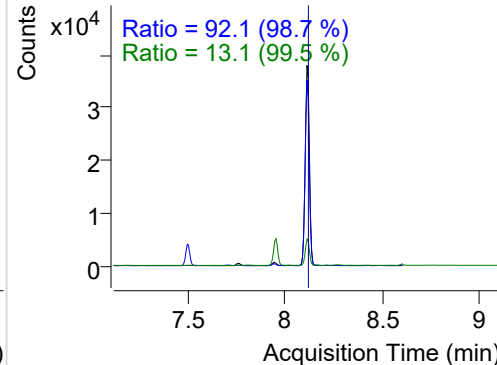
+ SIM (7.698-7.822 min, 22 scans) (\*\*) 220204

**IS-D10-Acenaphthene**

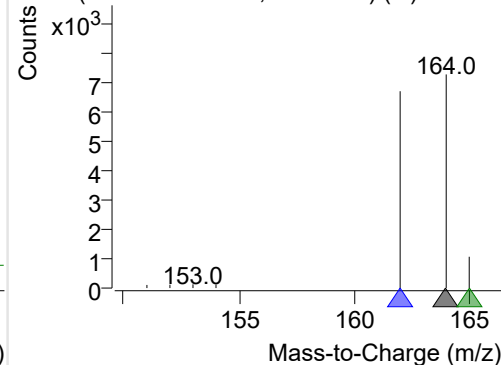
+ Selected Ion (164.0) 220204-PAHs-034.D



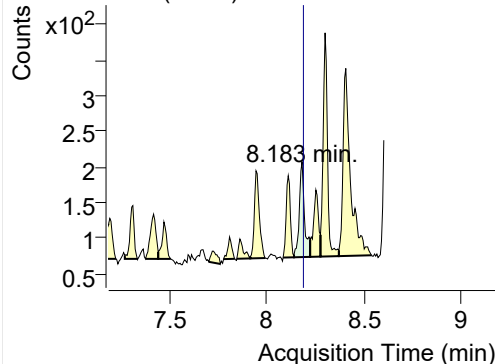
164.0, 162.0, 165.0



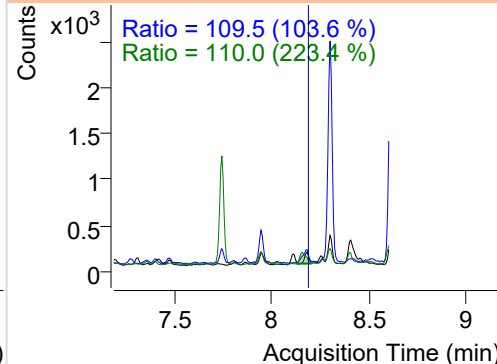
+ SIM (8.071-8.201 min, 22 scans) (\*\*) 220204

**Acenaphthene**

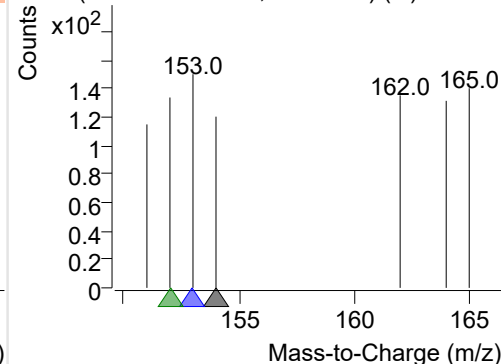
+ Selected Ion (154.0) 220204-PAHs-034.D



154.0, 153.0, 152.0

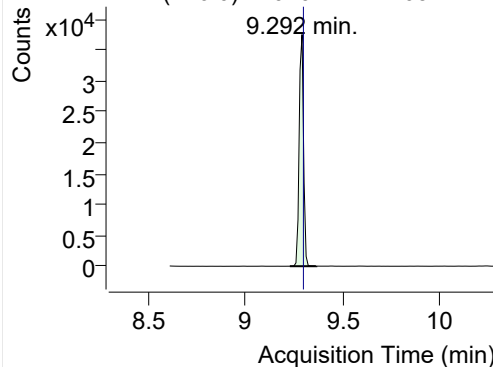


+ SIM (8.142-8.225 min, 15 scans) (\*\*) 220204

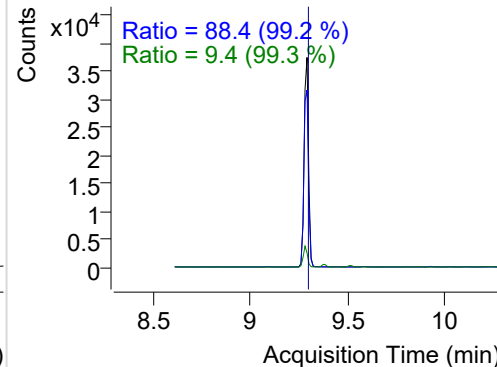


## LSS-D10-Fluorene

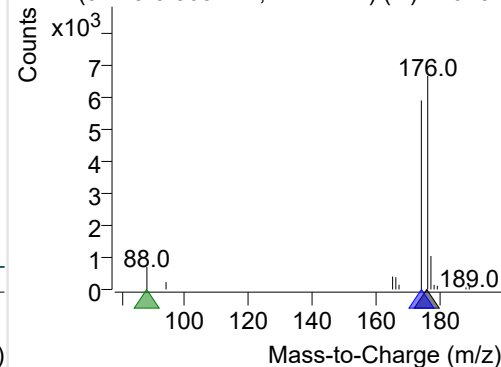
+ Selected Ion (176.0) 220204-PAHs-034.D



176.0, 174.0, 88.0

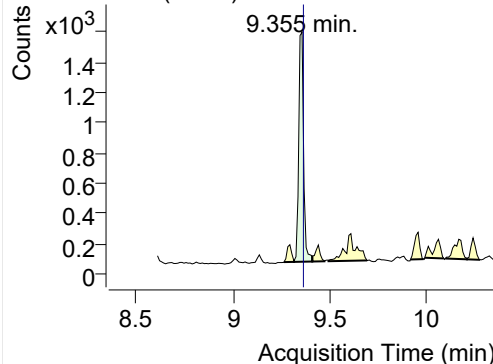


+ SIM (9.229-9.365 min, 14 scans) (\*\*) 220204

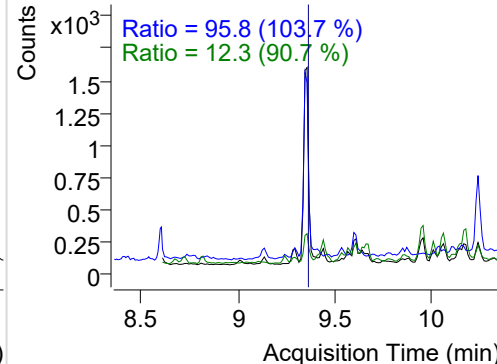


## Fluorene

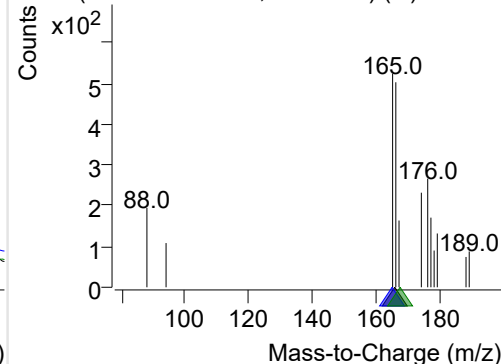
+ Selected Ion (166.0) 220204-PAHs-034.D



166.0, 165.0, 167.0

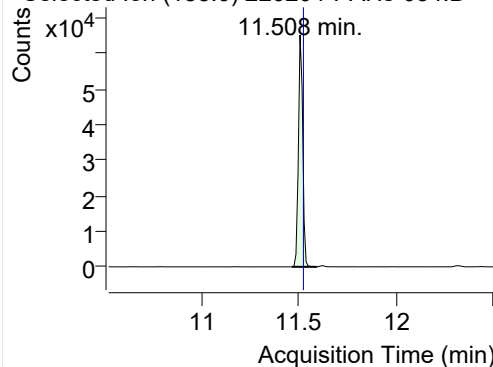


+ SIM (9.313-9.407 min, 10 scans) (\*\*) 220204

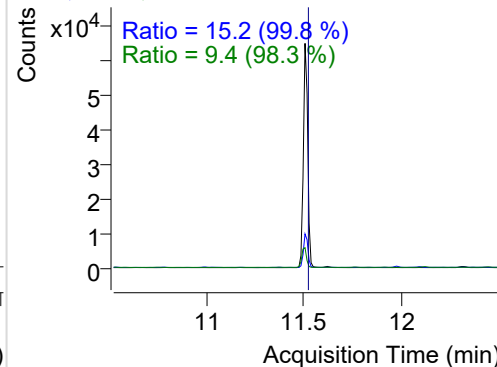


## IS-D10-Phenanthrene

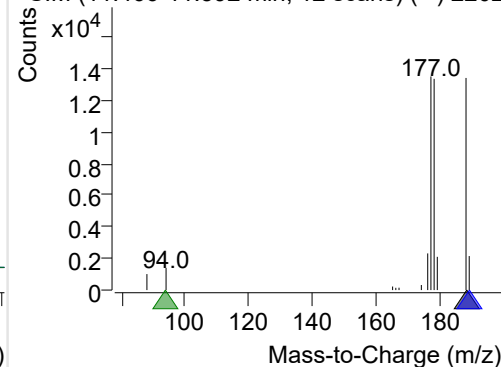
+ Selected Ion (188.0) 220204-PAHs-034.D



188.0, 189.0, 94.0

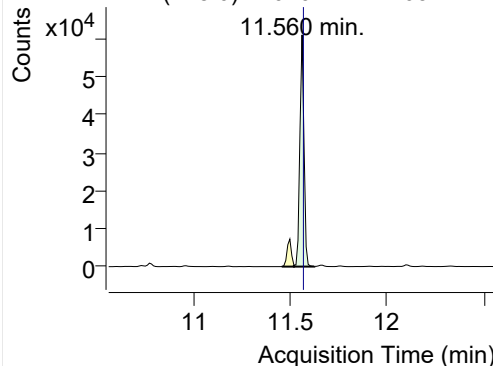


+ SIM (11.466-11.592 min, 12 scans) (\*\*) 2202

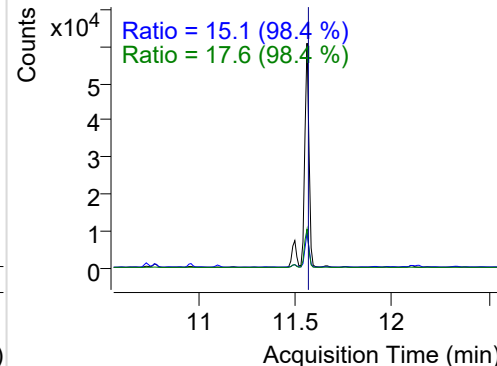


## Phenanthrene

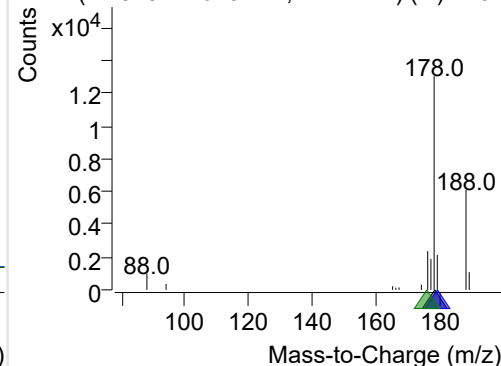
+ Selected Ion (178.0) 220204-PAHs-034.D



178.0, 179.0, 176.0

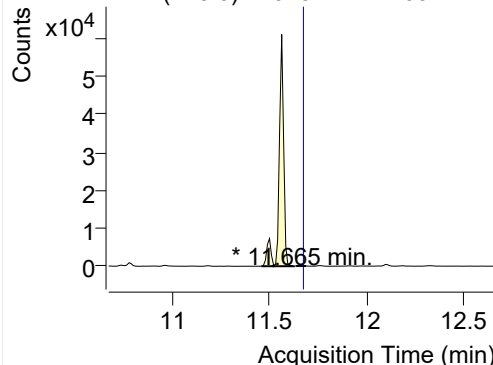


+ SIM (11.518-11.623 min, 11 scans) (\*\*) 2202

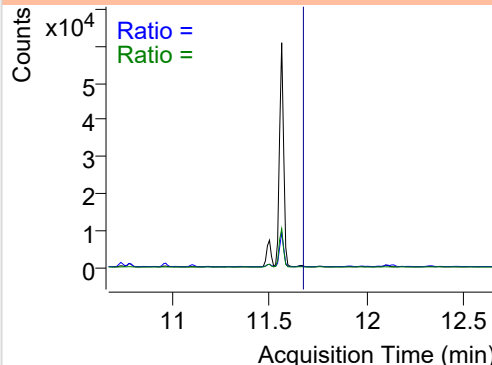


**Anthracene**

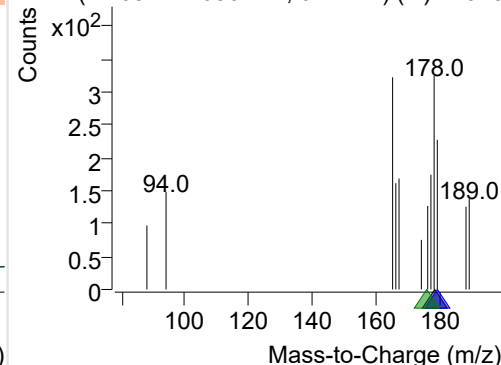
+ Selected Ion (178.0) 220204-PAHs-034.D



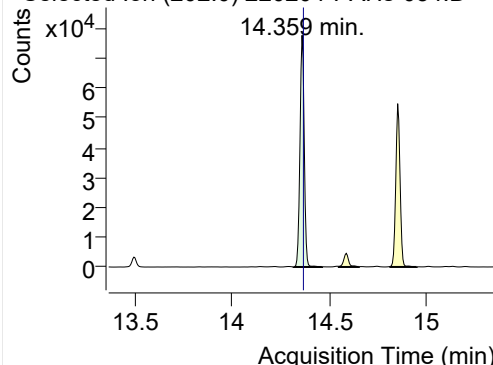
178.0, 179.0, 176.0



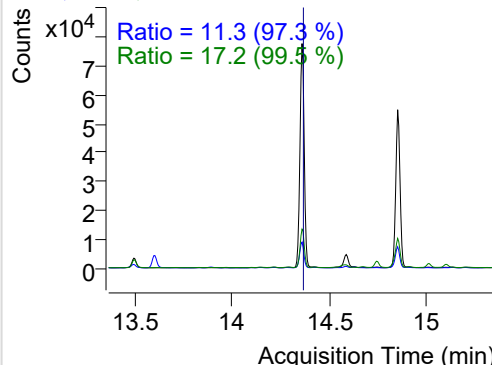
+ SIM (11.634-11.686 min, 6 scans) (\*\*) 22020

**Fluoranthene**

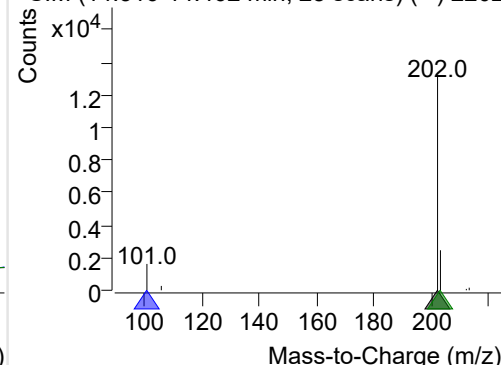
+ Selected Ion (202.0) 220204-PAHs-034.D



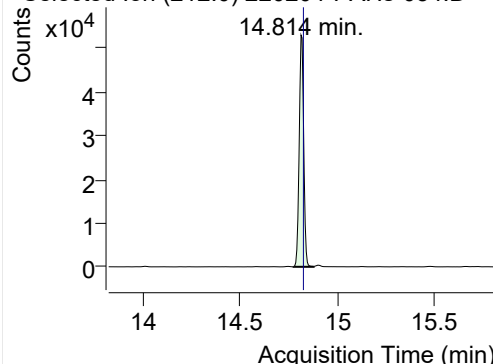
202.0, 101.0, 203.0



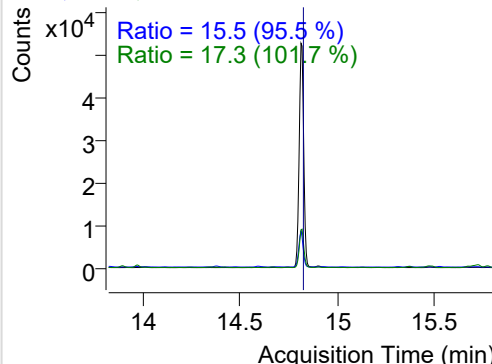
+ SIM (14.316-14.462 min, 28 scans) (\*\*) 2202

**LSS-D10-Pyrene**

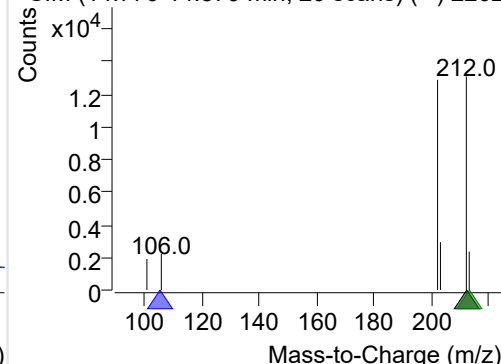
+ Selected Ion (212.0) 220204-PAHs-034.D



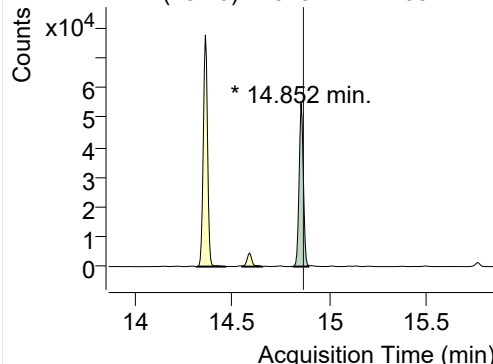
212.0, 106.0, 213.0



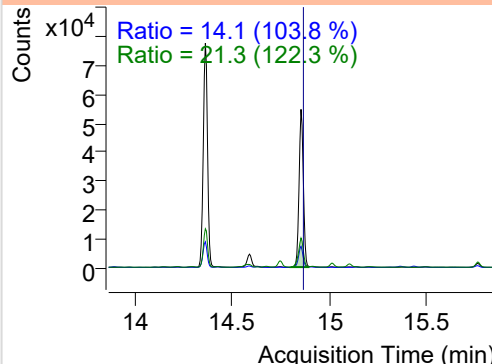
+ SIM (14.776-14.879 min, 20 scans) (\*\*) 2202

**Pyrene**

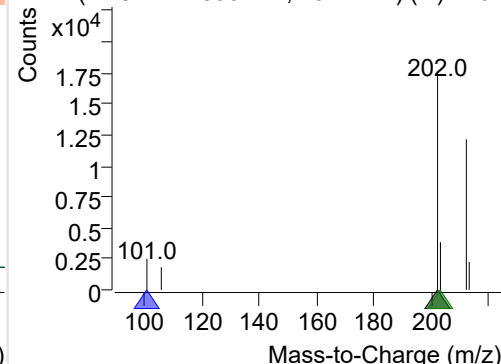
+ Selected Ion (202.0) 220204-PAHs-034.D



202.0, 101.0, 203.0

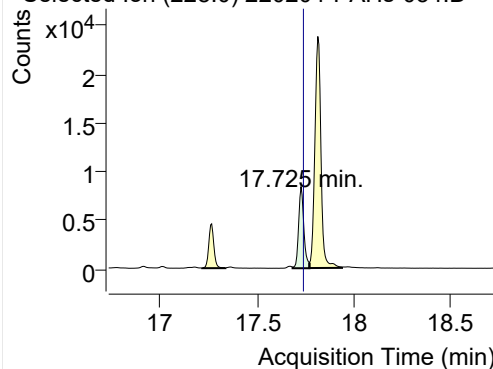


+ SIM (14.814-14.890 min, 15 scans) (\*\*) 2202

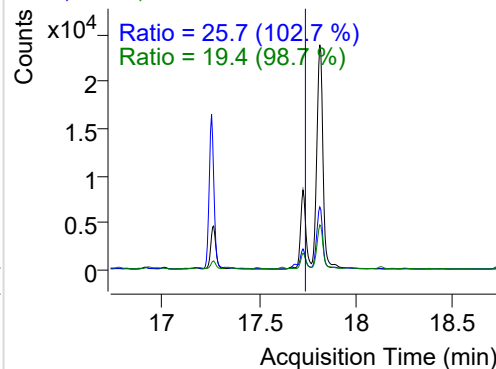


**Benz(a)anthracene**

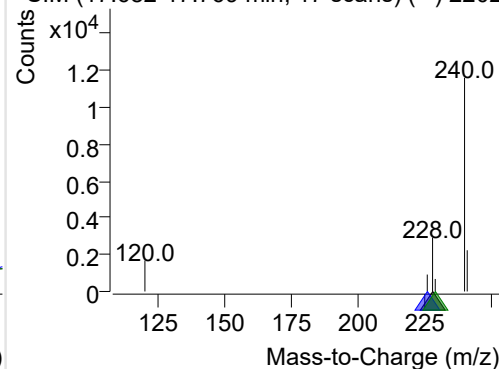
+ Selected Ion (228.0) 220204-PAHs-034.D



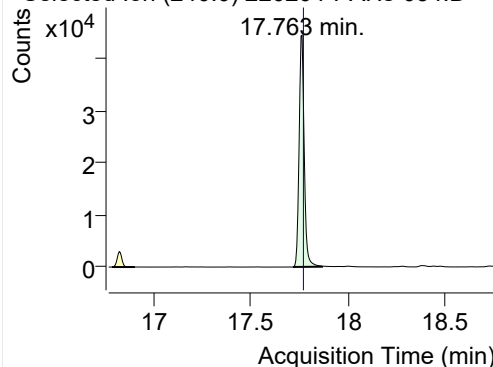
228.0, 226.0, 229.0



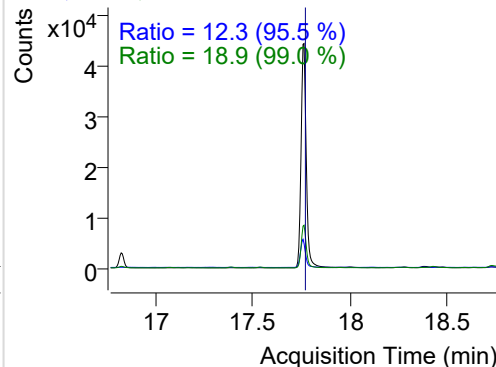
+ SIM (17.682-17.769 min, 17 scans) (\*\*) 2202

**IS-D12-Chrysene**

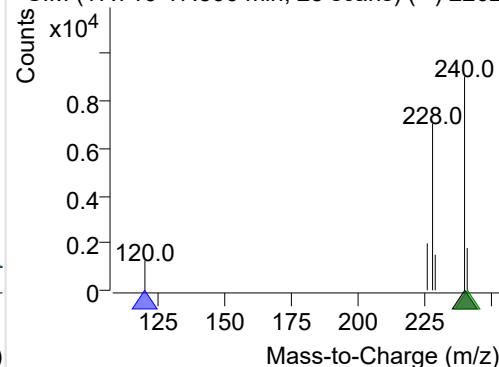
+ Selected Ion (240.0) 220204-PAHs-034.D



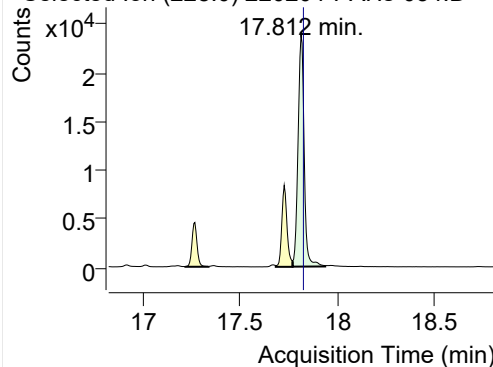
240.0, 120.0, 241.0



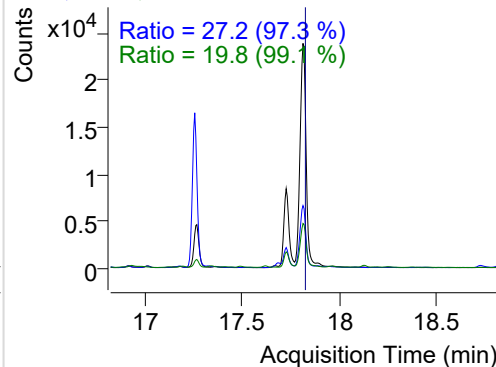
+ SIM (17.716-17.866 min, 28 scans) (\*\*) 2202

**Chrysene**

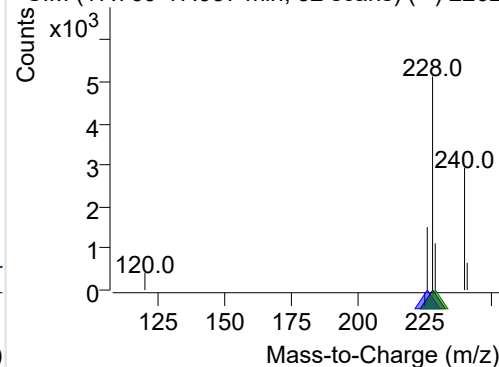
+ Selected Ion (228.0) 220204-PAHs-034.D



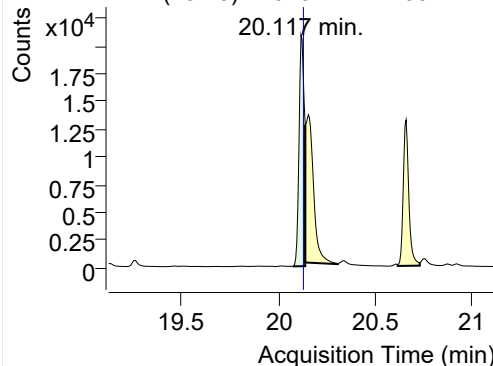
228.0, 226.0, 229.0



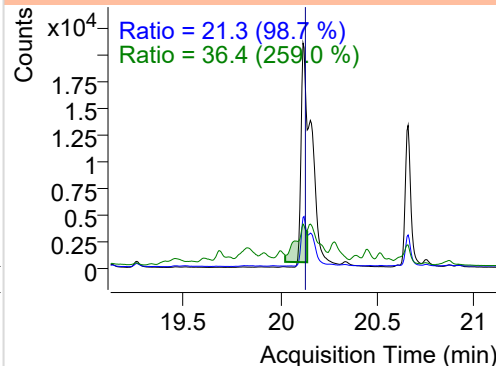
+ SIM (17.769-17.937 min, 32 scans) (\*\*) 2202

**Benzo(b)fluoranthene**

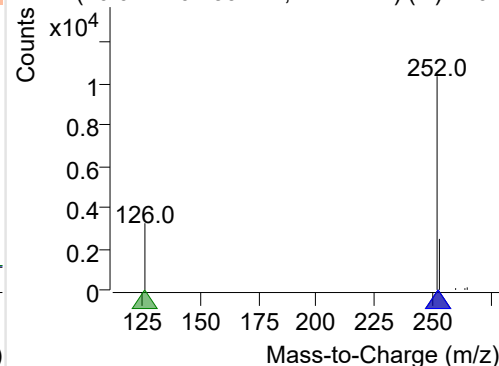
+ Selected Ion (252.0) 220204-PAHs-034.D



252.0, 253.0, 126.0



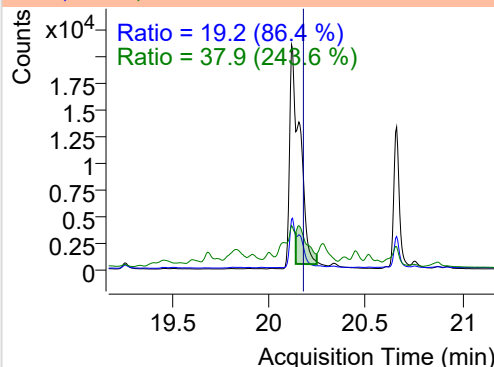
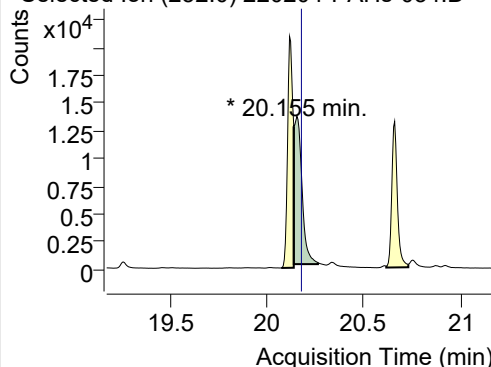
+ SIM (20.074-20.139 min, 12 scans) (\*\*) 2202



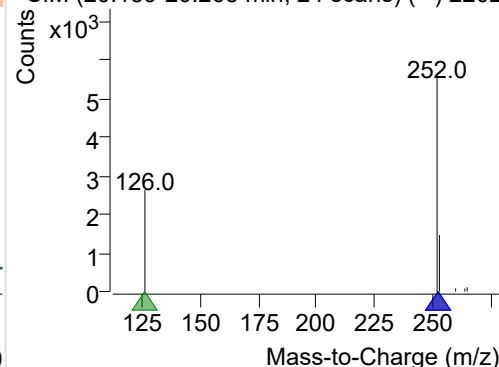
**Benzo(k)fluoranthene**

+ Selected Ion (252.0) 220204-PAHs-034.D

252.0, 253.0, 126.0

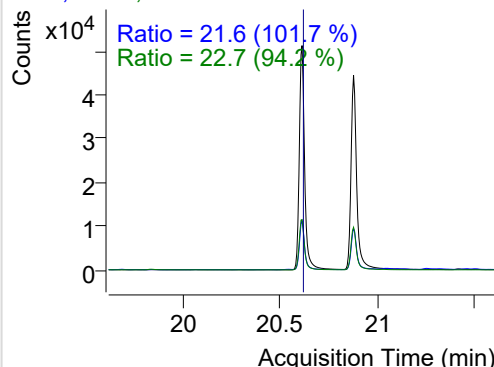
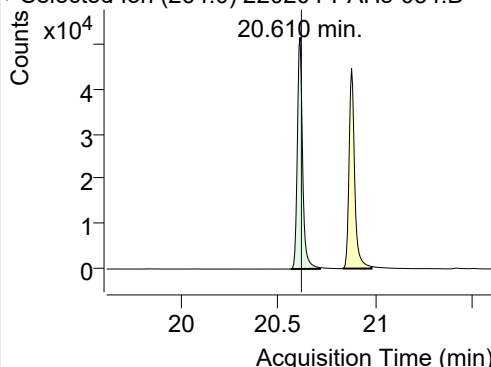


+ SIM (20.139-20.263 min, 24 scans) (\*\*) 2202

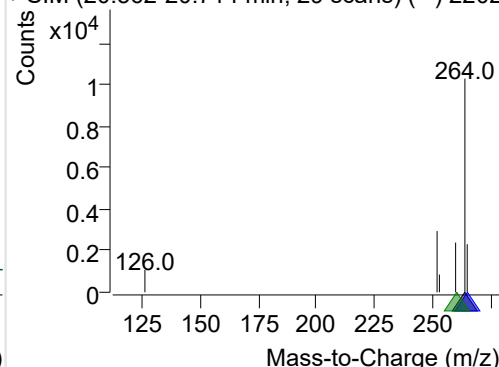
**SS-D12-Benzo(e)pyrene**

+ Selected Ion (264.0) 220204-PAHs-034.D

264.0, 265.0, 260.0

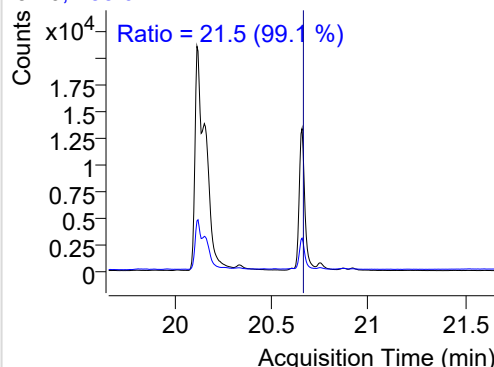
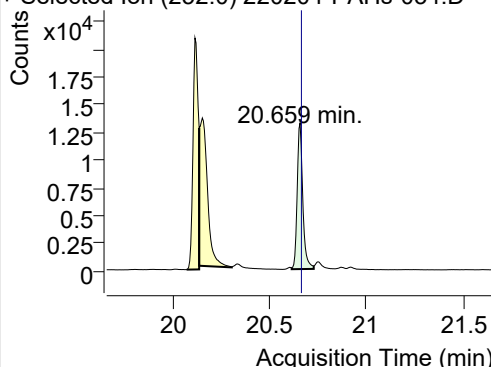


+ SIM (20.562-20.714 min, 29 scans) (\*\*) 2202

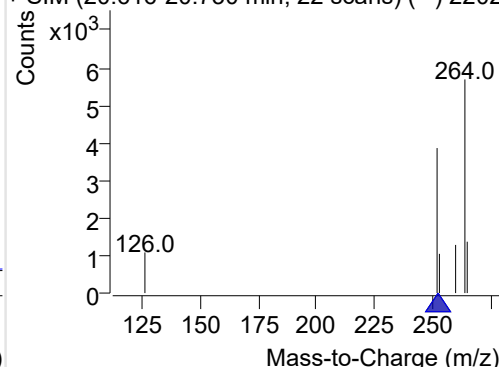
**Benzo(e)pyrene**

+ Selected Ion (252.0) 220204-PAHs-034.D

252.0, 253.0

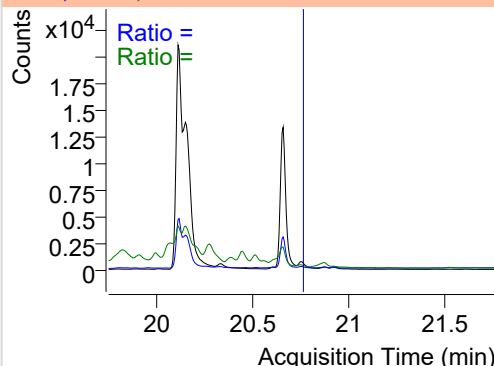
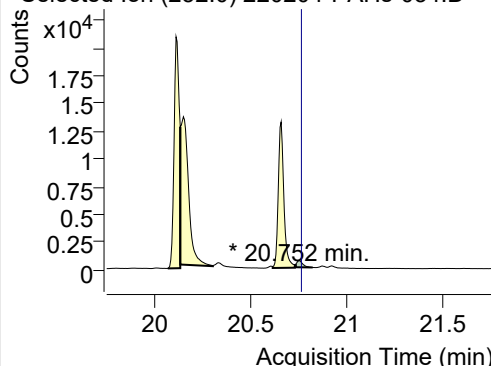


+ SIM (20.616-20.730 min, 22 scans) (\*\*) 2202

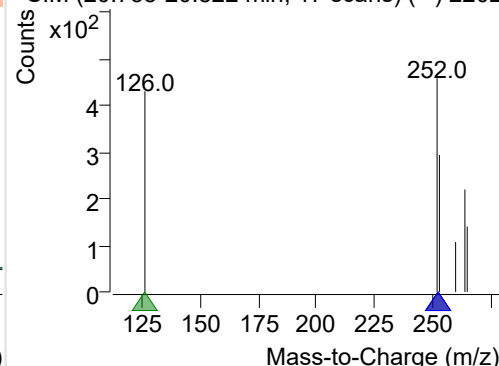
**Benzo(a)pyrene**

+ Selected Ion (252.0) 220204-PAHs-034.D

252.0, 253.0, 126.0

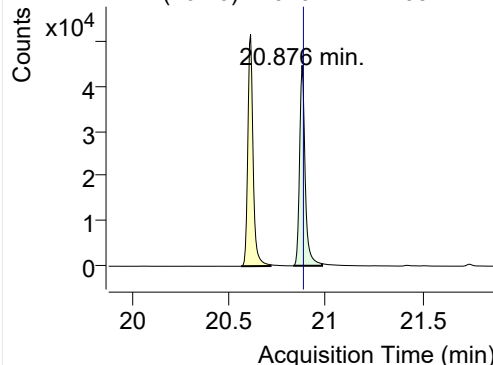


+ SIM (20.735-20.822 min, 17 scans) (\*\*) 2202

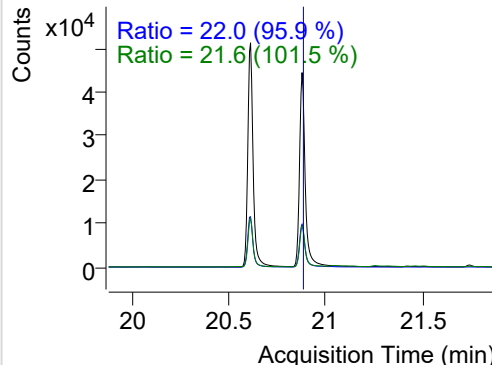


## IS-D12-Perylene

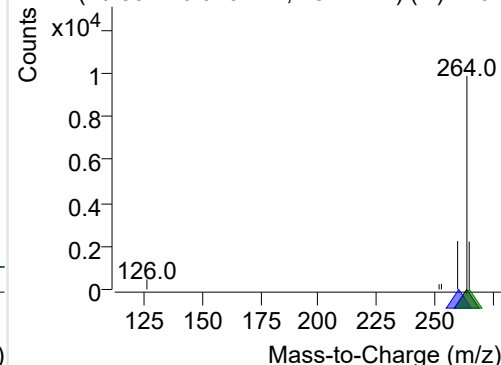
+ Selected Ion (264.0) 220204-PAHs-034.D



264.0, 260.0, 265.0

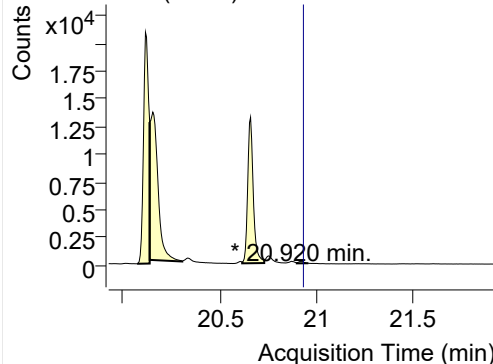


+ SIM (20.831-20.979 min, 28 scans) (\*\*) 2202

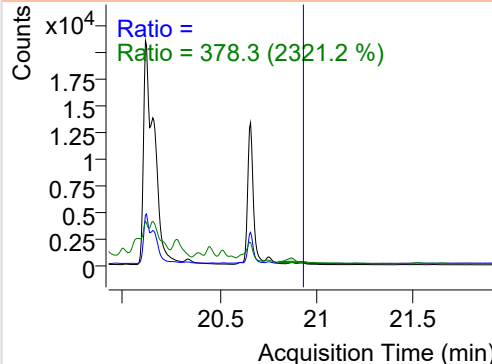


## Perylene

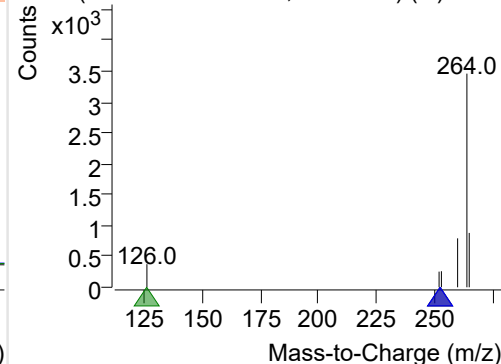
+ Selected Ion (252.0) 220204-PAHs-034.D



252.0, 253.0, 126.0

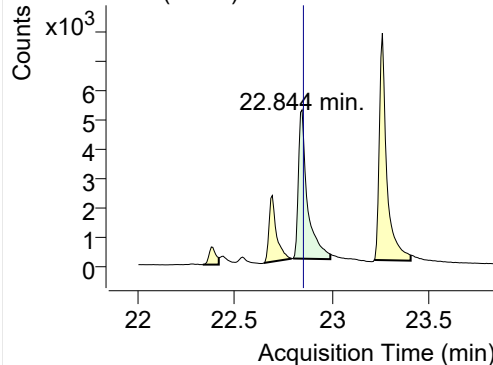


+ SIM (20.898-20.958 min, 12 scans) (\*\*) 2202

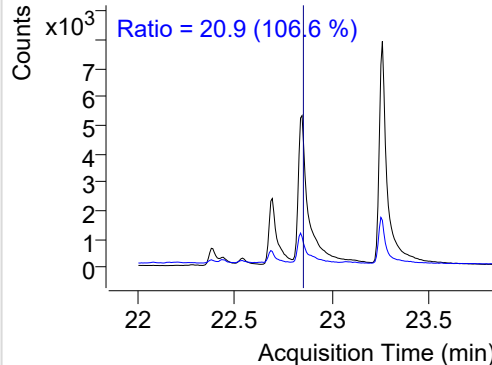


## Indeno(1,2,3-c,d)pyrene

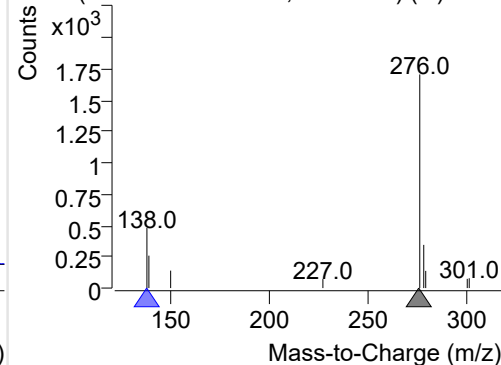
+ Selected Ion (276.0) 220204-PAHs-034.D



276.0, 138.0

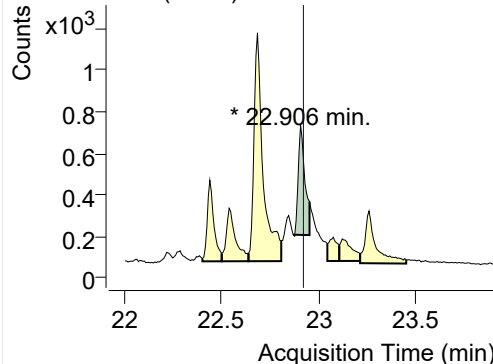


+ SIM (22.799-22.990 min, 25 scans) (\*\*) 2202

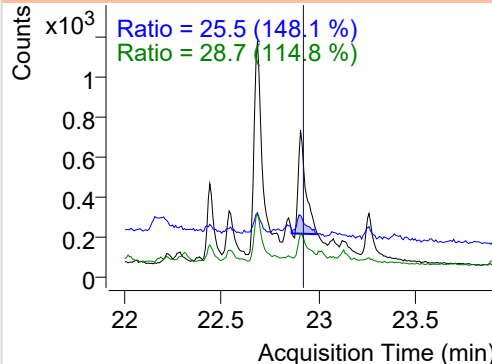


## Dibenz(a,h)anthracene

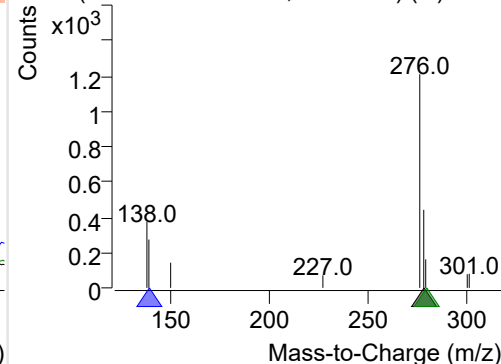
+ Selected Ion (278.0) 220204-PAHs-034.D



278.0, 139.0, 279.0

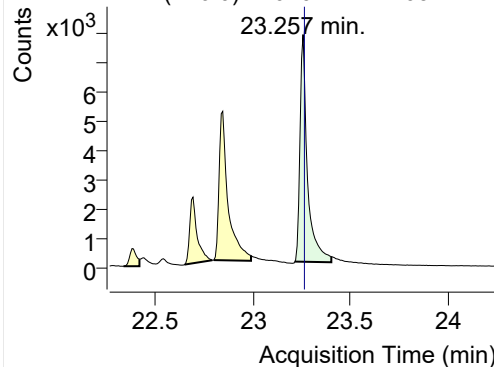


+ SIM (22.867-22.951 min, 12 scans) (\*\*) 2202

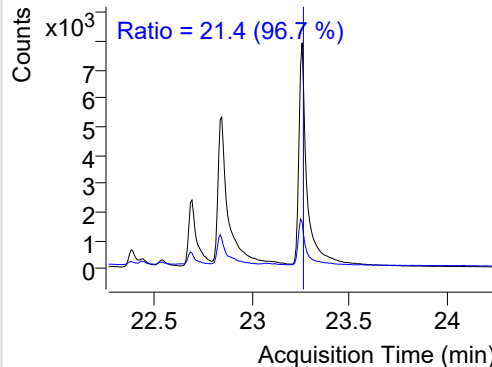


**Benzo(g,h,i)perylene**

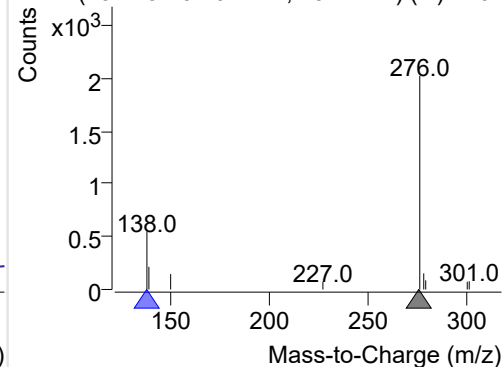
+ Selected Ion (276.0) 220204-PAHs-034.D



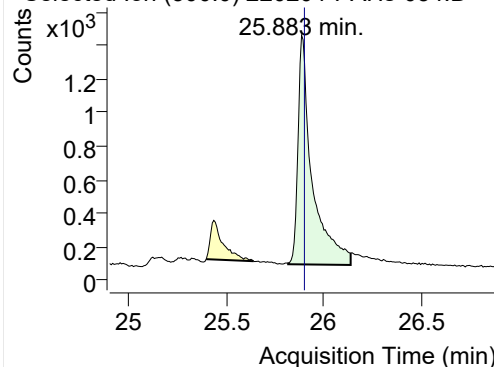
276.0, 138.0



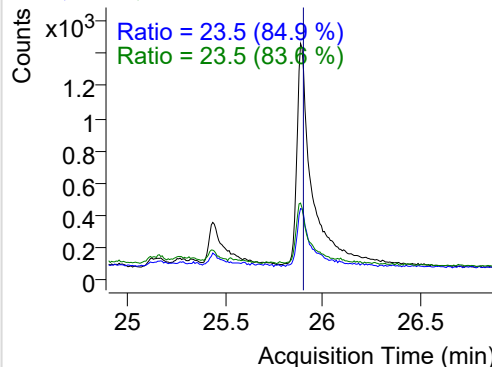
+ SIM (23.215-23.402 min, 25 scans) (\*\*) 2202

**Coronene**

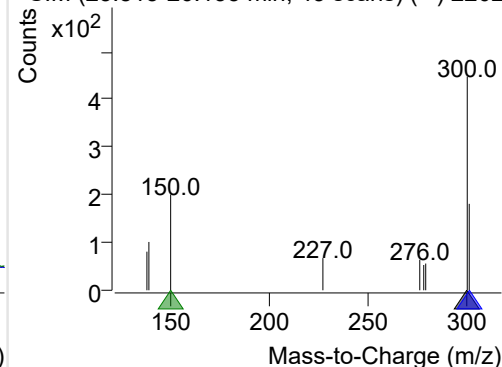
+ Selected Ion (300.0) 220204-PAHs-034.D



300.0, 301.0, 150.0



+ SIM (25.815-26.135 min, 43 scans) (\*\*) 2202





## Quantitative Analysis Sample Based Report

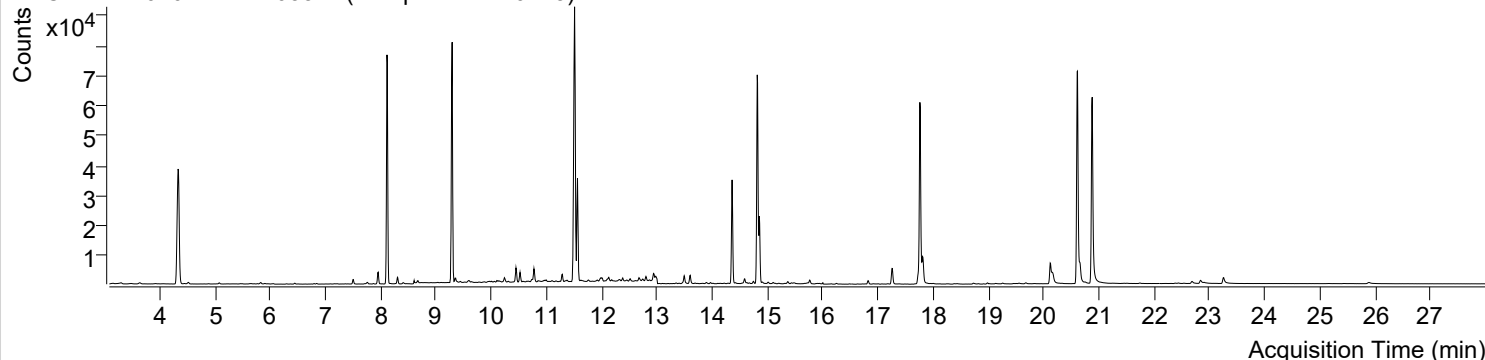


Trusted Answers

Batch Data Path File Name	D:\MassHunter\GCMS\1\data\PAHs\220204-PAHs-Sample\QuantResults\220204-PAHs-Quant.batch.bin		
Analysis Time Stamp	2022-04-13 오후 3:18:46	Analyst Name	DESKTOP-86B7UPG\5975MS
Report Generation Time	2022-04-13 오후 3:19:11	Report Generator Name	DESKTOP-86B7UPG\5975MS
Calibration Last Update	2022-04-13 오후 3:16:00	Batch State	Processed
Analyze Quant Version	10.2	Report Quant Version	10.2
Acq. Date-Time	2022-02-05 오전 7:49:34	Data File	220204-PAHs-035.D
Type	Sample	Name	Sample-PM-220113
Dil.	1	Acq. Method File	PAHs 19mix-Method

## Sample Chromatogram

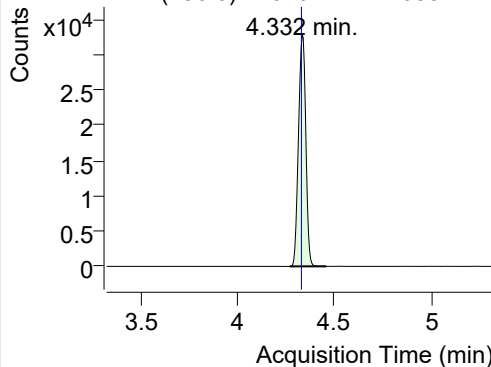
+ TIC SIM 220204-PAHs-035.D (Sample-PM-220113)



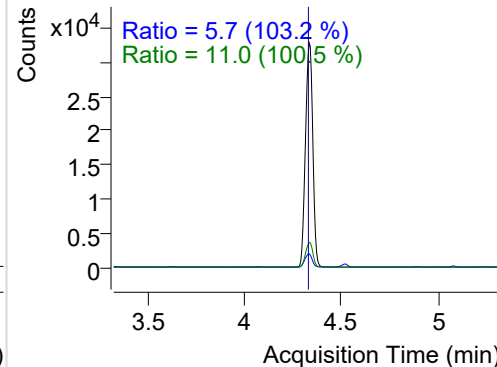
Name	RT	Transition	Resp.	Height	Final Conc. Units	Ratio
IS-D8-Naphthalene	4.332	136.0	85692	32793.62	ND ng/ml	11.0
Naphthalene	4.370	128.0	284	102.40	ND ng/ml	29.9
Acenaphthylene	7.745	152.0	345	203.62	ND ng/ml	56.2
IS-D10-Acenaphthene	8.112	164.0	56019	36906.09	ND ng/ml	92.3
Acenaphthene	8.183	154.0	63	38.77	ND ng/ml	
LSS-D10-Fluorene	9.292	176.0	57791	38204.46	ND µg/mL	88.8
Fluorene	9.355	166.0	975	655.86	ND µg/mL	111.9
IS-D10-Phenanthrene	11.508	188.0	100887	62165.81	ND µg/mL	15.3
Phenanthrene	11.560	178.0	35152	22794.69	ND µg/mL	17.8
Anthracene	11.665	178.0	181	121.00	ND µg/mL	
Fluoranthene	14.359	202.0	41134	26750.40	ND µg/mL	17.3
LSS-D10-Pyrene	14.814	212.0	84916	52211.16	ND µg/mL	17.1
Pyrene	14.852	202.0	25536	16498.93	ND µg/mL	21.5
Benz(a)anthracene	17.726	228.0	4122	2145.07	ND µg/mL	28.4
IS-D12-Chrysene	17.758	240.0	81001	45707.64	ND µg/mL	19.0
Chrysene	17.812	228.0	12269	5357.96	ND µg/mL	27.2
Benzo(b)fluoranthene	20.117	252.0	9307	5121.96	ND µg/mL	43.7
Benzo(k)fluoranthene	20.144	252.0	5988	2529.04	ND µg/mL	
SS-D12-Benzo(e)pyrene	20.611	264.0	95225	48900.22	ND µg/mL	22.6
Benzo(e)pyrene	20.659	252.0	6647	3261.56	ND µg/mL	21.2
Benzo(a)pyrene	20.752	252.0	426	190.71	ND µg/mL	
IS-D12-Perylene	20.876	264.0	86787	43059.95	ND µg/mL	21.9
Perylene	20.920	252.0	125	54.66	ND µg/mL	
Indeno(1,2,3-c,d)pyrene	22.837	276.0	2940	837.06	ND µg/mL	20.3
Dibenz(a,h)anthracene	22.906	278.0	299	109.86	ND µg/mL	45.0
Benzo(g,h,i)perylene	23.257	276.0	4467	1550.67	ND µg/mL	23.2
Coronene	25.884	300.0	1355	258.51	ND µg/mL	21.9

## IS-D8-Naphthalene

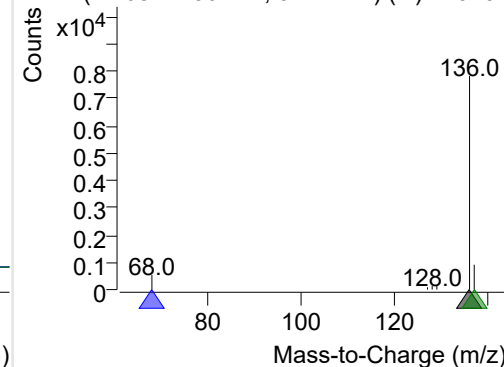
+ Selected Ion (136.0) 220204-PAHs-035.D



136.0, 68.0, 137.0

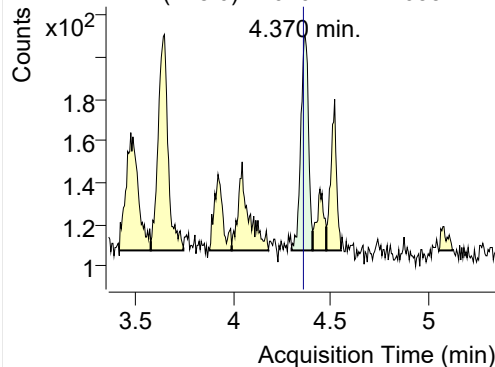


+ SIM (4.268-4.456 min, 34 scans) (\*\*) 220204

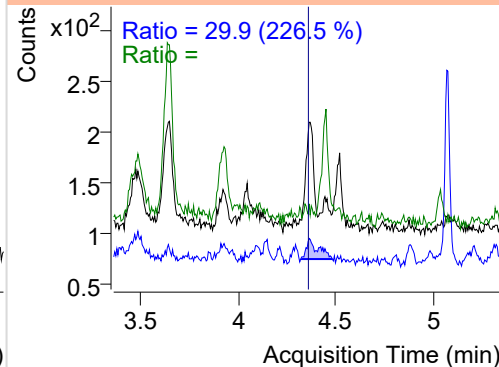


**Naphthalene**

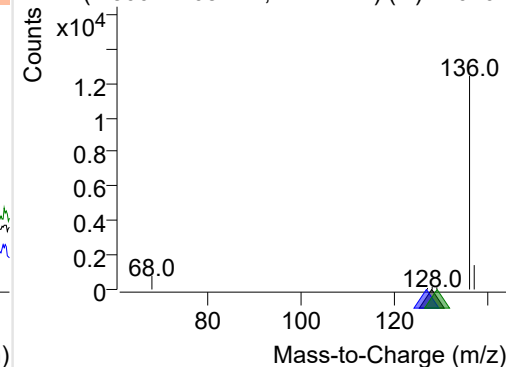
+ Selected Ion (128.0) 220204-PAHs-035.D



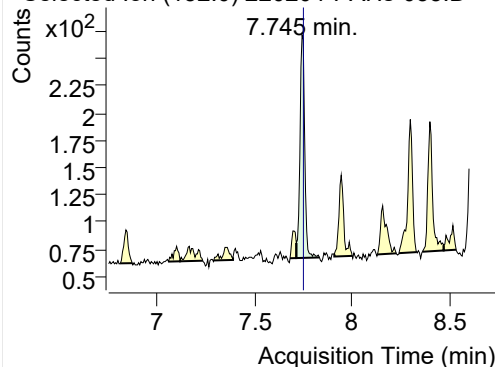
128.0, 127.0, 129.0



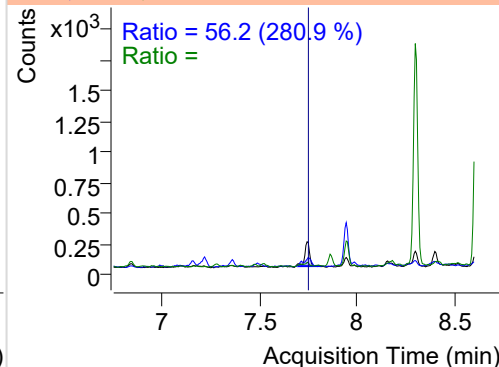
+ SIM (4.300-4.408 min, 21 scans) (\*\*) 220204

**Acenaphthylene**

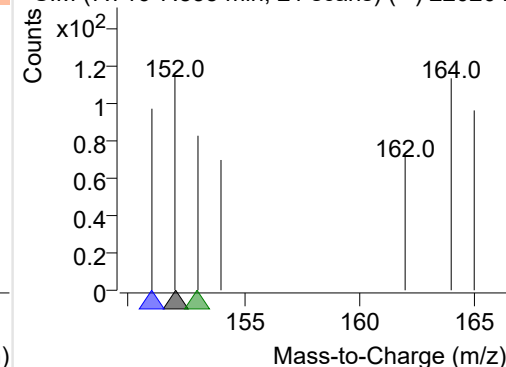
+ Selected Ion (152.0) 220204-PAHs-035.D



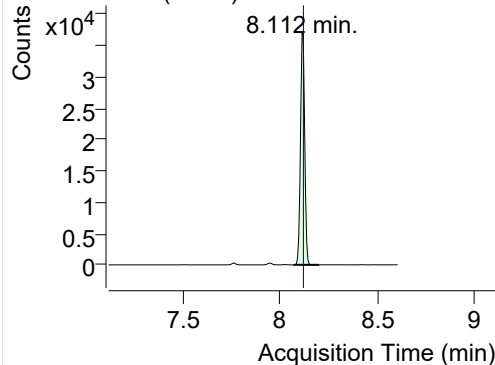
152.0, 151.0, 153.0



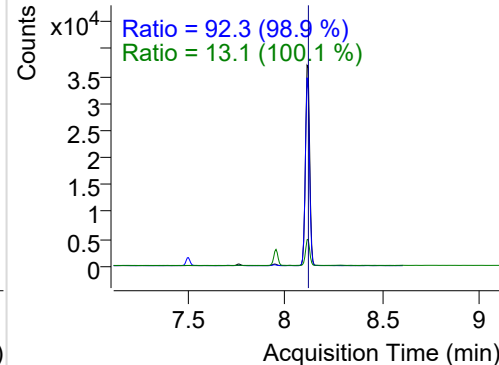
+ SIM (7.716-7.835 min, 21 scans) (\*\*) 220204

**IS-D10-Acenaphthene**

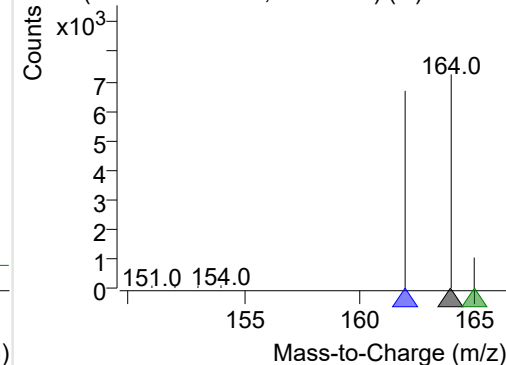
+ Selected Ion (164.0) 220204-PAHs-035.D



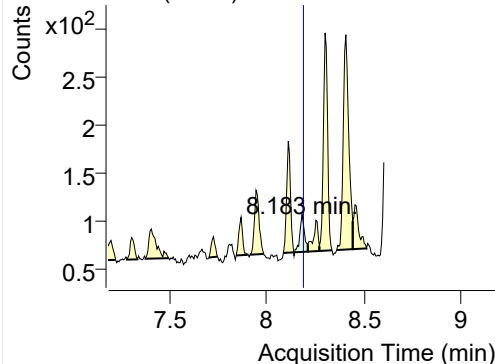
164.0, 162.0, 165.0



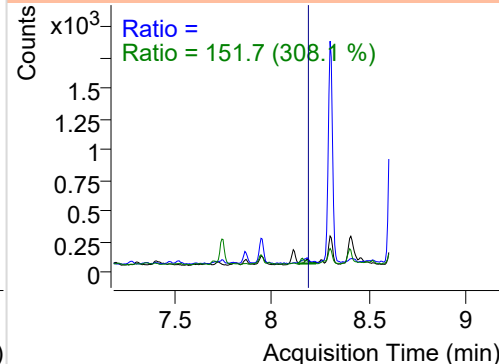
+ SIM (8.071-8.200 min, 22 scans) (\*\*) 220204

**Acenaphthene**

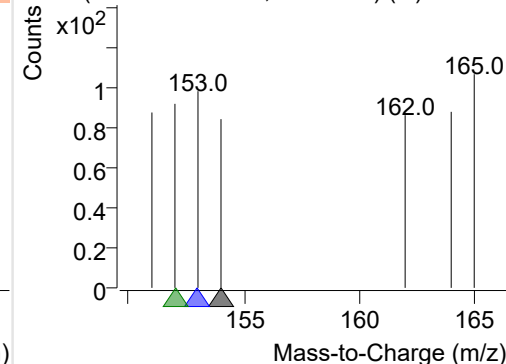
+ Selected Ion (154.0) 220204-PAHs-035.D



154.0, 153.0, 152.0

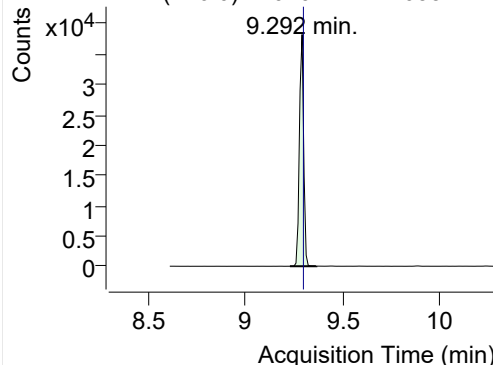


+ SIM (8.145-8.213 min, 12 scans) (\*\*) 220204

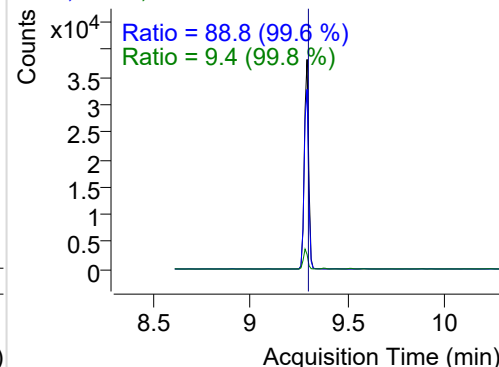


## LSS-D10-Fluorene

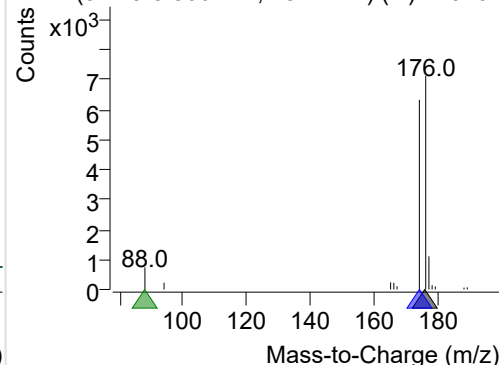
+ Selected Ion (176.0) 220204-PAHs-035.D



176.0, 174.0, 88.0

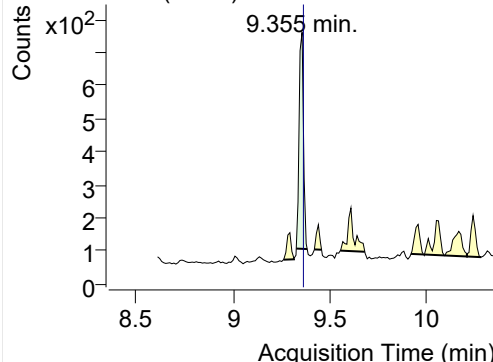


+ SIM (9.229-9.366 min, 13 scans) (\*\*) 220204

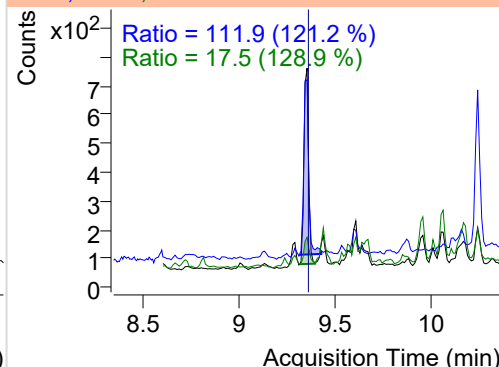


## Fluorene

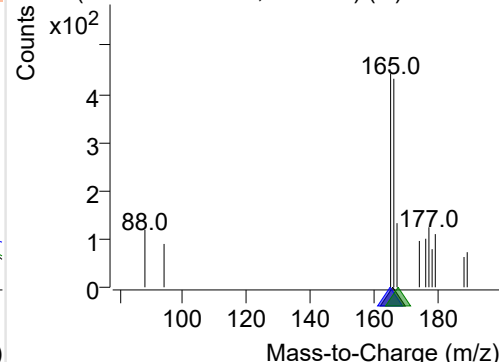
+ Selected Ion (166.0) 220204-PAHs-035.D



166.0, 165.0, 167.0

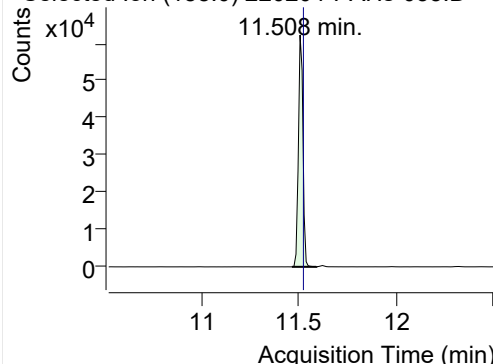


+ SIM (9.325-9.381 min, 5 scans) (\*\*) 220204-I

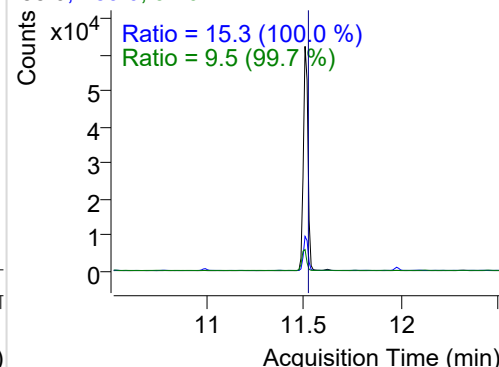


## IS-D10-Phenanthrene

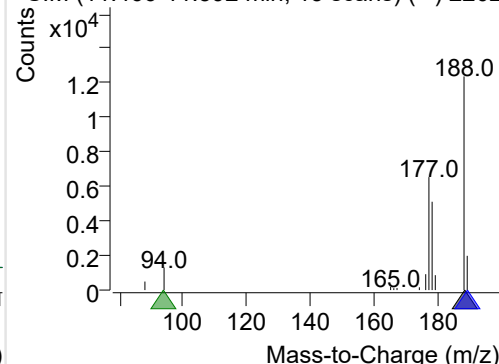
+ Selected Ion (188.0) 220204-PAHs-035.D



188.0, 189.0, 94.0

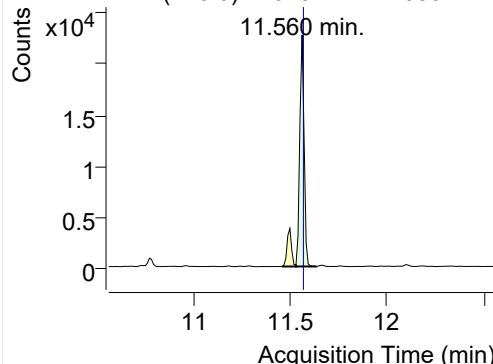


+ SIM (11.466-11.592 min, 13 scans) (\*\*) 2202

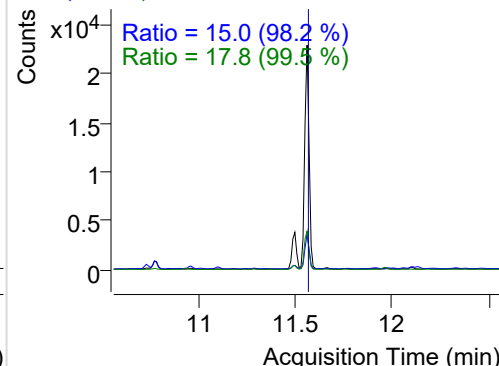


## Phenanthrene

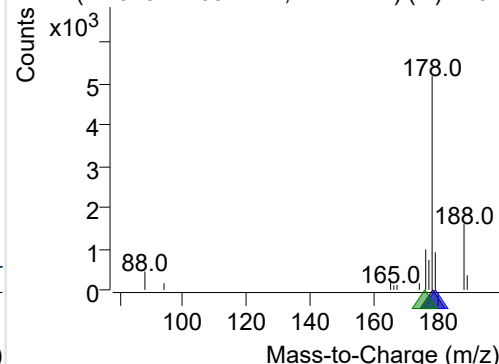
+ Selected Ion (178.0) 220204-PAHs-035.D



178.0, 179.0, 176.0

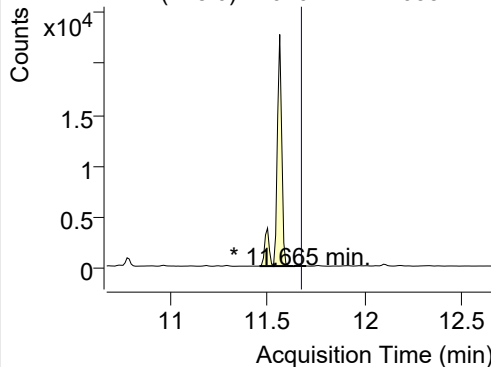


+ SIM (11.529-11.634 min, 11 scans) (\*\*) 2202

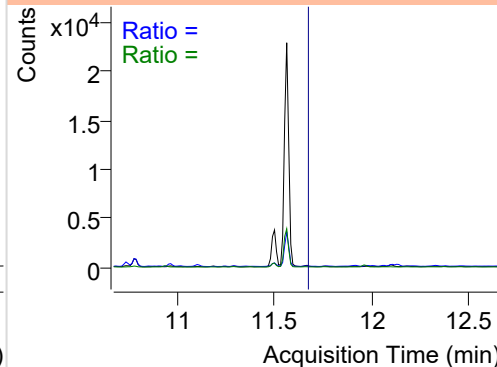


**Anthracene**

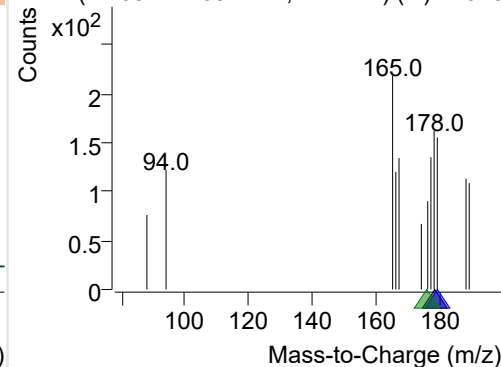
+ Selected Ion (178.0) 220204-PAHs-035.D



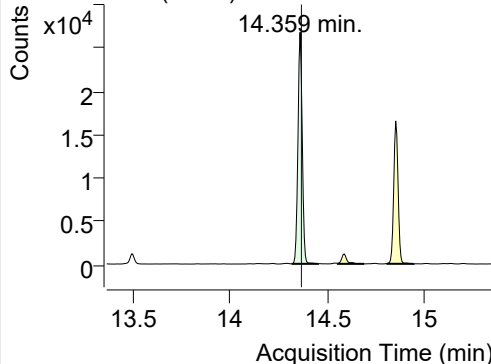
178.0, 179.0, 176.0



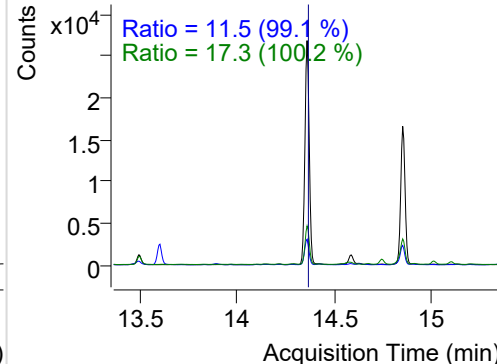
+ SIM (11.634-11.697 min, 7 scans) (\*\*) 22020

**Fluoranthene**

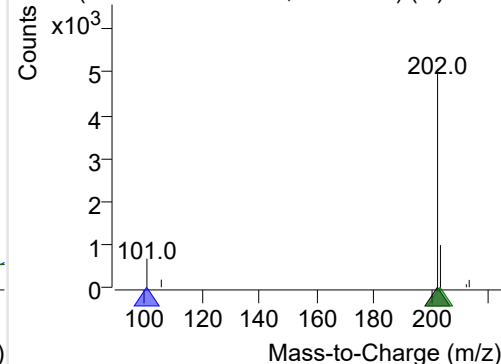
+ Selected Ion (202.0) 220204-PAHs-035.D



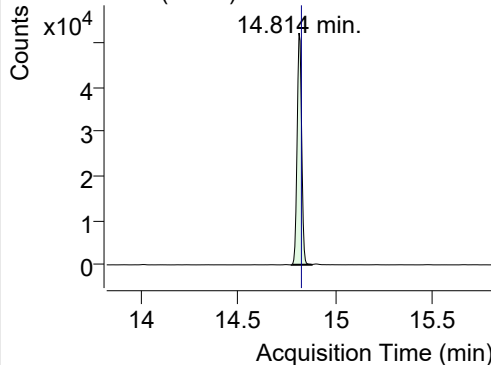
202.0, 101.0, 203.0



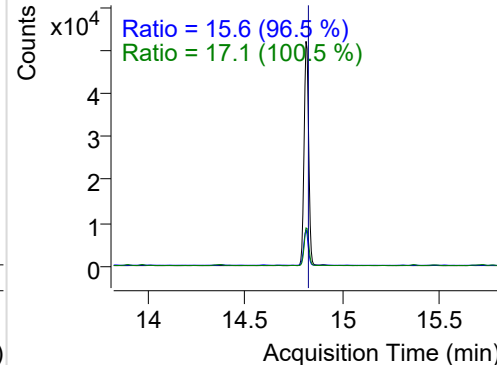
+ SIM (14.316-14.451 min, 26 scans) (\*\*) 2202

**LSS-D10-Pyrene**

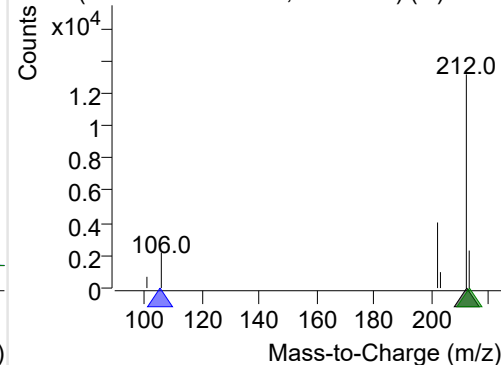
+ Selected Ion (212.0) 220204-PAHs-035.D



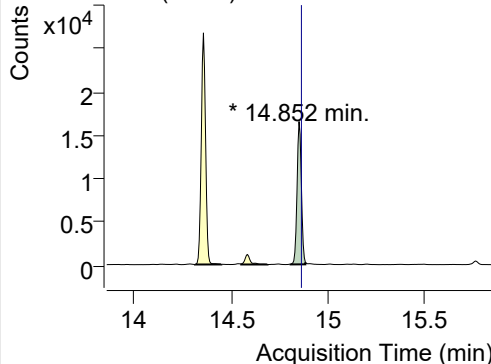
212.0, 106.0, 213.0



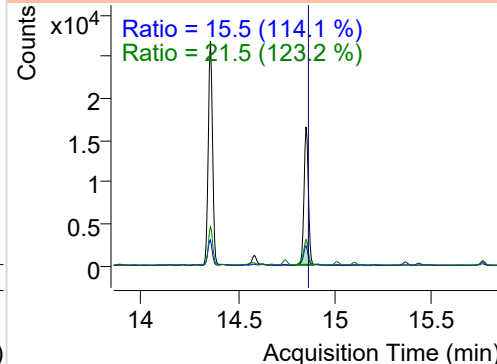
+ SIM (14.777-14.880 min, 20 scans) (\*\*) 2202

**Pyrene**

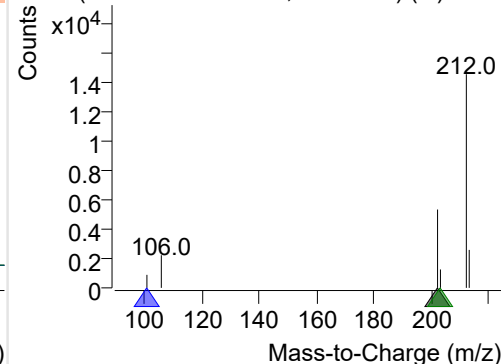
+ Selected Ion (202.0) 220204-PAHs-035.D



202.0, 101.0, 203.0

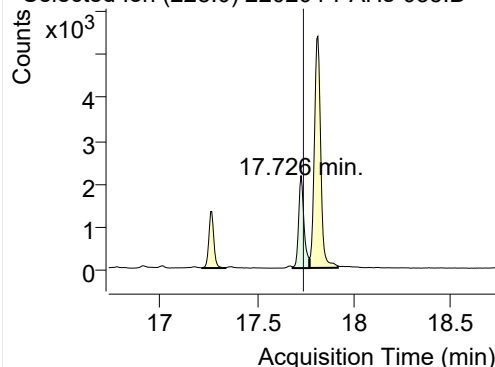


+ SIM (14.809-14.885 min, 15 scans) (\*\*) 2202

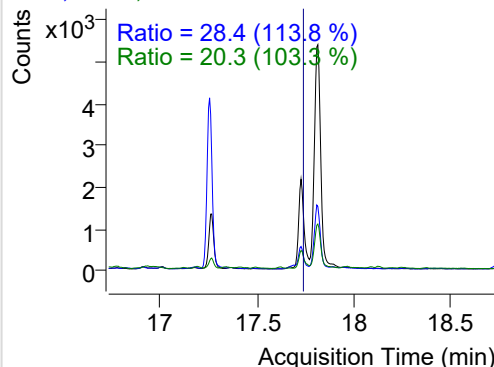


**Benz(a)anthracene**

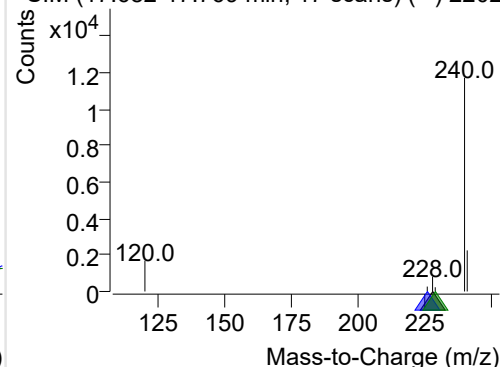
+ Selected Ion (228.0) 220204-PAHs-035.D



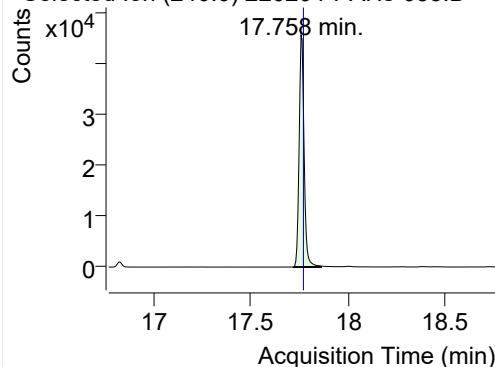
228.0, 226.0, 229.0



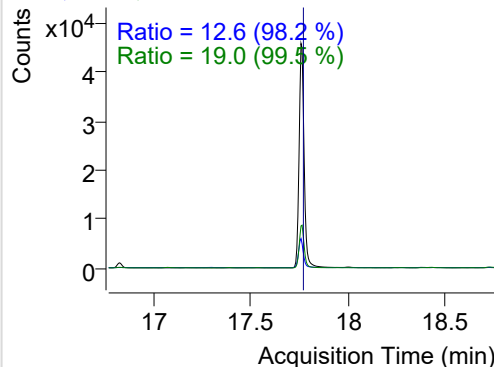
+ SIM (17.682-17.769 min, 17 scans) (\*\*) 2202

**IS-D12-Chrysene**

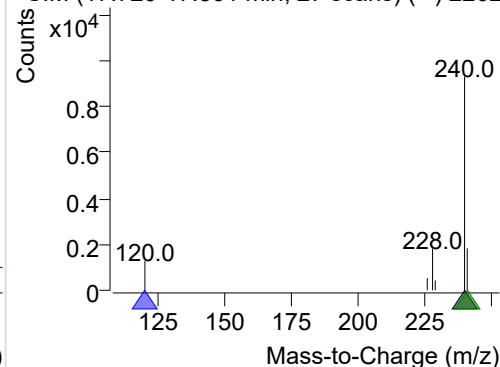
+ Selected Ion (240.0) 220204-PAHs-035.D



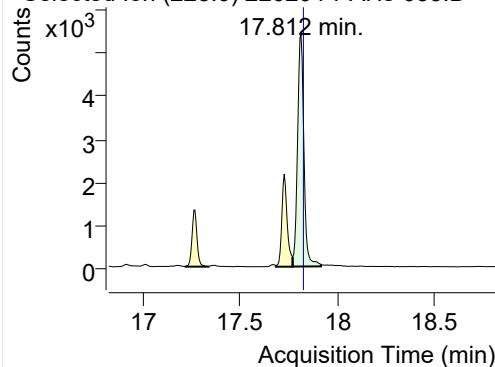
240.0, 120.0, 241.0



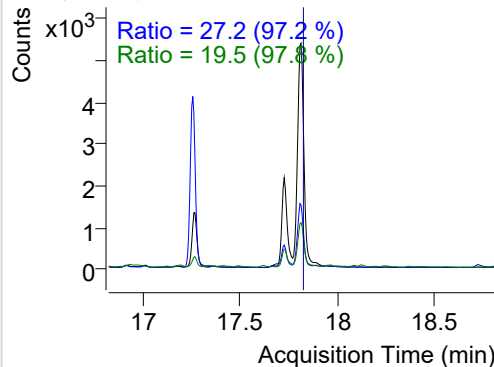
+ SIM (17.720-17.861 min, 27 scans) (\*\*) 2202

**Chrysene**

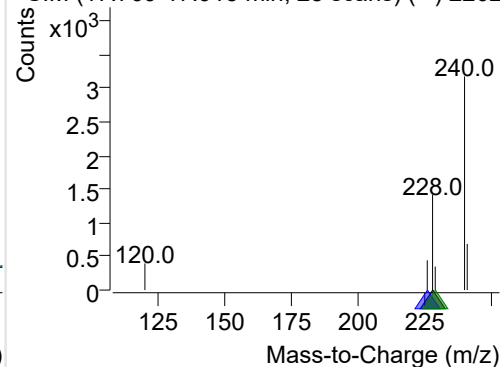
+ Selected Ion (228.0) 220204-PAHs-035.D



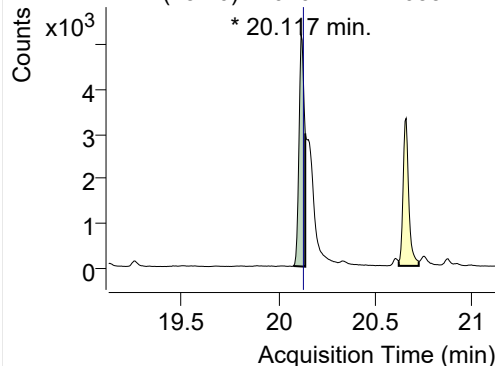
228.0, 226.0, 229.0



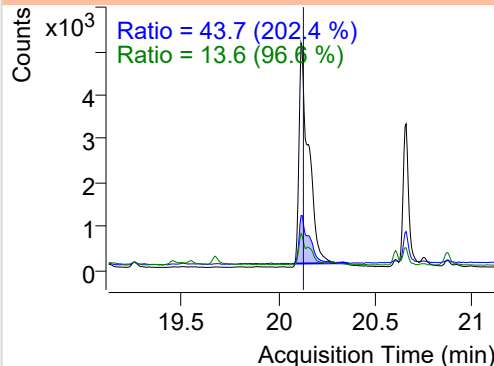
+ SIM (17.769-17.915 min, 28 scans) (\*\*) 2202

**Benzo(b)fluoranthene**

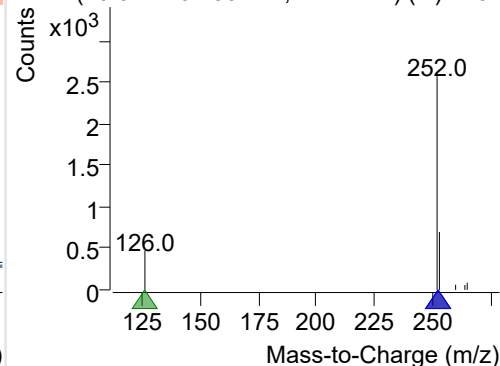
+ Selected Ion (252.0) 220204-PAHs-035.D



252.0, 253.0, 126.0



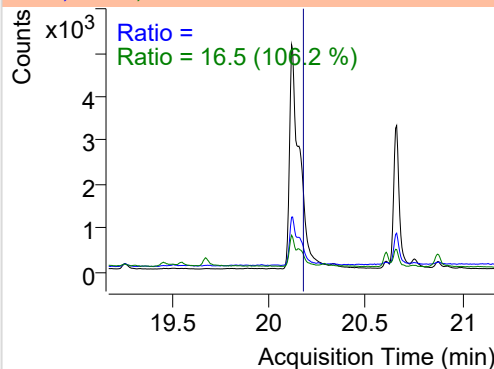
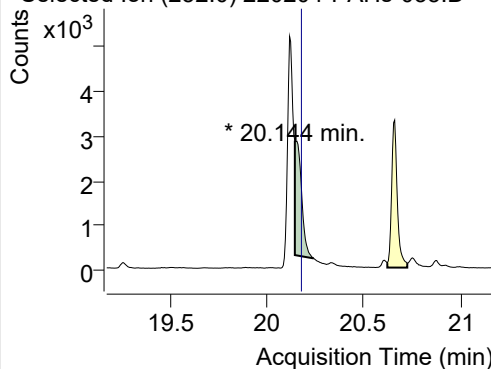
+ SIM (20.077-20.139 min, 12 scans) (\*\*) 2202



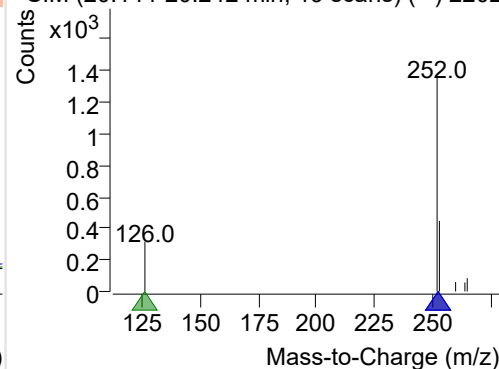
**Benzo(k)fluoranthene**

+ Selected Ion (252.0) 220204-PAHs-035.D

252.0, 253.0, 126.0

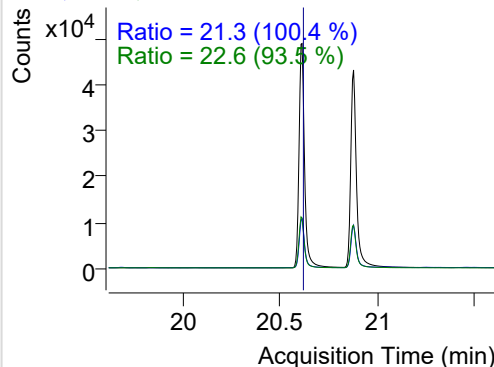
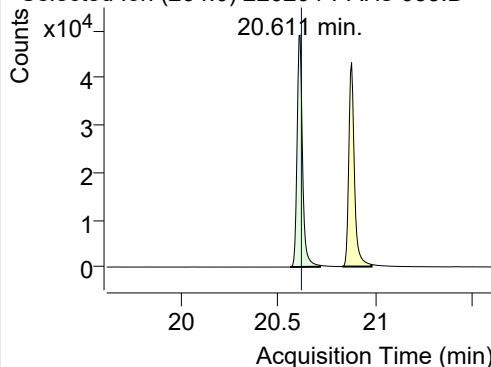


+ SIM (20.144-20.242 min, 19 scans) (\*\*) 2202

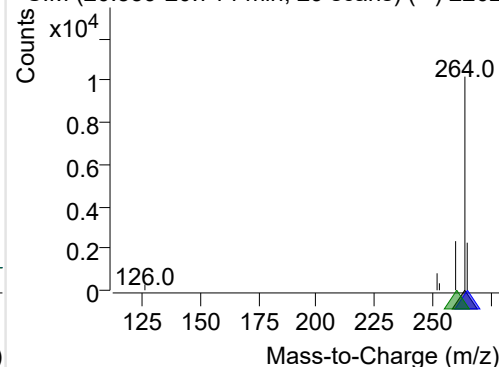
**SS-D12-Benzo(e)pyrene**

+ Selected Ion (264.0) 220204-PAHs-035.D

264.0, 265.0, 260.0

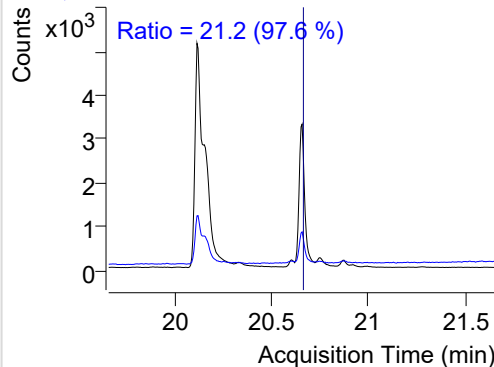
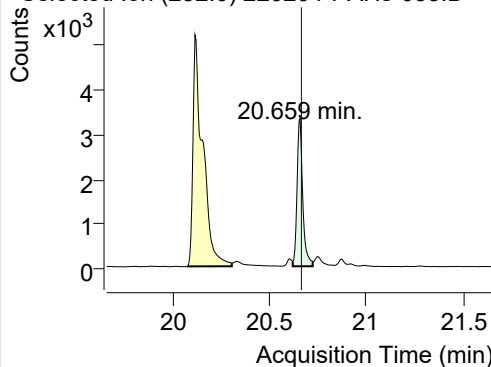


+ SIM (20.559-20.714 min, 29 scans) (\*\*) 2202

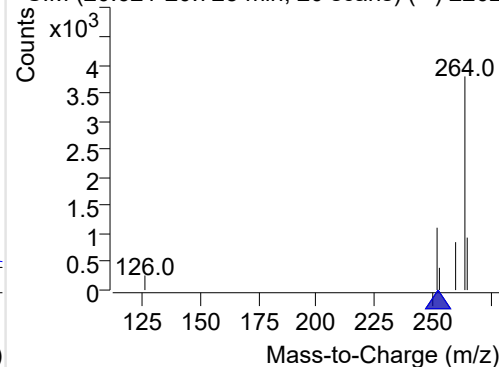
**Benzo(e)pyrene**

+ Selected Ion (252.0) 220204-PAHs-035.D

252.0, 253.0

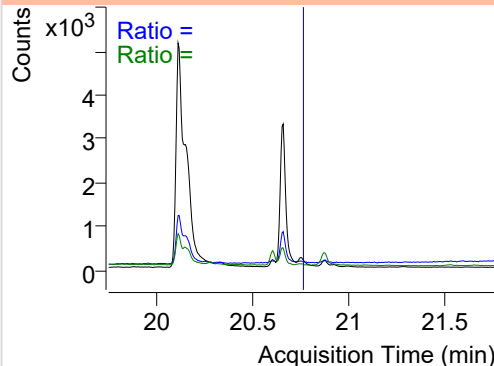
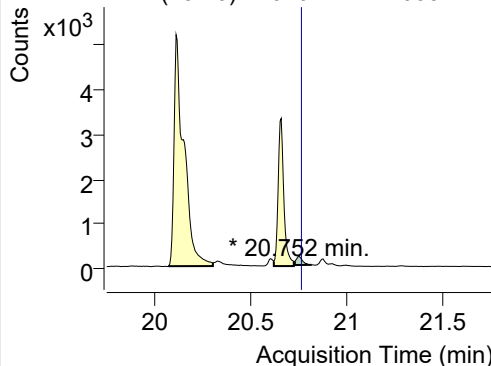


+ SIM (20.621-20.725 min, 20 scans) (\*\*) 2202

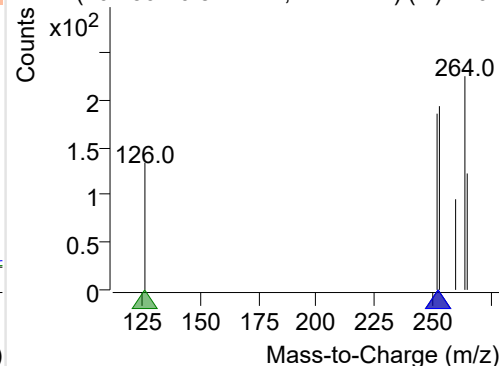
**Benzo(a)pyrene**

+ Selected Ion (252.0) 220204-PAHs-035.D

252.0, 253.0, 126.0

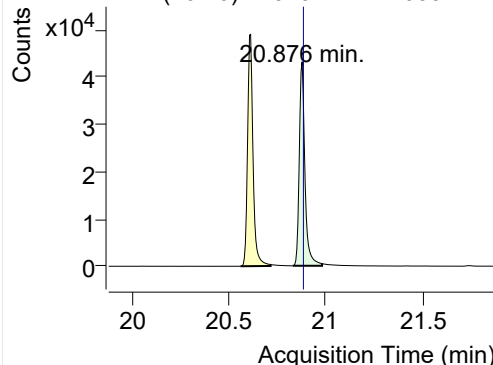


+ SIM (20.730-20.817 min, 17 scans) (\*\*) 2202

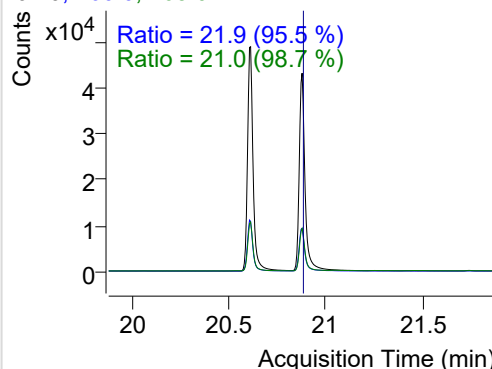


## IS-D12-Perylene

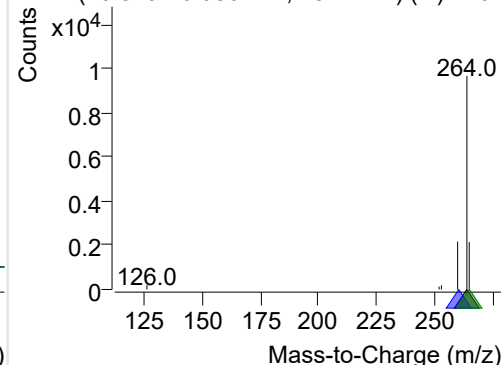
+ Selected Ion (264.0) 220204-PAHs-035.D



264.0, 260.0, 265.0

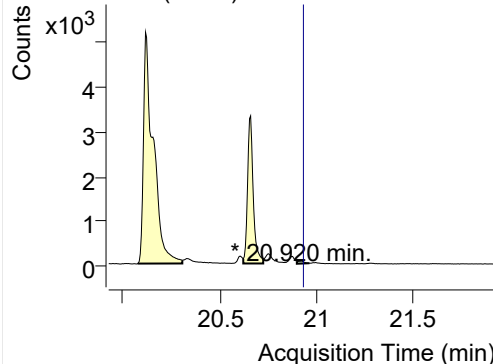


+ SIM (20.829-20.980 min, 28 scans) (\*\*) 2202

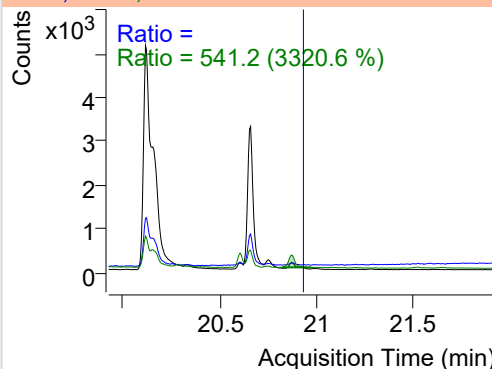


## Perylene

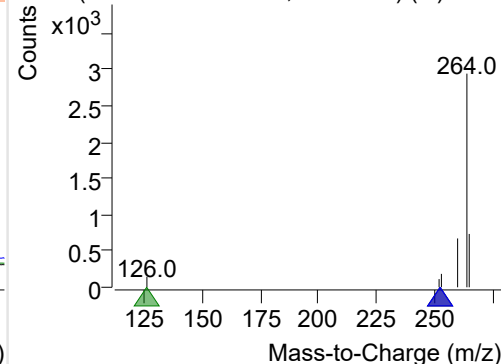
+ Selected Ion (252.0) 220204-PAHs-035.D



252.0, 253.0, 126.0

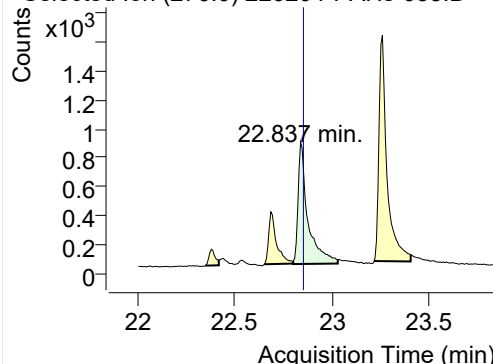


+ SIM (20.898-20.963 min, 13 scans) (\*\*) 2202

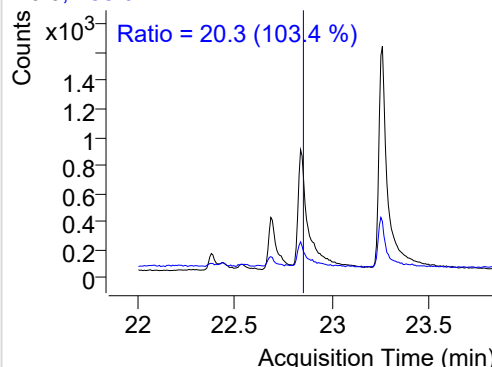


## Indeno(1,2,3-c,d)pyrene

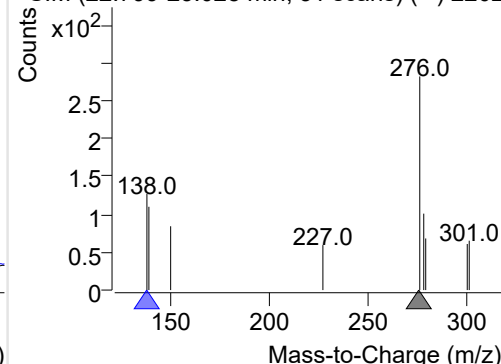
+ Selected Ion (276.0) 220204-PAHs-035.D



276.0, 138.0

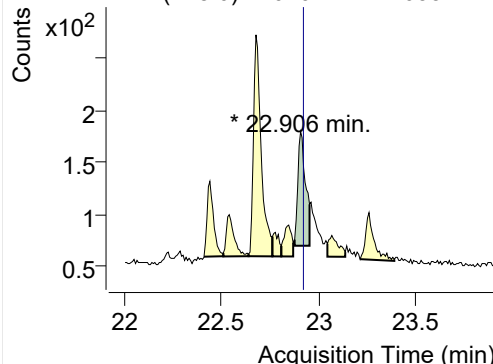


+ SIM (22.799-23.028 min, 31 scans) (\*\*) 2202

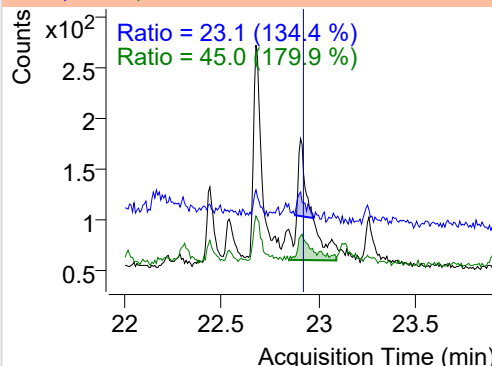


## Dibenz(a,h)anthracene

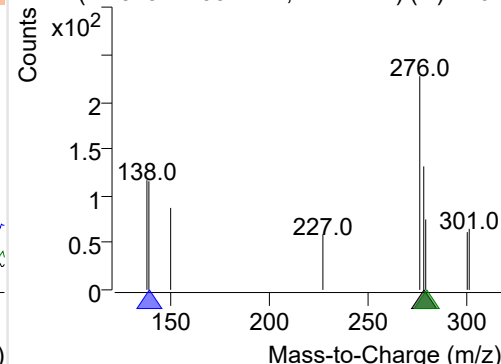
+ Selected Ion (278.0) 220204-PAHs-035.D



278.0, 139.0, 279.0

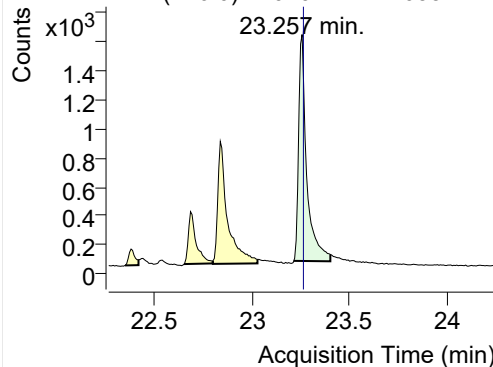


+ SIM (22.875-22.952 min, 11 scans) (\*\*) 2202

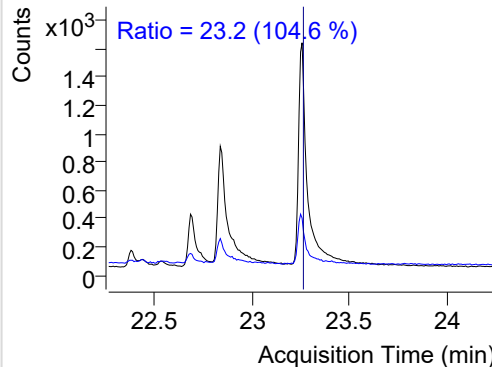


**Benzo(g,h,i)perylene**

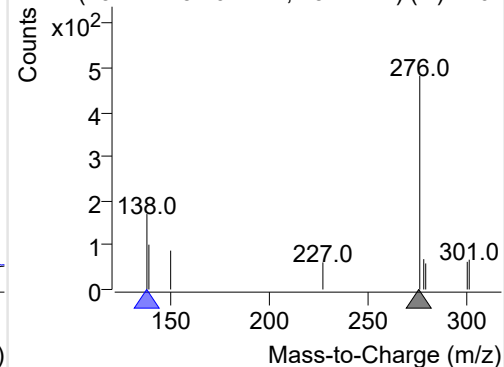
+ Selected Ion (276.0) 220204-PAHs-035.D



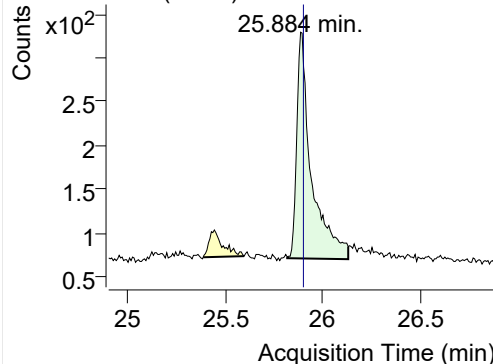
276.0, 138.0



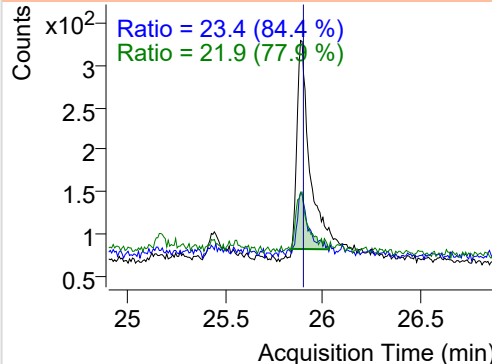
+ SIM (23.214-23.402 min, 25 scans) (\*\*) 2202

**Coronene**

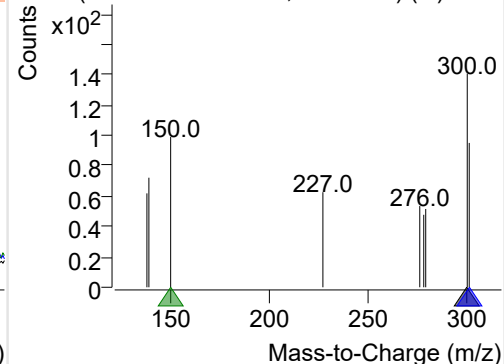
+ Selected Ion (300.0) 220204-PAHs-035.D



300.0, 301.0, 150.0



+ SIM (25.815-26.128 min, 42 scans) (\*\*) 2202





## Quantitative Analysis Sample Based Report

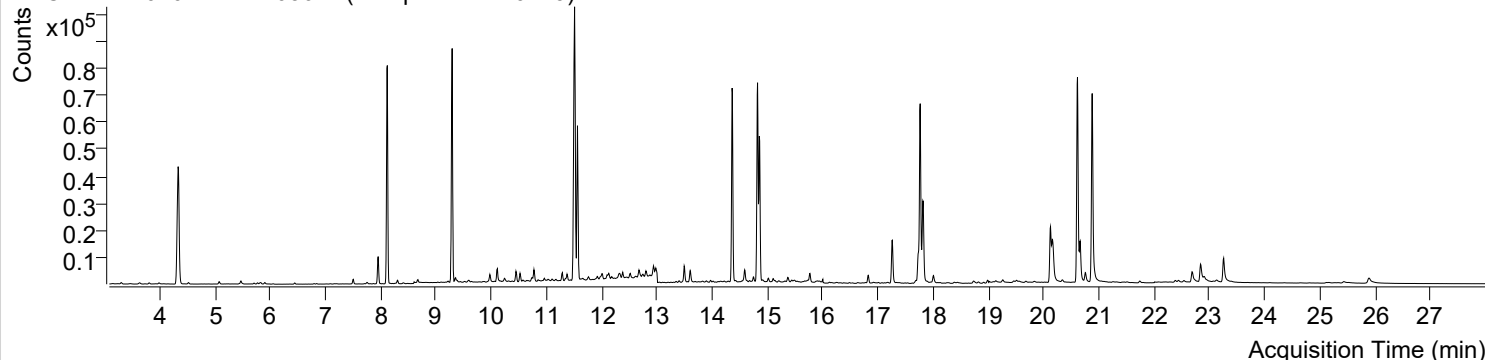


Trusted Answers

Batch Data Path File Name	D:\MassHunter\GCMS\1\data\PAHs\220204-PAHs-Sample\QuantResults\220204-PAHs-Quant.batch.bin		
Analysis Time Stamp	2022-04-13 오후 3:18:46	Analyst Name	DESKTOP-86B7UPG\5975MS
Report Generation Time	2022-04-13 오후 3:19:11	Report Generator Name	DESKTOP-86B7UPG\5975MS
Calibration Last Update	2022-04-13 오후 3:16:00	Batch State	Processed
Analyze Quant Version	10.2	Report Quant Version	10.2
Acq. Date-Time	2022-02-05 오전 8:20:42	Data File	220204-PAHs-036.D
Type	Sample	Name	Sample-PM-220119
Dil.	1	Acq. Method File	PAHs 19mix-Method

## Sample Chromatogram

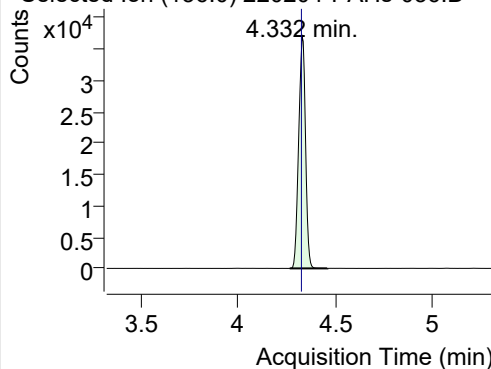
+ TIC SIM 220204-PAHs-036.D (Sample-PM-220119)



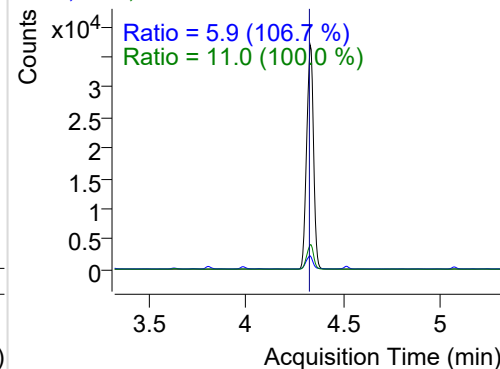
Name	RT	Transition	Resp.	Height	Final Conc. Units	Ratio
IS-D8-Naphthalene	4.332	136.0	90325	36970.65	ND ng/ml	11.0
Naphthalene	4.375	128.0	252	100.69	ND ng/ml	19.0
Acenaphthylene	7.751	152.0	554	337.03	ND ng/ml	19.0
IS-D10-Acenaphthene	8.118	164.0	59451	39451.98	ND ng/ml	92.5
Acenaphthene	8.183	154.0	49	33.69	ND ng/ml	180.7
LSS-D10-Fluorene	9.292	176.0	60243	40918.26	ND µg/mL	88.7
Fluorene	9.355	166.0	1239	761.09	ND µg/mL	96.5
IS-D10-Phenanthrene	11.508	188.0	104390	65038.16	ND µg/mL	15.1
Phenanthrene	11.560	178.0	54888	37550.80	ND µg/mL	18.0
Anthracene	11.665	178.0	496	297.50	ND µg/mL	
Fluoranthene	14.359	202.0	86591	54866.44	ND µg/mL	17.4
LSS-D10-Pyrene	14.820	212.0	86999	54814.78	ND µg/mL	17.5
Pyrene	14.852	202.0	63161	39908.32	ND µg/mL	20.7
Benz(a)anthracene	17.725	228.0	14002	7283.50	ND µg/mL	25.6
IS-D12-Chrysene	17.763	240.0	86372	49988.67	ND µg/mL	18.9
Chrysene	17.817	228.0	43239	19850.23	ND µg/mL	27.3
Benzo(b)fluoranthene	20.122	252.0	26781	15029.05	ND µg/mL	22.0
Benzo(k)fluoranthene	20.155	252.0	30218	11284.09	ND µg/mL	23.8
SS-D12-Benzo(e)pyrene	20.610	264.0	99585	52024.49	ND µg/mL	22.7
Benzo(e)pyrene	20.659	252.0	19049	9730.12	ND µg/mL	20.3
Benzo(a)pyrene	20.751	252.0	5692	2448.51	ND µg/mL	19.5
IS-D12-Perylene	20.876	264.0	94380	47992.74	ND µg/mL	22.1
Perylene	20.920	252.0	609	348.95	ND µg/mL	
Indeno(1,2,3-c,d)pyrene	22.837	276.0	18735	5414.00	ND µg/mL	16.4
Dibenz(a,h)anthracene	22.906	278.0	1288	559.84	ND µg/mL	34.1
Benzo(g,h,i)perylene	23.257	276.0	19479	7202.51	ND µg/mL	19.5
Coronene	25.883	300.0	6496	1237.55	ND µg/mL	25.2

## IS-D8-Naphthalene

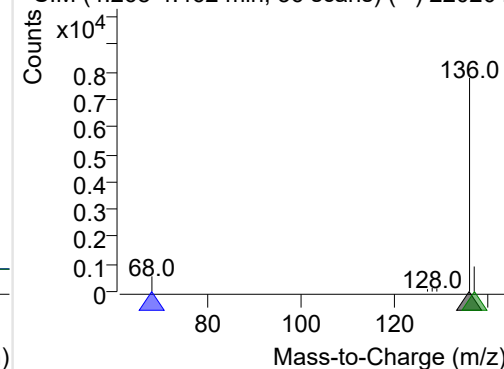
+ Selected Ion (136.0) 220204-PAHs-036.D



136.0, 68.0, 137.0

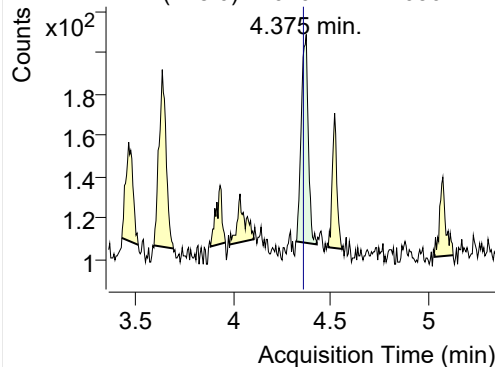


+ SIM (4.268-4.462 min, 36 scans) (\*\*) 220204

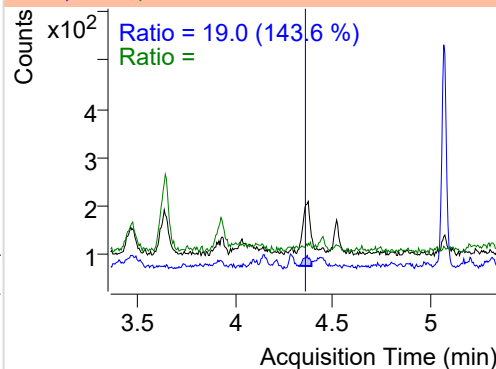


**Naphthalene**

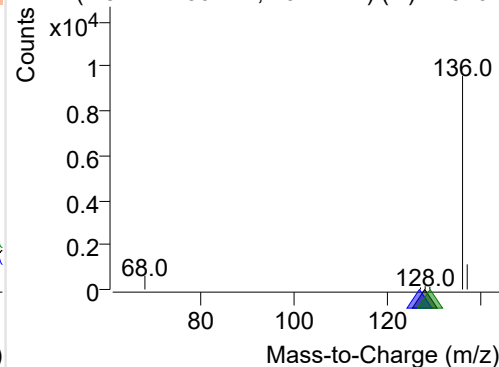
+ Selected Ion (128.0) 220204-PAHs-036.D



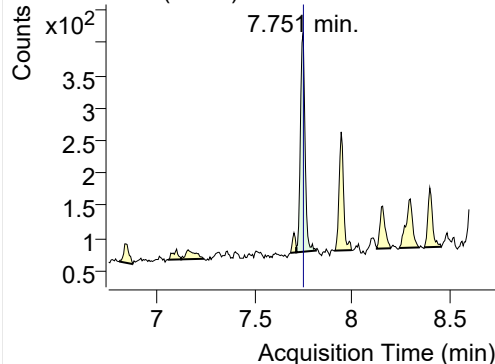
128.0, 127.0, 129.0



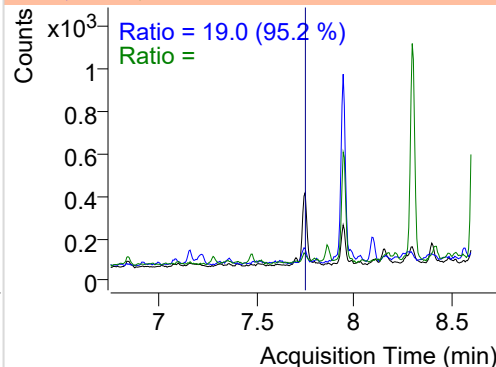
+ SIM (4.322-4.430 min, 20 scans) (\*\*) 220204

**Acenaphthylene**

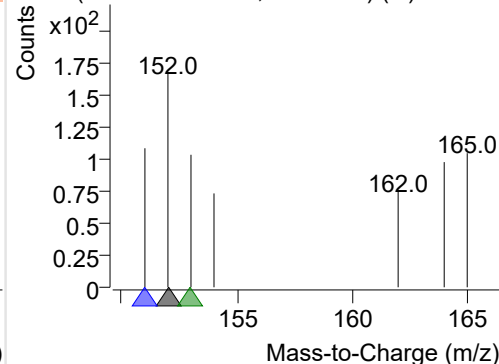
+ Selected Ion (152.0) 220204-PAHs-036.D



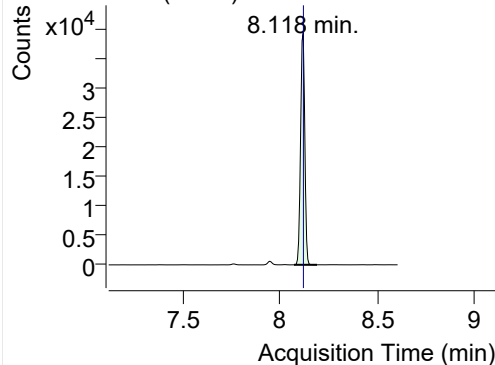
152.0, 151.0, 153.0



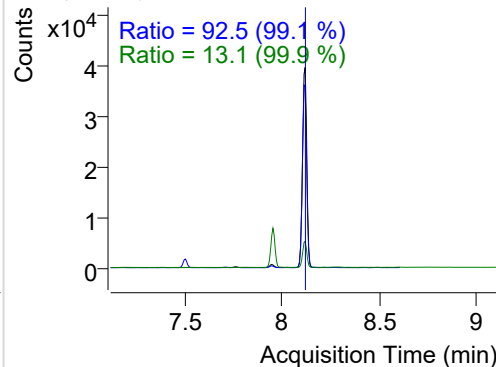
+ SIM (7.716-7.816 min, 18 scans) (\*\*) 220204

**IS-D10-Acenaphthene**

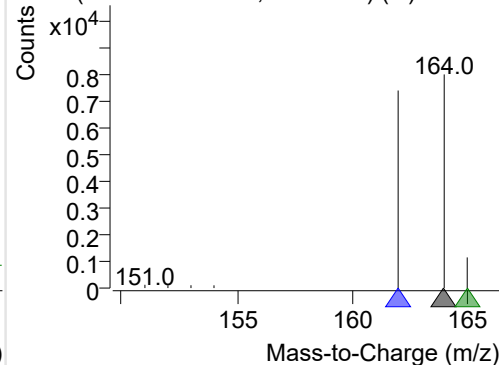
+ Selected Ion (164.0) 220204-PAHs-036.D



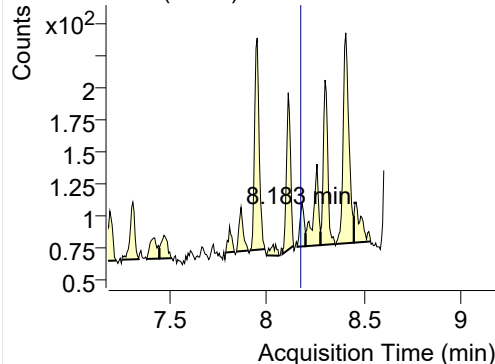
164.0, 162.0, 165.0



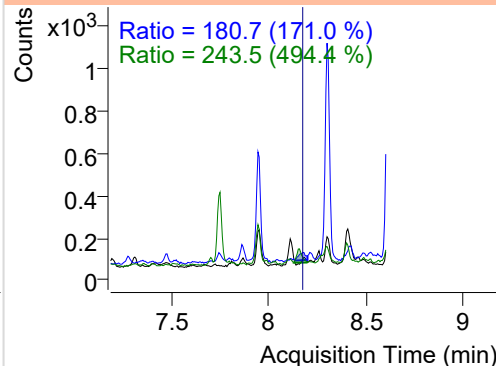
+ SIM (8.071-8.189 min, 21 scans) (\*\*) 220204

**Acenaphthene**

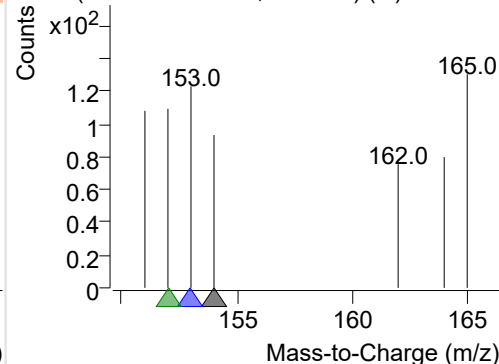
+ Selected Ion (154.0) 220204-PAHs-036.D



154.0, 153.0, 152.0

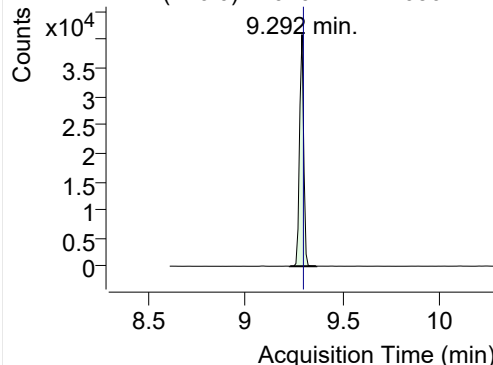


+ SIM (8.159-8.201 min, 8 scans) (\*\*) 220204-I

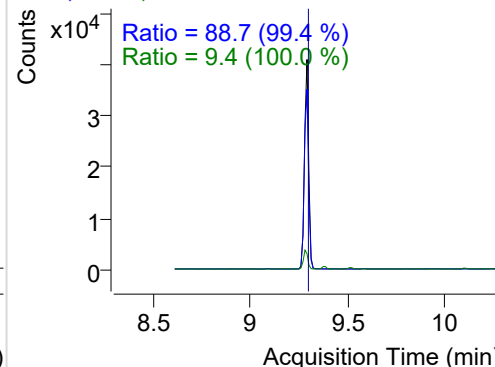


## LSS-D10-Fluorene

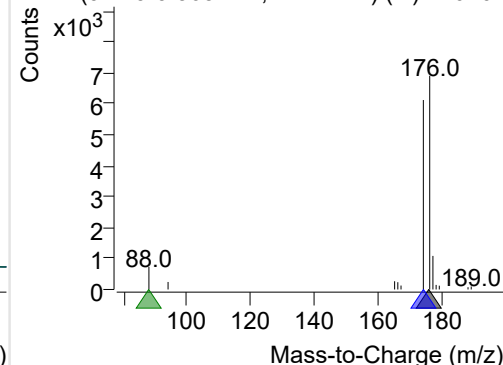
+ Selected Ion (176.0) 220204-PAHs-036.D



176.0, 174.0, 88.0

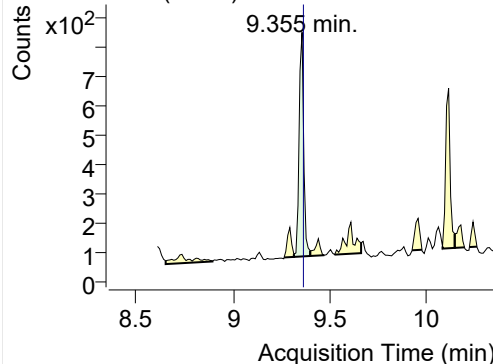


+ SIM (9.229-9.365 min, 14 scans) (\*\*) 220204

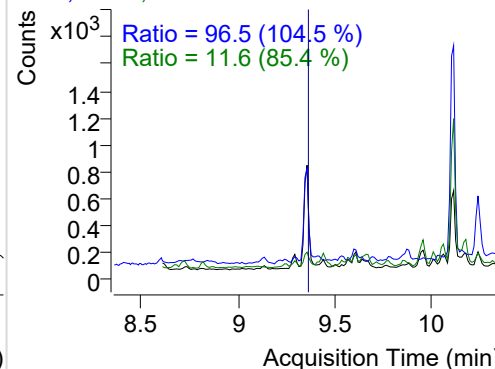


## Fluorene

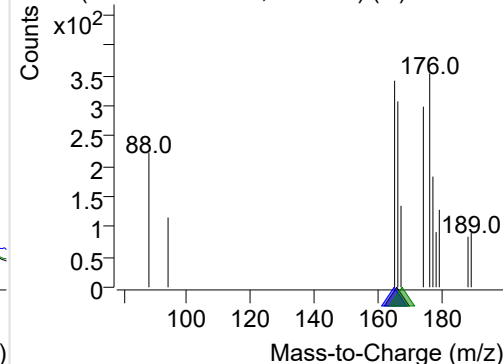
+ Selected Ion (166.0) 220204-PAHs-036.D



166.0, 165.0, 167.0

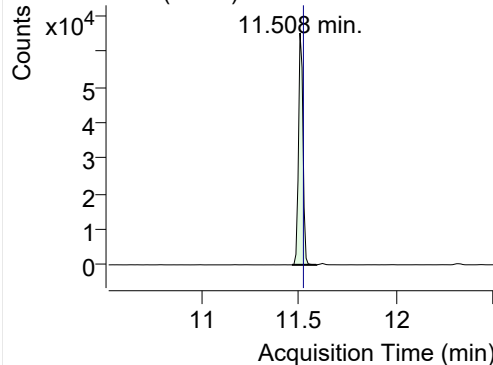


+ SIM (9.313-9.397 min, 9 scans) (\*\*) 220204-I

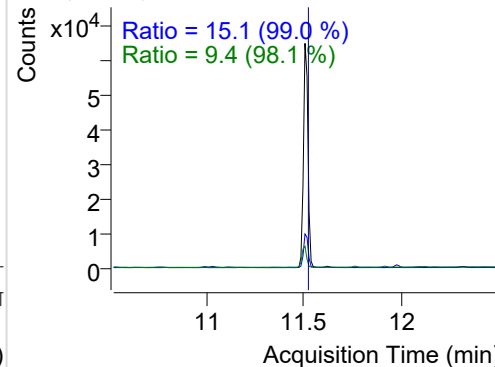


## IS-D10-Phenanthrene

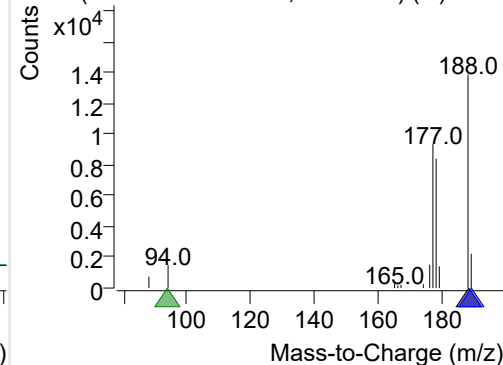
+ Selected Ion (188.0) 220204-PAHs-036.D



188.0, 189.0, 94.0

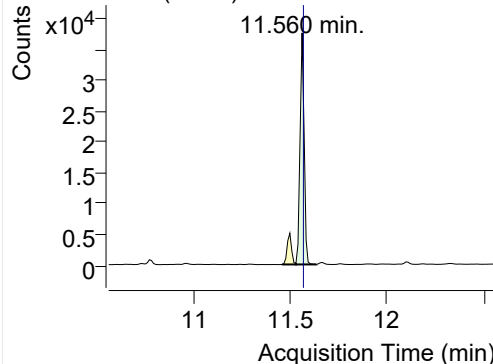


+ SIM (11.466-11.592 min, 12 scans) (\*\*) 2202

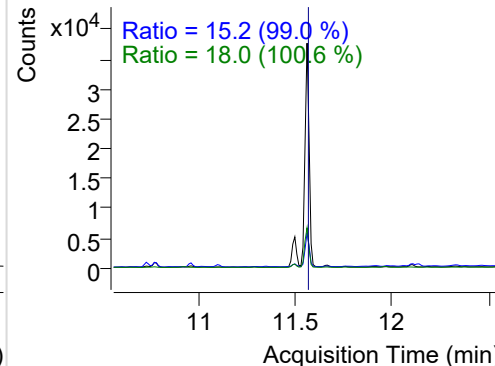


## Phenanthrene

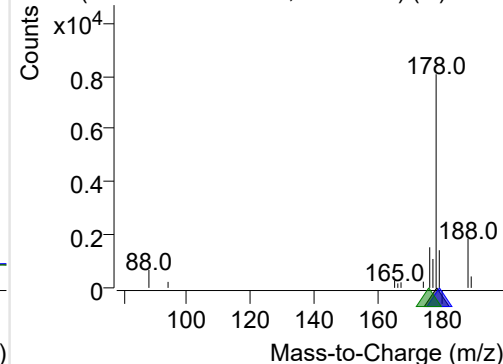
+ Selected Ion (178.0) 220204-PAHs-036.D



178.0, 179.0, 176.0

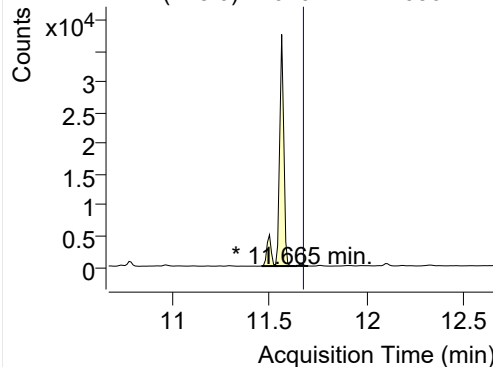


+ SIM (11.529-11.634 min, 11 scans) (\*\*) 2202

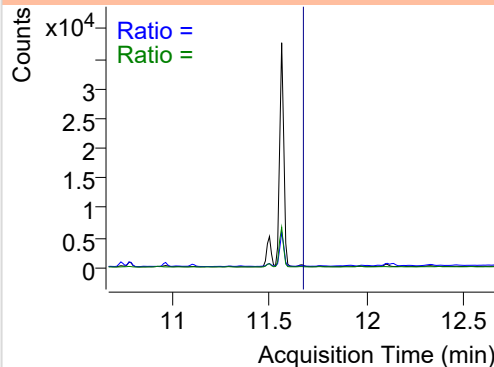


**Anthracene**

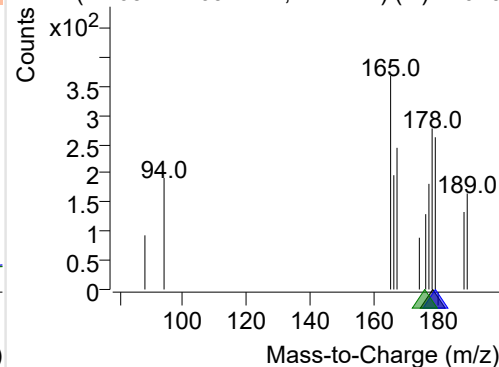
+ Selected Ion (178.0) 220204-PAHs-036.D



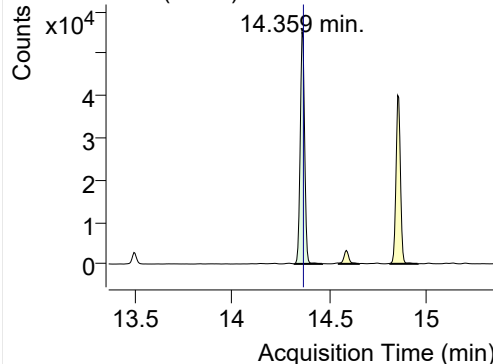
178.0, 179.0, 176.0



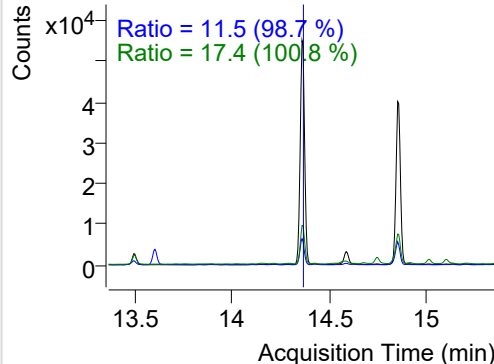
+ SIM (11.634-11.697 min, 7 scans) (\*\*) 22020

**Fluoranthene**

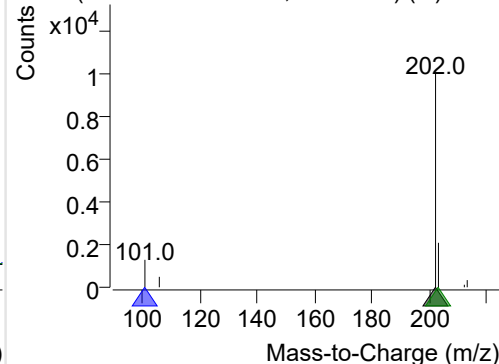
+ Selected Ion (202.0) 220204-PAHs-036.D



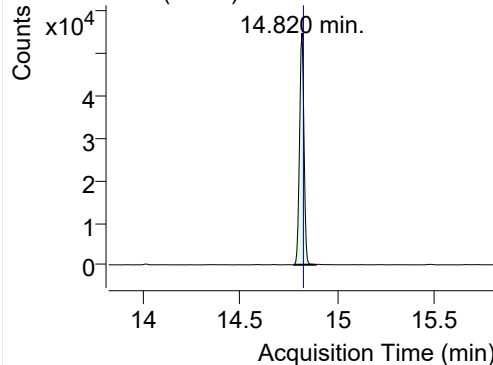
202.0, 101.0, 203.0



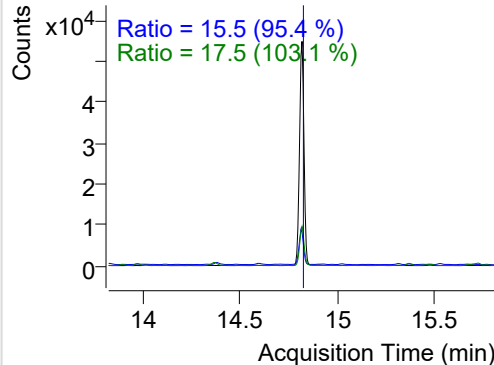
+ SIM (14.321-14.462 min, 27 scans) (\*\*) 2202

**LSS-D10-Pyrene**

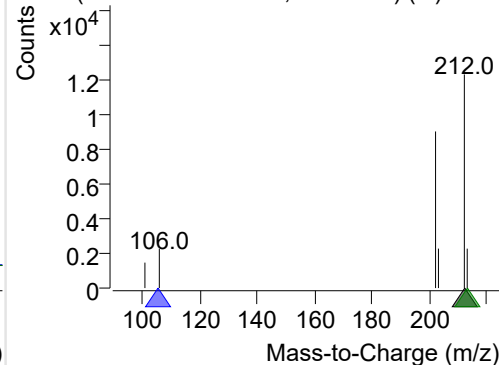
+ Selected Ion (212.0) 220204-PAHs-036.D



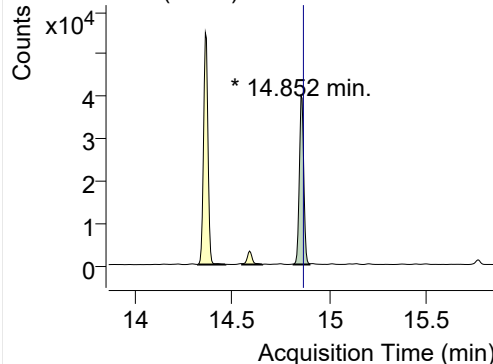
212.0, 106.0, 213.0



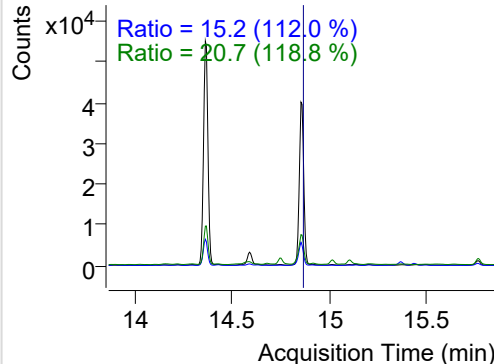
+ SIM (14.775-14.890 min, 22 scans) (\*\*) 2202

**Pyrene**

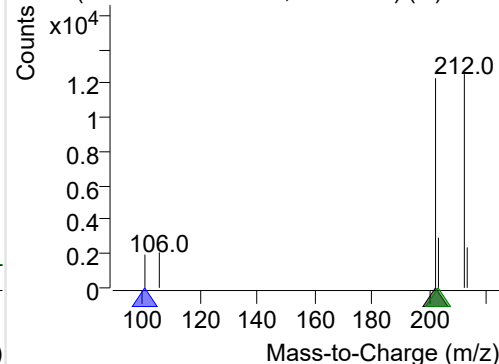
+ Selected Ion (202.0) 220204-PAHs-036.D



202.0, 101.0, 203.0

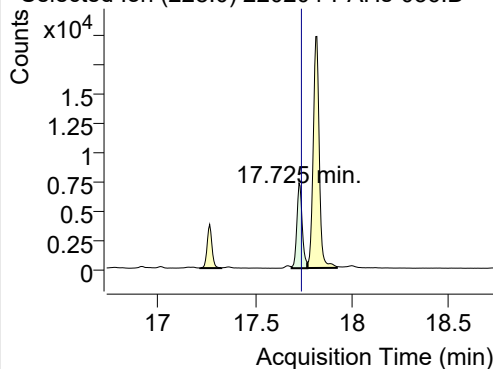


+ SIM (14.814-14.896 min, 16 scans) (\*\*) 2202

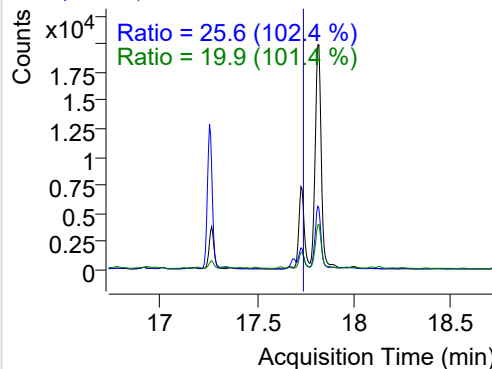


**Benz(a)anthracene**

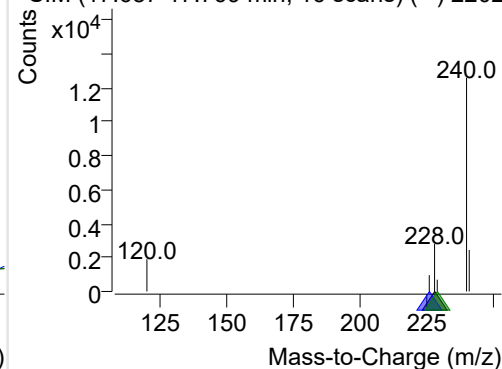
+ Selected Ion (228.0) 220204-PAHs-036.D



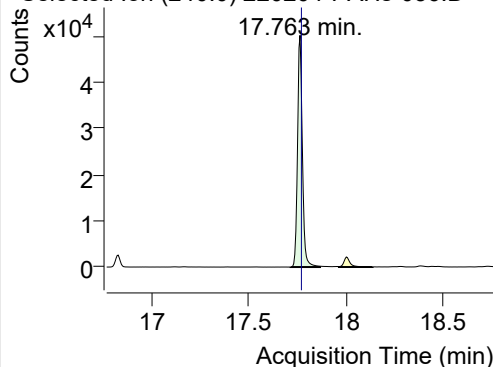
228.0, 226.0, 229.0



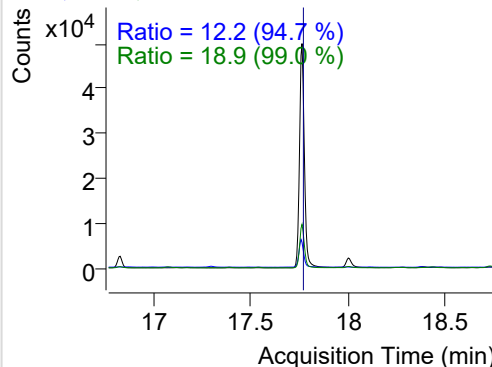
+ SIM (17.687-17.769 min, 16 scans) (\*\*) 2202

**IS-D12-Chrysene**

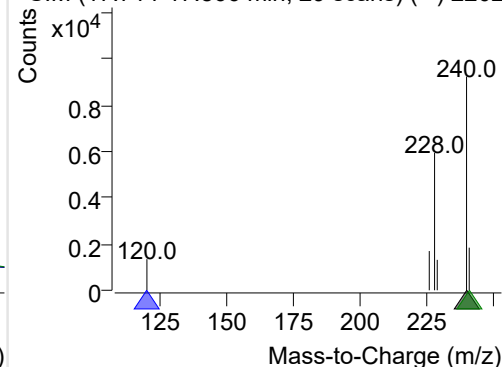
+ Selected Ion (240.0) 220204-PAHs-036.D



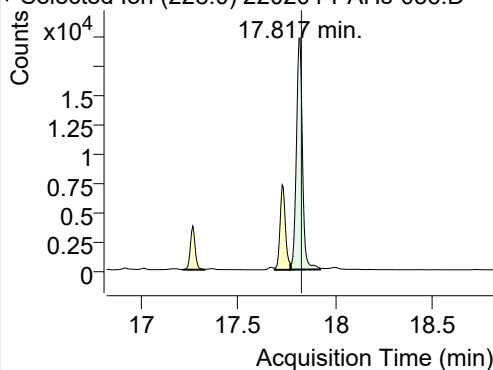
240.0, 120.0, 241.0



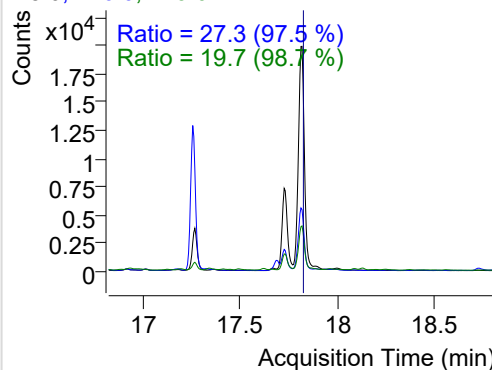
+ SIM (17.714-17.866 min, 29 scans) (\*\*) 2202

**Chrysene**

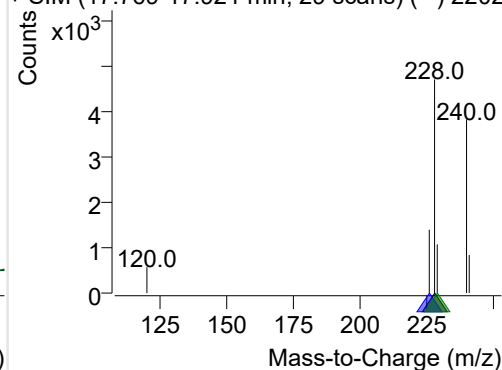
+ Selected Ion (228.0) 220204-PAHs-036.D



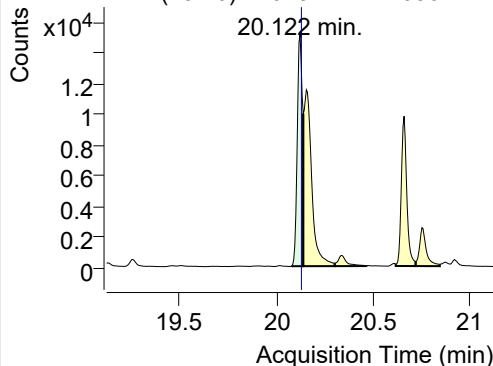
228.0, 226.0, 229.0



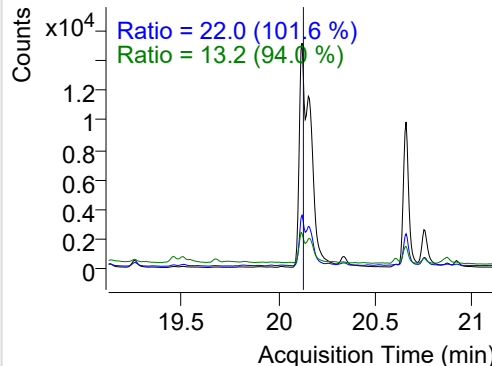
+ SIM (17.769-17.921 min, 29 scans) (\*\*) 2202

**Benzo(b)fluoranthene**

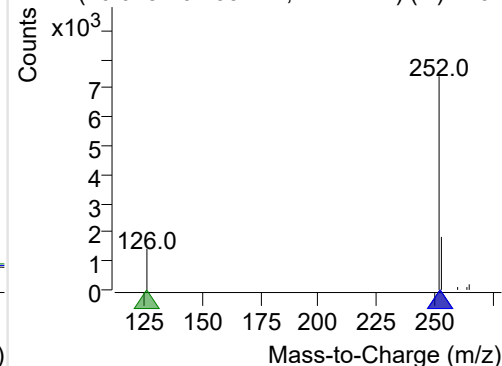
+ Selected Ion (252.0) 220204-PAHs-036.D



252.0, 253.0, 126.0

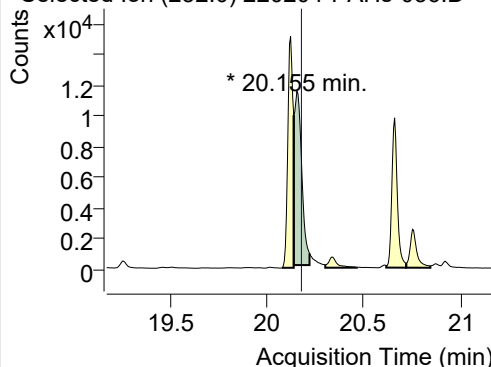


+ SIM (20.078-20.139 min, 12 scans) (\*\*) 2202

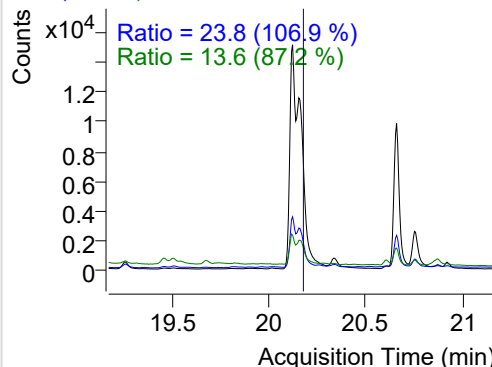


**Benzo(k)fluoranthene**

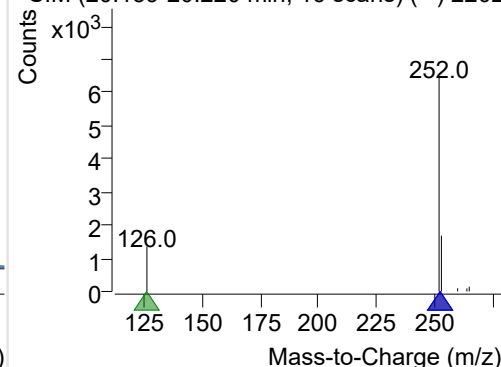
+ Selected Ion (252.0) 220204-PAHs-036.D



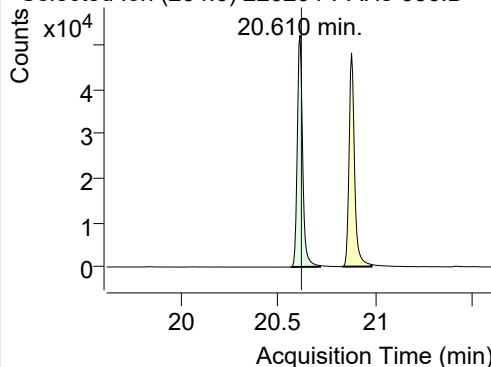
252.0, 253.0, 126.0



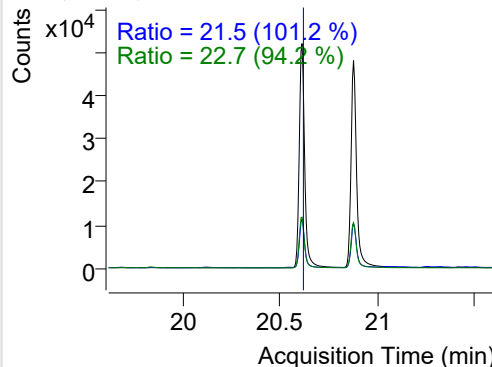
+ SIM (20.139-20.220 min, 16 scans) (\*\*) 2202

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

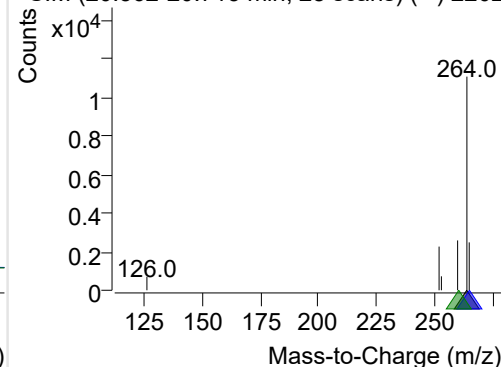
+ Selected Ion (264.0) 220204-PAHs-036.D



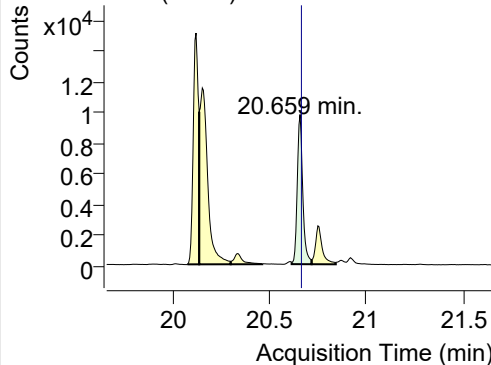
264.0, 265.0, 260.0



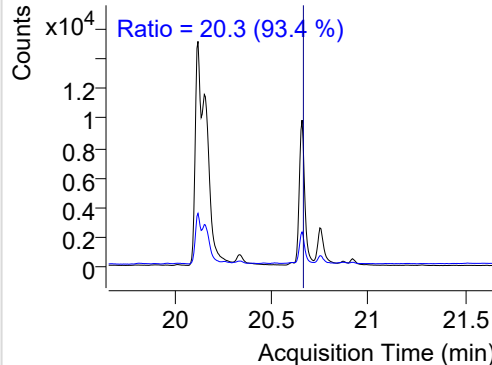
+ SIM (20.562-20.713 min, 28 scans) (\*\*) 2202

**Benzo(e)pyrene**

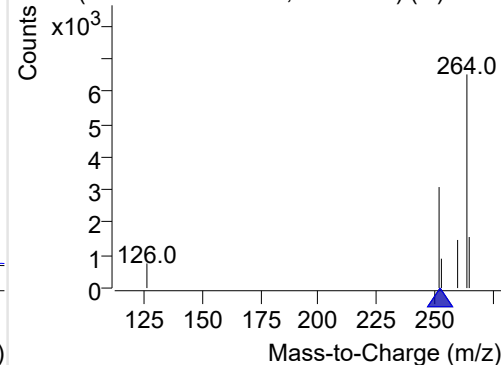
+ Selected Ion (252.0) 220204-PAHs-036.D



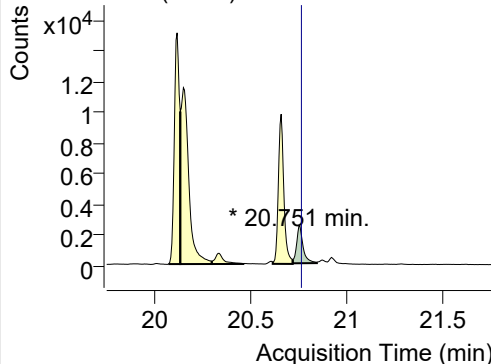
252.0, 253.0



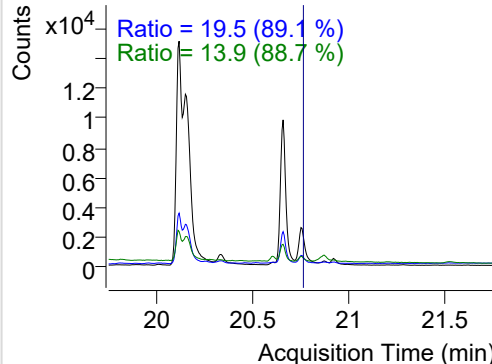
+ SIM (20.616-20.719 min, 20 scans) (\*\*) 2202

**Benzo(a)pyrene**

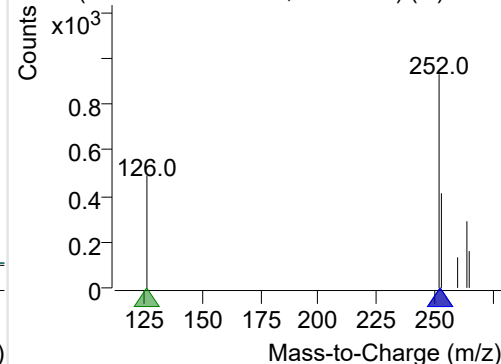
+ Selected Ion (252.0) 220204-PAHs-036.D



252.0, 253.0, 126.0

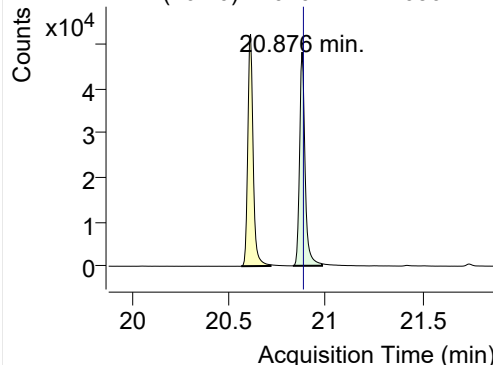


+ SIM (20.719-20.844 min, 24 scans) (\*\*) 2202

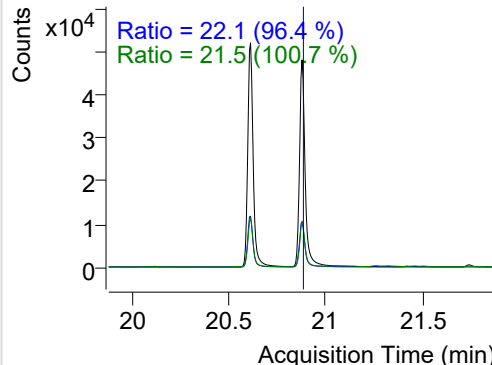


## IS-D12-Perylene

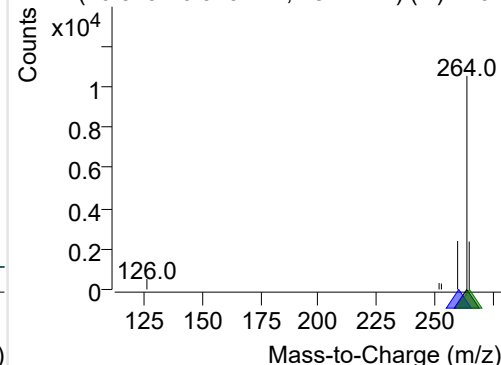
+ Selected Ion (264.0) 220204-PAHs-036.D



264.0, 260.0, 265.0

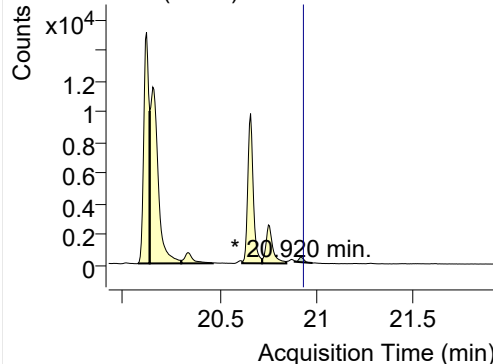


+ SIM (20.829-20.979 min, 28 scans) (\*\*) 2202

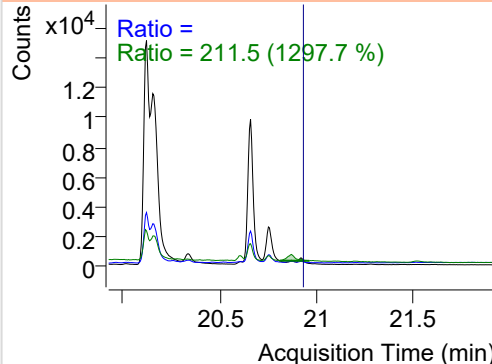


## Perylene

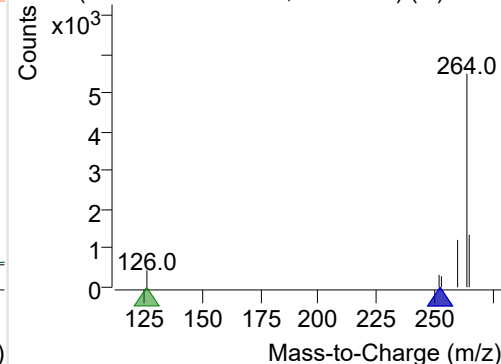
+ Selected Ion (252.0) 220204-PAHs-036.D



252.0, 253.0, 126.0

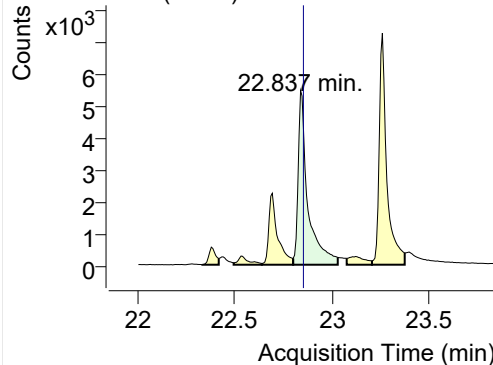


+ SIM (20.887-20.979 min, 18 scans) (\*\*) 2202

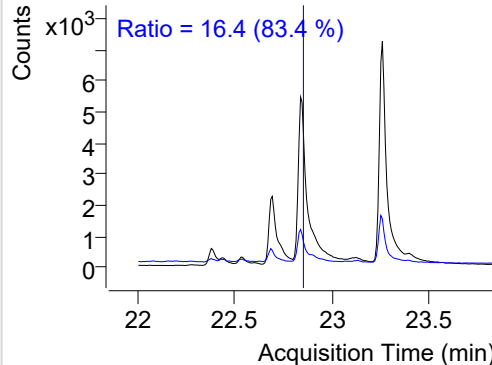


## Indeno(1,2,3-c,d)pyrene

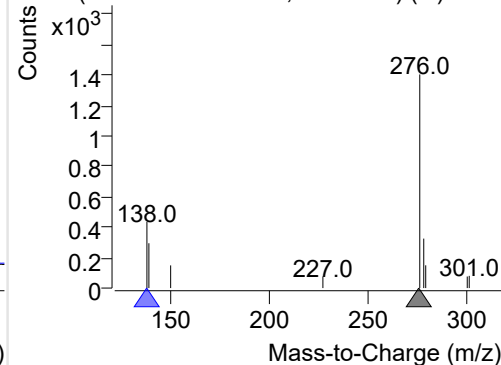
+ Selected Ion (276.0) 220204-PAHs-036.D



276.0, 138.0

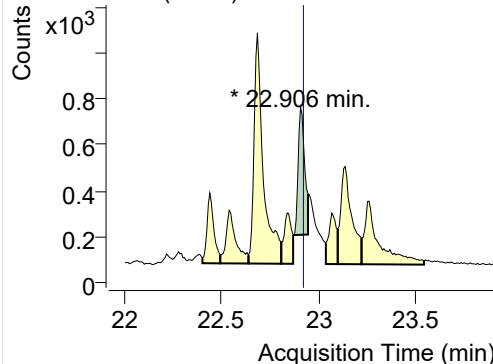


+ SIM (22.799-23.028 min, 31 scans) (\*\*) 2202

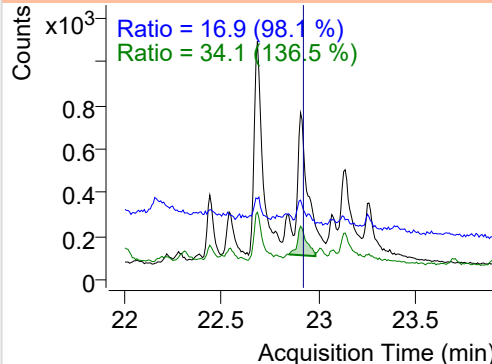


## Dibenz(a,h)anthracene

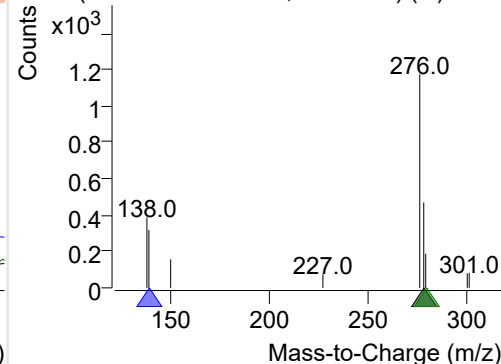
+ Selected Ion (278.0) 220204-PAHs-036.D



278.0, 139.0, 279.0

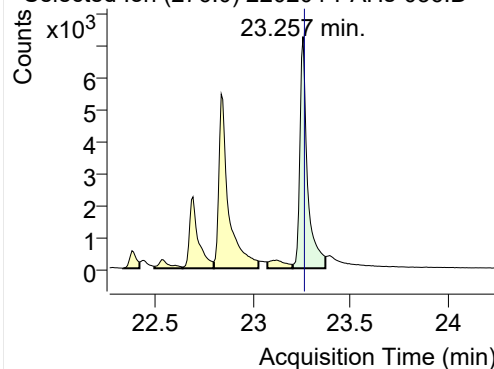


+ SIM (22.867-22.944 min, 11 scans) (\*\*) 2202

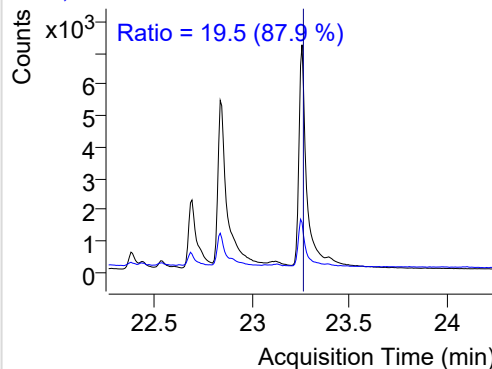


**Benzo(g,h,i)perylene**

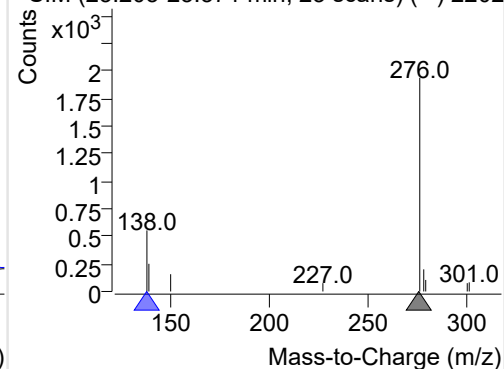
+ Selected Ion (276.0) 220204-PAHs-036.D



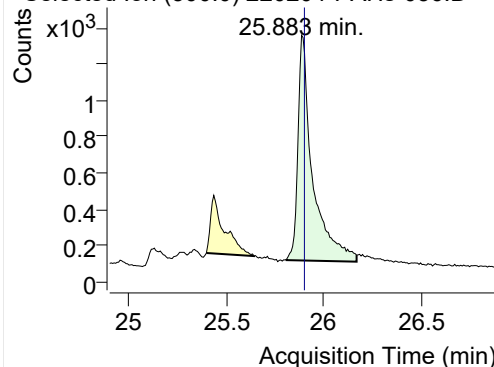
276.0, 138.0



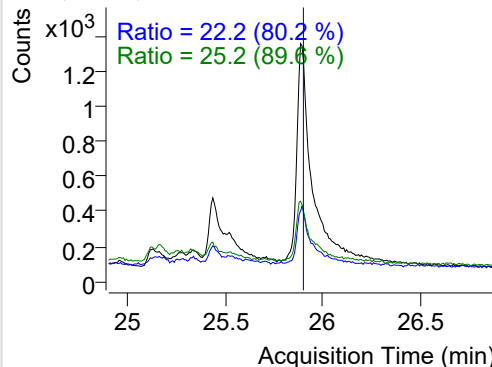
+ SIM (23.203-23.371 min, 23 scans) (\*\*) 2202

**Coronene**

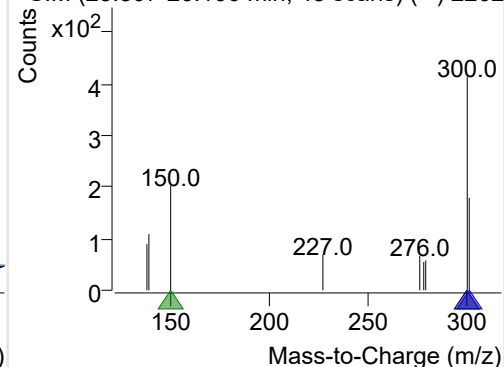
+ Selected Ion (300.0) 220204-PAHs-036.D



300.0, 301.0, 150.0



+ SIM (25.807-26.166 min, 48 scans) (\*\*) 2202





## Quantitative Analysis Sample Based Report

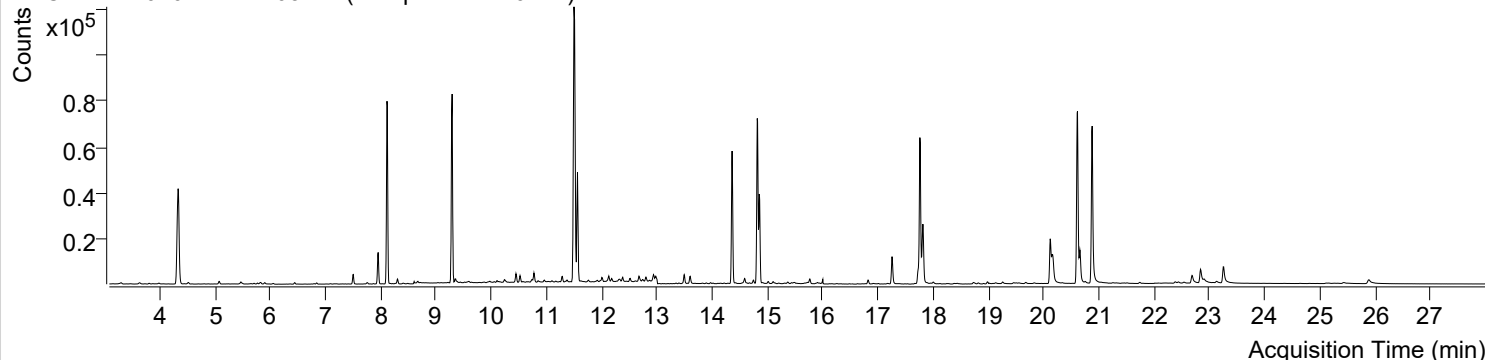


Trusted Answers

Batch Data Path File Name	D:\MassHunter\GCMS\1\data\PAHs\220204-PAHs-Sample\QuantResults\220204-PAHs-Quant.batch.bin		
Analysis Time Stamp	2022-04-13 오후 3:18:46	Analyst Name	DESKTOP-86B7UPG\5975MS
Report Generation Time	2022-04-13 오후 3:19:11	Report Generator Name	DESKTOP-86B7UPG\5975MS
Calibration Last Update	2022-04-13 오후 3:16:00	Batch State	Processed
Analyze Quant Version	10.2	Report Quant Version	10.2
Acq. Date-Time	2022-02-05 오전 8:51:54	Data File	220204-PAHs-037.D
Type	Sample	Name	Sample-PM-220127
Dil.	1	Acq. Method File	PAHs 19mix-Method

## Sample Chromatogram

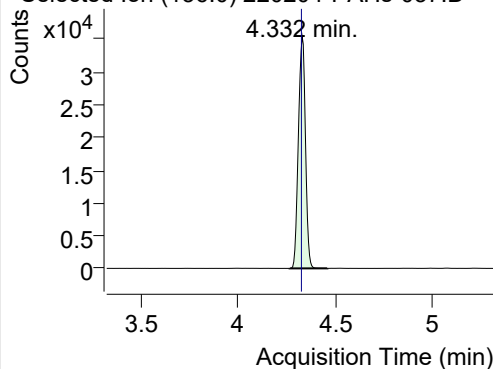
+ TIC SIM 220204-PAHs-037.D (Sample-PM-220127)



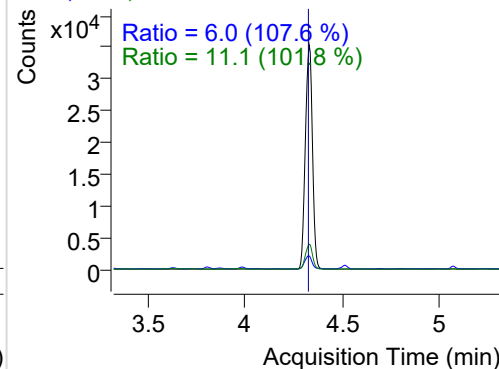
Name	RT	Transition	Resp.	Height	Final Conc. Units	Ratio
IS-D8-Naphthalene	4.332	136.0	89183	35342.38	ND ng/ml	11.1
Naphthalene	4.370	128.0	313	100.56	ND ng/ml	29.8
Acenaphthylene	7.745	152.0	425	269.30	ND ng/ml	
IS-D10-Acenaphthene	8.112	164.0	58449	38343.17	ND ng/ml	92.3
Acenaphthene	8.183	154.0	126	52.48	ND ng/ml	
LSS-D10-Fluorene	9.292	176.0	60546	39359.19	ND µg/mL	87.9
Fluorene	9.355	166.0	1265	750.48	ND µg/mL	97.9
IS-D10-Phenanthrene	11.508	188.0	104545	66792.34	ND µg/mL	15.1
Phenanthrene	11.560	178.0	47472	31451.69	ND µg/mL	17.6
Anthracene	11.665	178.0	130	80.00	ND µg/mL	
Fluoranthene	14.359	202.0	70911	44559.28	ND µg/mL	17.0
LSS-D10-Pyrene	14.814	212.0	87747	53656.26	ND µg/mL	17.0
Pyrene	14.852	202.0	46316	28964.73	ND µg/mL	21.1
Benz(a)anthracene	17.725	228.0	7556	4010.81	ND µg/mL	27.2
IS-D12-Chrysene	17.758	240.0	84075	47833.21	ND µg/mL	19.0
Chrysene	17.812	228.0	36152	16994.65	ND µg/mL	27.3
Benzo(b)fluoranthene	20.117	252.0	26026	14221.04	ND µg/mL	21.6
Benzo(k)fluoranthene	20.155	252.0	26025	9035.95	ND µg/mL	18.9
SS-D12-Benzo(e)pyrene	20.611	264.0	100805	51428.85	ND µg/mL	22.7
Benzo(e)pyrene	20.654	252.0	17293	8802.85	ND µg/mL	21.9
Benzo(a)pyrene	20.752	252.0	878	398.54	ND µg/mL	
IS-D12-Perylene	20.876	264.0	91632	47147.21	ND µg/mL	22.2
Perylene	20.920	252.0	19	23.51	ND µg/mL	
Indeno(1,2,3-c,d)pyrene	22.837	276.0	15702	4810.35	ND µg/mL	19.1
Dibenz(a,h)anthracene	22.906	278.0	1281	593.67	ND µg/mL	25.8
Benzo(g,h,i)perylene	23.257	276.0	16194	5685.08	ND µg/mL	20.8
Coronene	25.884	300.0	5401	1080.23	ND µg/mL	25.5

## IS-D8-Naphthalene

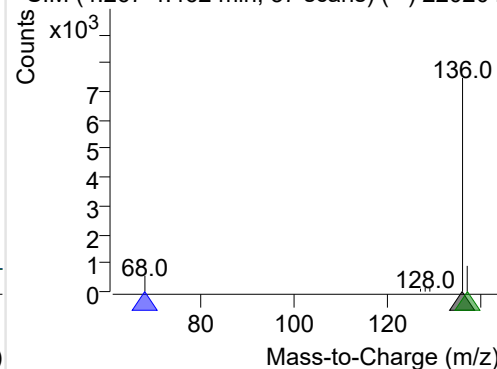
+ Selected Ion (136.0) 220204-PAHs-037.D



136.0, 68.0, 137.0

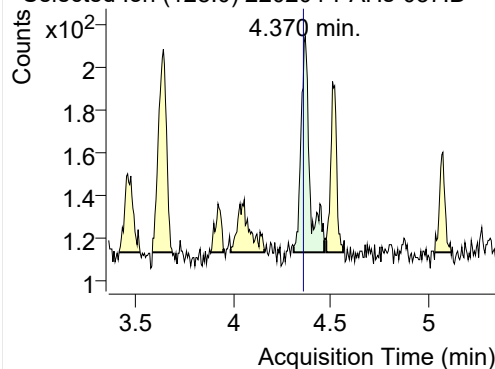


+ SIM (4.267-4.462 min, 37 scans) (\*\*) 220204

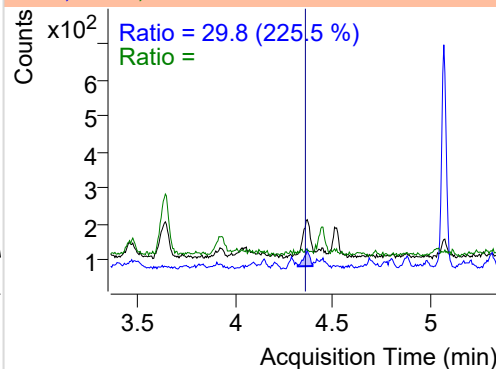


**Naphthalene**

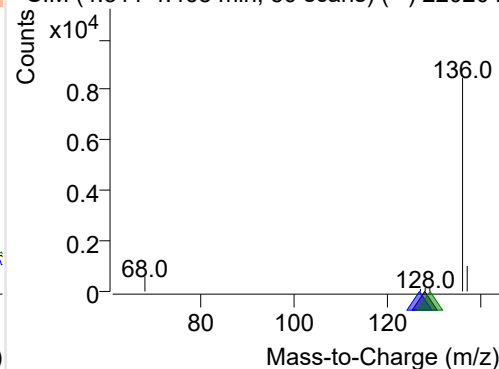
+ Selected Ion (128.0) 220204-PAHs-037.D



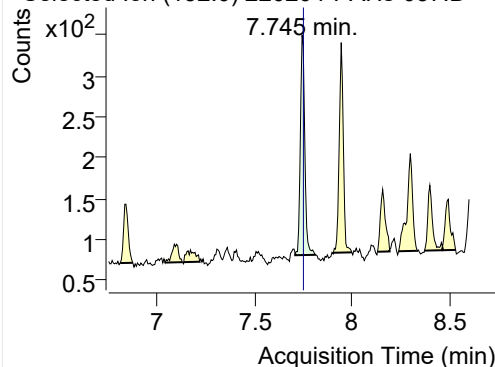
128.0, 127.0, 129.0



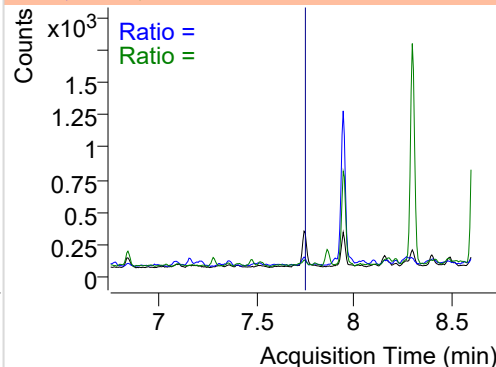
+ SIM (4.311-4.468 min, 30 scans) (\*\*) 220204

**Acenaphthylene**

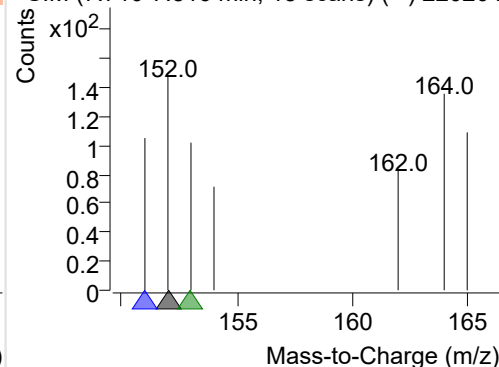
+ Selected Ion (152.0) 220204-PAHs-037.D



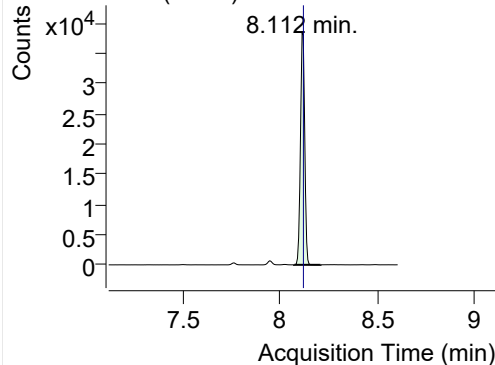
152.0, 151.0, 153.0



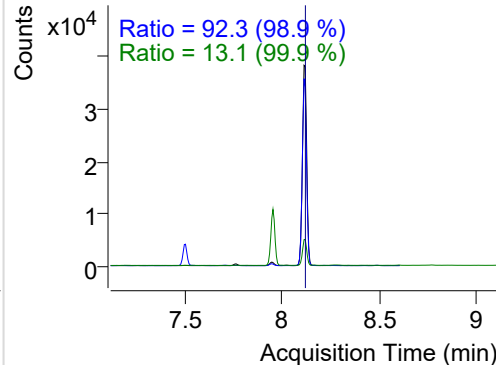
+ SIM (7.710-7.816 min, 18 scans) (\*\*) 220204

**IS-D10-Acenaphthene**

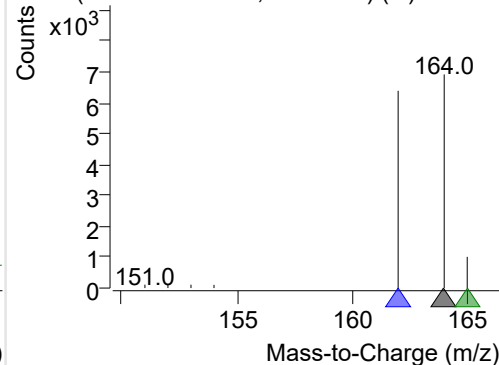
+ Selected Ion (164.0) 220204-PAHs-037.D



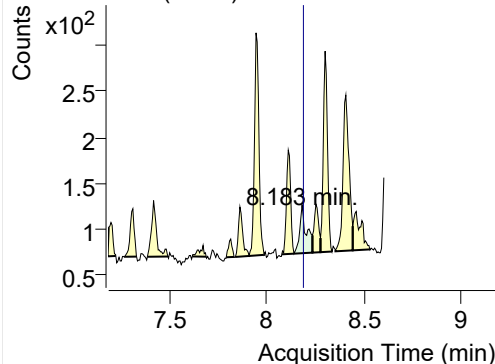
164.0, 162.0, 165.0



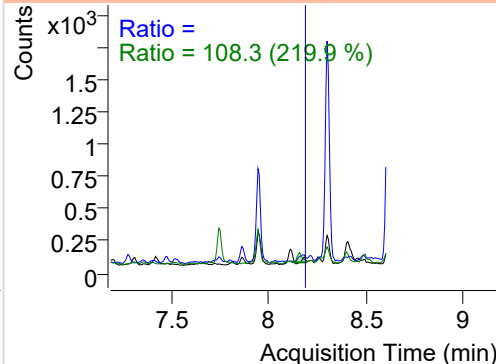
+ SIM (8.071-8.207 min, 24 scans) (\*\*) 220204

**Acenaphthene**

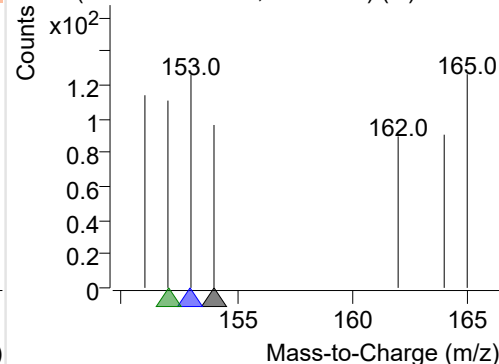
+ Selected Ion (154.0) 220204-PAHs-037.D



154.0, 153.0, 152.0

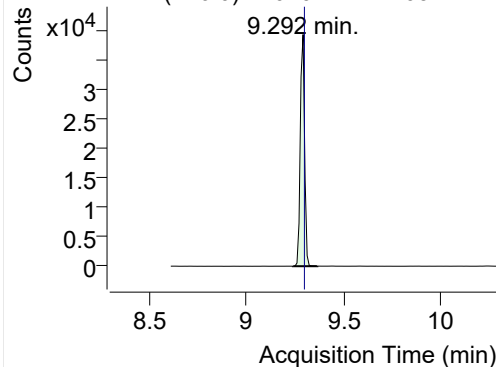


+ SIM (8.142-8.237 min, 16 scans) (\*\*) 220204

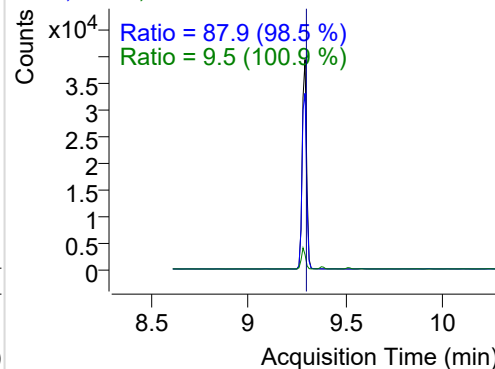


## LSS-D10-Fluorene

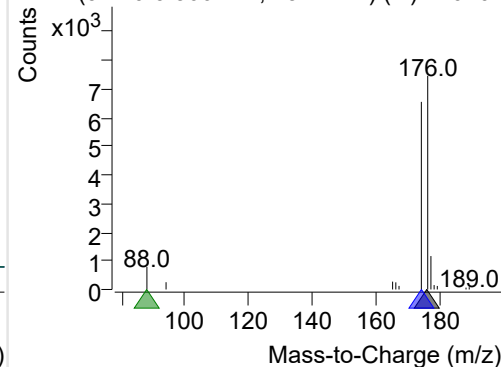
+ Selected Ion (176.0) 220204-PAHs-037.D



176.0, 174.0, 88.0

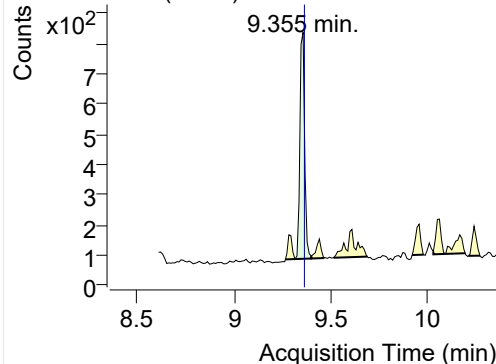


+ SIM (9.240-9.366 min, 13 scans) (\*\*) 220204

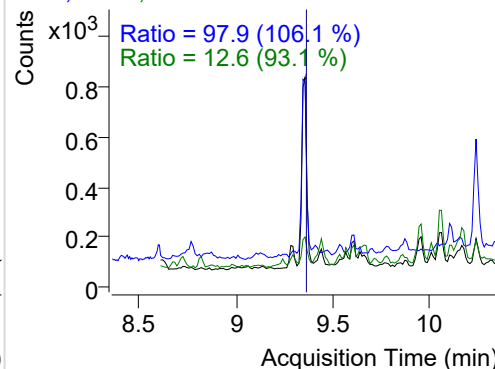


## Fluorene

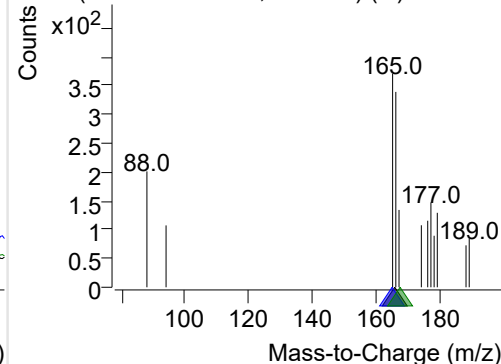
+ Selected Ion (166.0) 220204-PAHs-037.D



166.0, 165.0, 167.0

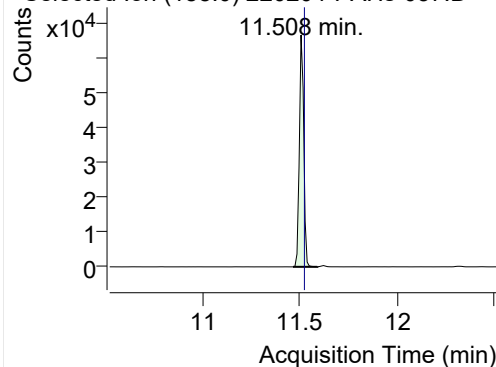


+ SIM (9.314-9.397 min, 8 scans) (\*\*) 220204-I

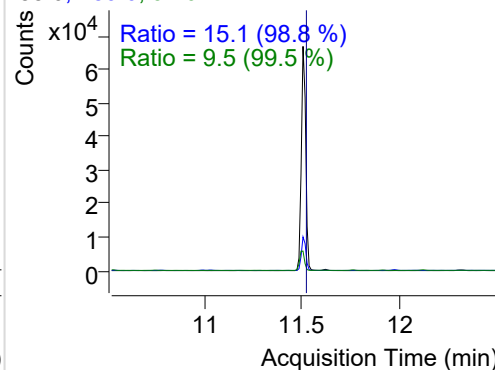


## IS-D10-Phenanthrene

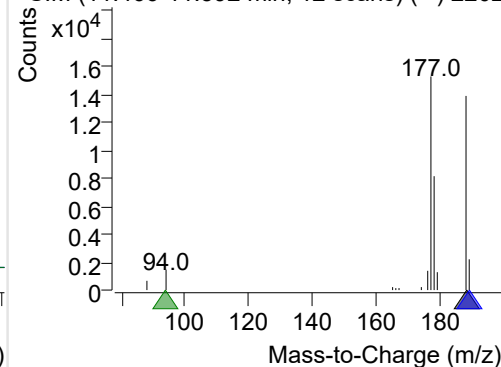
+ Selected Ion (188.0) 220204-PAHs-037.D



188.0, 189.0, 94.0

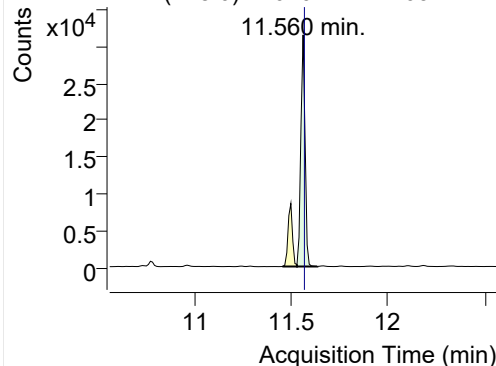


+ SIM (11.466-11.592 min, 12 scans) (\*\*) 2202

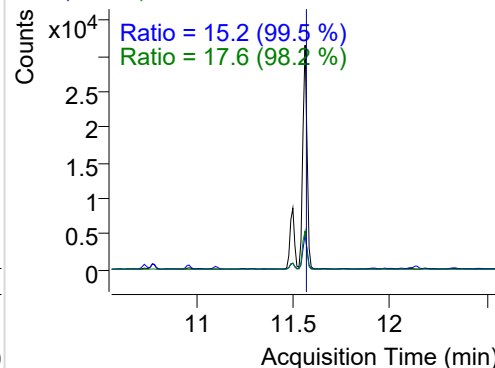


## Phenanthrene

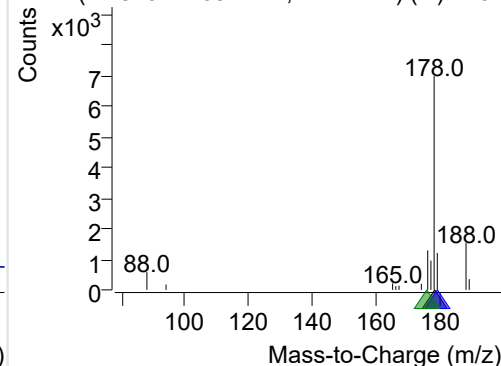
+ Selected Ion (178.0) 220204-PAHs-037.D



178.0, 179.0, 176.0

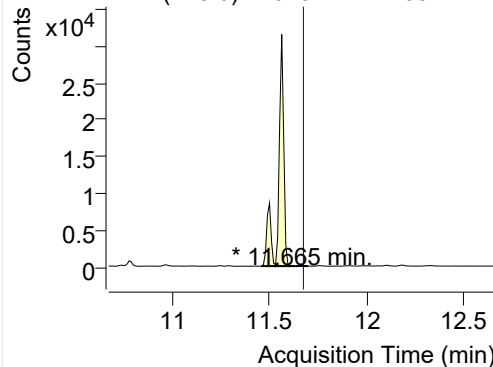


+ SIM (11.529-11.634 min, 11 scans) (\*\*) 2202

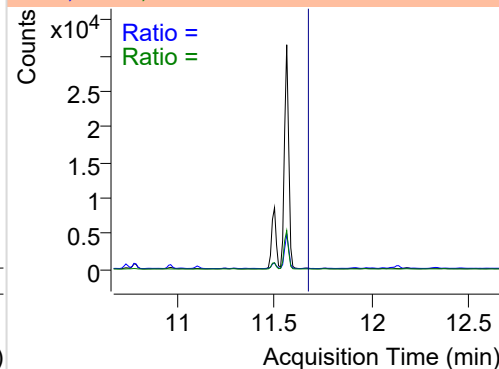


**Anthracene**

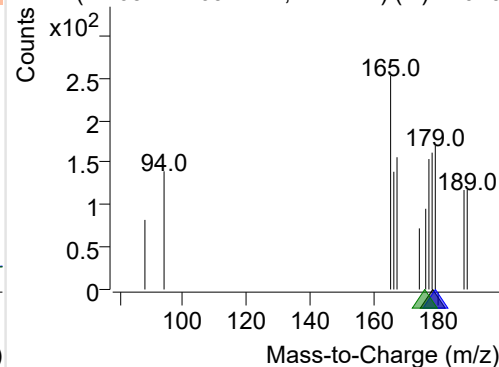
+ Selected Ion (178.0) 220204-PAHs-037.D



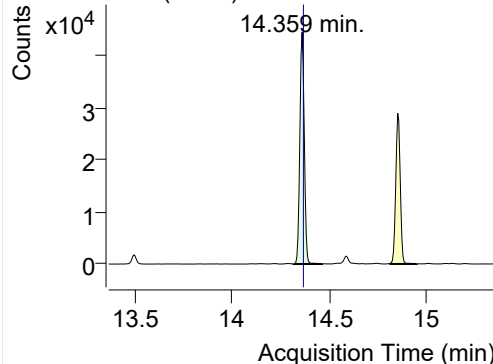
178.0, 179.0, 176.0



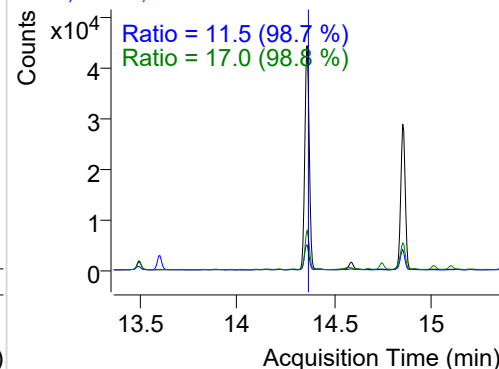
+ SIM (11.634-11.697 min, 7 scans) (\*\*) 22020

**Fluoranthene**

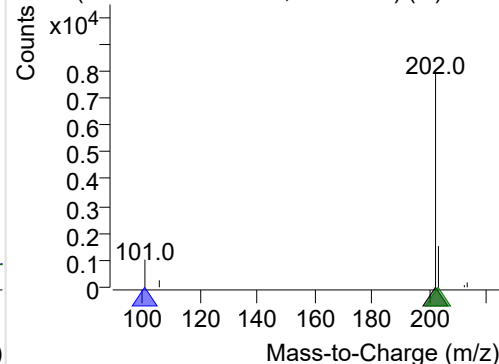
+ Selected Ion (202.0) 220204-PAHs-037.D



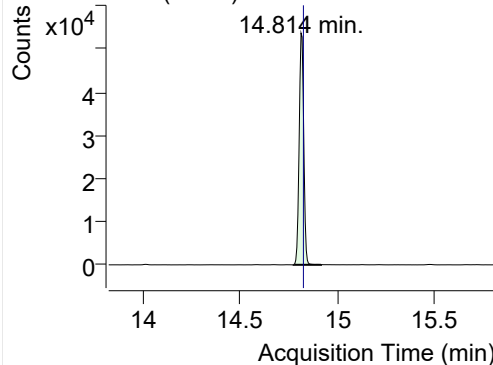
202.0, 101.0, 203.0



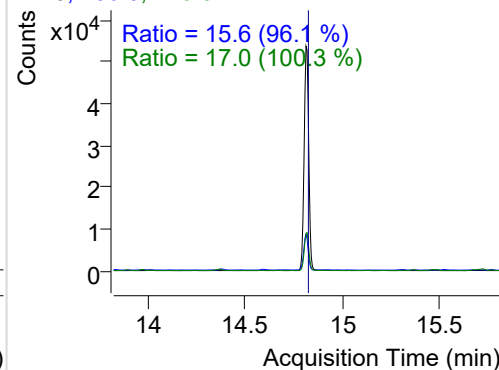
+ SIM (14.316-14.462 min, 28 scans) (\*\*) 2202

**LSS-D10-Pyrene**

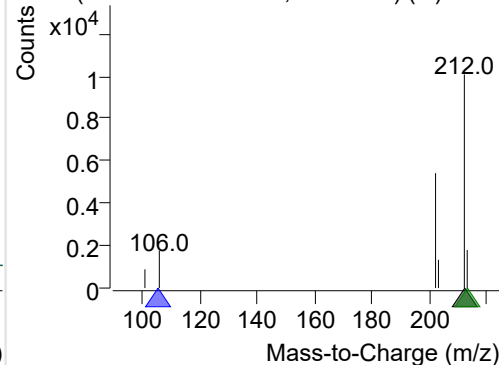
+ Selected Ion (212.0) 220204-PAHs-037.D



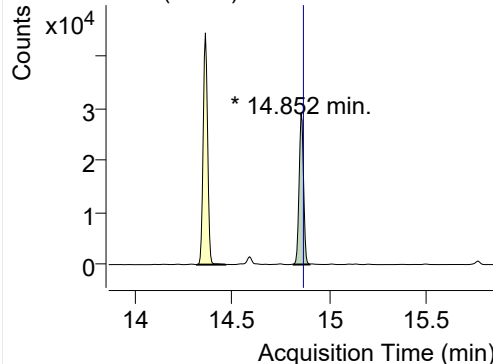
212.0, 106.0, 213.0



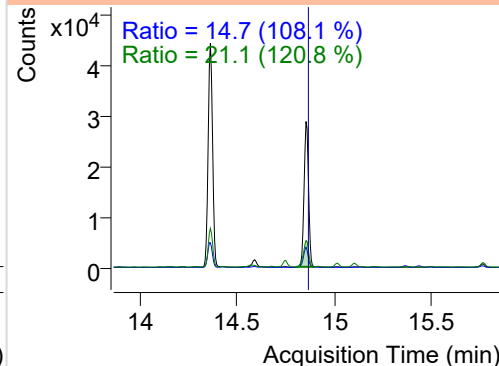
+ SIM (14.776-14.917 min, 27 scans) (\*\*) 2202

**Pyrene**

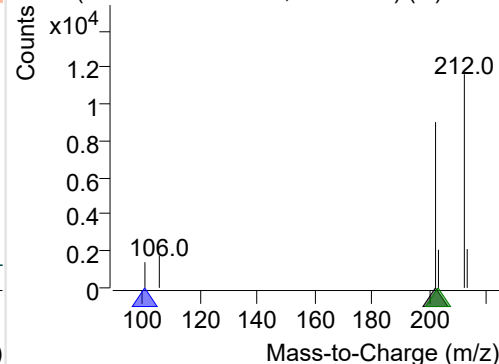
+ Selected Ion (202.0) 220204-PAHs-037.D



202.0, 101.0, 203.0

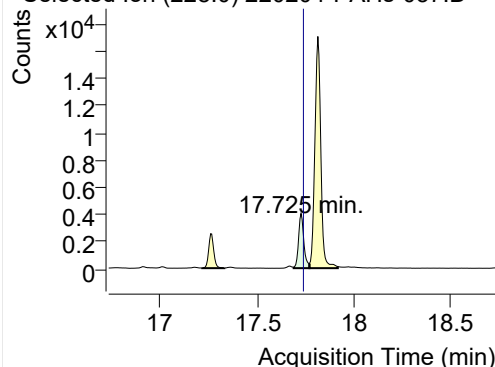


+ SIM (14.814-14.896 min, 16 scans) (\*\*) 2202

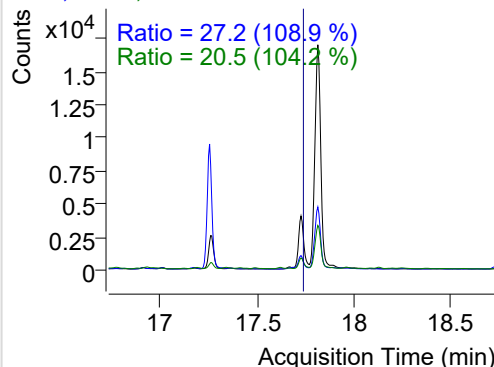


**Benz(a)anthracene**

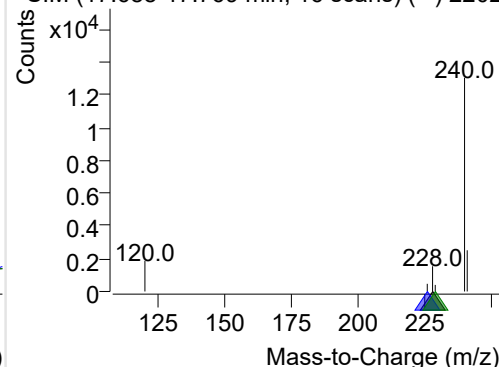
+ Selected Ion (228.0) 220204-PAHs-037.D



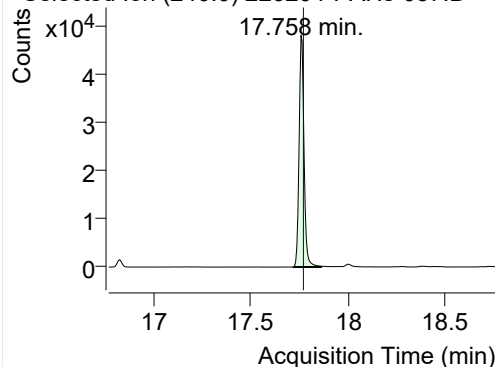
228.0, 226.0, 229.0



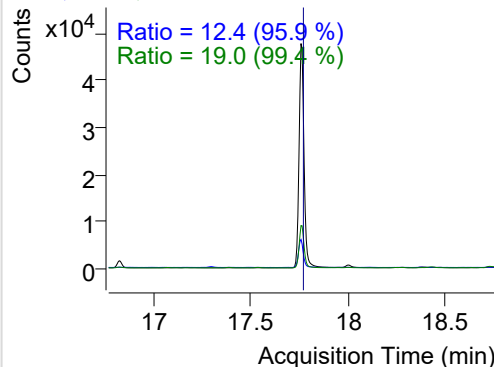
+ SIM (17.688-17.769 min, 16 scans) (\*\*) 2202

**IS-D12-Chrysene**

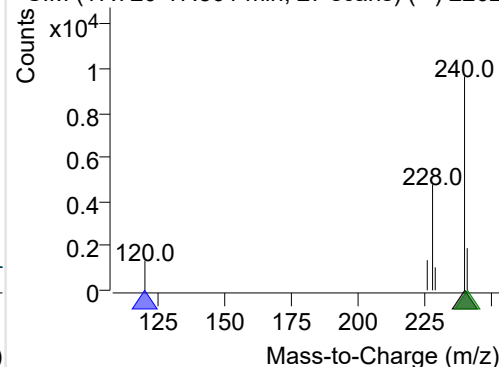
+ Selected Ion (240.0) 220204-PAHs-037.D



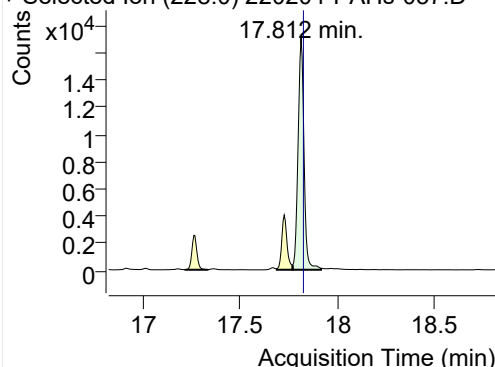
240.0, 120.0, 241.0



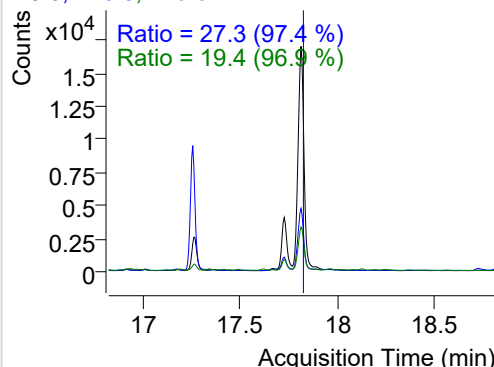
+ SIM (17.720-17.861 min, 27 scans) (\*\*) 2202

**Chrysene**

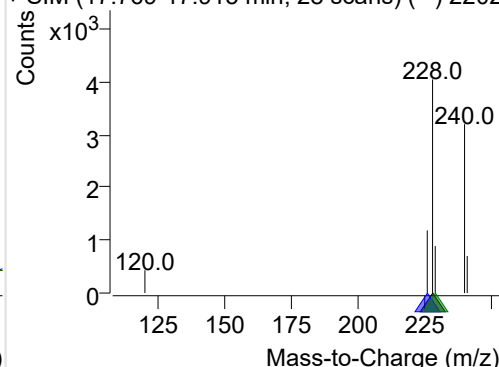
+ Selected Ion (228.0) 220204-PAHs-037.D



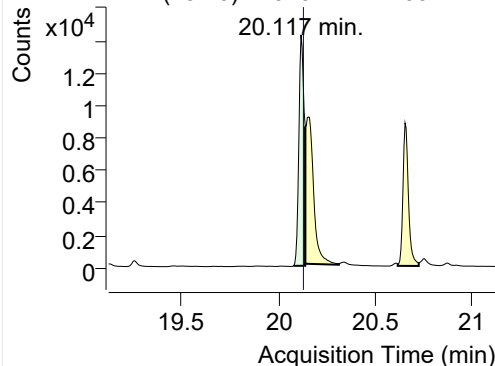
228.0, 226.0, 229.0



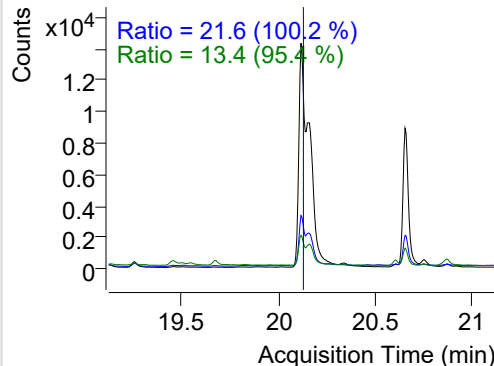
+ SIM (17.769-17.915 min, 28 scans) (\*\*) 2202

**Benzo(b)fluoranthene**

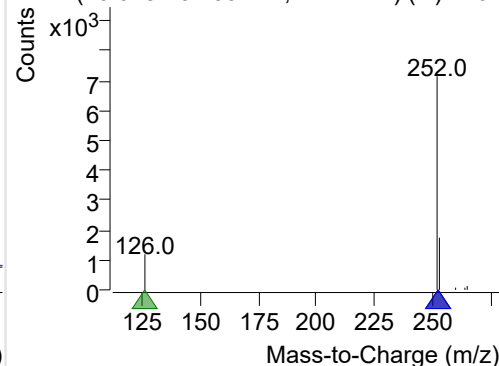
+ Selected Ion (252.0) 220204-PAHs-037.D



252.0, 253.0, 126.0



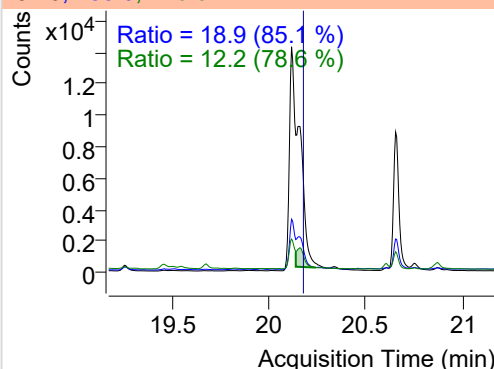
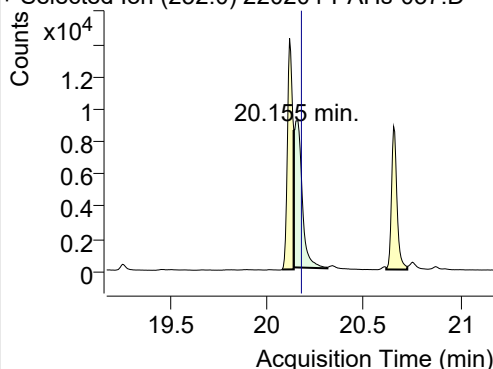
+ SIM (20.078-20.139 min, 12 scans) (\*\*) 2202



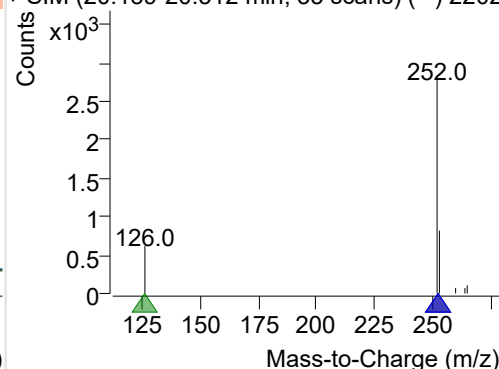
**Benzo(k)fluoranthene**

+ Selected Ion (252.0) 220204-PAHs-037.D

252.0, 253.0, 126.0

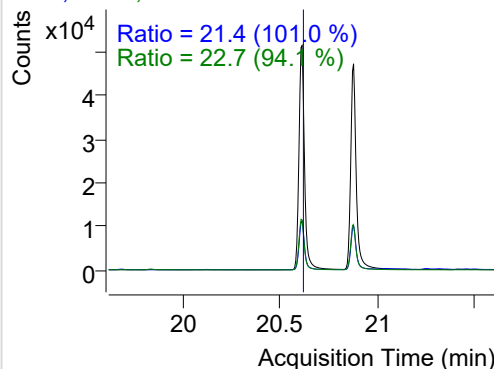
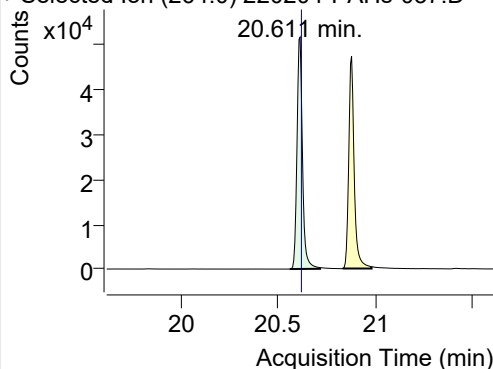


+ SIM (20.139-20.312 min, 33 scans) (\*\*) 2202

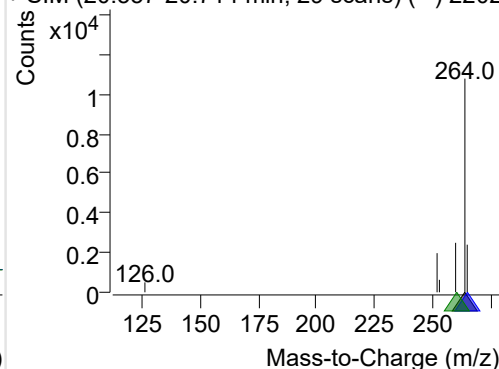
**SS-D12-Benzo(e)pyrene**

+ Selected Ion (264.0) 220204-PAHs-037.D

264.0, 265.0, 260.0

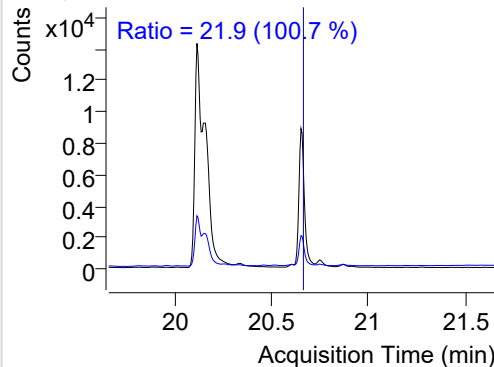
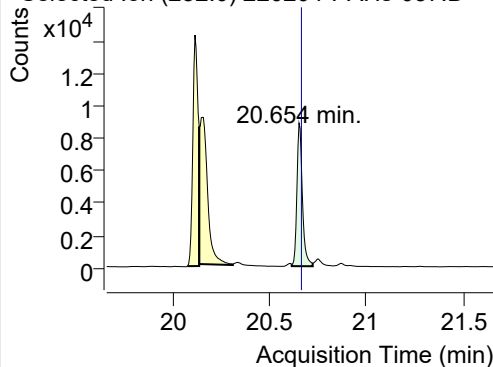


+ SIM (20.557-20.714 min, 29 scans) (\*\*) 2202

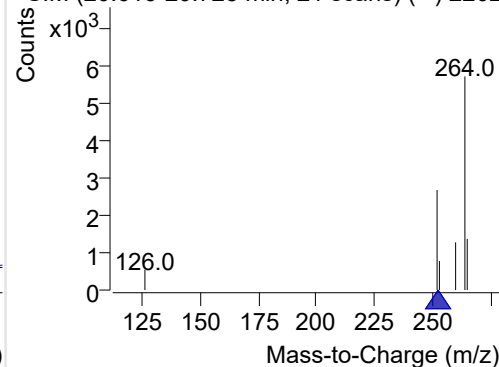
**Benzo(e)pyrene**

+ Selected Ion (252.0) 220204-PAHs-037.D

252.0, 253.0

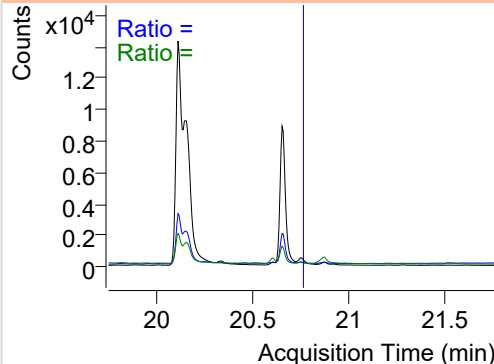
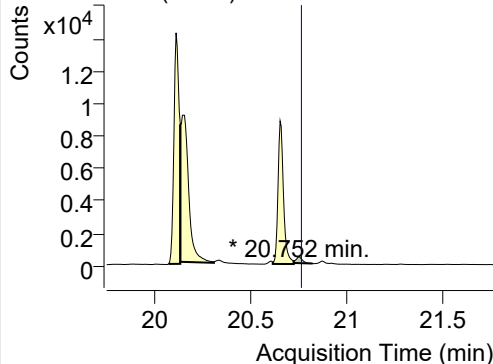


+ SIM (20.616-20.725 min, 21 scans) (\*\*) 2202

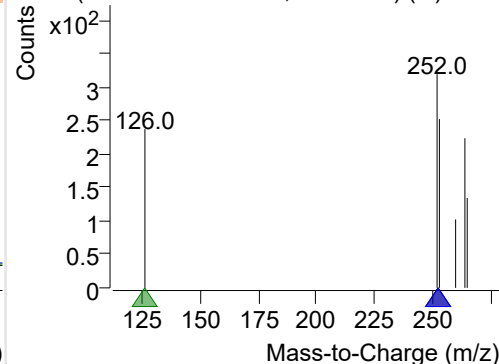
**Benzo(a)pyrene**

+ Selected Ion (252.0) 220204-PAHs-037.D

252.0, 253.0, 126.0

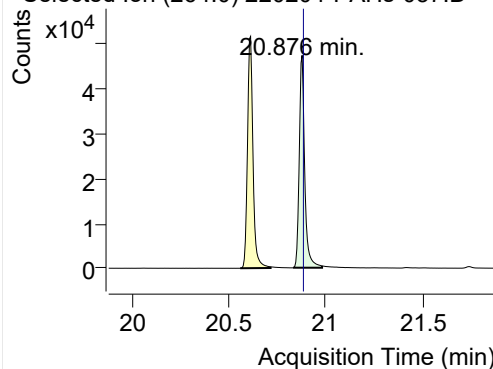


+ SIM (20.725-20.822 min, 19 scans) (\*\*) 2202

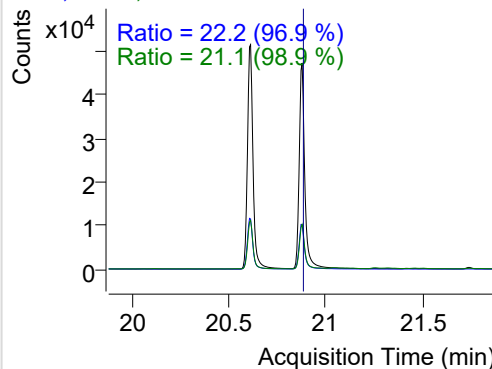


## IS-D12-Perylene

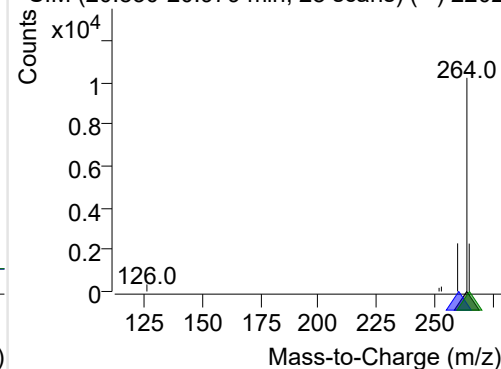
+ Selected Ion (264.0) 220204-PAHs-037.D



264.0, 260.0, 265.0

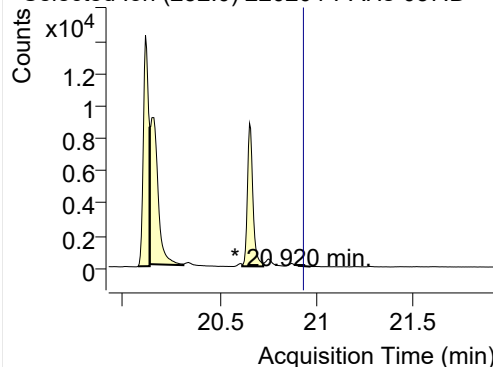


+ SIM (20.830-20.979 min, 28 scans) (\*\*) 2202

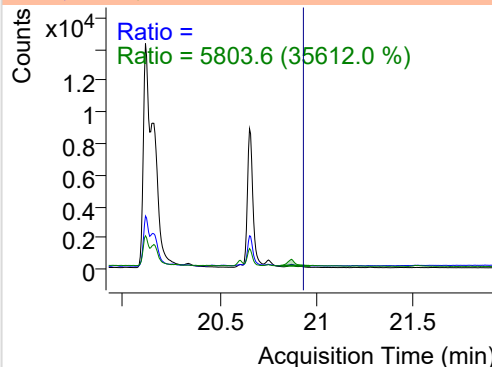


## Perylene

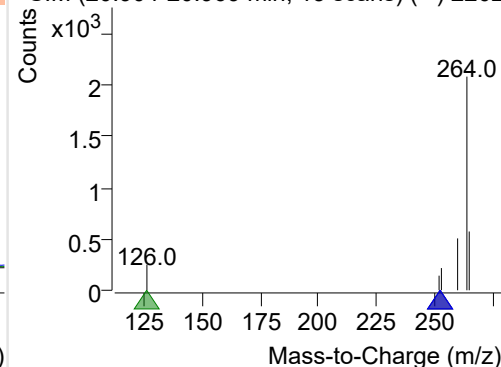
+ Selected Ion (252.0) 220204-PAHs-037.D



252.0, 253.0, 126.0

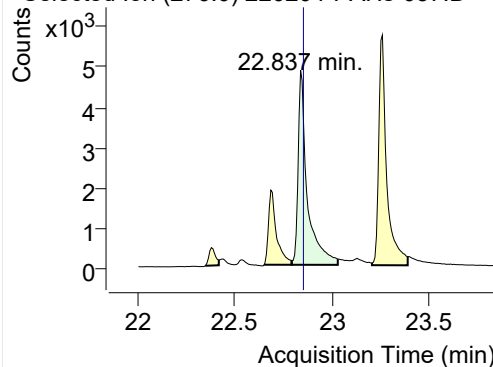


+ SIM (20.904-20.969 min, 13 scans) (\*\*) 2202

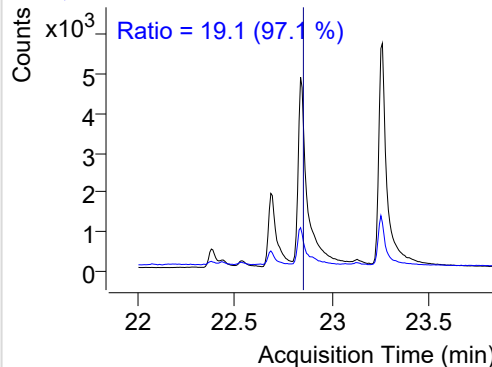


## Indeno(1,2,3-c,d)pyrene

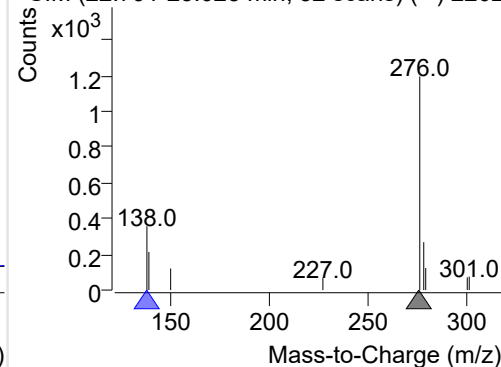
+ Selected Ion (276.0) 220204-PAHs-037.D



276.0, 138.0

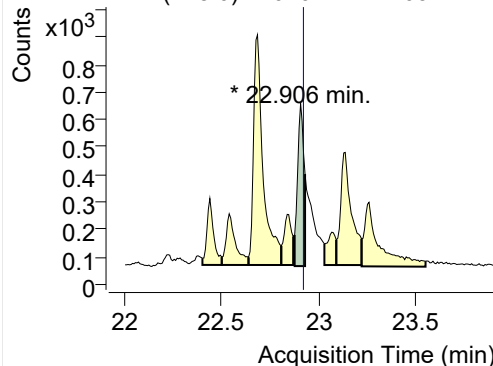


+ SIM (22.791-23.028 min, 32 scans) (\*\*) 2202

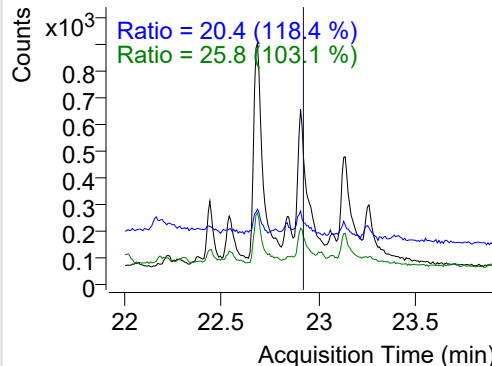


## Dibenz(a,h)anthracene

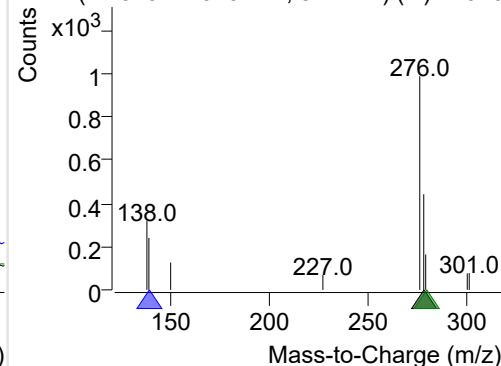
+ Selected Ion (278.0) 220204-PAHs-037.D



278.0, 139.0, 279.0

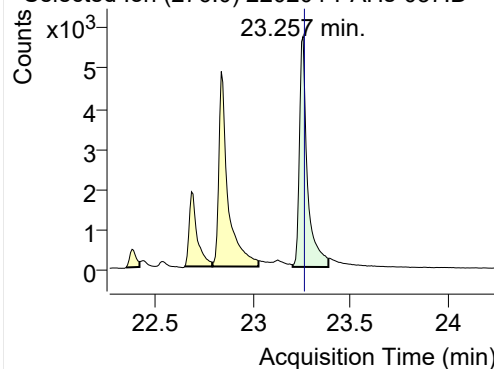


+ SIM (22.875-22.929 min, 8 scans) (\*\*) 22020

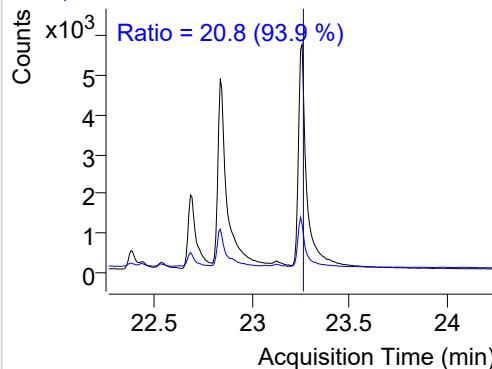


**Benzo(g,h,i)perylene**

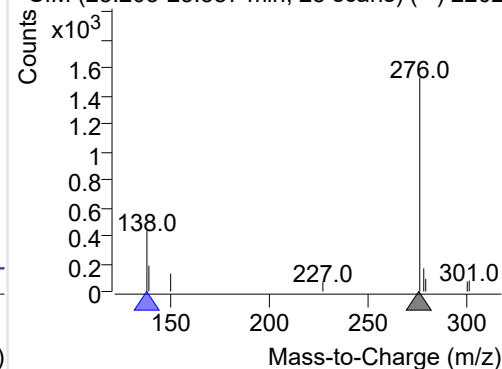
+ Selected Ion (276.0) 220204-PAHs-037.D



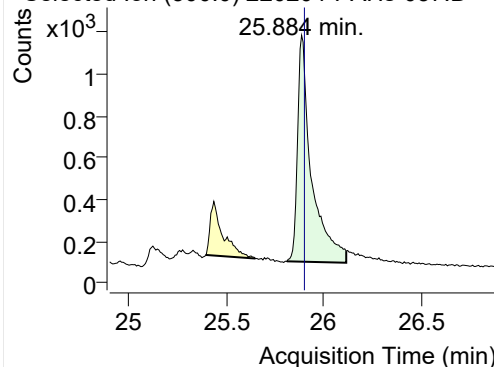
276.0, 138.0



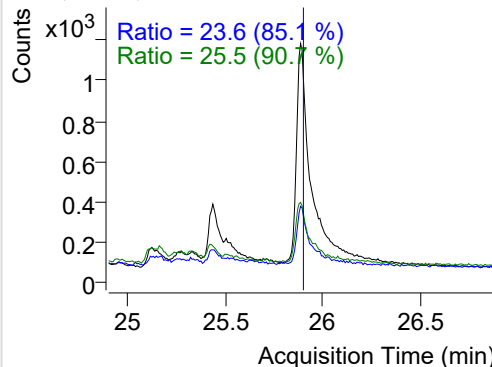
+ SIM (23.203-23.387 min, 25 scans) (\*\*) 2202

**Coronene**

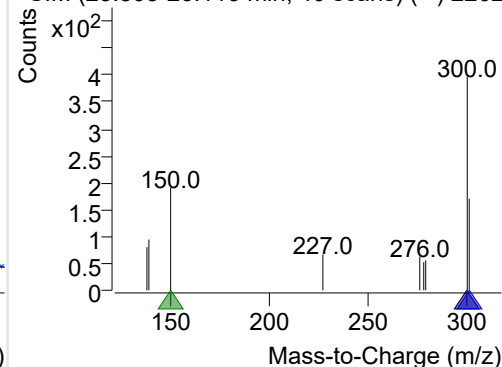
+ Selected Ion (300.0) 220204-PAHs-037.D



300.0, 301.0, 150.0



+ SIM (25.808-26.113 min, 40 scans) (\*\*) 2202





## Quantitative Analysis Sample Based Report

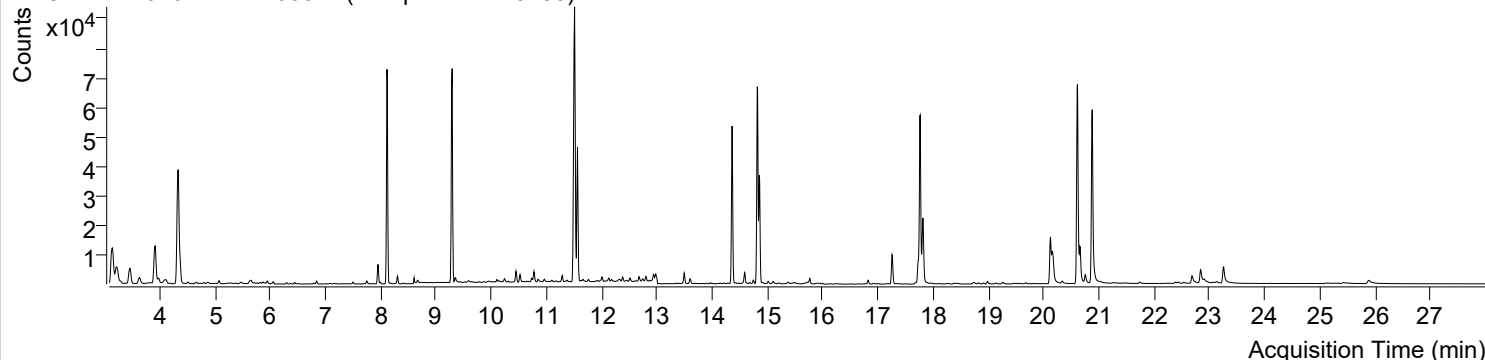


Trusted Answers

Batch Data Path File Name	D:\MassHunter\GCMS\1\data\PAHs\220204-PAHs-Sample\QuantResults\220204-PAHs-Quant.batch.bin		
Analysis Time Stamp	2022-04-13 오후 3:18:46	Analyst Name	DESKTOP-86B7UPG\5975MS
Report Generation Time	2022-04-13 오후 3:19:11	Report Generator Name	DESKTOP-86B7UPG\5975MS
Calibration Last Update	2022-04-13 오후 3:16:00	Batch State	Processed
Analyze Quant Version	10.2	Report Quant Version	10.2
Acq. Date-Time	2022-02-05 오전 9:23:02	Data File	220204-PAHs-038.D
Type	Sample	Name	Sample-PM-220130
Dil.	1	Acq. Method File	PAHs 19mix-Method

## Sample Chromatogram

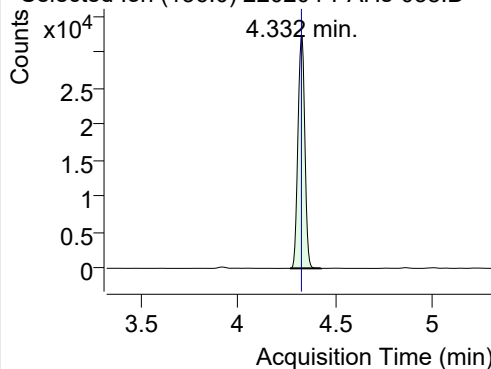
+ TIC SIM 220204-PAHs-038.D (Sample-PM-220130)



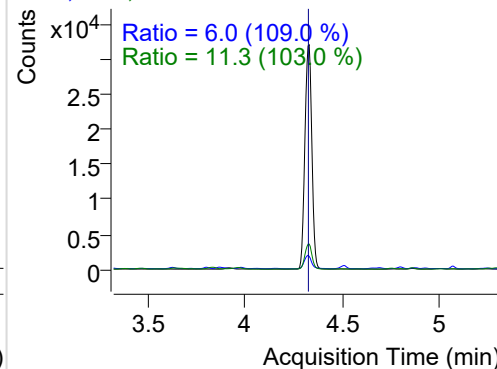
Name	RT	Transition	Resp.	Height	Final Conc. Units	Ratio
IS-D8-Naphthalene	4.332	136.0	79316	32039.12	ND ng/ml	11.3
Naphthalene	4.365	128.0	13133	5429.82	ND ng/ml	17.6
Acenaphthylene	7.745	152.0	1081	702.90	ND ng/ml	31.1
IS-D10-Acenaphthene	8.112	164.0	51891	35027.24	ND ng/ml	92.3
Acenaphthene	8.183	154.0	146	78.11	ND ng/ml	120.2
LSS-D10-Fluorene	9.292	176.0	54447	34446.09	ND µg/mL	88.7
Fluorene	9.355	166.0	1256	730.29	ND µg/mL	94.3
IS-D10-Phenanthrene	11.508	188.0	93788	60712.67	ND µg/mL	15.2
Phenanthrene	11.560	178.0	44932	30122.82	ND µg/mL	17.7
Anthracene	11.665	178.0	829	506.04	ND µg/mL	
Fluoranthene	14.359	202.0	63062	41137.75	ND µg/mL	17.3
LSS-D10-Pyrene	14.814	212.0	80065	49709.39	ND µg/mL	16.9
Pyrene	14.852	202.0	43512	27249.97	ND µg/mL	21.7
Benz(a)anthracene	17.725	228.0	9691	5124.80	ND µg/mL	25.7
IS-D12-Chrysene	17.763	240.0	75445	43290.37	ND µg/mL	18.9
Chrysene	17.812	228.0	30595	14487.60	ND µg/mL	27.4
Benzo(b)fluoranthene	20.122	252.0	20686	11642.27	ND µg/mL	24.3
Benzo(k)fluoranthene	20.155	252.0	22357	7837.18	ND µg/mL	21.3
SS-D12-Benzo(e)pyrene	20.610	264.0	90981	46455.11	ND µg/mL	22.7
Benzo(e)pyrene	20.659	252.0	14945	7510.86	ND µg/mL	21.4
Benzo(a)pyrene	20.752	252.0	4938	2026.00	ND µg/mL	18.6
IS-D12-Perylene	20.876	264.0	81159	40562.60	ND µg/mL	21.9
Perylene	20.920	252.0	711	385.57	ND µg/mL	
Indeno(1,2,3-c,d)pyrene	22.837	276.0	11409	3595.71	ND µg/mL	19.8
Dibenz(a,h)anthracene	22.906	278.0	976	402.80	ND µg/mL	34.8
Benzo(g,h,i)perylene	23.257	276.0	12170	4377.38	ND µg/mL	21.6
Coronene	25.883	300.0	3651	723.57	ND µg/mL	26.1

## IS-D8-Naphthalene

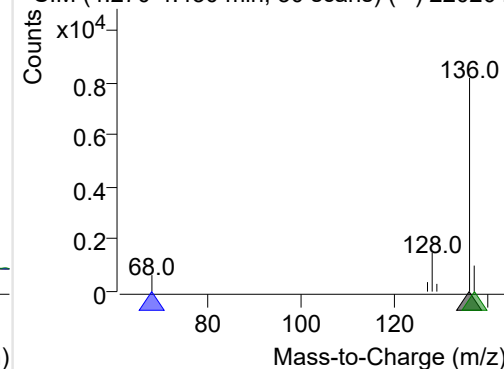
+ Selected Ion (136.0) 220204-PAHs-038.D



136.0, 68.0, 137.0

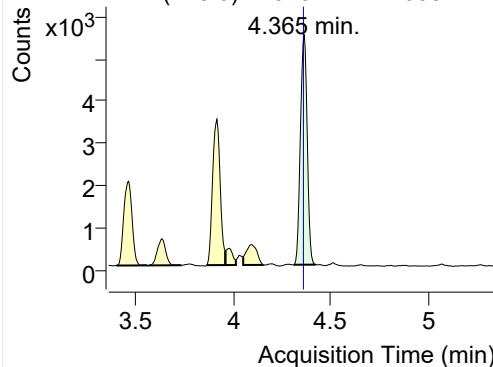


+ SIM (4.270-4.430 min, 30 scans) (\*\*) 220204

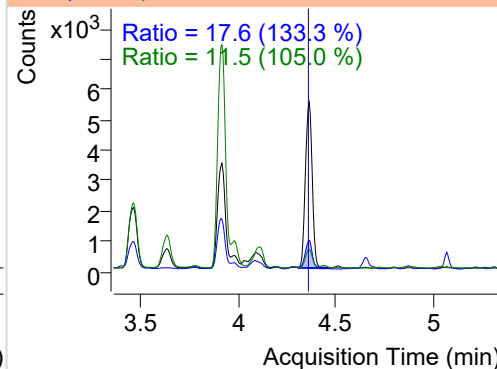


**Naphthalene**

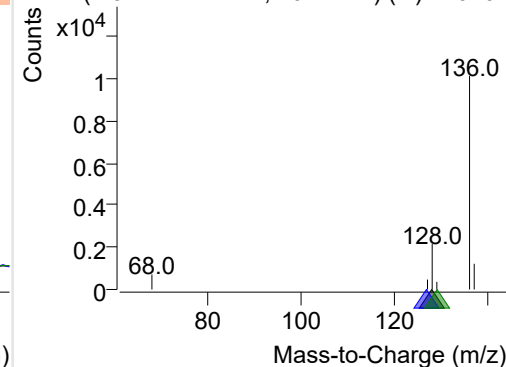
+ Selected Ion (128.0) 220204-PAHs-038.D



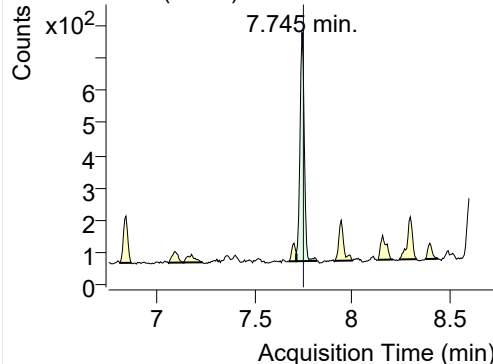
128.0, 127.0, 129.0



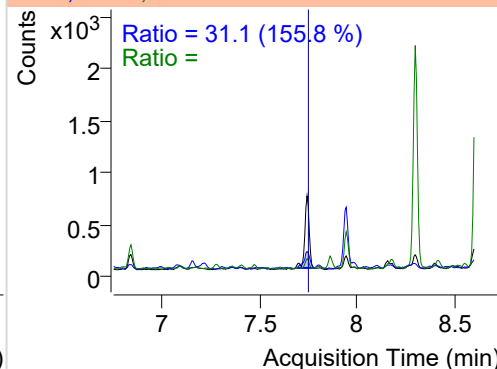
+ SIM (4.312-4.424 min, 20 scans) (\*\*) 220204

**Acenaphthylene**

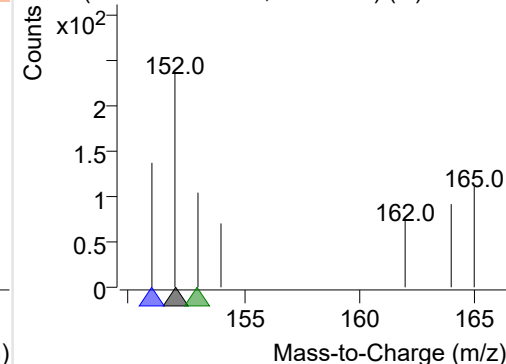
+ Selected Ion (152.0) 220204-PAHs-038.D



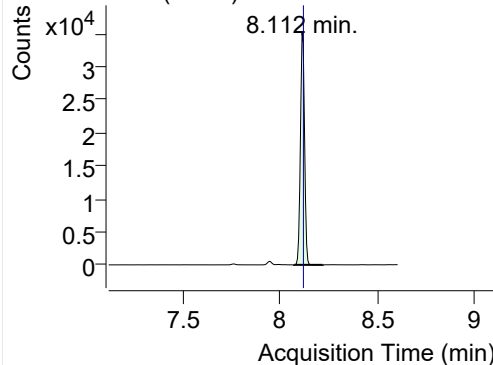
152.0, 151.0, 153.0



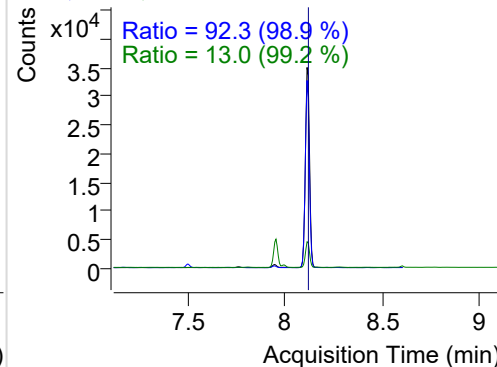
+ SIM (7.716-7.823 min, 19 scans) (\*\*) 220204

**IS-D10-Acenaphthene**

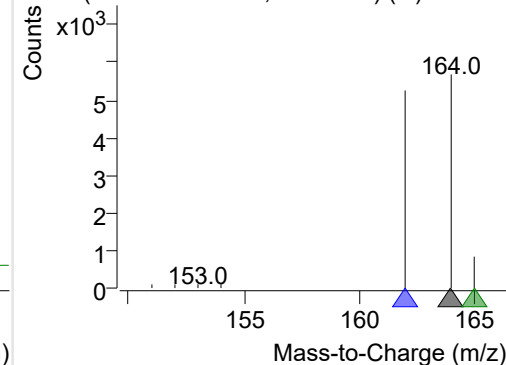
+ Selected Ion (164.0) 220204-PAHs-038.D



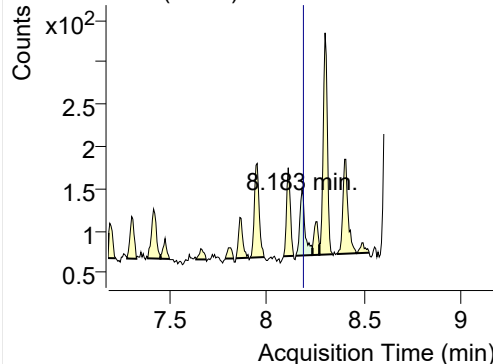
164.0, 162.0, 165.0



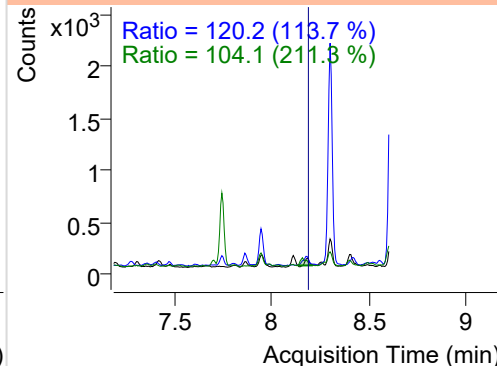
+ SIM (8.071-8.219 min, 26 scans) (\*\*) 220204

**Acenaphthene**

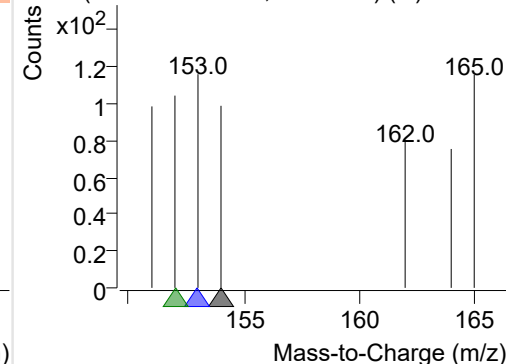
+ Selected Ion (154.0) 220204-PAHs-038.D



154.0, 153.0, 152.0

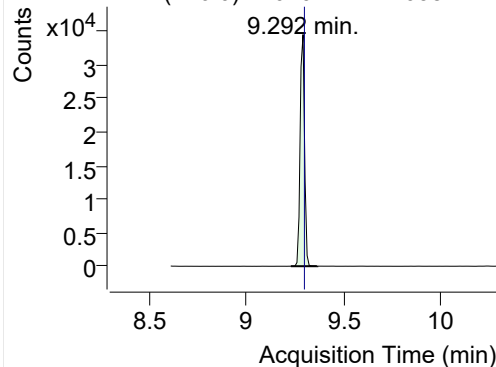


+ SIM (8.152-8.236 min, 15 scans) (\*\*) 220204

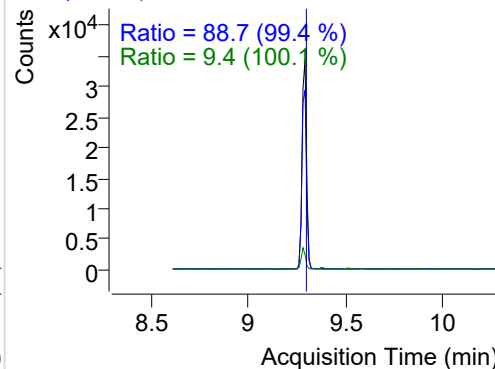


## LSS-D10-Fluorene

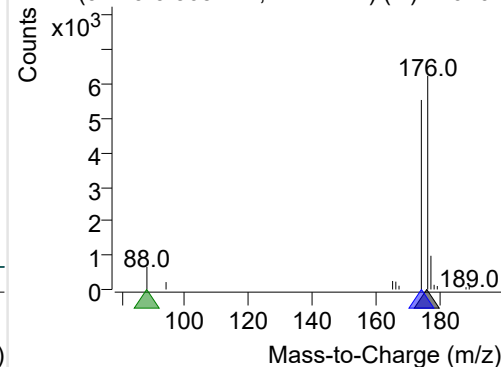
+ Selected Ion (176.0) 220204-PAHs-038.D



176.0, 174.0, 88.0

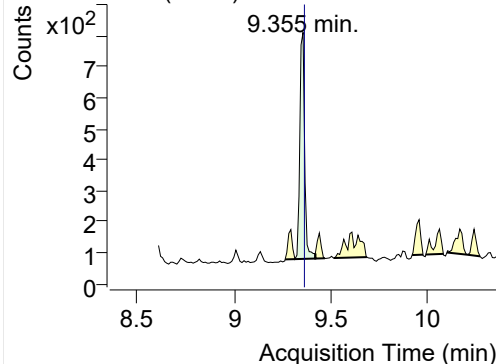


+ SIM (9.229-9.365 min, 14 scans) (\*\*) 220204

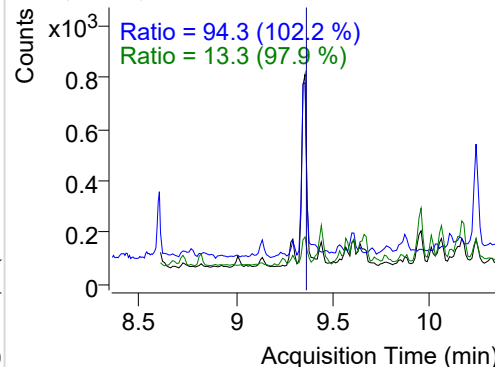


## Fluorene

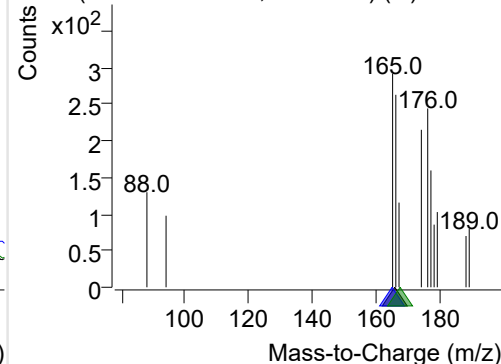
+ Selected Ion (166.0) 220204-PAHs-038.D



166.0, 165.0, 167.0

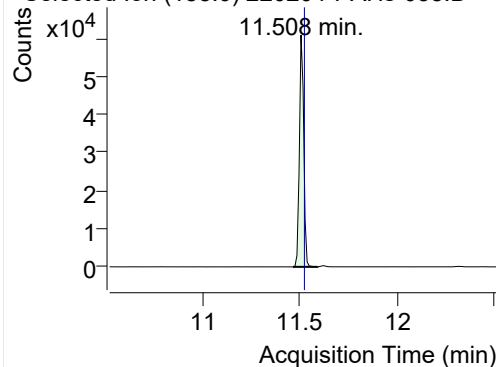


+ SIM (9.313-9.418 min, 11 scans) (\*\*) 220204

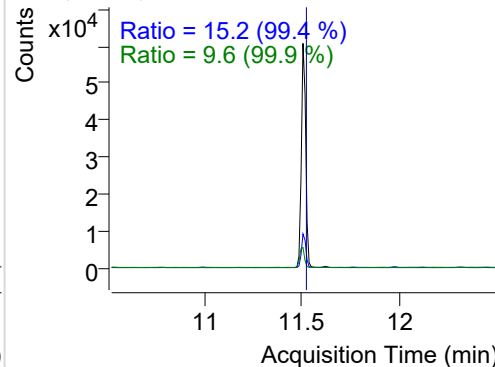


## IS-D10-Phenanthrene

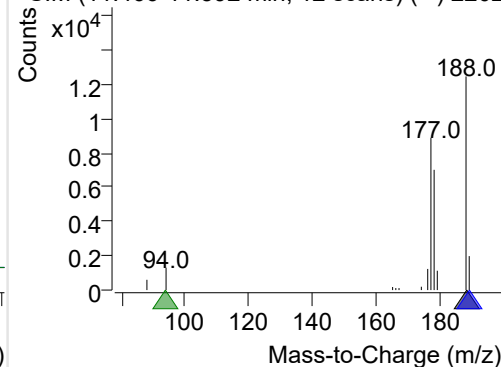
+ Selected Ion (188.0) 220204-PAHs-038.D



188.0, 189.0, 94.0

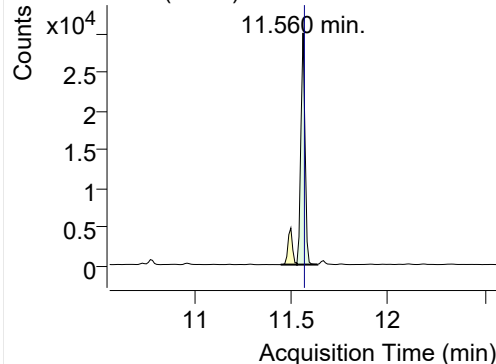


+ SIM (11.466-11.592 min, 12 scans) (\*\*) 2202

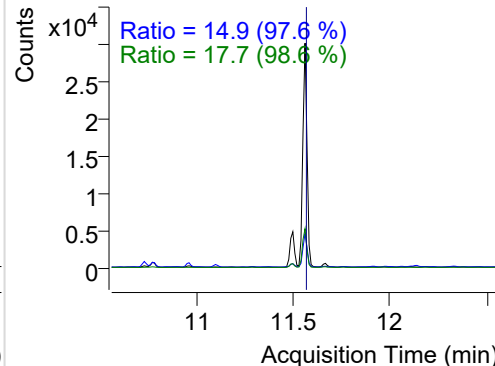


## Phenanthrene

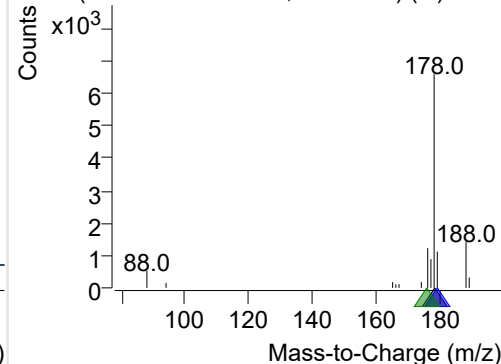
+ Selected Ion (178.0) 220204-PAHs-038.D



178.0, 179.0, 176.0

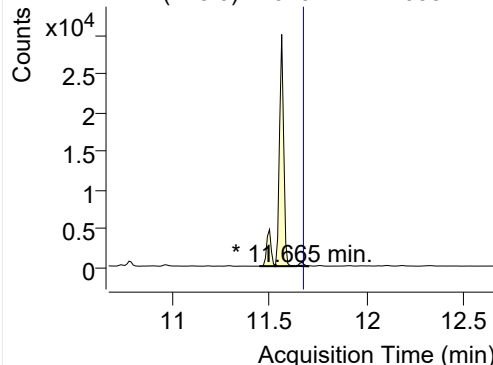


+ SIM (11.529-11.634 min, 11 scans) (\*\*) 2202

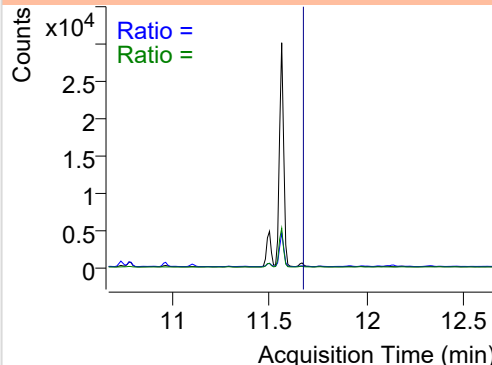


**Anthracene**

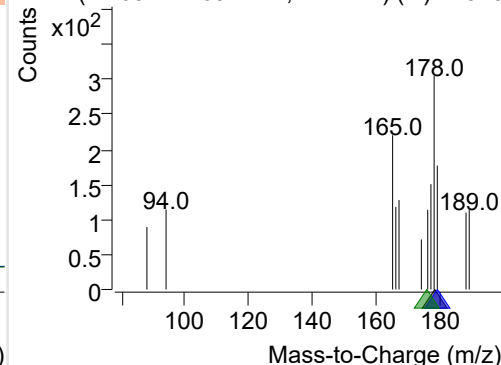
+ Selected Ion (178.0) 220204-PAHs-038.D



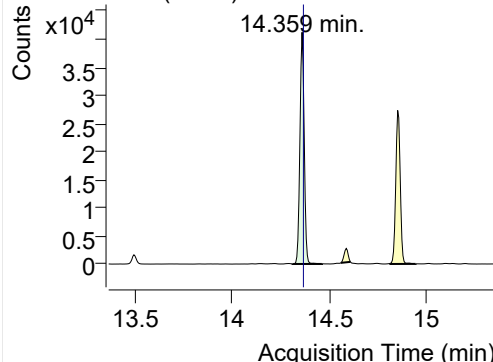
178.0, 179.0, 176.0



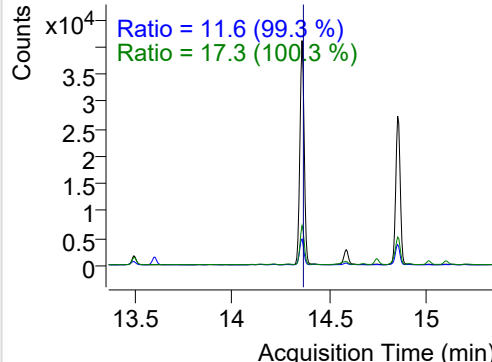
+ SIM (11.634-11.697 min, 7 scans) (\*\*) 22020

**Fluoranthene**

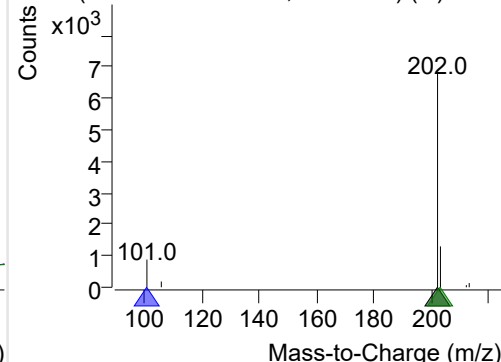
+ Selected Ion (202.0) 220204-PAHs-038.D



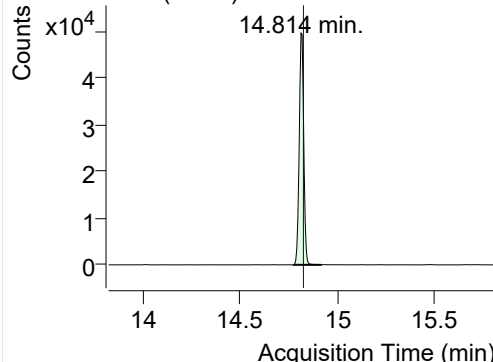
202.0, 101.0, 203.0



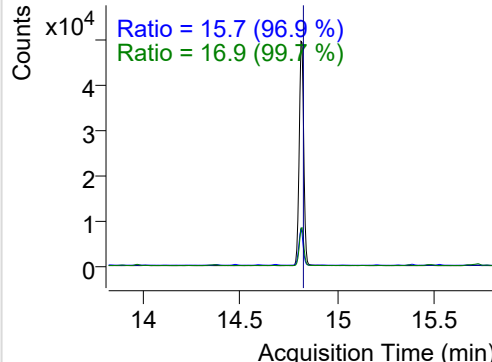
+ SIM (14.310-14.462 min, 29 scans) (\*\*) 2202

**LSS-D10-Pyrene**

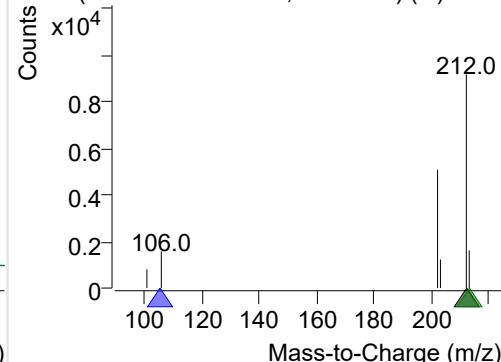
+ Selected Ion (212.0) 220204-PAHs-038.D



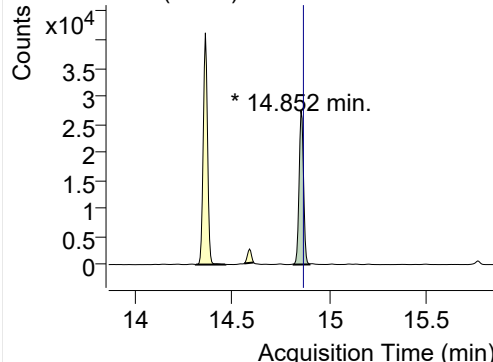
212.0, 106.0, 213.0



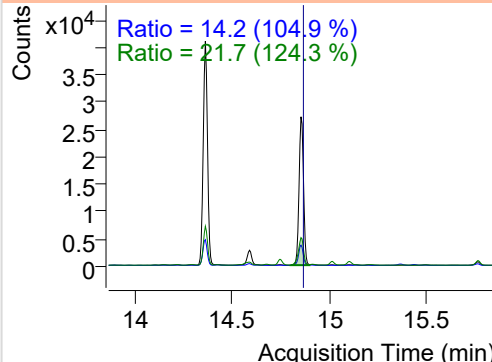
+ SIM (14.776-14.917 min, 27 scans) (\*\*) 2202

**Pyrene**

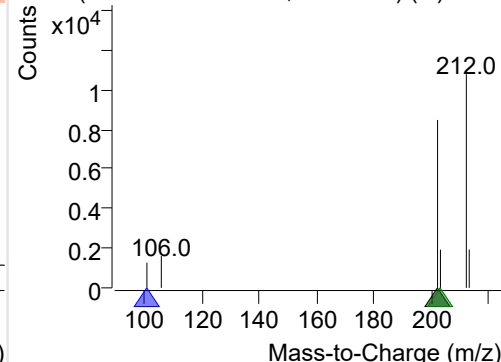
+ Selected Ion (202.0) 220204-PAHs-038.D



202.0, 101.0, 203.0

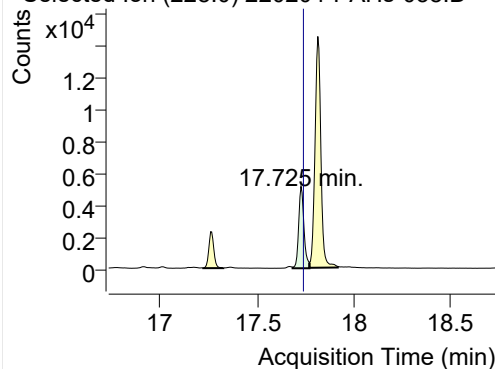


+ SIM (14.814-14.896 min, 16 scans) (\*\*) 2202

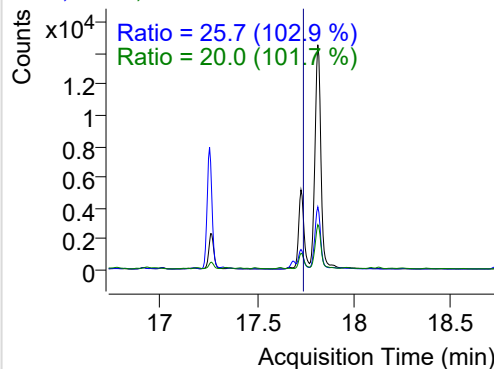


**Benz(a)anthracene**

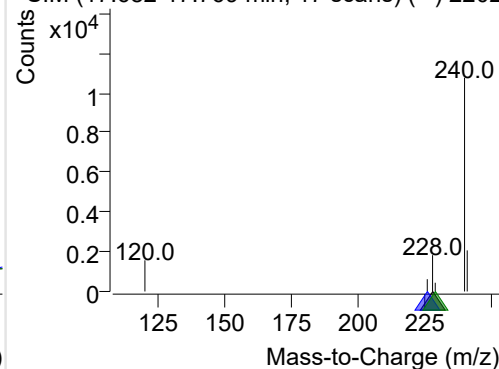
+ Selected Ion (228.0) 220204-PAHs-038.D



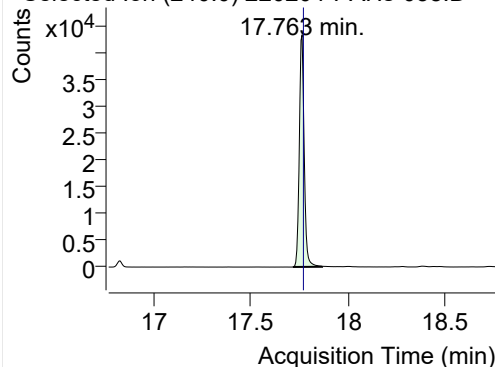
228.0, 226.0, 229.0



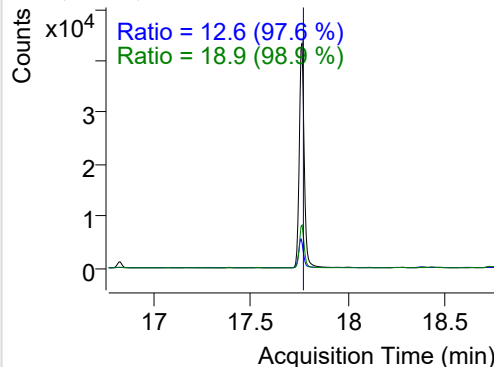
+ SIM (17.682-17.769 min, 17 scans) (\*\*) 2202

**IS-D12-Chrysene**

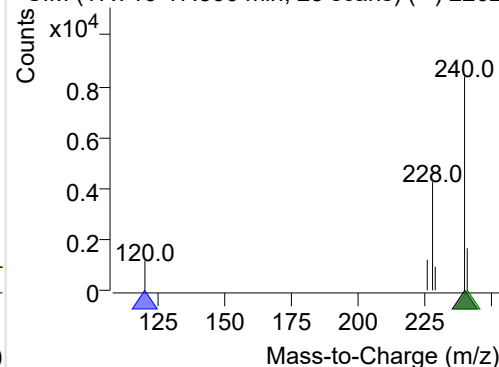
+ Selected Ion (240.0) 220204-PAHs-038.D



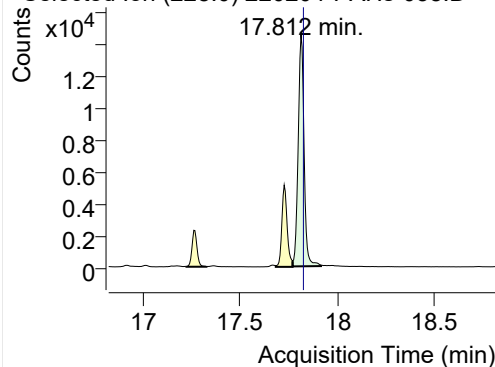
240.0, 120.0, 241.0



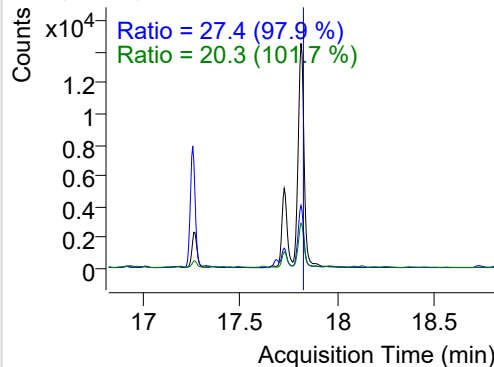
+ SIM (17.716-17.866 min, 28 scans) (\*\*) 2202

**Chrysene**

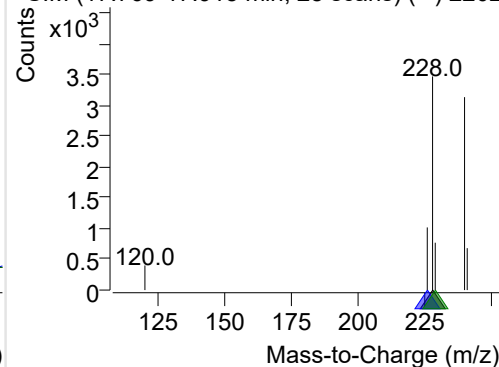
+ Selected Ion (228.0) 220204-PAHs-038.D



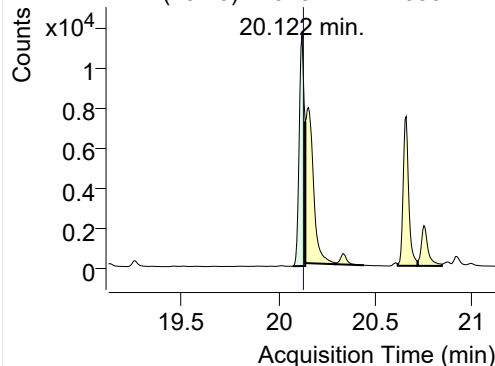
228.0, 226.0, 229.0



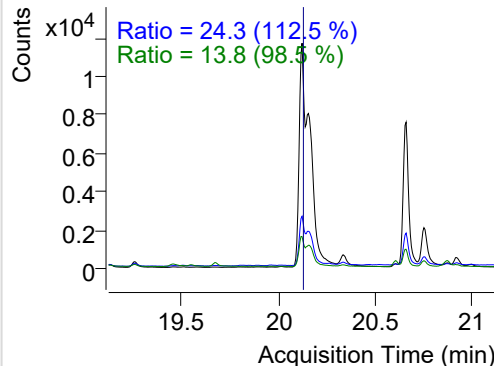
+ SIM (17.769-17.915 min, 28 scans) (\*\*) 2202

**Benzo(b)fluoranthene**

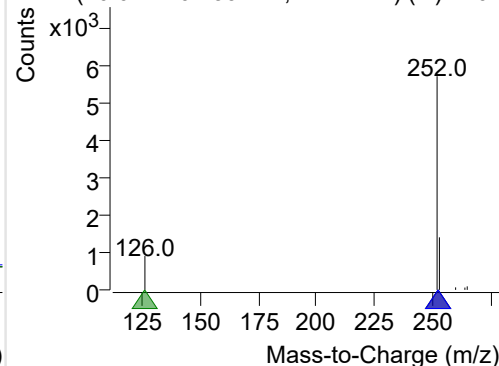
+ Selected Ion (252.0) 220204-PAHs-038.D



252.0, 253.0, 126.0

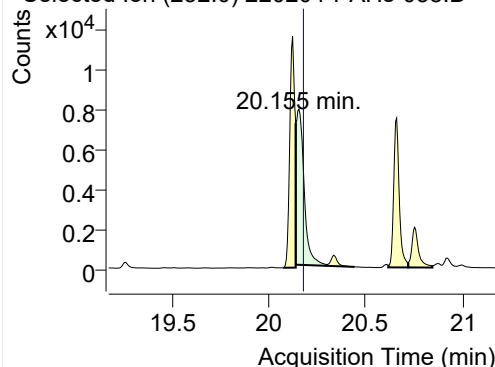


+ SIM (20.074-20.139 min, 12 scans) (\*\*) 2202

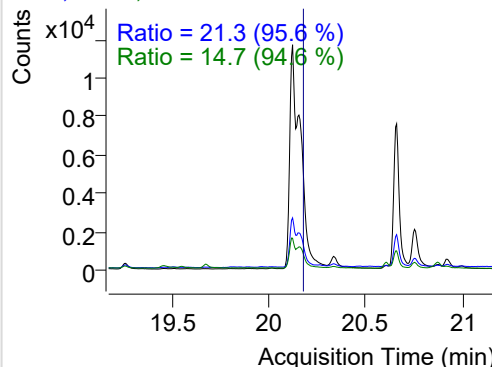


**Benzo(k)fluoranthene**

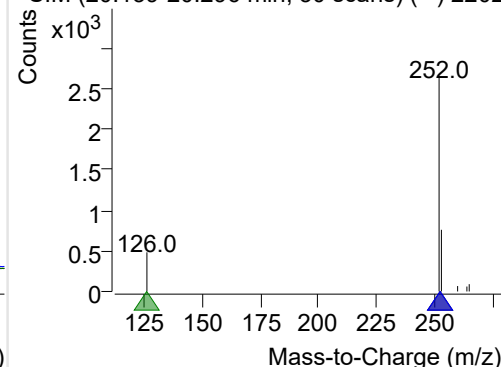
+ Selected Ion (252.0) 220204-PAHs-038.D



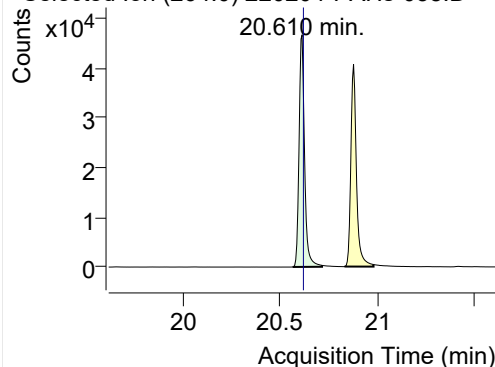
252.0, 253.0, 126.0



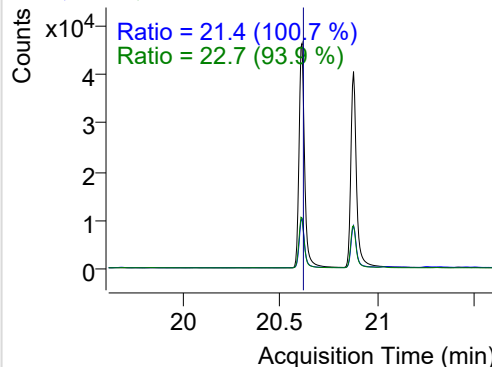
+ SIM (20.139-20.296 min, 30 scans) (\*\*) 2202

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

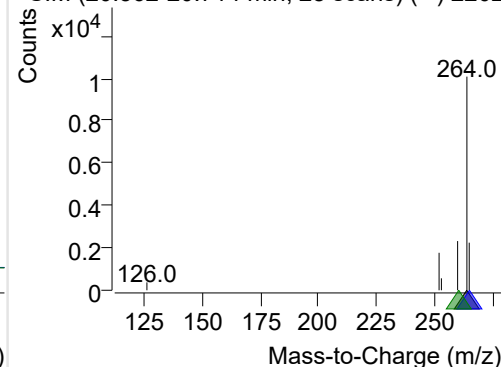
+ Selected Ion (264.0) 220204-PAHs-038.D



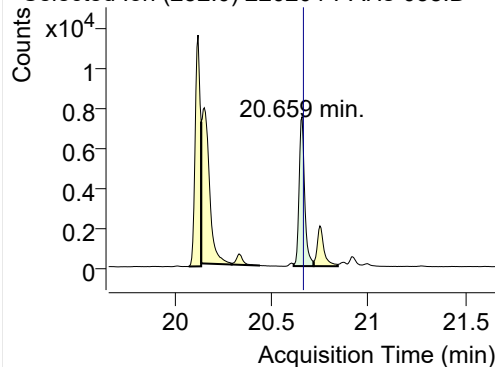
264.0, 265.0, 260.0



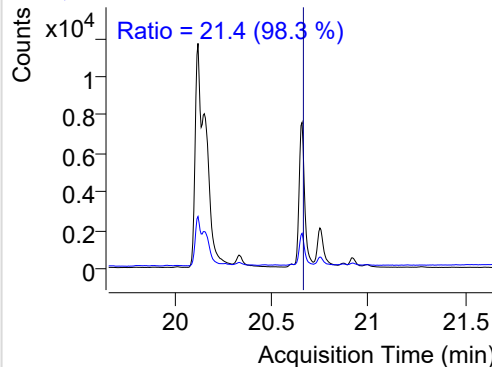
+ SIM (20.562-20.714 min, 28 scans) (\*\*) 2202

**Benzo(e)pyrene**

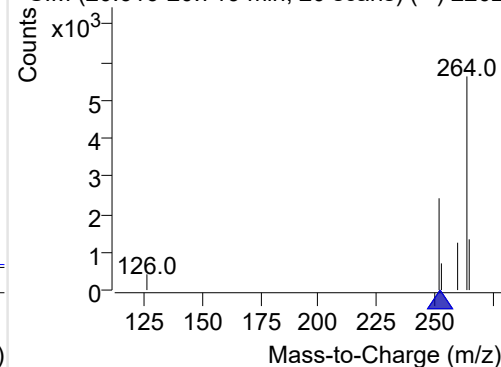
+ Selected Ion (252.0) 220204-PAHs-038.D



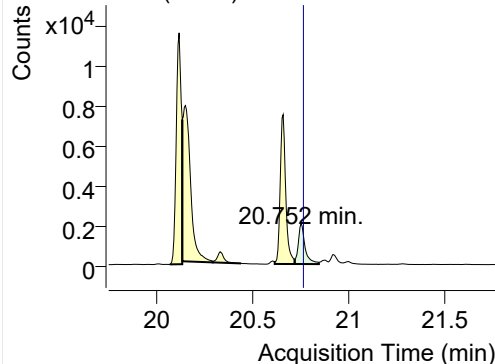
252.0, 253.0



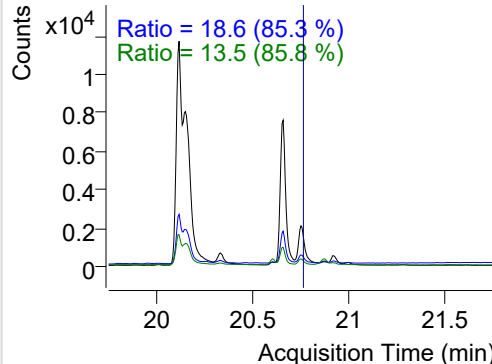
+ SIM (20.616-20.719 min, 20 scans) (\*\*) 2202

**Benzo(a)pyrene**

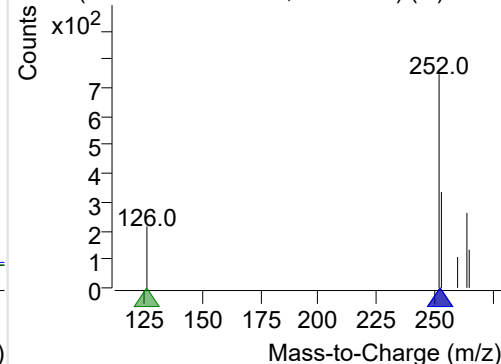
+ Selected Ion (252.0) 220204-PAHs-038.D



252.0, 253.0, 126.0

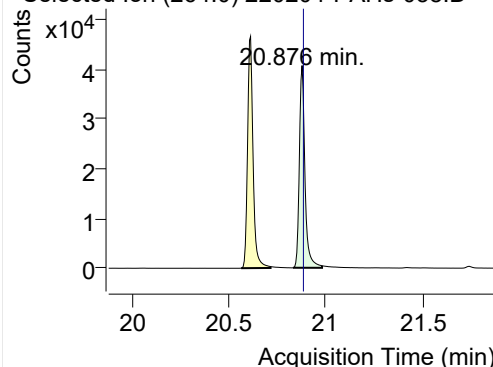


+ SIM (20.719-20.844 min, 24 scans) (\*\*) 2202

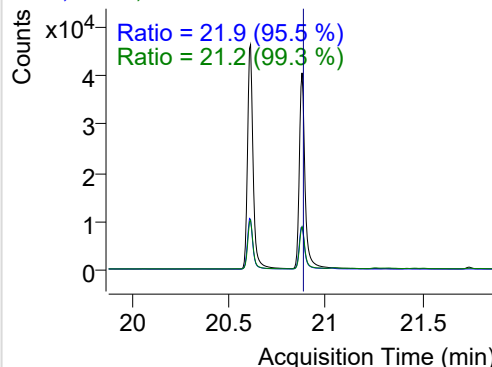


## IS-D12-Perylene

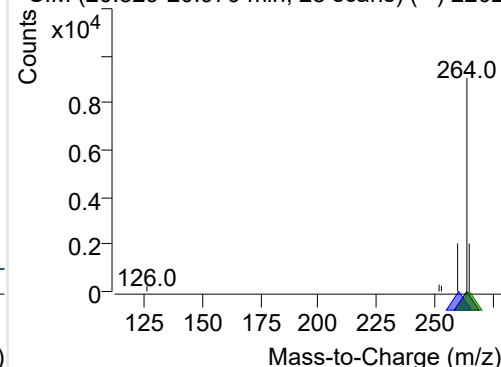
+ Selected Ion (264.0) 220204-PAHs-038.D



264.0, 260.0, 265.0

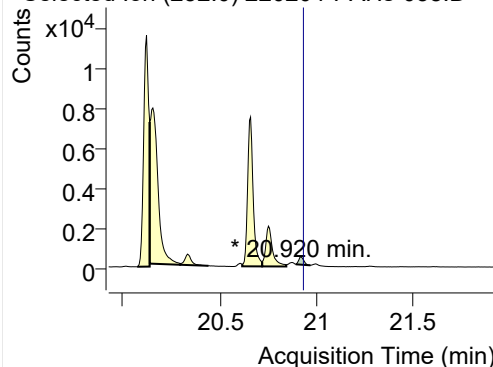


+ SIM (20.829-20.979 min, 28 scans) (\*\*) 2202

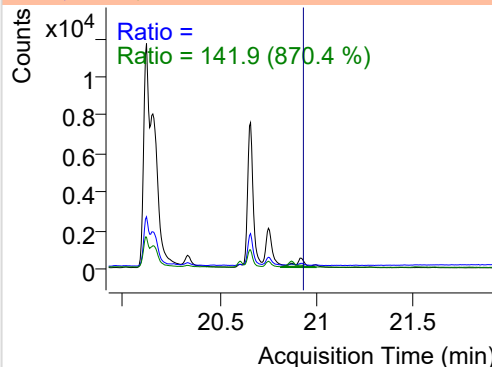


## Perylene

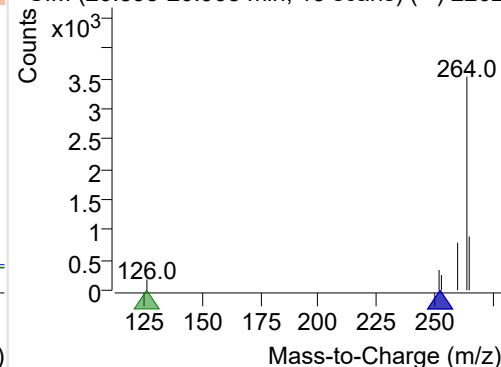
+ Selected Ion (252.0) 220204-PAHs-038.D



252.0, 253.0, 126.0

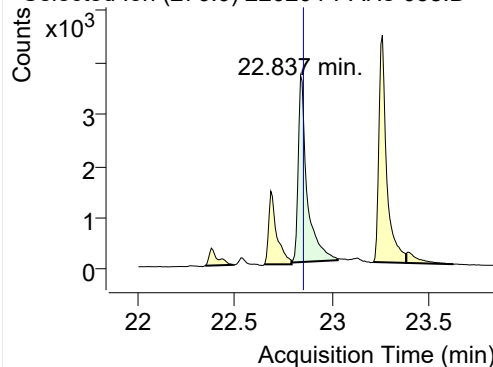


+ SIM (20.893-20.968 min, 15 scans) (\*\*) 2202

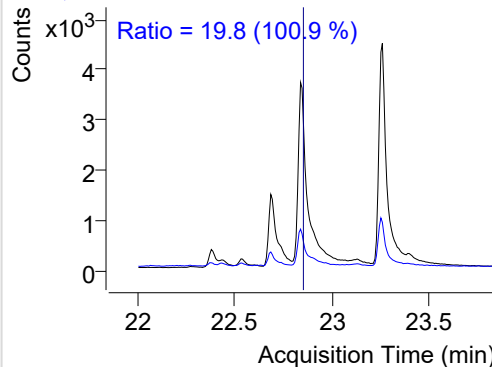


## Indeno(1,2,3-c,d)pyrene

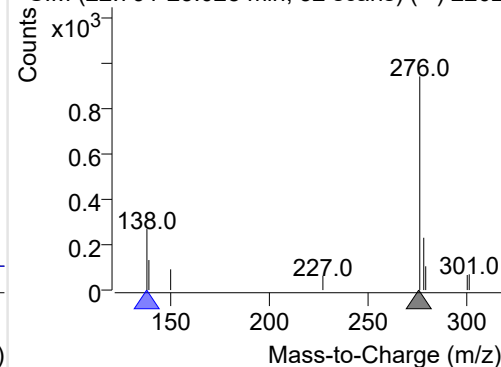
+ Selected Ion (276.0) 220204-PAHs-038.D



276.0, 138.0

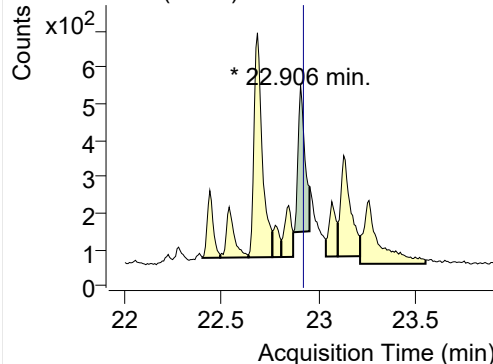


+ SIM (22.791-23.028 min, 32 scans) (\*\*) 2202

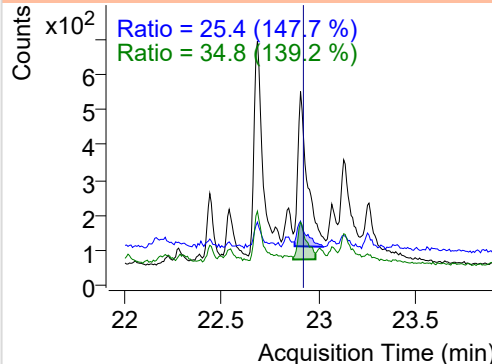


## Dibenz(a,h)anthracene

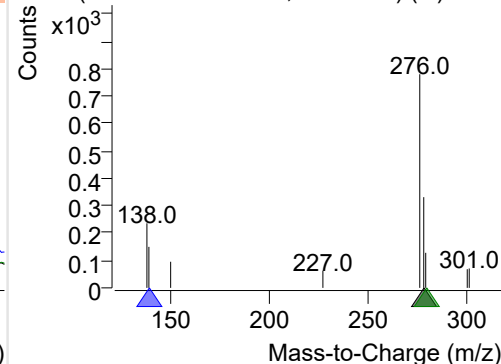
+ Selected Ion (278.0) 220204-PAHs-038.D



278.0, 139.0, 279.0

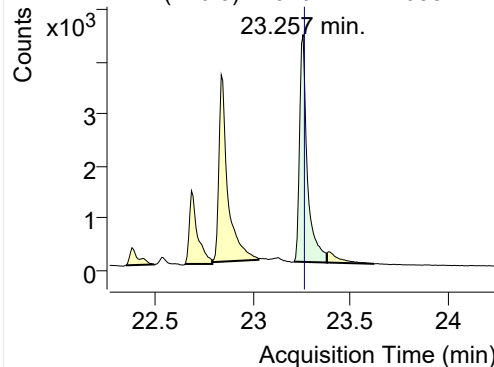


+ SIM (22.867-22.951 min, 12 scans) (\*\*) 2202

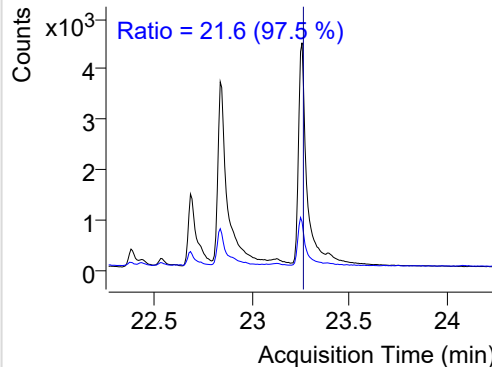


**Benzo(g,h,i)perylene**

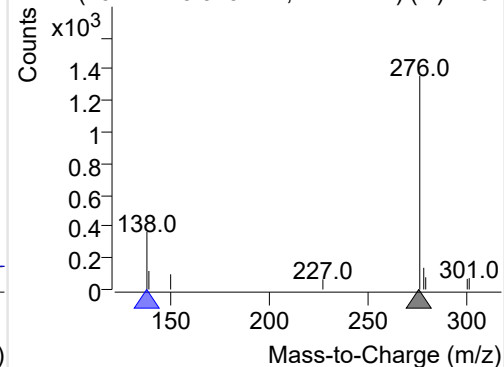
+ Selected Ion (276.0) 220204-PAHs-038.D



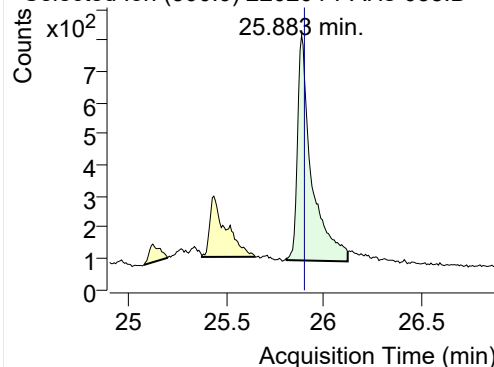
276.0, 138.0



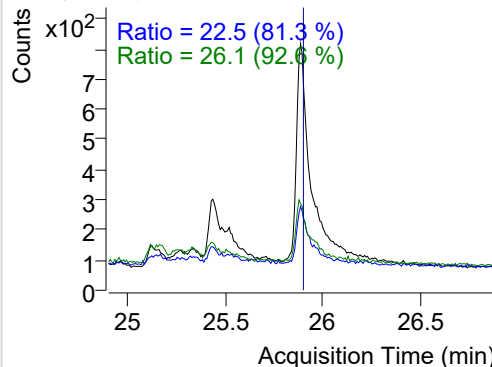
+ SIM (23.212-23.379 min, 22 scans) (\*\*) 2202

**Coronene**

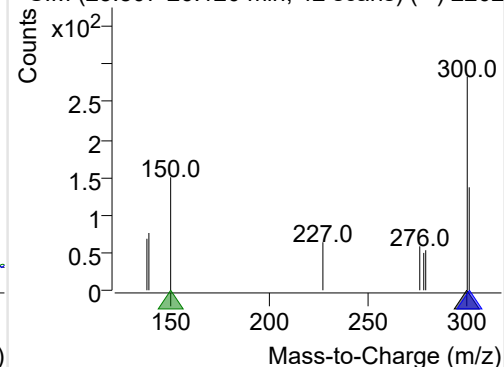
+ Selected Ion (300.0) 220204-PAHs-038.D



300.0, 301.0, 150.0



+ SIM (25.807-26.120 min, 42 scans) (\*\*) 2202





## Quantitative Analysis Sample Based Report

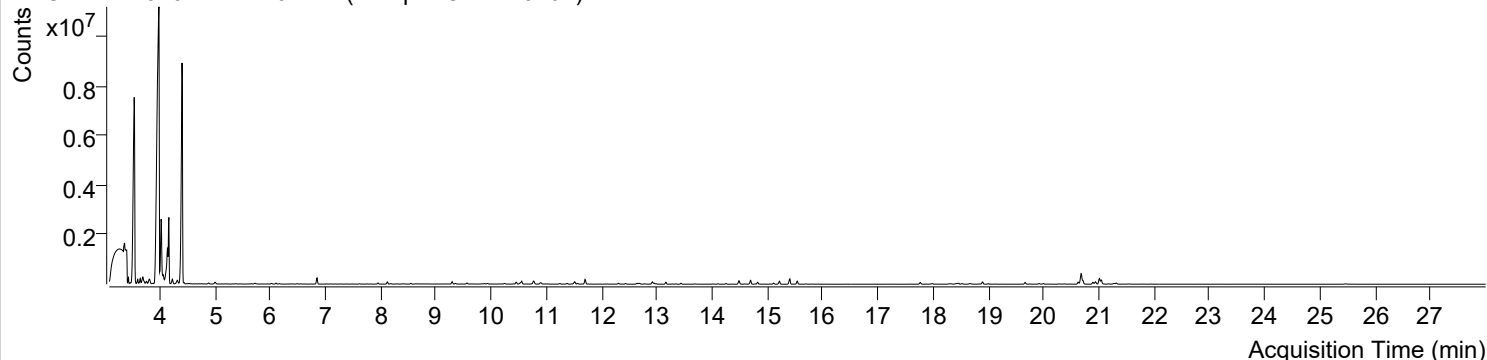


Trusted Answers

Batch Data Path File Name	D:\MassHunter\GCMS\1\data\PAHs\220204-PAHs-Sample\QuantResults\220204-PAHs-Quant.batch.bin		
Analysis Time Stamp	2022-04-13 오후 3:18:46	Analyst Name	DESKTOP-86B7UPG\5975MS
Report Generation Time	2022-04-13 오후 3:19:11	Report Generator Name	DESKTOP-86B7UPG\5975MS
Calibration Last Update	2022-04-13 오후 3:16:00	Batch State	Processed
Analyze Quant Version	10.2	Report Quant Version	10.2
Acq. Date-Time	2022-02-05 오전 10:56:34	Data File	220204-PAHs-041.D
Type	Sample	Name	Sample-Gas-220107
Dil.	1	Acq. Method File	PAHs 19mix-Method

## Sample Chromatogram

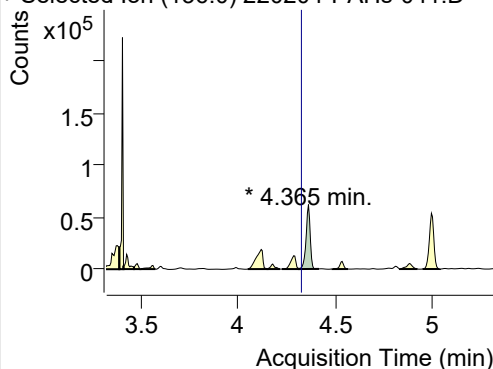
+ TIC SIM 220204-PAHs-041.D (Sample-Gas-220107)



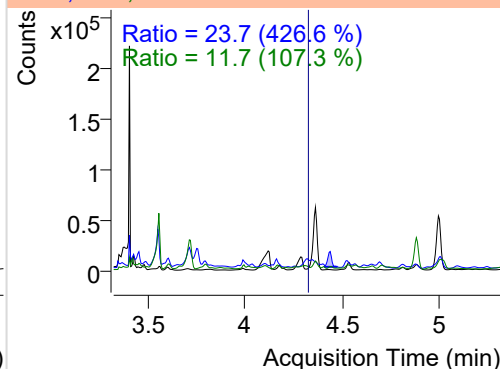
Name	RT	Transition	Resp.	Height	Final Conc. Units	Ratio
IS-D8-Naphthalene	4.365	136.0	89712	61830.09	ND ng/ml	11.7
Naphthalene	4.403	128.0	11277512	6949170.76	ND ng/ml	14.2
Acenaphthylene	7.751	152.0	9180	6504.06	ND ng/ml	16.8
IS-D10-Acenaphthene	8.118	164.0	61807	42863.77	ND ng/ml	90.2
Acenaphthene	8.189	154.0	7894	5180.54	ND ng/ml	116.8
LSS-D10-Fluorene	9.292	176.0	66295	45703.78	ND µg/mL	87.5
Fluorene	9.355	166.0	19626	13140.54	ND µg/mL	87.1
IS-D10-Phenanthrene	11.508	188.0	106788	64605.78	ND µg/mL	15.4
Phenanthrene	11.560	178.0	27073	20251.33	ND µg/mL	21.2
Anthracene	11.655	178.0	1601	1280.73	ND µg/mL	
Fluoranthene	14.359	202.0	6606	4006.52	ND µg/mL	
LSS-D10-Pyrene	14.820	212.0	94308	59081.32	ND µg/mL	17.1
Pyrene	14.858	202.0	6407	3860.52	ND µg/mL	34.1
Benz(a)anthracene	17.758	228.0	502	147.13	ND µg/mL	
IS-D12-Chrysene	17.763	240.0	90165	52722.52	ND µg/mL	18.9
Chrysene	17.839	228.0	1351	301.13	ND µg/mL	30.6
Benzo(b)fluoranthene	20.139	252.0	42	56.50	ND µg/mL	
Benzo(k)fluoranthene	20.149	252.0	183	0.00	ND µg/mL	
SS-D12-Benzo(e)pyrene	20.621	264.0	99345	57172.61	ND µg/mL	23.0
Benzo(e)pyrene	20.676	252.0	690459	350659.44	ND µg/mL	19.2
Benzo(a)pyrene	20.752	252.0	748	390.16	ND µg/mL	17714.2
IS-D12-Perylene	20.887	264.0	91424	52083.92	ND µg/mL	24.4
Perylene	20.936	252.0	9567	4294.20	ND µg/mL	9.9
Indeno(1,2,3-c,d)pyrene	22.844	276.0	94	43.50	ND µg/mL	72.0
Dibenz(a,h)anthracene	22.883	278.0	198	100.24	ND µg/mL	314.9
Benzo(g,h,i)perylene	23.264	276.0	117	70.24	ND µg/mL	34.7
Coronene	25.876	300.0	92	26.36	ND µg/mL	

## IS-D8-Naphthalene

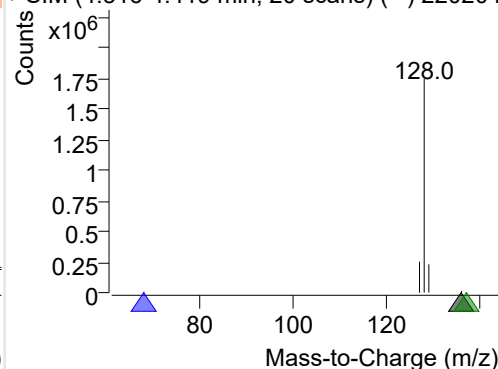
+ Selected Ion (136.0) 220204-PAHs-041.D



136.0, 68.0, 137.0

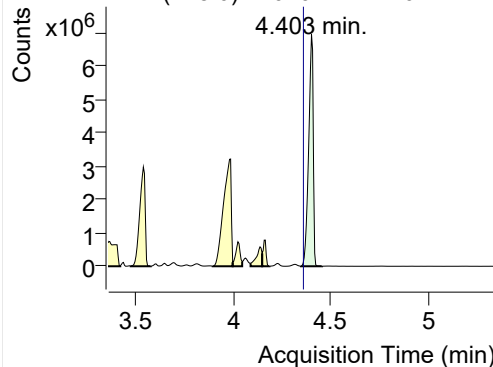


+ SIM (4.316-4.419 min, 20 scans) (\*\*) 220204

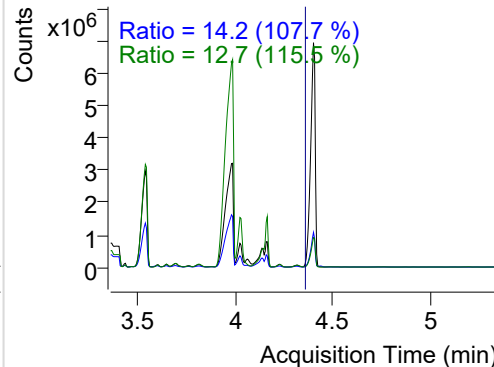


**Naphthalene**

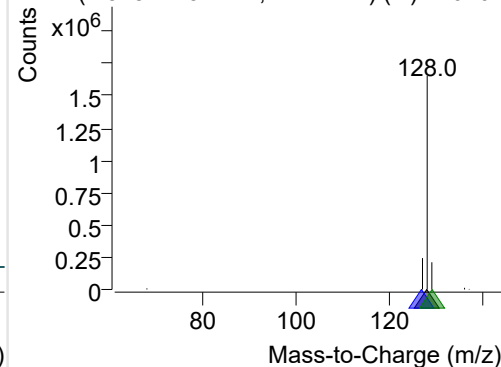
+ Selected Ion (128.0) 220204-PAHs-041.D



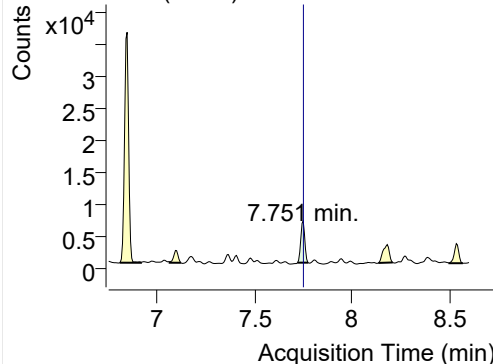
128.0, 127.0, 129.0



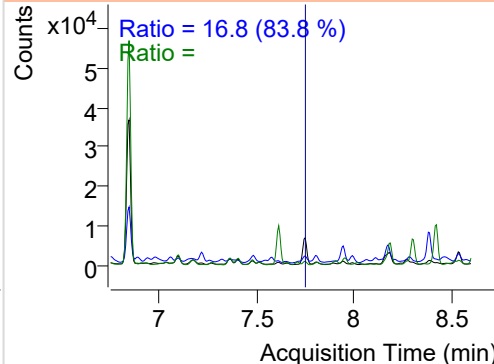
+ SIM (4.348-4.457 min, 21 scans) (\*\*) 220204

**Acenaphthylene**

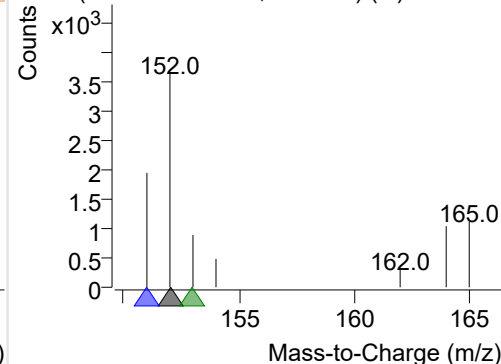
+ Selected Ion (152.0) 220204-PAHs-041.D



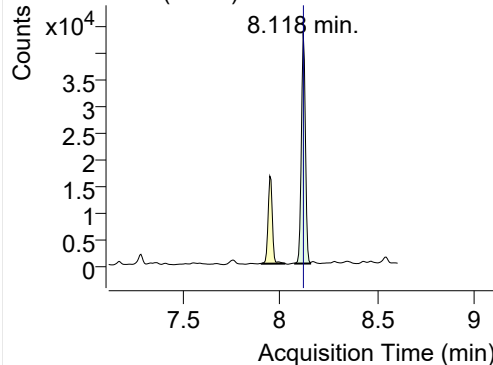
152.0, 151.0, 153.0



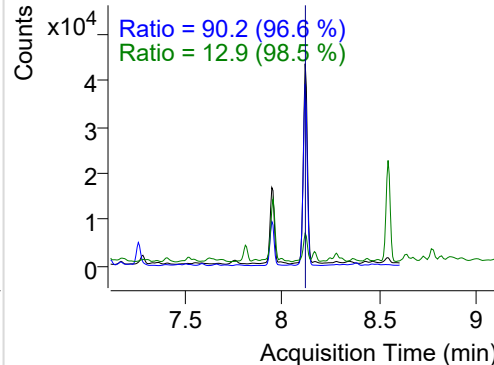
+ SIM (7.722-7.776 min, 9 scans) (\*\*) 220204-I

**IS-D10-Acenaphthene**

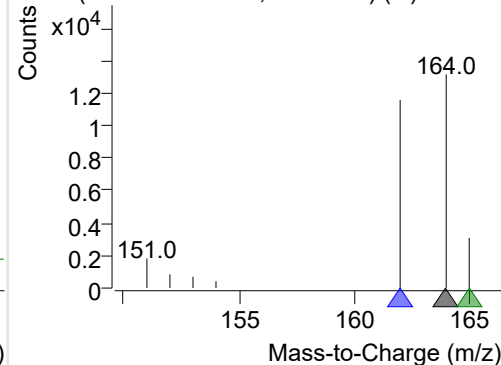
+ Selected Ion (164.0) 220204-PAHs-041.D



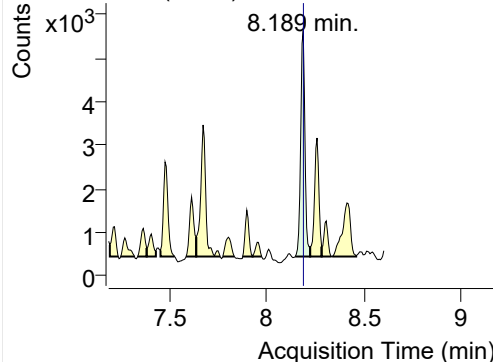
164.0, 162.0, 165.0



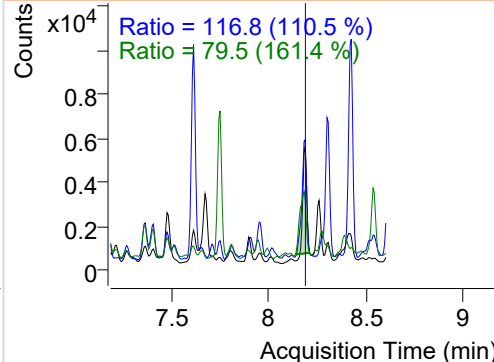
+ SIM (8.077-8.154 min, 14 scans) (\*\*) 220204

**Acenaphthene**

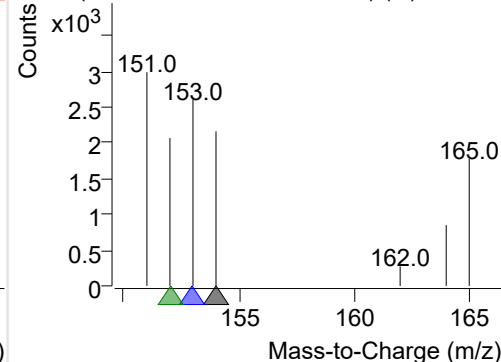
+ Selected Ion (154.0) 220204-PAHs-041.D



154.0, 153.0, 152.0

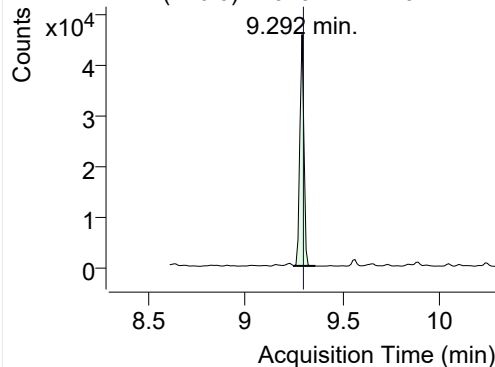


+ SIM (8.148-8.225 min, 13 scans) (\*\*) 220204

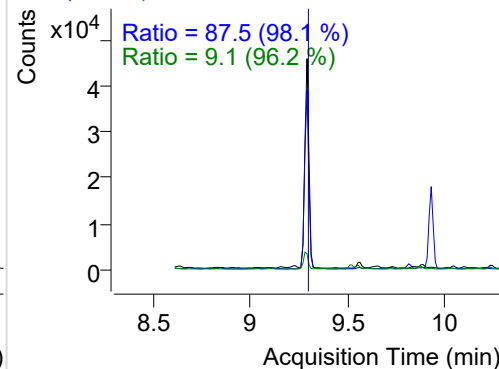


## LSS-D10-Fluorene

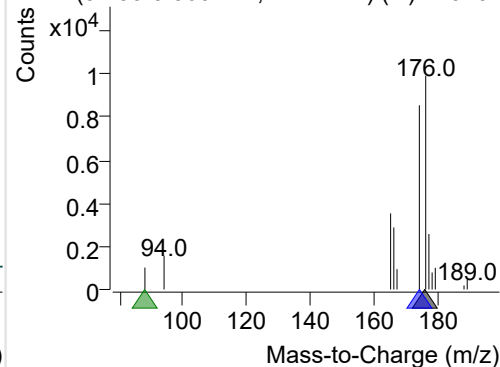
+ Selected Ion (176.0) 220204-PAHs-041.D



176.0, 174.0, 88.0

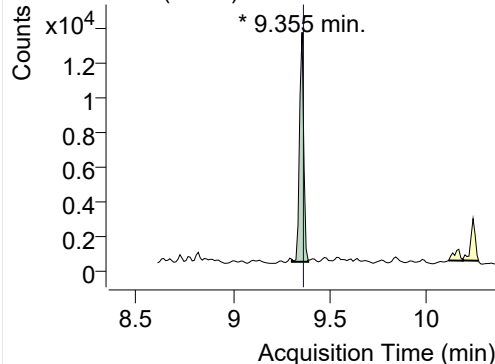


+ SIM (9.250-9.360 min, 11 scans) (\*\*) 220204

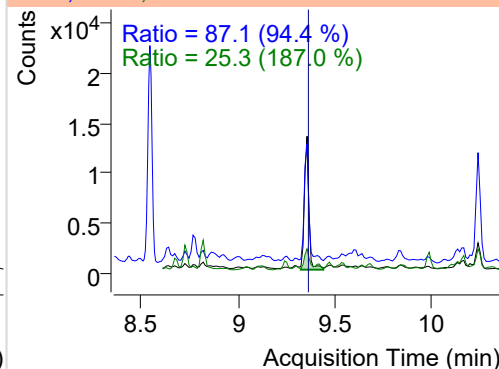


## Fluorene

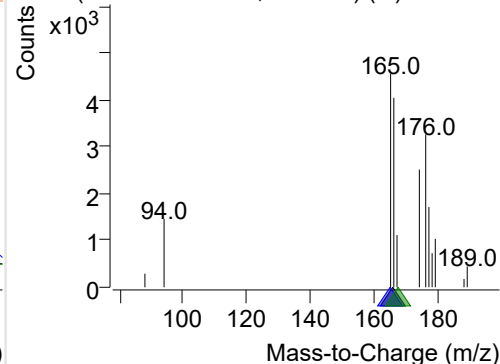
+ Selected Ion (166.0) 220204-PAHs-041.D



166.0, 165.0, 167.0

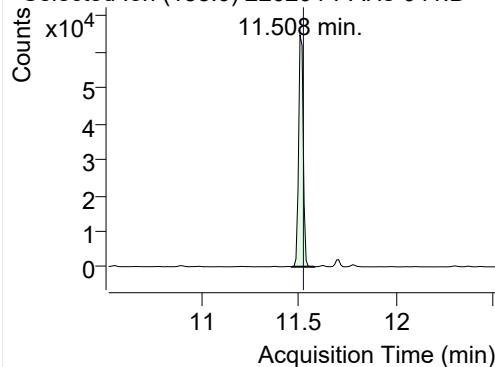


+ SIM (9.302-9.386 min, 9 scans) (\*\*) 220204-I

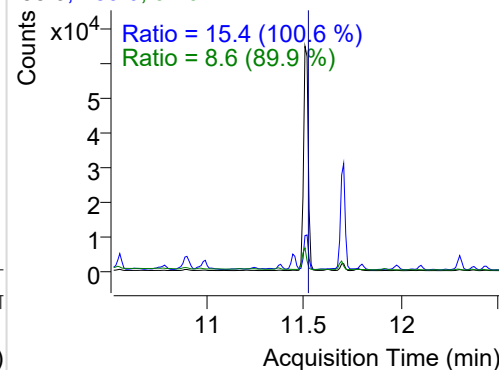


## IS-D10-Phenanthrene

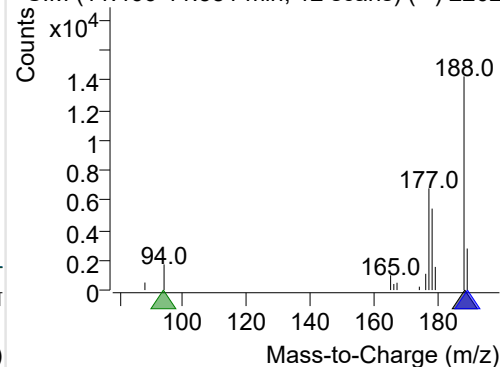
+ Selected Ion (188.0) 220204-PAHs-041.D



188.0, 189.0, 94.0

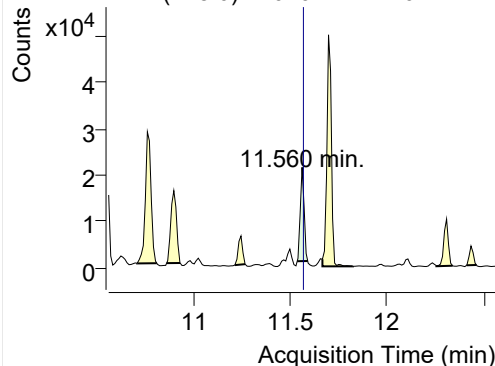


+ SIM (11.466-11.581 min, 12 scans) (\*\*) 2202

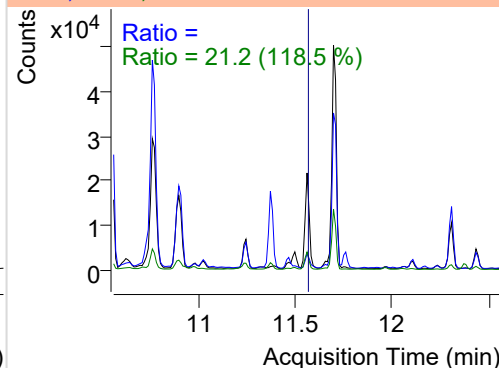


## Phenanthrene

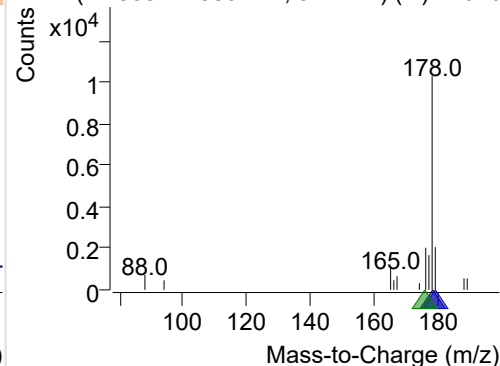
+ Selected Ion (178.0) 220204-PAHs-041.D



178.0, 179.0, 176.0

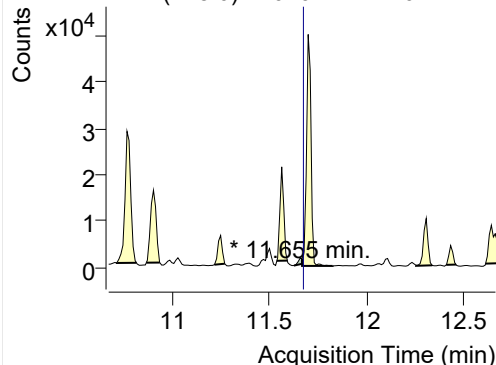


+ SIM (11.535-11.589 min, 5 scans) (\*\*) 22020

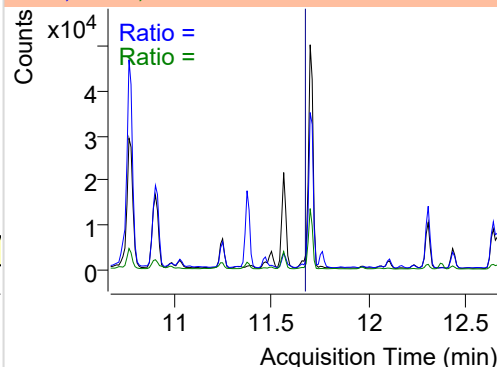


**Anthracene**

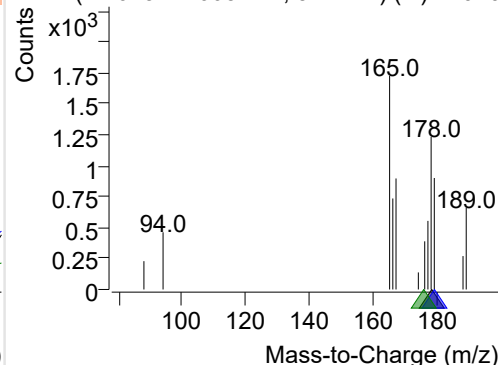
+ Selected Ion (178.0) 220204-PAHs-041.D



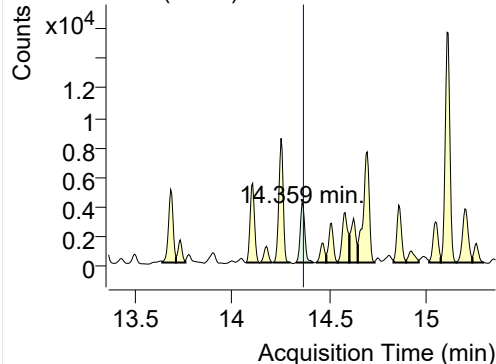
178.0, 179.0, 176.0



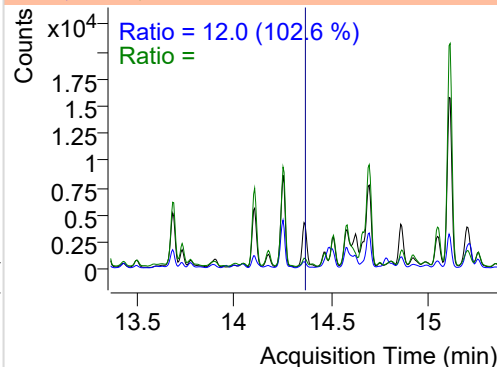
+ SIM (11.623-11.665 min, 5 scans) (\*\*) 22020

**Fluoranthene**

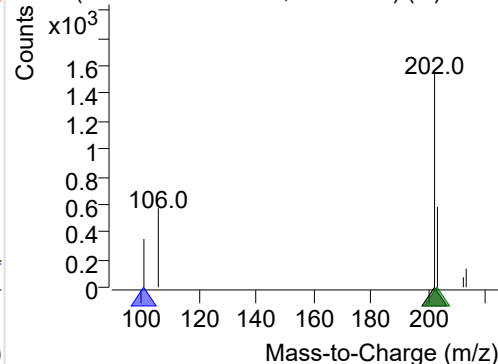
+ Selected Ion (202.0) 220204-PAHs-041.D



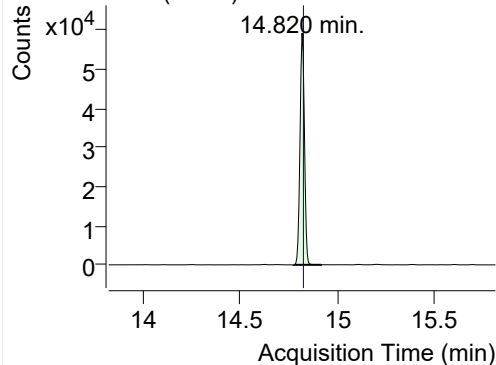
202.0, 101.0, 203.0



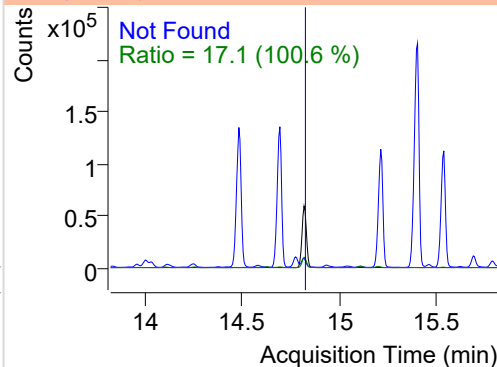
+ SIM (14.327-14.418 min, 16 scans) (\*\*) 2202

**LSS-D10-Pyrene**

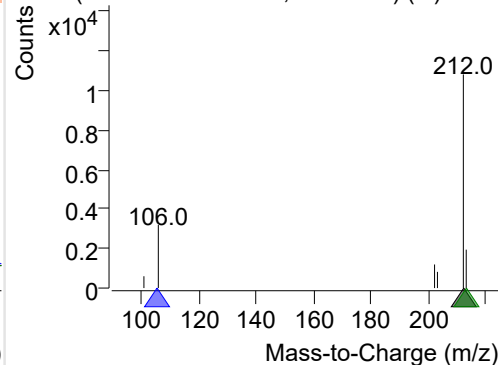
+ Selected Ion (212.0) 220204-PAHs-041.D



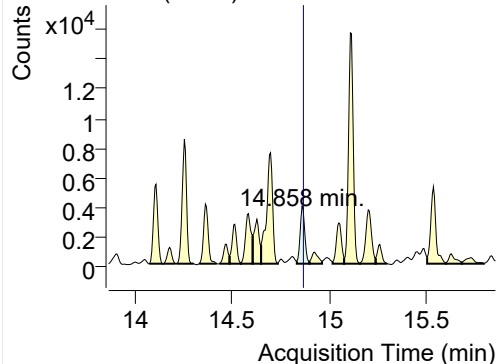
212.0, 106.0, 213.0



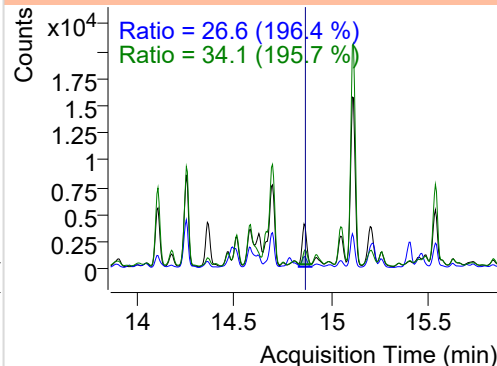
+ SIM (14.776-14.917 min, 27 scans) (\*\*) 2202

**Pyrene**

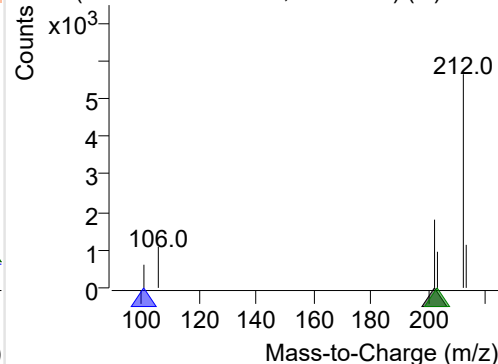
+ Selected Ion (202.0) 220204-PAHs-041.D



202.0, 101.0, 203.0



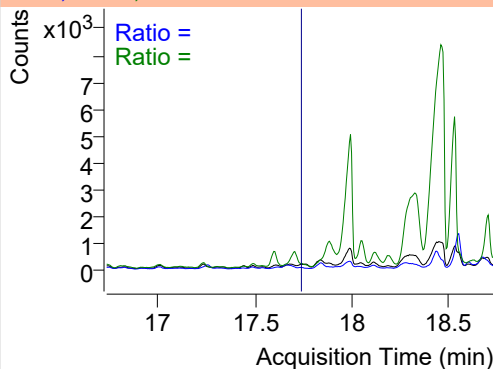
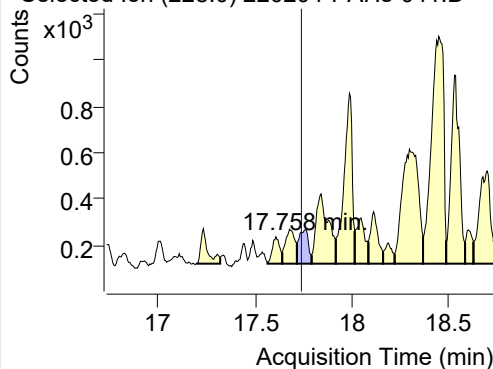
+ SIM (14.831-14.896 min, 13 scans) (\*\*) 2202



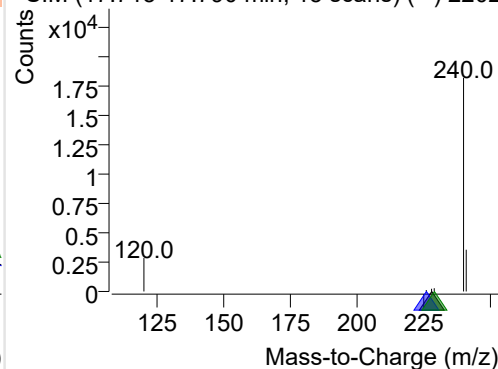
**Benz(a)anthracene**

+ Selected Ion (228.0) 220204-PAHs-041.D

228.0, 226.0, 229.0

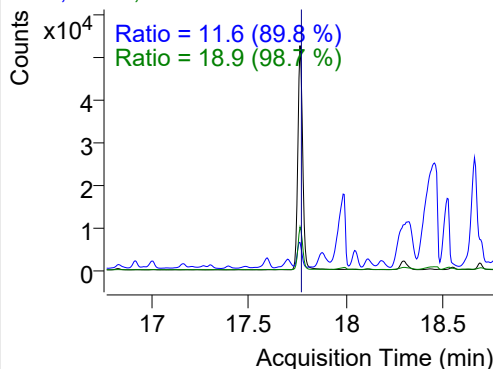
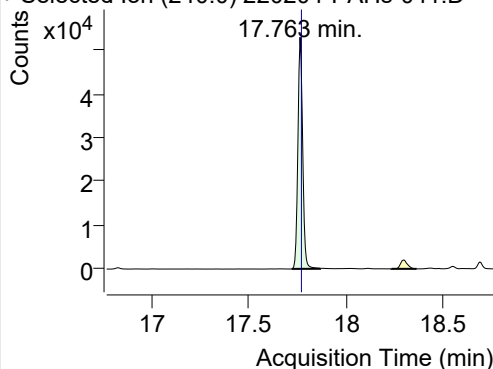


+ SIM (17.715-17.790 min, 15 scans) (\*\*) 2202

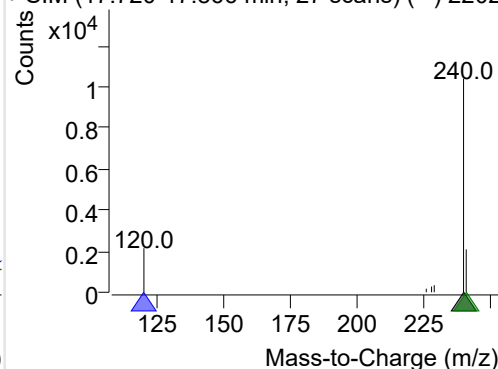
**IS-D12-Chrysene**

+ Selected Ion (240.0) 220204-PAHs-041.D

240.0, 120.0, 241.0

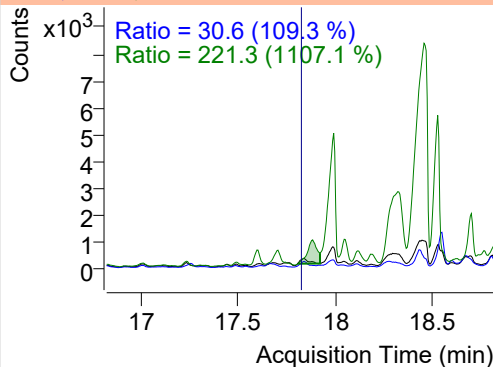
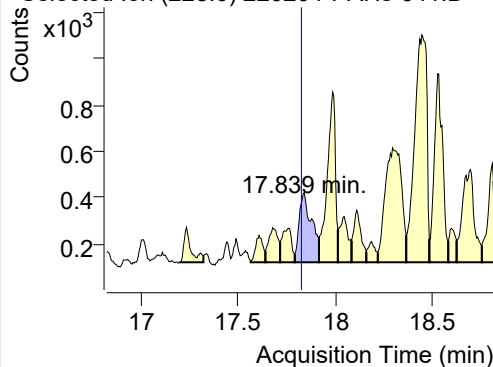


+ SIM (17.720-17.866 min, 27 scans) (\*\*) 2202

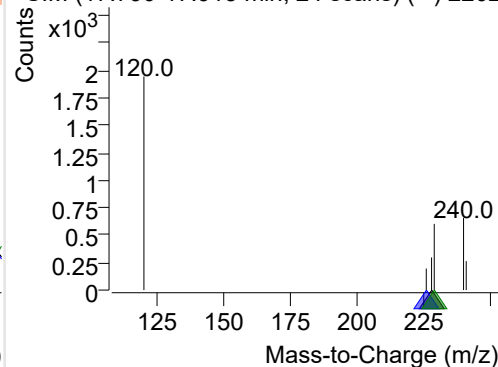
**Chrysene**

+ Selected Ion (228.0) 220204-PAHs-041.D

228.0, 226.0, 229.0

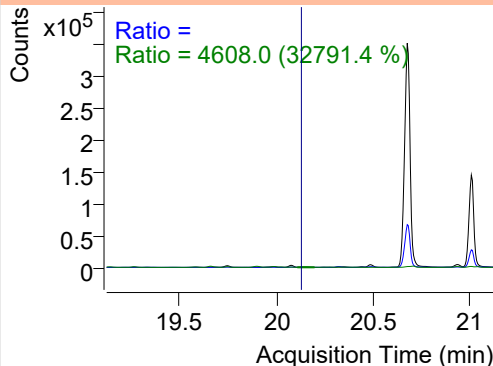
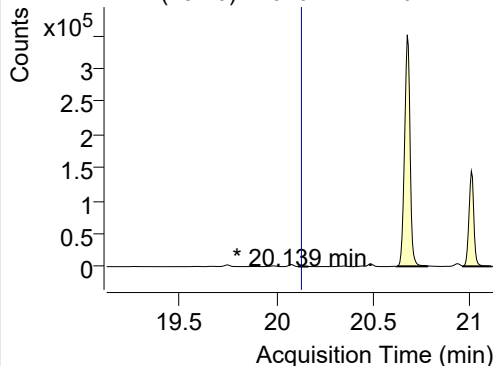


+ SIM (17.790-17.915 min, 24 scans) (\*\*) 2202

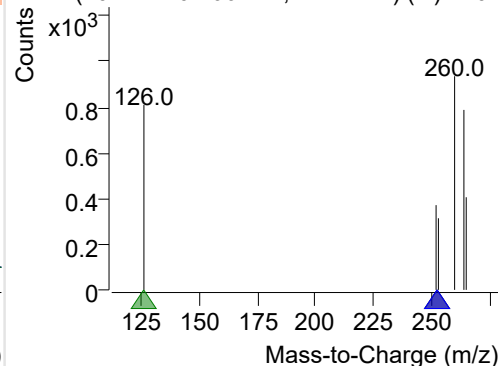
**Benzo(b)fluoranthene**

+ Selected Ion (252.0) 220204-PAHs-041.D

252.0, 253.0, 126.0



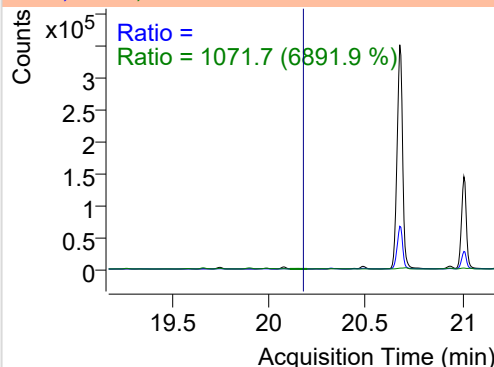
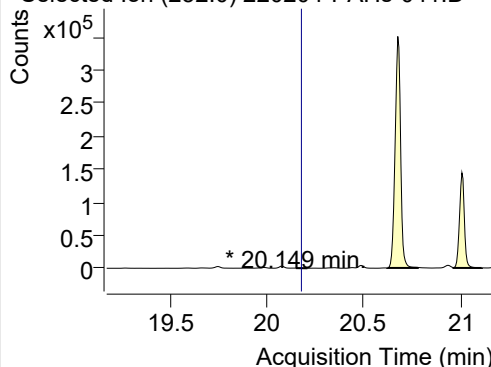
+ SIM (20.111-20.166 min, 11 scans) (\*\*) 2202



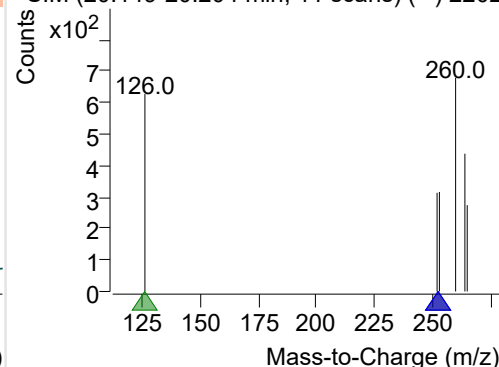
**Benzo(k)fluoranthene**

+ Selected Ion (252.0) 220204-PAHs-041.D

252.0, 253.0, 126.0

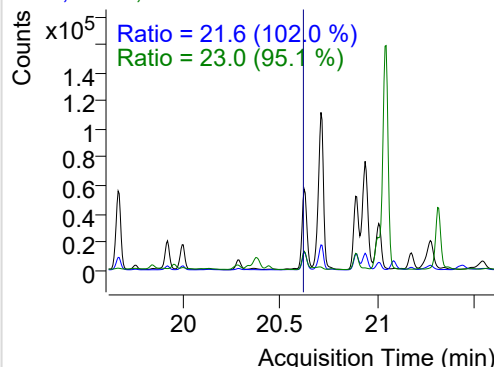
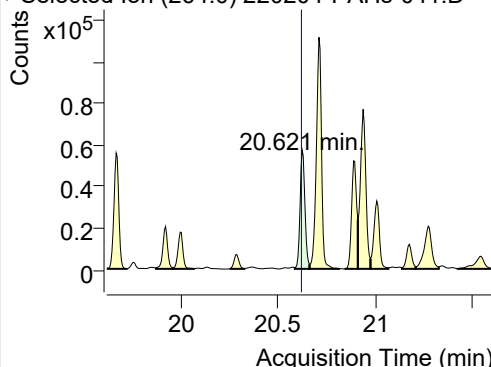


+ SIM (20.149-20.204 min, 11 scans) (\*\*) 2202

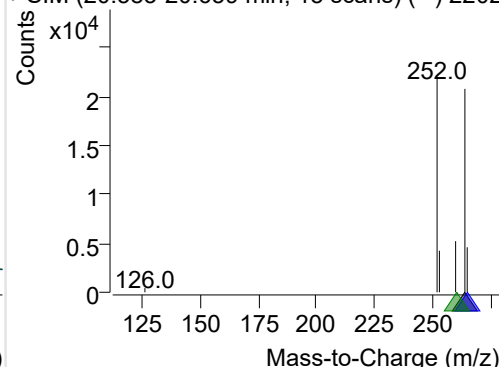
**SS-D12-Benzo(e)pyrene**

+ Selected Ion (264.0) 220204-PAHs-041.D

264.0, 265.0, 260.0

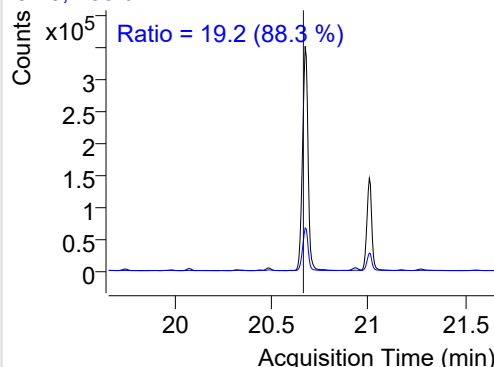
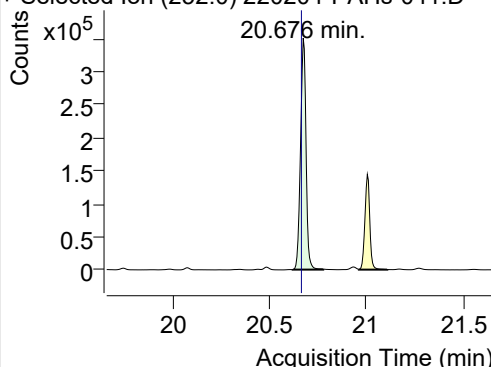


+ SIM (20.583-20.659 min, 15 scans) (\*\*) 2202

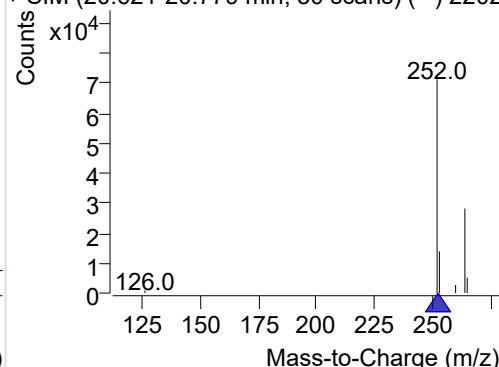
**Benzo(e)pyrene**

+ Selected Ion (252.0) 220204-PAHs-041.D

252.0, 253.0

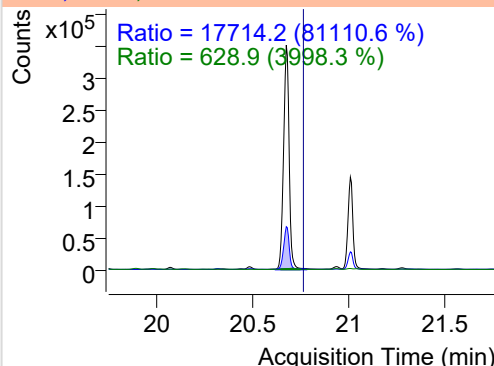
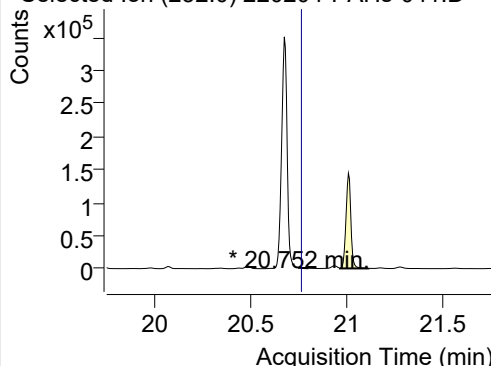


+ SIM (20.621-20.779 min, 30 scans) (\*\*) 2202

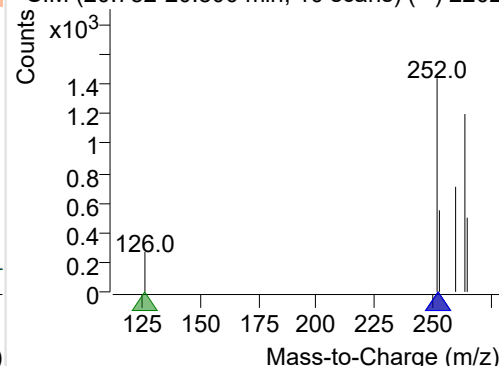
**Benzo(a)pyrene**

+ Selected Ion (252.0) 220204-PAHs-041.D

252.0, 253.0, 126.0

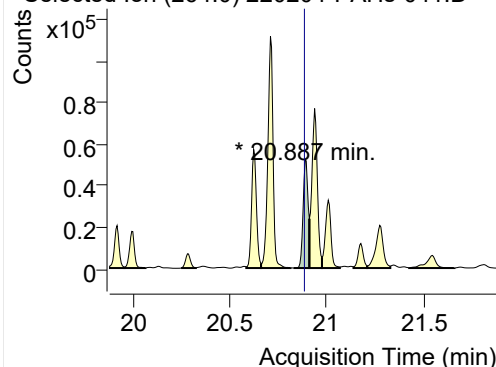


+ SIM (20.752-20.800 min, 10 scans) (\*\*) 2202

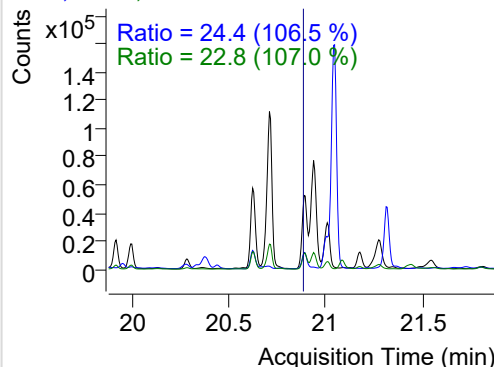


## IS-D12-Perylene

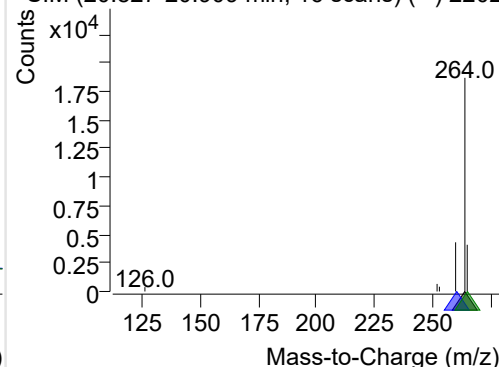
+ Selected Ion (264.0) 220204-PAHs-041.D



264.0, 260.0, 265.0

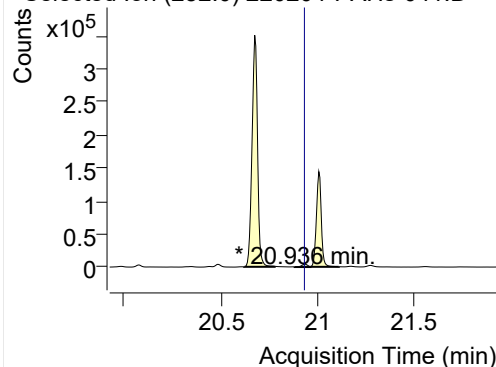


+ SIM (20.827-20.909 min, 16 scans) (\*\*) 2202

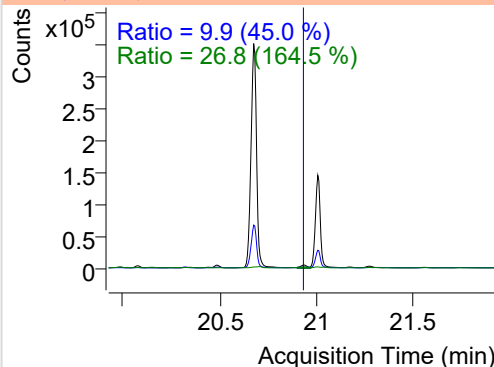


## Perylene

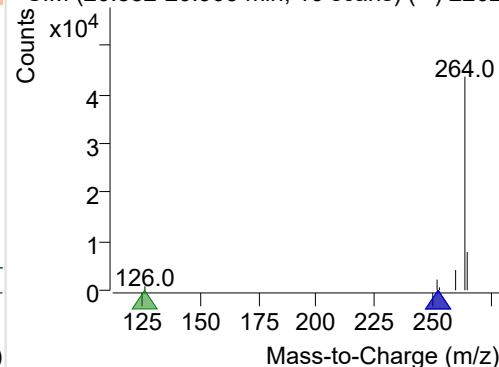
+ Selected Ion (252.0) 220204-PAHs-041.D



252.0, 253.0, 126.0

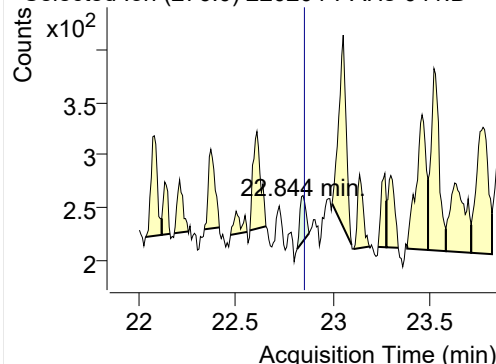


+ SIM (20.882-20.963 min, 16 scans) (\*\*) 2202

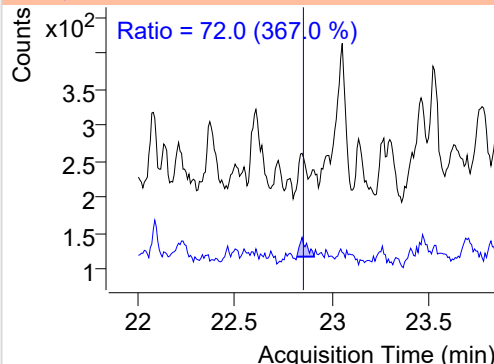


## Indeno(1,2,3-c,d)pyrene

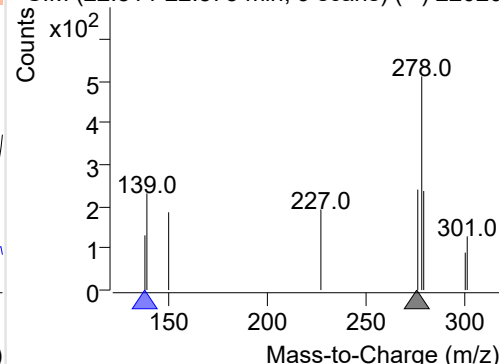
+ Selected Ion (276.0) 220204-PAHs-041.D



276.0, 138.0

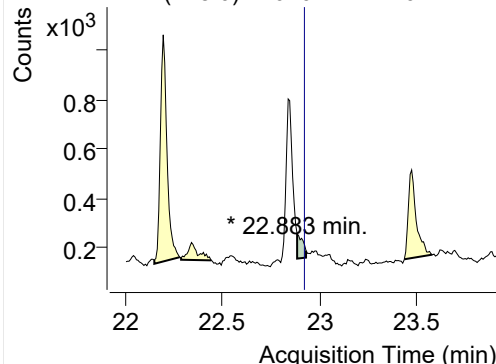


+ SIM (22.814-22.875 min, 9 scans) (\*\*) 22020

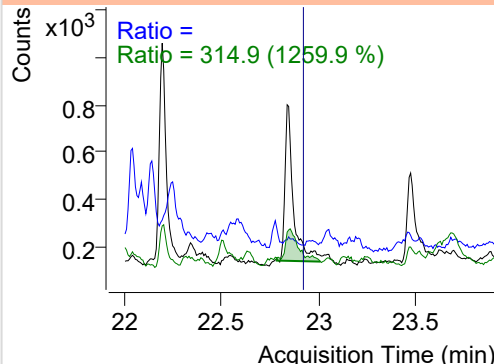


## Dibenz(a,h)anthracene

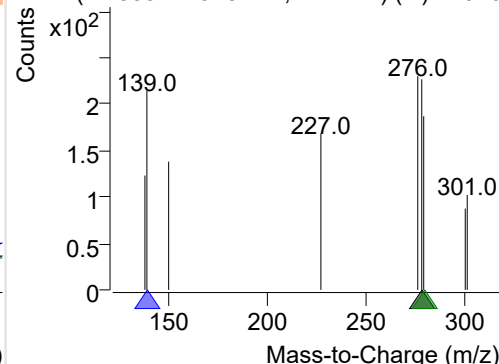
+ Selected Ion (278.0) 220204-PAHs-041.D



278.0, 139.0, 279.0

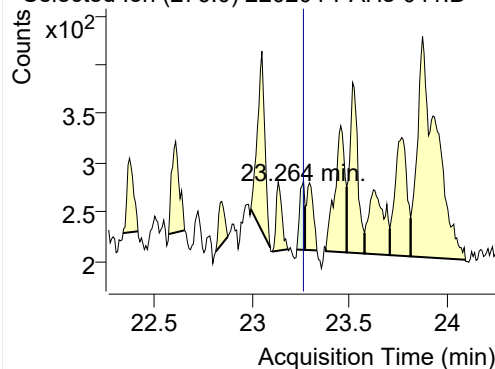


+ SIM (22.883-22.928 min, 7 scans) (\*\*) 22020

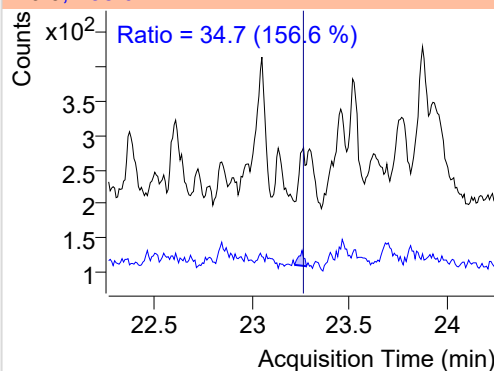


**Benzo(g,h,i)perylene**

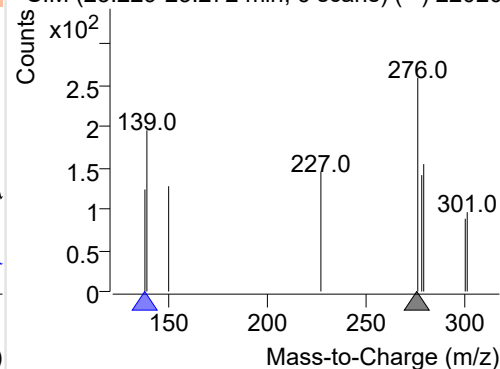
+ Selected Ion (276.0) 220204-PAHs-041.D



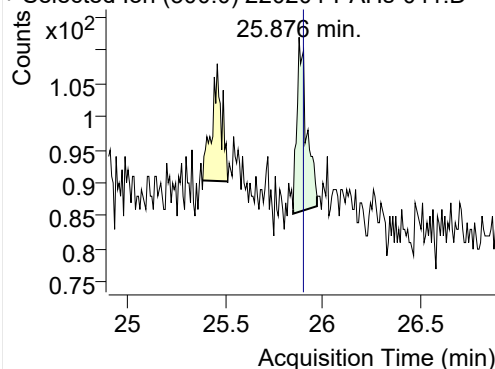
276.0, 138.0



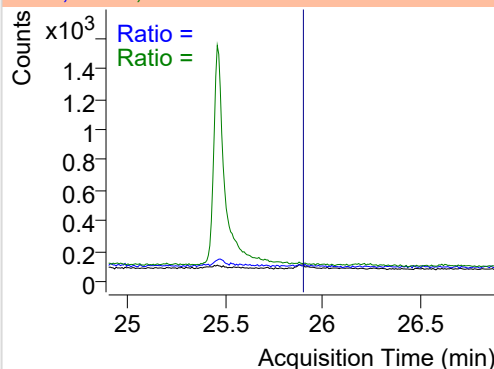
+ SIM (23.229-23.272 min, 6 scans) (\*\*) 22020

**Coronene**

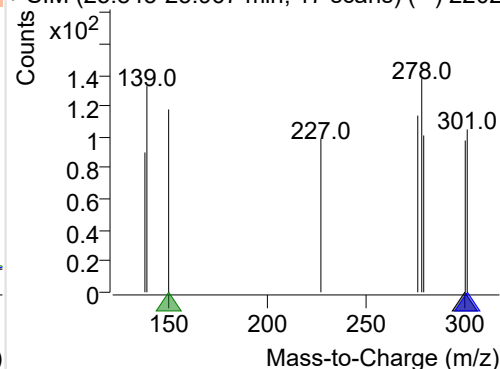
+ Selected Ion (300.0) 220204-PAHs-041.D



300.0, 301.0, 150.0



+ SIM (25.845-25.967 min, 17 scans) (\*\*) 2202





## Quantitative Analysis Sample Based Report

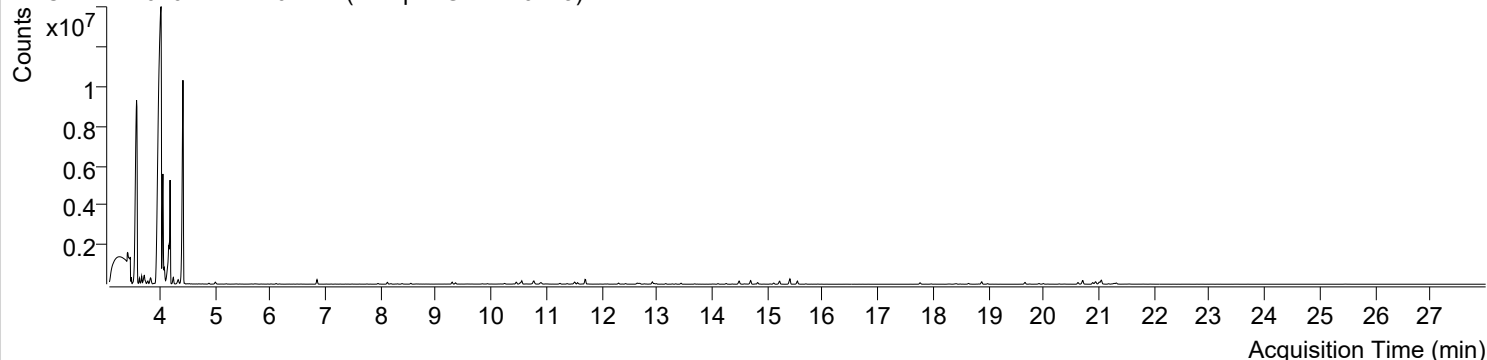


Trusted Answers

Batch Data Path File Name	D:\MassHunter\GCMS\1\data\PAHs\220204-PAHs-Sample\QuantResults\220204-PAHs-Quant.batch.bin		
Analysis Time Stamp	2022-04-13 오후 3:18:46	Analyst Name	DESKTOP-86B7UPG\5975MS
Report Generation Time	2022-04-13 오후 3:19:11	Report Generator Name	DESKTOP-86B7UPG\5975MS
Calibration Last Update	2022-04-13 오후 3:16:00	Batch State	Processed
Analyze Quant Version	10.2	Report Quant Version	10.2
Acq. Date-Time	2022-02-05 오전 11:27:39	Data File	220204-PAHs-042.D
Type	Sample	Name	Sample-Gas-220113
Dil.	1	Acq. Method File	PAHs 19mix-Method

## Sample Chromatogram

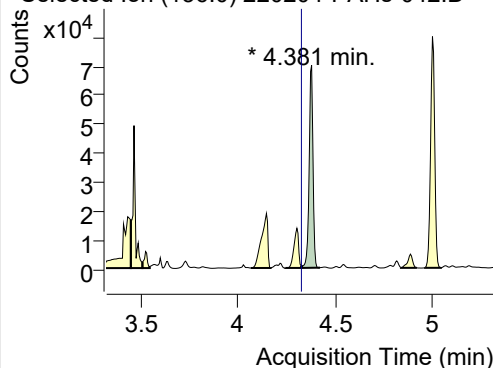
+ TIC SIM 220204-PAHs-042.D (Sample-Gas-220113)



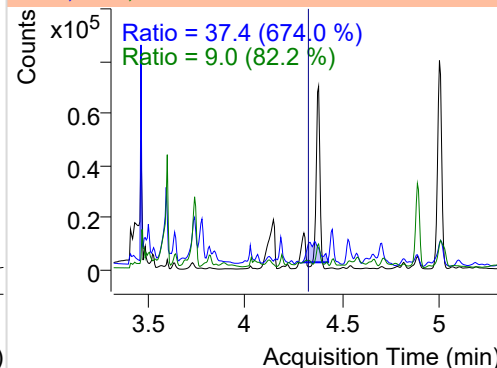
Name	RT	Transition	Resp.	Height	Final Conc. Units	Ratio
IS-D8-Naphthalene	4.381	136.0	95260	69921.12	ND ng/ml	9.0
Naphthalene	4.419	128.0	12128181	7938990.88	ND ng/ml	15.0
Acenaphthylene	7.751	152.0	10630	7692.71	ND ng/ml	18.1
IS-D10-Acenaphthene	8.118	164.0	65754	44903.20	ND ng/ml	90.7
Acenaphthene	8.189	154.0	11762	7838.00	ND ng/ml	121.6
LSS-D10-Fluorene	9.292	176.0	68967	47363.39	ND µg/mL	87.4
Fluorene	9.355	166.0	47277	32263.86	ND µg/mL	95.0
IS-D10-Phenanthrene	11.508	188.0	112848	66339.79	ND µg/mL	15.6
Phenanthrene	11.560	178.0	74405	48875.68	ND µg/mL	17.7
Anthracene	11.655	178.0	2489	1899.73	ND µg/mL	
Fluoranthene	14.364	202.0	12474	7908.12	ND µg/mL	
LSS-D10-Pyrene	14.820	212.0	96978	61795.57	ND µg/mL	17.5
Pyrene	14.858	202.0	8807	5056.45	ND µg/mL	38.4
Benz(a)anthracene	17.742	228.0	561	217.97	ND µg/mL	32.9
IS-D12-Chrysene	17.763	240.0	94748	53424.25	ND µg/mL	19.0
Chrysene	17.818	228.0	499	277.94	ND µg/mL	64.0
Benzo(b)fluoranthene	20.133	252.0	245	123.90	ND µg/mL	
Benzo(k)fluoranthene	20.160	252.0	372	245.60	ND µg/mL	
SS-D12-Benzo(e)pyrene	20.621	264.0	99115	57363.47	ND µg/mL	22.7
Benzo(e)pyrene	20.703	252.0	17180	7399.39	ND µg/mL	16.3
Benzo(a)pyrene	20.768	252.0	1637	677.08	ND µg/mL	
IS-D12-Perylene	20.887	264.0	98170	55306.22	ND µg/mL	24.0
Perylene	20.936	252.0	11579	5086.24	ND µg/mL	10.6
Indeno(1,2,3-c,d)pyrene	22.906	276.0	70	29.46	ND µg/mL	50.2
Dibenz(a,h)anthracene	22.967	278.0	92	33.86	ND µg/mL	
Benzo(g,h,i)perylene	23.257	276.0	171	84.53	ND µg/mL	14.4
Coronene	25.883	300.0	103	28.20	ND µg/mL	

## IS-D8-Naphthalene

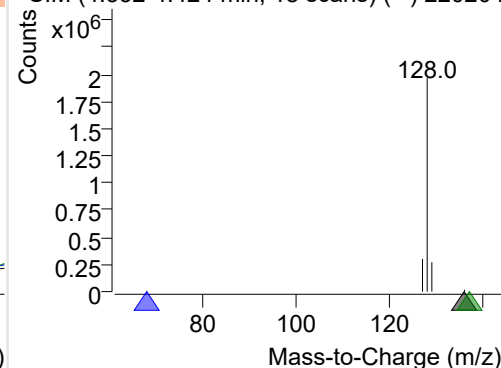
+ Selected Ion (136.0) 220204-PAHs-042.D



136.0, 68.0, 137.0

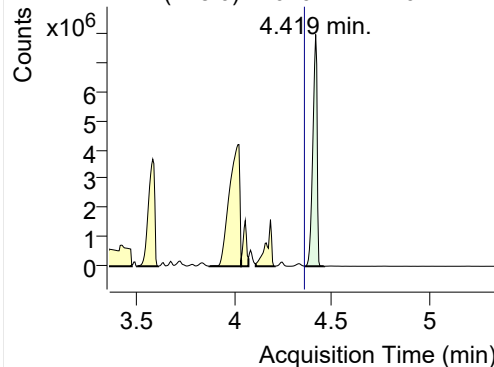


+ SIM (4.332-4.424 min, 18 scans) (\*\*) 220204

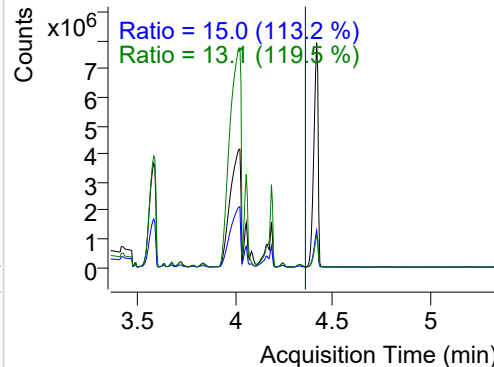


**Naphthalene**

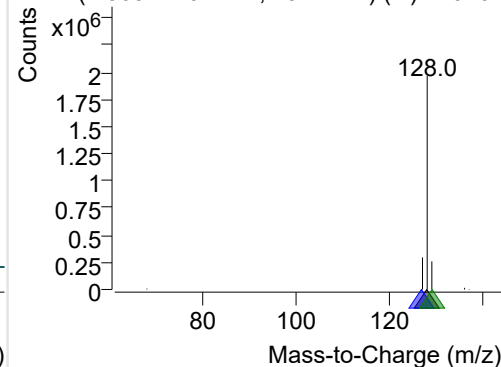
+ Selected Ion (128.0) 220204-PAHs-042.D



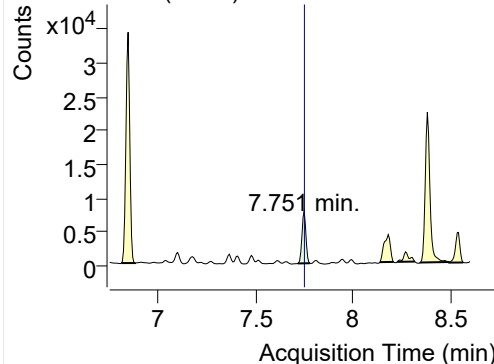
128.0, 127.0, 129.0



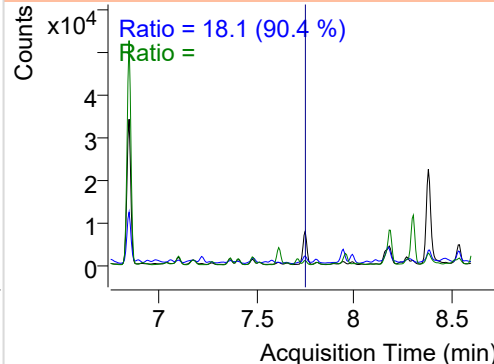
+ SIM (4.365-4.462 min, 19 scans) (\*\*) 220204

**Acenaphthylene**

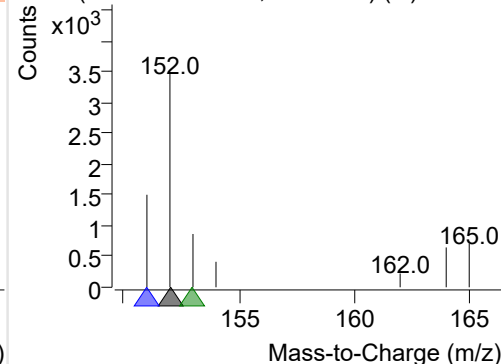
+ Selected Ion (152.0) 220204-PAHs-042.D



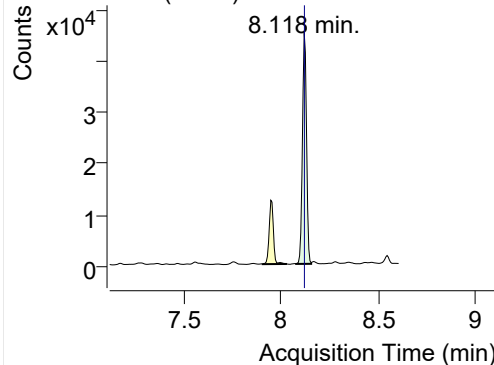
152.0, 151.0, 153.0



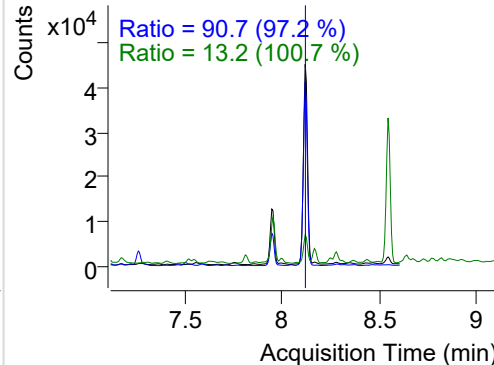
+ SIM (7.718-7.780 min, 10 scans) (\*\*) 220204

**IS-D10-Acenaphthene**

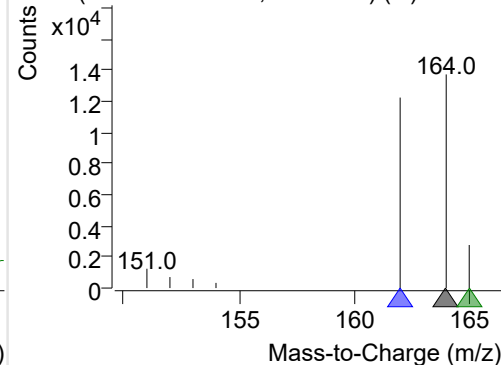
+ Selected Ion (164.0) 220204-PAHs-042.D



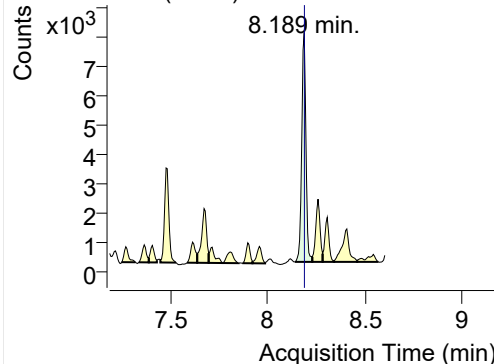
164.0, 162.0, 165.0



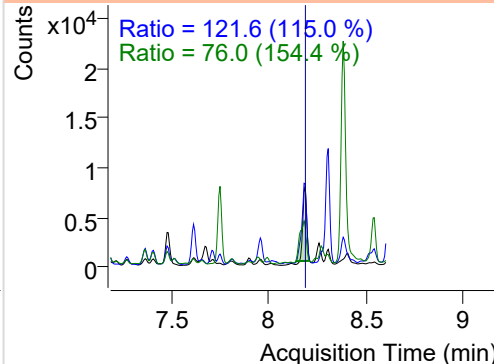
+ SIM (8.077-8.154 min, 14 scans) (\*\*) 220204

**Acenaphthene**

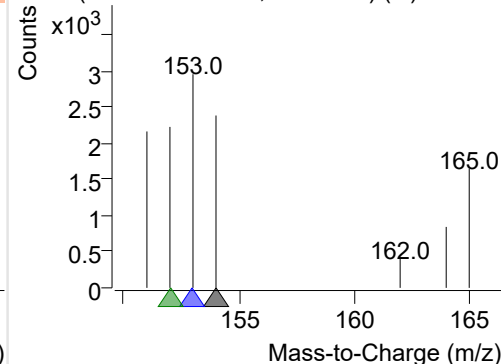
+ Selected Ion (154.0) 220204-PAHs-042.D



154.0, 153.0, 152.0

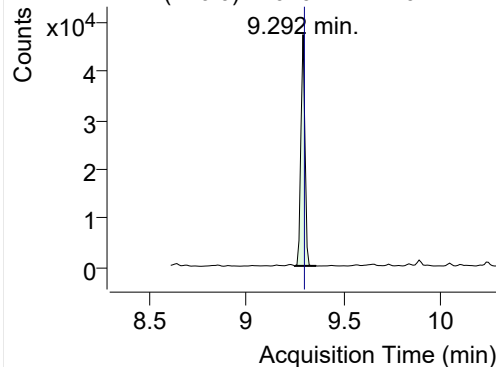


+ SIM (8.142-8.231 min, 16 scans) (\*\*) 220204

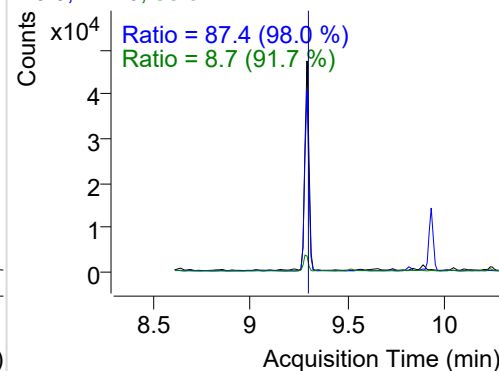


## LSS-D10-Fluorene

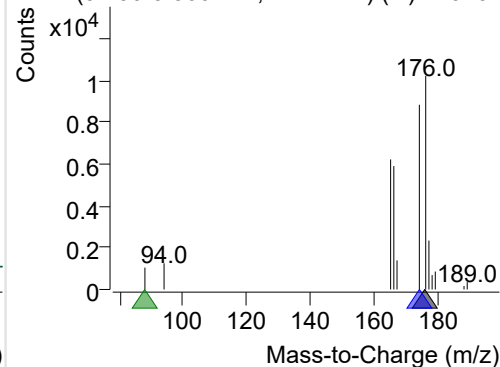
+ Selected Ion (176.0) 220204-PAHs-042.D



176.0, 174.0, 88.0

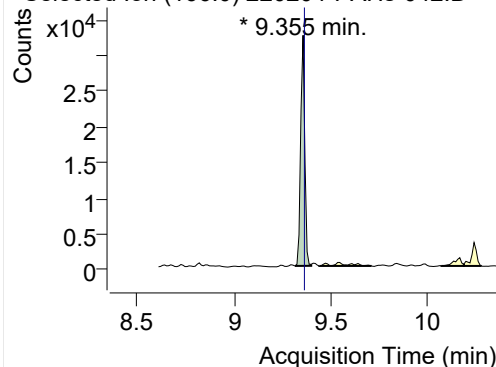


+ SIM (9.250-9.360 min, 11 scans) (\*\*) 220204

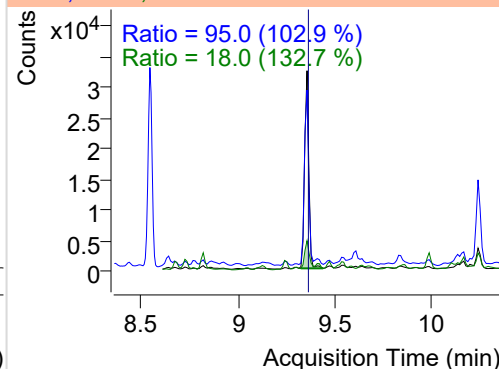


## Fluorene

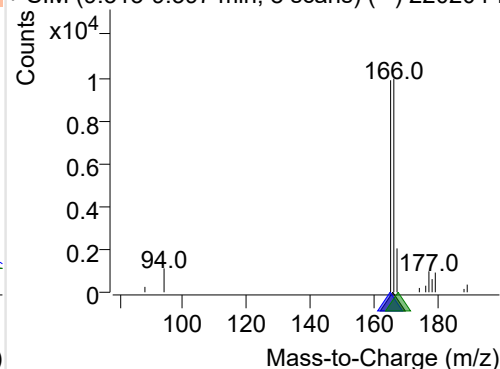
+ Selected Ion (166.0) 220204-PAHs-042.D



166.0, 165.0, 167.0

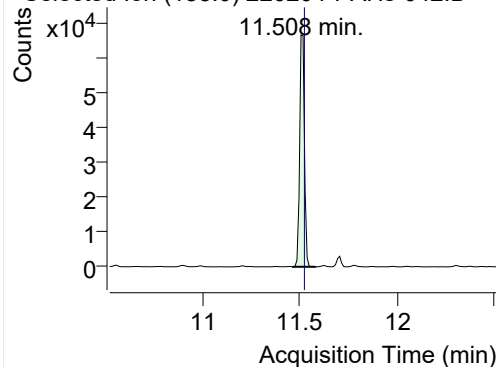


+ SIM (9.313-9.397 min, 8 scans) (\*\*) 220204-I

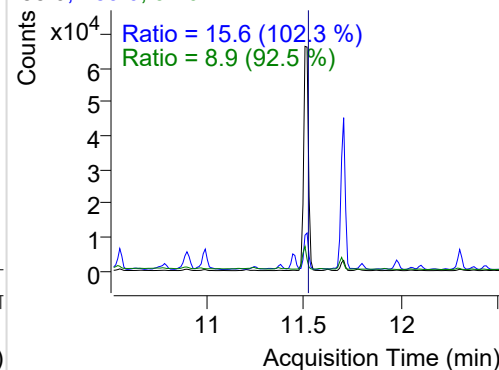


## IS-D10-Phenanthrene

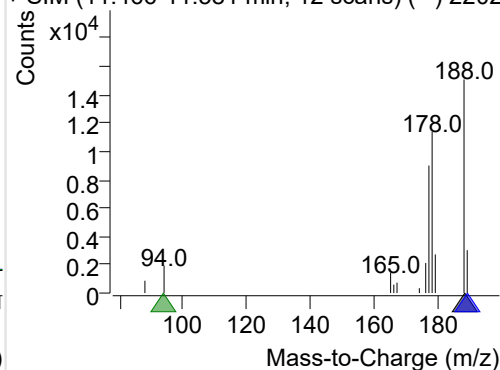
+ Selected Ion (188.0) 220204-PAHs-042.D



188.0, 189.0, 94.0

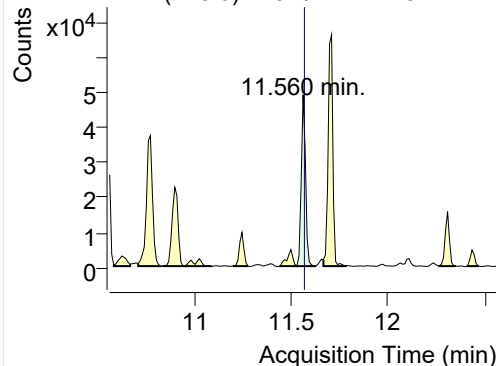


+ SIM (11.466-11.581 min, 12 scans) (\*\*) 2202

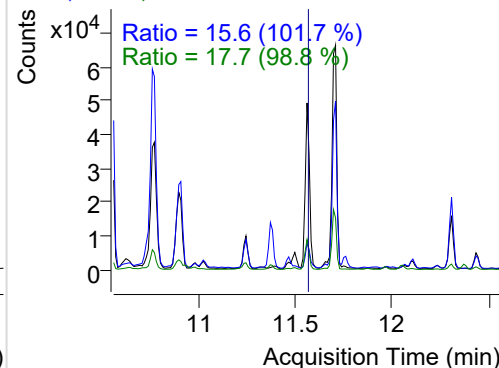


## Phenanthrene

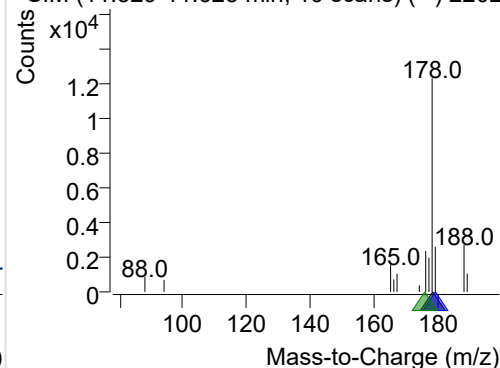
+ Selected Ion (178.0) 220204-PAHs-042.D



178.0, 179.0, 176.0

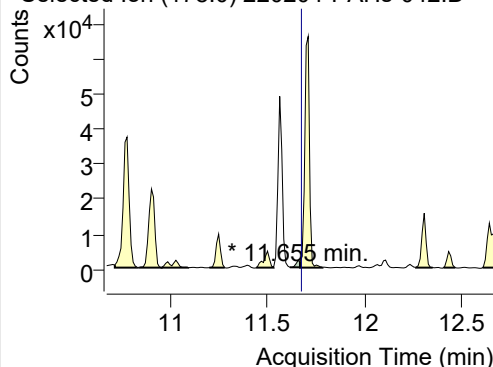


+ SIM (11.529-11.623 min, 10 scans) (\*\*) 2202

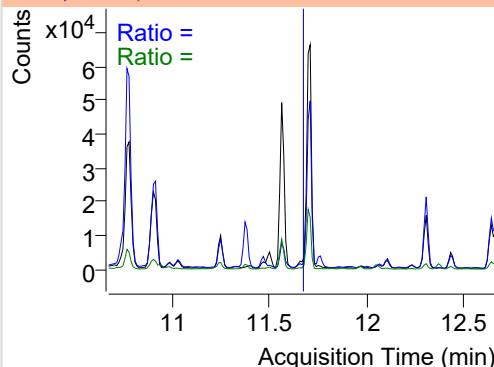


**Anthracene**

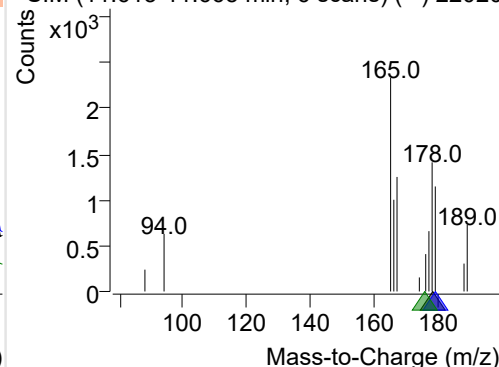
+ Selected Ion (178.0) 220204-PAHs-042.D



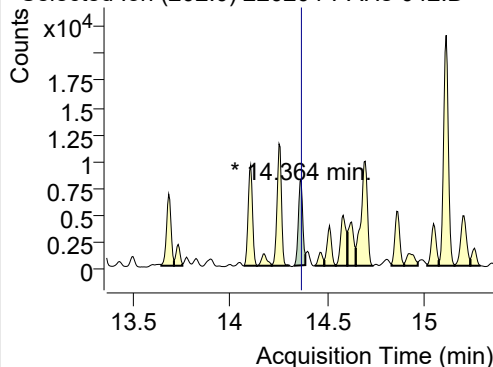
178.0, 179.0, 176.0



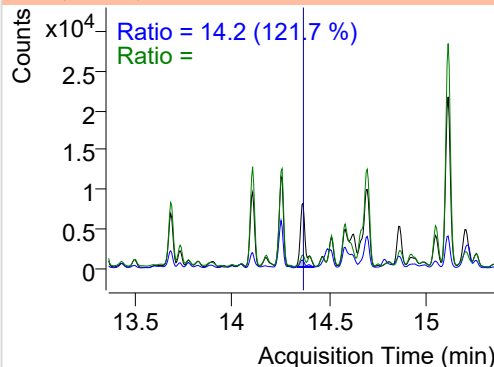
+ SIM (11.613-11.665 min, 6 scans) (\*\*) 22020

**Fluoranthene**

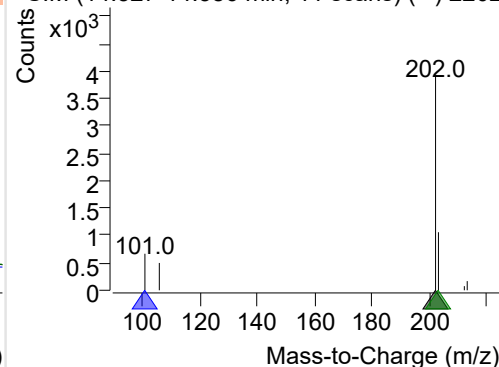
+ Selected Ion (202.0) 220204-PAHs-042.D



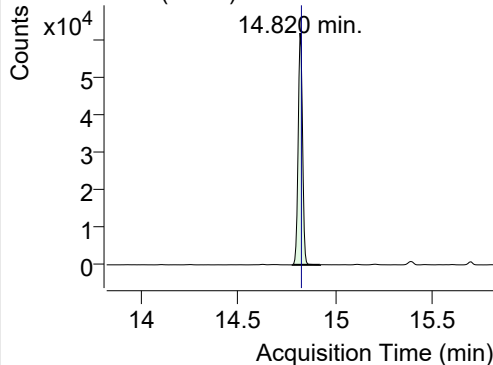
202.0, 101.0, 203.0



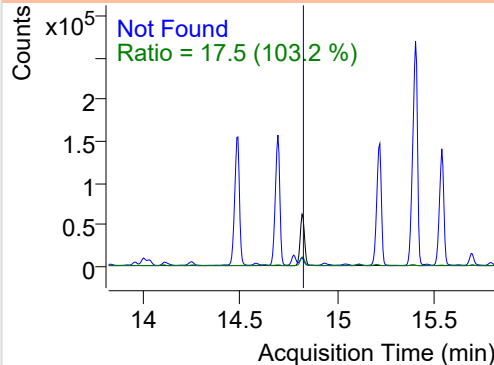
+ SIM (14.327-14.386 min, 11 scans) (\*\*) 2202

**LSS-D10-Pyrene**

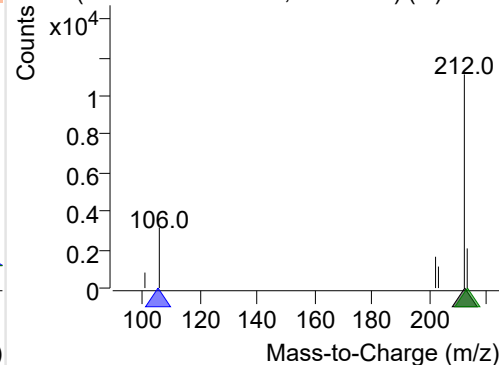
+ Selected Ion (212.0) 220204-PAHs-042.D



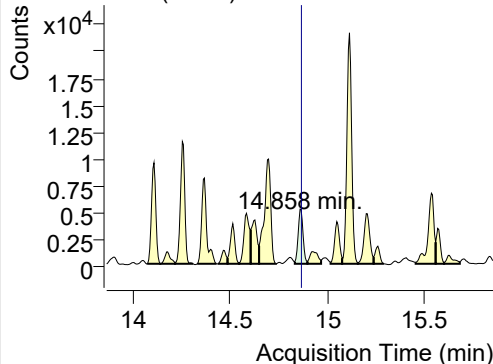
212.0, 106.0, 213.0



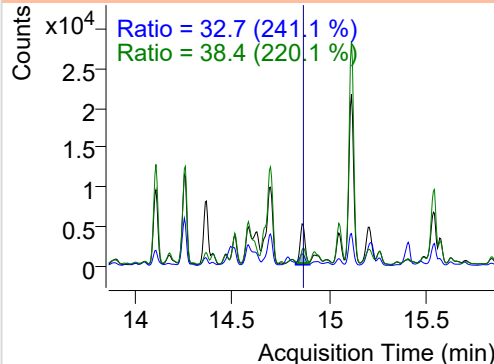
+ SIM (14.782-14.923 min, 27 scans) (\*\*) 2202

**Pyrene**

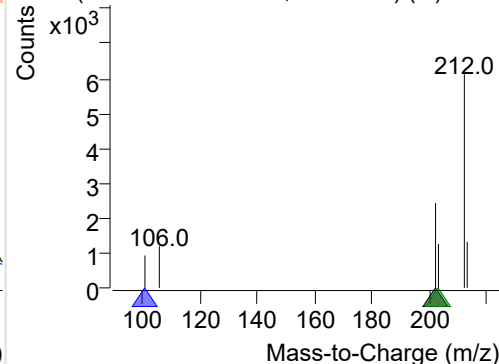
+ Selected Ion (202.0) 220204-PAHs-042.D



202.0, 101.0, 203.0



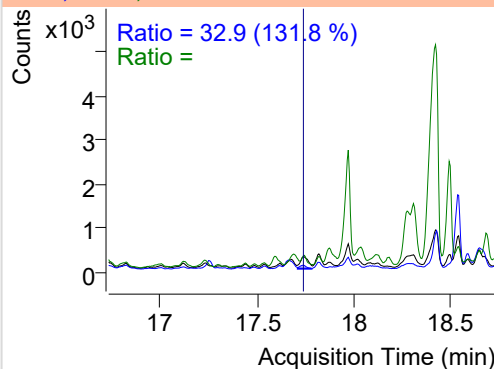
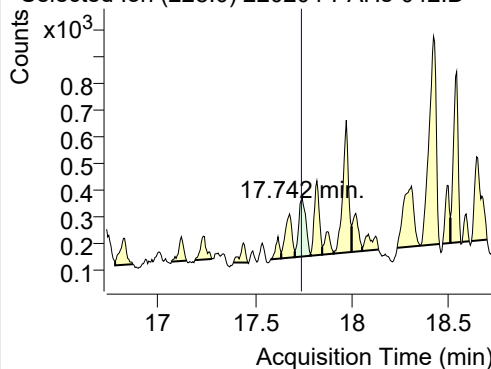
+ SIM (14.831-14.896 min, 13 scans) (\*\*) 2202



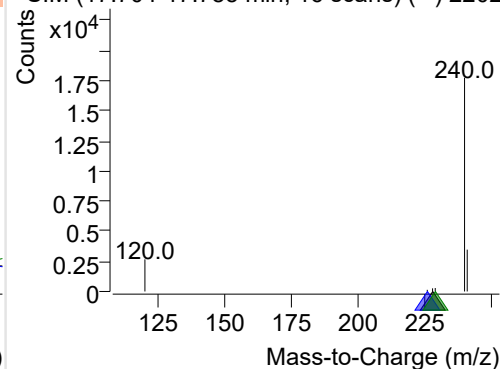
**Benz(a)anthracene**

+ Selected Ion (228.0) 220204-PAHs-042.D

228.0, 226.0, 229.0

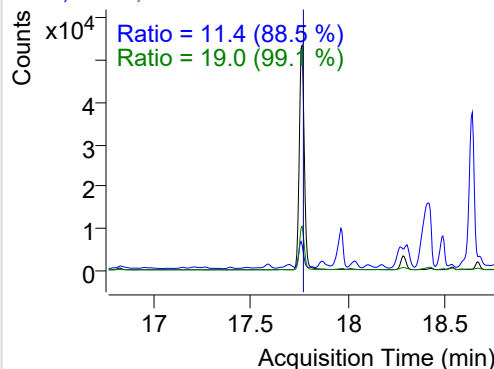
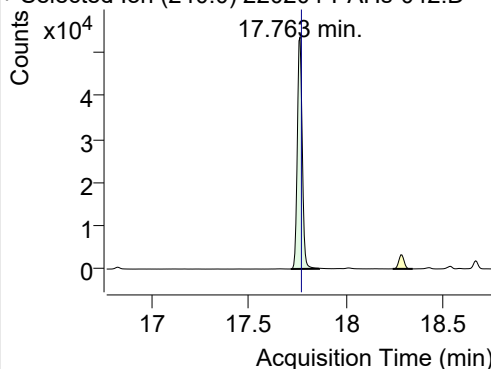


+ SIM (17.704-17.785 min, 16 scans) (\*\*) 2202

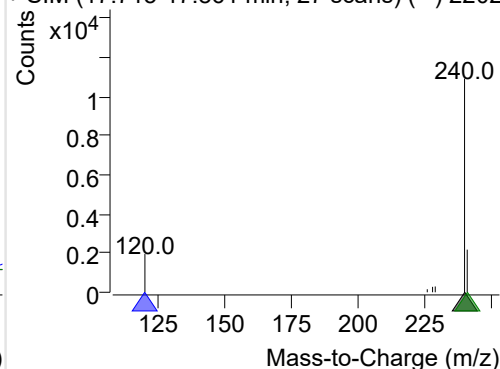
**IS-D12-Chrysene**

+ Selected Ion (240.0) 220204-PAHs-042.D

240.0, 120.0, 241.0

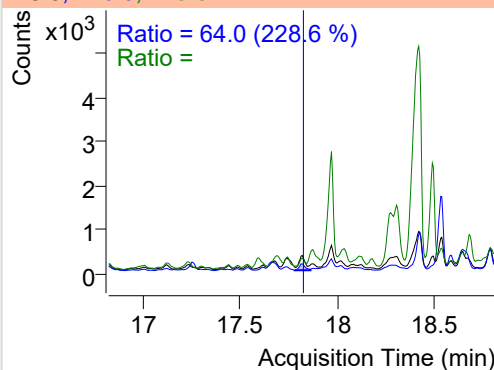
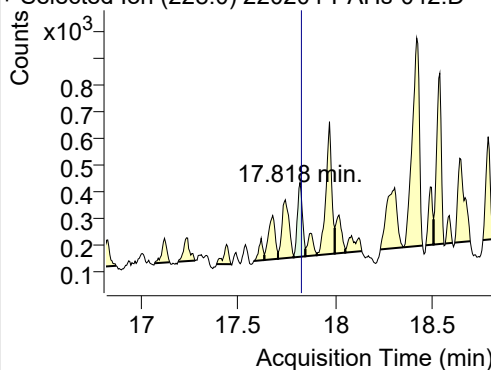


+ SIM (17.715-17.861 min, 27 scans) (\*\*) 2202

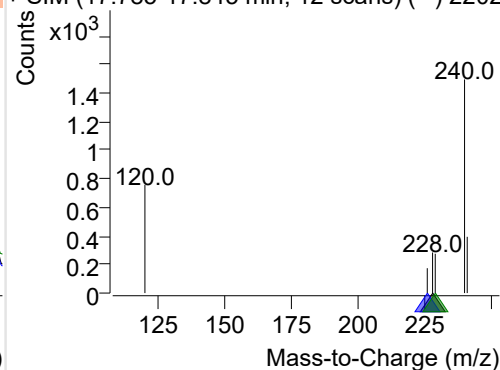
**Chrysene**

+ Selected Ion (228.0) 220204-PAHs-042.D

228.0, 226.0, 229.0

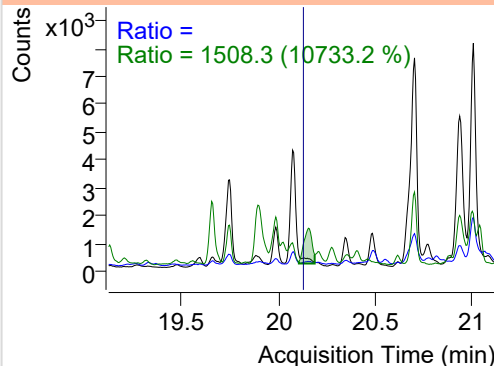
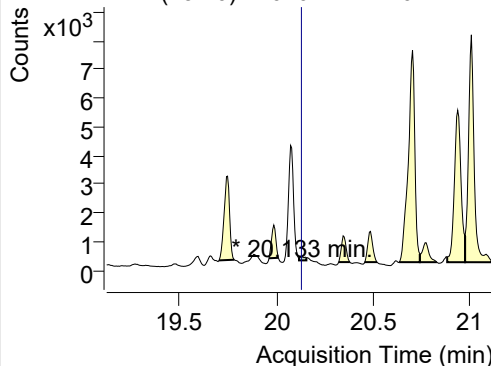


+ SIM (17.785-17.845 min, 12 scans) (\*\*) 2202

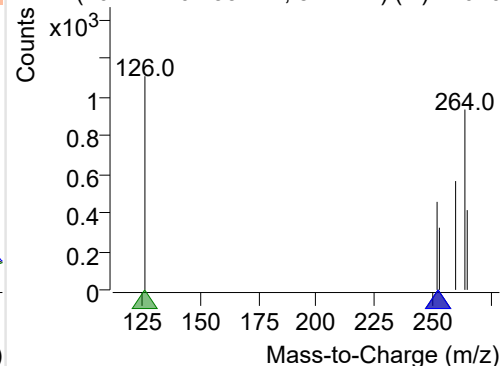
**Benzo(b)fluoranthene**

+ Selected Ion (252.0) 220204-PAHs-042.D

252.0, 253.0, 126.0



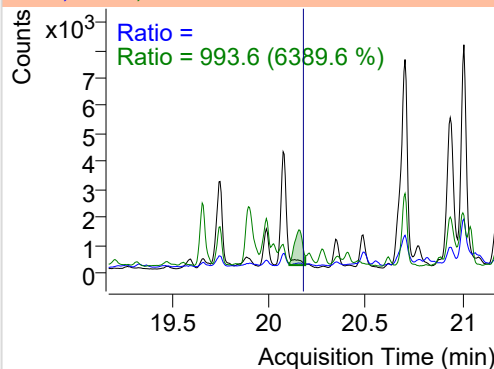
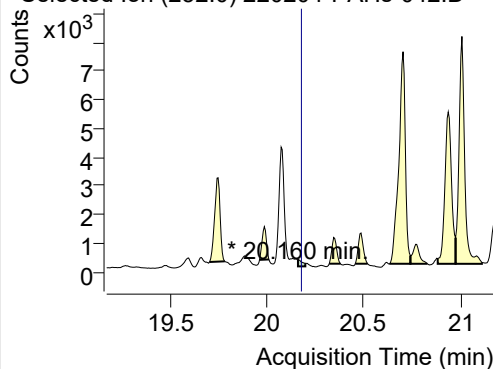
+ SIM (20.117-20.155 min, 8 scans) (\*\*) 22020



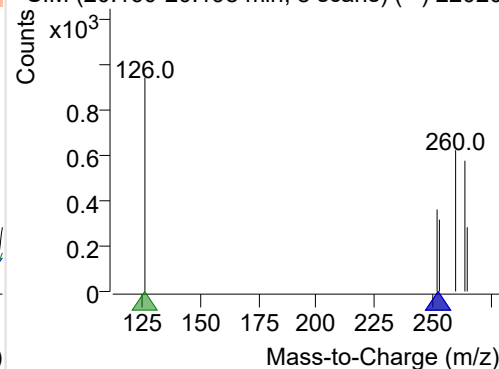
**Benzo(k)fluoranthene**

+ Selected Ion (252.0) 220204-PAHs-042.D

252.0, 253.0, 126.0

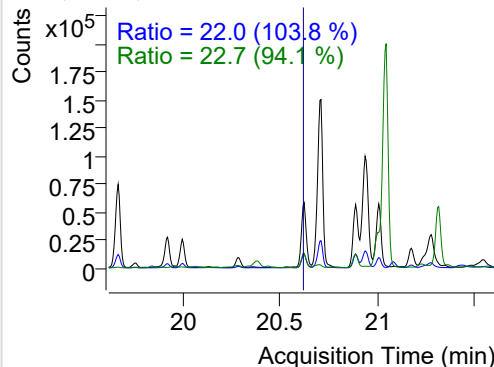
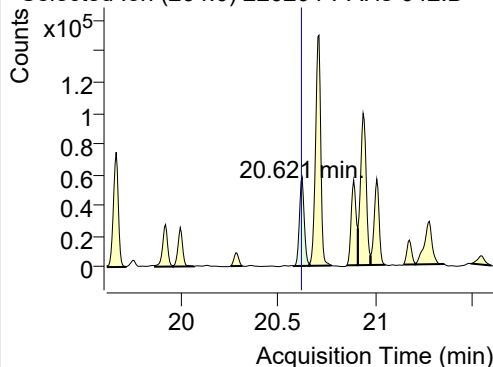


+ SIM (20.160-20.198 min, 8 scans) (\*\*) 22020

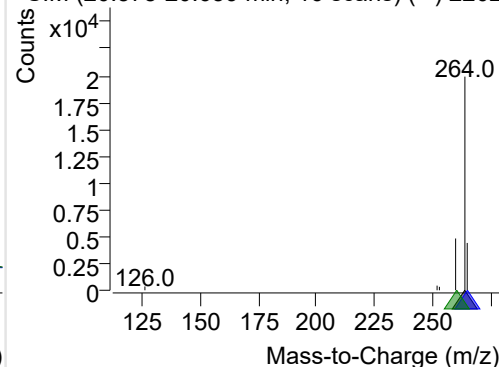
**SS-D12-Benzo(e)pyrene**

+ Selected Ion (264.0) 220204-PAHs-042.D

264.0, 265.0, 260.0

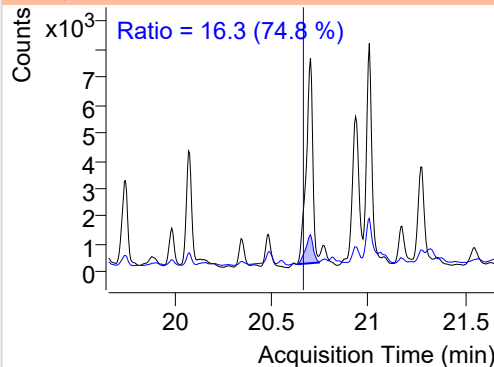
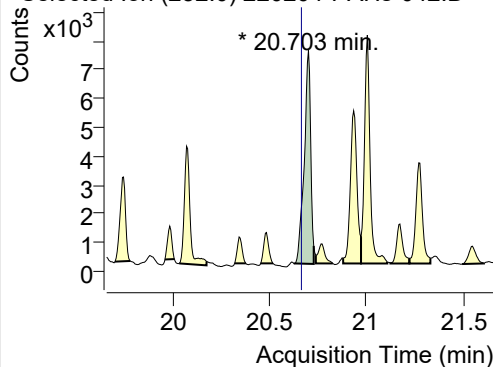


+ SIM (20.578-20.659 min, 16 scans) (\*\*) 2202

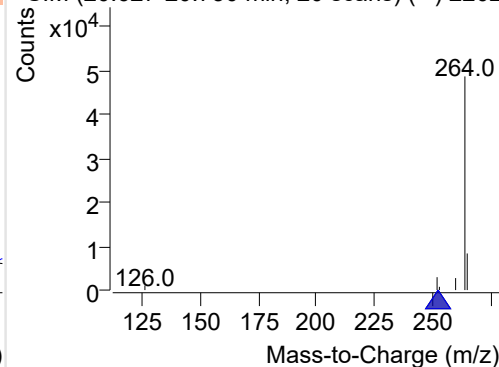
**Benzo(e)pyrene**

+ Selected Ion (252.0) 220204-PAHs-042.D

252.0, 253.0

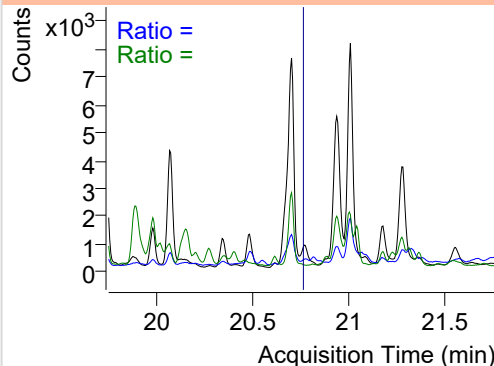
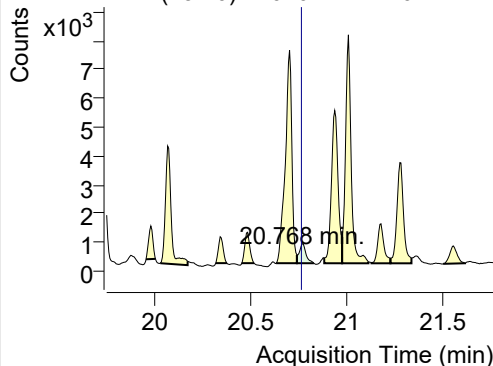


+ SIM (20.627-20.730 min, 20 scans) (\*\*) 2202

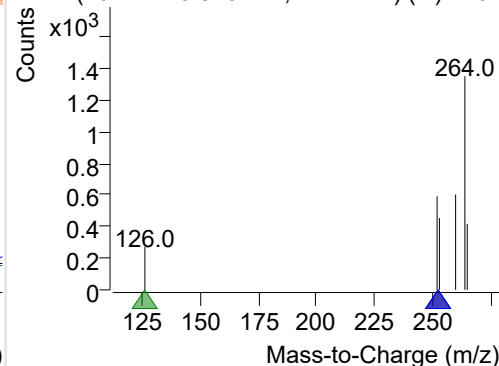
**Benzo(a)pyrene**

+ Selected Ion (252.0) 220204-PAHs-042.D

252.0, 253.0, 126.0

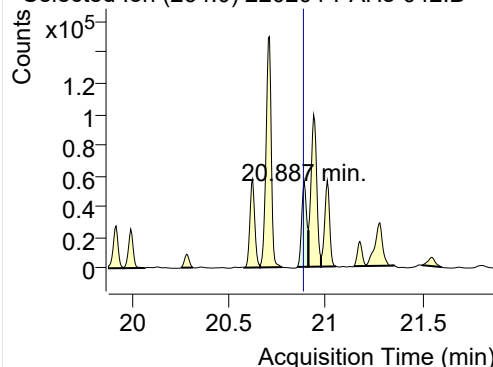


+ SIM (20.741-20.828 min, 17 scans) (\*\*) 2202

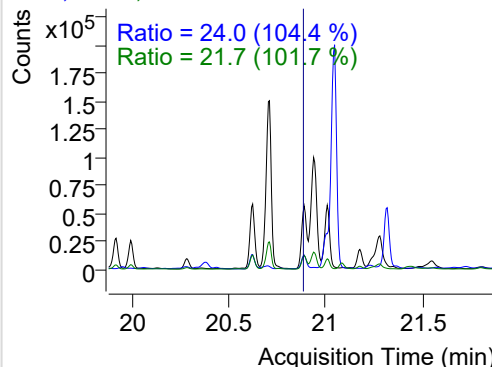


## IS-D12-Perylene

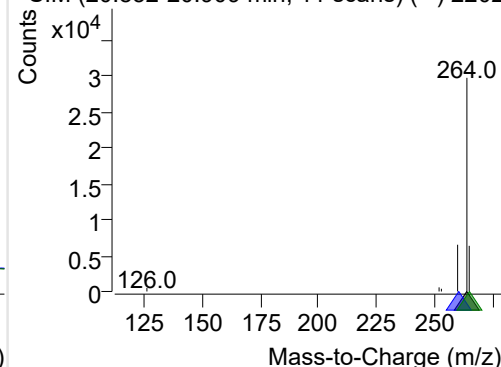
+ Selected Ion (264.0) 220204-PAHs-042.D



264.0, 260.0, 265.0

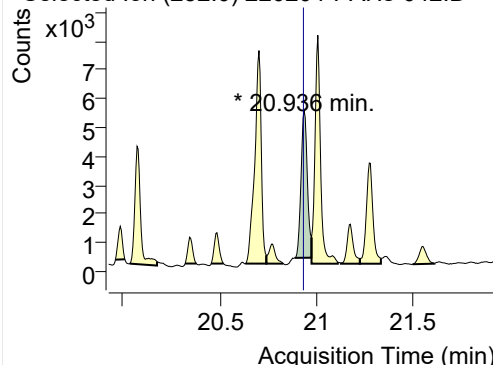


+ SIM (20.852-20.909 min, 11 scans) (\*\*) 2202

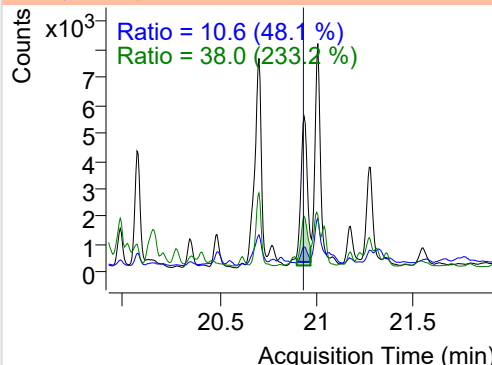


## Perylene

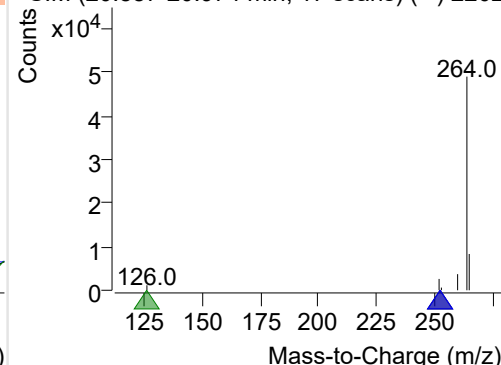
+ Selected Ion (252.0) 220204-PAHs-042.D



252.0, 253.0, 126.0

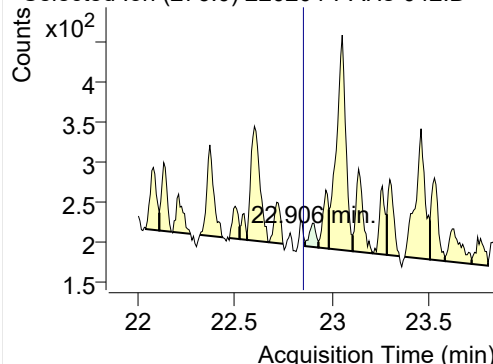


+ SIM (20.887-20.974 min, 17 scans) (\*\*) 2202

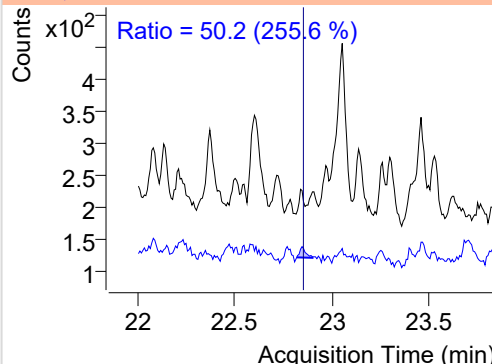


## Indeno(1,2,3-c,d)pyrene

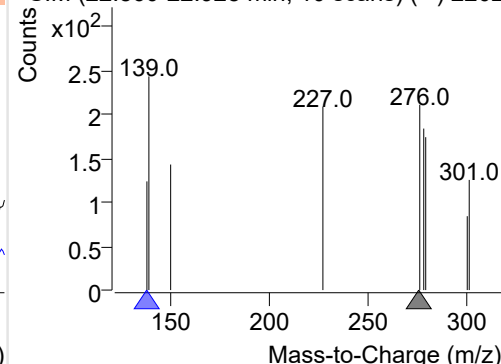
+ Selected Ion (276.0) 220204-PAHs-042.D



276.0, 138.0

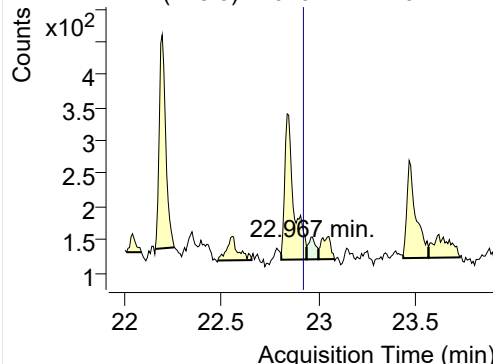


+ SIM (22.860-22.928 min, 10 scans) (\*\*) 2202

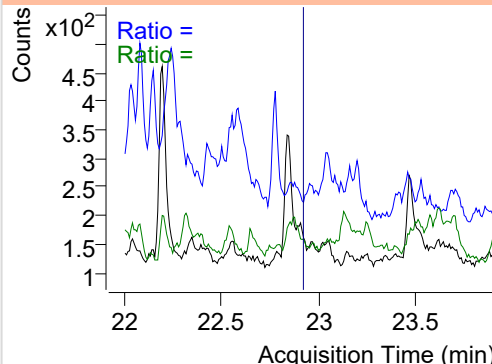


## Dibenz(a,h)anthracene

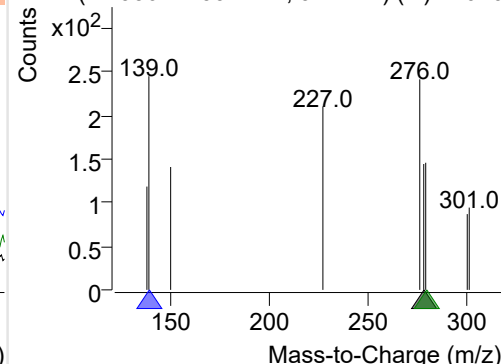
+ Selected Ion (278.0) 220204-PAHs-042.D



278.0, 139.0, 279.0



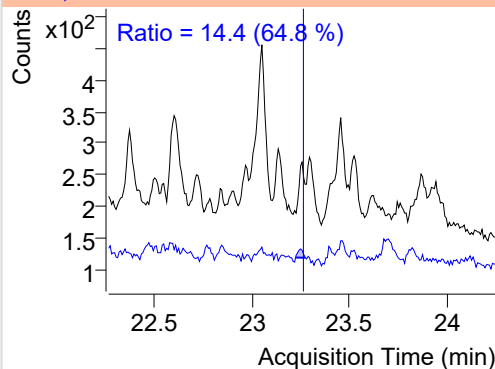
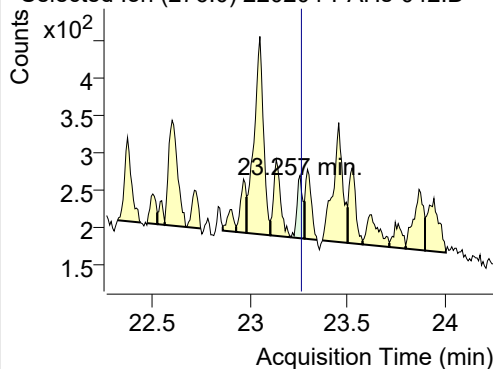
+ SIM (22.936-22.997 min, 9 scans) (\*\*) 22020



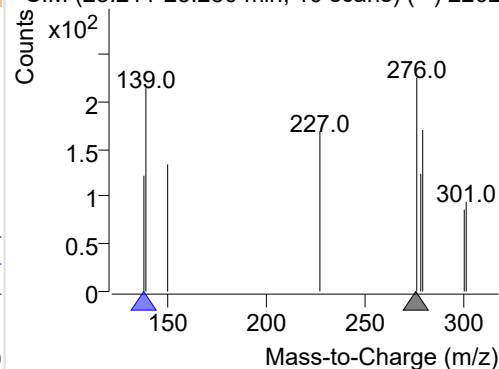
**Benzo(g,h,i)perylene**

+ Selected Ion (276.0) 220204-PAHs-042.D

276.0, 138.0

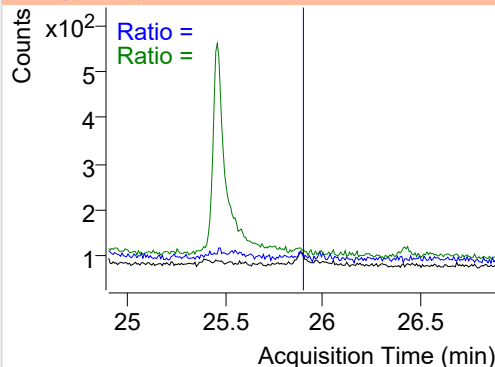
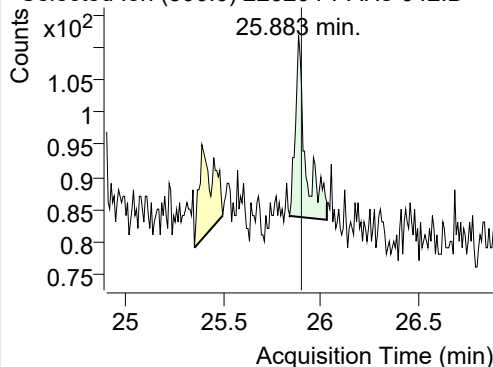


+ SIM (23.211-23.280 min, 10 scans) (\*\*) 2202

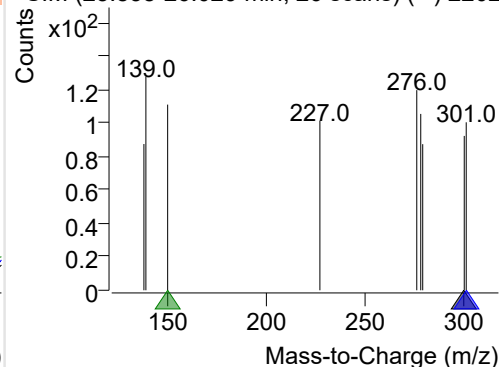
**Coronene**

+ Selected Ion (300.0) 220204-PAHs-042.D

300.0, 301.0, 150.0



+ SIM (25.838-26.029 min, 26 scans) (\*\*) 2202





## Quantitative Analysis Sample Based Report

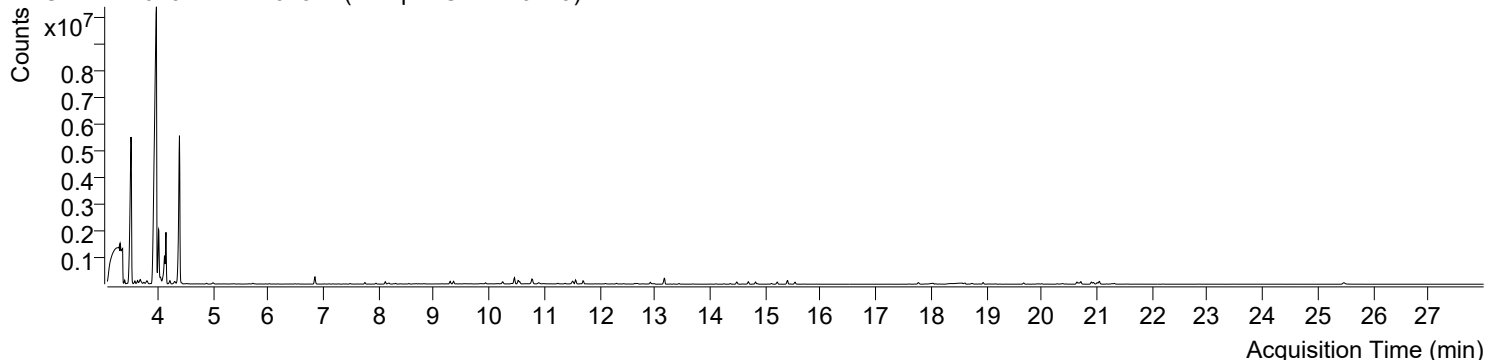


Trusted Answers

Batch Data Path File Name	D:\MassHunter\GCMS\1\data\PAHs\220204-PAHs-Sample\QuantResults\220204-PAHs-Quant.batch.bin		
Analysis Time Stamp	2022-04-13 오후 3:18:46	Analyst Name	DESKTOP-86B7UPG\5975MS
Report Generation Time	2022-04-13 오후 3:19:11	Report Generator Name	DESKTOP-86B7UPG\5975MS
Calibration Last Update	2022-04-13 오후 3:16:00	Batch State	Processed
Analyze Quant Version	10.2	Report Quant Version	10.2
Acq. Date-Time	2022-02-05 오전 11:58:53	Data File	220204-PAHs-043.D
Type	Sample	Name	Sample-Gas-220119
Dil.	1	Acq. Method File	PAHs 19mix-Method

## Sample Chromatogram

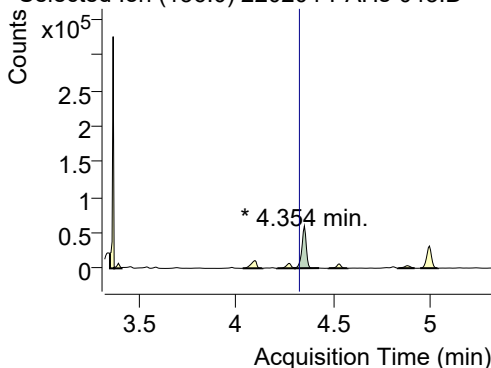
+ TIC SIM 220204-PAHs-043.D (Sample-Gas-220119)



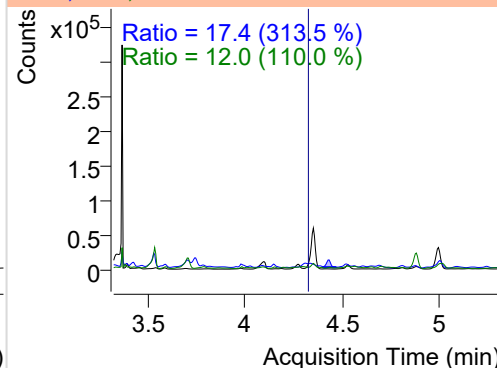
Name	RT	Transition	Resp.	Height	Final Conc. Units	Ratio
IS-D8-Naphthalene	4.354	136.0	92380	59462.00	ND ng/ml	12.0
Naphthalene	4.392	128.0	7016835	4426237.60	ND ng/ml	13.3
Acenaphthylene	7.751	152.0	62324	42578.49	ND ng/ml	17.7
IS-D10-Acenaphthene	8.118	164.0	62350	43058.04	ND ng/ml	92.1
Acenaphthene	8.189	154.0	19903	12850.99	ND ng/ml	120.4
LSS-D10-Fluorene	9.292	176.0	65141	45275.63	ND µg/mL	88.3
Fluorene	9.355	166.0	71237	47929.09	ND µg/mL	89.7
IS-D10-Phenanthrene	11.518	188.0	107635	65483.09	ND µg/mL	15.5
Phenanthrene	11.560	178.0	155017	99425.04	ND µg/mL	17.9
Anthracene	11.665	178.0	6577	4427.41	ND µg/mL	212.8
Fluoranthene	14.359	202.0	29344	18173.27	ND µg/mL	18.4
LSS-D10-Pyrene	14.820	212.0	93406	62289.88	ND µg/mL	17.0
Pyrene	14.858	202.0	22654	14728.27	ND µg/mL	21.2
Benz(a)anthracene	17.725	228.0	534	117.24	ND µg/mL	96.2
IS-D12-Chrysene	17.769	240.0	90400	44810.25	ND µg/mL	18.7
Chrysene	17.725	228.0	534	117.24	ND µg/mL	96.2
Benzo(b)fluoranthene	20.106	252.0	273	437.99	ND µg/mL	
Benzo(k)fluoranthene	20.160	252.0	293	168.86	ND µg/mL	
SS-D12-Benzo(e)pyrene	20.638	264.0	92386	52932.80	ND µg/mL	31.6
Benzo(e)pyrene	20.670	252.0	77940	36333.63	ND µg/mL	18.6
Benzo(a)pyrene	20.773	252.0	764	377.69	ND µg/mL	
IS-D12-Perylene	20.898	264.0	91909	55223.30	ND µg/mL	25.8
Perylene	20.936	252.0	6780	2876.32	ND µg/mL	11.8
Indeno(1,2,3-c,d)pyrene	22.845	276.0	275	78.74	ND µg/mL	41.4
Dibenz(a,h)anthracene	22.845	278.0	6699	2528.37	ND µg/mL	27.7
Benzo(g,h,i)perylene	23.257	276.0	334	80.01	ND µg/mL	8.4
Coronene	25.891	300.0	92	24.91	ND µg/mL	

## IS-D8-Naphthalene

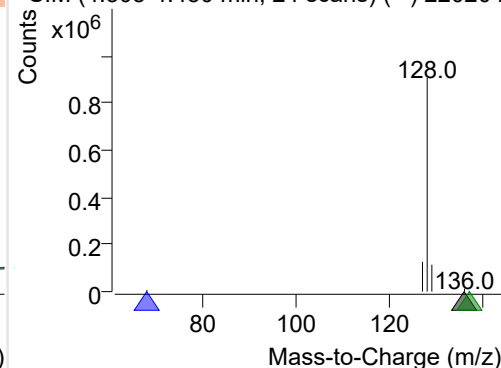
+ Selected Ion (136.0) 220204-PAHs-043.D



136.0, 68.0, 137.0

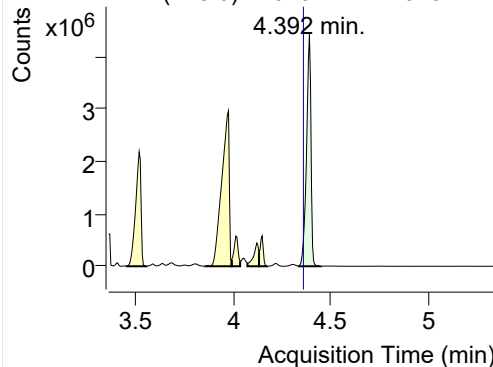


+ SIM (4.305-4.430 min, 24 scans) (\*\*) 220204

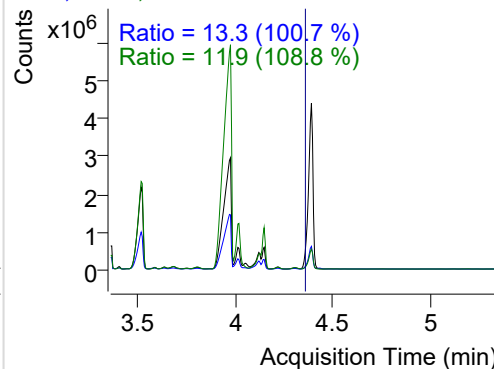


**Naphthalene**

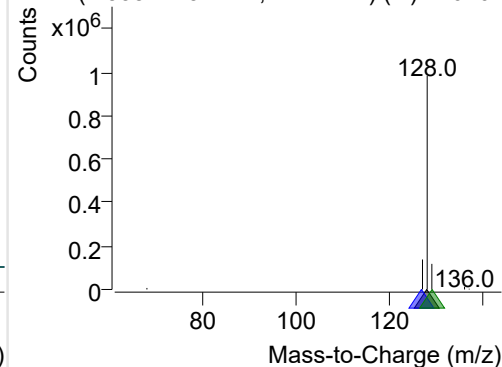
+ Selected Ion (128.0) 220204-PAHs-043.D



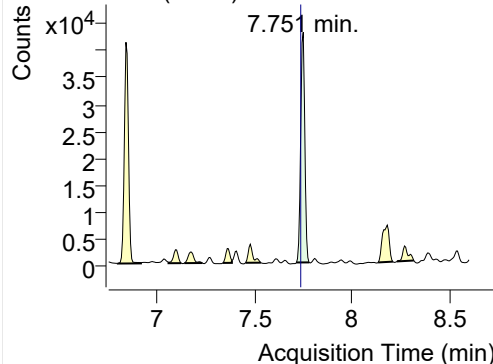
128.0, 127.0, 129.0



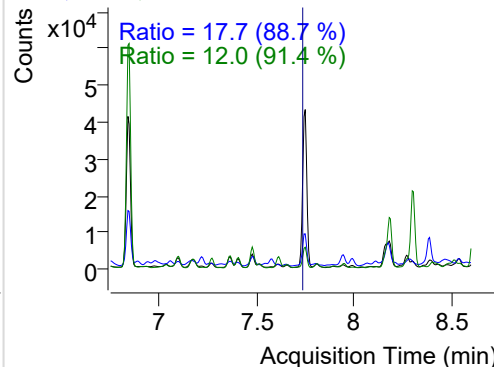
+ SIM (4.338-4.451 min, 22 scans) (\*\*) 220204

**Acenaphthylene**

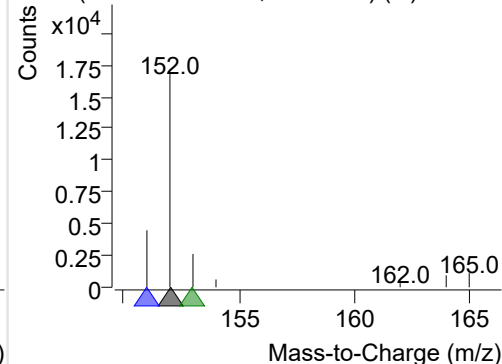
+ Selected Ion (152.0) 220204-PAHs-043.D



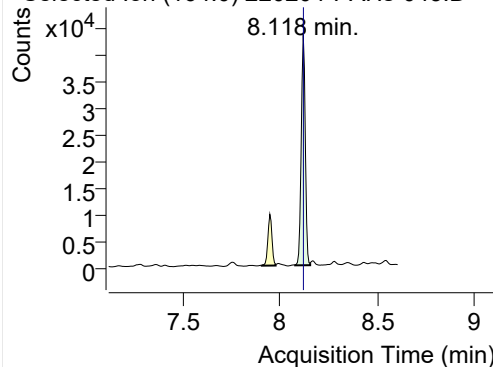
152.0, 151.0, 153.0



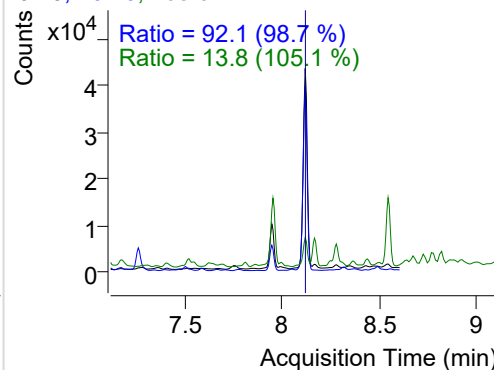
+ SIM (7.716-7.781 min, 11 scans) (\*\*) 220204

**IS-D10-Acenaphthene**

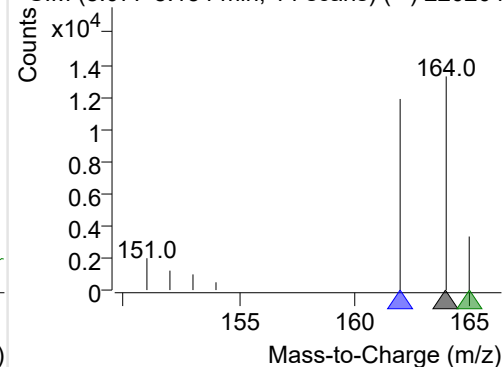
+ Selected Ion (164.0) 220204-PAHs-043.D



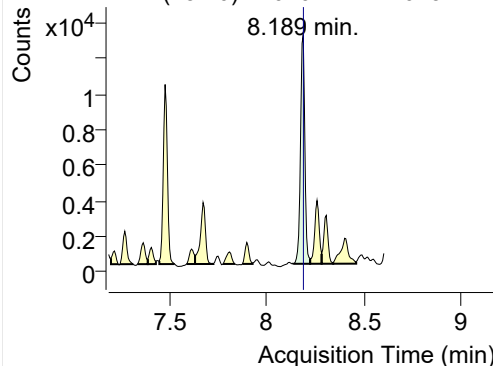
164.0, 162.0, 165.0



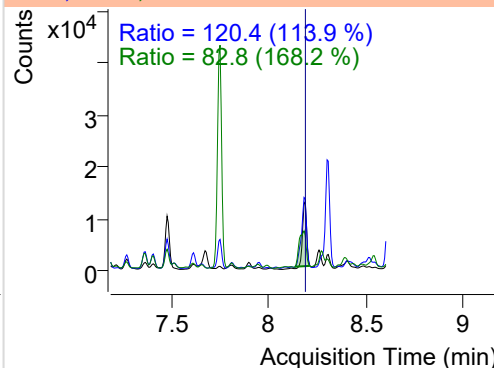
+ SIM (8.077-8.154 min, 14 scans) (\*\*) 220204

**Acenaphthene**

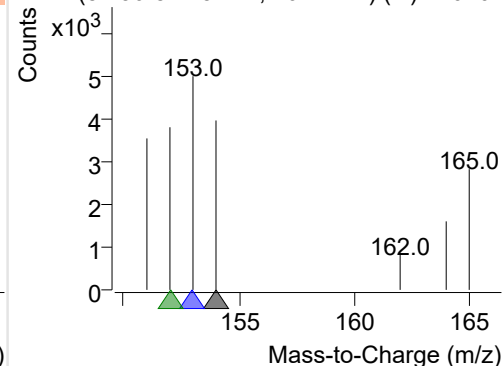
+ Selected Ion (154.0) 220204-PAHs-043.D



154.0, 153.0, 152.0

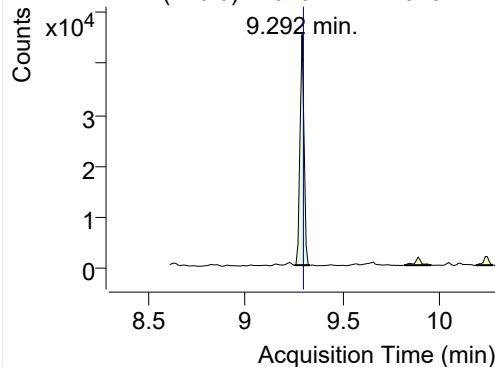


+ SIM (8.136-8.225 min, 16 scans) (\*\*) 220204

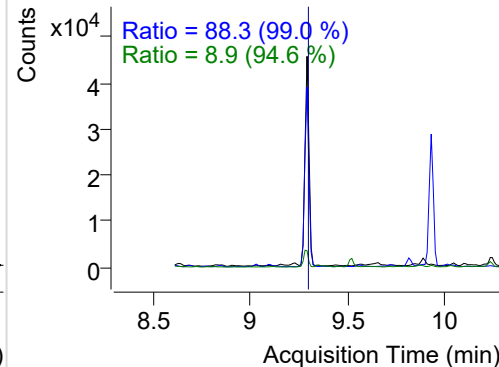


## LSS-D10-Fluorene

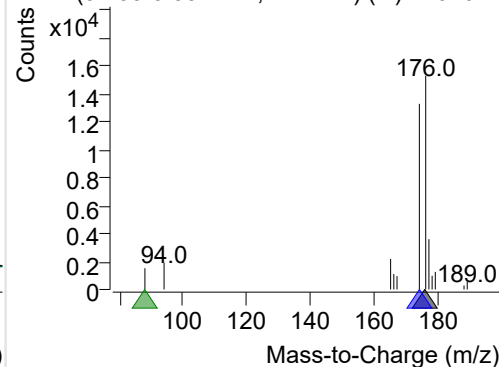
+ Selected Ion (176.0) 220204-PAHs-043.D



176.0, 174.0, 88.0

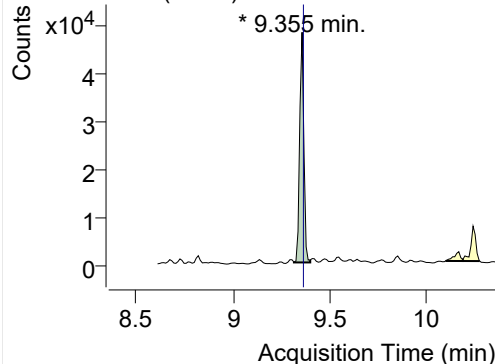


+ SIM (9.253-9.332 min, 7 scans) (\*\*) 220204-I

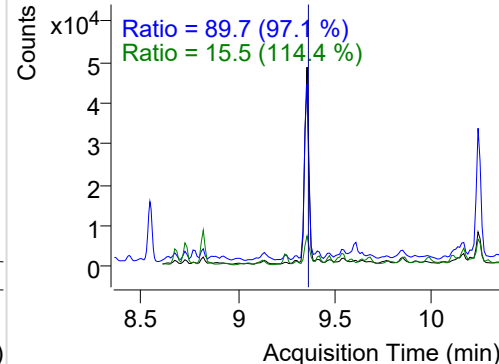


## Fluorene

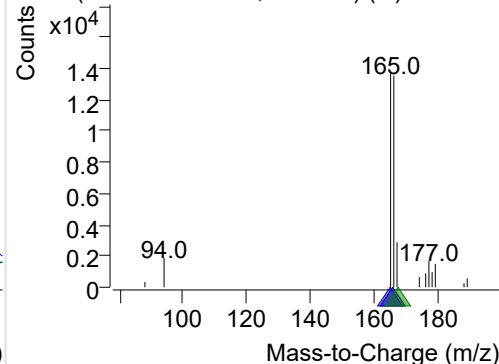
+ Selected Ion (166.0) 220204-PAHs-043.D



166.0, 165.0, 167.0

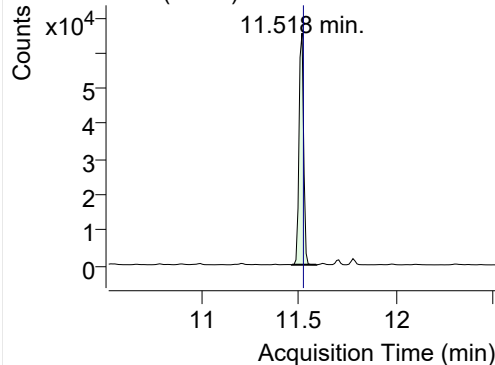


+ SIM (9.313-9.397 min, 9 scans) (\*\*) 220204-I

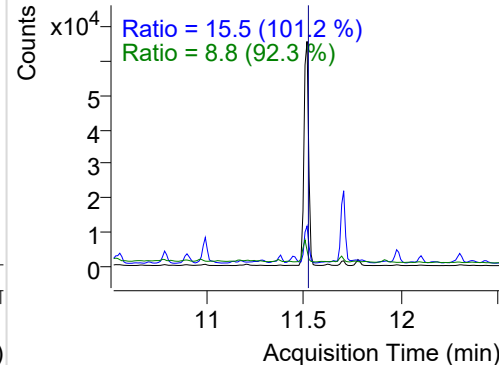


## IS-D10-Phenanthrene

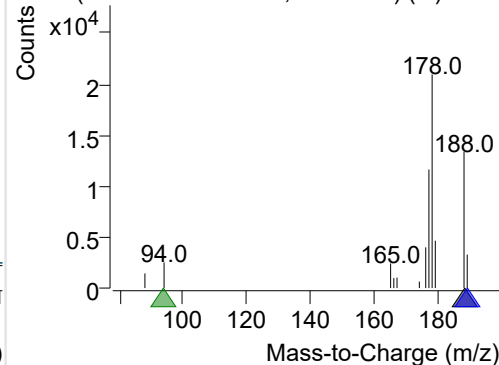
+ Selected Ion (188.0) 220204-PAHs-043.D



188.0, 189.0, 94.0

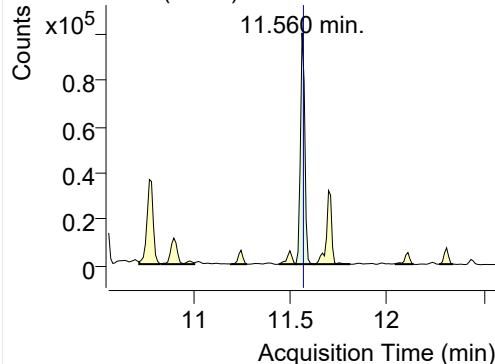


+ SIM (11.466-11.592 min, 13 scans) (\*\*) 2202

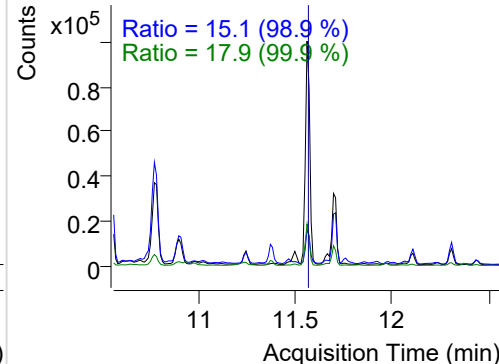


## Phenanthrene

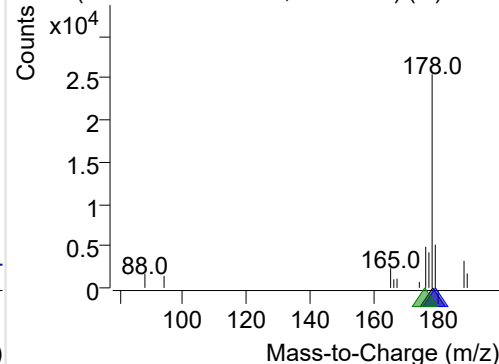
+ Selected Ion (178.0) 220204-PAHs-043.D



178.0, 179.0, 176.0

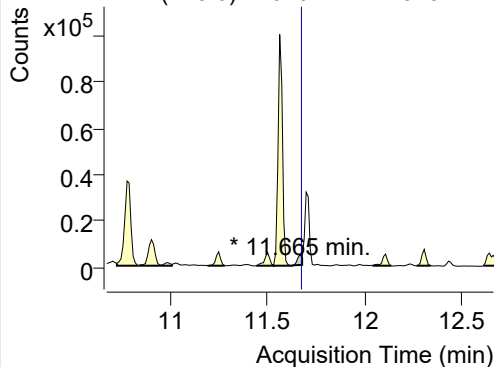


+ SIM (11.529-11.623 min, 10 scans) (\*\*) 2202

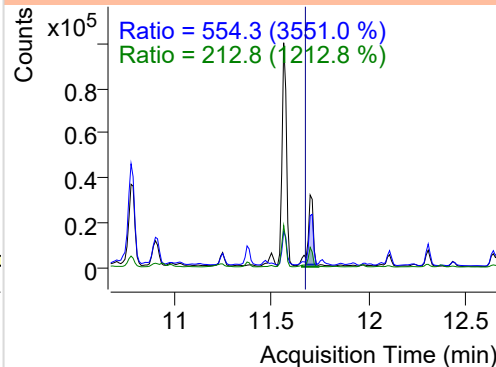


**Anthracene**

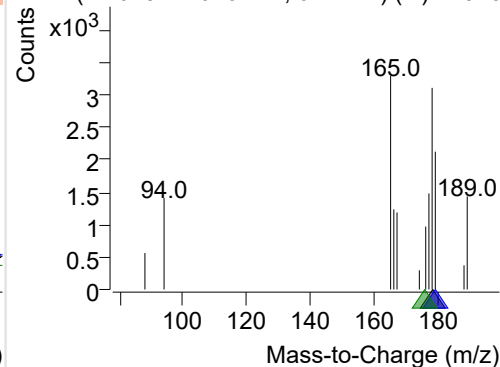
+ Selected Ion (178.0) 220204-PAHs-043.D



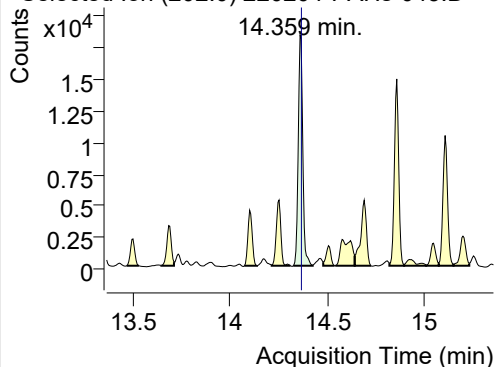
178.0, 179.0, 176.0



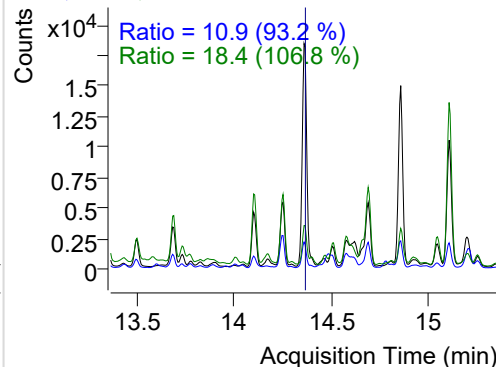
+ SIM (11.623-11.676 min, 6 scans) (\*\*) 22020

**Fluoranthene**

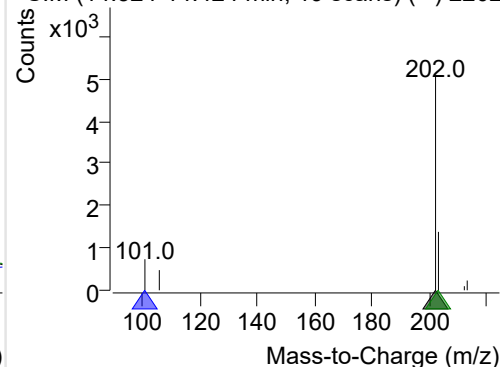
+ Selected Ion (202.0) 220204-PAHs-043.D



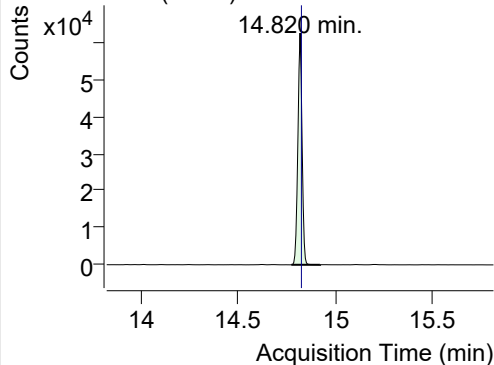
202.0, 101.0, 203.0



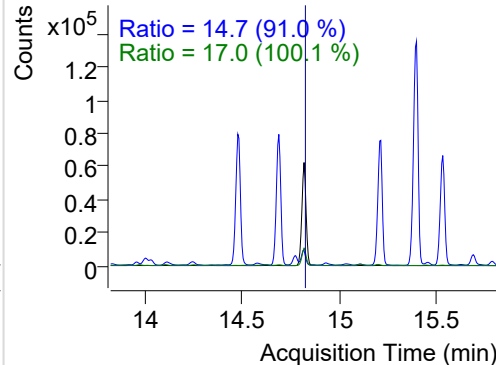
+ SIM (14.324-14.424 min, 19 scans) (\*\*) 2202

**LSS-D10-Pyrene**

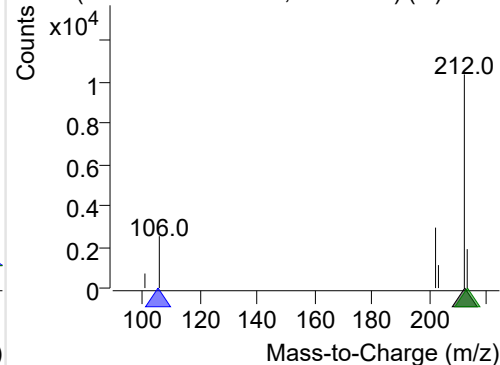
+ Selected Ion (212.0) 220204-PAHs-043.D



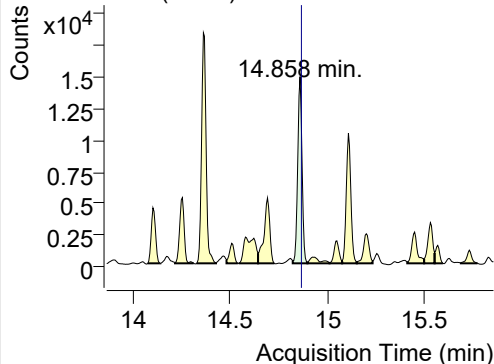
212.0, 106.0, 213.0



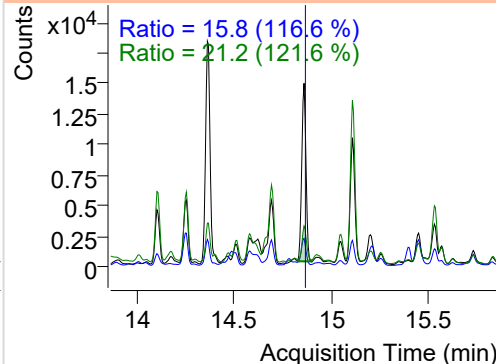
+ SIM (14.775-14.923 min, 28 scans) (\*\*) 2202

**Pyrene**

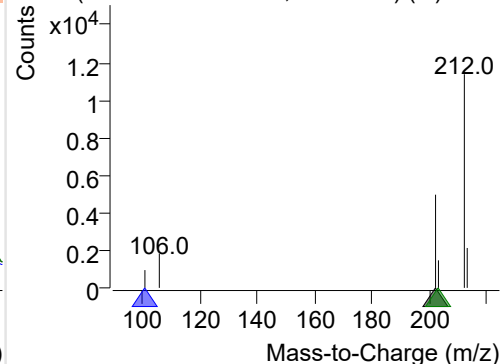
+ Selected Ion (202.0) 220204-PAHs-043.D



202.0, 101.0, 203.0



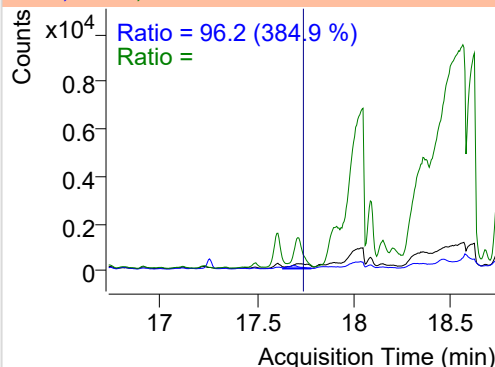
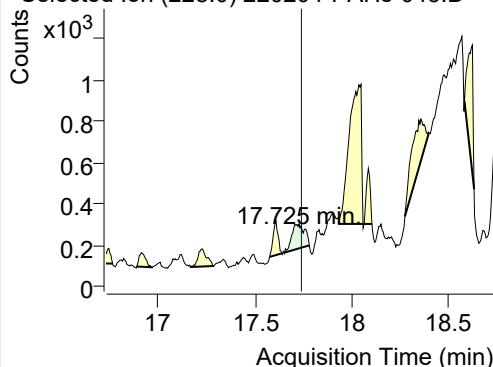
+ SIM (14.820-14.896 min, 15 scans) (\*\*) 2202



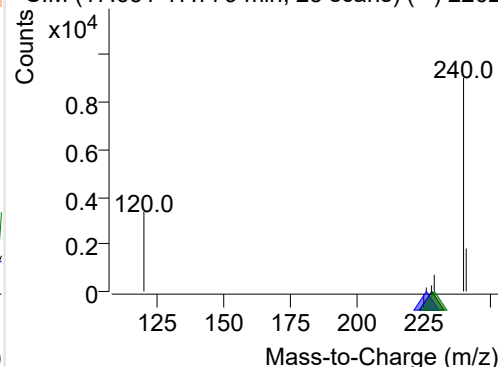
**Benz(a)anthracene**

+ Selected Ion (228.0) 220204-PAHs-043.D

228.0, 226.0, 229.0

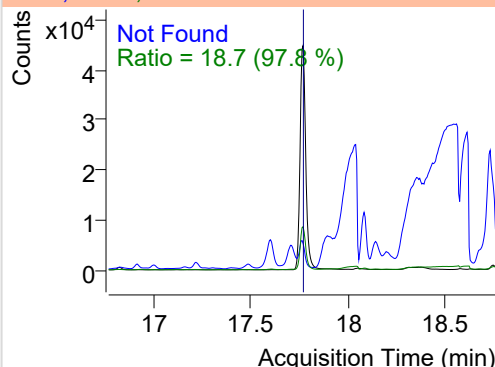
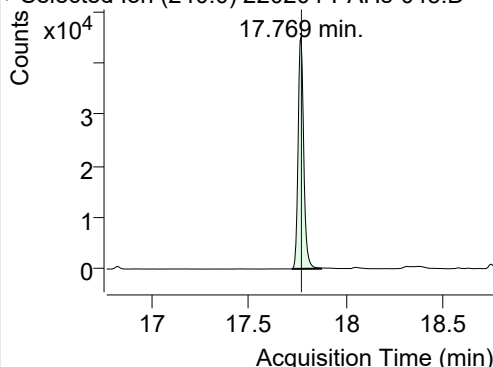


+ SIM (17.651-17.779 min, 23 scans) (\*\*) 2202

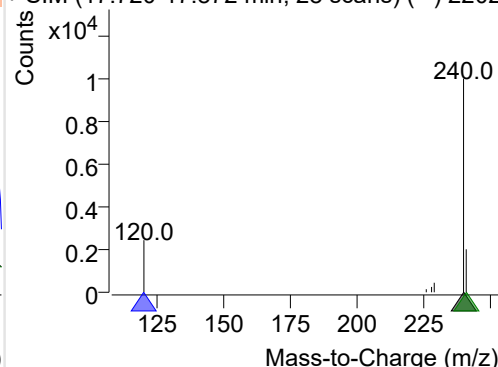
**IS-D12-Chrysene**

+ Selected Ion (240.0) 220204-PAHs-043.D

240.0, 120.0, 241.0

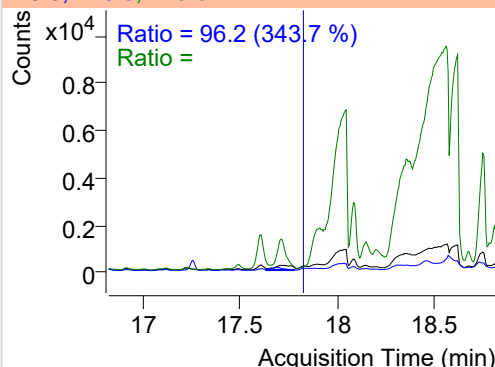
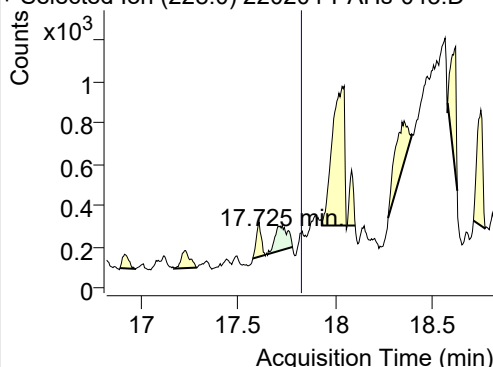


+ SIM (17.720-17.872 min, 28 scans) (\*\*) 2202

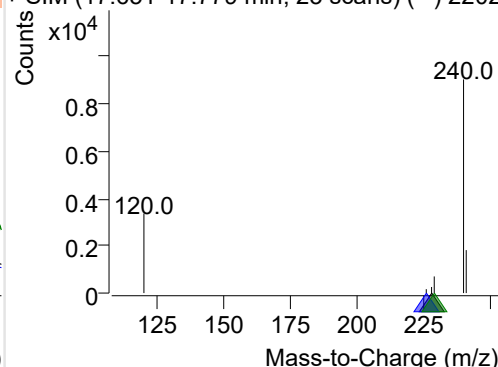
**Chrysene**

+ Selected Ion (228.0) 220204-PAHs-043.D

228.0, 226.0, 229.0

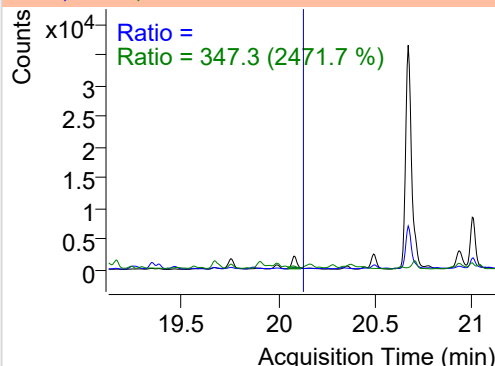
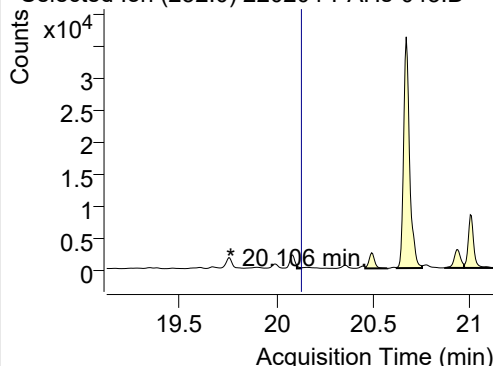


+ SIM (17.651-17.779 min, 23 scans) (\*\*) 2202

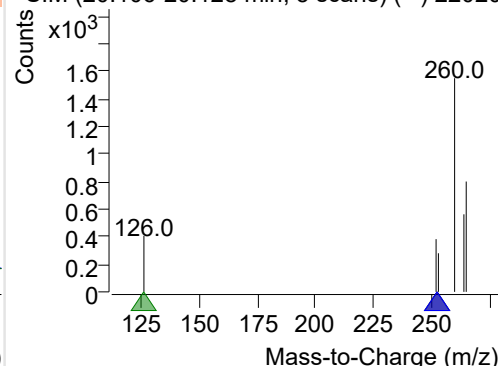
**Benzo(b)fluoranthene**

+ Selected Ion (252.0) 220204-PAHs-043.D

252.0, 253.0, 126.0



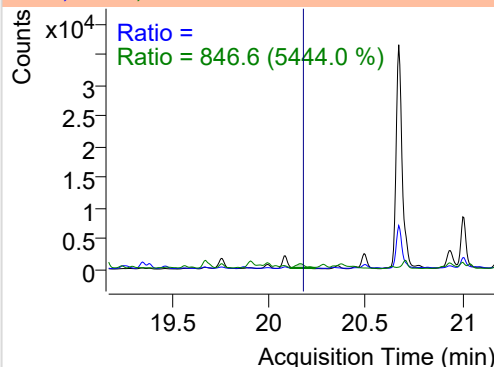
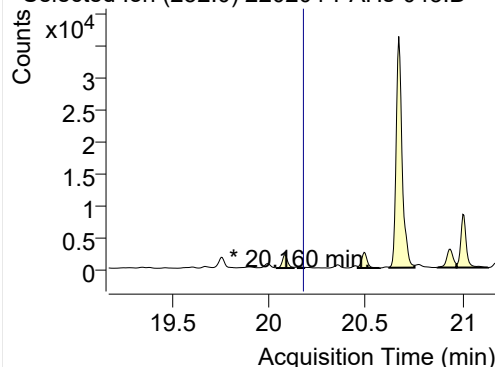
+ SIM (20.106-20.128 min, 5 scans) (\*\*) 22020



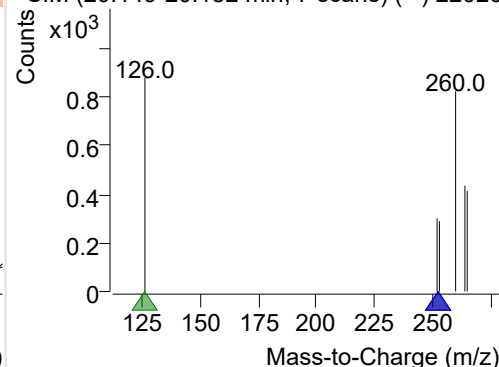
**Benzo(k)fluoranthene**

+ Selected Ion (252.0) 220204-PAHs-043.D

252.0, 253.0, 126.0

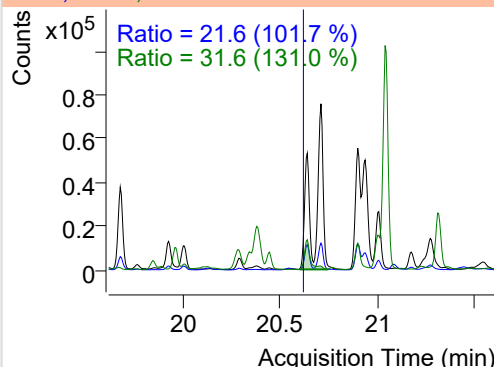
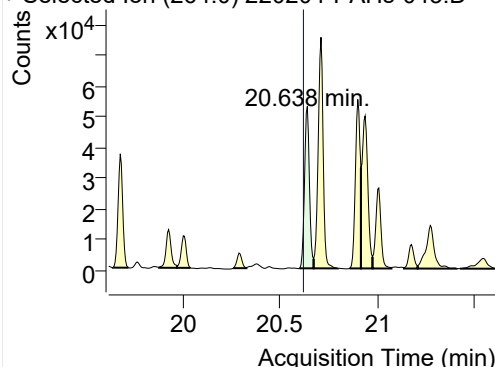


+ SIM (20.149-20.182 min, 7 scans) (\*\*) 22020

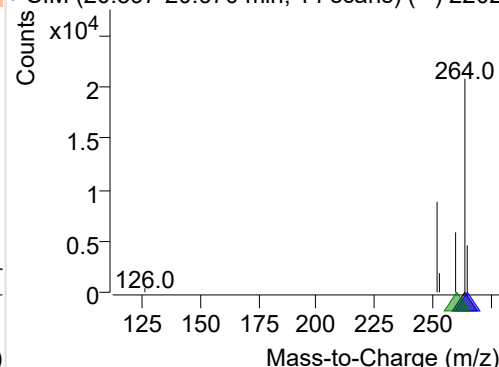
**SS-D12-Benzo(e)pyrene**

+ Selected Ion (264.0) 220204-PAHs-043.D

264.0, 265.0, 260.0

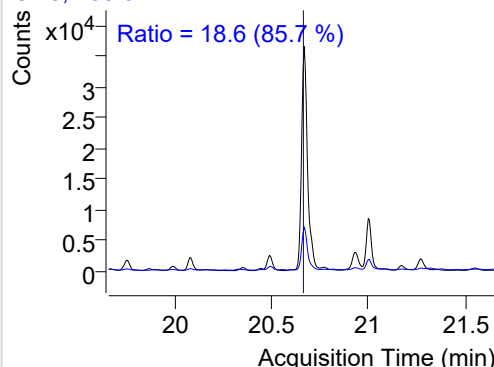
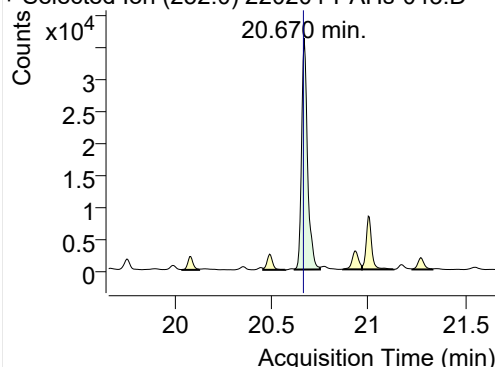


+ SIM (20.597-20.670 min, 14 scans) (\*\*) 2202

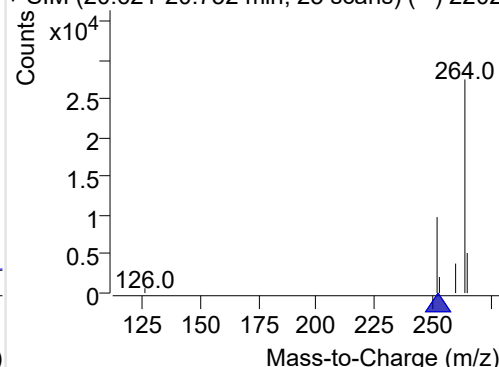
**Benzo(e)pyrene**

+ Selected Ion (252.0) 220204-PAHs-043.D

252.0, 253.0

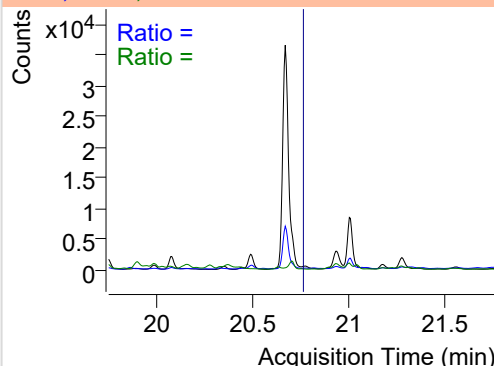
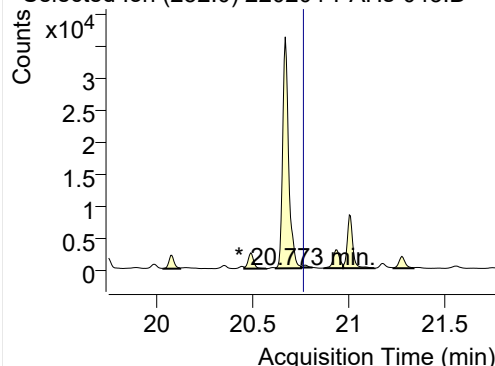


+ SIM (20.621-20.752 min, 25 scans) (\*\*) 2202

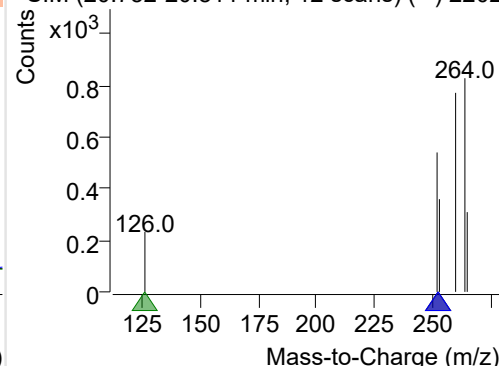
**Benzo(a)pyrene**

+ Selected Ion (252.0) 220204-PAHs-043.D

252.0, 253.0, 126.0

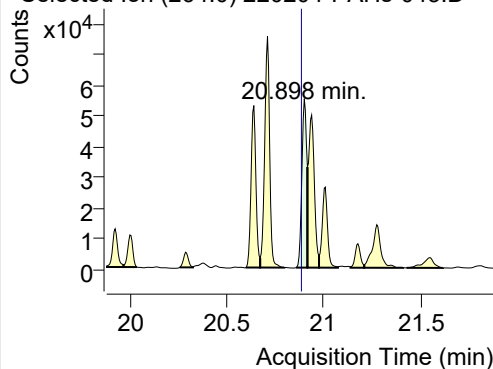


+ SIM (20.752-20.811 min, 12 scans) (\*\*) 2202

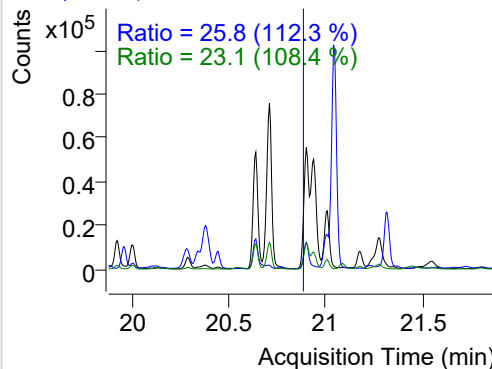


## IS-D12-Perylene

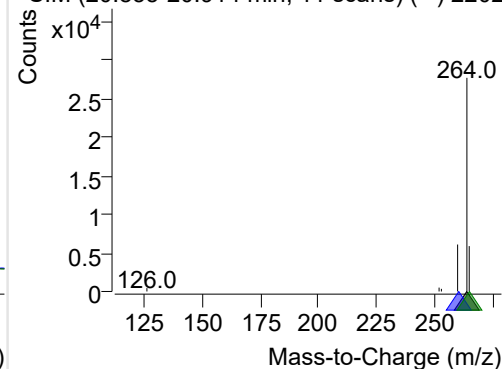
+ Selected Ion (264.0) 220204-PAHs-043.D



264.0, 260.0, 265.0

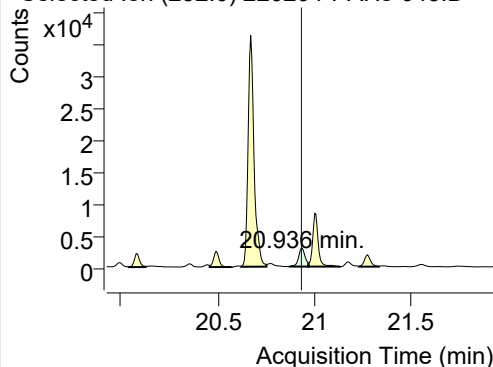


+ SIM (20.855-20.914 min, 11 scans) (\*\*) 2202

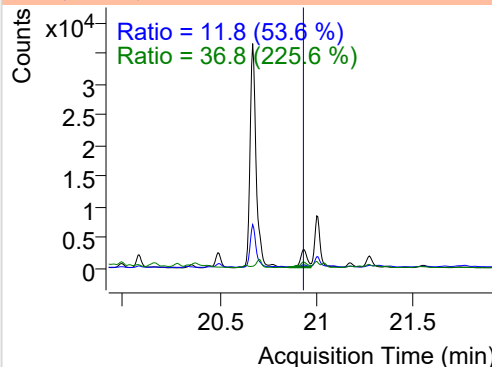


## Perylene

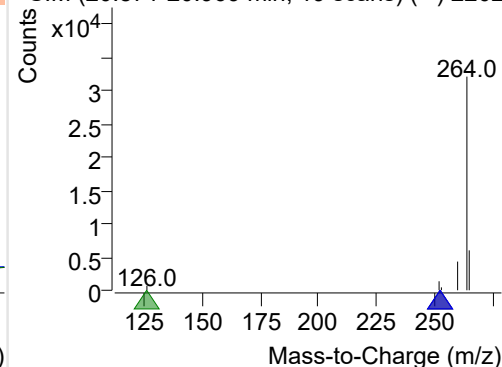
+ Selected Ion (252.0) 220204-PAHs-043.D



252.0, 253.0, 126.0

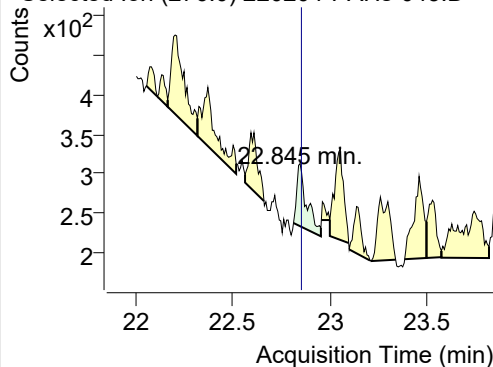


+ SIM (20.871-20.969 min, 19 scans) (\*\*) 2202

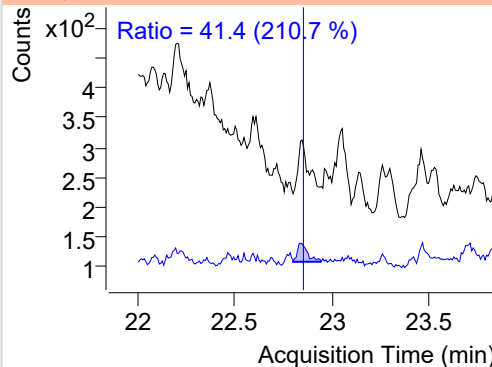


## Indeno(1,2,3-c,d)pyrene

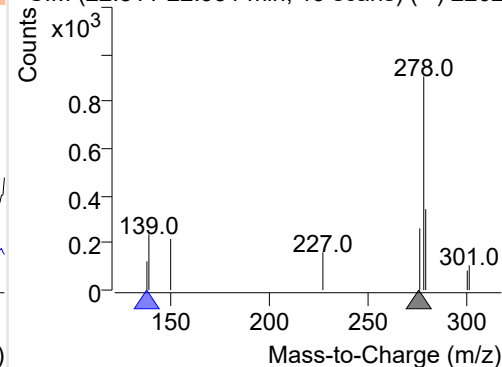
+ Selected Ion (276.0) 220204-PAHs-043.D



276.0, 138.0

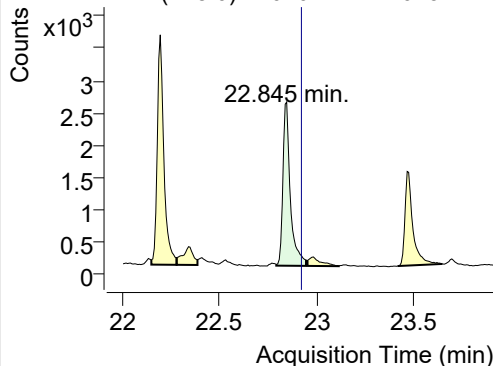


+ SIM (22.811-22.951 min, 19 scans) (\*\*) 2202

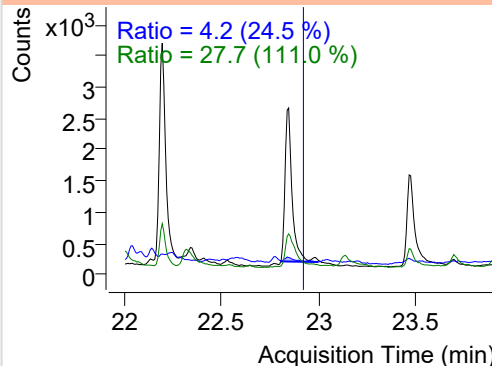


## Dibenz(a,h)anthracene

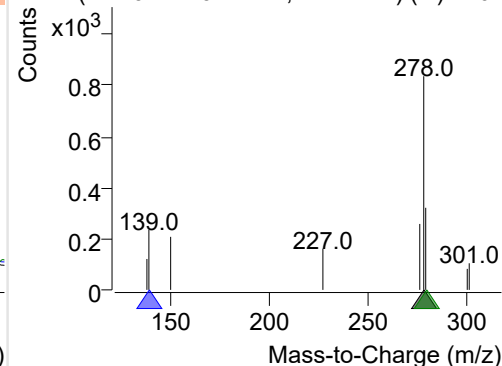
+ Selected Ion (278.0) 220204-PAHs-043.D



278.0, 139.0, 279.0



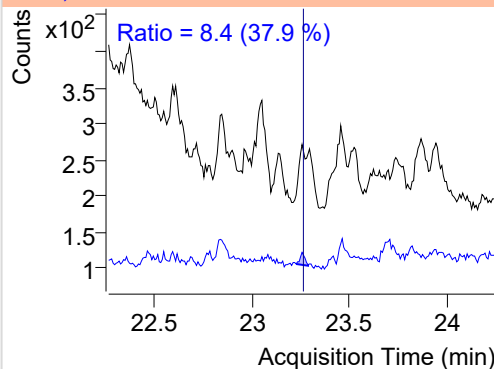
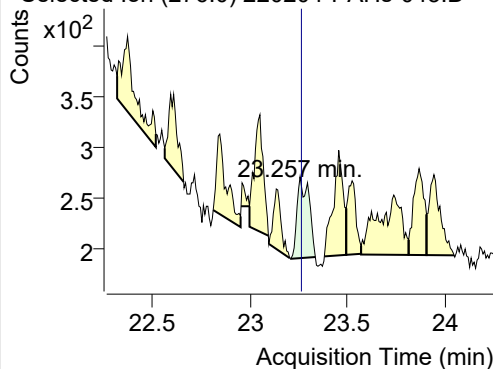
+ SIM (22.791-22.944 min, 21 scans) (\*\*) 2202



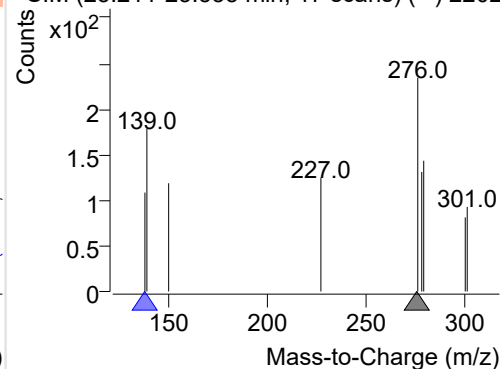
**Benzo(g,h,i)perylene**

+ Selected Ion (276.0) 220204-PAHs-043.D

276.0, 138.0

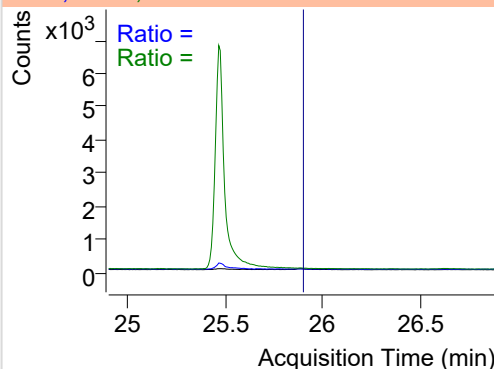
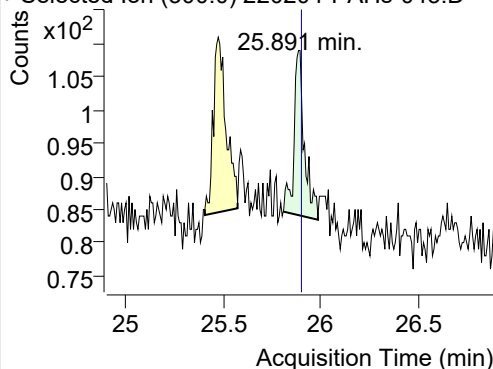


+ SIM (23.211-23.335 min, 17 scans) (\*\*) 2202

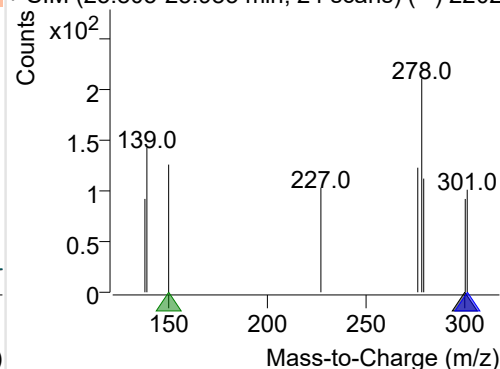
**Coronene**

+ Selected Ion (300.0) 220204-PAHs-043.D

300.0, 301.0, 150.0



+ SIM (25.805-25.983 min, 24 scans) (\*\*) 2202





## Quantitative Analysis Sample Based Report

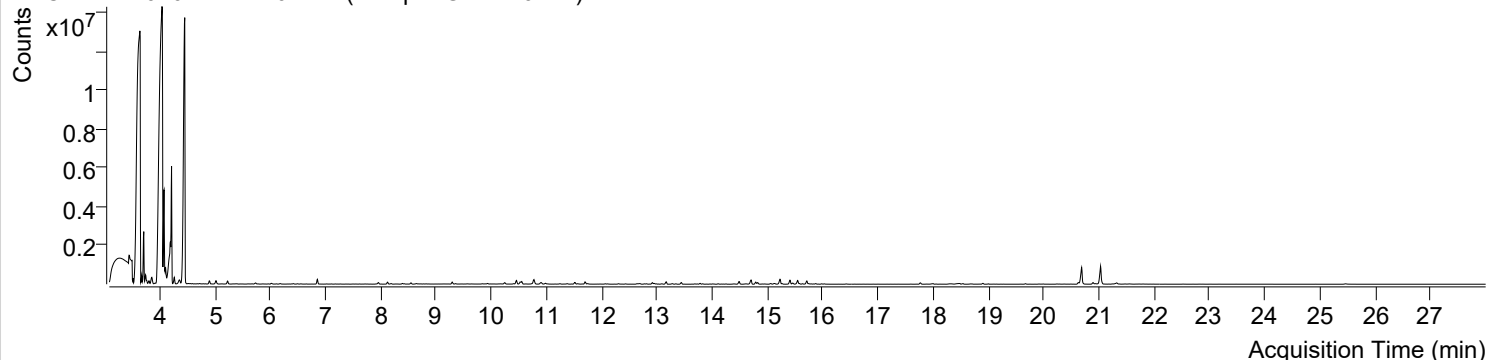


Trusted Answers

Batch Data Path File Name	D:\MassHunter\GCMS\1\data\PAHs\220204-PAHs-Sample\QuantResults\220204-PAHs-Quant.batch.bin		
Analysis Time Stamp	2022-04-13 오후 3:18:46	Analyst Name	DESKTOP-86B7UPG\5975MS
Report Generation Time	2022-04-13 오후 3:19:11	Report Generator Name	DESKTOP-86B7UPG\5975MS
Calibration Last Update	2022-04-13 오후 3:16:00	Batch State	Processed
Analyze Quant Version	10.2	Report Quant Version	10.2
Acq. Date-Time	2022-02-05 오후 12:29:59	Data File	220204-PAHs-044.D
Type	Sample	Name	Sample-Gas-220127
Dil.	1	Acq. Method File	PAHs 19mix-Method

## Sample Chromatogram

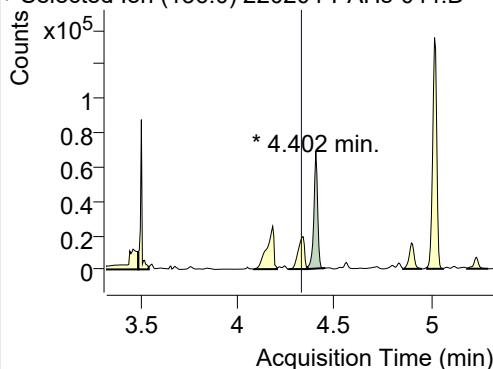
+ TIC SIM 220204-PAHs-044.D (Sample-Gas-220127)



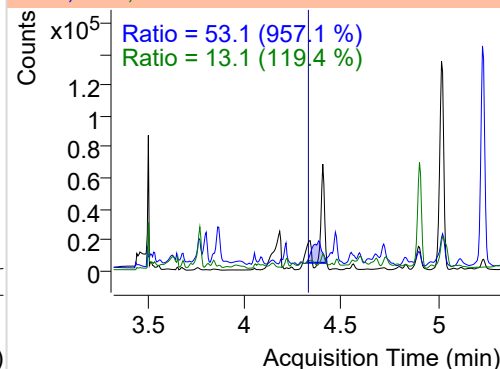
Name	RT	Transition	Resp.	Height	Final Conc. Units	Ratio
IS-D8-Naphthalene	4.402	136.0	91496	68229.40	ND ng/ml	13.1
Naphthalene	4.442	128.0	18494942	8387007.31	ND ng/ml	17.9
Acenaphthylene	7.751	152.0	2638	1997.42	ND ng/ml	
IS-D10-Acenaphthene	8.124	164.0	65367	44444.18	ND ng/ml	110.8
Acenaphthene	8.189	154.0	12089	8230.49	ND ng/ml	111.8
LSS-D10-Fluorene	9.292	176.0	67714	47573.54	ND µg/mL	88.2
Fluorene	9.355	166.0	12824	9080.28	ND µg/mL	89.2
IS-D10-Phenanthrene	11.518	188.0	110476	68121.59	ND µg/mL	15.6
Phenanthrene	11.560	178.0	20021	13675.87	ND µg/mL	17.5
Anthracene	11.655	178.0	2198	1687.91	ND µg/mL	
Fluoranthene	14.364	202.0	2728	1720.82	ND µg/mL	194.0
LSS-D10-Pyrene	14.820	212.0	96308	60097.53	ND µg/mL	17.2
Pyrene	14.863	202.0	3434	2032.24	ND µg/mL	
Benz(a)anthracene	17.611	228.0	192	108.31	ND µg/mL	100.9
IS-D12-Chrysene	17.769	240.0	93954	52464.56	ND µg/mL	18.5
Chrysene	17.986	228.0	2445	725.31	ND µg/mL	61.5
Benzo(b)fluoranthene	20.117	252.0	131	114.64	ND µg/mL	
Benzo(k)fluoranthene	20.198	252.0	342	413.48	ND µg/mL	
SS-D12-Benzo(e)pyrene	20.627	264.0	99518	57404.09	ND µg/mL	24.2
Benzo(e)pyrene	20.686	252.0	1360392	708140.09	ND µg/mL	19.2
Benzo(a)pyrene	20.746	252.0	3476	2260.24	ND µg/mL	7523.8
IS-D12-Perylene	20.892	264.0	103900	57380.09	ND µg/mL	20.5
Perylene	20.936	252.0	1318	1543.43	ND µg/mL	
Indeno(1,2,3-c,d)pyrene	22.799	276.0	3762	1502.91	ND µg/mL	2.8
Dibenz(a,h)anthracene	22.883	278.0	4967	1580.62	ND µg/mL	21.6
Benzo(g,h,i)perylene	23.348	276.0	817	335.33	ND µg/mL	3.2
Coronene	25.876	300.0	75	27.47	ND µg/mL	

## IS-D8-Naphthalene

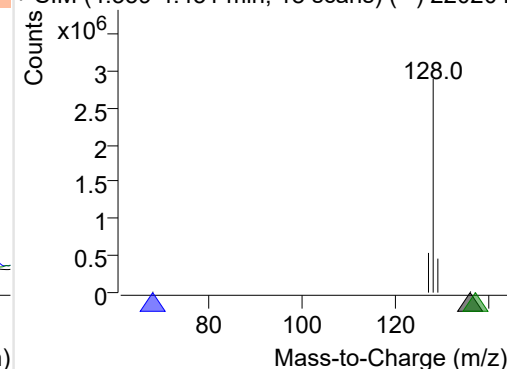
+ Selected Ion (136.0) 220204-PAHs-044.D



136.0, 68.0, 137.0

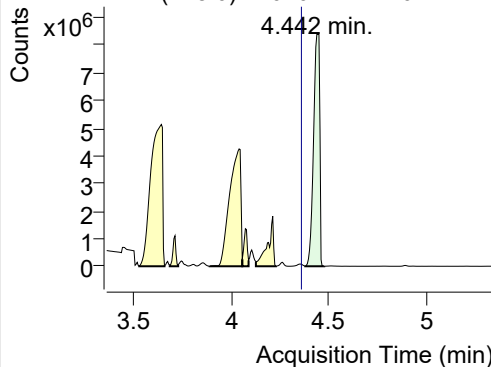


+ SIM (4.359-4.451 min, 18 scans) (\*\*) 220204

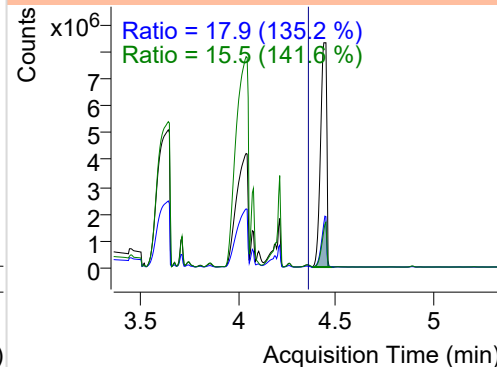


**Naphthalene**

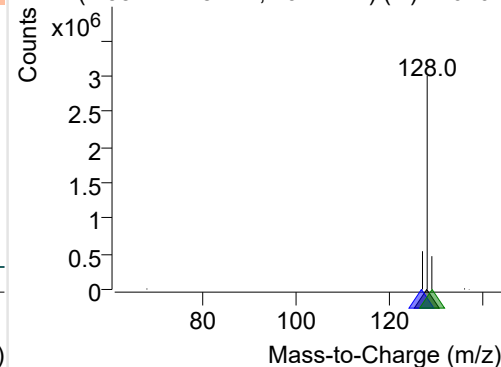
+ Selected Ion (128.0) 220204-PAHs-044.D



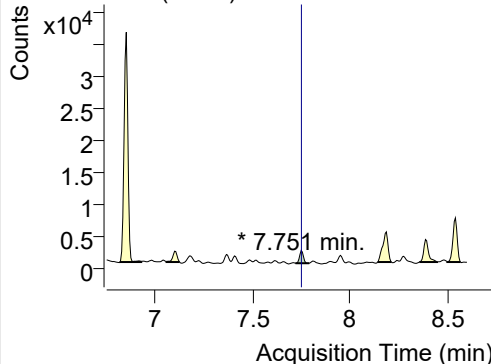
128.0, 127.0, 129.0



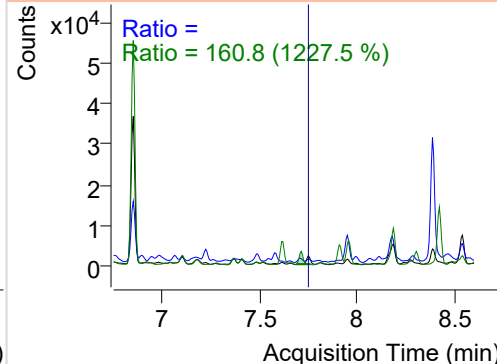
+ SIM (4.381-4.478 min, 19 scans) (\*\*) 220204

**Acenaphthylene**

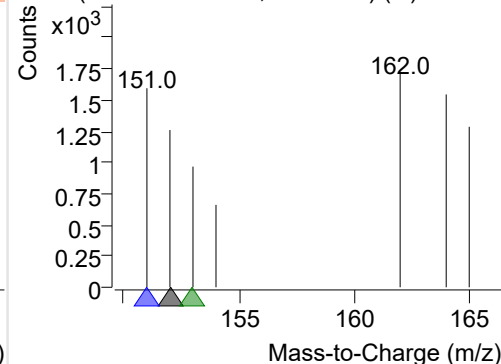
+ Selected Ion (152.0) 220204-PAHs-044.D



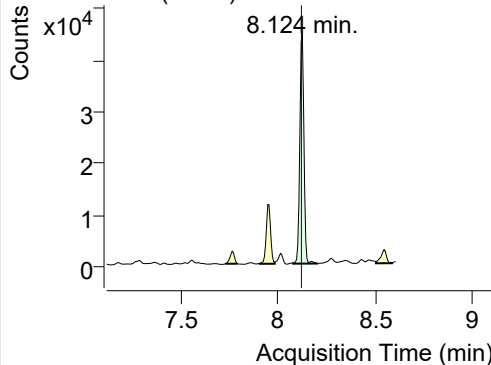
152.0, 151.0, 153.0



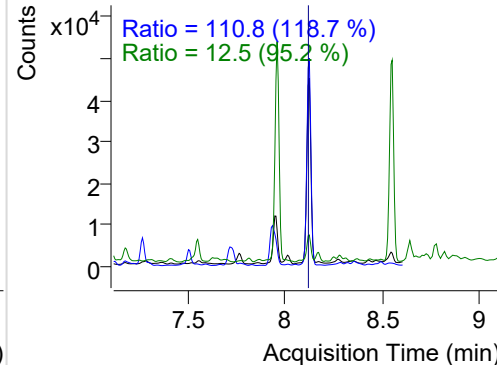
+ SIM (7.721-7.792 min, 13 scans) (\*\*) 220204

**IS-D10-Acenaphthene**

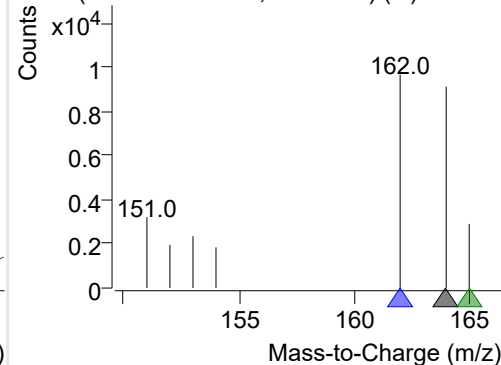
+ Selected Ion (164.0) 220204-PAHs-044.D



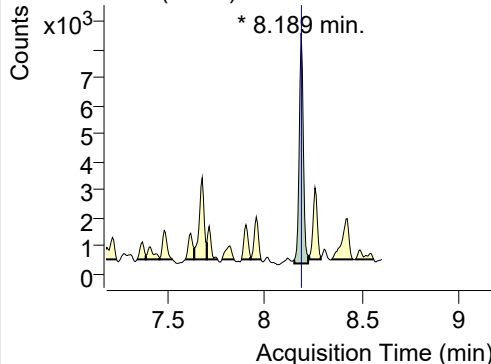
164.0, 162.0, 165.0



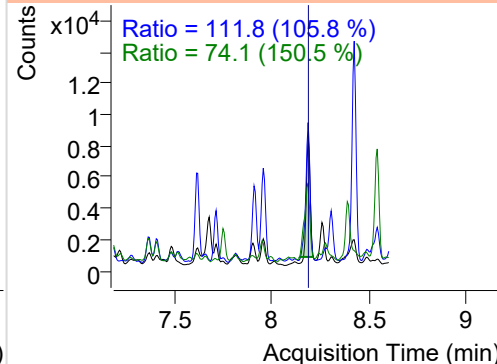
+ SIM (8.077-8.201 min, 22 scans) (\*\*) 220204

**Acenaphthene**

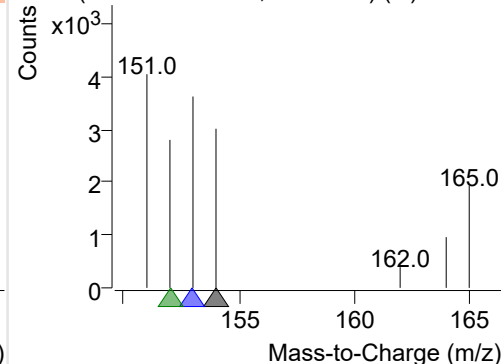
+ Selected Ion (154.0) 220204-PAHs-044.D



154.0, 153.0, 152.0

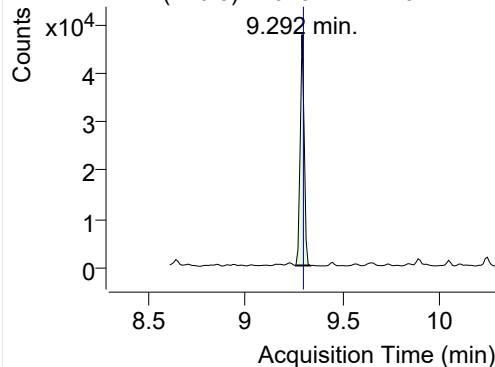


+ SIM (8.153-8.225 min, 13 scans) (\*\*) 220204

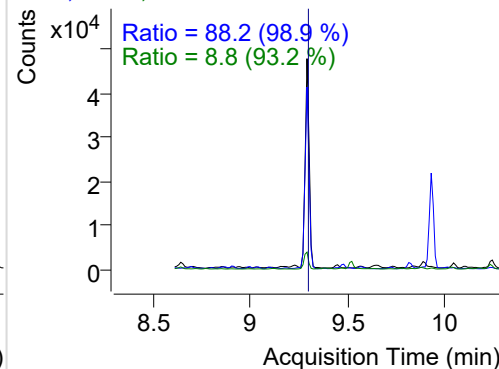


## LSS-D10-Fluorene

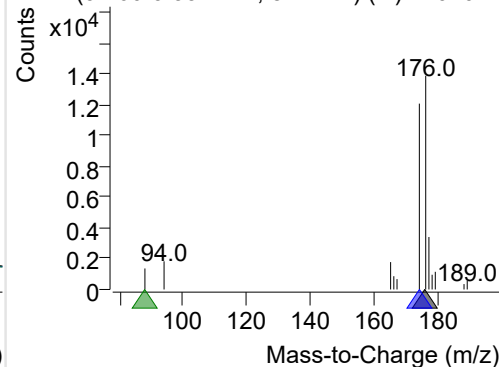
+ Selected Ion (176.0) 220204-PAHs-044.D



176.0, 174.0, 88.0

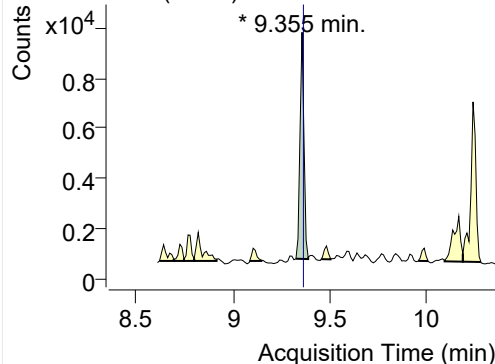


+ SIM (9.260-9.334 min, 8 scans) (\*\*) 220204-I

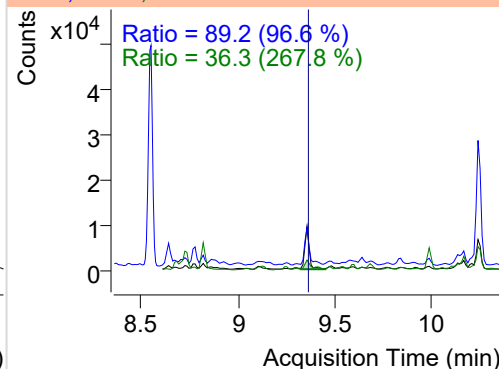


## Fluorene

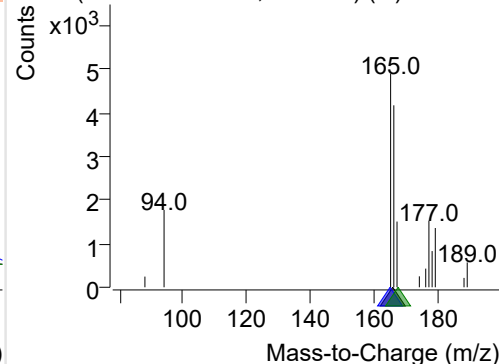
+ Selected Ion (166.0) 220204-PAHs-044.D



166.0, 165.0, 167.0

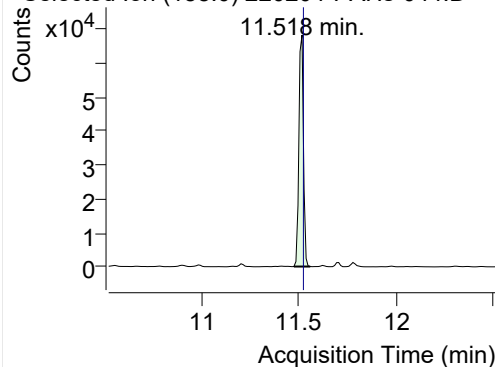


+ SIM (9.323-9.386 min, 6 scans) (\*\*) 220204-I

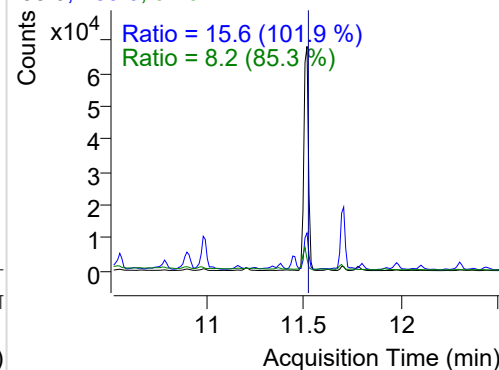


## IS-D10-Phenanthrene

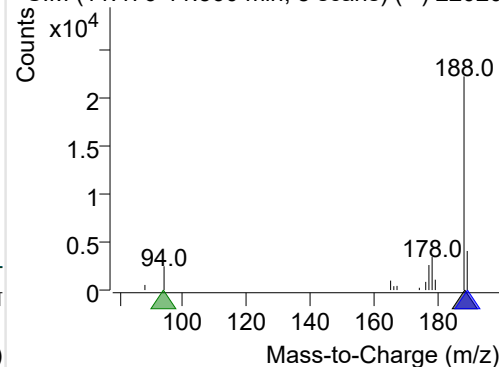
+ Selected Ion (188.0) 220204-PAHs-044.D



188.0, 189.0, 94.0

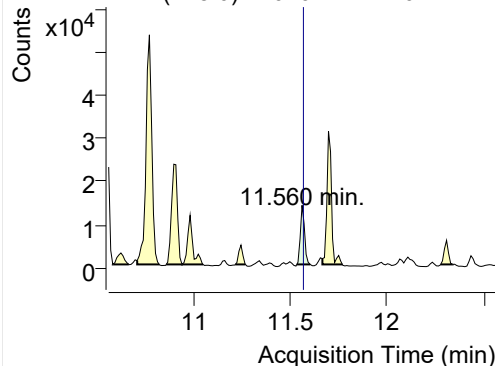


+ SIM (11.476-11.560 min, 8 scans) (\*\*) 22020

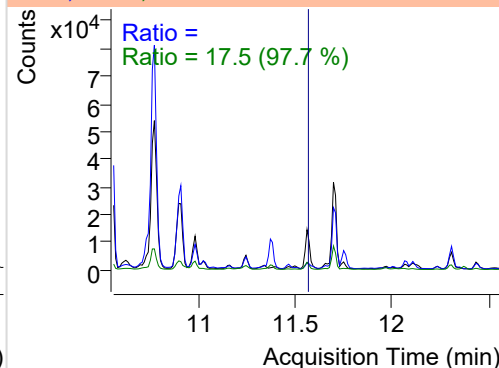


## Phenanthrene

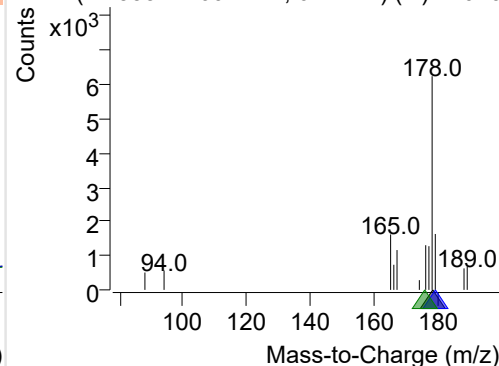
+ Selected Ion (178.0) 220204-PAHs-044.D



178.0, 179.0, 176.0

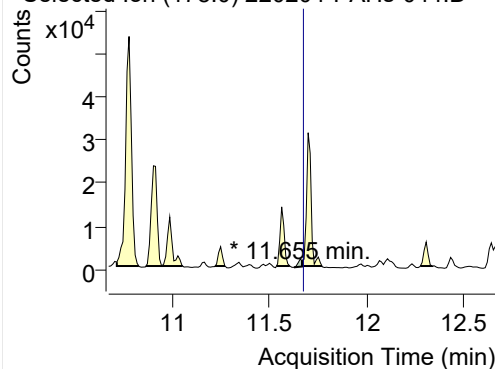


+ SIM (11.533-11.602 min, 6 scans) (\*\*) 22020

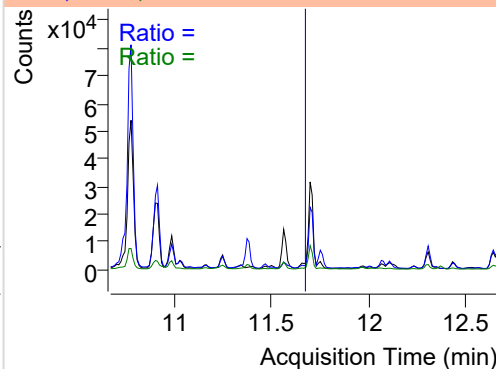


**Anthracene**

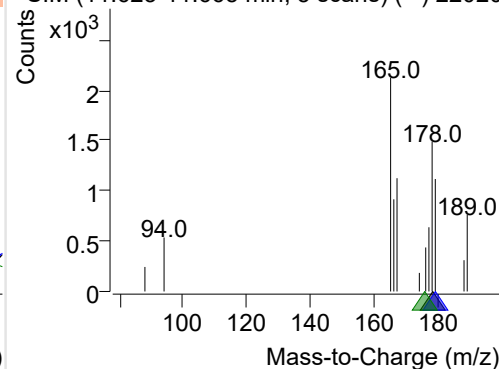
+ Selected Ion (178.0) 220204-PAHs-044.D



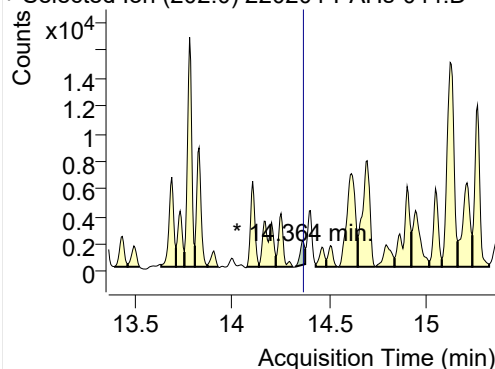
178.0, 179.0, 176.0



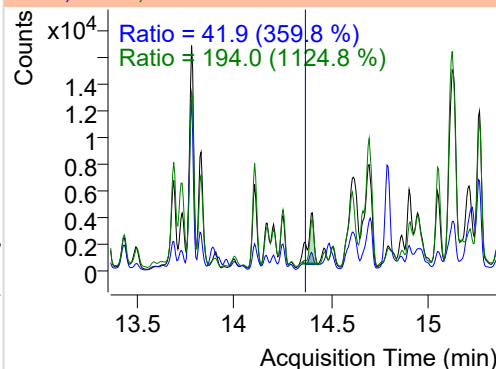
+ SIM (11.623-11.665 min, 5 scans) (\*\*) 22020

**Fluoranthene**

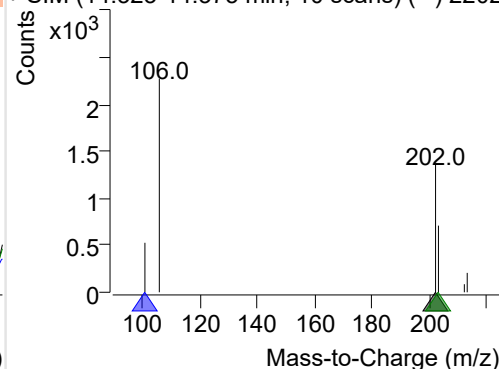
+ Selected Ion (202.0) 220204-PAHs-044.D



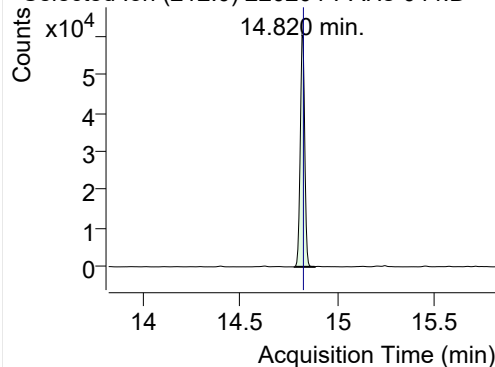
202.0, 101.0, 203.0



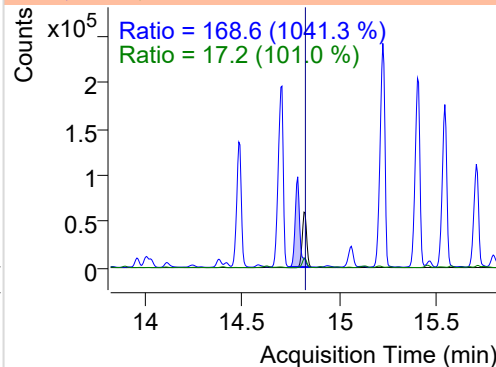
+ SIM (14.323-14.375 min, 10 scans) (\*\*) 2202

**LSS-D10-Pyrene**

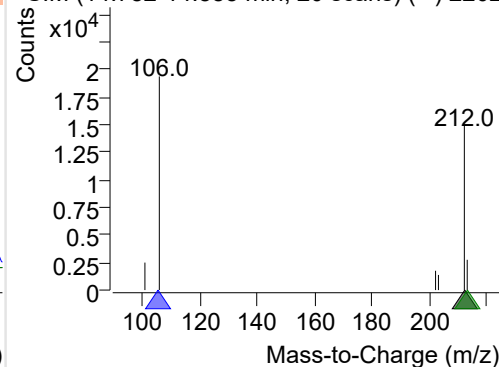
+ Selected Ion (212.0) 220204-PAHs-044.D



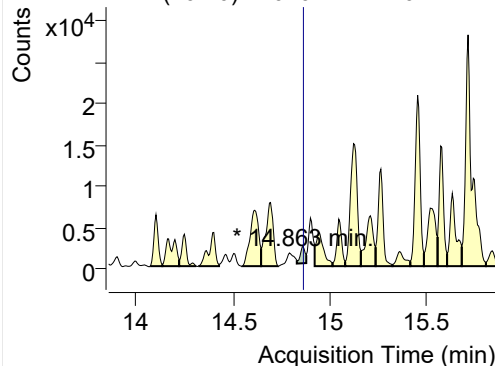
212.0, 106.0, 213.0



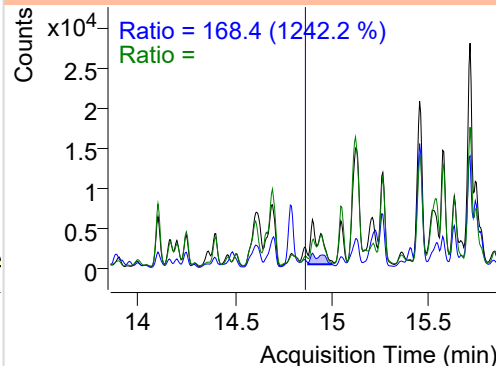
+ SIM (14.782-14.885 min, 20 scans) (\*\*) 2202

**Pyrene**

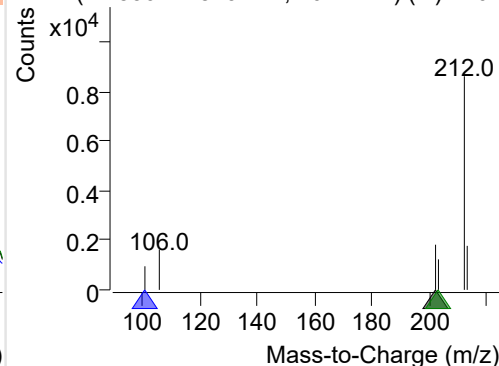
+ Selected Ion (202.0) 220204-PAHs-044.D



202.0, 101.0, 203.0



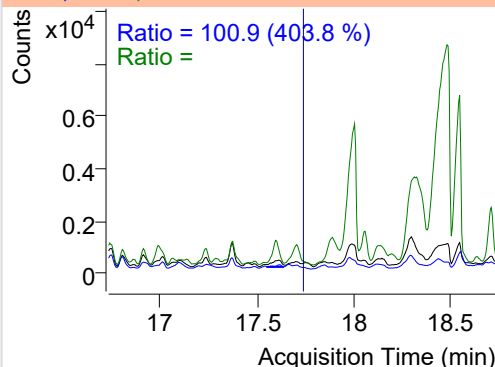
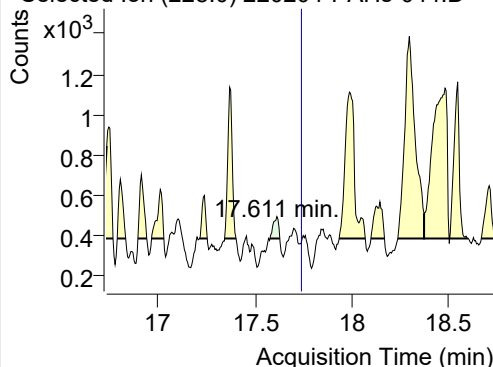
+ SIM (14.830-14.879 min, 10 scans) (\*\*) 2202



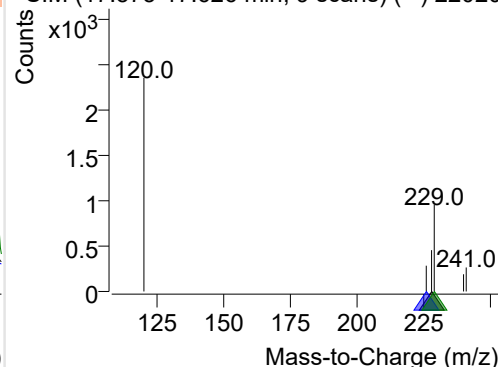
**Benz(a)anthracene**

+ Selected Ion (228.0) 220204-PAHs-044.D

228.0, 226.0, 229.0

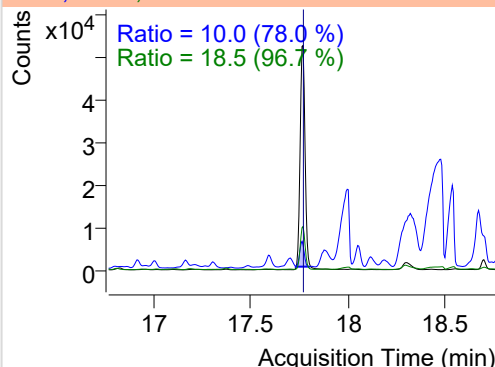
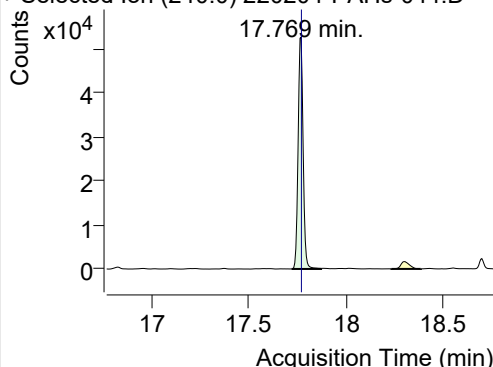


+ SIM (17.575-17.626 min, 9 scans) (\*\*) 22020

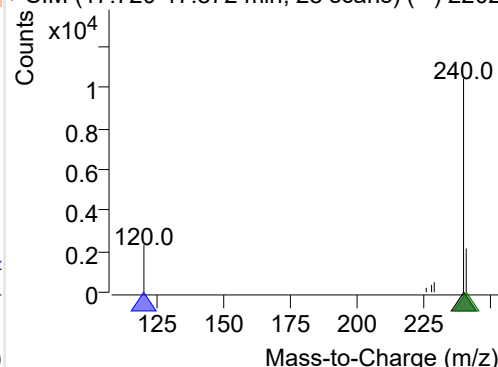
**IS-D12-Chrysene**

+ Selected Ion (240.0) 220204-PAHs-044.D

240.0, 120.0, 241.0

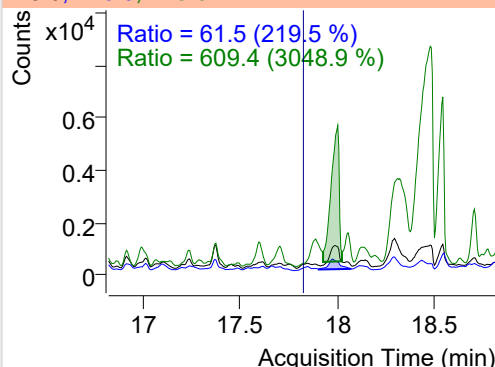
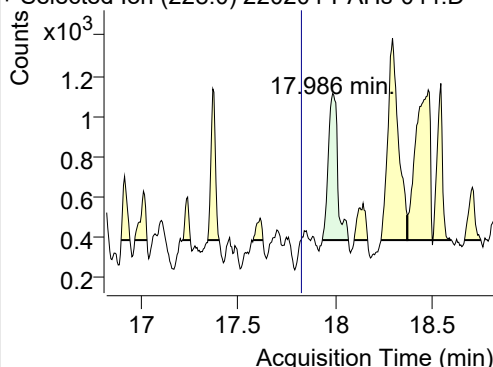


+ SIM (17.720-17.872 min, 28 scans) (\*\*) 2202

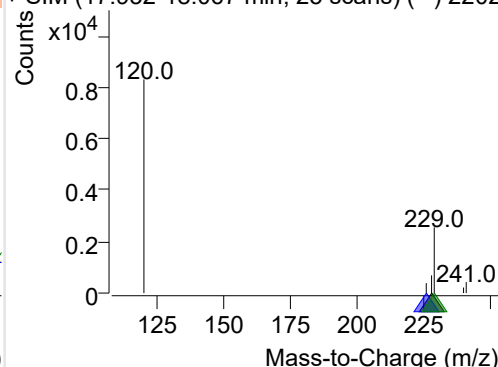
**Chrysene**

+ Selected Ion (228.0) 220204-PAHs-044.D

228.0, 226.0, 229.0

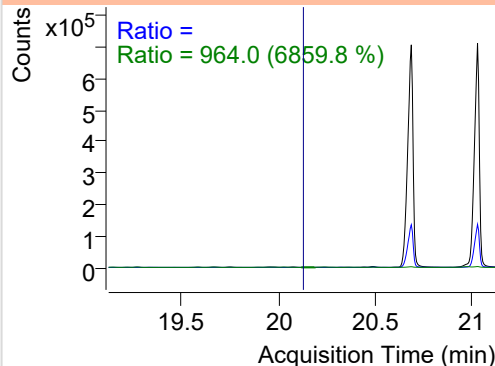
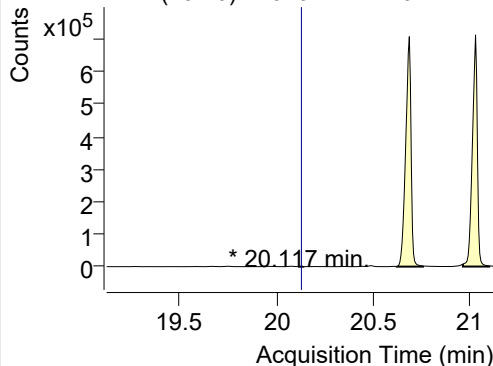


+ SIM (17.932-18.067 min, 25 scans) (\*\*) 2202

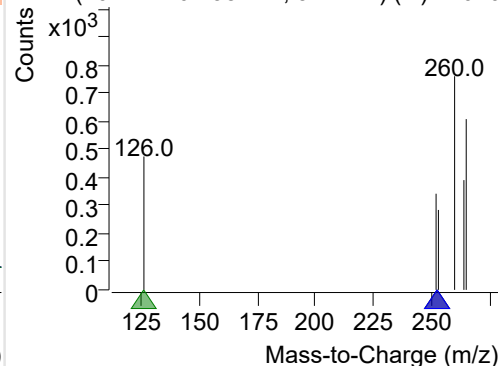
**Benzo(b)fluoranthene**

+ Selected Ion (252.0) 220204-PAHs-044.D

252.0, 253.0, 126.0



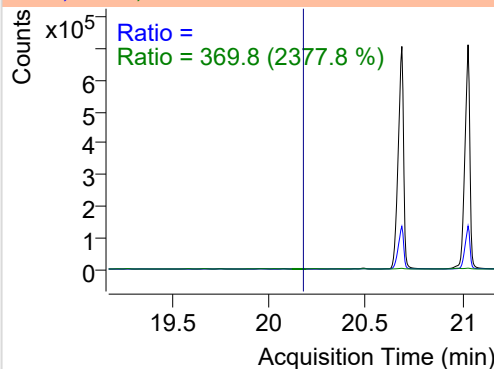
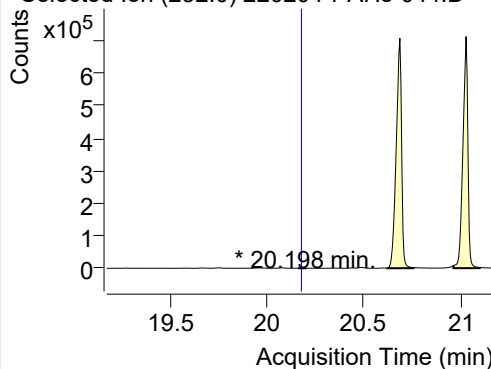
+ SIM (20.117-20.138 min, 5 scans) (\*\*) 22020



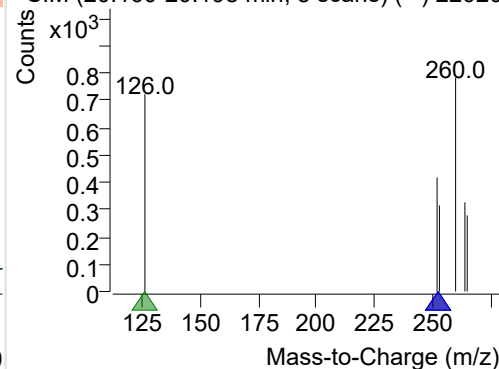
**Benzo(k)fluoranthene**

+ Selected Ion (252.0) 220204-PAHs-044.D

252.0, 253.0, 126.0

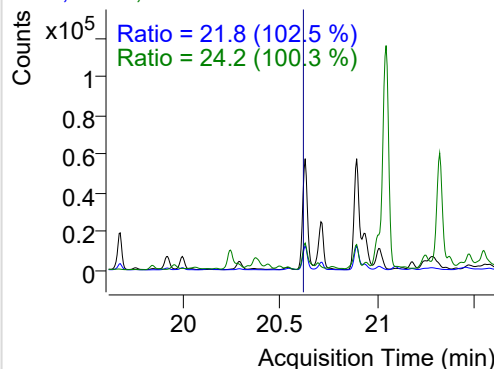
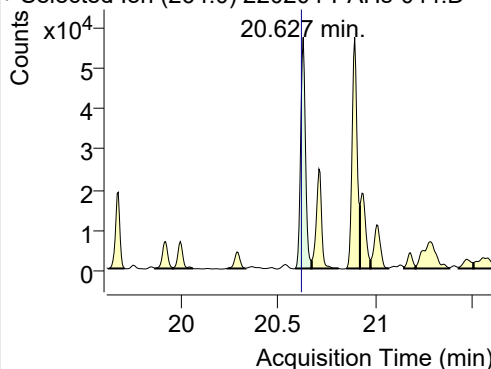


+ SIM (20.160-20.198 min, 8 scans) (\*\*) 22020

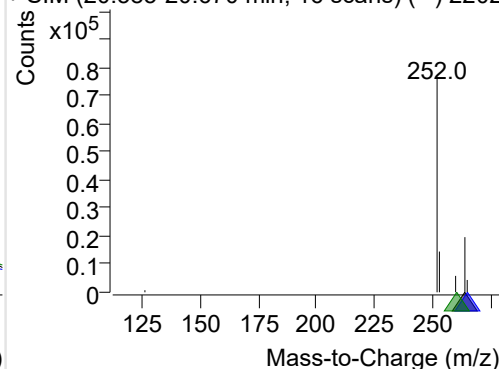
**SS-D12-Benzo(e)pyrene**

+ Selected Ion (264.0) 220204-PAHs-044.D

264.0, 265.0, 260.0

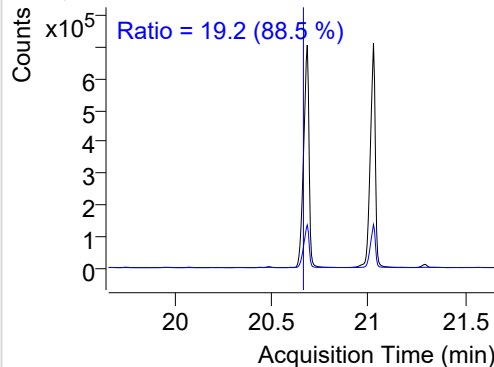
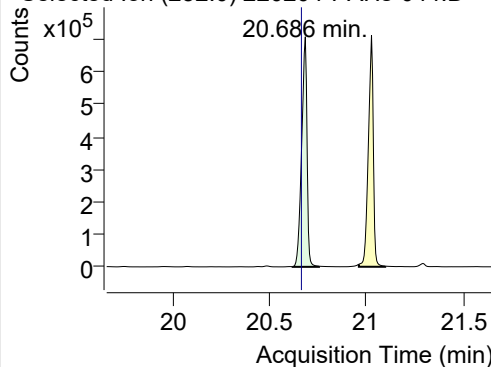


+ SIM (20.585-20.670 min, 16 scans) (\*\*) 2202

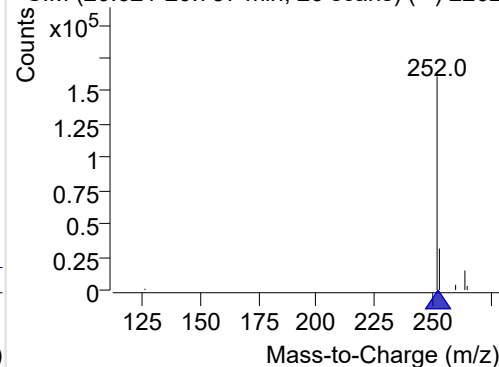
**Benzo(e)pyrene**

+ Selected Ion (252.0) 220204-PAHs-044.D

252.0, 253.0

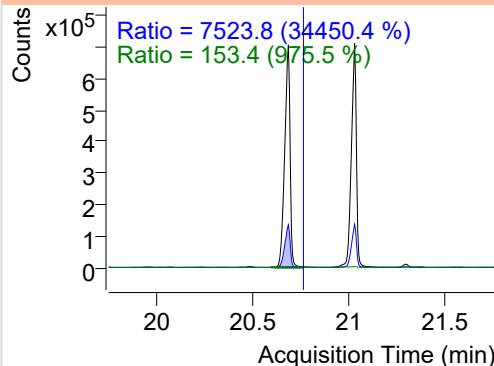
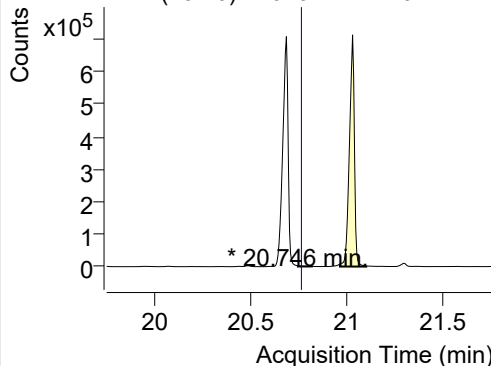


+ SIM (20.621-20.757 min, 26 scans) (\*\*) 2202

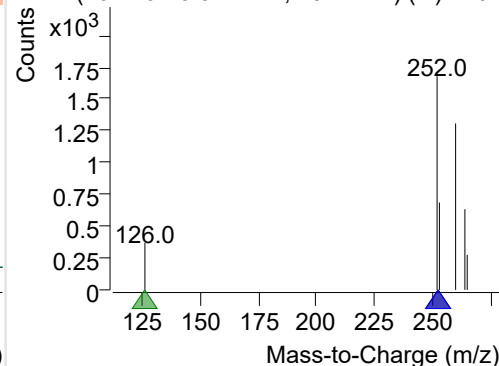
**Benzo(a)pyrene**

+ Selected Ion (252.0) 220204-PAHs-044.D

252.0, 253.0, 126.0

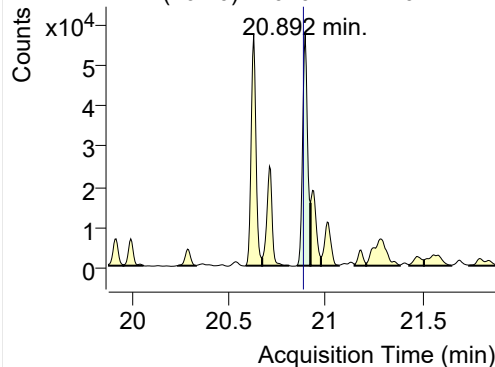


+ SIM (20.746-20.822 min, 15 scans) (\*\*) 2202

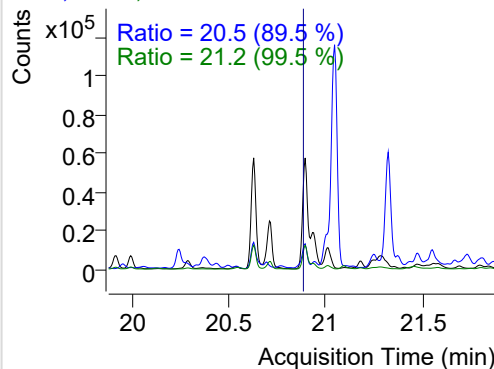


## IS-D12-Perylene

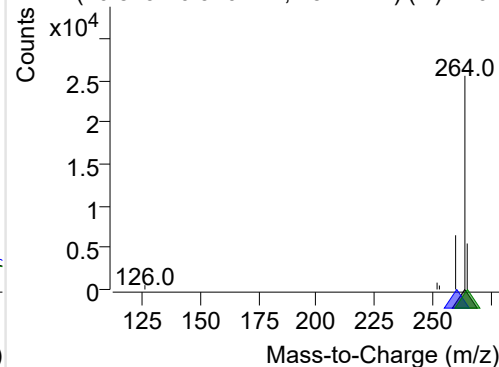
+ Selected Ion (264.0) 220204-PAHs-044.D



264.0, 260.0, 265.0

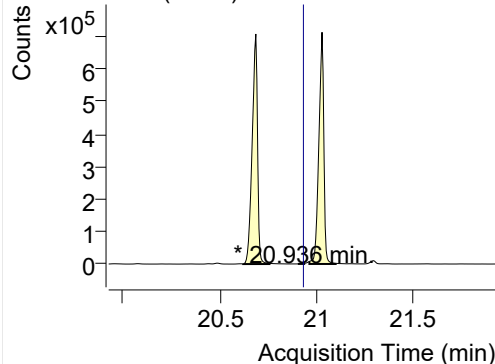


+ SIM (20.849-20.920 min, 13 scans) (\*\*) 2202

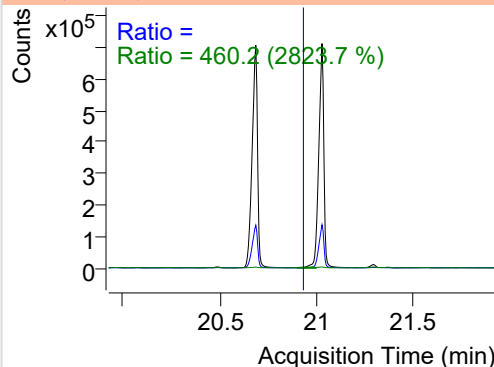


## Perylene

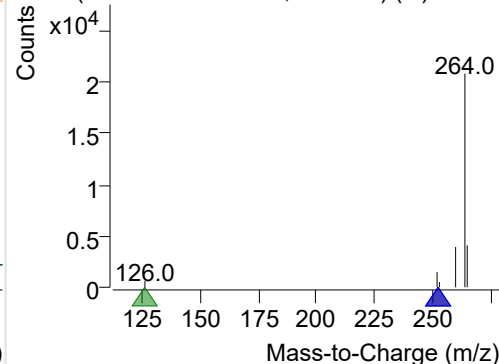
+ Selected Ion (252.0) 220204-PAHs-044.D



252.0, 253.0, 126.0

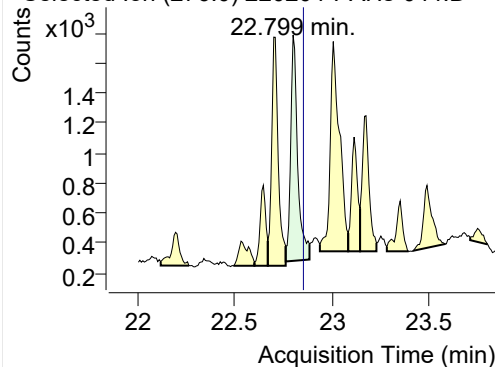


+ SIM (20.903-20.936 min, 7 scans) (\*\*) 22020

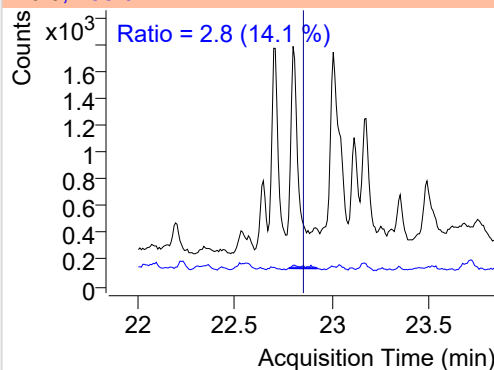


## Indeno(1,2,3-c,d)pyrene

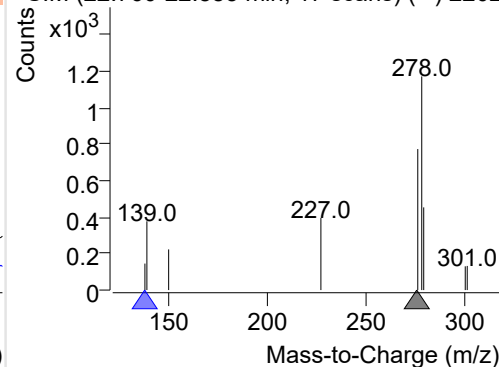
+ Selected Ion (276.0) 220204-PAHs-044.D



276.0, 138.0

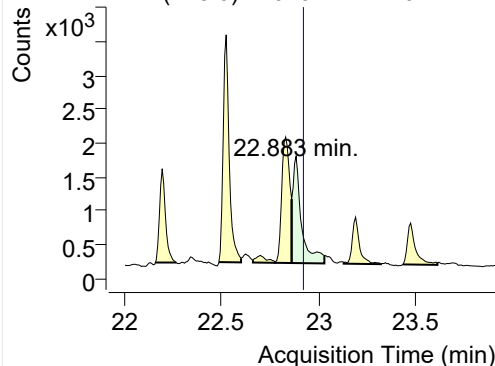


+ SIM (22.760-22.883 min, 17 scans) (\*\*) 2202

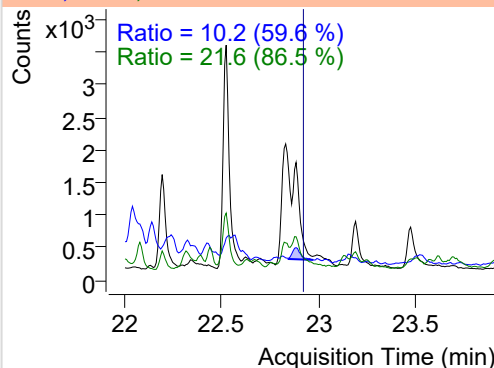


## Dibenz(a,h)anthracene

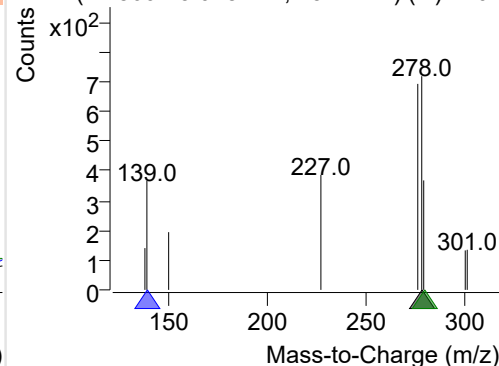
+ Selected Ion (278.0) 220204-PAHs-044.D



278.0, 139.0, 279.0

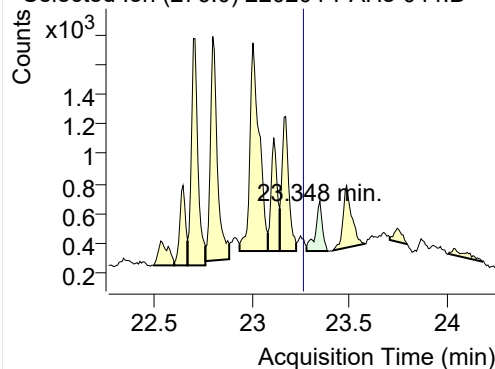


+ SIM (22.860-23.028 min, 23 scans) (\*\*) 2202

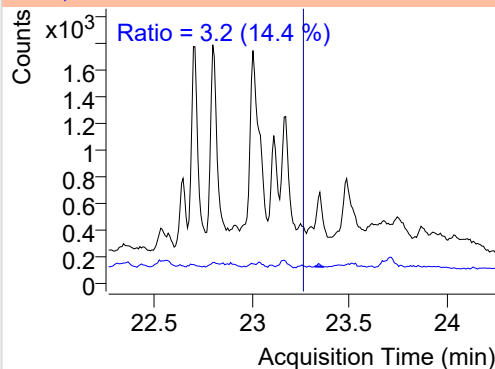


**Benzo(g,h,i)perylene**

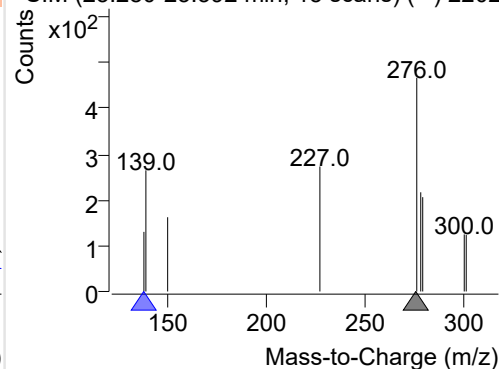
+ Selected Ion (276.0) 220204-PAHs-044.D



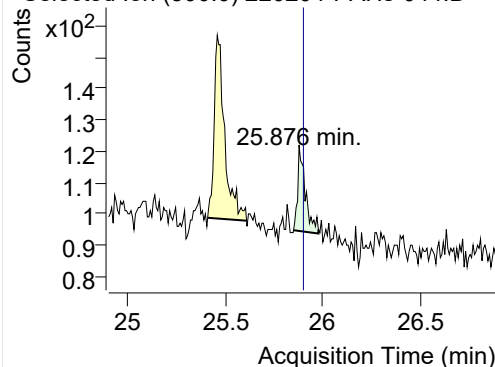
276.0, 138.0



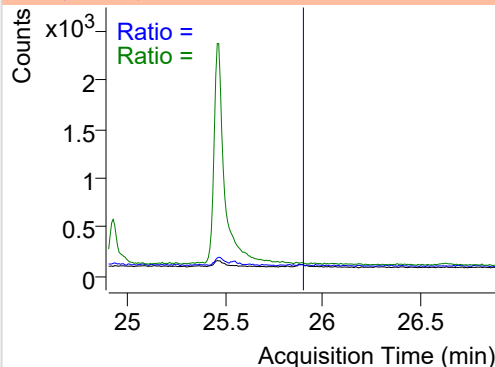
+ SIM (23.280-23.392 min, 15 scans) (\*\*) 2202

**Coronene**

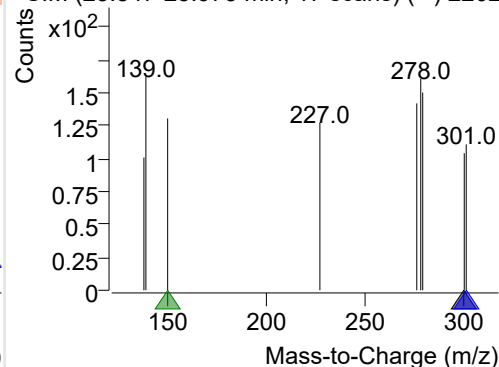
+ Selected Ion (300.0) 220204-PAHs-044.D



300.0, 301.0, 150.0



+ SIM (25.847-25.975 min, 17 scans) (\*\*) 2202





## Quantitative Analysis Sample Based Report

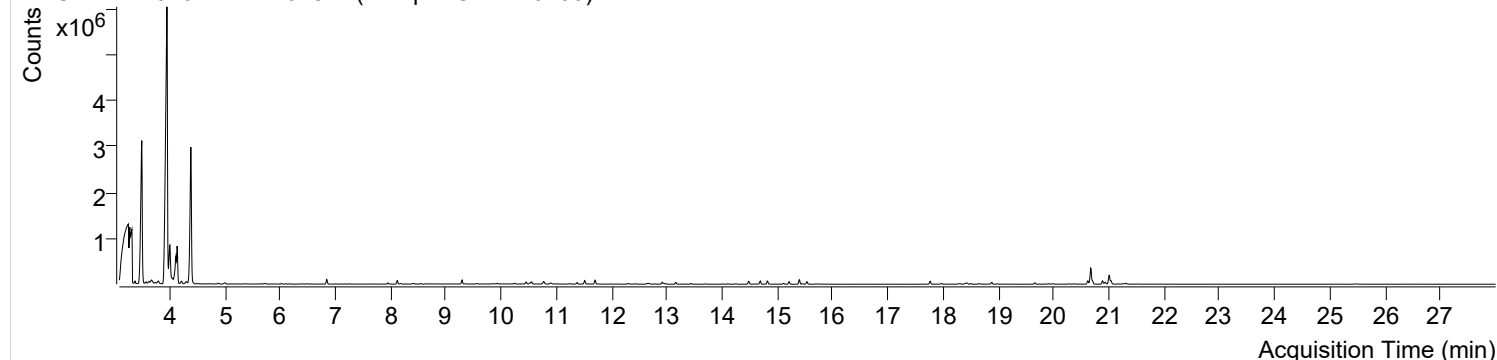


Trusted Answers

Batch Data Path File Name	D:\MassHunter\GCMS\1\data\PAHs\220204-PAHs-Sample\QuantResults\220204-PAHs-Quant.batch.bin		
Analysis Time Stamp	2022-04-13 오후 3:18:46	Analyst Name	DESKTOP-86B7UPG\5975MS
Report Generation Time	2022-04-13 오후 3:19:11	Report Generator Name	DESKTOP-86B7UPG\5975MS
Calibration Last Update	2022-04-13 오후 3:16:00	Batch State	Processed
Analyze Quant Version	10.2	Report Quant Version	10.2
Acq. Date-Time	2022-02-05 오후 1:01:08	Data File	220204-PAHs-045.D
Type	Sample	Name	Sample-Gas-220130
Dil.	1	Acq. Method File	PAHs 19mix-Method

## Sample Chromatogram

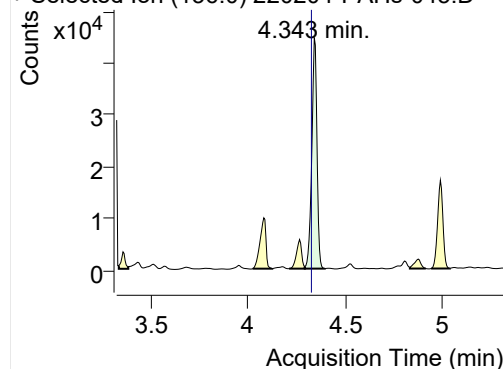
+ TIC SIM 220204-PAHs-045.D (Sample-Gas-220130)



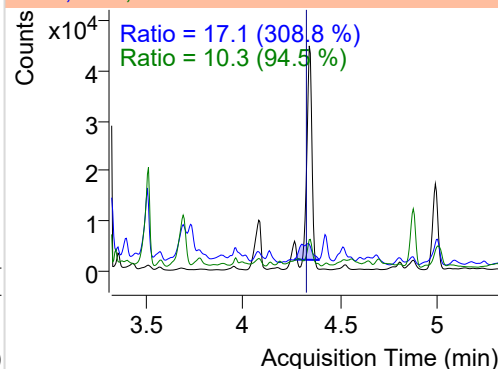
Name	RT	Transition	Resp.	Height	Final Conc. Units	Ratio
IS-D8-Naphthalene	4.343	136.0	82328	44739.72	ND ng/ml	10.3
Naphthalene	4.381	128.0	4342643	2388823.03	ND ng/ml	13.6
Acenaphthylene	7.745	152.0	2177	1559.33	ND ng/ml	
IS-D10-Acenaphthene	8.118	164.0	56887	37712.76	ND ng/ml	90.8
Acenaphthene	8.183	154.0	5610	3654.50	ND ng/ml	111.8
LSS-D10-Fluorene	9.292	176.0	58920	40971.89	ND µg/mL	88.0
Fluorene	9.355	166.0	3662	2415.12	ND µg/mL	95.5
IS-D10-Phenanthrene	11.508	188.0	97594	59790.71	ND µg/mL	15.4
Phenanthrene	11.560	178.0	3518	2261.50	ND µg/mL	18.5
Anthracene	11.655	178.0	743	556.97	ND µg/mL	
Fluoranthene	14.359	202.0	658	420.54	ND µg/mL	
LSS-D10-Pyrene	14.814	212.0	84205	52216.58	ND µg/mL	17.4
Pyrene	14.858	202.0	1779	1036.66	ND µg/mL	41.4
Benz(a)anthracene	17.758	228.0	308	119.19	ND µg/mL	
IS-D12-Chrysene	17.763	240.0	81221	48905.55	ND µg/mL	19.1
Chrysene	17.834	228.0	682	191.47	ND µg/mL	49.2
Benzo(b)fluoranthene	20.122	252.0	137	96.99	ND µg/mL	
Benzo(k)fluoranthene	20.149	252.0	161	124.12	ND µg/mL	
SS-D12-Benzo(e)pyrene	20.616	264.0	89069	50126.59	ND µg/mL	24.7
Benzo(e)pyrene	20.670	252.0	538785	285190.55	ND µg/mL	19.0
Benzo(a)pyrene	20.735	252.0	2060	1223.89	ND µg/mL	
IS-D12-Perylene	20.882	264.0	86168	50422.59	ND µg/mL	23.4
Perylene	20.931	252.0	4117	1913.90	ND µg/mL	
Indeno(1,2,3-c,d)pyrene	22.845	276.0	58	31.77	ND µg/mL	94.5
Dibenz(a,h)anthracene	22.837	278.0	1028	344.11	ND µg/mL	24.3
Benzo(g,h,i)perylene	23.295	276.0	204	61.99	ND µg/mL	7.4
Coronene	25.891	300.0	76	20.68	ND µg/mL	

## IS-D8-Naphthalene

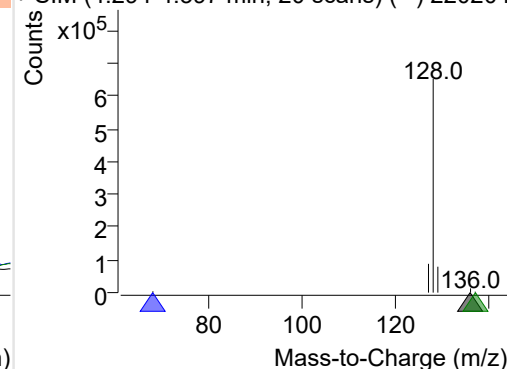
+ Selected Ion (136.0) 220204-PAHs-045.D



136.0, 68.0, 137.0

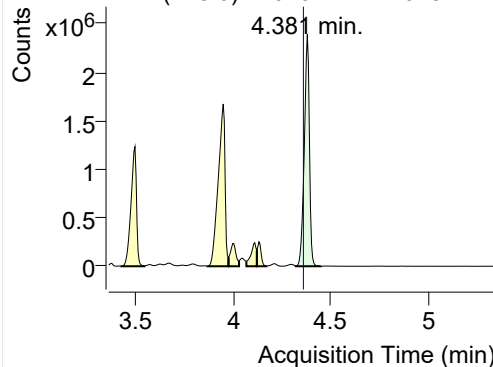


+ SIM (4.294-4.397 min, 20 scans) (\*\*) 220204

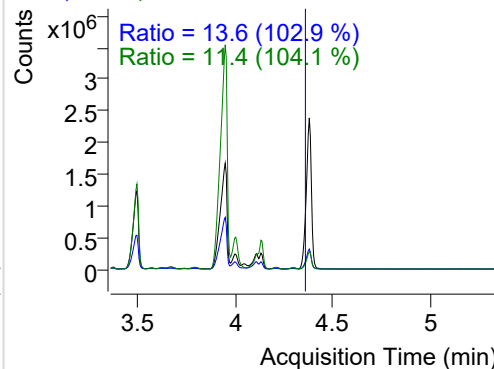


**Naphthalene**

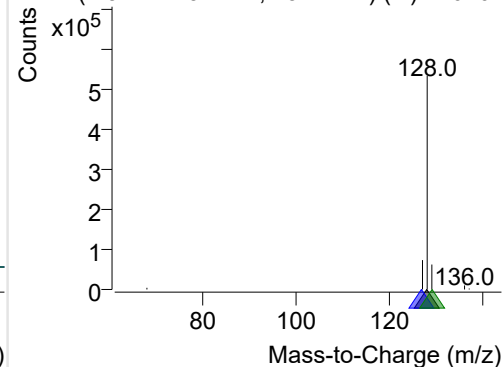
+ Selected Ion (128.0) 220204-PAHs-045.D



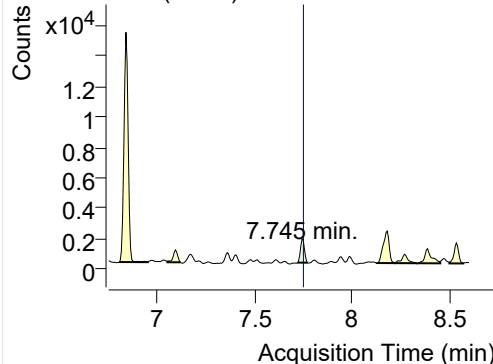
128.0, 127.0, 129.0



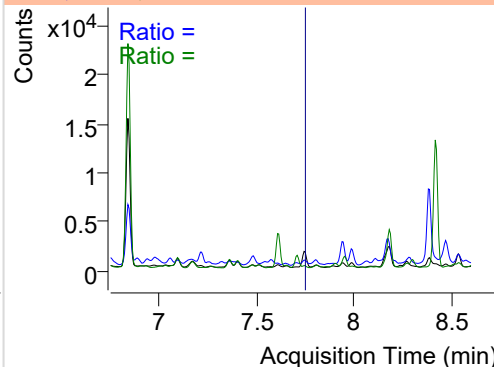
+ SIM (4.321-4.451 min, 25 scans) (\*\*) 220204

**Acenaphthylene**

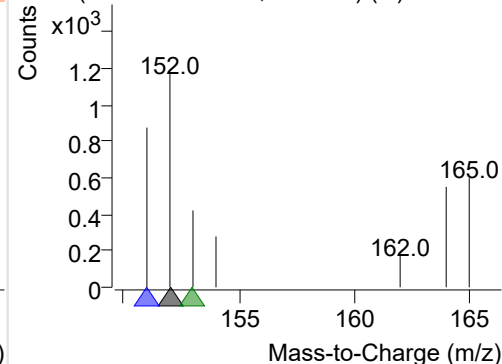
+ Selected Ion (152.0) 220204-PAHs-045.D



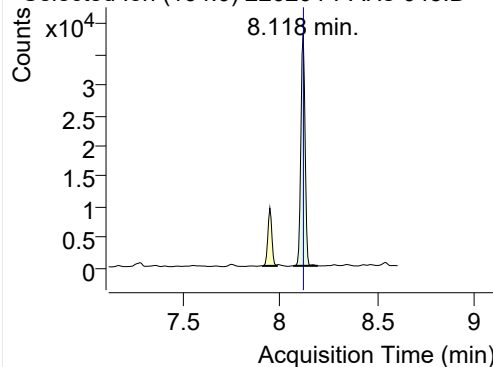
152.0, 151.0, 153.0



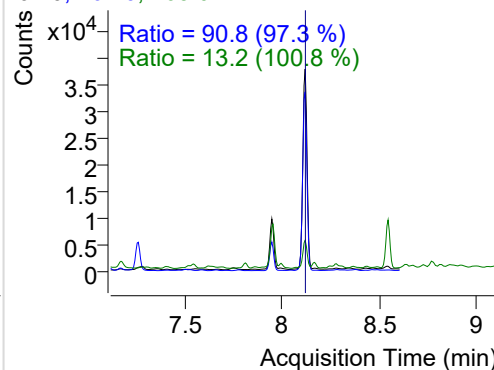
+ SIM (7.722-7.773 min, 8 scans) (\*\*) 220204-I

**IS-D10-Acenaphthene**

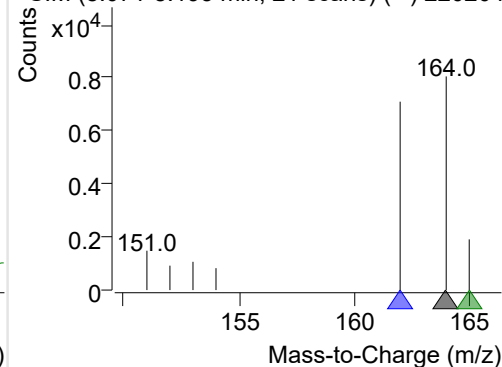
+ Selected Ion (164.0) 220204-PAHs-045.D



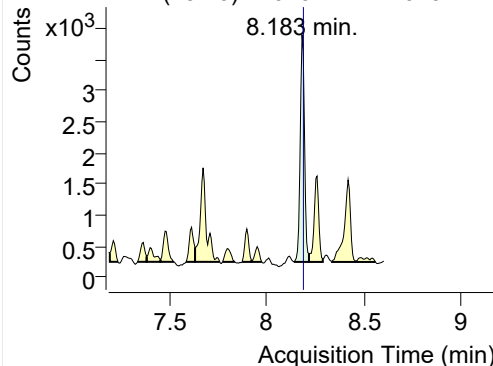
164.0, 162.0, 165.0



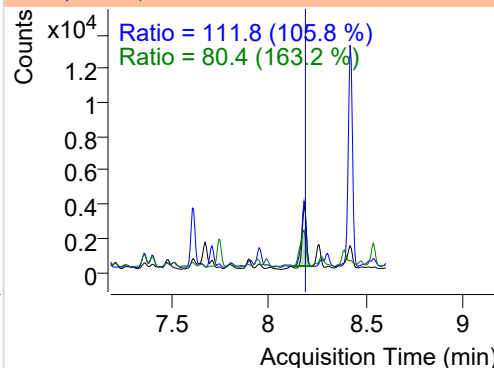
+ SIM (8.071-8.193 min, 21 scans) (\*\*) 220204

**Acenaphthene**

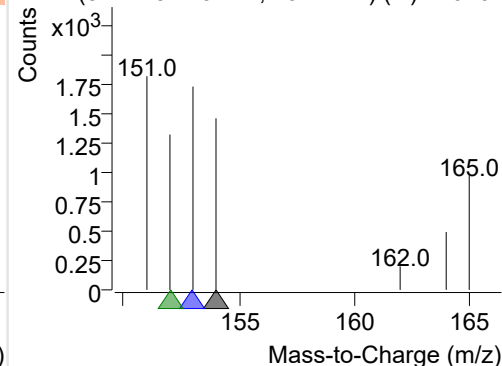
+ Selected Ion (154.0) 220204-PAHs-045.D



154.0, 153.0, 152.0

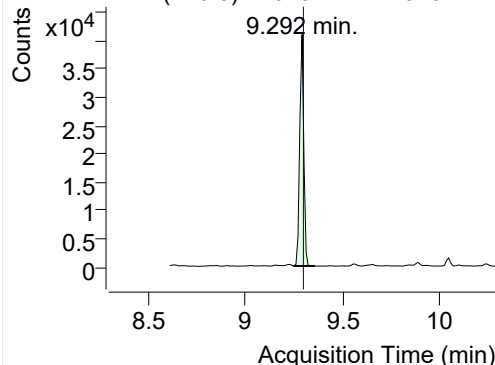


+ SIM (8.142-8.219 min, 13 scans) (\*\*) 220204

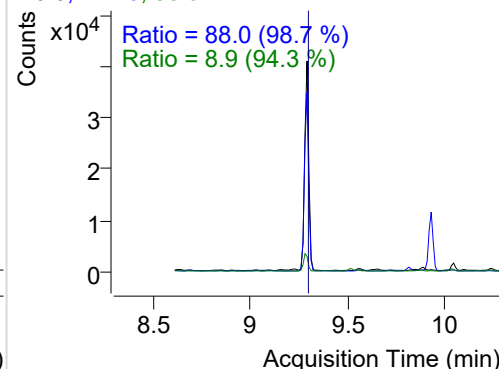


## LSS-D10-Fluorene

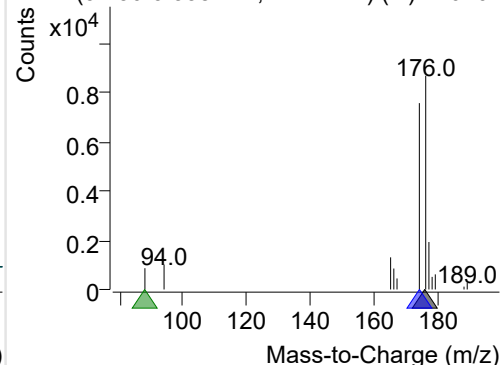
+ Selected Ion (176.0) 220204-PAHs-045.D



176.0, 174.0, 88.0

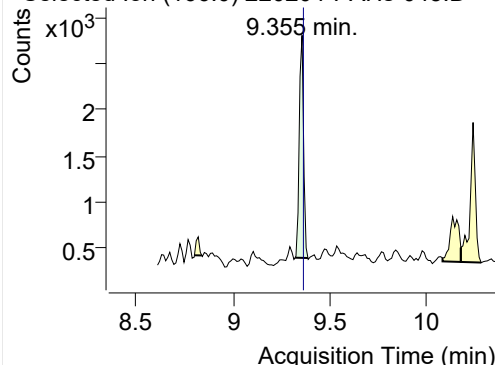


+ SIM (9.250-9.358 min, 11 scans) (\*\*) 220204

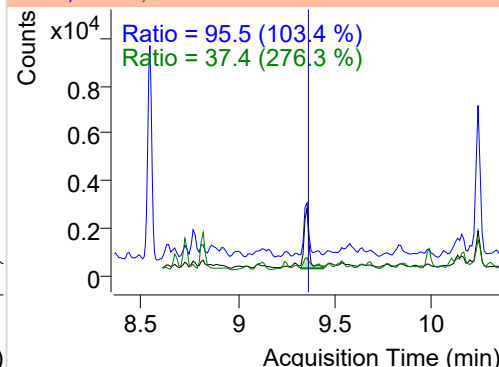


## Fluorene

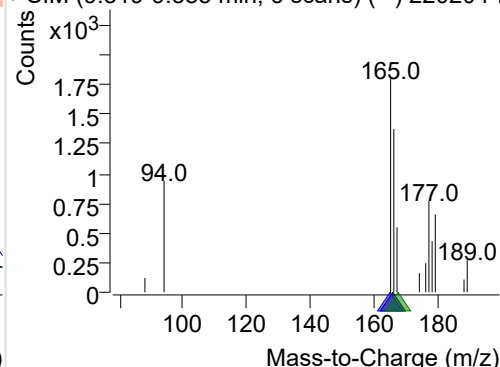
+ Selected Ion (166.0) 220204-PAHs-045.D



166.0, 165.0, 167.0

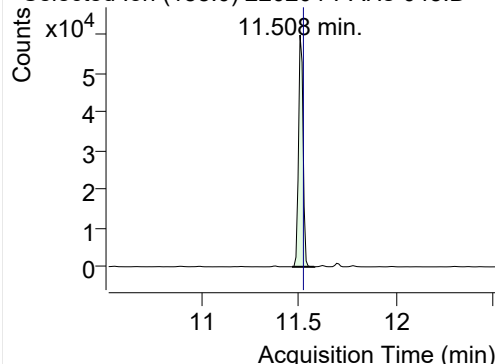


+ SIM (9.319-9.385 min, 6 scans) (\*\*) 220204-I

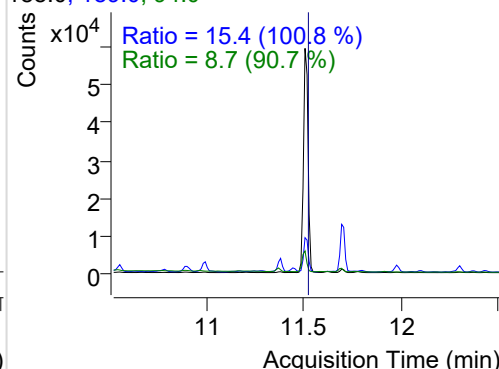


## IS-D10-Phenanthrene

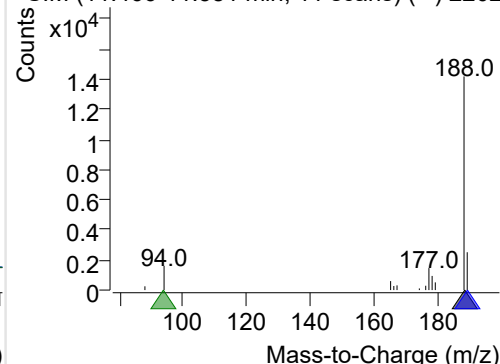
+ Selected Ion (188.0) 220204-PAHs-045.D



188.0, 189.0, 94.0

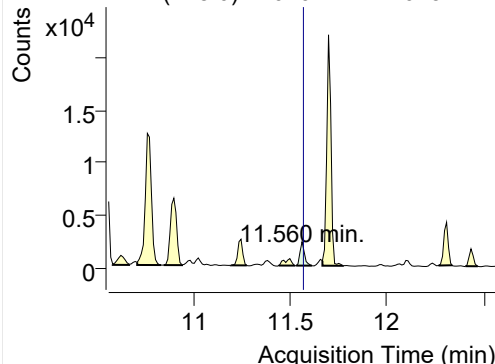


+ SIM (11.466-11.581 min, 11 scans) (\*\*) 2202

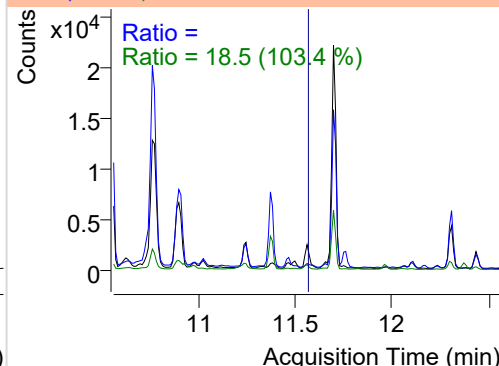


## Phenanthrene

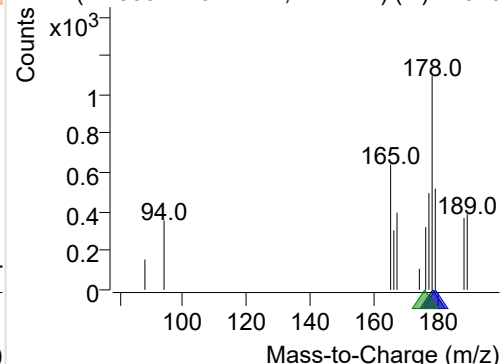
+ Selected Ion (178.0) 220204-PAHs-045.D



178.0, 179.0, 176.0

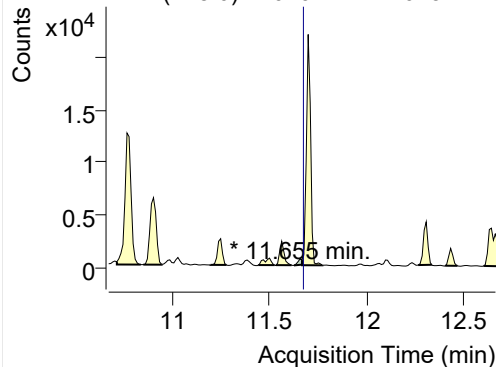


+ SIM (11.530-11.611 min, 7 scans) (\*\*) 22020

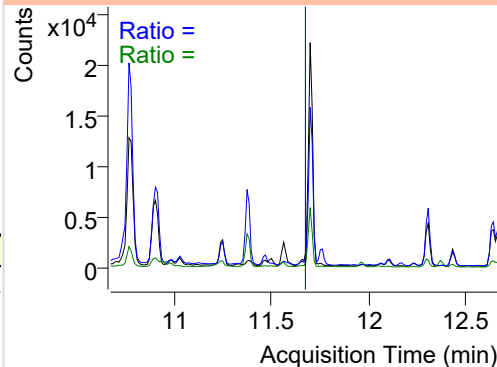


**Anthracene**

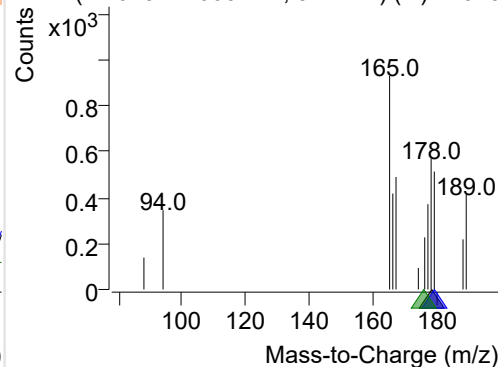
+ Selected Ion (178.0) 220204-PAHs-045.D



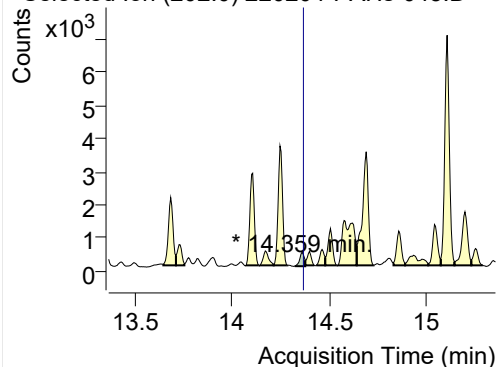
178.0, 179.0, 176.0



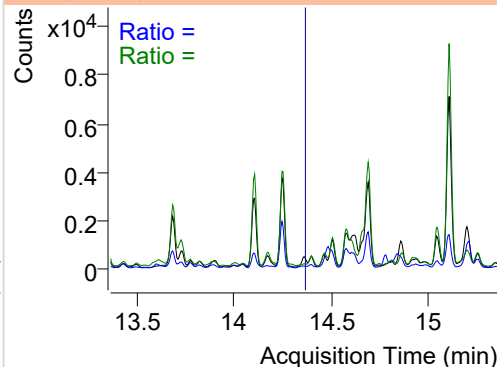
+ SIM (11.623-11.665 min, 5 scans) (\*\*) 22020

**Fluoranthene**

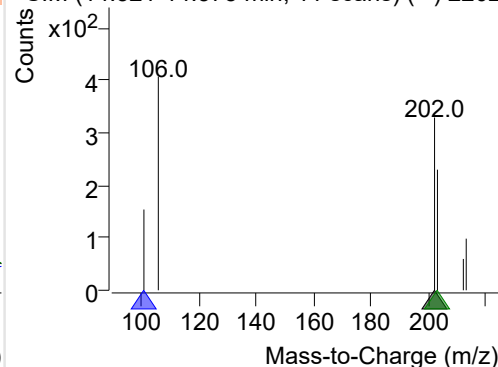
+ Selected Ion (202.0) 220204-PAHs-045.D



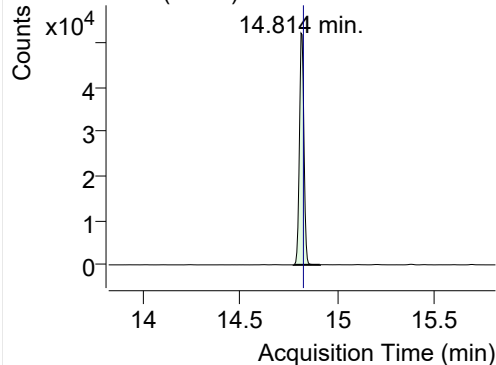
202.0, 101.0, 203.0



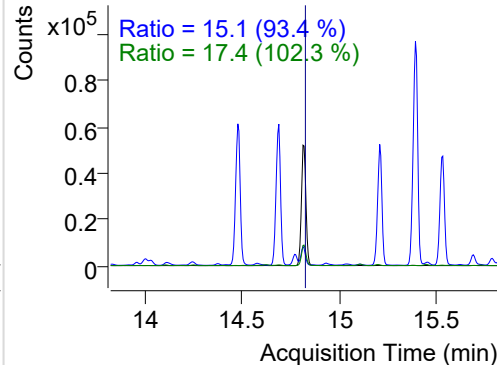
+ SIM (14.321-14.375 min, 11 scans) (\*\*) 2202

**LSS-D10-Pyrene**

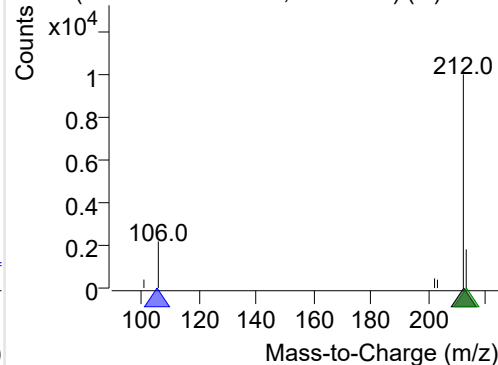
+ Selected Ion (212.0) 220204-PAHs-045.D



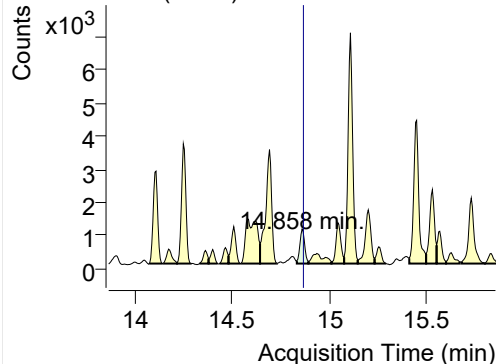
212.0, 106.0, 213.0



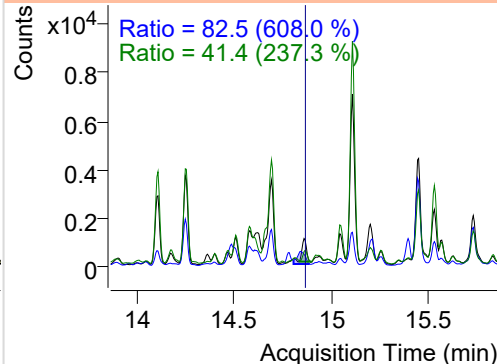
+ SIM (14.776-14.912 min, 26 scans) (\*\*) 2202

**Pyrene**

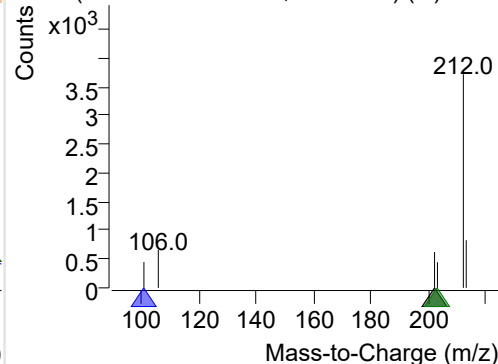
+ Selected Ion (202.0) 220204-PAHs-045.D



202.0, 101.0, 203.0



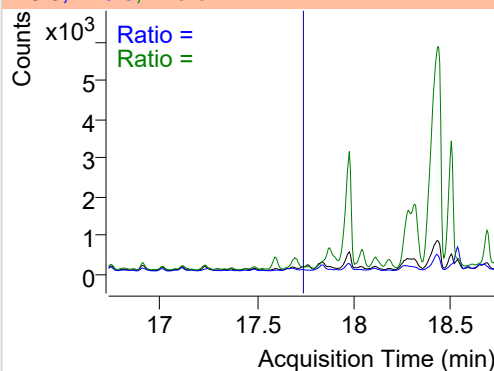
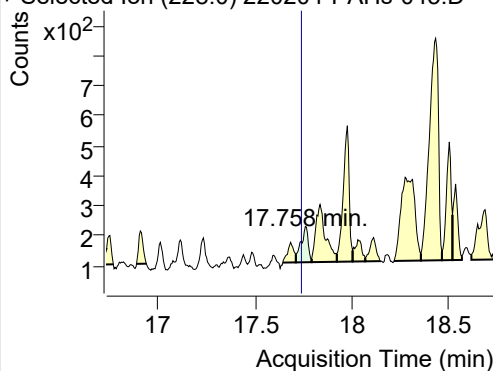
+ SIM (14.831-14.890 min, 12 scans) (\*\*) 2202



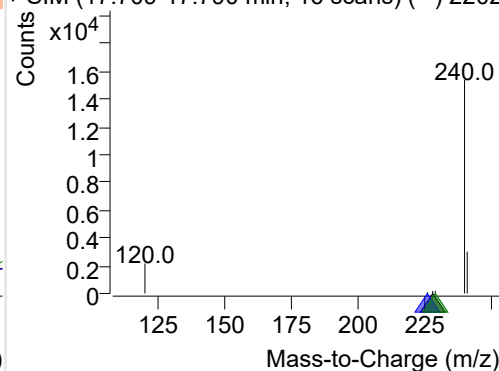
**Benz(a)anthracene**

+ Selected Ion (228.0) 220204-PAHs-045.D

228.0, 226.0, 229.0

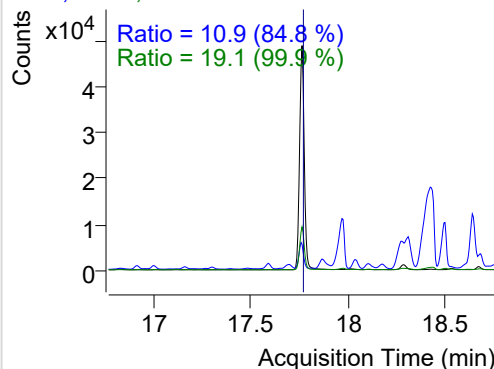
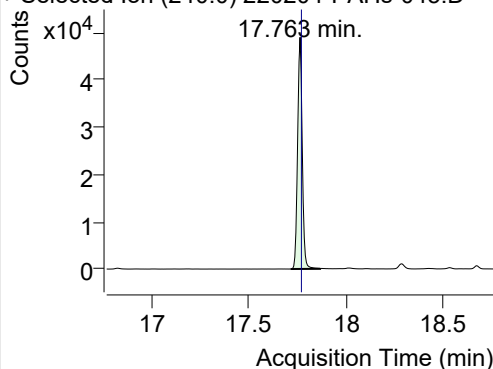


+ SIM (17.709-17.790 min, 16 scans) (\*\*) 2202

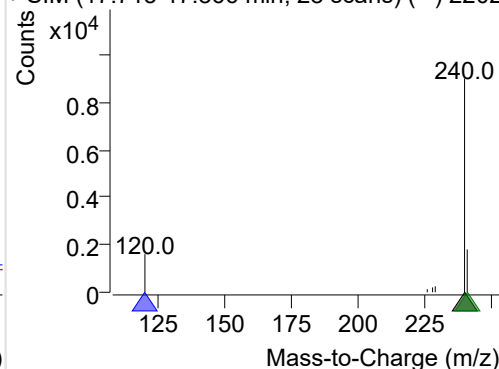
**IS-D12-Chrysene**

+ Selected Ion (240.0) 220204-PAHs-045.D

240.0, 120.0, 241.0

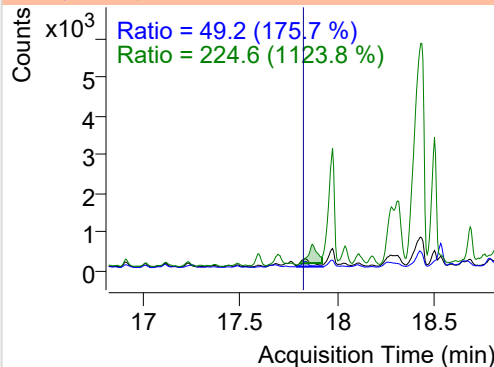
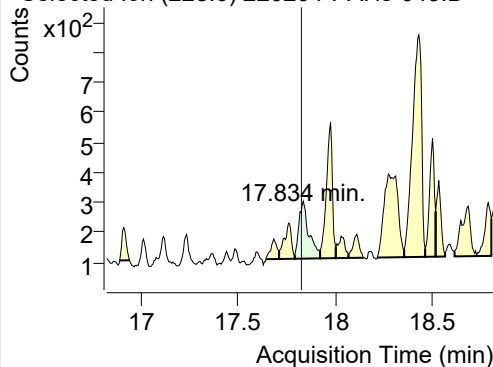


+ SIM (17.715-17.866 min, 28 scans) (\*\*) 2202

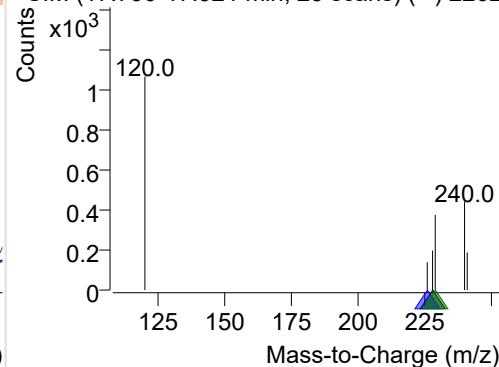
**Chrysene**

+ Selected Ion (228.0) 220204-PAHs-045.D

228.0, 226.0, 229.0

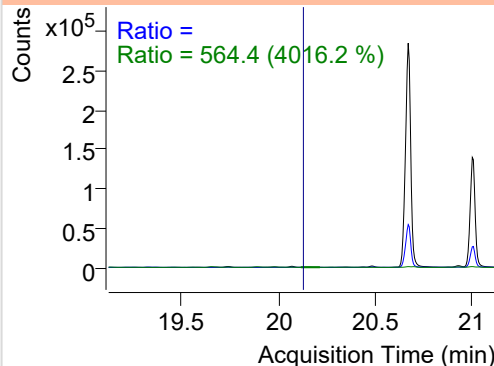
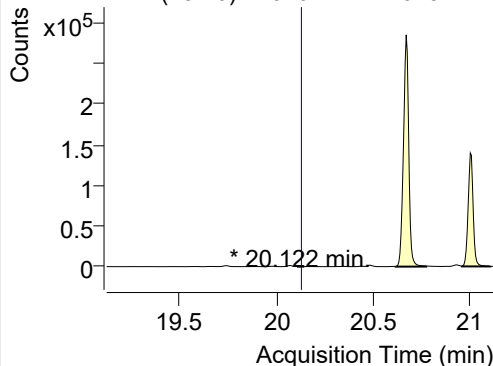


+ SIM (17.790-17.921 min, 25 scans) (\*\*) 2202

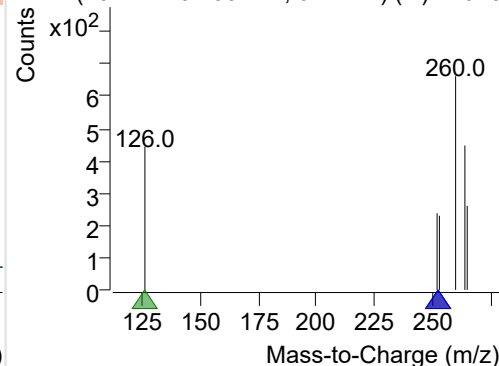
**Benzo(b)fluoranthene**

+ Selected Ion (252.0) 220204-PAHs-045.D

252.0, 253.0, 126.0



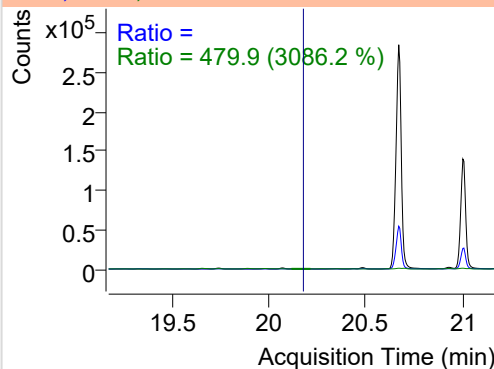
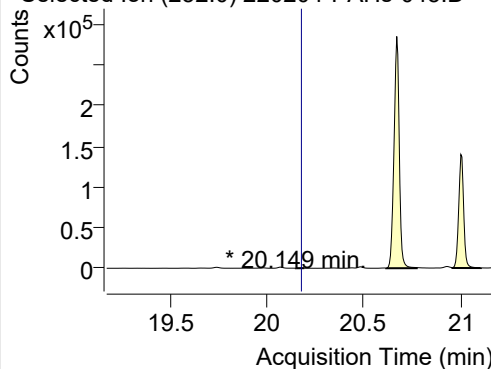
+ SIM (20.111-20.139 min, 6 scans) (\*\*) 22020



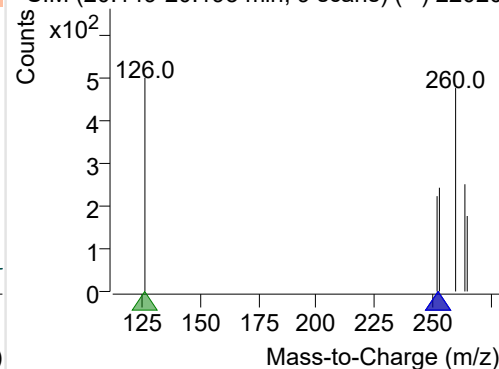
**Benzo(k)fluoranthene**

+ Selected Ion (252.0) 220204-PAHs-045.D

252.0, 253.0, 126.0

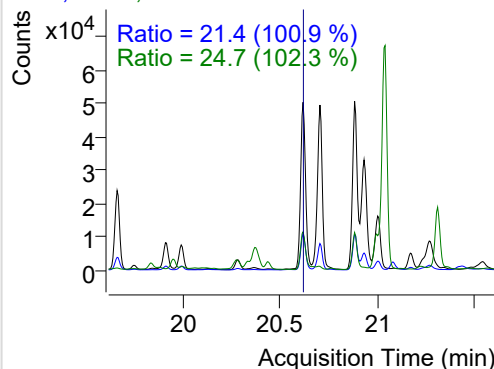
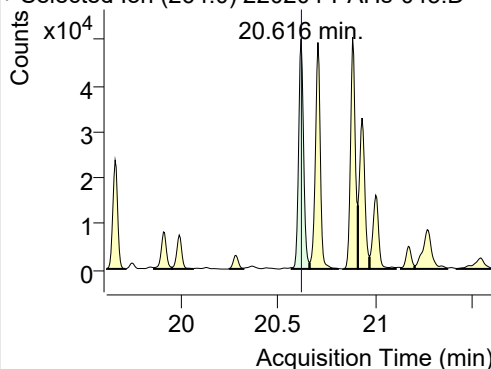


+ SIM (20.149-20.193 min, 9 scans) (\*\*) 22020

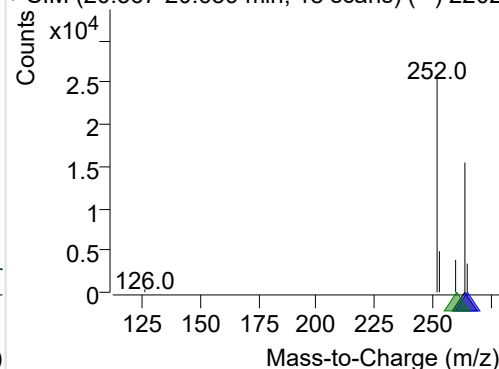
**SS-D12-Benzo(e)pyrene**

+ Selected Ion (264.0) 220204-PAHs-045.D

264.0, 265.0, 260.0

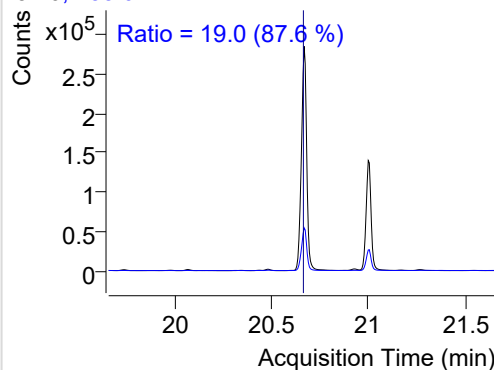
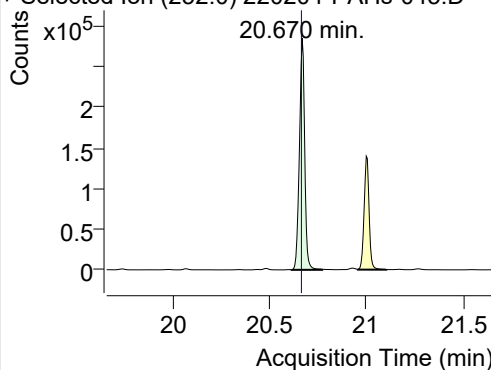


+ SIM (20.567-20.659 min, 18 scans) (\*\*) 2202

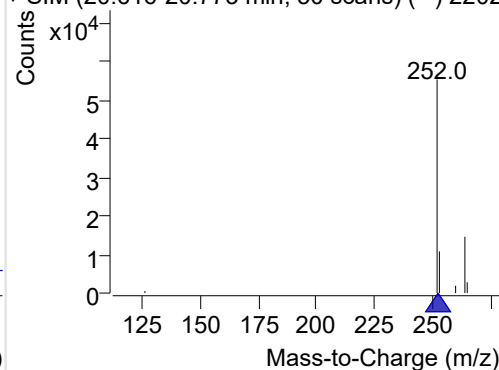
**Benzo(e)pyrene**

+ Selected Ion (252.0) 220204-PAHs-045.D

252.0, 253.0

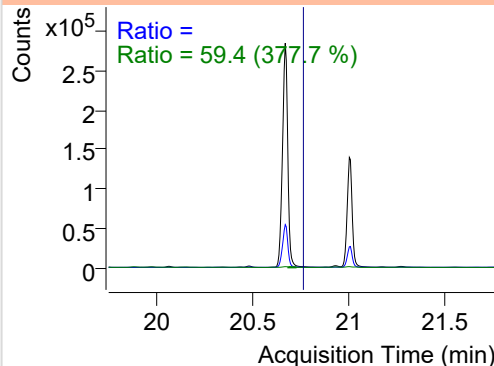
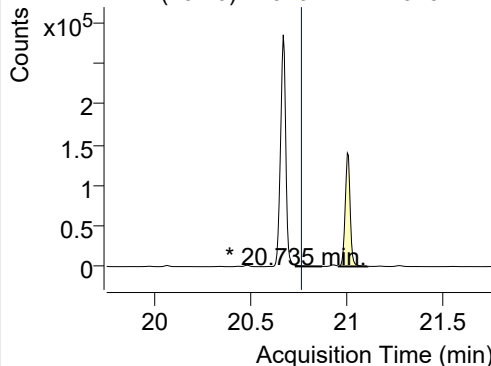


+ SIM (20.616-20.773 min, 30 scans) (\*\*) 2202

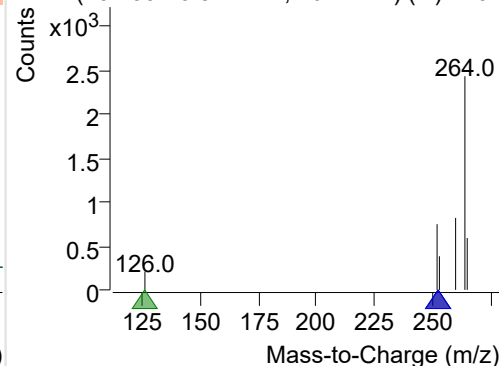
**Benzo(a)pyrene**

+ Selected Ion (252.0) 220204-PAHs-045.D

252.0, 253.0, 126.0

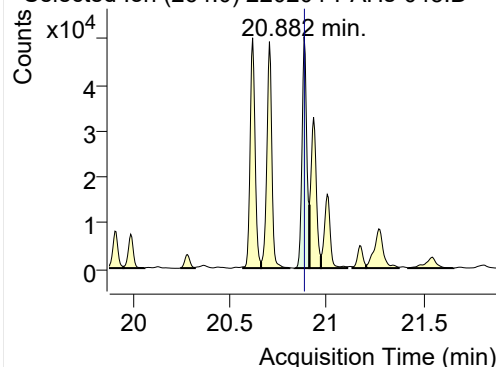


+ SIM (20.735-20.871 min, 26 scans) (\*\*) 2202

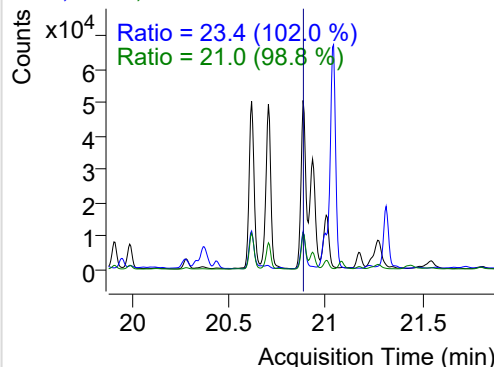


## IS-D12-Perylene

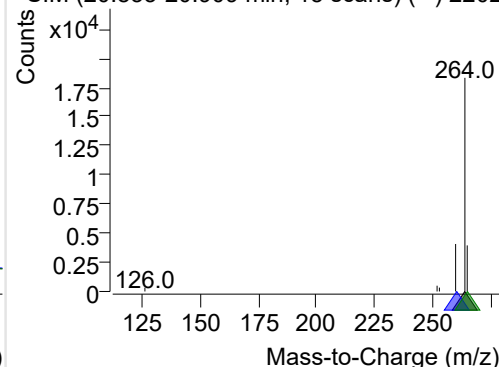
+ Selected Ion (264.0) 220204-PAHs-045.D



264.0, 260.0, 265.0

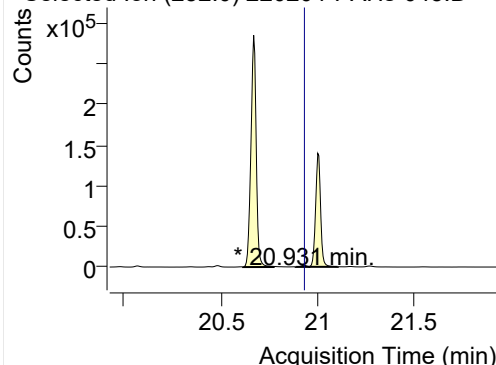


+ SIM (20.833-20.909 min, 15 scans) (\*\*) 2202

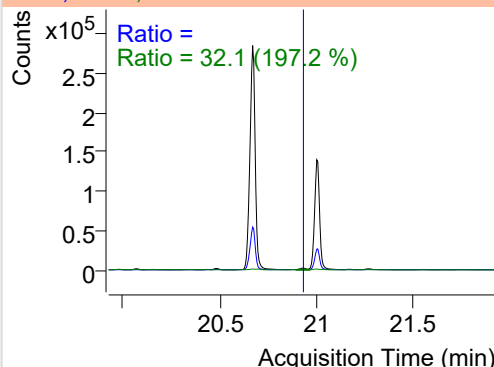


## Perylene

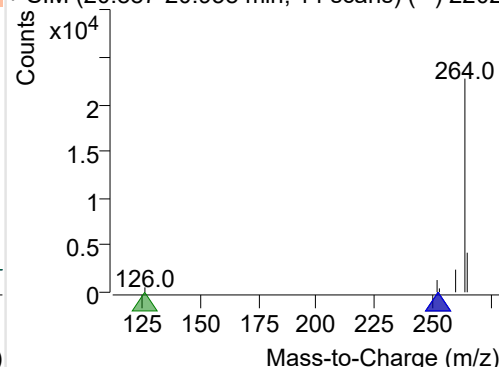
+ Selected Ion (252.0) 220204-PAHs-045.D



252.0, 253.0, 126.0

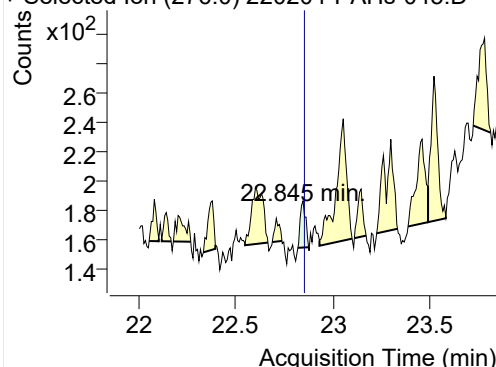


+ SIM (20.887-20.958 min, 14 scans) (\*\*) 2202

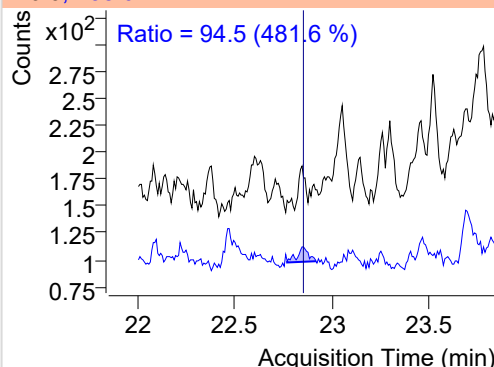


## Indeno(1,2,3-c,d)pyrene

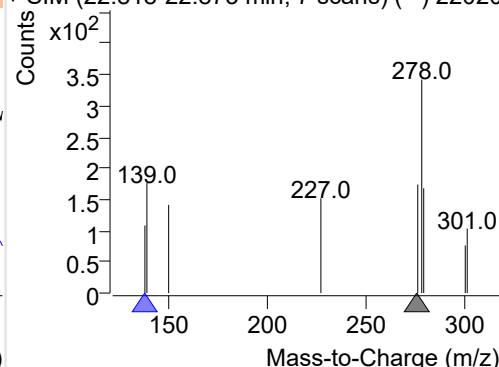
+ Selected Ion (276.0) 220204-PAHs-045.D



276.0, 138.0

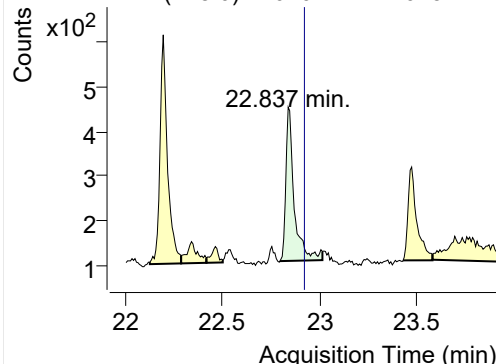


+ SIM (22.818-22.873 min, 7 scans) (\*\*) 22020

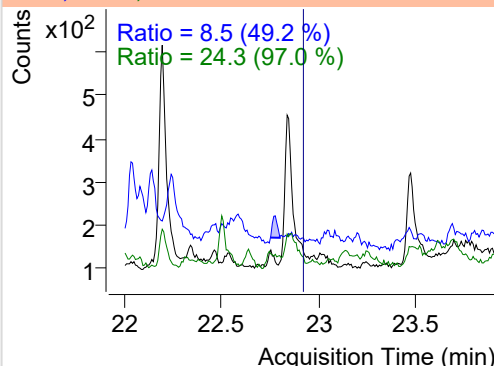


## Dibenz(a,h)anthracene

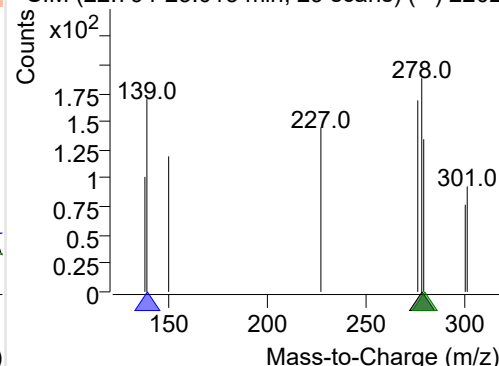
+ Selected Ion (278.0) 220204-PAHs-045.D



278.0, 139.0, 279.0



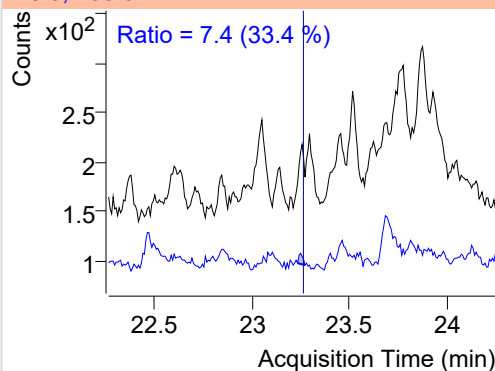
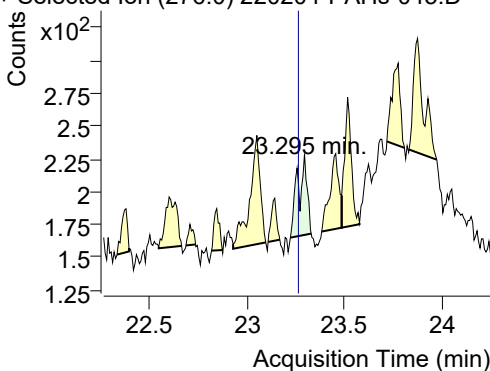
+ SIM (22.794-23.013 min, 29 scans) (\*\*) 2202



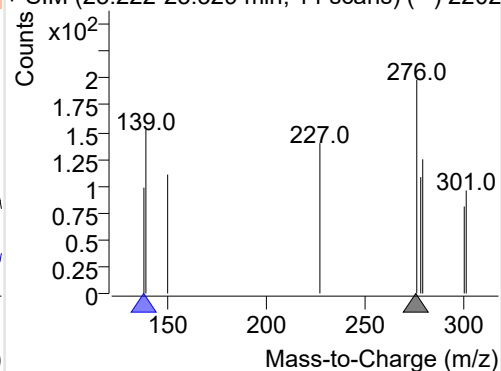
**Benzo(g,h,i)perylene**

+ Selected Ion (276.0) 220204-PAHs-045.D

276.0, 138.0

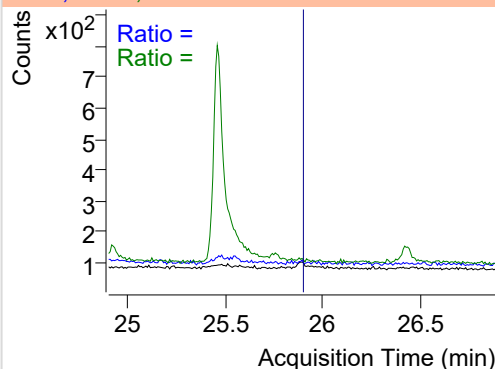
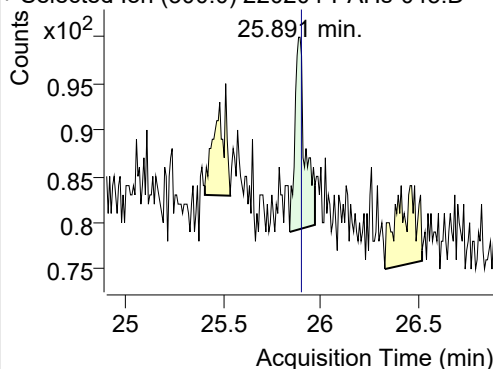


+ SIM (23.222-23.329 min, 14 scans) (\*\*) 2202

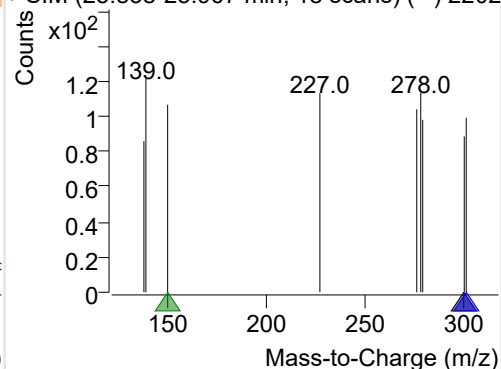
**Coronene**

+ Selected Ion (300.0) 220204-PAHs-045.D

300.0, 301.0, 150.0



+ SIM (25.838-25.967 min, 18 scans) (\*\*) 2202





## Quantitative Analysis Sample Based Report

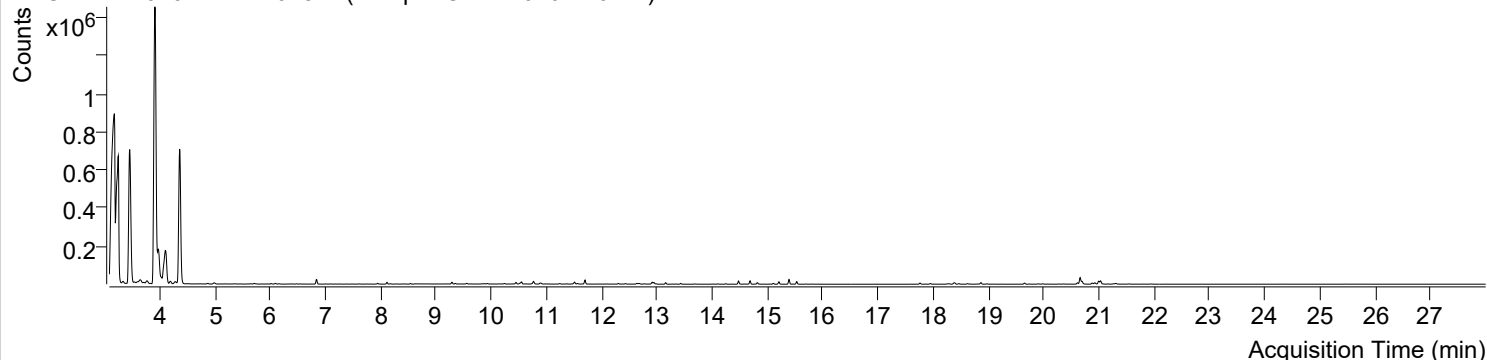


Trusted Answers

Batch Data Path File Name	D:\MassHunter\GCMS\1\data\PAHs\220204-PAHs-Sample\QuantResults\220204-PAHs-Quant.batch.bin		
Analysis Time Stamp	2022-04-13 오후 3:18:46	Analyst Name	DESKTOP-86B7UPG\5975MS
Report Generation Time	2022-04-13 오후 3:19:11	Report Generator Name	DESKTOP-86B7UPG\5975MS
Calibration Last Update	2022-04-13 오후 3:16:00	Batch State	Processed
Analyze Quant Version	10.2	Report Quant Version	10.2
Acq. Date-Time	2022-02-05 오후 2:34:25	Data File	220204-PAHs-048.D
Type	Sample	Name	Sample-Gas-220107-10DIL
Dil.	1	Acq. Method File	PAHs 19mix-Method

## Sample Chromatogram

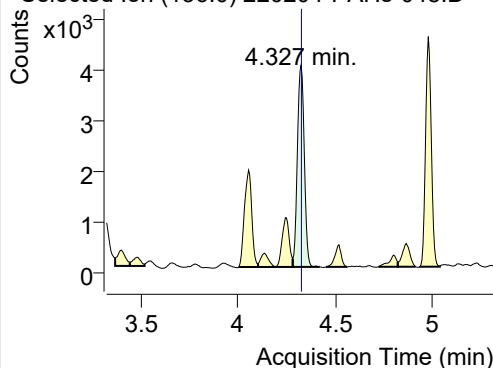
+ TIC SIM 220204-PAHs-048.D (Sample-Gas-220107-10DIL)



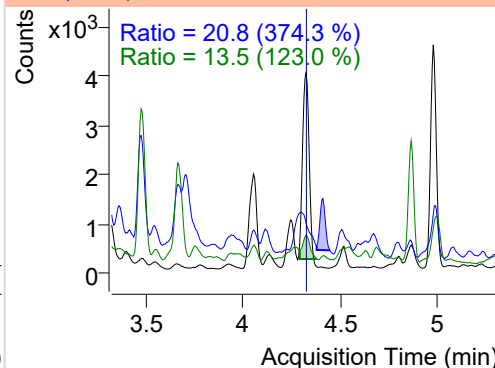
Name	RT	Transition	Resp.	Height	Final Conc. Units	Ratio
IS-D8-Naphthalene	4.327	136.0	9813	3978.29	ND ng/ml	13.5
Naphthalene	4.359	128.0	1392091	569632.85	ND ng/ml	13.2
Acenaphthylene	7.745	152.0	990	684.34	ND ng/ml	17.4
IS-D10-Acenaphthene	8.112	164.0	6440	4336.11	ND ng/ml	92.2
Acenaphthene	8.183	154.0	819	531.11	ND ng/ml	122.0
LSS-D10-Fluorene	9.292	176.0	6795	4228.00	ND µg/mL	88.8
Fluorene	9.345	166.0	2070	1238.90	ND µg/mL	86.3
IS-D10-Phenanthrene	11.508	188.0	11058	7252.58	ND µg/mL	15.4
Phenanthrene	11.560	178.0	3166	2151.14	ND µg/mL	19.2
Anthracene	11.697	178.0	8368	5600.20	ND µg/mL	25.9
Fluoranthene	14.359	202.0	643	401.10	ND µg/mL	
LSS-D10-Pyrene	14.814	212.0	9542	5791.31	ND µg/mL	17.0
Pyrene	14.858	202.0	622	370.10	ND µg/mL	33.5
Benz(a)anthracene	17.682	228.0	39	10.58	ND µg/mL	97.5
IS-D12-Chrysene	17.758	240.0	8481	4636.55	ND µg/mL	18.5
Chrysene	17.823	228.0	103	28.33	ND µg/mL	36.3
Benzo(b)fluoranthene	20.659	252.0	57764	28469.47	ND µg/mL	18.8
Benzo(k)fluoranthene	20.659	252.0	57764	28469.47	ND µg/mL	18.8
SS-D12-Benzo(e)pyrene	20.611	264.0	9132	4663.04	ND µg/mL	23.4
Benzo(e)pyrene	20.659	252.0	57764	28469.47	ND µg/mL	18.8
Benzo(a)pyrene	20.659	252.0	57764	28469.47	ND µg/mL	18.8
IS-D12-Perylene	20.876	264.0	7502	4039.91	ND µg/mL	26.5
Perylene	20.925	252.0	815	427.07	ND µg/mL	
Indeno(1,2,3-c,d)pyrene	22.845	276.0	21	7.28	ND µg/mL	
Dibenz(a,h)anthracene	22.837	278.0	86	24.03	ND µg/mL	29.4
Benzo(g,h,i)perylene	23.249	276.0	28	11.89	ND µg/mL	
Coronene	25.899	300.0	32	7.86	ND µg/mL	

## IS-D8-Naphthalene

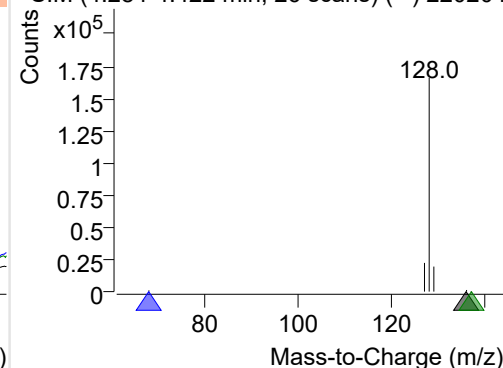
+ Selected Ion (136.0) 220204-PAHs-048.D



136.0, 68.0, 137.0

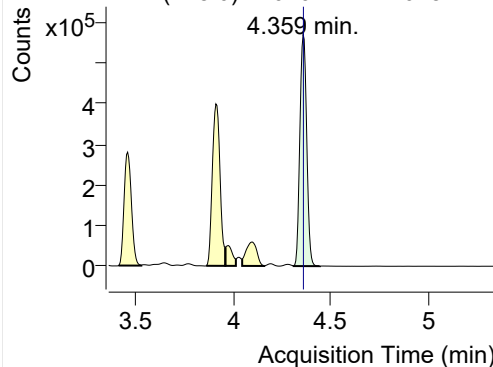


+ SIM (4.284-4.422 min, 26 scans) (\*\*) 220204

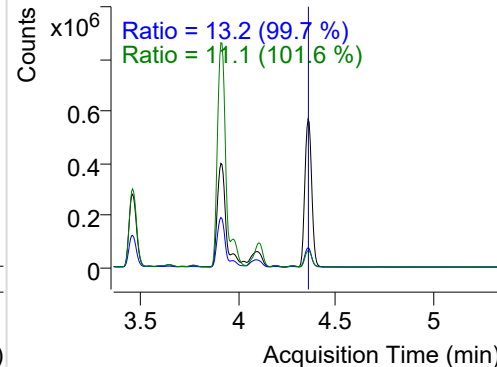


**Naphthalene**

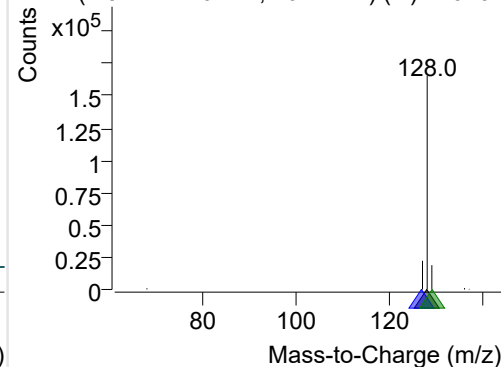
+ Selected Ion (128.0) 220204-PAHs-048.D



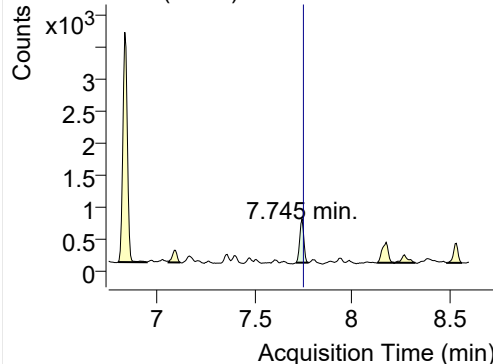
128.0, 127.0, 129.0



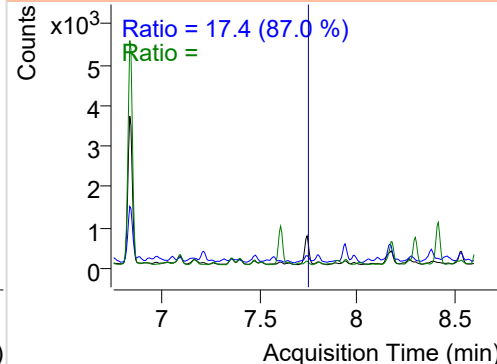
+ SIM (4.311-4.446 min, 26 scans) (\*\*) 220204

**Acenaphthylene**

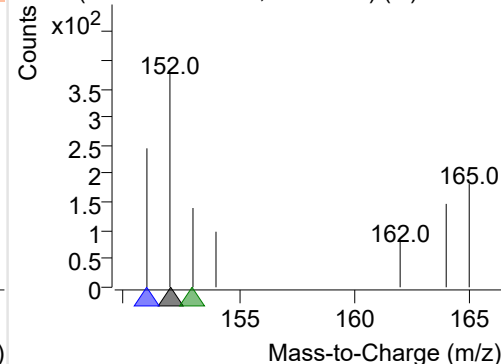
+ Selected Ion (152.0) 220204-PAHs-048.D



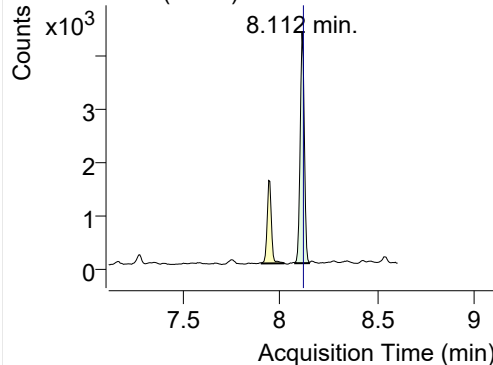
152.0, 151.0, 153.0



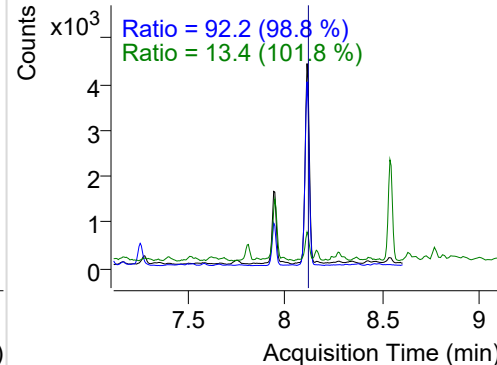
+ SIM (7.714-7.779 min, 11 scans) (\*\*) 220204

**IS-D10-Acenaphthene**

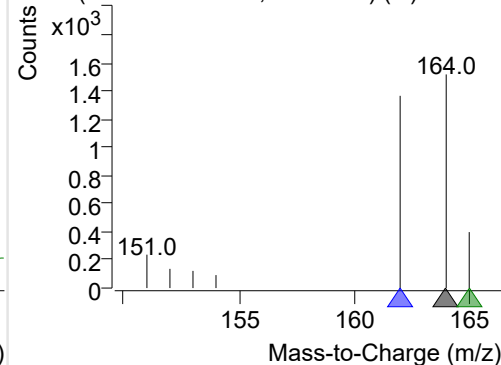
+ Selected Ion (164.0) 220204-PAHs-048.D



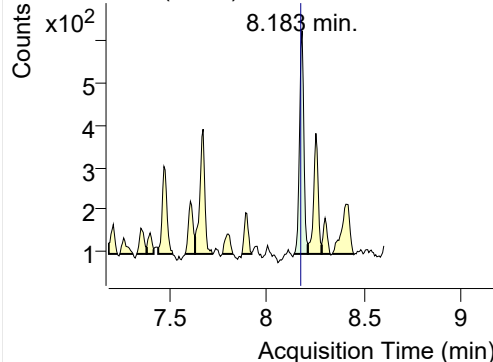
164.0, 162.0, 165.0



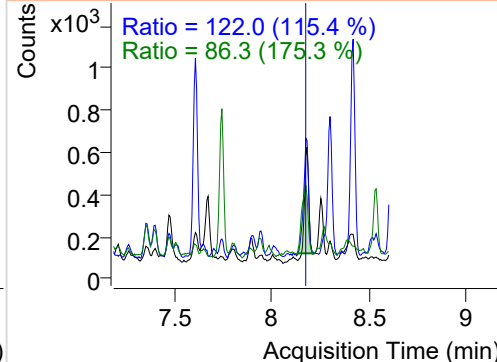
+ SIM (8.077-8.148 min, 13 scans) (\*\*) 220204

**Acenaphthene**

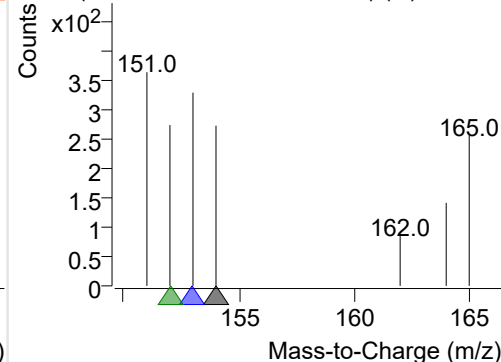
+ Selected Ion (154.0) 220204-PAHs-048.D



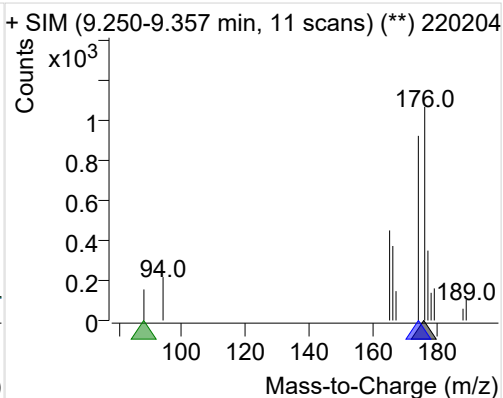
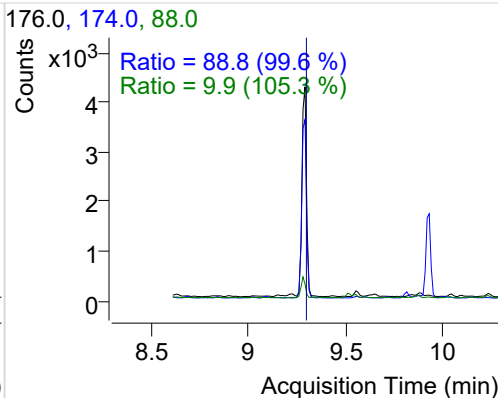
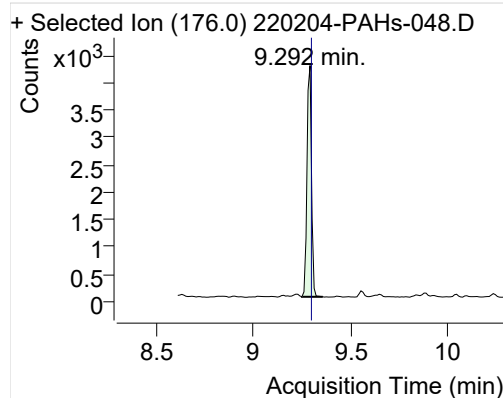
154.0, 153.0, 152.0



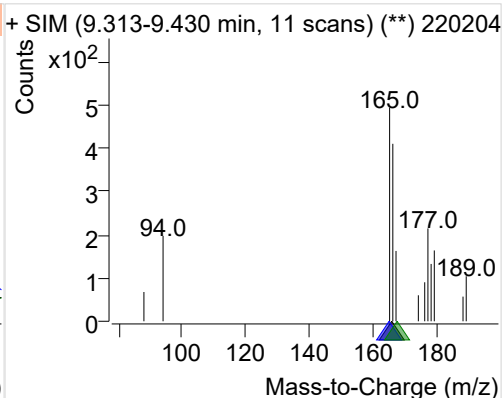
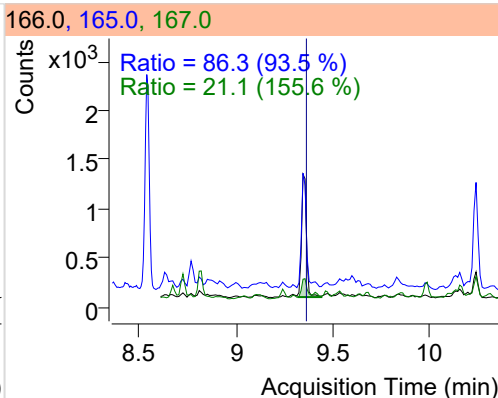
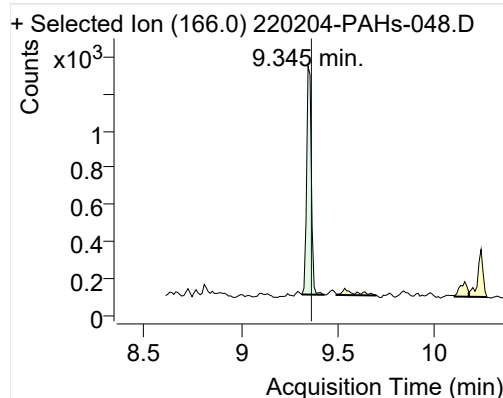
+ SIM (8.142-8.213 min, 13 scans) (\*\*) 220204



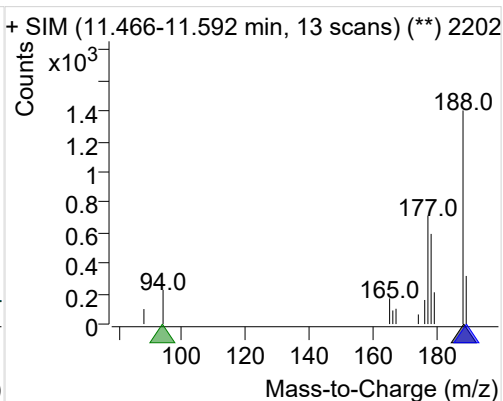
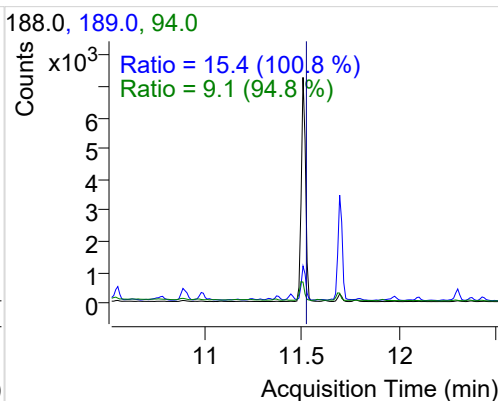
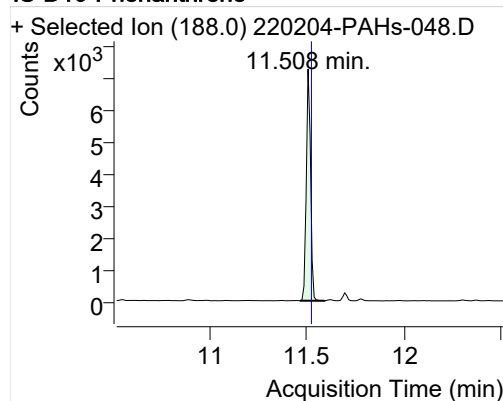
## LSS-D10-Fluorene



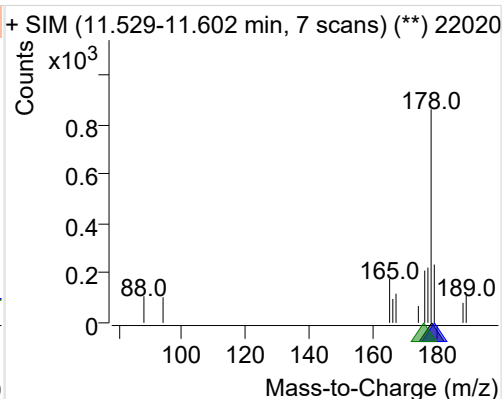
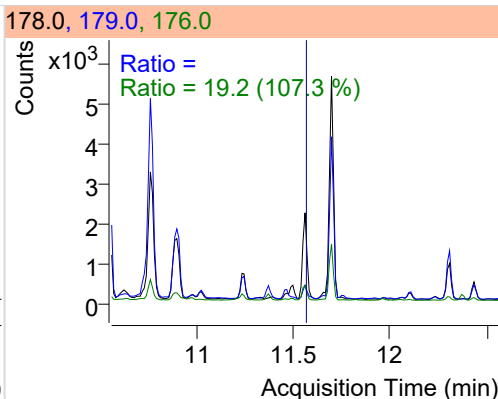
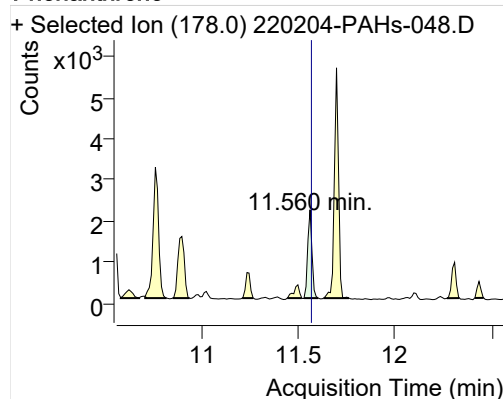
## Fluorene



## IS-D10-Phenanthrene

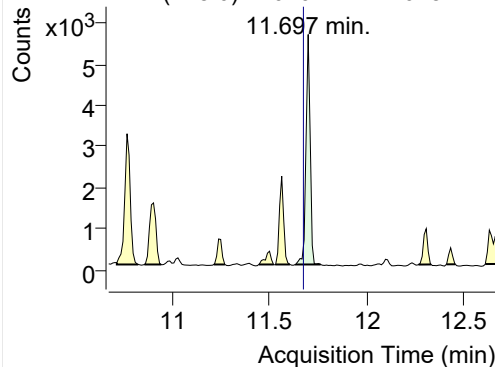


## Phenanthrene

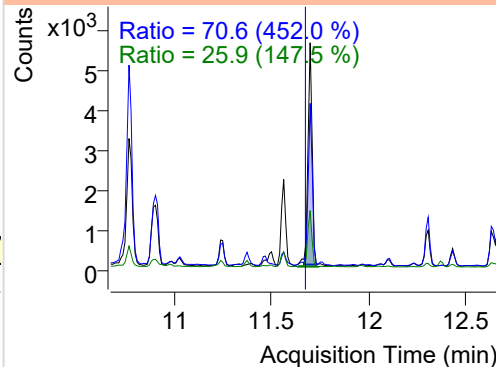


**Anthracene**

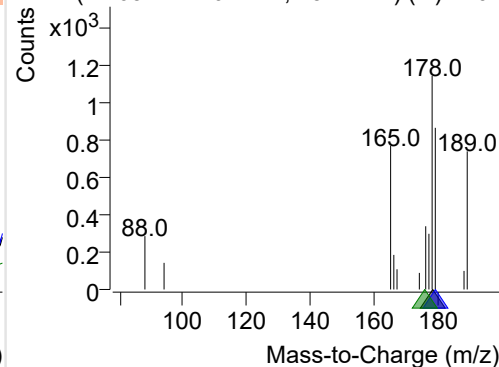
+ Selected Ion (178.0) 220204-PAHs-048.D



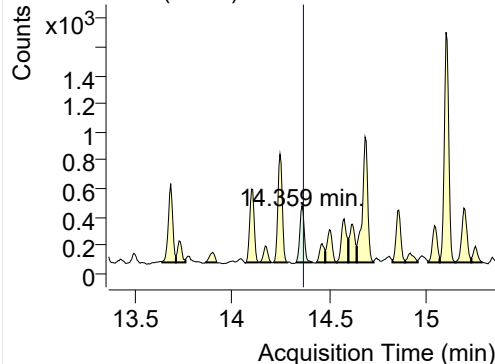
178.0, 179.0, 176.0



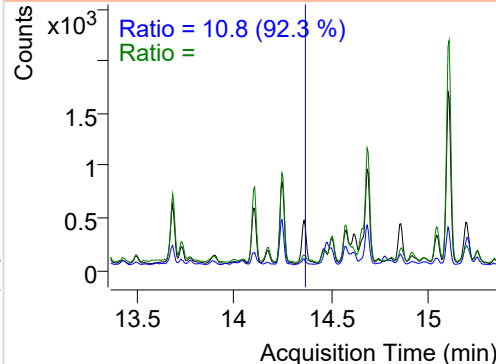
+ SIM (11.634-11.761 min, 13 scans) (\*\*) 2202

**Fluoranthene**

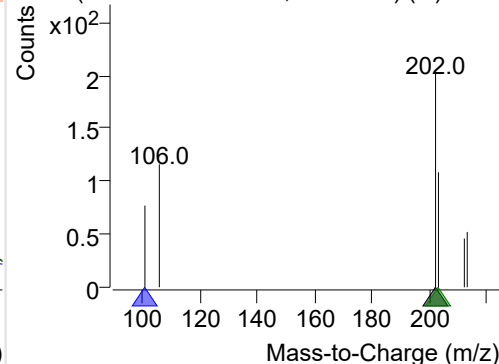
+ Selected Ion (202.0) 220204-PAHs-048.D



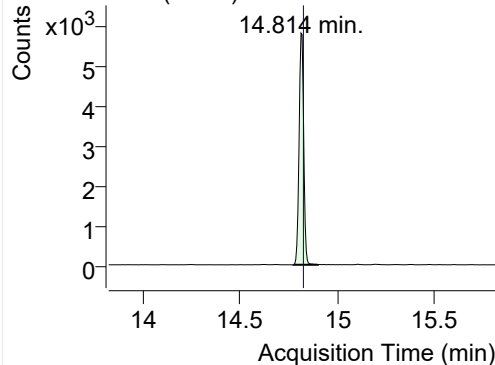
202.0, 101.0, 203.0



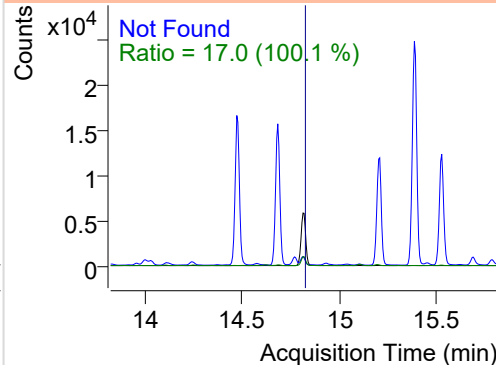
+ SIM (14.328-14.413 min, 16 scans) (\*\*) 2202

**LSS-D10-Pyrene**

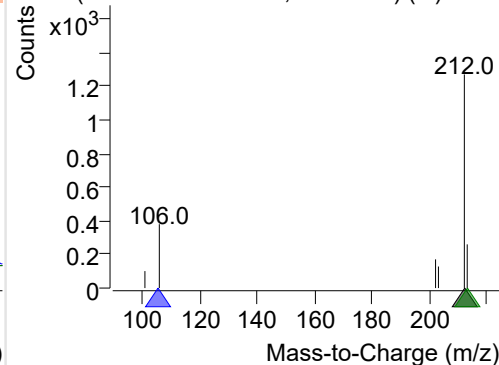
+ Selected Ion (212.0) 220204-PAHs-048.D



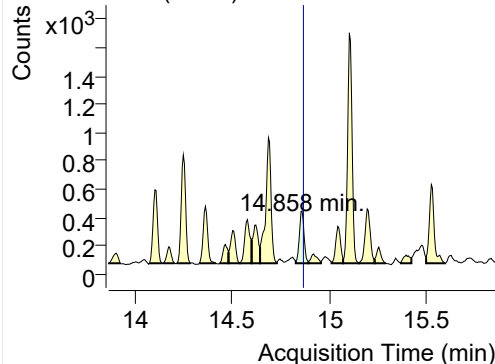
212.0, 106.0, 213.0



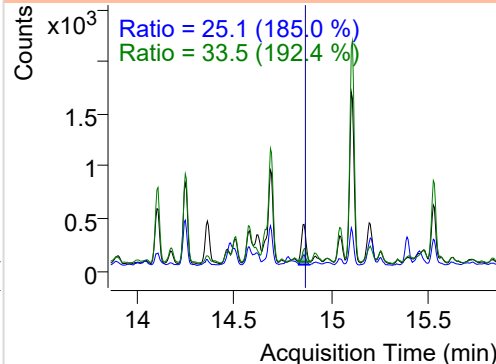
+ SIM (14.776-14.901 min, 24 scans) (\*\*) 2202

**Pyrene**

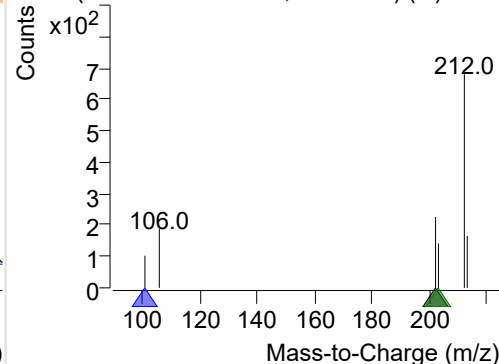
+ Selected Ion (202.0) 220204-PAHs-048.D



202.0, 101.0, 203.0



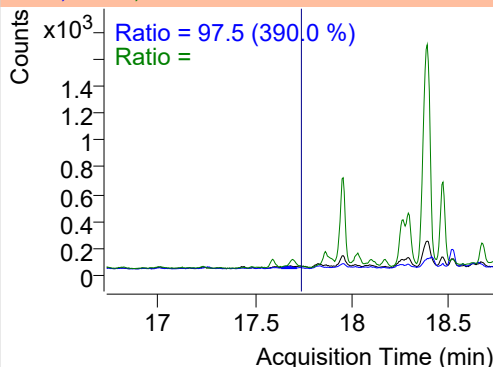
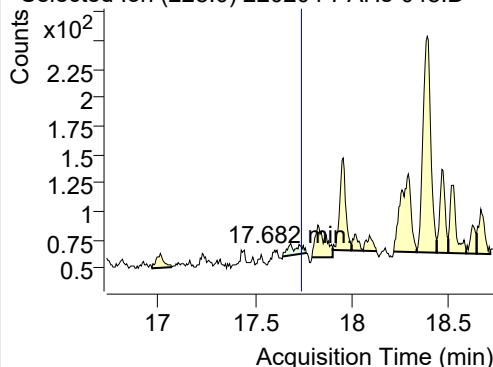
+ SIM (14.825-14.890 min, 13 scans) (\*\*) 2202



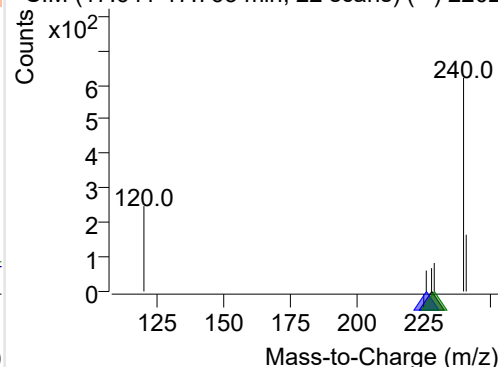
**Benz(a)anthracene**

+ Selected Ion (228.0) 220204-PAHs-048.D

228.0, 226.0, 229.0

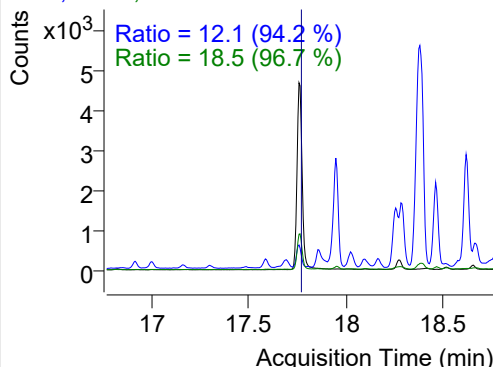
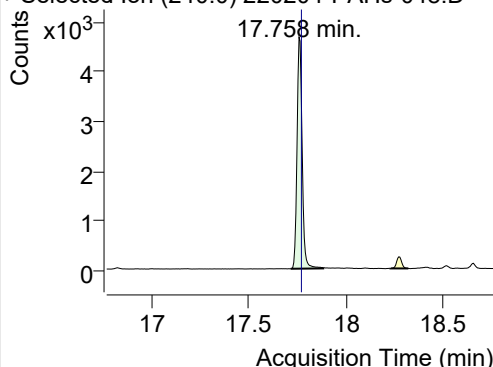


+ SIM (17.641-17.763 min, 22 scans) (\*\*) 2202

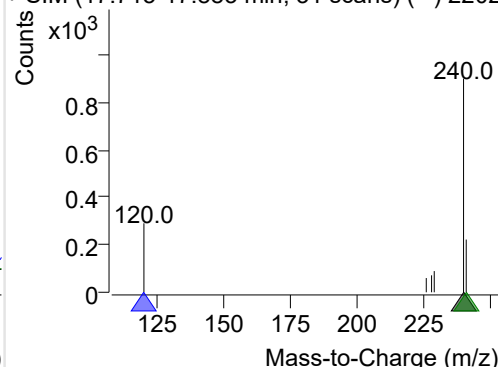
**IS-D12-Chrysene**

+ Selected Ion (240.0) 220204-PAHs-048.D

240.0, 120.0, 241.0

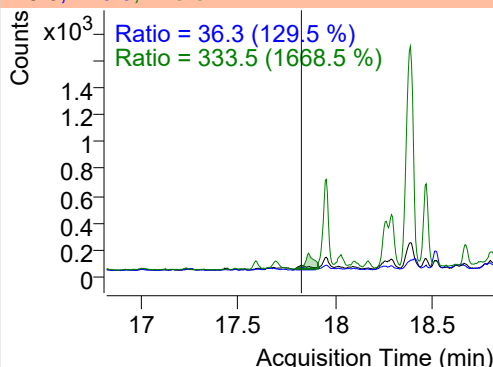
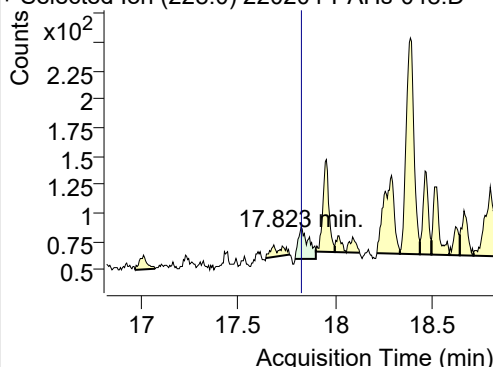


+ SIM (17.715-17.883 min, 31 scans) (\*\*) 2202

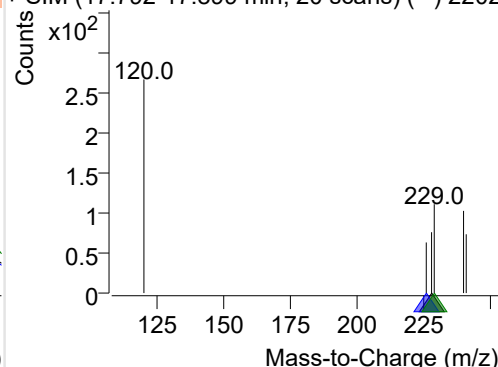
**Chrysene**

+ Selected Ion (228.0) 220204-PAHs-048.D

228.0, 226.0, 229.0

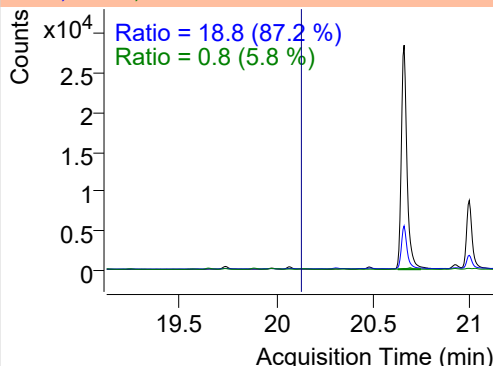
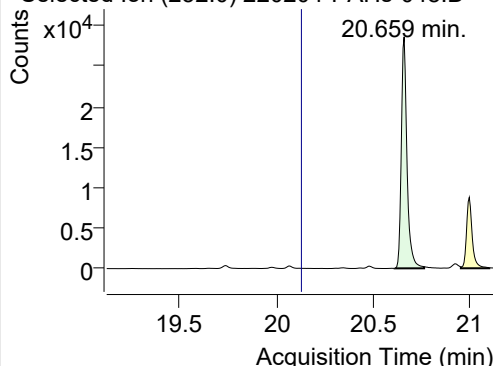


+ SIM (17.792-17.899 min, 20 scans) (\*\*) 2202

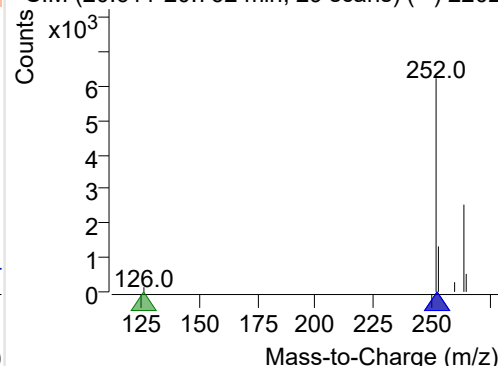
**Benzo(b)fluoranthene**

+ Selected Ion (252.0) 220204-PAHs-048.D

252.0, 253.0, 126.0



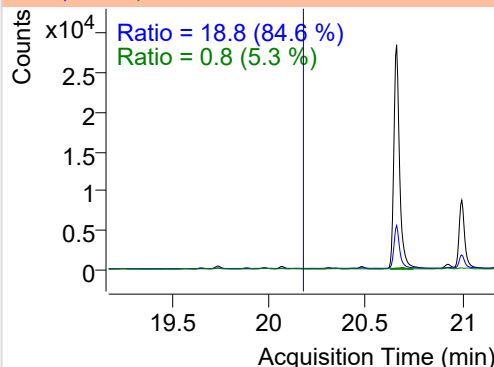
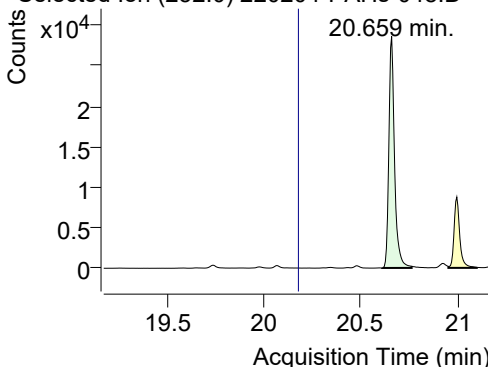
+ SIM (20.611-20.762 min, 29 scans) (\*\*) 2202



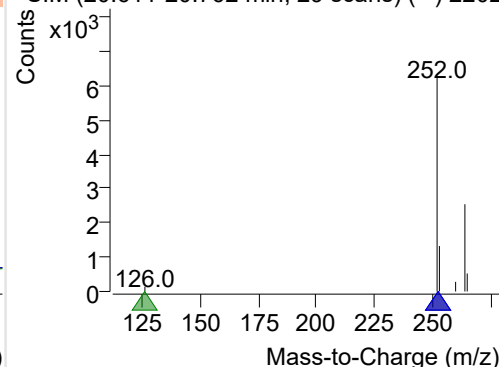
**Benzo(k)fluoranthene**

+ Selected Ion (252.0) 220204-PAHs-048.D

252.0, 253.0, 126.0

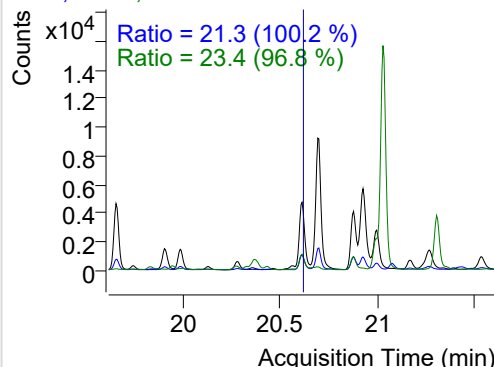
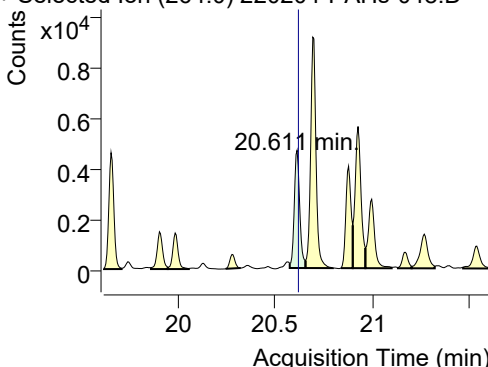


+ SIM (20.611-20.762 min, 29 scans) (\*\*) 2202

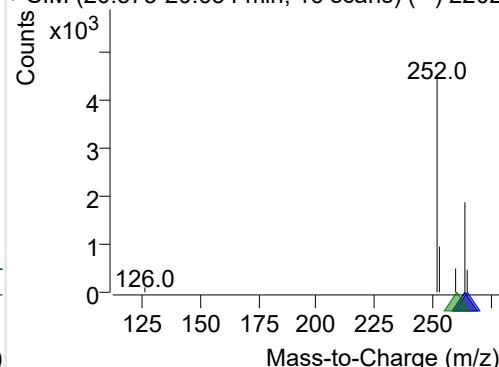
**SS-D12-Benzo(e)pyrene**

+ Selected Ion (264.0) 220204-PAHs-048.D

264.0, 265.0, 260.0

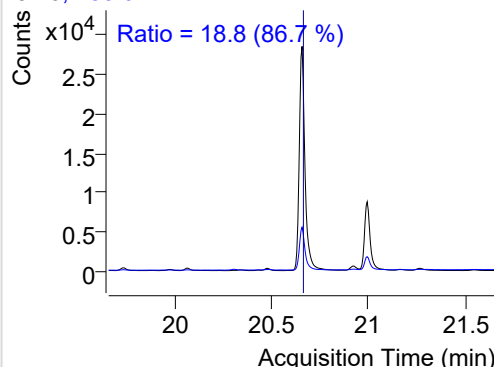
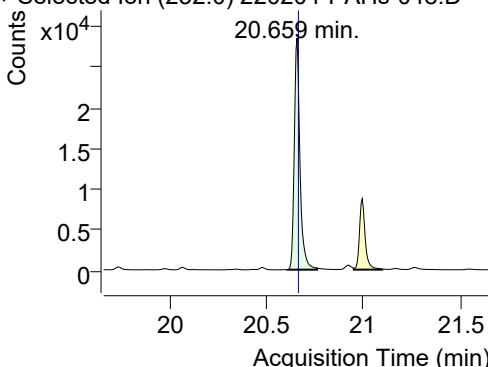


+ SIM (20.573-20.654 min, 16 scans) (\*\*) 2202

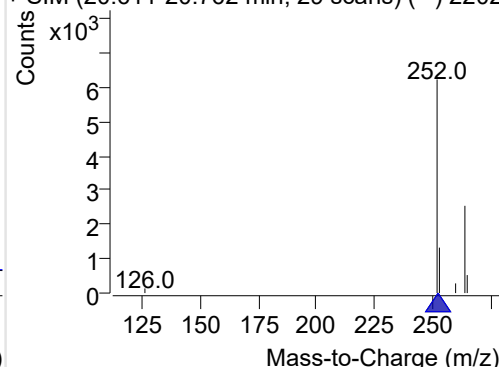
**Benzo(e)pyrene**

+ Selected Ion (252.0) 220204-PAHs-048.D

252.0, 253.0

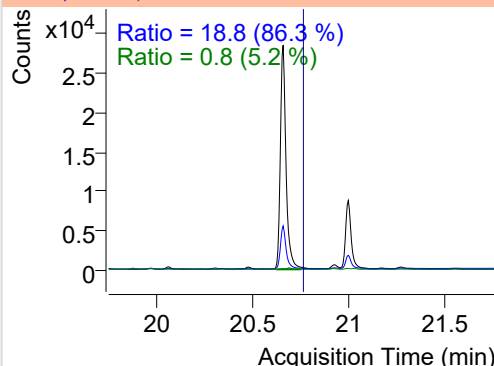
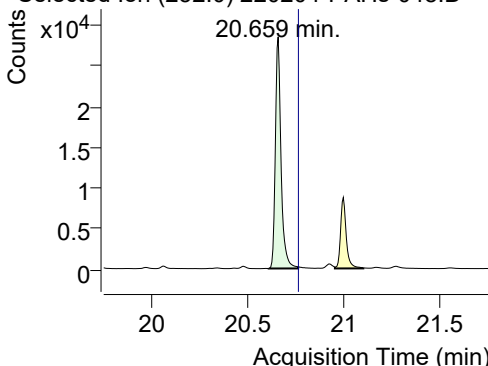


+ SIM (20.611-20.762 min, 29 scans) (\*\*) 2202

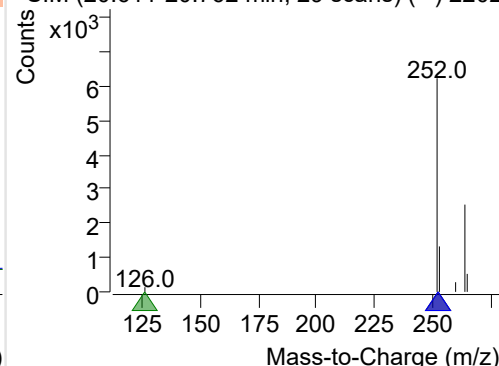
**Benzo(a)pyrene**

+ Selected Ion (252.0) 220204-PAHs-048.D

252.0, 253.0, 126.0

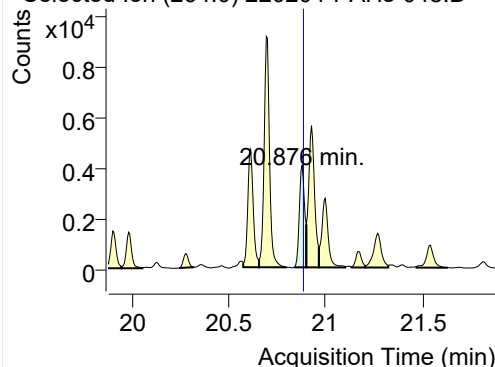


+ SIM (20.611-20.762 min, 29 scans) (\*\*) 2202

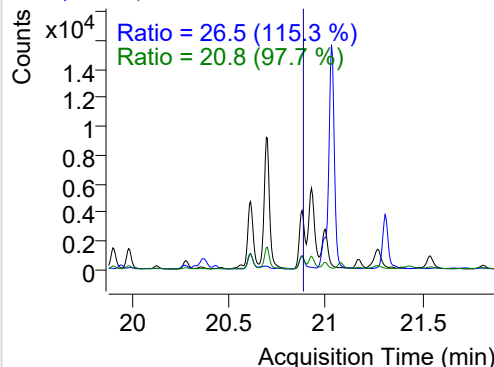


## IS-D12-Perylene

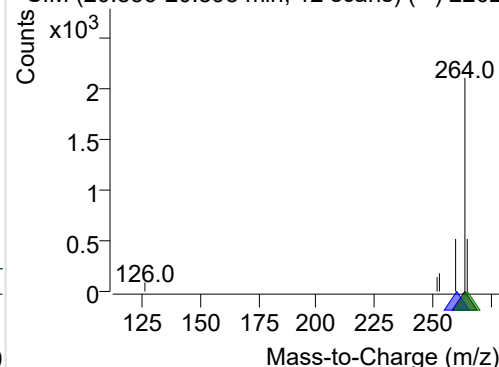
+ Selected Ion (264.0) 220204-PAHs-048.D



264.0, 260.0, 265.0

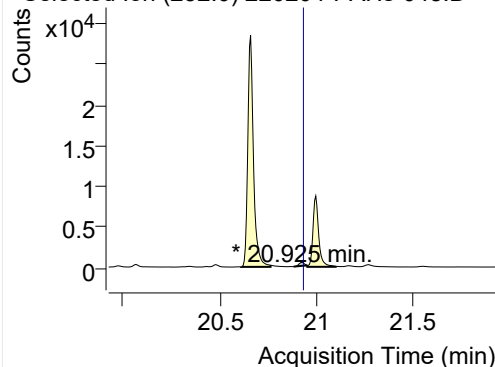


+ SIM (20.836-20.898 min, 12 scans) (\*\*) 2202

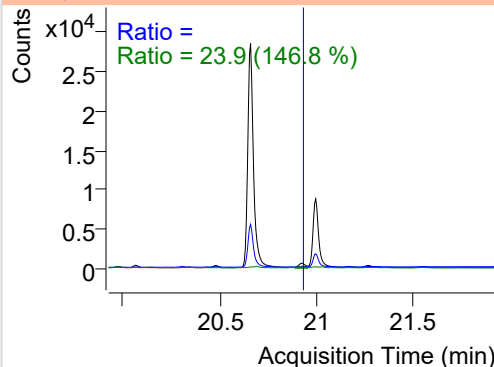


## Perylene

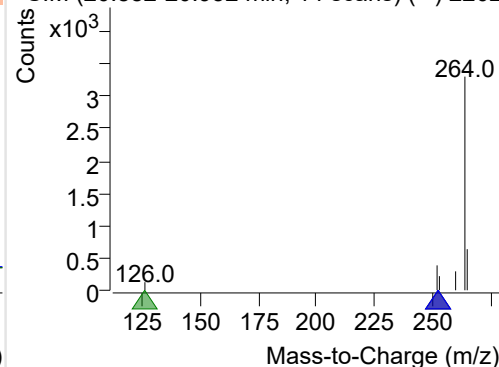
+ Selected Ion (252.0) 220204-PAHs-048.D



252.0, 253.0, 126.0

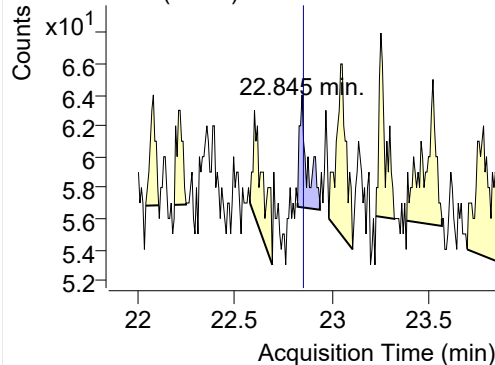


+ SIM (20.882-20.952 min, 14 scans) (\*\*) 2202

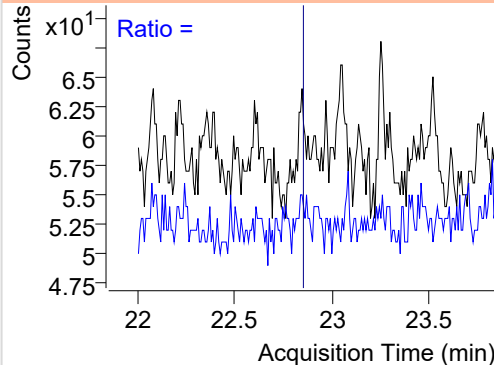


## Indeno(1,2,3-c,d)pyrene

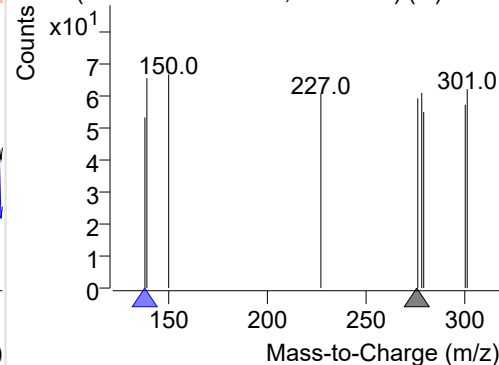
+ Selected Ion (276.0) 220204-PAHs-048.D



276.0, 138.0

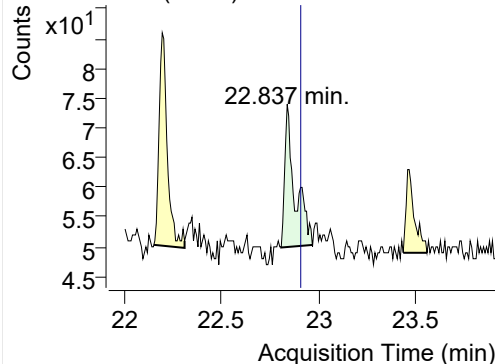


+ SIM (22.822-22.936 min, 16 scans) (\*\*) 2202

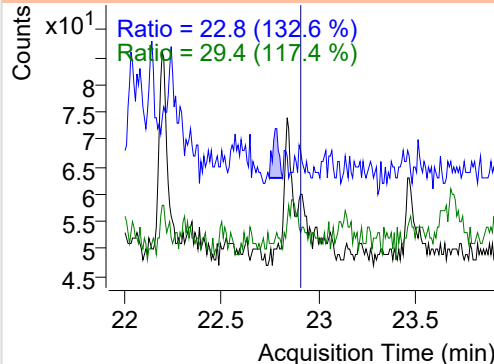


## Dibenz(a,h)anthracene

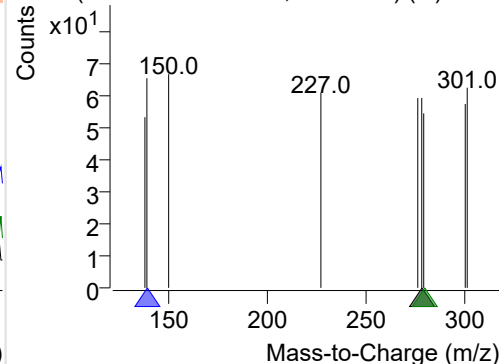
+ Selected Ion (278.0) 220204-PAHs-048.D



278.0, 139.0, 279.0

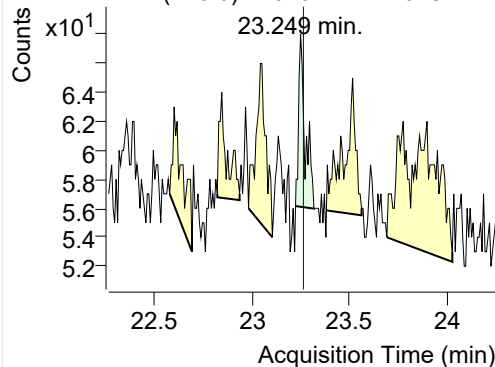


+ SIM (22.806-22.966 min, 21 scans) (\*\*) 2202

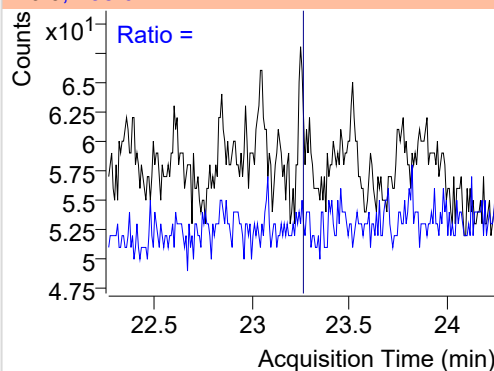


**Benzo(g,h,i)perylene**

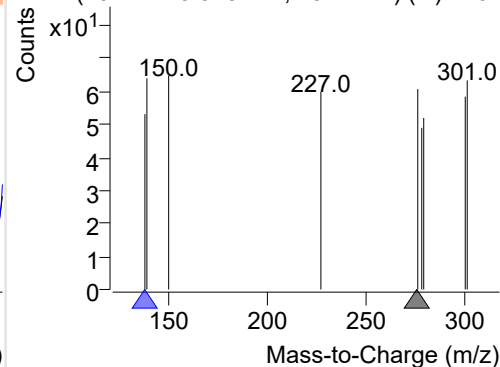
+ Selected Ion (276.0) 220204-PAHs-048.D



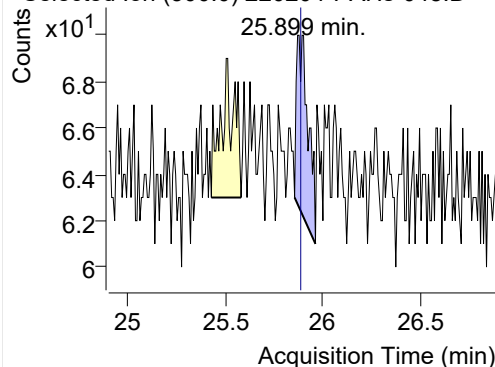
276.0, 138.0



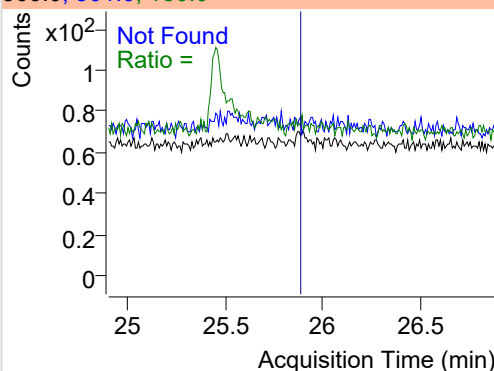
+ SIM (23.224-23.318 min, 13 scans) (\*\*) 2202

**Coronene**

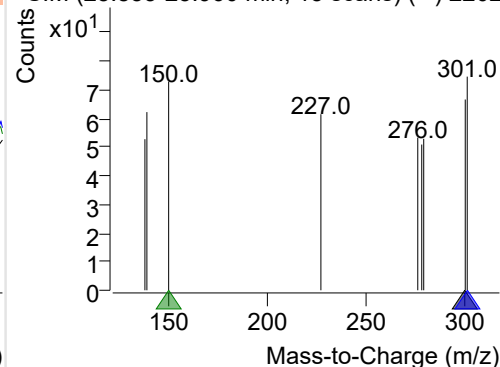
+ Selected Ion (300.0) 220204-PAHs-048.D



300.0, 301.0, 150.0



+ SIM (25.853-25.960 min, 15 scans) (\*\*) 2202





## Quantitative Analysis Sample Based Report

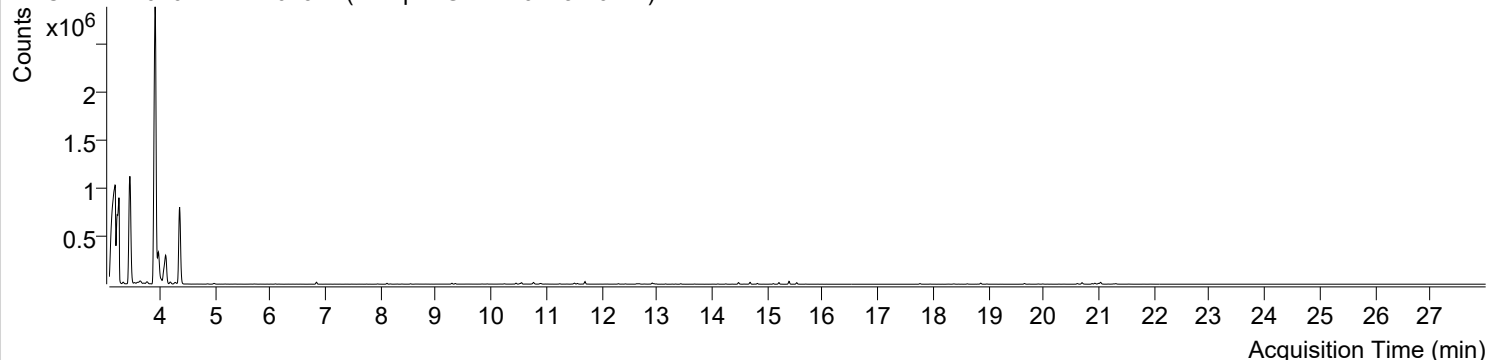


Trusted Answers

Batch Data Path File Name	D:\MassHunter\GCMS\1\data\PAHs\220204-PAHs-Sample\QuantResults\220204-PAHs-Quant.batch.bin		
Analysis Time Stamp	2022-04-13 오후 3:18:46	Analyst Name	DESKTOP-86B7UPG\5975MS
Report Generation Time	2022-04-13 오후 3:19:11	Report Generator Name	DESKTOP-86B7UPG\5975MS
Calibration Last Update	2022-04-13 오후 3:16:00	Batch State	Processed
Analyze Quant Version	10.2	Report Quant Version	10.2
Acq. Date-Time	2022-02-05 오후 3:05:44	Data File	220204-PAHs-049.D
Type	Sample	Name	Sample-Gas-220113-10DIL
Dil.	1	Acq. Method File	PAHs 19mix-Method

## Sample Chromatogram

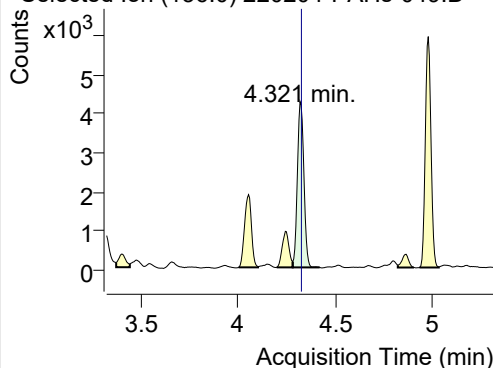
+ TIC SIM 220204-PAHs-049.D (Sample-Gas-220113-10DIL)



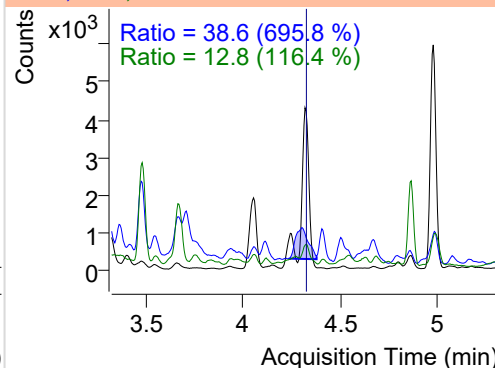
Name	RT	Transition	Resp.	Height	Final Conc. Units	Ratio
IS-D8-Naphthalene	4.321	136.0	9828	4221.79	ND ng/ml	12.8
Naphthalene	4.359	128.0	1473053	640940.10	ND ng/ml	13.2
Acenaphthylene	7.745	152.0	1039	687.49	ND ng/ml	18.4
IS-D10-Acenaphthene	8.112	164.0	6348	4336.66	ND ng/ml	92.7
Acenaphthene	8.183	154.0	1180	728.02	ND ng/ml	115.4
LSS-D10-Fluorene	9.292	176.0	6574	3999.88	ND µg/mL	88.6
Fluorene	9.344	166.0	4796	2925.67	ND µg/mL	92.1
IS-D10-Phenanthrene	11.508	188.0	11055	7152.17	ND µg/mL	14.8
Phenanthrene	11.560	178.0	7449	4804.64	ND µg/mL	17.4
Anthracene	11.697	178.0	11219	7164.64	ND µg/mL	25.5
Fluoranthene	14.359	202.0	1318	748.59	ND µg/mL	
LSS-D10-Pyrene	14.814	212.0	9235	5824.37	ND µg/mL	17.2
Pyrene	14.858	202.0	810	462.59	ND µg/mL	34.7
Benz(a)anthracene	17.742	228.0	50	19.84	ND µg/mL	
IS-D12-Chrysene	17.758	240.0	8287	4593.79	ND µg/mL	18.6
Chrysene	17.817	228.0	46	28.02	ND µg/mL	33.1
Benzo(b)fluoranthene	20.068	252.0	800	372.31	ND µg/mL	12.5
Benzo(k)fluoranthene	20.068	252.0	800	372.31	ND µg/mL	12.5
SS-D12-Benzo(e)pyrene	20.610	264.0	8958	4480.61	ND µg/mL	
Benzo(e)pyrene	20.692	252.0	2413	955.16	ND µg/mL	17.5
Benzo(a)pyrene	20.692	252.0	2413	955.16	ND µg/mL	17.5
IS-D12-Perylene	20.876	264.0	7508	4154.97	ND µg/mL	27.0
Perylene	20.925	252.0	1605	674.48	ND µg/mL	16.2
Indeno(1,2,3-c,d)pyrene	23.058	276.0	25	8.88	ND µg/mL	
Dibenz(a,h)anthracene	22.906	278.0	50	9.35	ND µg/mL	
Benzo(g,h,i)perylene	23.257	276.0	18	7.29	ND µg/mL	
Coronene	25.868	300.0	32	6.80	ND µg/mL	

## IS-D8-Naphthalene

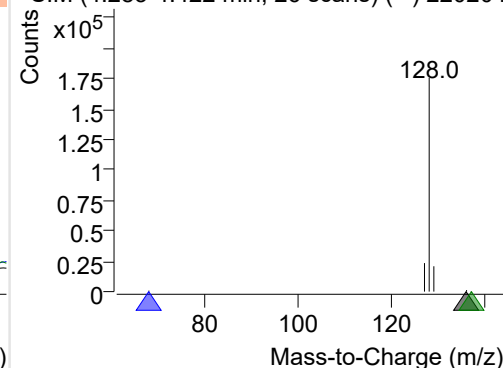
+ Selected Ion (136.0) 220204-PAHs-049.D



136.0, 68.0, 137.0

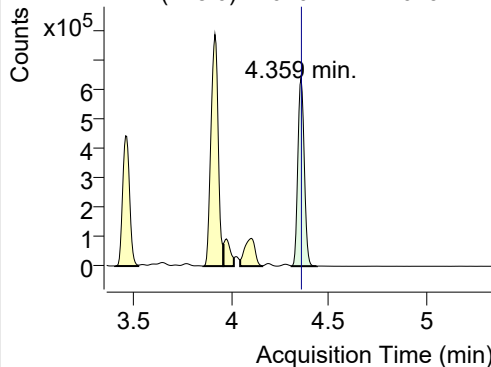


+ SIM (4.283-4.422 min, 26 scans) (\*\*) 220204

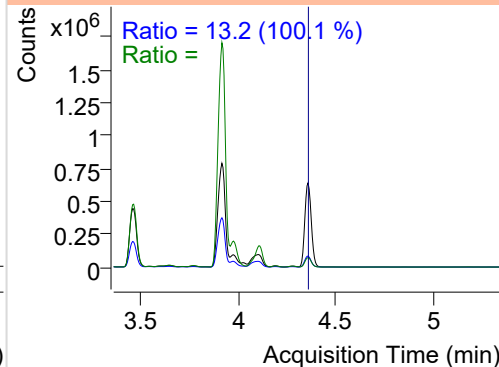


**Naphthalene**

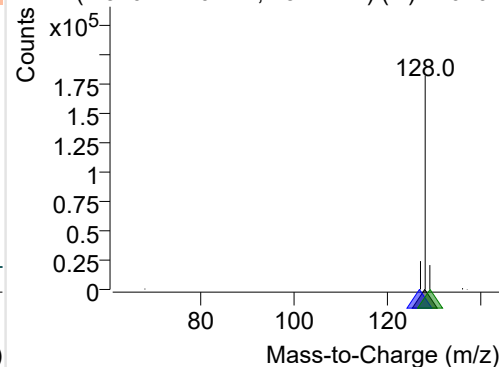
+ Selected Ion (128.0) 220204-PAHs-049.D



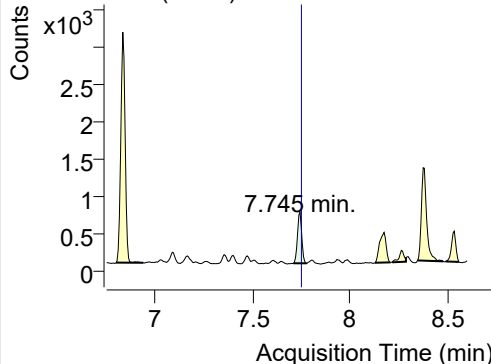
128.0, 127.0, 129.0



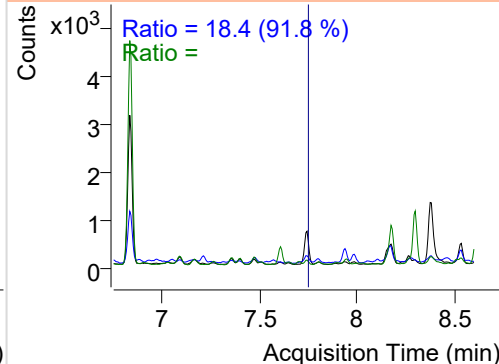
+ SIM (4.310-4.440 min, 25 scans) (\*\*) 220204

**Acenaphthylene**

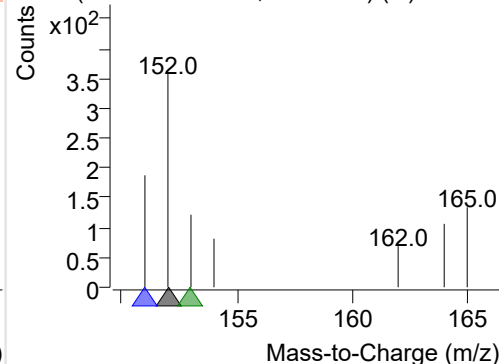
+ Selected Ion (152.0) 220204-PAHs-049.D



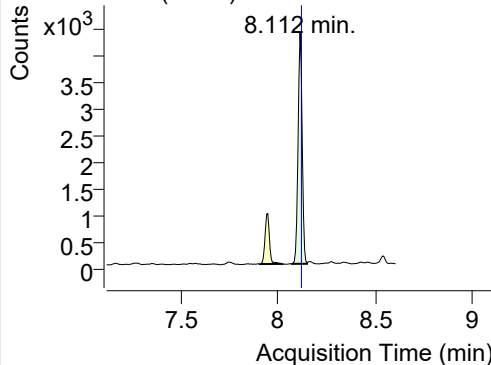
152.0, 151.0, 153.0



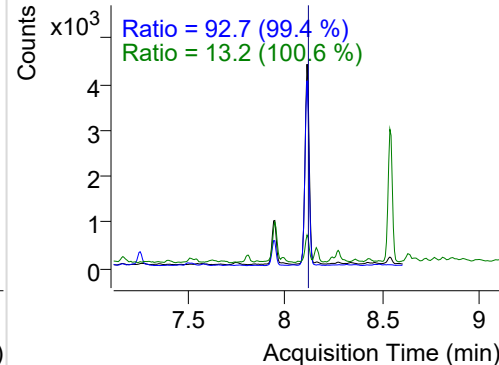
+ SIM (7.711-7.779 min, 11 scans) (\*\*) 220204

**IS-D10-Acenaphthene**

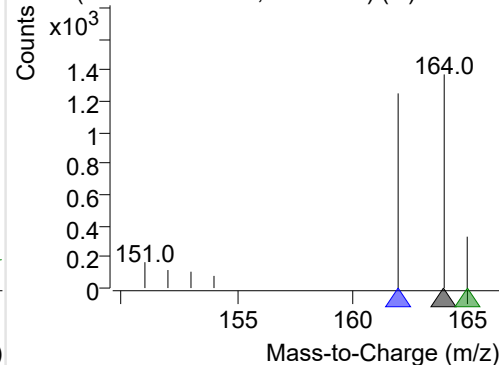
+ Selected Ion (164.0) 220204-PAHs-049.D



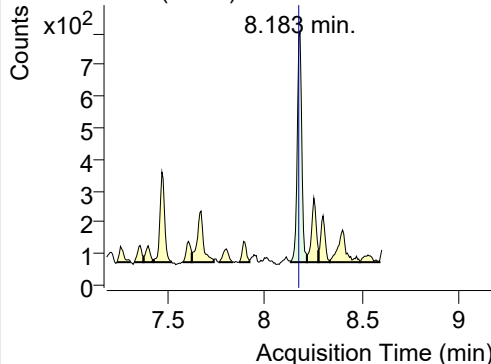
164.0, 162.0, 165.0



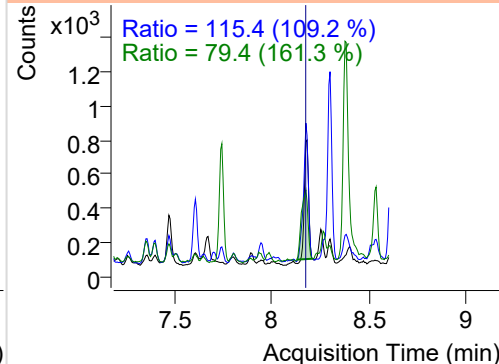
+ SIM (8.071-8.148 min, 14 scans) (\*\*) 220204

**Acenaphthene**

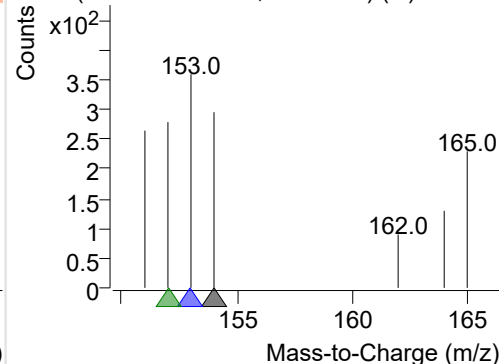
+ Selected Ion (154.0) 220204-PAHs-049.D



154.0, 153.0, 152.0

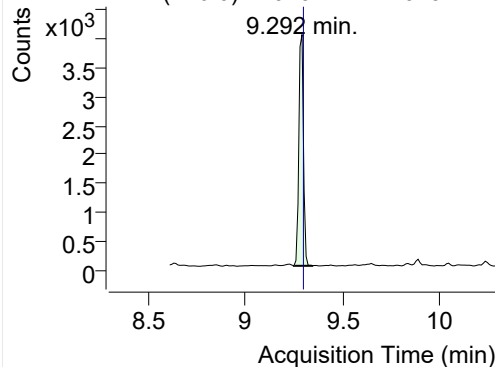


+ SIM (8.136-8.219 min, 15 scans) (\*\*) 220204

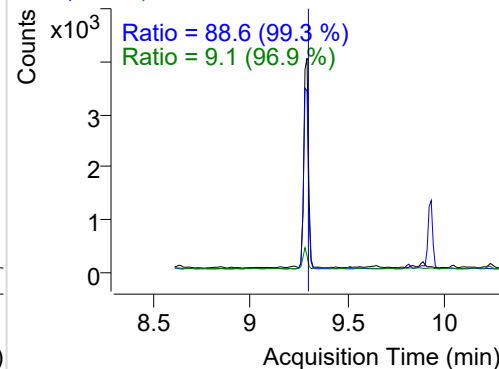


## LSS-D10-Fluorene

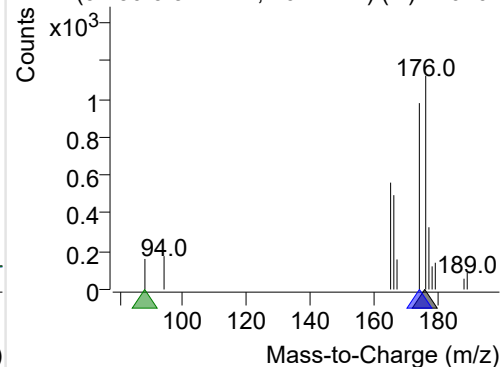
+ Selected Ion (176.0) 220204-PAHs-049.D



176.0, 174.0, 88.0

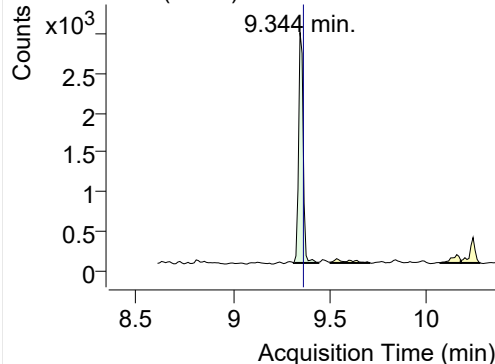


+ SIM (9.250-9.344 min, 10 scans) (\*\*) 220204

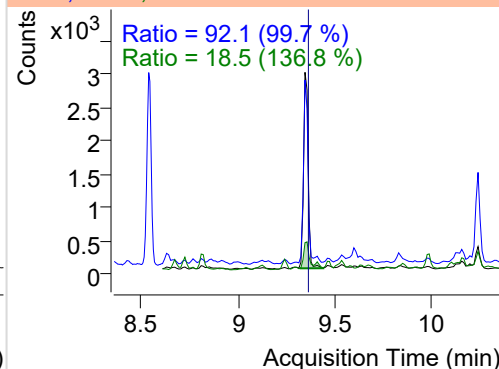


## Fluorene

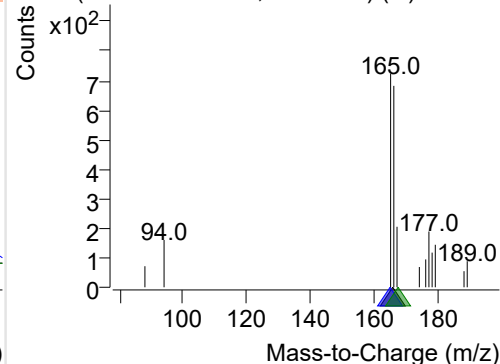
+ Selected Ion (166.0) 220204-PAHs-049.D



166.0, 165.0, 167.0

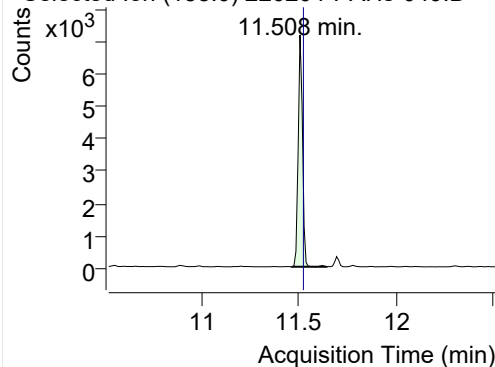


+ SIM (9.313-9.439 min, 13 scans) (\*\*) 220204

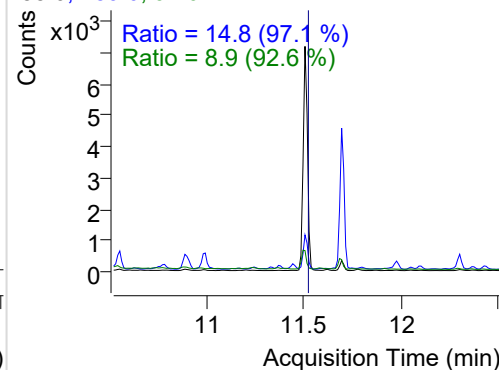


## IS-D10-Phenanthrene

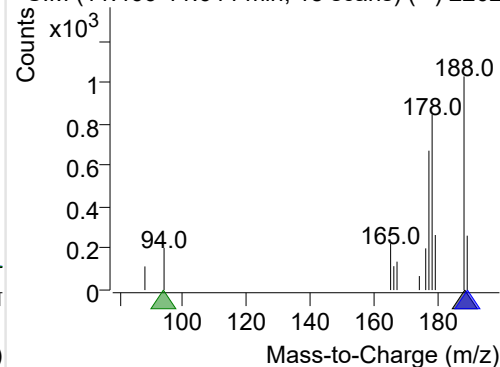
+ Selected Ion (188.0) 220204-PAHs-049.D



188.0, 189.0, 94.0

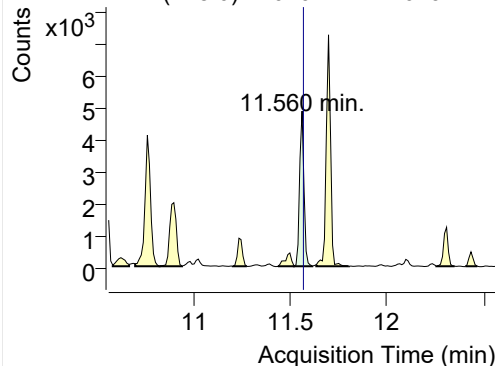


+ SIM (11.466-11.644 min, 18 scans) (\*\*) 2202

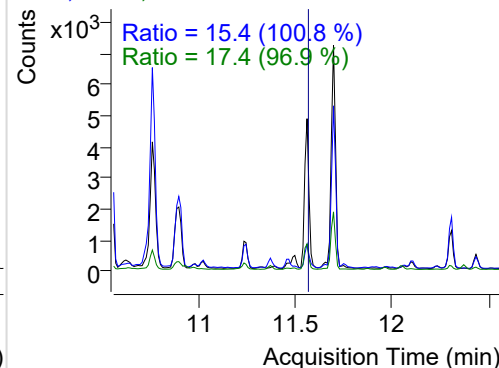


## Phenanthrene

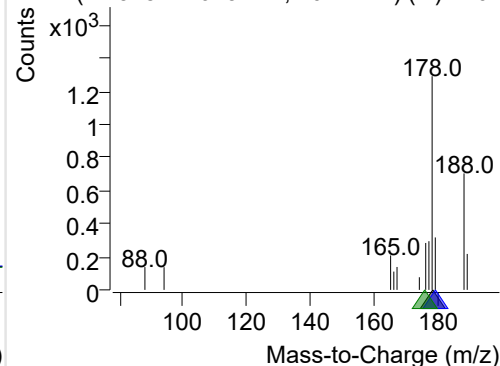
+ Selected Ion (178.0) 220204-PAHs-049.D



178.0, 179.0, 176.0

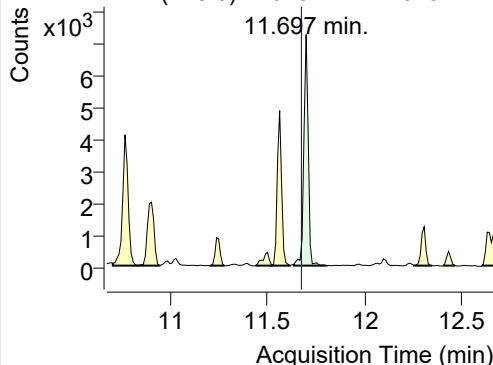


+ SIM (11.518-11.613 min, 10 scans) (\*\*) 2202

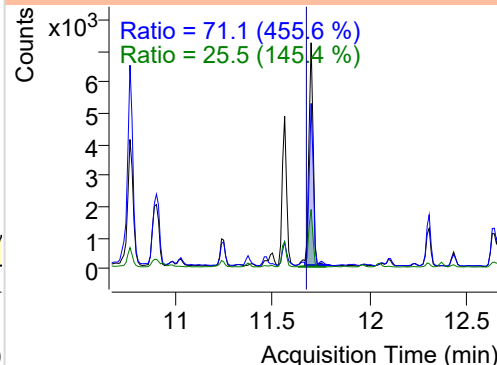


**Anthracene**

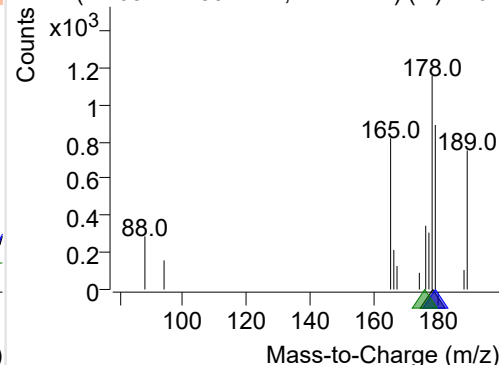
+ Selected Ion (178.0) 220204-PAHs-049.D



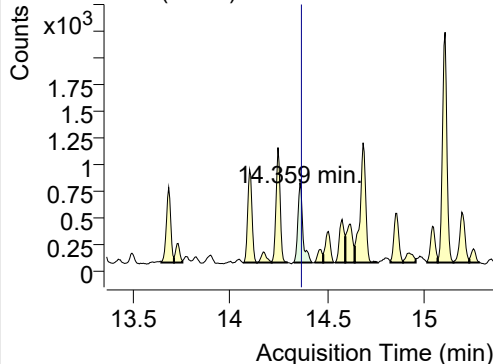
178.0, 179.0, 176.0



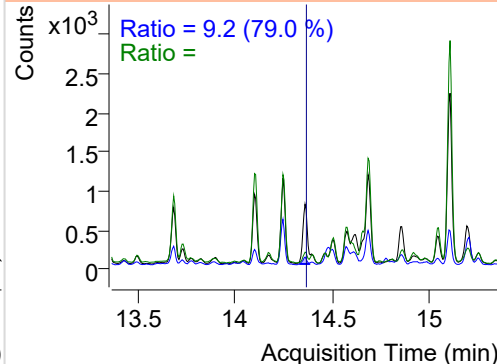
+ SIM (11.634-11.802 min, 17 scans) (\*\*) 2202

**Fluoranthene**

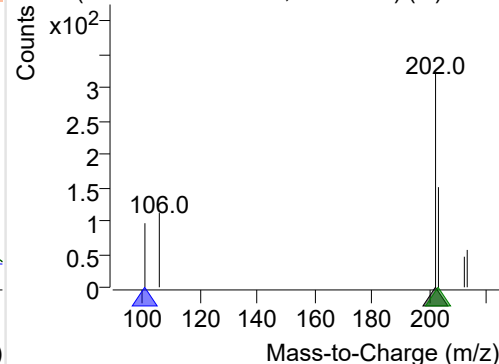
+ Selected Ion (202.0) 220204-PAHs-049.D



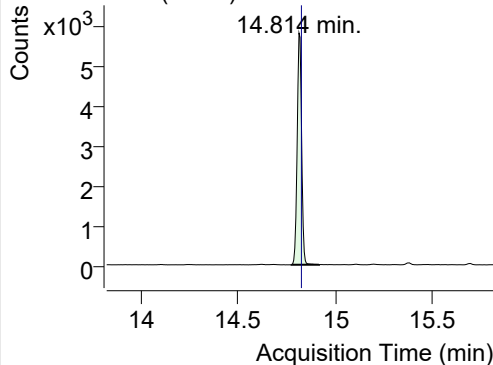
202.0, 101.0, 203.0



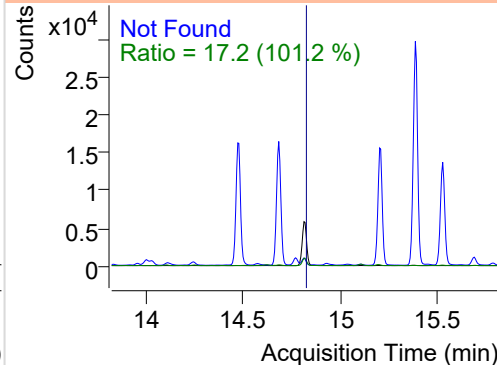
+ SIM (14.327-14.421 min, 17 scans) (\*\*) 2202

**LSS-D10-Pyrene**

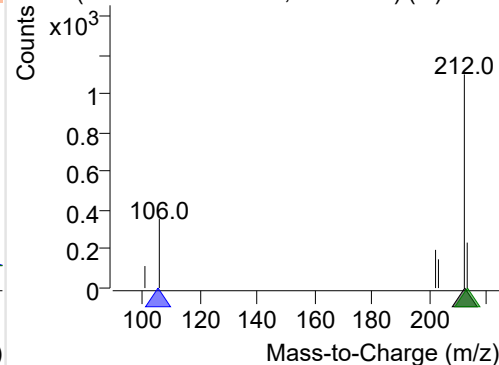
+ Selected Ion (212.0) 220204-PAHs-049.D



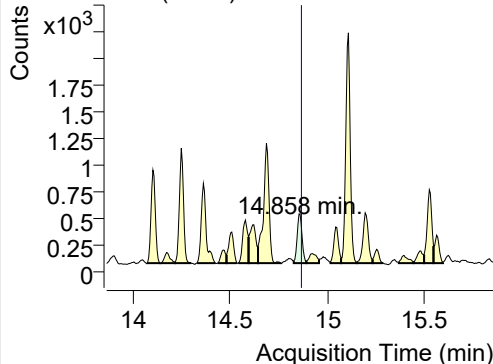
212.0, 106.0, 213.0



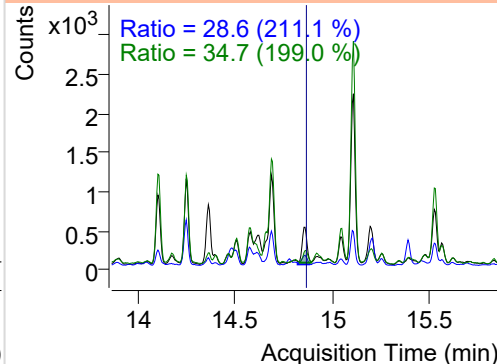
+ SIM (14.776-14.917 min, 27 scans) (\*\*) 2202

**Pyrene**

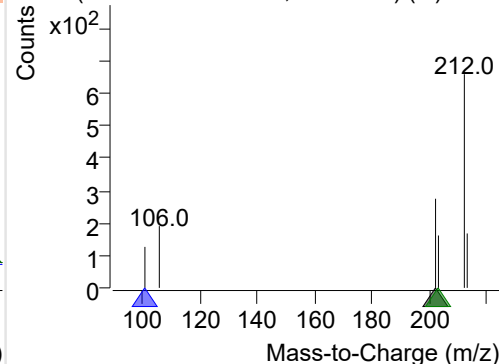
+ Selected Ion (202.0) 220204-PAHs-049.D



202.0, 101.0, 203.0



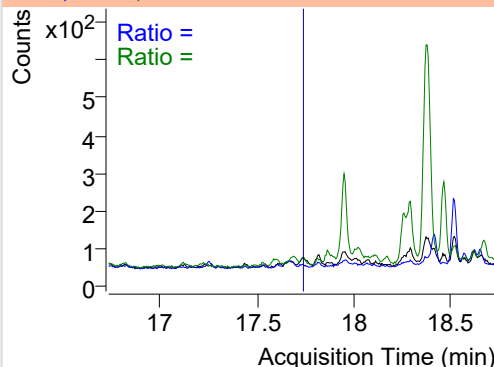
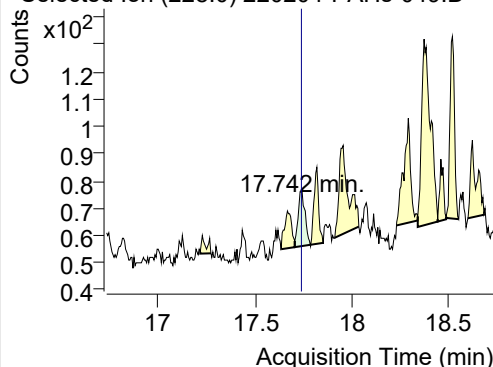
+ SIM (14.825-14.890 min, 13 scans) (\*\*) 2202



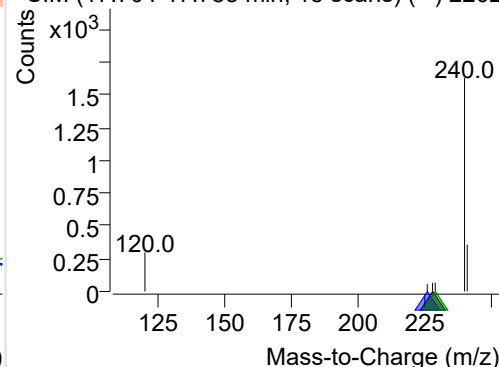
**Benz(a)anthracene**

+ Selected Ion (228.0) 220204-PAHs-049.D

228.0, 226.0, 229.0

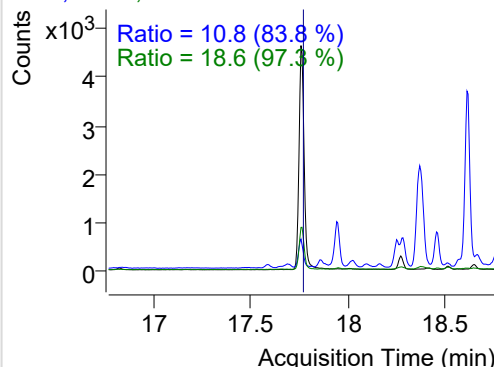
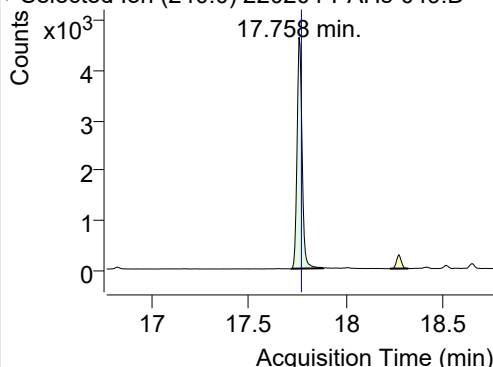


+ SIM (17.704-17.783 min, 15 scans) (\*\*) 2202

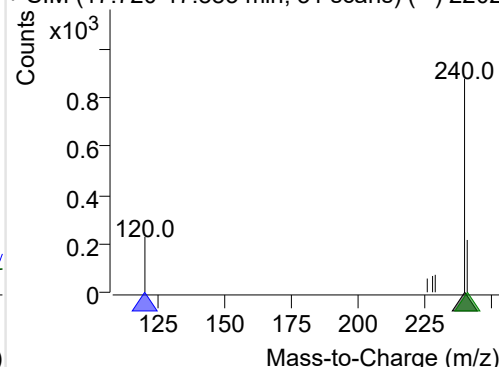
**IS-D12-Chrysene**

+ Selected Ion (240.0) 220204-PAHs-049.D

240.0, 120.0, 241.0

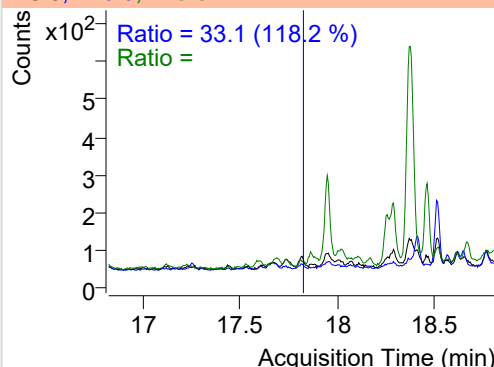
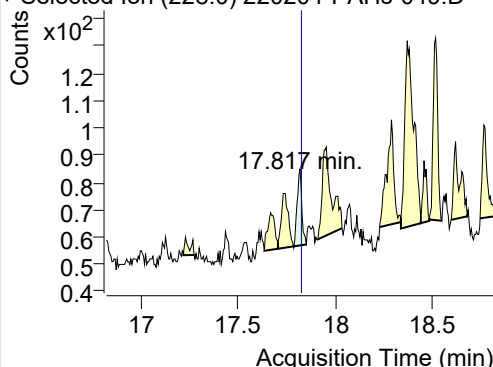


+ SIM (17.720-17.883 min, 31 scans) (\*\*) 2202

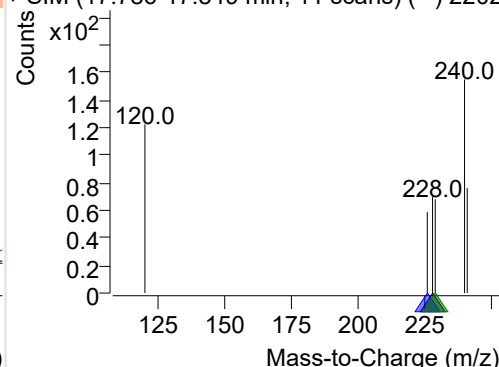
**Chrysene**

+ Selected Ion (228.0) 220204-PAHs-049.D

228.0, 226.0, 229.0

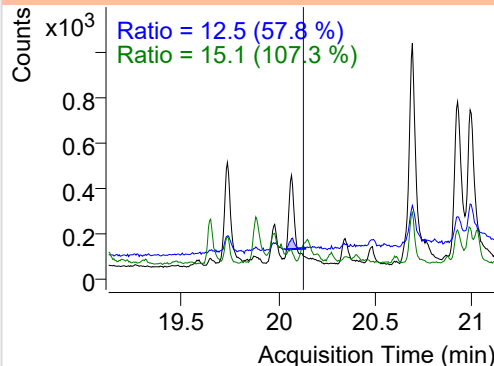
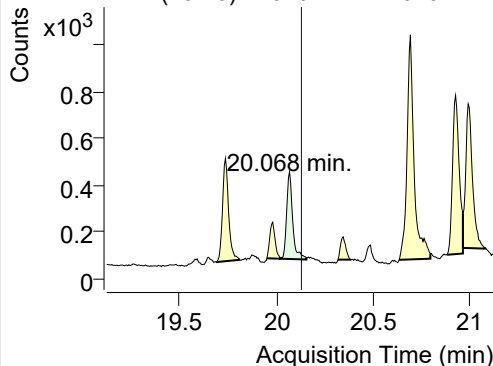


+ SIM (17.786-17.849 min, 11 scans) (\*\*) 2202

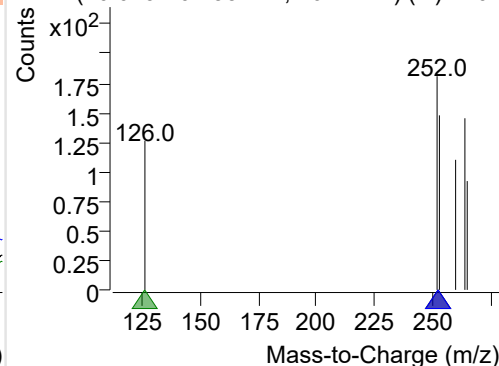
**Benzo(b)fluoranthene**

+ Selected Ion (252.0) 220204-PAHs-049.D

252.0, 253.0, 126.0



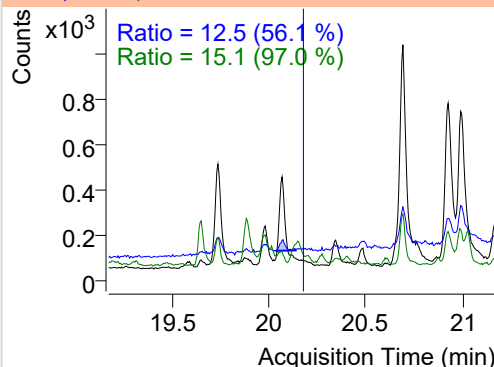
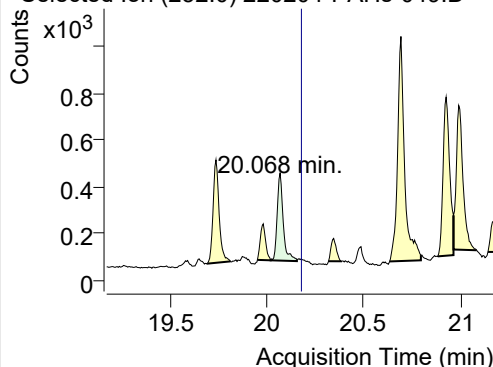
+ SIM (20.019-20.155 min, 26 scans) (\*\*) 2202



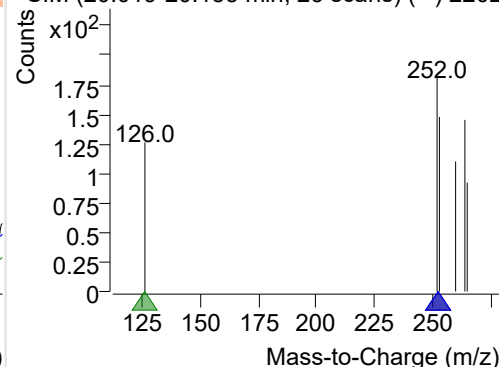
**Benzo(k)fluoranthene**

+ Selected Ion (252.0) 220204-PAHs-049.D

252.0, 253.0, 126.0

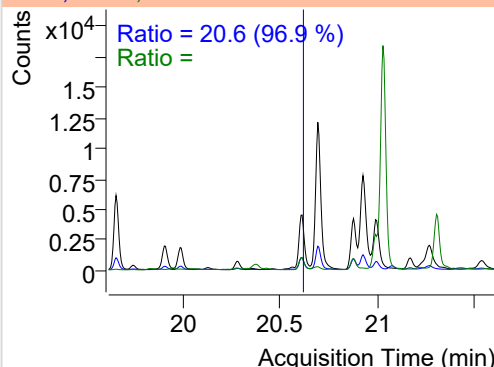
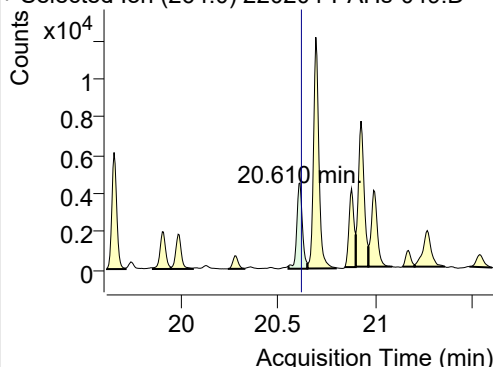


+ SIM (20.019-20.155 min, 26 scans) (\*\*) 2202

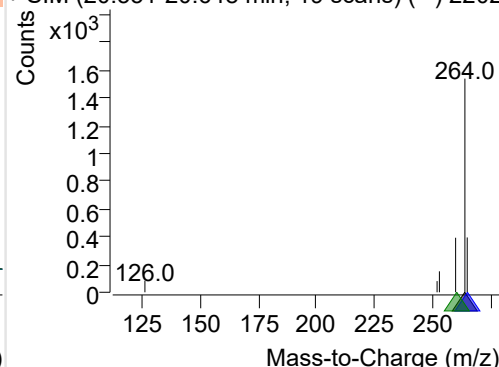
**SS-D12-Benzo(e)pyrene**

+ Selected Ion (264.0) 220204-PAHs-049.D

264.0, 265.0, 260.0

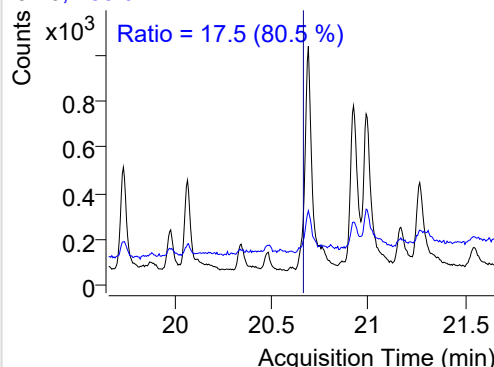
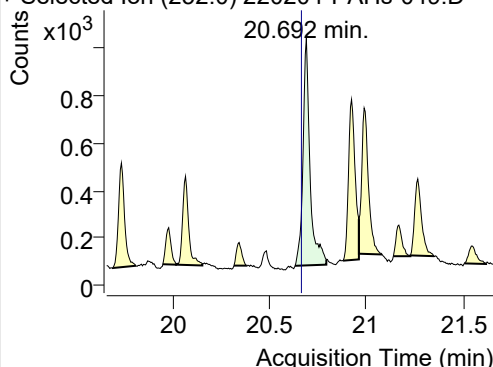


+ SIM (20.551-20.648 min, 19 scans) (\*\*) 2202

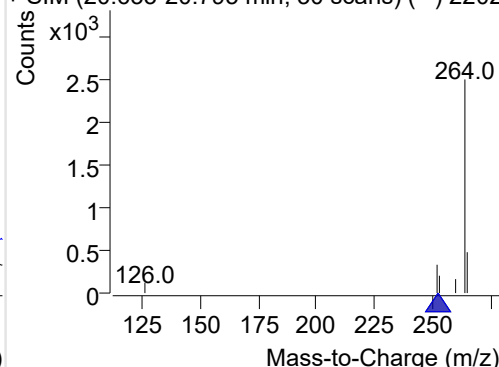
**Benzo(e)pyrene**

+ Selected Ion (252.0) 220204-PAHs-049.D

252.0, 253.0

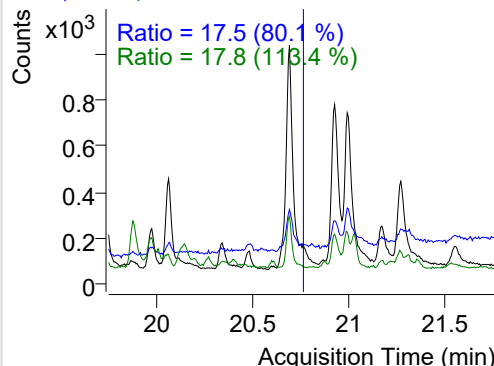
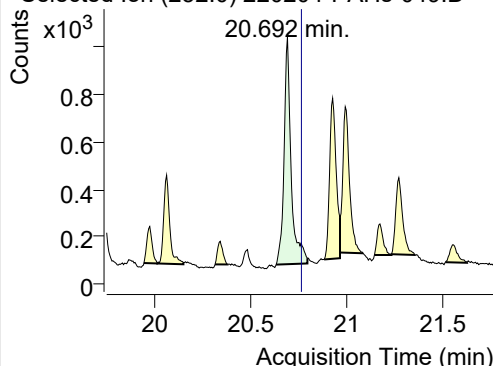


+ SIM (20.633-20.795 min, 30 scans) (\*\*) 2202

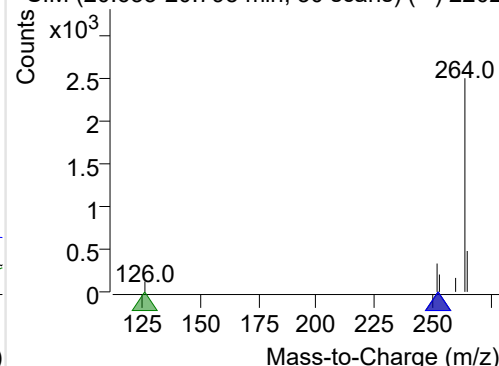
**Benzo(a)pyrene**

+ Selected Ion (252.0) 220204-PAHs-049.D

252.0, 253.0, 126.0

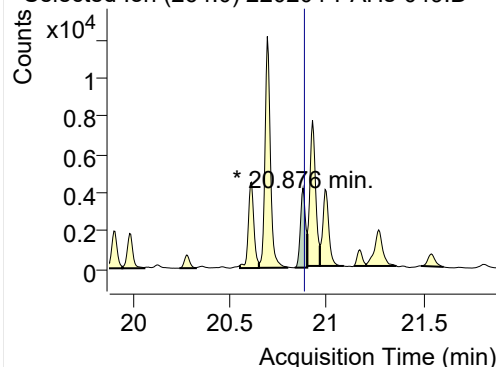


+ SIM (20.633-20.795 min, 30 scans) (\*\*) 2202

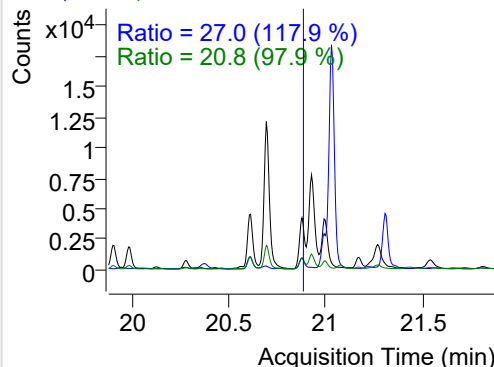


## IS-D12-Perylene

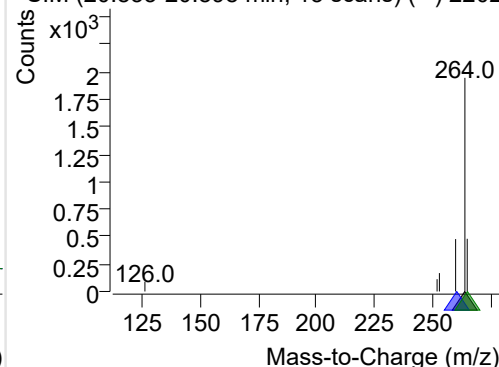
+ Selected Ion (264.0) 220204-PAHs-049.D



264.0, 260.0, 265.0

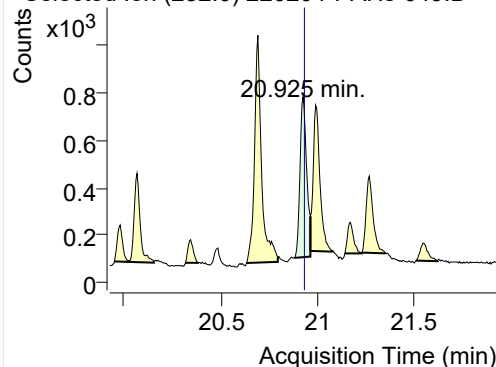


+ SIM (20.833-20.898 min, 13 scans) (\*\*) 2202

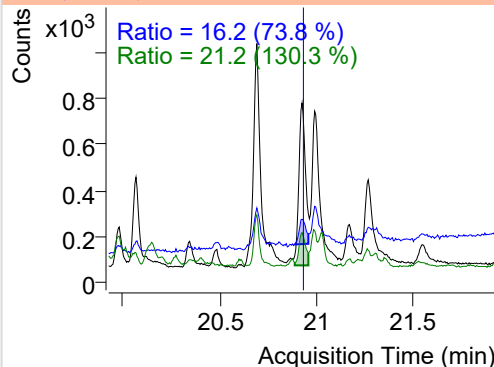


## Perylene

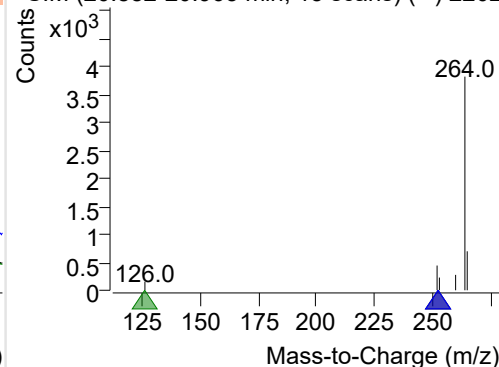
+ Selected Ion (252.0) 220204-PAHs-049.D



252.0, 253.0, 126.0

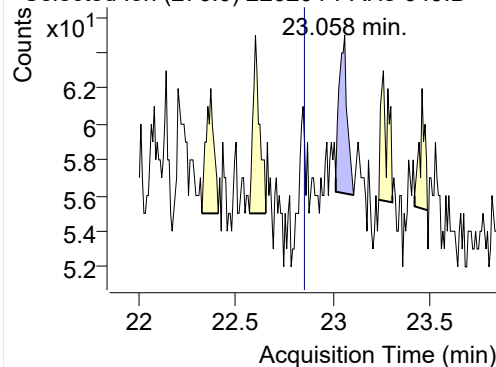


+ SIM (20.882-20.963 min, 15 scans) (\*\*) 2202

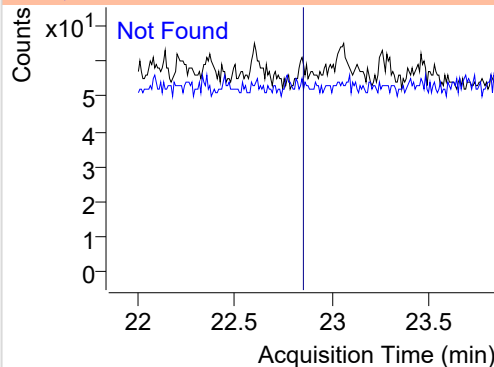


## Indeno(1,2,3-c,d)pyrene

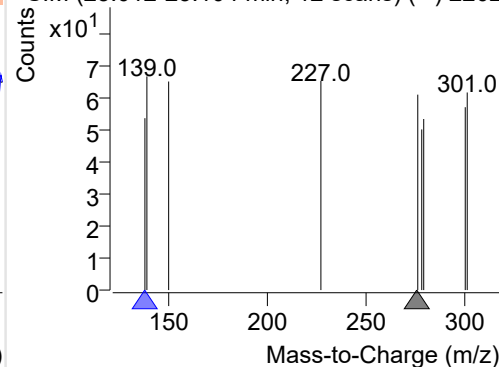
+ Selected Ion (276.0) 220204-PAHs-049.D



276.0, 138.0

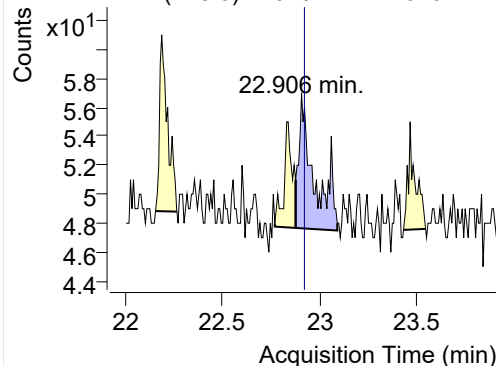


+ SIM (23.012-23.104 min, 12 scans) (\*\*) 2202

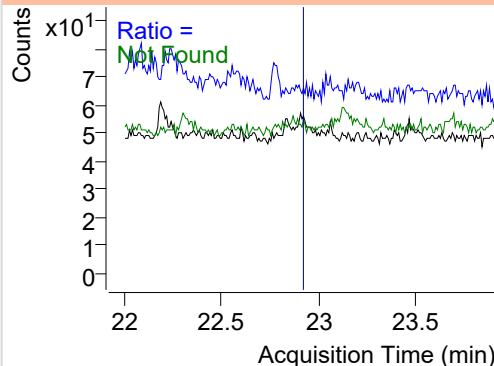


## Dibenz(a,h)anthracene

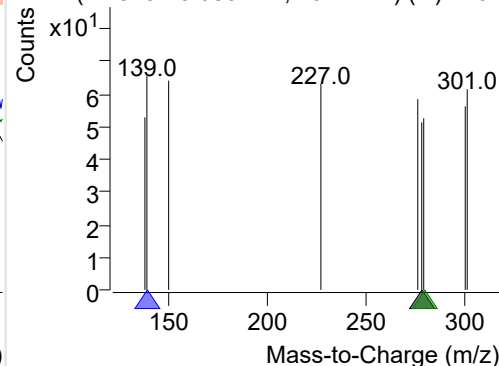
+ Selected Ion (278.0) 220204-PAHs-049.D



278.0, 139.0, 279.0



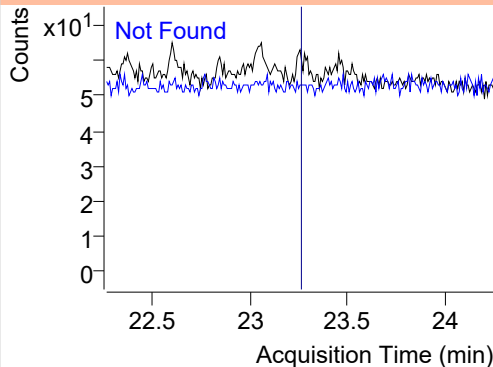
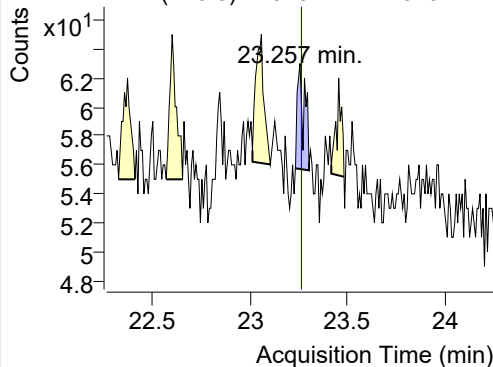
+ SIM (22.875-23.089 min, 29 scans) (\*\*) 2202



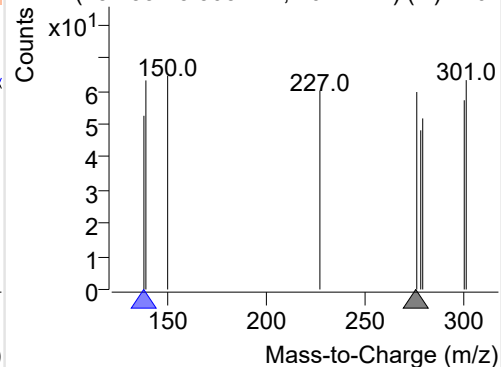
**Benzo(g,h,i)perylene**

+ Selected Ion (276.0) 220204-PAHs-049.D

276.0, 138.0

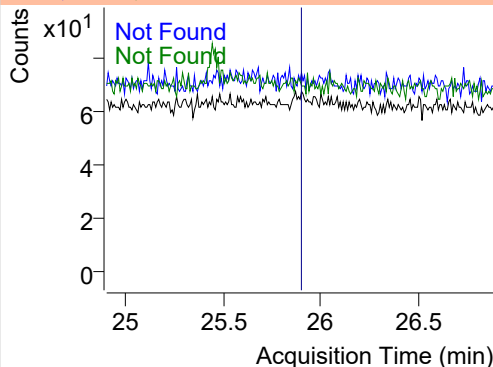
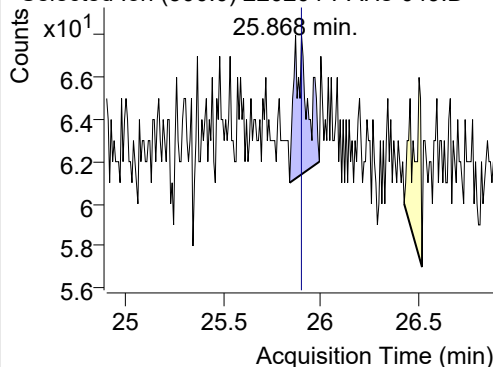


+ SIM (23.233-23.303 min, 10 scans) (\*\*) 2202

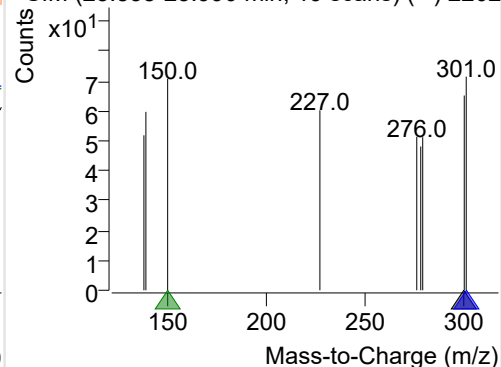
**Coronene**

+ Selected Ion (300.0) 220204-PAHs-049.D

300.0, 301.0, 150.0



+ SIM (25.838-25.990 min, 19 scans) (\*\*) 2202





## Quantitative Analysis Sample Based Report

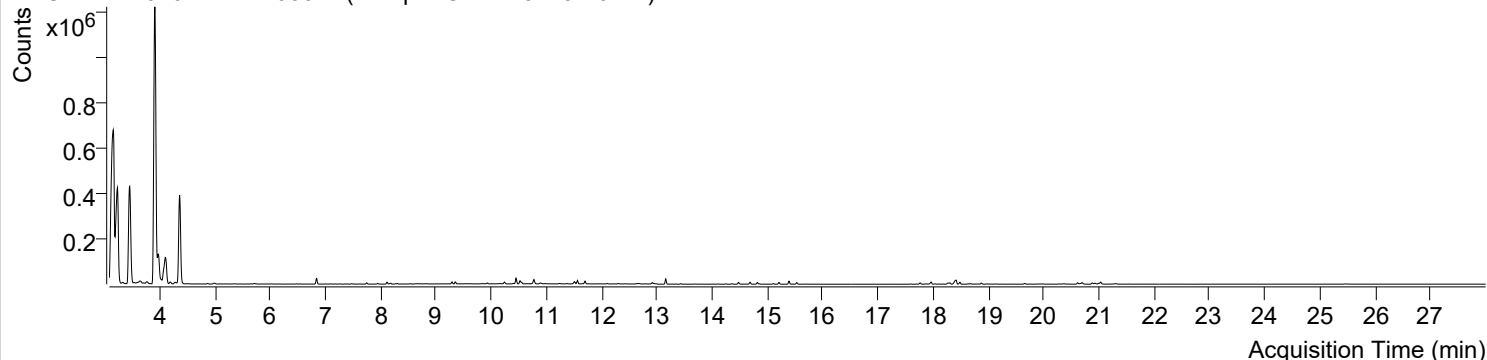


Trusted Answers

Batch Data Path File Name	D:\MassHunter\GCMS\1\data\PAHs\220204-PAHs-Sample\QuantResults\220204-PAHs-Quant.batch.bin		
Analysis Time Stamp	2022-04-13 오후 3:18:46	Analyst Name	DESKTOP-86B7UPG\5975MS
Report Generation Time	2022-04-13 오후 3:19:11	Report Generator Name	DESKTOP-86B7UPG\5975MS
Calibration Last Update	2022-04-13 오후 3:16:00	Batch State	Processed
Analyze Quant Version	10.2	Report Quant Version	10.2
Acq. Date-Time	2022-02-05 오후 3:36:47	Data File	220204-PAHs-050.D
Type	Sample	Name	Sample-Gas-220119-10DIL
Dil.	1	Acq. Method File	PAHs 19mix-Method

## Sample Chromatogram

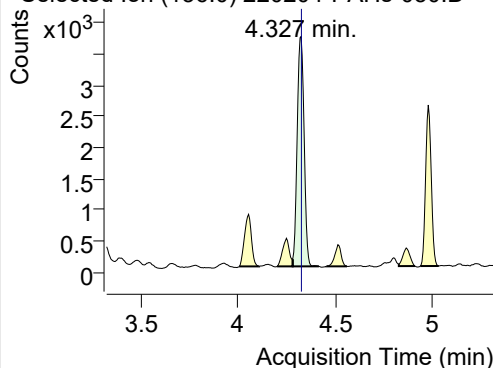
+ TIC SIM 220204-PAHs-050.D (Sample-Gas-220119-10DIL)



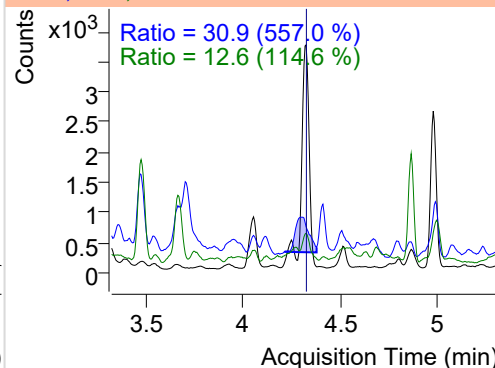
Name	RT	Transition	Resp.	Height	Final Conc. Units	Ratio
IS-D8-Naphthalene	4.327	136.0	9116	3689.00	ND ng/ml	12.6
Naphthalene	4.359	128.0	759028	315701.15	ND ng/ml	13.6
Acenaphthylene	7.745	152.0	5981	4003.20	ND ng/ml	18.7
IS-D10-Acenaphthene	8.112	164.0	5935	3978.11	ND ng/ml	93.9
Acenaphthene	8.183	154.0	1982	1288.37	ND ng/ml	120.6
LSS-D10-Fluorene	9.292	176.0	6174	4026.39	ND µg/mL	88.6
Fluorene	9.355	166.0	6878	4086.04	ND µg/mL	96.3
IS-D10-Phenanthrene	11.508	188.0	10248	6484.76	ND µg/mL	13.9
Phenanthrene	11.560	178.0	15094	10157.82	ND µg/mL	17.7
Anthracene	11.697	178.0	5727	3241.82	ND µg/mL	24.6
Fluoranthene	14.359	202.0	2652	1680.33	ND µg/mL	16.8
LSS-D10-Pyrene	14.814	212.0	8592	5351.52	ND µg/mL	16.8
Pyrene	14.852	202.0	2074	1317.45	ND µg/mL	19.6
Benz(a)anthracene	17.866	228.0	83	33.72	ND µg/mL	36.0
IS-D12-Chrysene	17.763	240.0	7548	4220.69	ND µg/mL	19.9
Chrysene	17.866	228.0	83	33.72	ND µg/mL	36.0
Benzo(b)fluoranthene	20.068	252.0	452	181.49	ND µg/mL	
Benzo(k)fluoranthene	20.068	252.0	452	181.49	ND µg/mL	
SS-D12-Benzo(e)pyrene	20.610	264.0	7676	3968.40	ND µg/mL	26.1
Benzo(e)pyrene	20.659	252.0	5914	2154.13	ND µg/mL	18.4
Benzo(a)pyrene	20.659	252.0	5914	2154.13	ND µg/mL	18.4
IS-D12-Perylene	20.876	264.0	6986	3667.61	ND µg/mL	25.7
Perylene	20.931	252.0	946	367.44	ND µg/mL	12.4
Indeno(1,2,3-c,d)pyrene	22.844	276.0	19	8.11	ND µg/mL	37.8
Dibenz(a,h)anthracene	22.844	278.0	254	69.17	ND µg/mL	30.2
Benzo(g,h,i)perylene	23.249	276.0	8	7.47	ND µg/mL	20.3
Coronene	25.899	300.0	38	11.62	ND µg/mL	

## IS-D8-Naphthalene

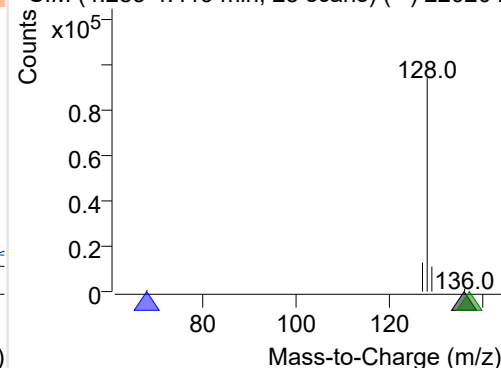
+ Selected Ion (136.0) 220204-PAHs-050.D



136.0, 68.0, 137.0

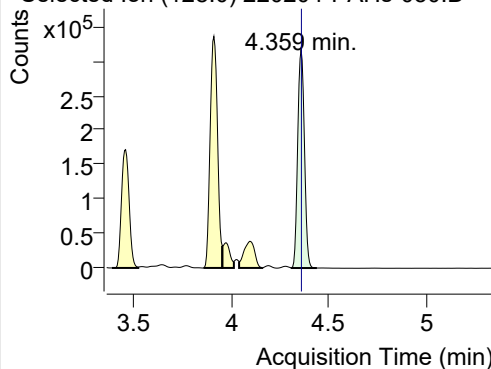


+ SIM (4.283-4.419 min, 25 scans) (\*\*) 220204

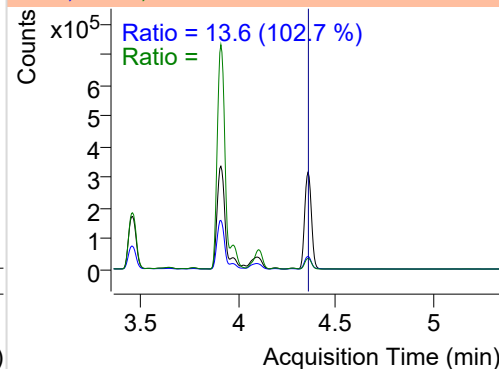


**Naphthalene**

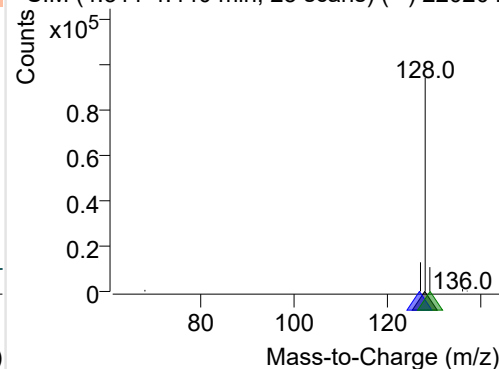
+ Selected Ion (128.0) 220204-PAHs-050.D



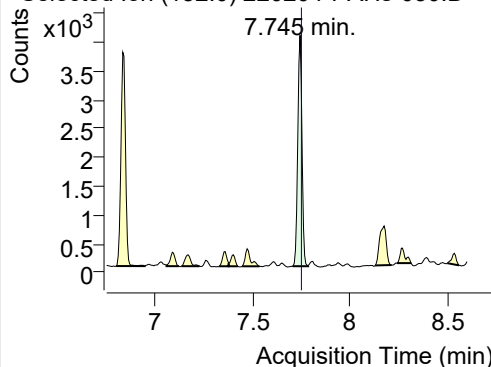
128.0, 127.0, 129.0



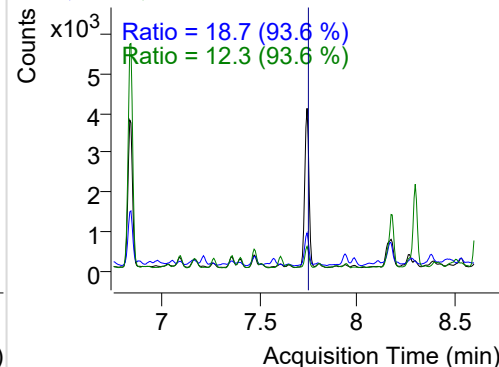
+ SIM (4.311-4.440 min, 25 scans) (\*\*) 220204

**Acenaphthylene**

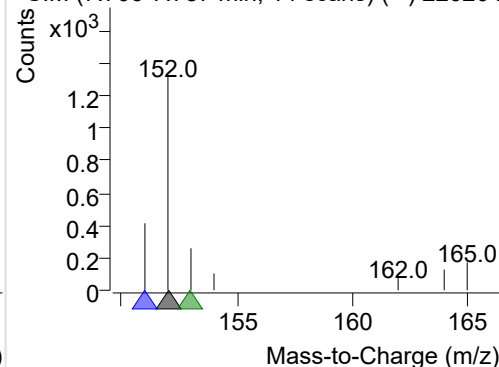
+ Selected Ion (152.0) 220204-PAHs-050.D



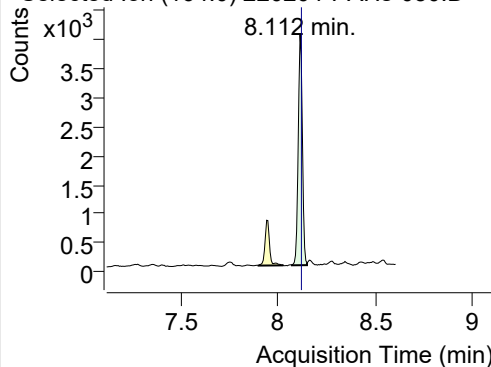
152.0, 151.0, 153.0



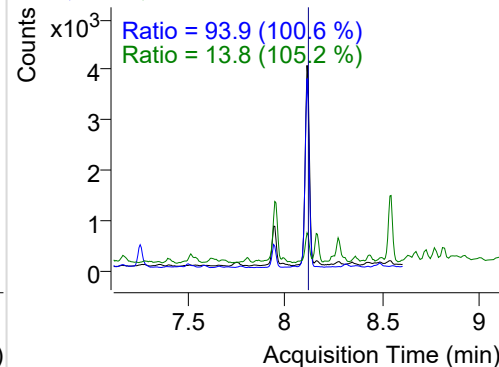
+ SIM (7.706-7.787 min, 14 scans) (\*\*) 220204

**IS-D10-Acenaphthene**

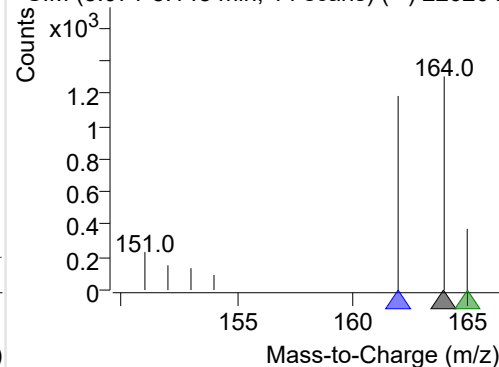
+ Selected Ion (164.0) 220204-PAHs-050.D



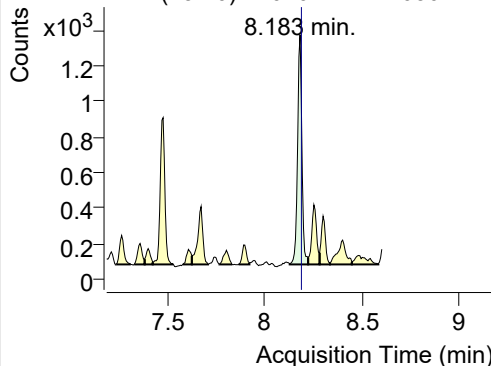
164.0, 162.0, 165.0



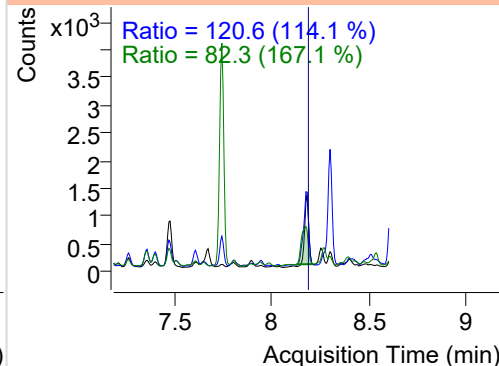
+ SIM (8.071-8.148 min, 14 scans) (\*\*) 220204

**Acenaphthene**

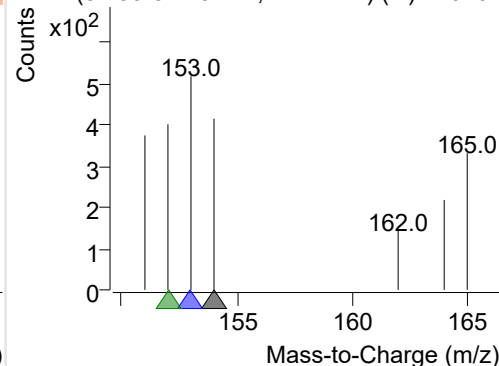
+ Selected Ion (154.0) 220204-PAHs-050.D



154.0, 153.0, 152.0

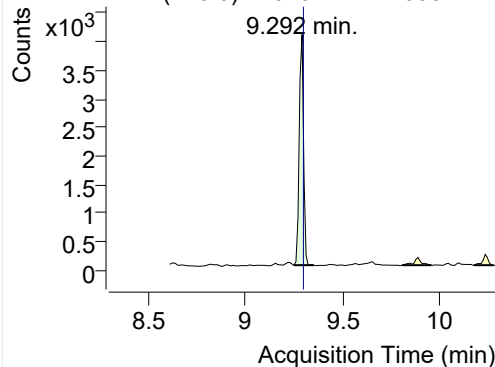


+ SIM (8.130-8.225 min, 17 scans) (\*\*) 220204

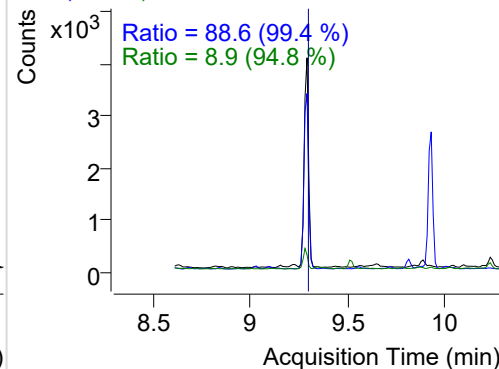


## LSS-D10-Fluorene

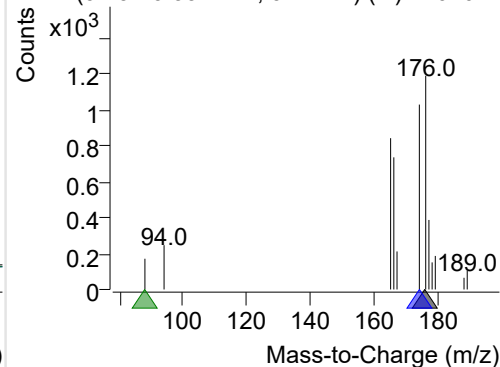
+ Selected Ion (176.0) 220204-PAHs-050.D



176.0, 174.0, 88.0

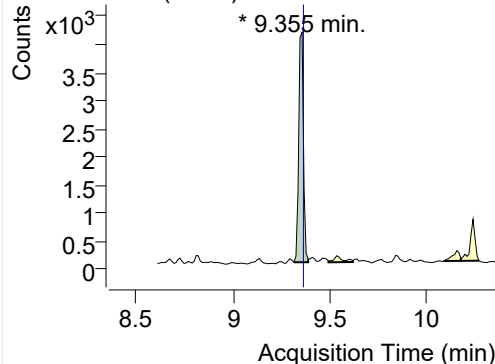


+ SIM (9.251-9.351 min, 9 scans) (\*\*) 220204-I

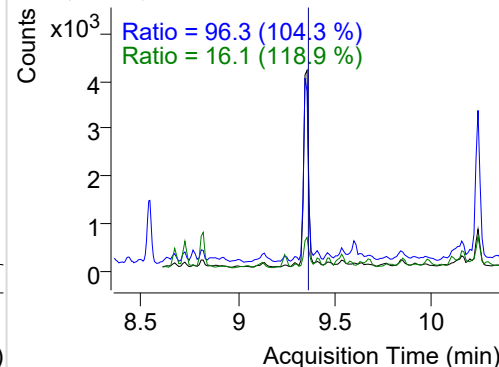


## Fluorene

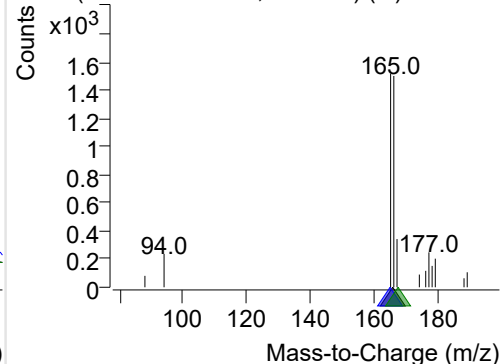
+ Selected Ion (166.0) 220204-PAHs-050.D



166.0, 165.0, 167.0

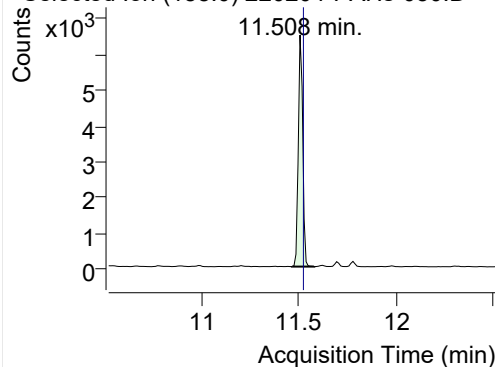


+ SIM (9.313-9.386 min, 8 scans) (\*\*) 220204-I

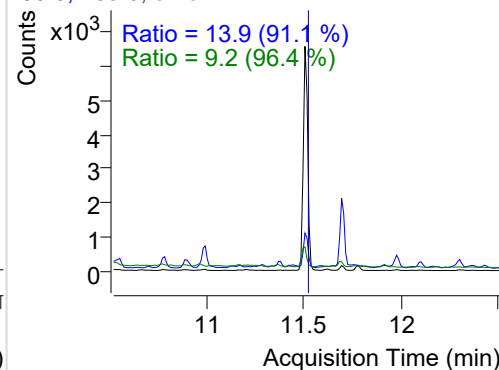


## IS-D10-Phenanthrene

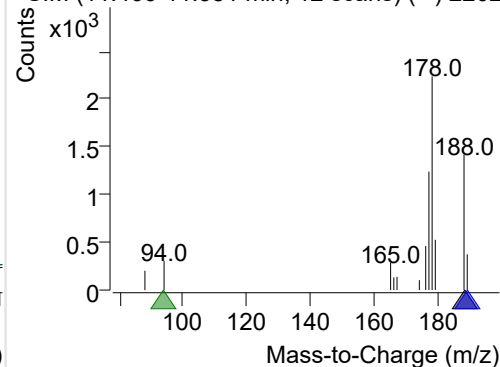
+ Selected Ion (188.0) 220204-PAHs-050.D



188.0, 189.0, 94.0

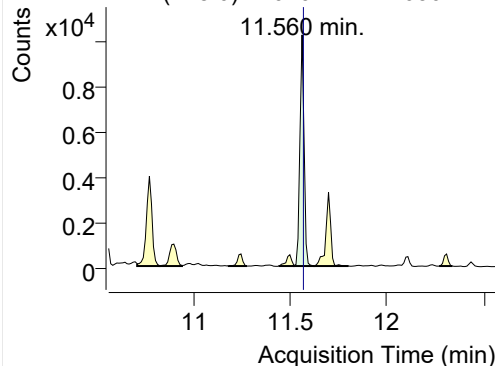


+ SIM (11.466-11.581 min, 12 scans) (\*\*) 2202

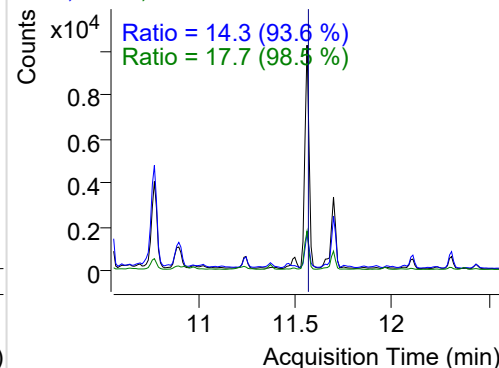


## Phenanthrene

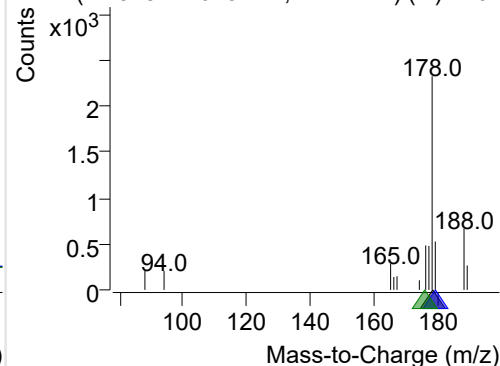
+ Selected Ion (178.0) 220204-PAHs-050.D



178.0, 179.0, 176.0

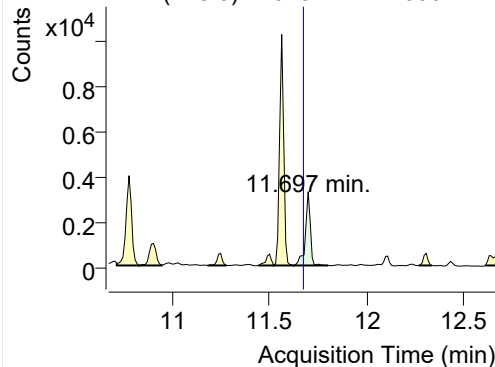


+ SIM (11.518-11.623 min, 11 scans) (\*\*) 2202

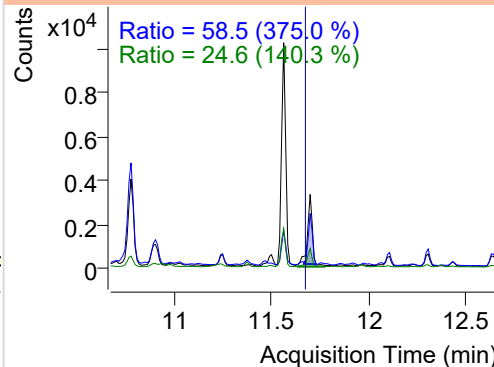


**Anthracene**

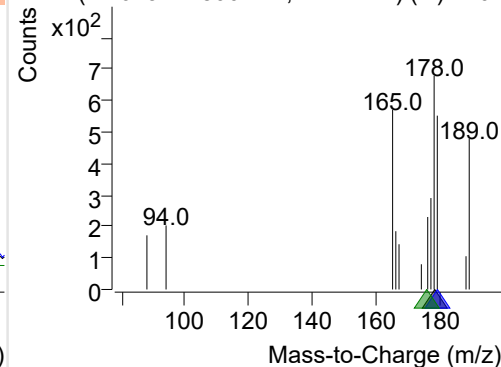
+ Selected Ion (178.0) 220204-PAHs-050.D



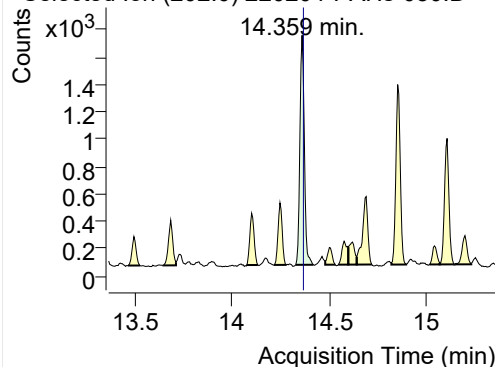
178.0, 179.0, 176.0



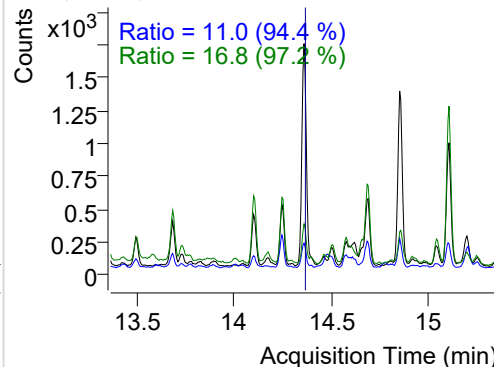
+ SIM (11.623-11.800 min, 17 scans) (\*\*) 2202

**Fluoranthene**

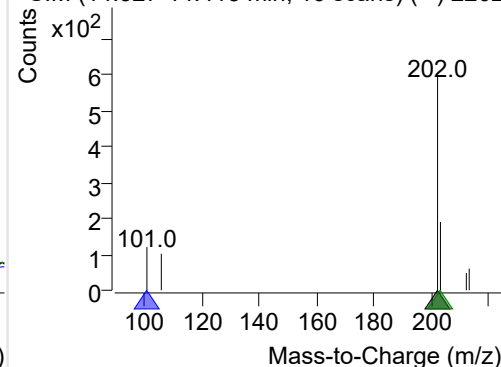
+ Selected Ion (202.0) 220204-PAHs-050.D



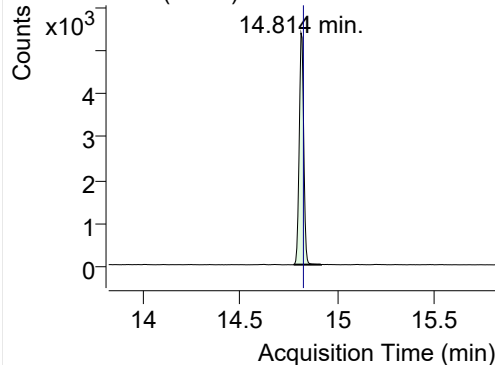
202.0, 101.0, 203.0



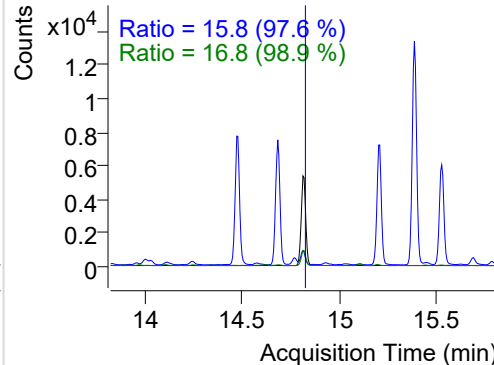
+ SIM (14.327-14.418 min, 16 scans) (\*\*) 2202

**LSS-D10-Pyrene**

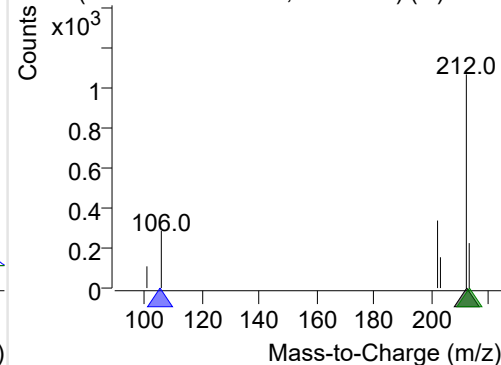
+ Selected Ion (212.0) 220204-PAHs-050.D



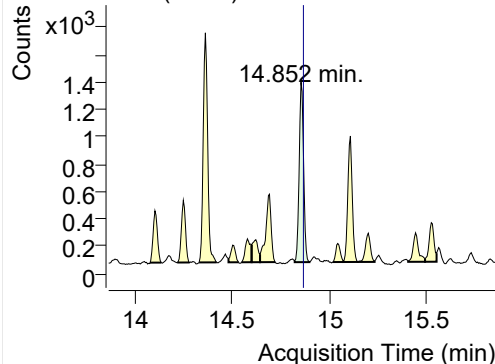
212.0, 106.0, 213.0



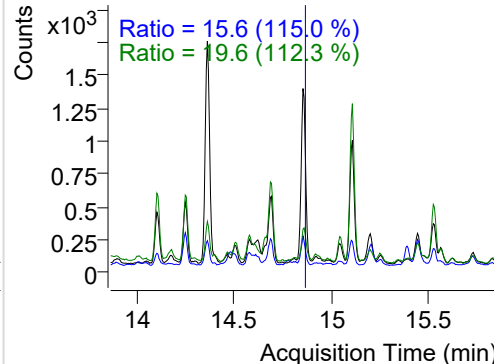
+ SIM (14.776-14.917 min, 26 scans) (\*\*) 2202

**Pyrene**

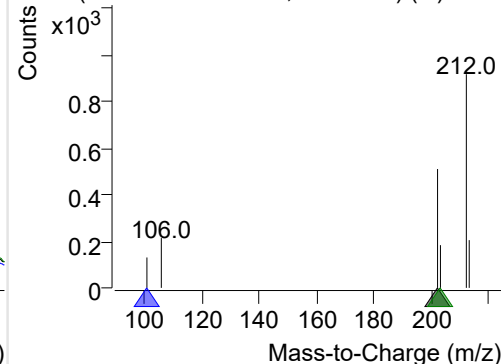
+ Selected Ion (202.0) 220204-PAHs-050.D



202.0, 101.0, 203.0



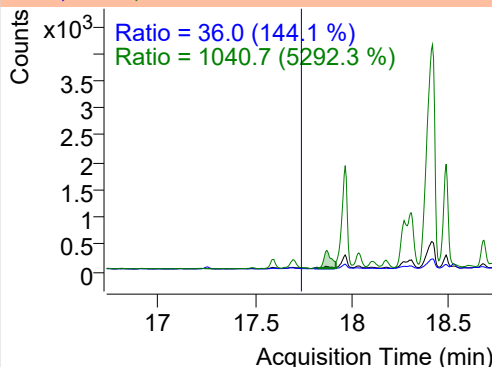
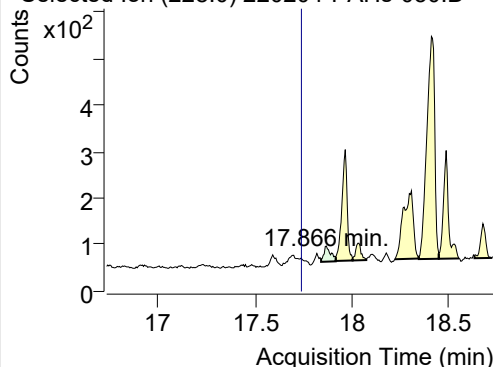
+ SIM (14.820-14.896 min, 15 scans) (\*\*) 2202



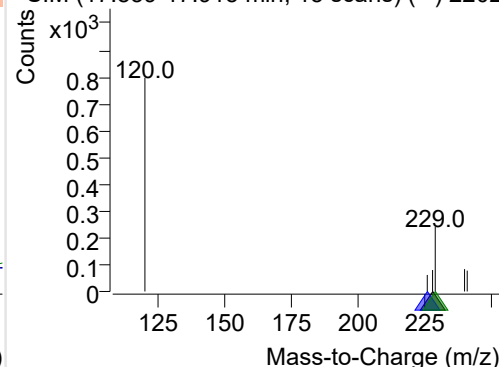
**Benz(a)anthracene**

+ Selected Ion (228.0) 220204-PAHs-050.D

228.0, 226.0, 229.0

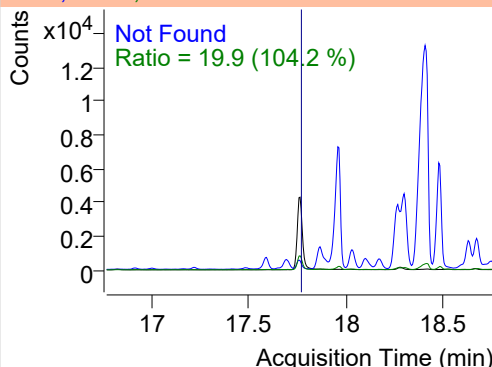
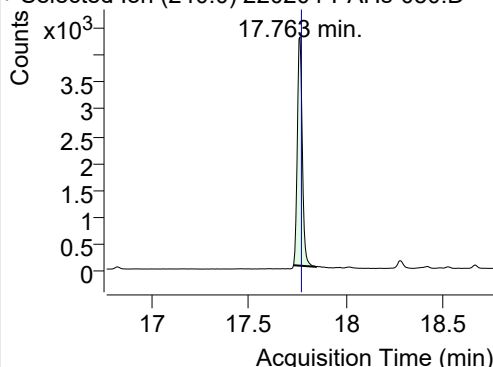


+ SIM (17.839-17.915 min, 15 scans) (\*\*) 2202

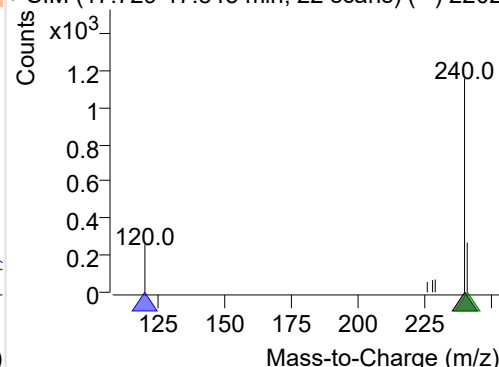
**IS-D12-Chrysene**

+ Selected Ion (240.0) 220204-PAHs-050.D

240.0, 120.0, 241.0

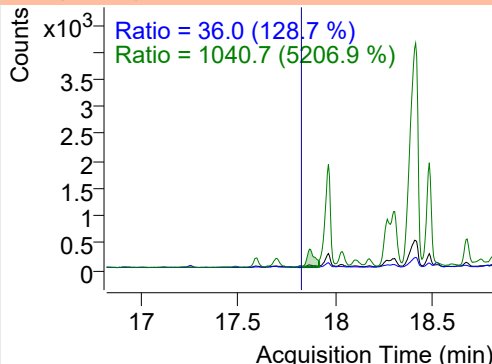
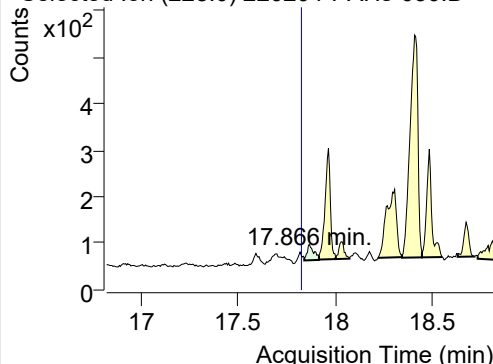


+ SIM (17.729-17.845 min, 22 scans) (\*\*) 2202

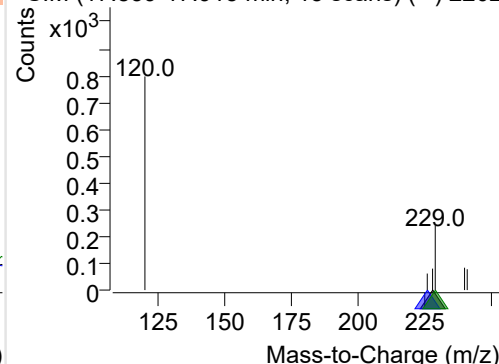
**Chrysene**

+ Selected Ion (228.0) 220204-PAHs-050.D

228.0, 226.0, 229.0

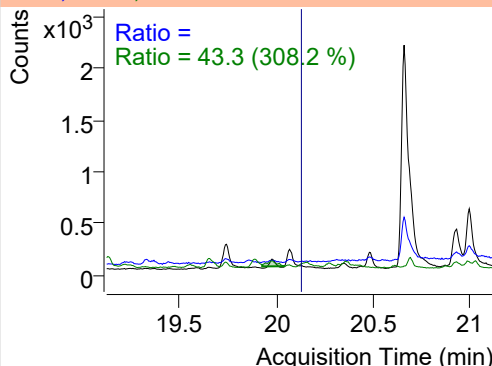
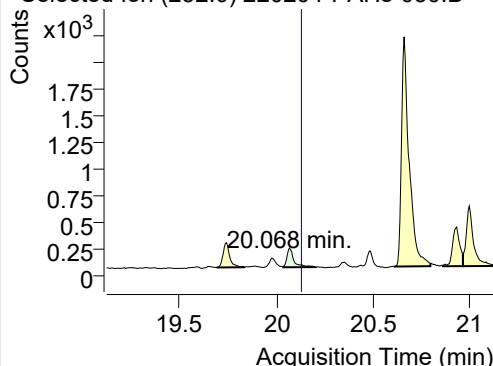


+ SIM (17.839-17.915 min, 15 scans) (\*\*) 2202

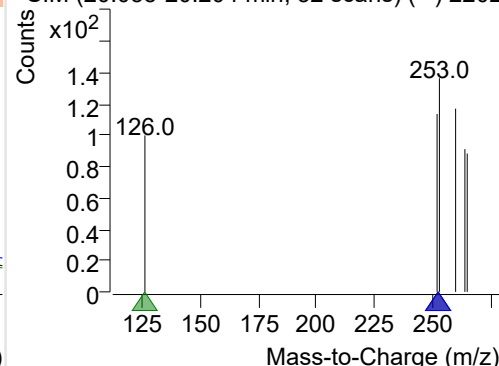
**Benzo(b)fluoranthene**

+ Selected Ion (252.0) 220204-PAHs-050.D

252.0, 253.0, 126.0



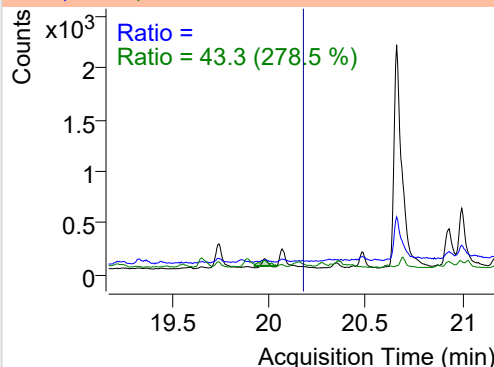
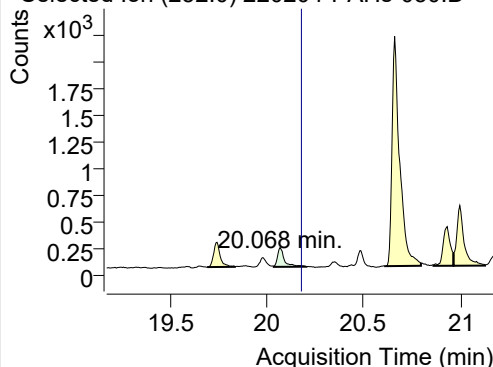
+ SIM (20.035-20.204 min, 32 scans) (\*\*) 2202



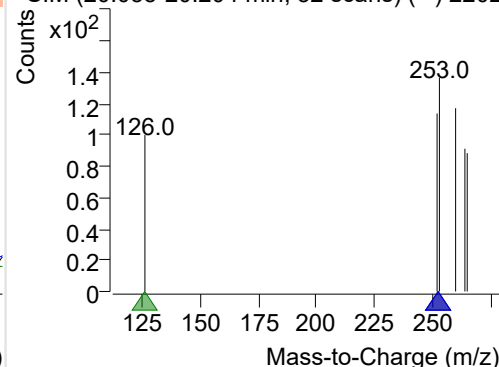
**Benzo(k)fluoranthene**

+ Selected Ion (252.0) 220204-PAHs-050.D

252.0, 253.0, 126.0

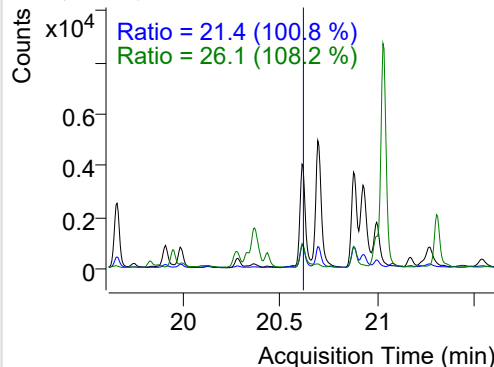
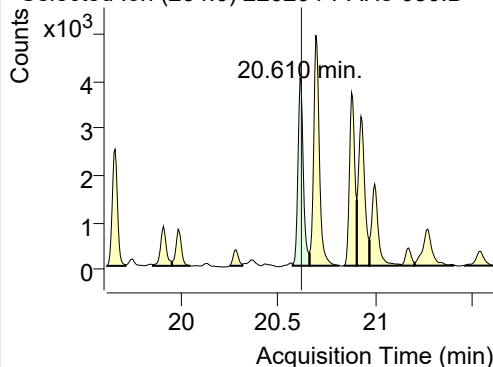


+ SIM (20.035-20.204 min, 32 scans) (\*\*) 2202

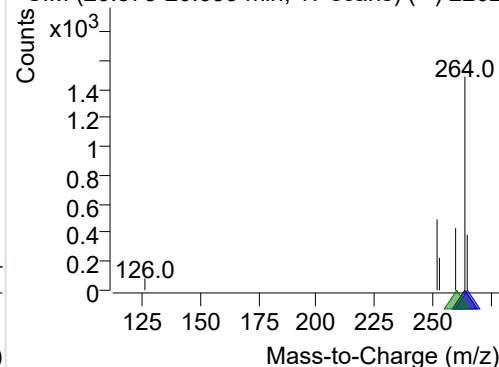
**SS-D12-Benzo(e)pyrene**

+ Selected Ion (264.0) 220204-PAHs-050.D

264.0, 265.0, 260.0

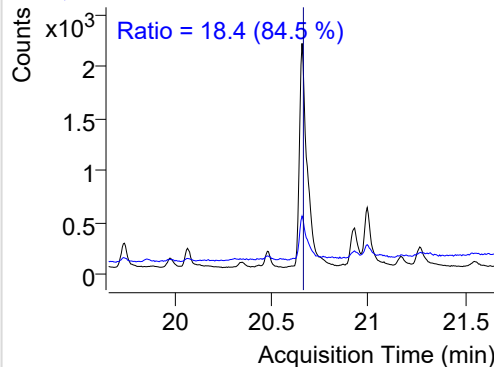
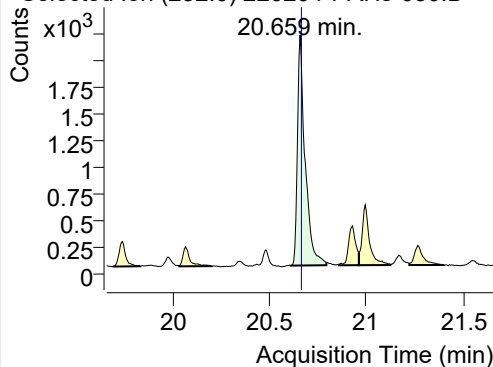


+ SIM (20.573-20.659 min, 17 scans) (\*\*) 2202

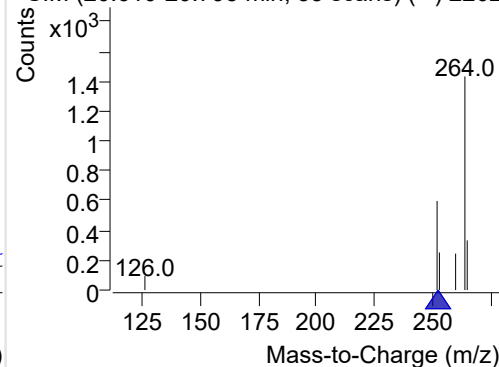
**Benzo(e)pyrene**

+ Selected Ion (252.0) 220204-PAHs-050.D

252.0, 253.0

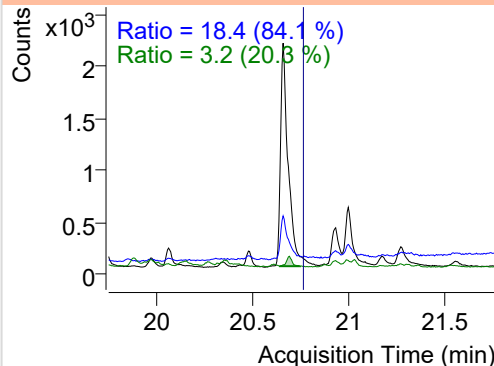
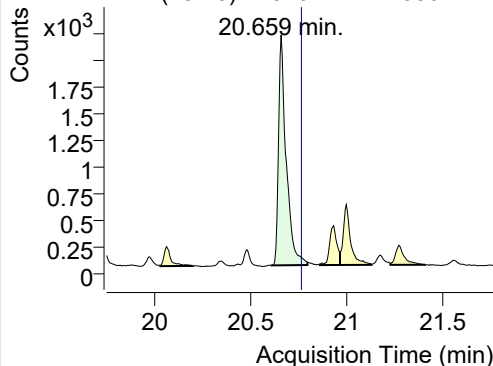


+ SIM (20.610-20.795 min, 35 scans) (\*\*) 2202

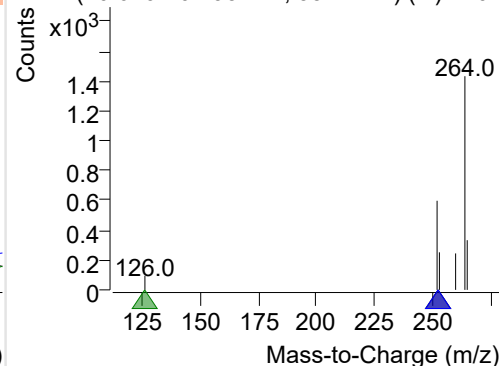
**Benzo(a)pyrene**

+ Selected Ion (252.0) 220204-PAHs-050.D

252.0, 253.0, 126.0

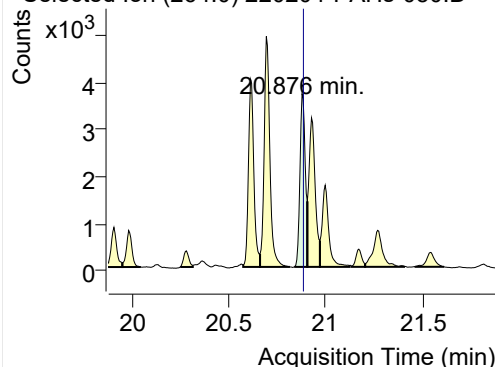


+ SIM (20.610-20.795 min, 35 scans) (\*\*) 2202

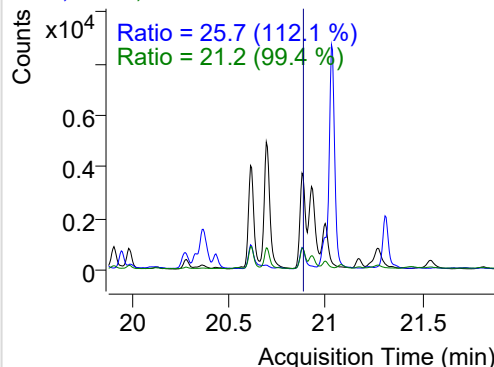


## IS-D12-Perylene

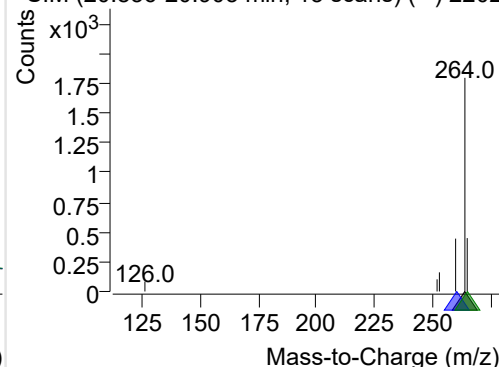
+ Selected Ion (264.0) 220204-PAHs-050.D



264.0, 260.0, 265.0

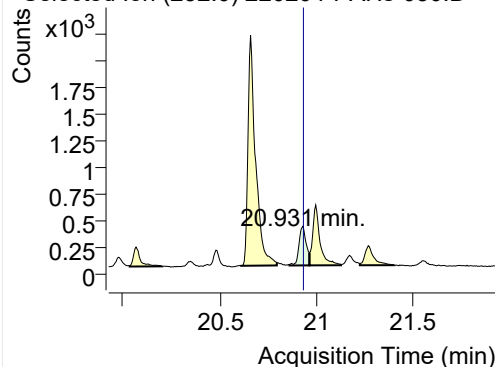


+ SIM (20.836-20.903 min, 13 scans) (\*\*) 2202

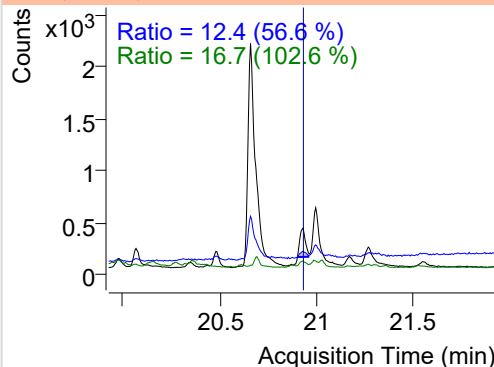


## Perylene

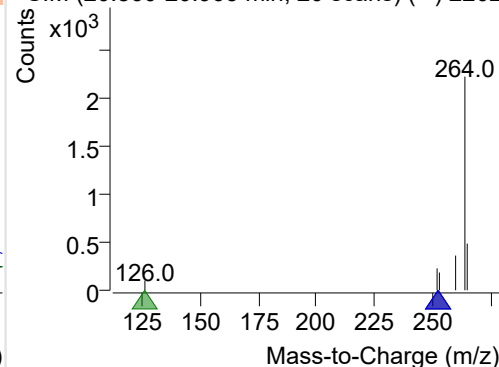
+ Selected Ion (252.0) 220204-PAHs-050.D



252.0, 253.0, 126.0

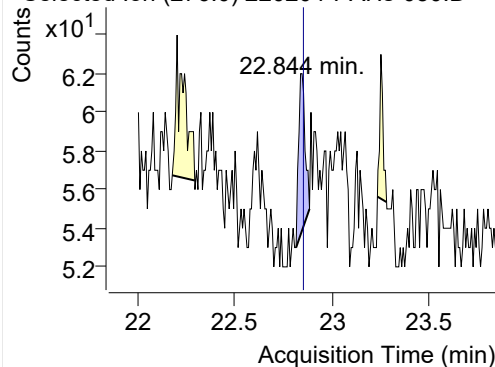


+ SIM (20.860-20.963 min, 20 scans) (\*\*) 2202

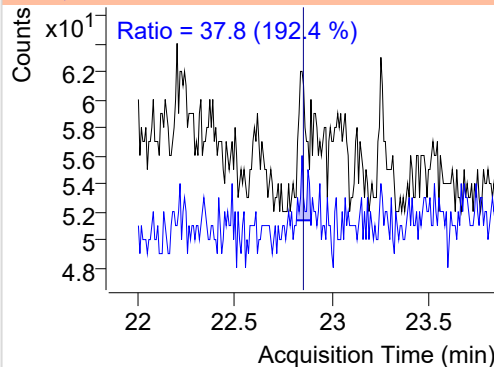


## Indeno(1,2,3-c,d)pyrene

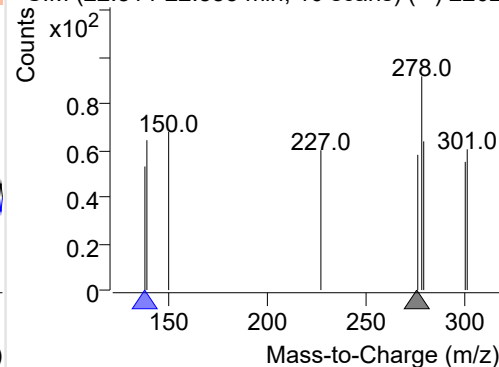
+ Selected Ion (276.0) 220204-PAHs-050.D



276.0, 138.0

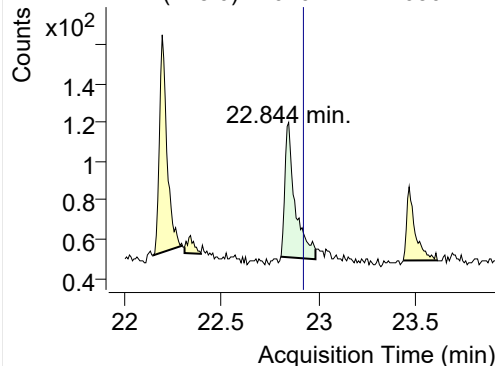


+ SIM (22.814-22.883 min, 10 scans) (\*\*) 2202

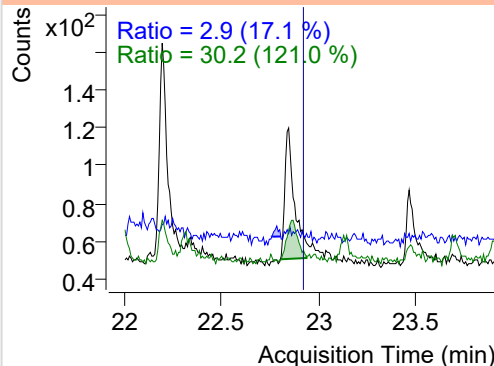


## Dibenz(a,h)anthracene

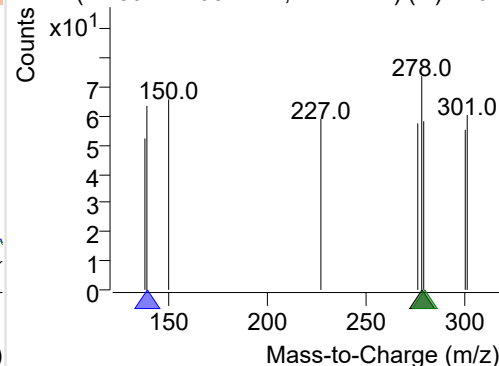
+ Selected Ion (278.0) 220204-PAHs-050.D



278.0, 139.0, 279.0

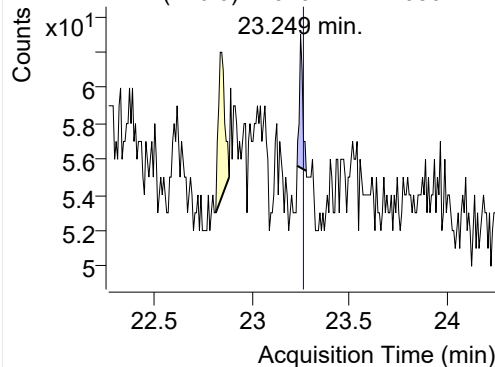


+ SIM (22.804-22.982 min, 24 scans) (\*\*) 2202

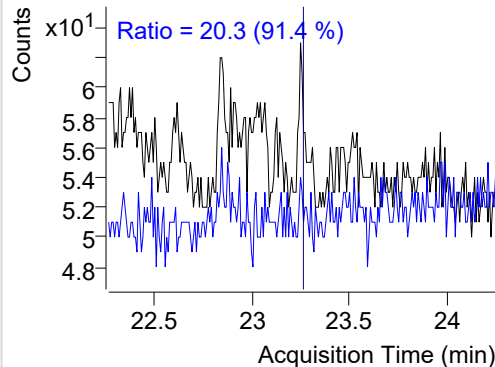


**Benzo(g,h,i)perylene**

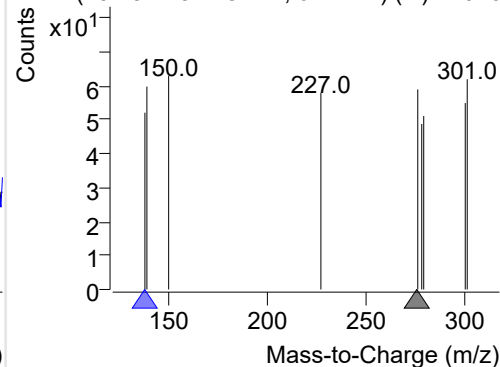
+ Selected Ion (276.0) 220204-PAHs-050.D



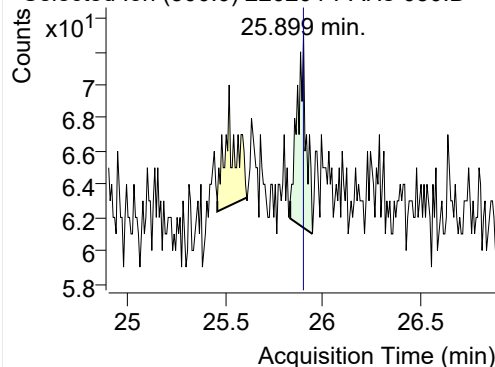
276.0, 138.0



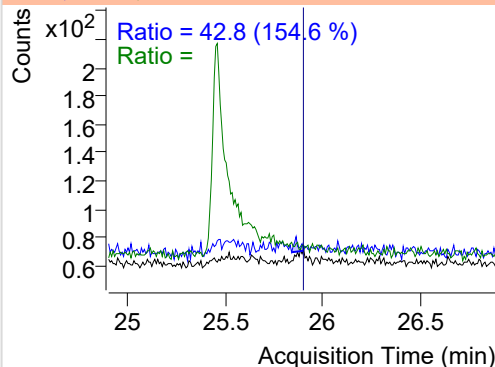
+ SIM (23.231-23.278 min, 6 scans) (\*\*) 22020

**Coronene**

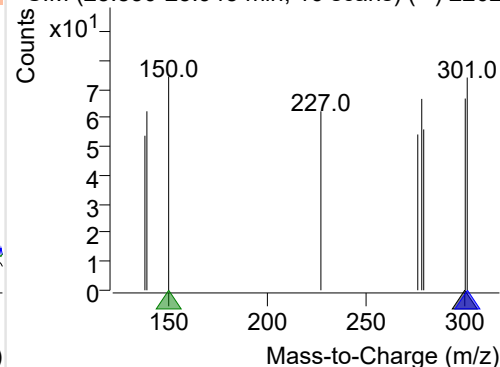
+ Selected Ion (300.0) 220204-PAHs-050.D



300.0, 301.0, 150.0



+ SIM (25.830-25.945 min, 16 scans) (\*\*) 2202





## Quantitative Analysis Sample Based Report

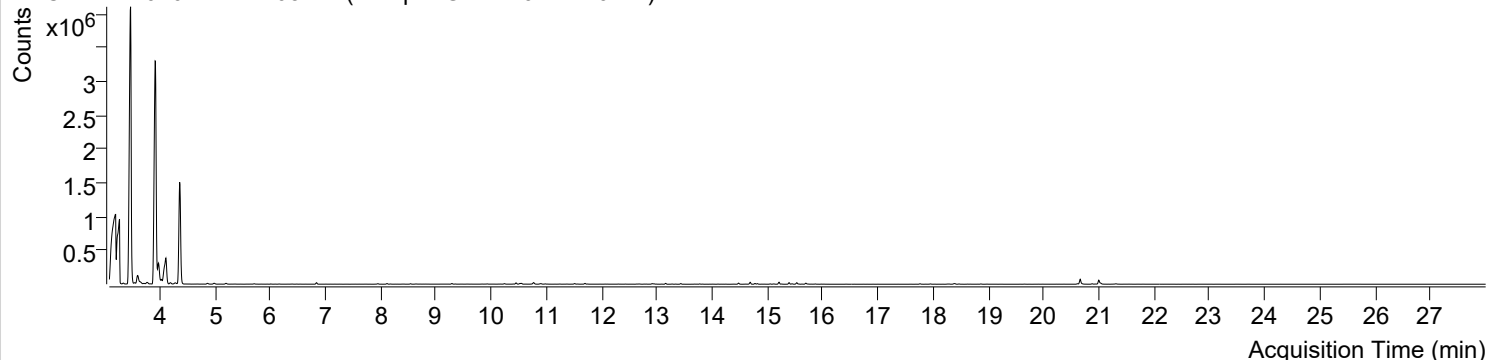


Trusted Answers

Batch Data Path File Name	D:\MassHunter\GCMS\1\data\PAHs\220204-PAHs-Sample\QuantResults\220204-PAHs-Quant.batch.bin		
Analysis Time Stamp	2022-04-13 오후 3:18:46	Analyst Name	DESKTOP-86B7UPG\5975MS
Report Generation Time	2022-04-13 오후 3:19:11	Report Generator Name	DESKTOP-86B7UPG\5975MS
Calibration Last Update	2022-04-13 오후 3:16:00	Batch State	Processed
Analyze Quant Version	10.2	Report Quant Version	10.2
Acq. Date-Time	2022-02-05 오후 4:08:02	Data File	220204-PAHs-051.D
Type	Sample	Name	Sample-Gas-220127-10DIL
Dil.	1	Acq. Method File	PAHs 19mix-Method

## Sample Chromatogram

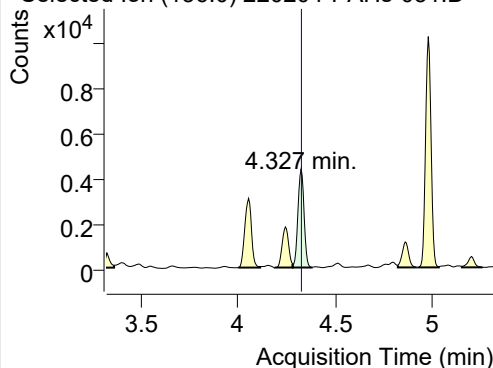
+ TIC SIM 220204-PAHs-051.D (Sample-Gas-220127-10DIL)



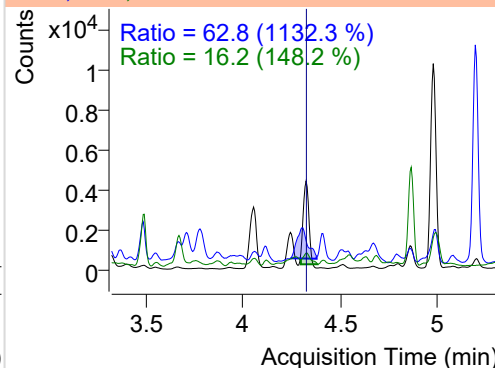
Name	RT	Transition	Resp.	Height	Final Conc. Units	Ratio
IS-D8-Naphthalene	4.327	136.0	9511	4356.08	ND ng/ml	16.2
Naphthalene	4.359	128.0	2633526	1210798.39	ND ng/ml	13.1
Acenaphthylene	7.745	152.0	255	183.27	ND ng/ml	
IS-D10-Acenaphthene	8.112	164.0	6275	4153.89	ND ng/ml	101.0
Acenaphthene	8.183	154.0	1125	730.12	ND ng/ml	116.1
LSS-D10-Fluorene	9.292	176.0	6429	4151.05	ND µg/mL	88.2
Fluorene	9.344	166.0	1277	764.91	ND µg/mL	85.3
IS-D10-Phenanthrene	11.508	188.0	10408	6746.35	ND µg/mL	15.4
Phenanthrene	11.560	178.0	2072	1361.21	ND µg/mL	17.8
Anthracene	11.697	178.0	5238	3194.91	ND µg/mL	24.1
Fluoranthene	14.359	202.0	248	159.40	ND µg/mL	
LSS-D10-Pyrene	14.814	212.0	9268	5872.22	ND µg/mL	17.1
Pyrene	14.858	202.0	290	181.06	ND µg/mL	
Benz(a)anthracene	17.606	228.0	54	22.71	ND µg/mL	37.0
IS-D12-Chrysene	17.763	240.0	8189	4595.18	ND µg/mL	18.1
Chrysene	17.953	228.0	303	112.65	ND µg/mL	58.6
Benzo(b)fluoranthene	20.659	252.0	114534	60560.51	ND µg/mL	18.9
Benzo(k)fluoranthene	20.659	252.0	114534	60560.51	ND µg/mL	18.9
SS-D12-Benzo(e)pyrene	20.611	264.0	8516	4496.15	ND µg/mL	33.4
Benzo(e)pyrene	20.659	252.0	114534	60560.51	ND µg/mL	18.9
Benzo(a)pyrene	20.659	252.0	114534	60560.51	ND µg/mL	18.9
IS-D12-Perylene	20.876	264.0	7704	4064.21	ND µg/mL	25.7
Perylene	20.996	252.0	91442	47815.06	ND µg/mL	19.1
Indeno(1,2,3-c,d)pyrene	22.799	276.0	99	31.32	ND µg/mL	4.5
Dibenz(a,h)anthracene	22.875	278.0	156	41.78	ND µg/mL	42.3
Benzo(g,h,i)perylene	23.165	276.0	71	21.02	ND µg/mL	
Coronene	25.601	300.0	12	7.00	ND µg/mL	

## IS-D8-Naphthalene

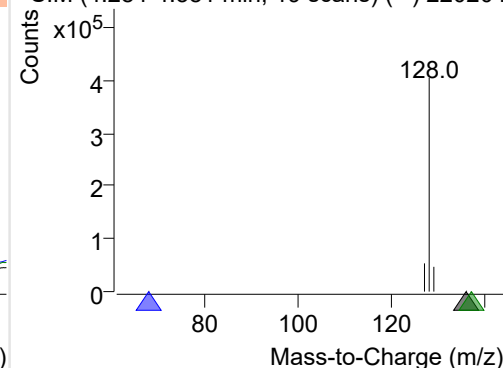
+ Selected Ion (136.0) 220204-PAHs-051.D



136.0, 68.0, 137.0

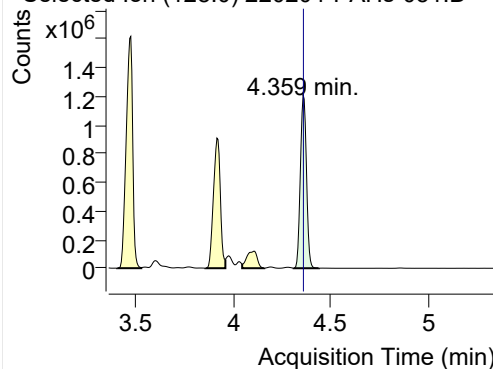


+ SIM (4.284-4.381 min, 19 scans) (\*\*) 220204

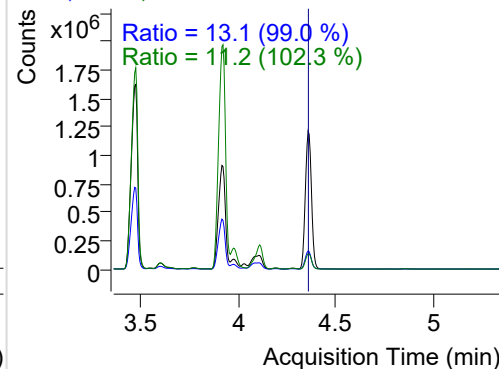


**Naphthalene**

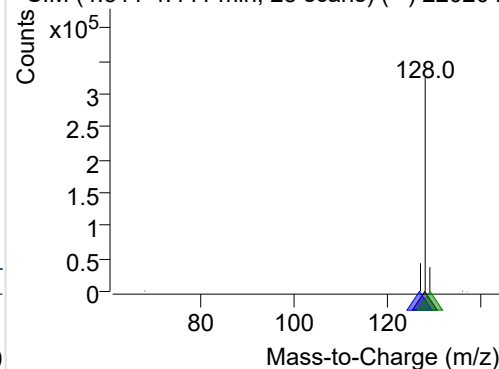
+ Selected Ion (128.0) 220204-PAHs-051.D



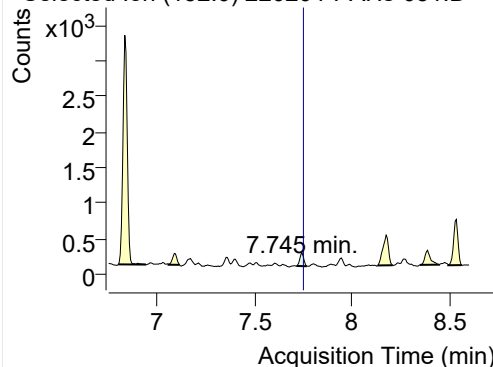
128.0, 127.0, 129.0



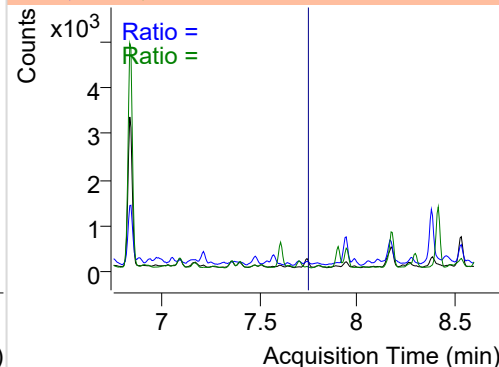
+ SIM (4.311-4.441 min, 25 scans) (\*\*) 220204

**Acenaphthylene**

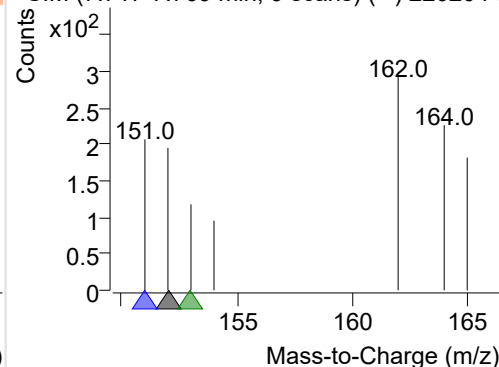
+ Selected Ion (152.0) 220204-PAHs-051.D



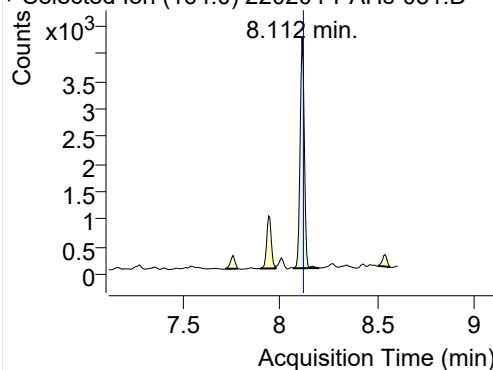
152.0, 151.0, 153.0



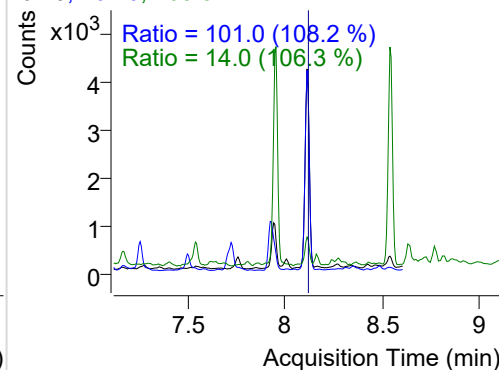
+ SIM (7.717-7.769 min, 9 scans) (\*\*) 220204-I

**IS-D10-Acenaphthene**

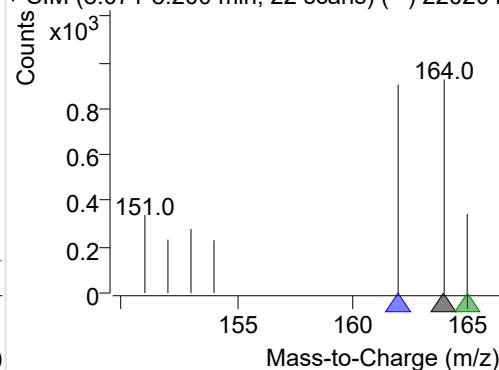
+ Selected Ion (164.0) 220204-PAHs-051.D



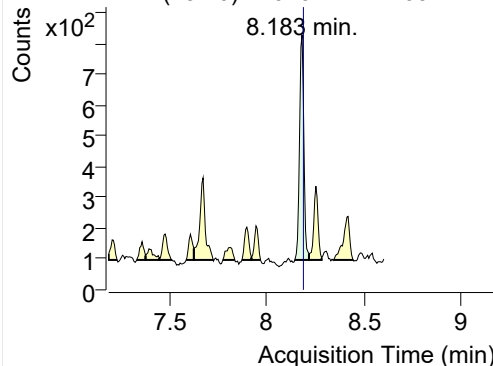
164.0, 162.0, 165.0



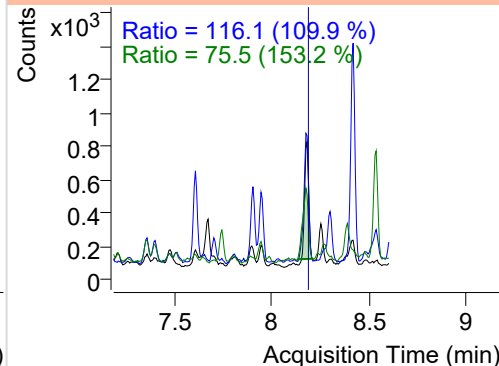
+ SIM (8.071-8.200 min, 22 scans) (\*\*) 220204

**Acenaphthene**

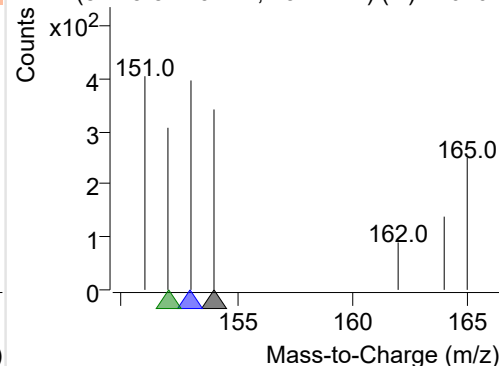
+ Selected Ion (154.0) 220204-PAHs-051.D



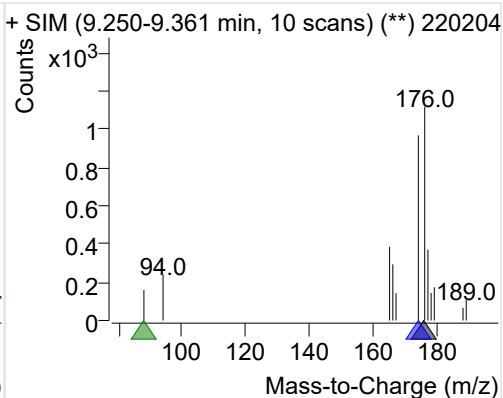
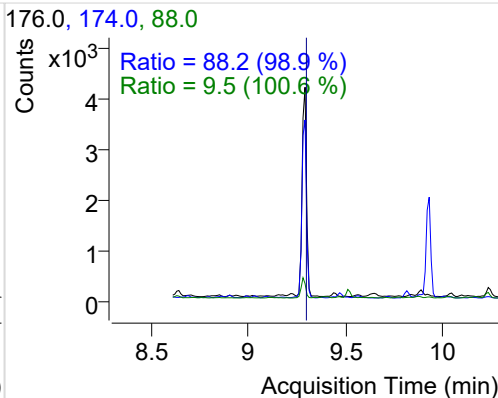
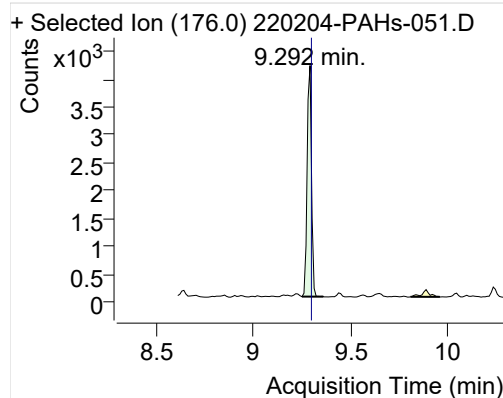
154.0, 153.0, 152.0



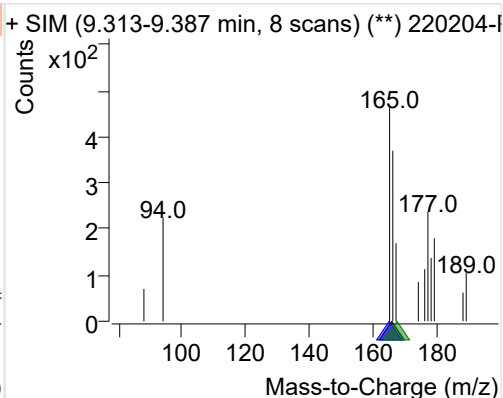
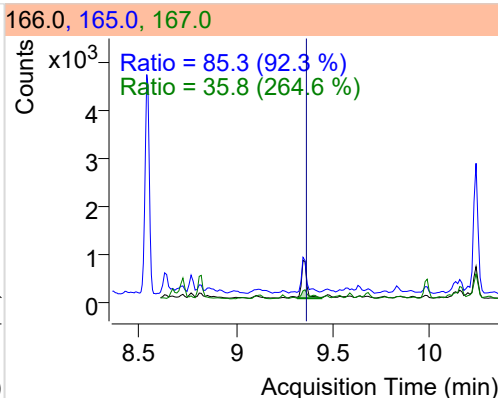
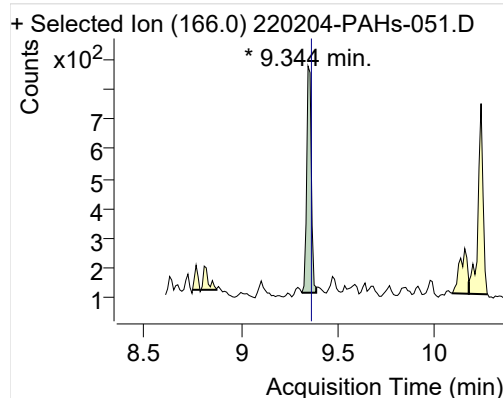
+ SIM (8.145-8.219 min, 13 scans) (\*\*) 220204



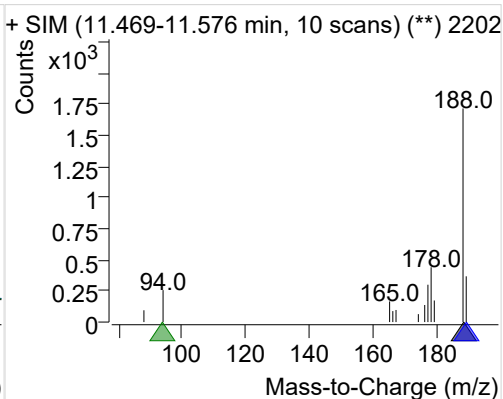
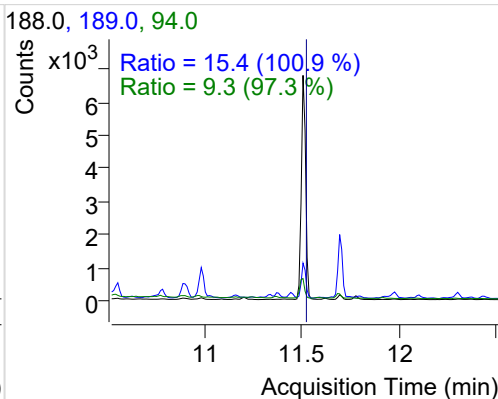
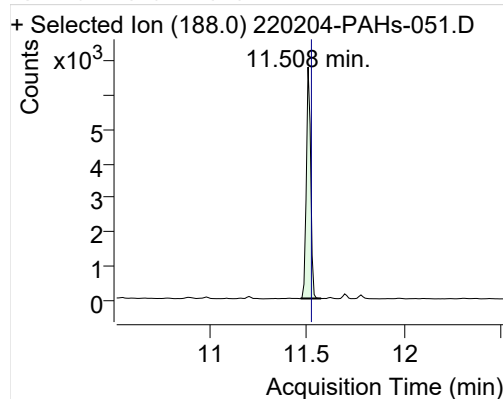
## LSS-D10-Fluorene



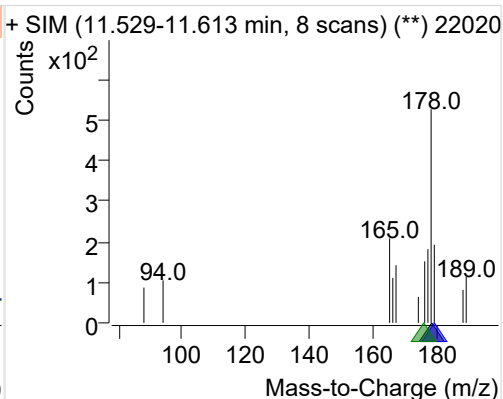
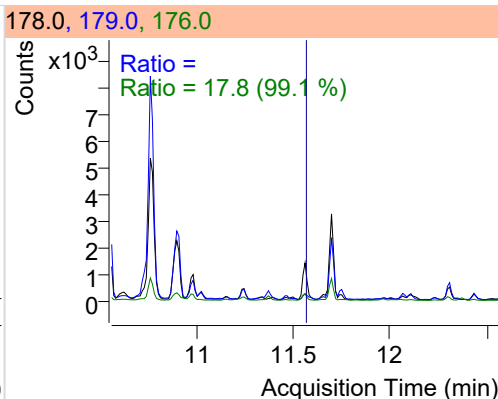
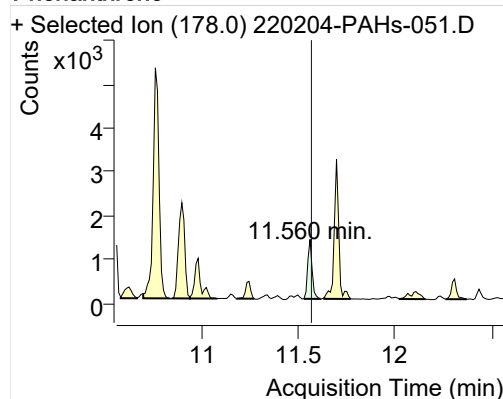
## Fluorene



## IS-D10-Phenanthrene

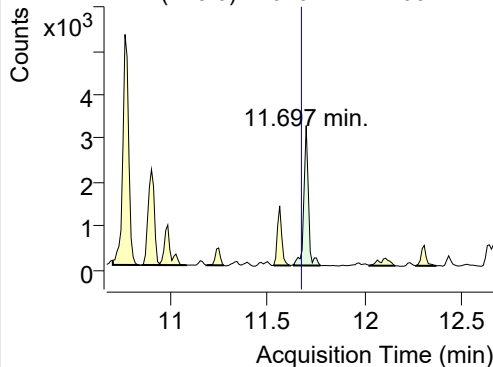


## Phenanthrene

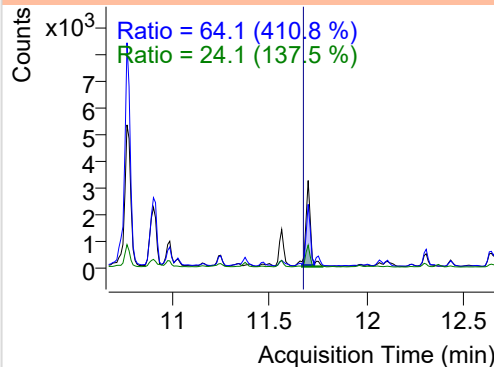


**Anthracene**

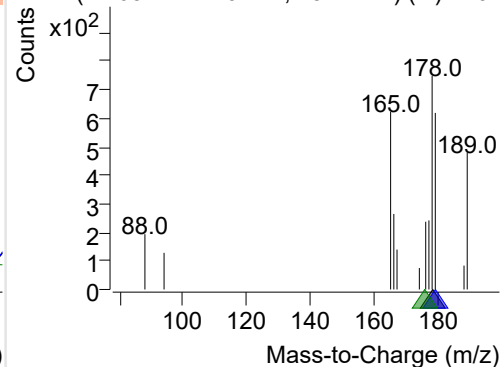
+ Selected Ion (178.0) 220204-PAHs-051.D



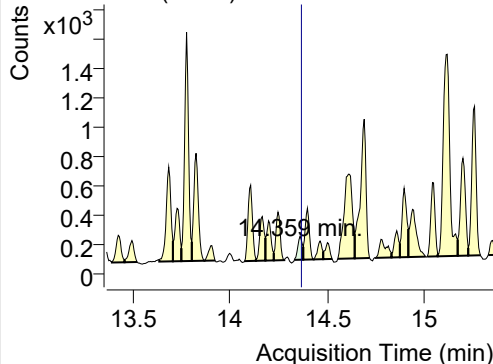
178.0, 179.0, 176.0



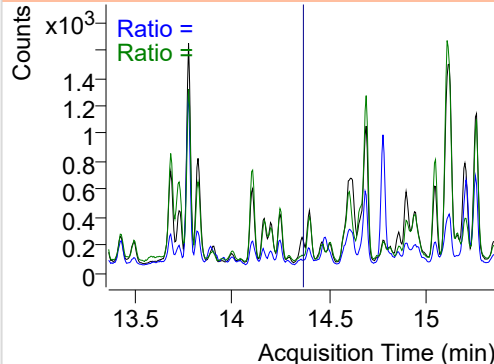
+ SIM (11.634-11.770 min, 13 scans) (\*\*) 2202

**Fluoranthene**

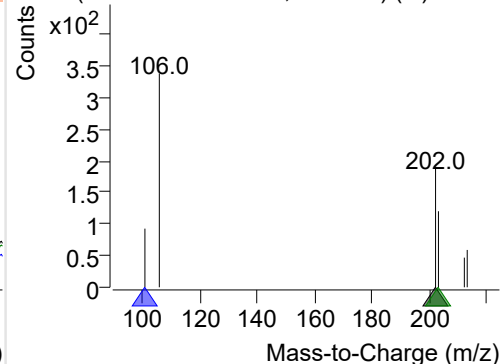
+ Selected Ion (202.0) 220204-PAHs-051.D



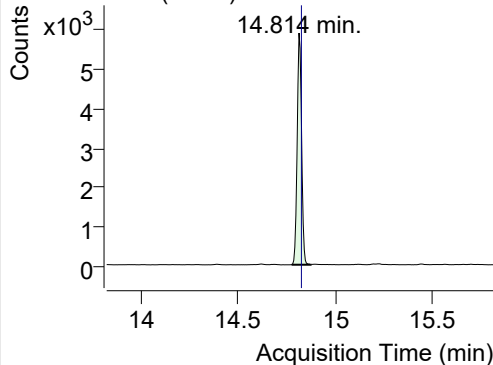
202.0, 101.0, 203.0



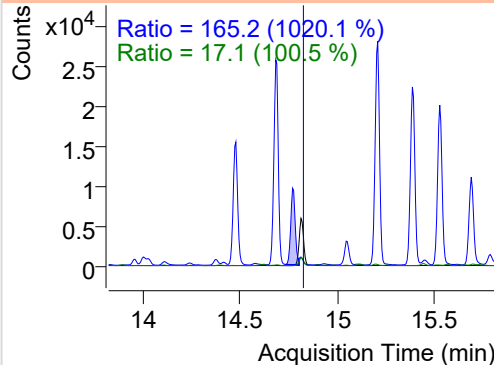
+ SIM (14.330-14.375 min, 9 scans) (\*\*) 22020

**LSS-D10-Pyrene**

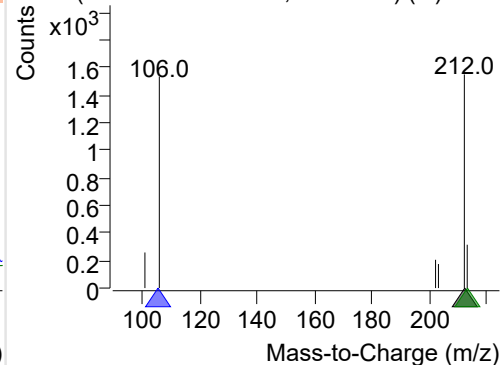
+ Selected Ion (212.0) 220204-PAHs-051.D



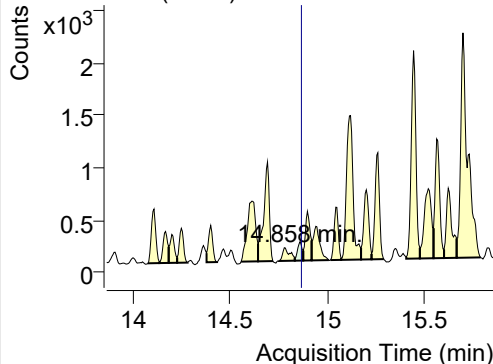
212.0, 106.0, 213.0



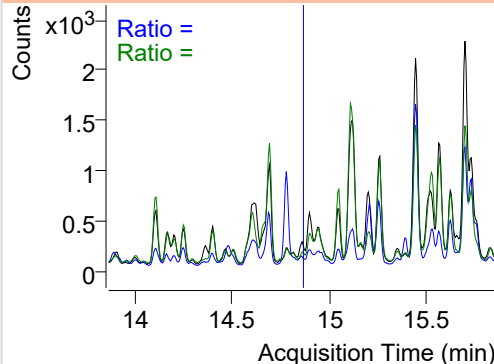
+ SIM (14.776-14.874 min, 19 scans) (\*\*) 2202

**Pyrene**

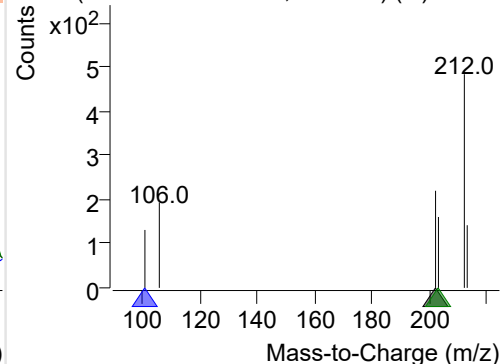
+ Selected Ion (202.0) 220204-PAHs-051.D



202.0, 101.0, 203.0



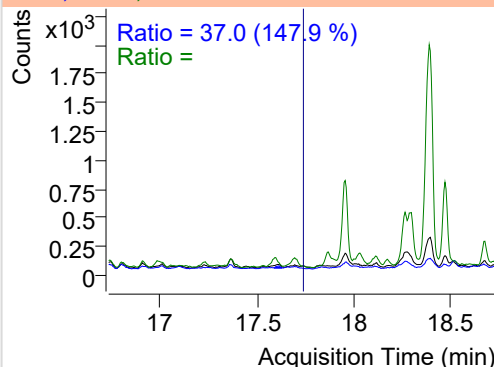
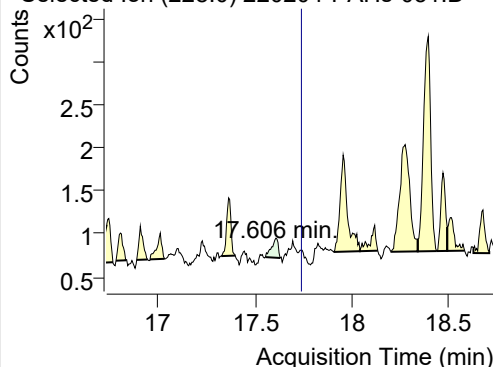
+ SIM (14.831-14.874 min, 9 scans) (\*\*) 22020



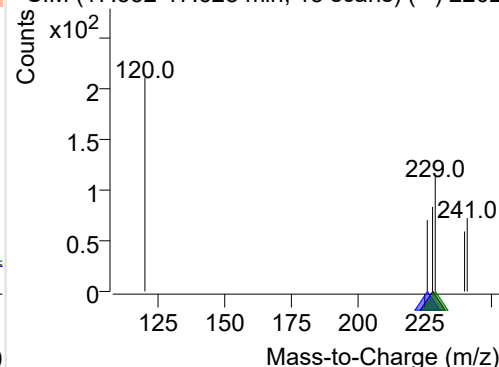
**Benz(a)anthracene**

+ Selected Ion (228.0) 220204-PAHs-051.D

228.0, 226.0, 229.0

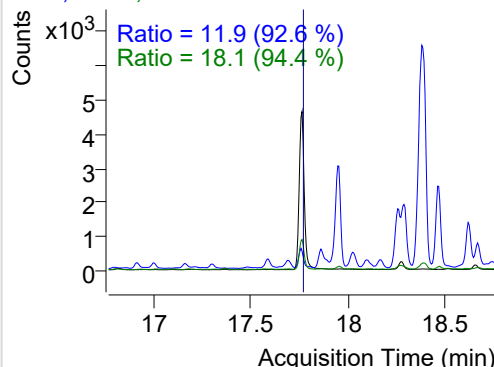
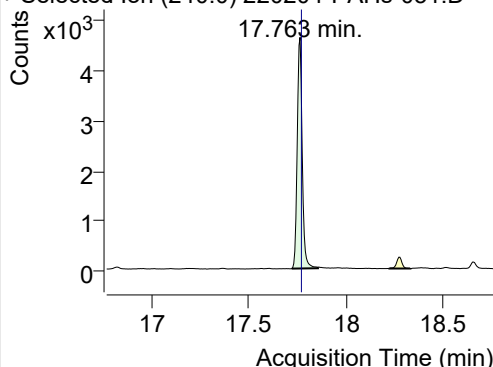


+ SIM (17.552-17.628 min, 15 scans) (\*\*) 2202

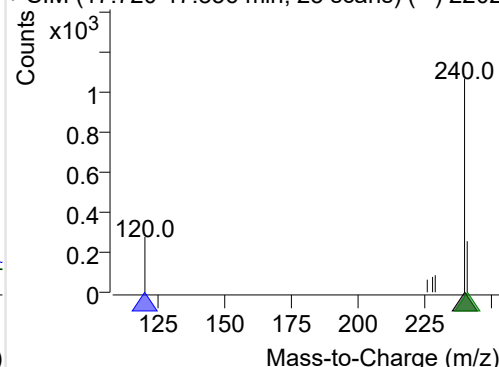
**IS-D12-Chrysene**

+ Selected Ion (240.0) 220204-PAHs-051.D

240.0, 120.0, 241.0

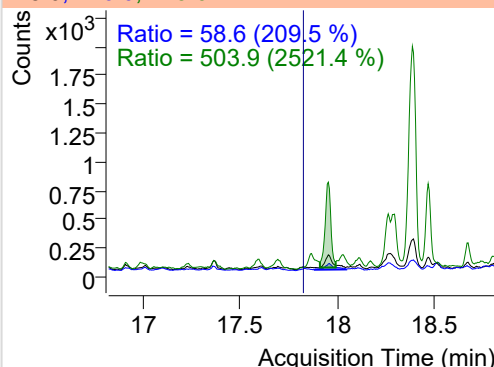
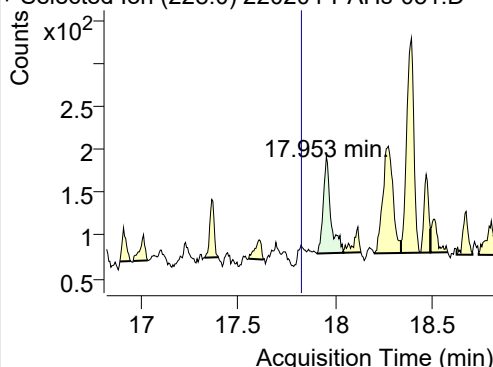


+ SIM (17.720-17.856 min, 25 scans) (\*\*) 2202

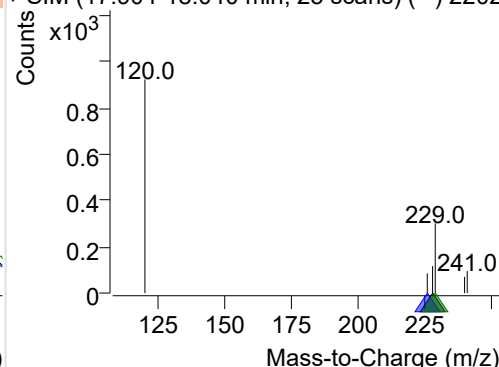
**Chrysene**

+ Selected Ion (228.0) 220204-PAHs-051.D

228.0, 226.0, 229.0

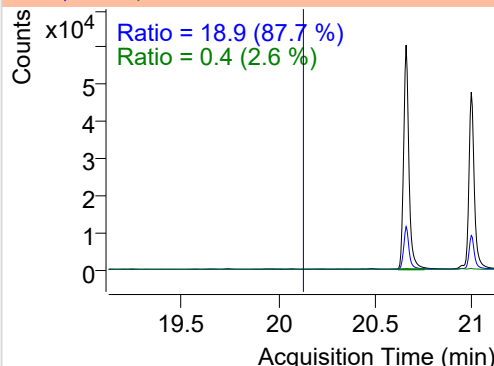
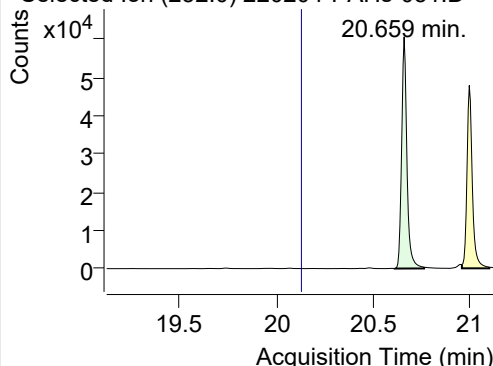


+ SIM (17.904-18.040 min, 25 scans) (\*\*) 2202

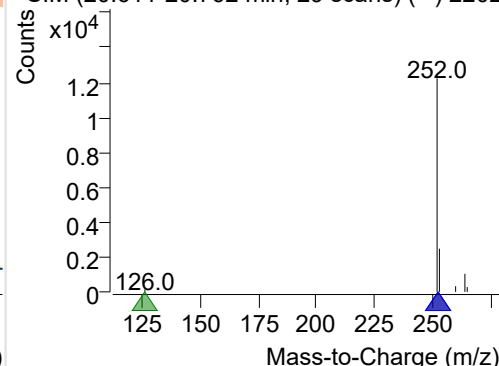
**Benzo(b)fluoranthene**

+ Selected Ion (252.0) 220204-PAHs-051.D

252.0, 253.0, 126.0

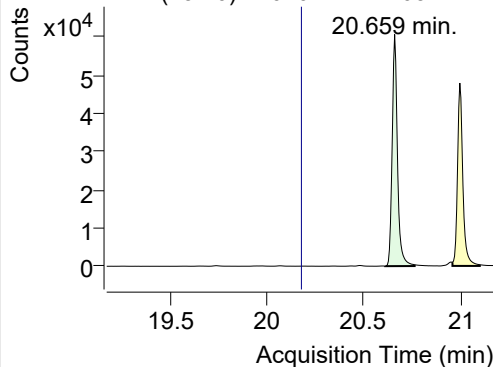


+ SIM (20.611-20.762 min, 29 scans) (\*\*) 2202

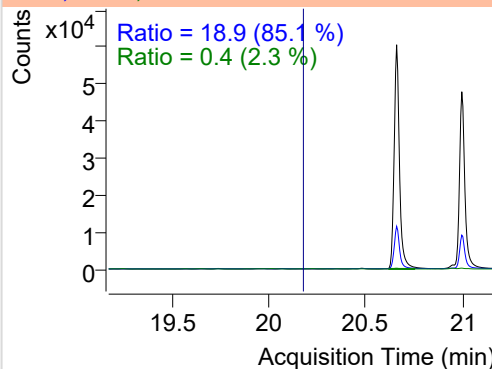


**Benzo(k)fluoranthene**

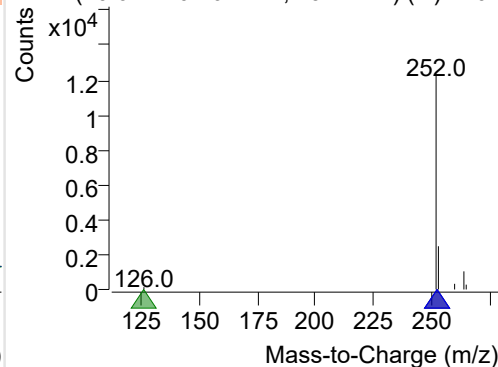
+ Selected Ion (252.0) 220204-PAHs-051.D



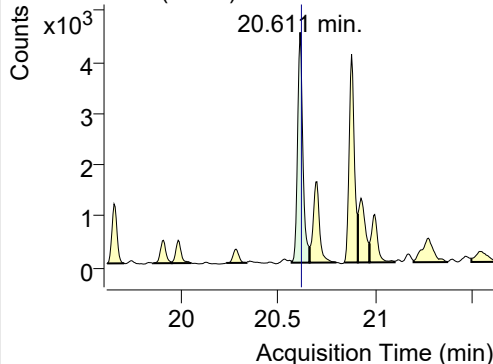
252.0, 253.0, 126.0



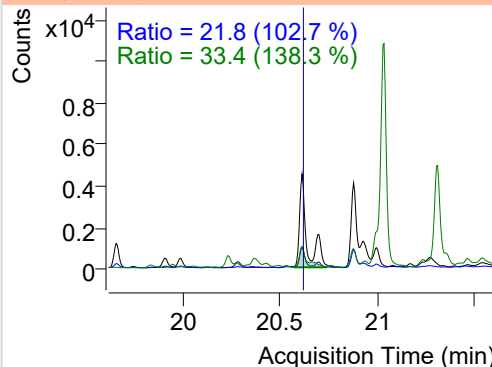
+ SIM (20.611-20.762 min, 29 scans) (\*\*) 2202

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

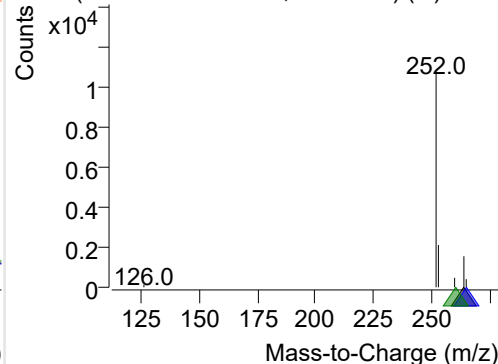
+ Selected Ion (264.0) 220204-PAHs-051.D



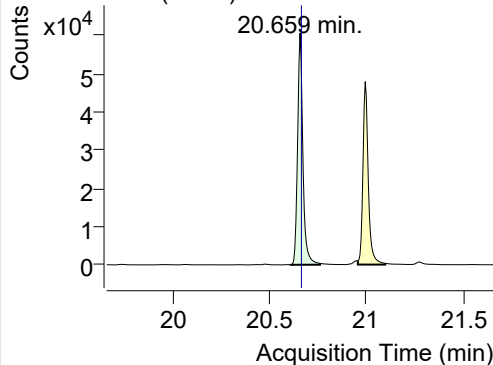
264.0, 265.0, 260.0



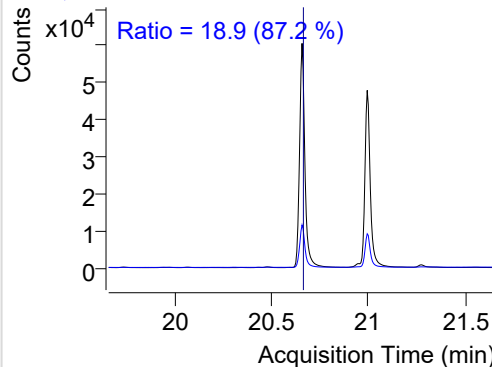
+ SIM (20.567-20.659 min, 18 scans) (\*\*) 2202

**Benzo(e)pyrene**

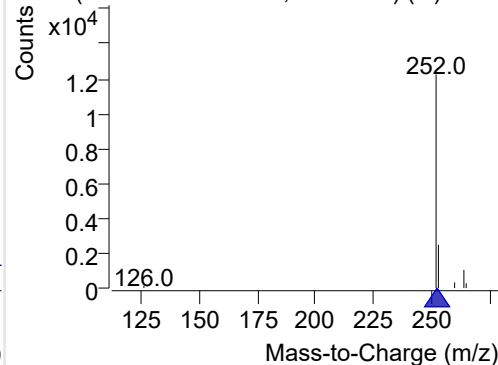
+ Selected Ion (252.0) 220204-PAHs-051.D



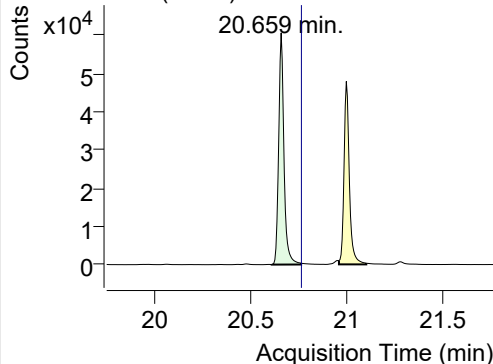
252.0, 253.0



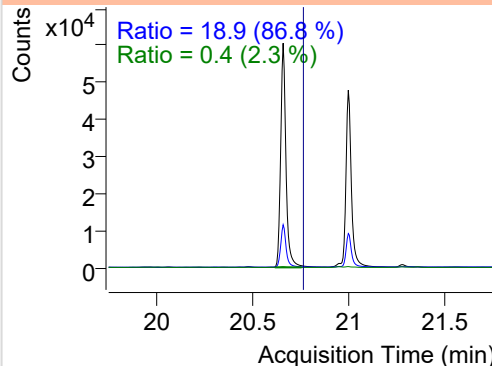
+ SIM (20.611-20.762 min, 29 scans) (\*\*) 2202

**Benzo(a)pyrene**

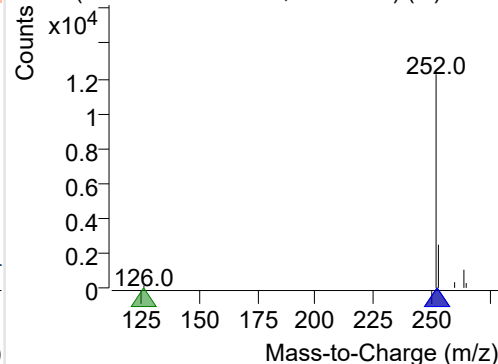
+ Selected Ion (252.0) 220204-PAHs-051.D



252.0, 253.0, 126.0



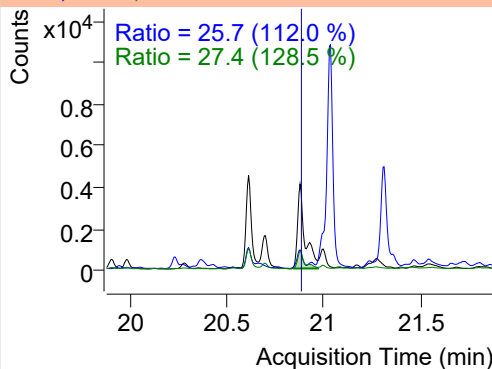
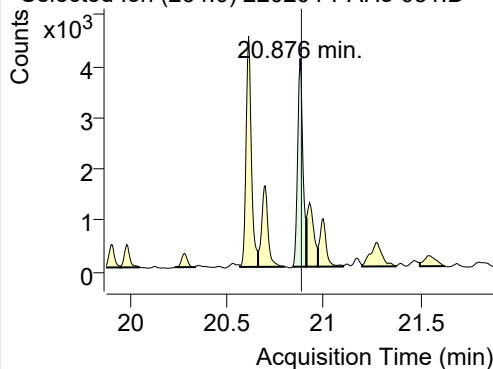
+ SIM (20.611-20.762 min, 29 scans) (\*\*) 2202



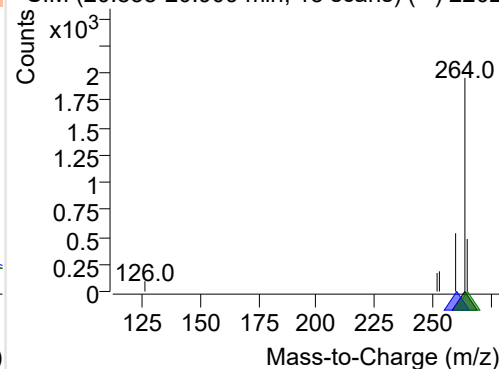
## IS-D12-Perylene

+ Selected Ion (264.0) 220204-PAHs-051.D

264.0, 260.0, 265.0



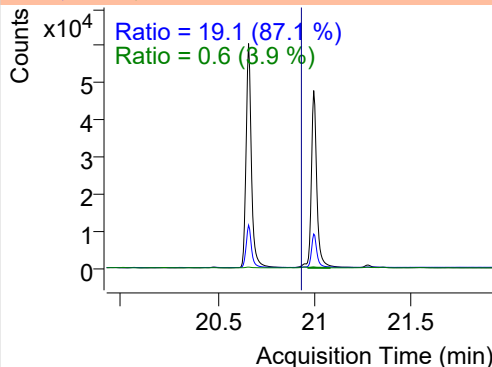
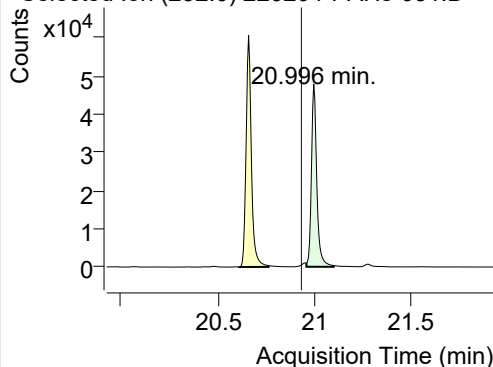
+ SIM (20.838-20.909 min, 13 scans) (\*\*) 2202



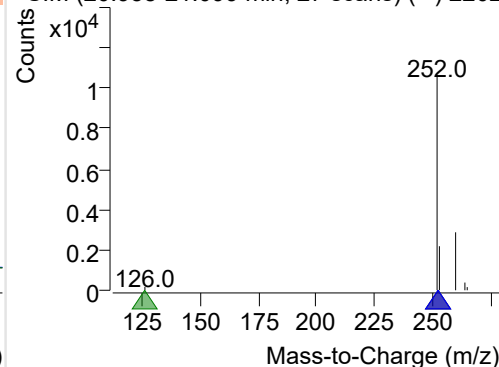
## Perylene

+ Selected Ion (252.0) 220204-PAHs-051.D

252.0, 253.0, 126.0



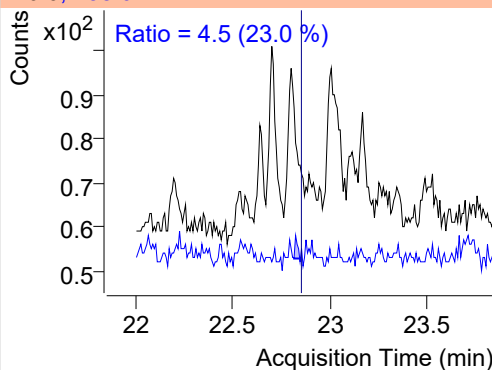
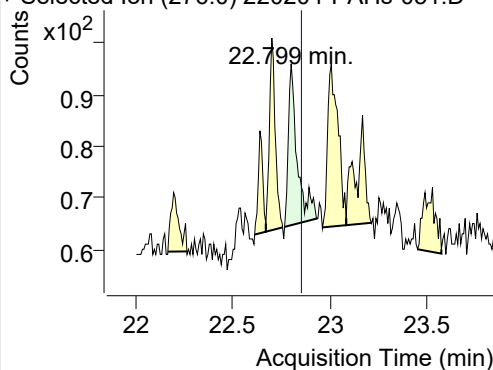
+ SIM (20.958-21.099 min, 27 scans) (\*\*) 2202



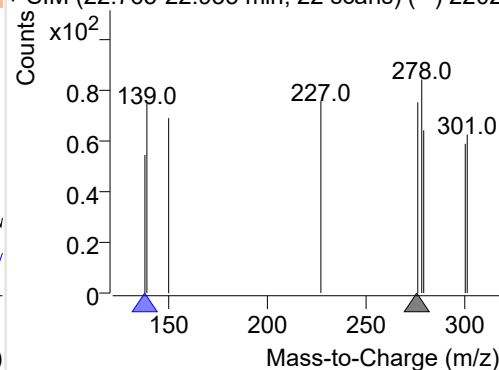
## Indeno(1,2,3-c,d)pyrene

+ Selected Ion (276.0) 220204-PAHs-051.D

276.0, 138.0



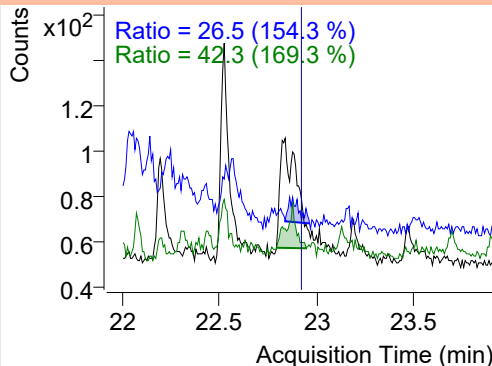
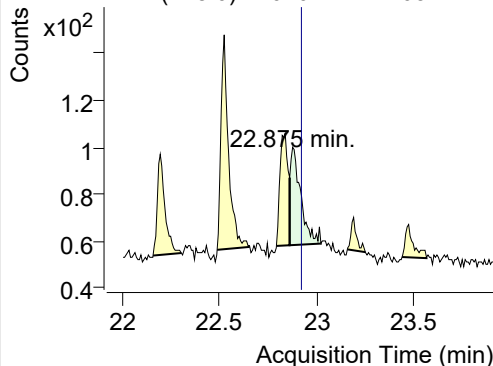
+ SIM (22.765-22.935 min, 22 scans) (\*\*) 2202



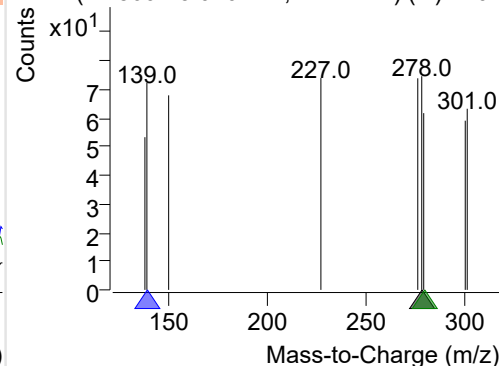
## Dibenz(a,h)anthracene

+ Selected Ion (278.0) 220204-PAHs-051.D

278.0, 139.0, 279.0



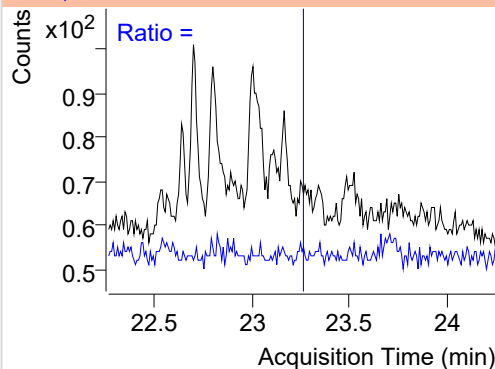
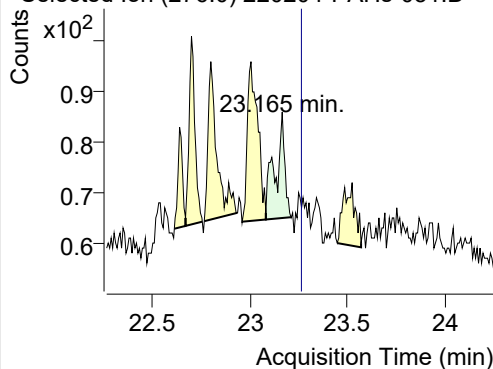
+ SIM (22.860-23.020 min, 22 scans) (\*\*) 2202



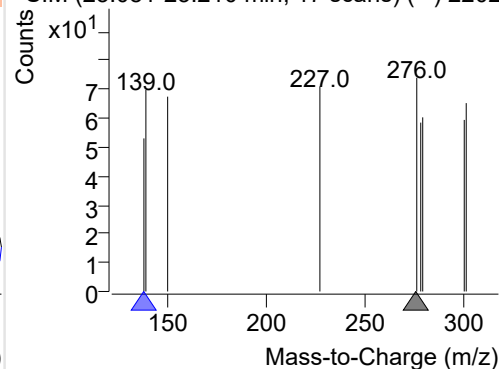
**Benzo(g,h,i)perylene**

+ Selected Ion (276.0) 220204-PAHs-051.D

276.0, 138.0

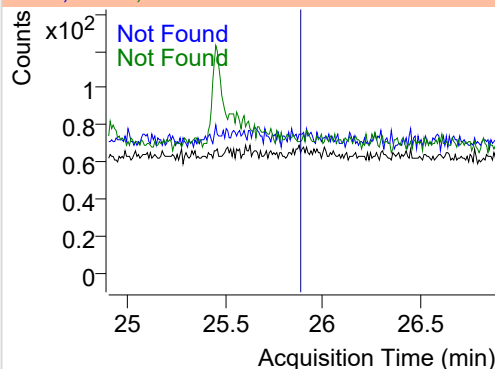
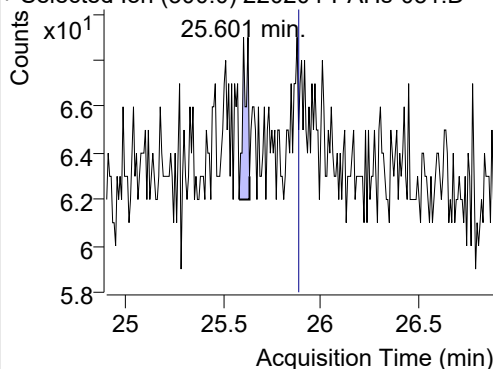


+ SIM (23.081-23.210 min, 17 scans) (\*\*) 2202

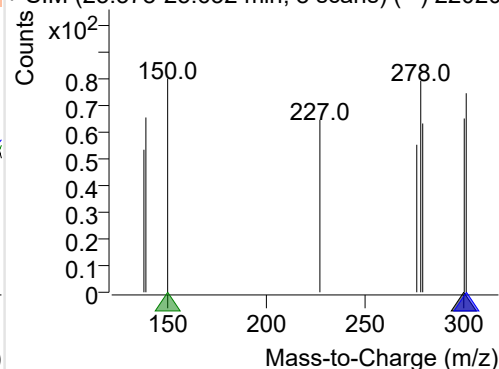
**Coronene**

+ Selected Ion (300.0) 220204-PAHs-051.D

300.0, 301.0, 150.0



+ SIM (25.578-25.632 min, 8 scans) (\*\*) 22020





## Quantitative Analysis Sample Based Report

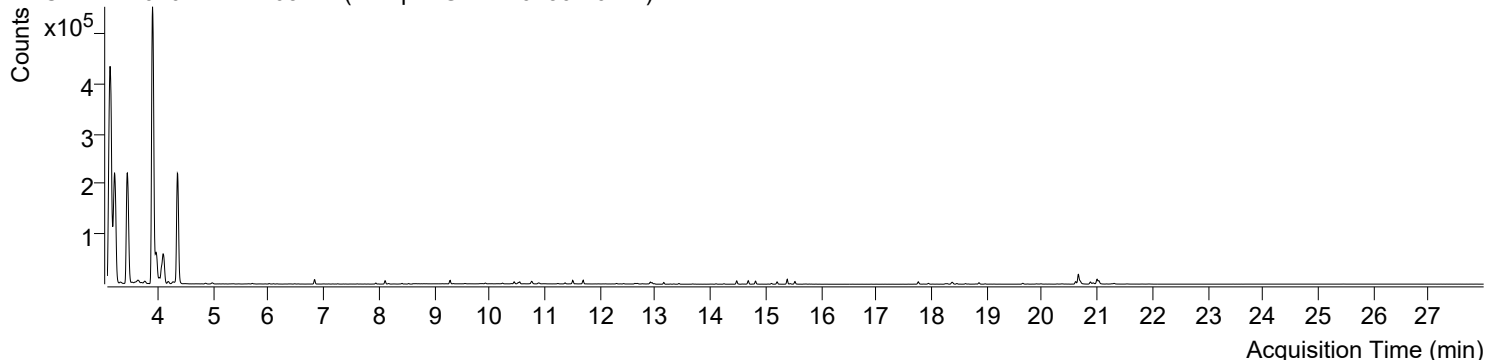


Trusted Answers

Batch Data Path File Name	D:\MassHunter\GCMS\1\data\PAHs\220204-PAHs-Sample\QuantResults\220204-PAHs-Quant.batch.bin		
Analysis Time Stamp	2022-04-13 오후 3:18:46	Analyst Name	DESKTOP-86B7UPG\5975MS
Report Generation Time	2022-04-13 오후 3:19:11	Report Generator Name	DESKTOP-86B7UPG\5975MS
Calibration Last Update	2022-04-13 오후 3:16:00	Batch State	Processed
Analyze Quant Version	10.2	Report Quant Version	10.2
Acq. Date-Time	2022-02-05 오후 4:39:06	Data File	220204-PAHs-052.D
Type	Sample	Name	Sample-Gas-220130-10DIL
Dil.	1	Acq. Method File	PAHs 19mix-Method

## Sample Chromatogram

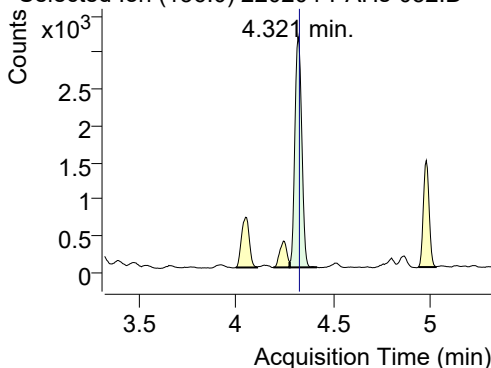
+ TIC SIM 220204-PAHs-052.D (Sample-Gas-220130-10DIL)



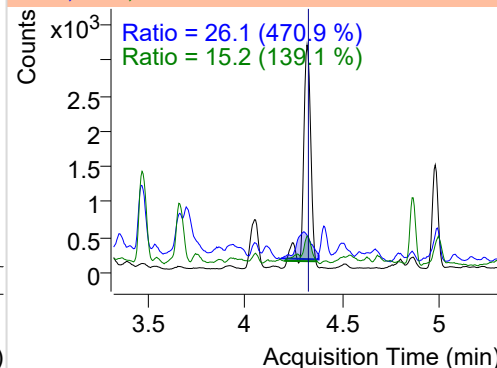
Name	RT	Transition	Resp.	Height	Final Conc. Units	Ratio
IS-D8-Naphthalene	4.321	136.0	7798	3148.66	ND ng/ml	15.2
Naphthalene	4.354	128.0	439262	176790.00	ND ng/ml	13.4
Acenaphthylene	7.745	152.0	210	147.20	ND ng/ml	
IS-D10-Acenaphthene	8.112	164.0	5025	3252.37	ND ng/ml	92.4
Acenaphthene	8.183	154.0	504	325.18	ND ng/ml	113.1
LSS-D10-Fluorene	9.292	176.0	5204	3267.15	ND µg/mL	89.3
Fluorene	9.344	166.0	325	195.40	ND µg/mL	86.2
IS-D10-Phenanthrene	11.508	188.0	8647	5485.41	ND µg/mL	15.1
Phenanthrene	11.560	178.0	331	209.40	ND µg/mL	18.4
Anthracene	11.697	178.0	3015	1953.52	ND µg/mL	25.1
Fluoranthene	14.359	202.0	49	32.27	ND µg/mL	
LSS-D10-Pyrene	14.814	212.0	7223	4557.62	ND µg/mL	17.4
Pyrene	14.852	202.0	243	79.27	ND µg/mL	
Benz(a)anthracene	17.763	228.0	31	12.26	ND µg/mL	
IS-D12-Chrysene	17.763	240.0	6555	3676.57	ND µg/mL	18.7
Chrysene	17.828	228.0	55	17.55	ND µg/mL	41.7
Benzo(b)fluoranthene	20.659	252.0	35123	15999.66	ND µg/mL	19.0
Benzo(k)fluoranthene	20.659	252.0	35123	15999.66	ND µg/mL	19.0
SS-D12-Benzo(e)pyrene	20.611	264.0	7126	3425.82	ND µg/mL	26.6
Benzo(e)pyrene	20.659	252.0	35123	15999.66	ND µg/mL	19.0
Benzo(a)pyrene	20.659	252.0	35123	15999.66	ND µg/mL	19.0
IS-D12-Perylene	20.876	264.0	5712	2889.99	ND µg/mL	25.7
Perylene	20.996	252.0	13421	6307.78	ND µg/mL	19.4
Indeno(1,2,3-c,d)pyrene	22.852	276.0	11	4.42	ND µg/mL	226.9
Dibenz(a,h)anthracene	22.906	278.0	20	6.68	ND µg/mL	
Benzo(g,h,i)perylene	23.257	276.0	22	5.42	ND µg/mL	
Coronene	25.891	300.0	62	6.14	ND µg/mL	

## IS-D8-Naphthalene

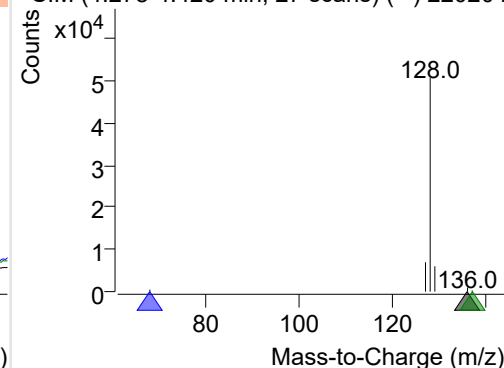
+ Selected Ion (136.0) 220204-PAHs-052.D



136.0, 68.0, 137.0

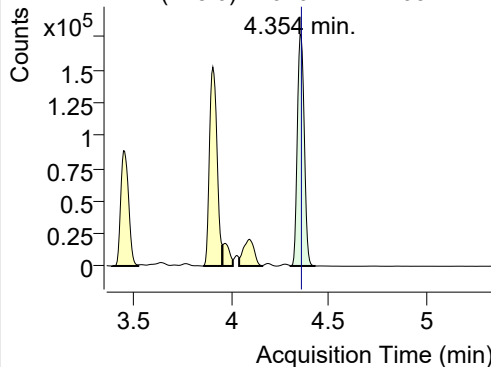


+ SIM (4.278-4.420 min, 27 scans) (\*\*) 220204

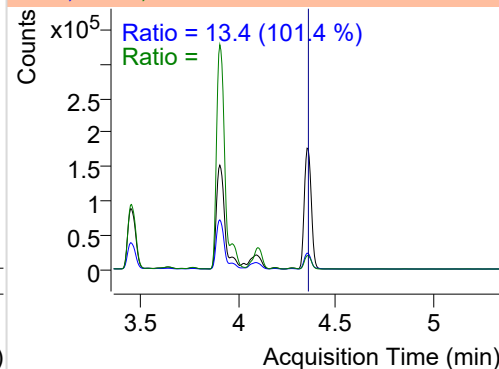


**Naphthalene**

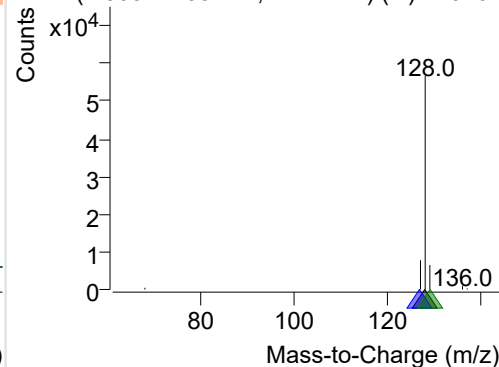
+ Selected Ion (128.0) 220204-PAHs-052.D



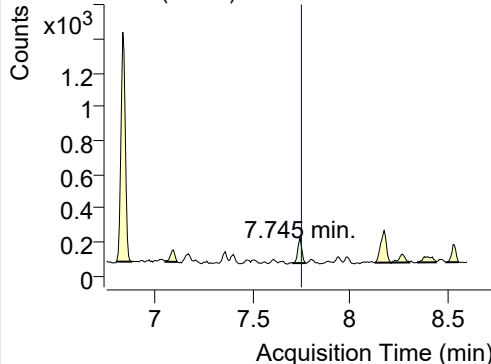
128.0, 127.0, 129.0



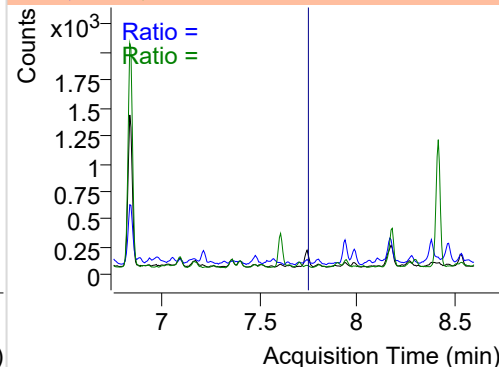
+ SIM (4.305-4.433 min, 24 scans) (\*\*) 220204

**Acenaphthylene**

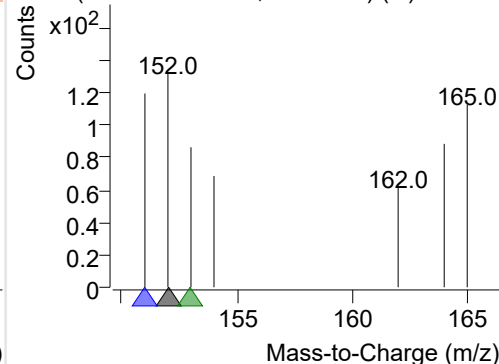
+ Selected Ion (152.0) 220204-PAHs-052.D



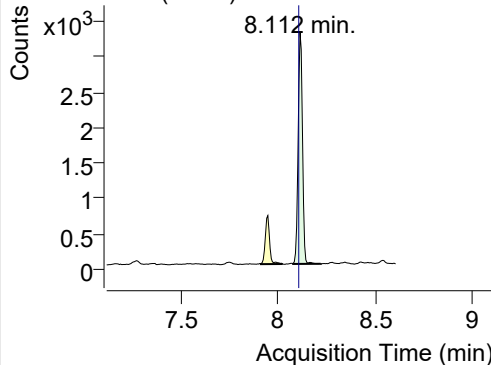
152.0, 151.0, 153.0



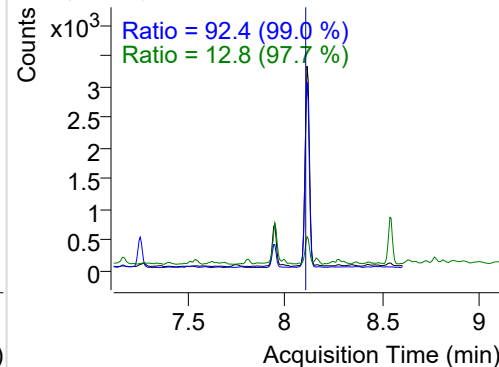
+ SIM (7.710-7.774 min, 11 scans) (\*\*) 220204

**IS-D10-Acenaphthene**

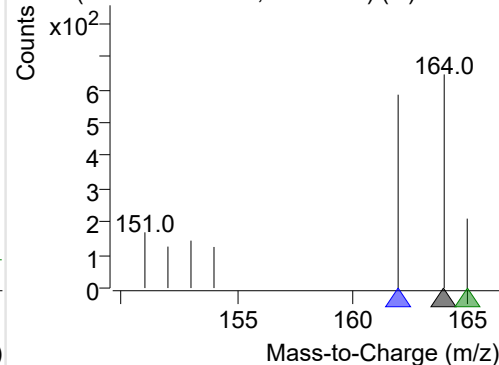
+ Selected Ion (164.0) 220204-PAHs-052.D



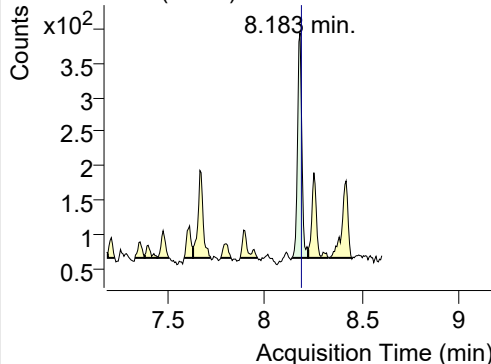
164.0, 162.0, 165.0



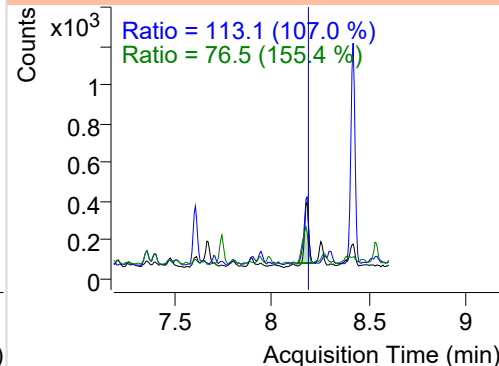
+ SIM (8.077-8.219 min, 25 scans) (\*\*) 220204

**Acenaphthene**

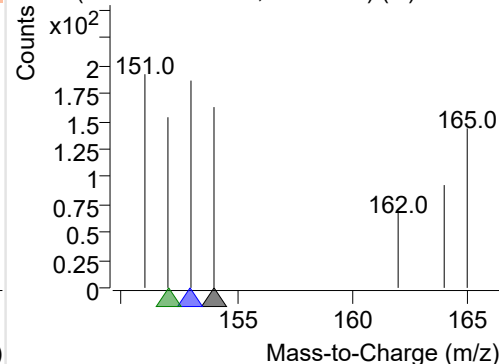
+ Selected Ion (154.0) 220204-PAHs-052.D



154.0, 153.0, 152.0

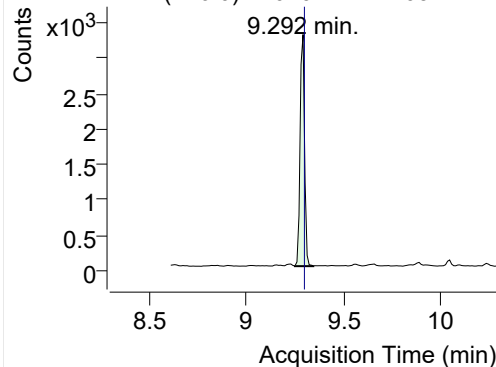


+ SIM (8.142-8.225 min, 15 scans) (\*\*) 220204

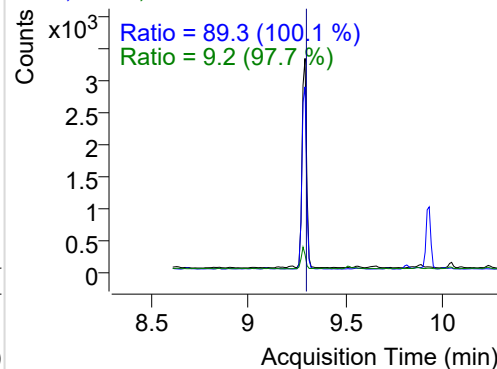


## LSS-D10-Fluorene

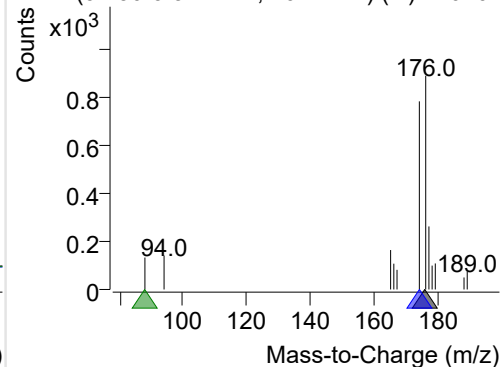
+ Selected Ion (176.0) 220204-PAHs-052.D



176.0, 174.0, 88.0

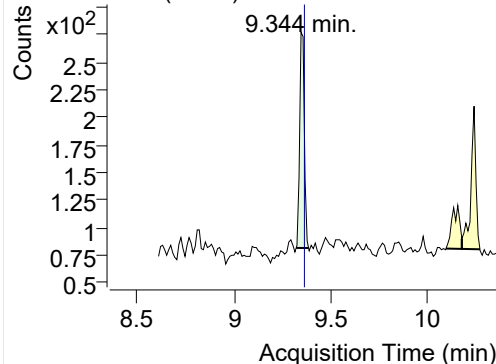


+ SIM (9.250-9.344 min, 10 scans) (\*\*) 220204

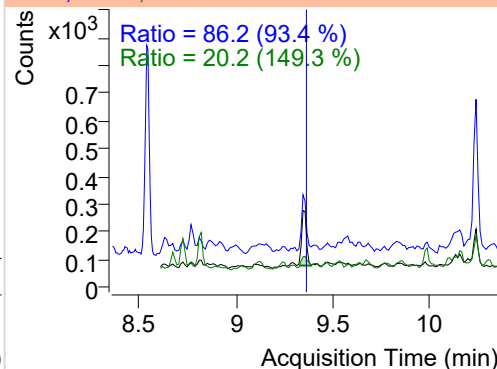


## Fluorene

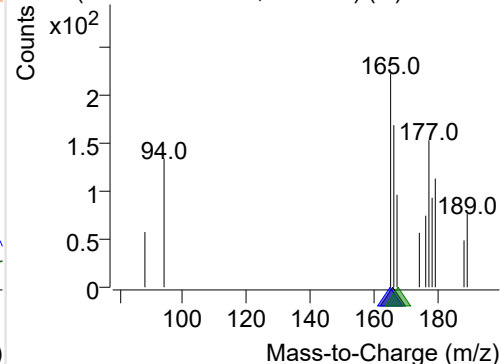
+ Selected Ion (166.0) 220204-PAHs-052.D



166.0, 165.0, 167.0

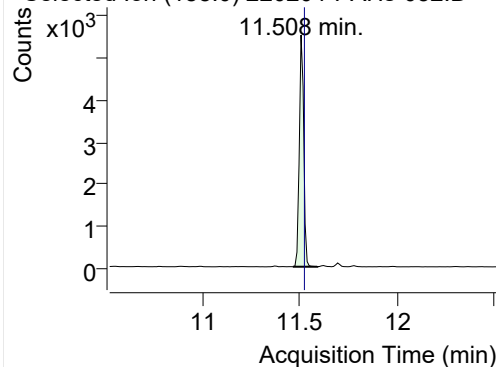


+ SIM (9.319-9.383 min, 6 scans) (\*\*) 220204-I

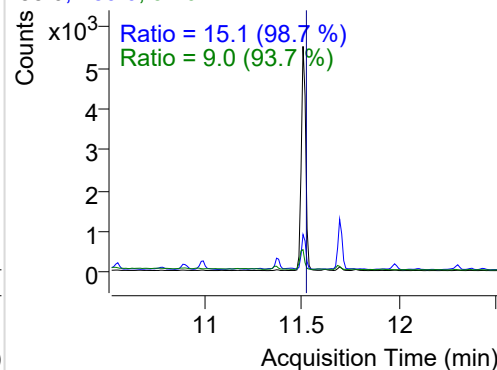


## IS-D10-Phenanthrene

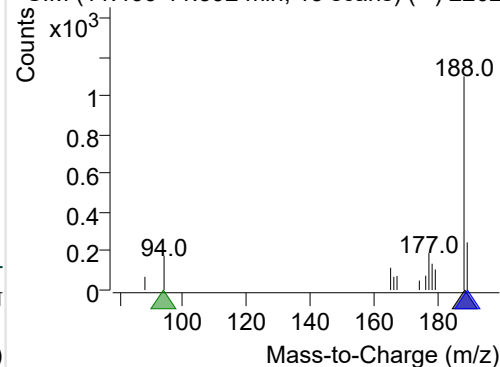
+ Selected Ion (188.0) 220204-PAHs-052.D



188.0, 189.0, 94.0

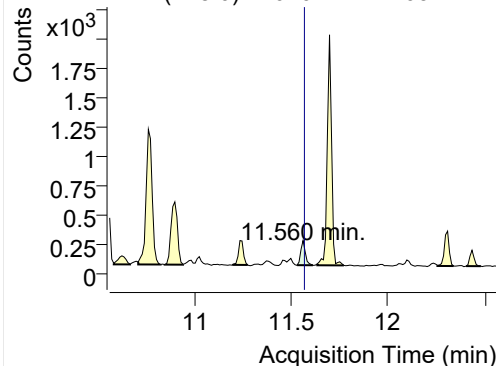


+ SIM (11.466-11.592 min, 13 scans) (\*\*) 2202

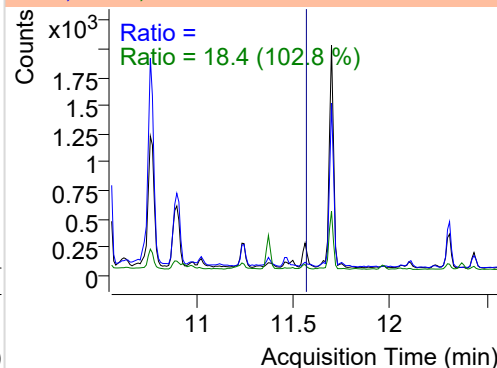


## Phenanthrene

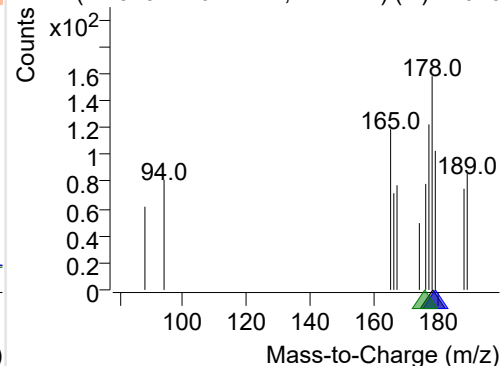
+ Selected Ion (178.0) 220204-PAHs-052.D



178.0, 179.0, 176.0

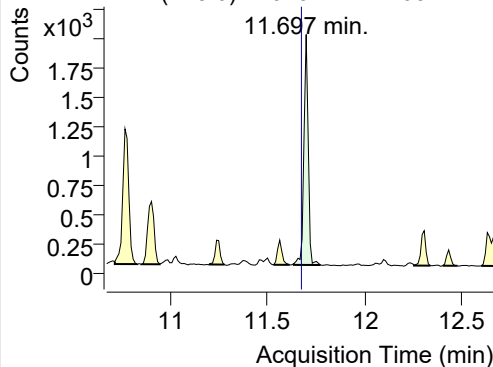


+ SIM (11.529-11.611 min, 7 scans) (\*\*) 22020

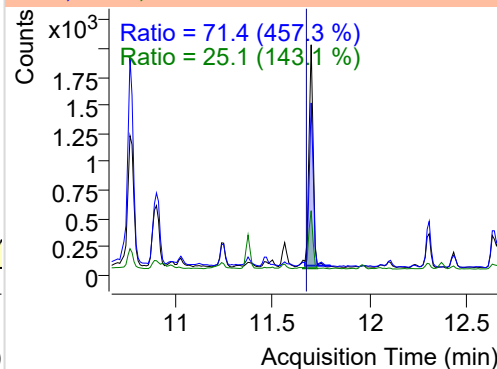


**Anthracene**

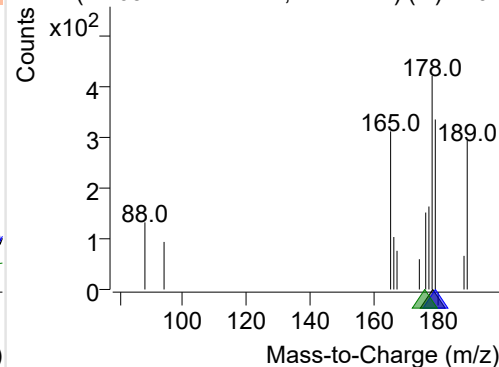
+ Selected Ion (178.0) 220204-PAHs-052.D



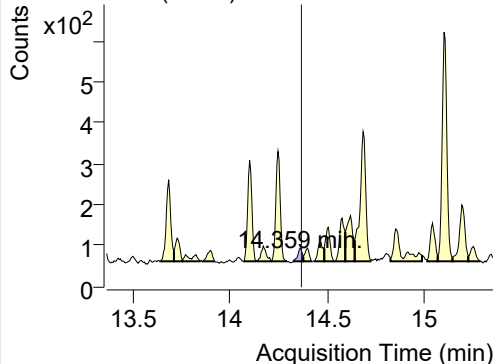
178.0, 179.0, 176.0



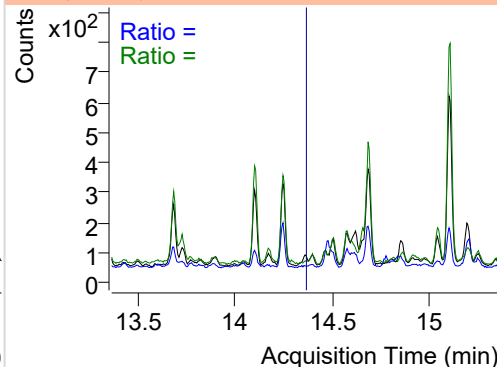
+ SIM (11.634-11.771 min, 14 scans) (\*\*) 2202

**Fluoranthene**

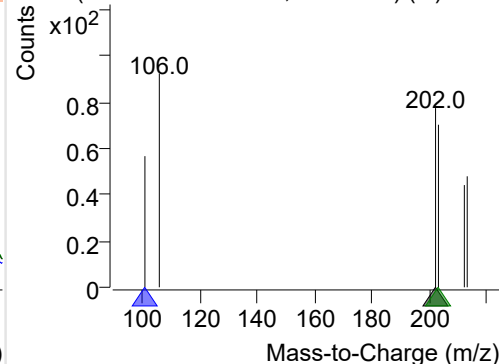
+ Selected Ion (202.0) 220204-PAHs-052.D



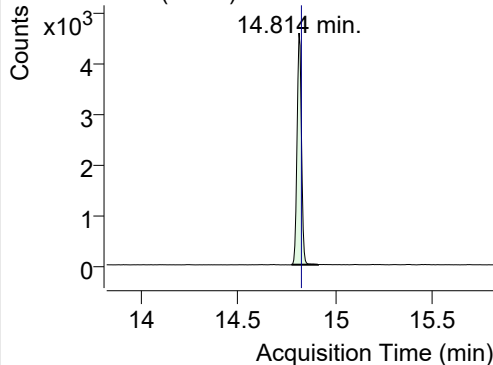
202.0, 101.0, 203.0



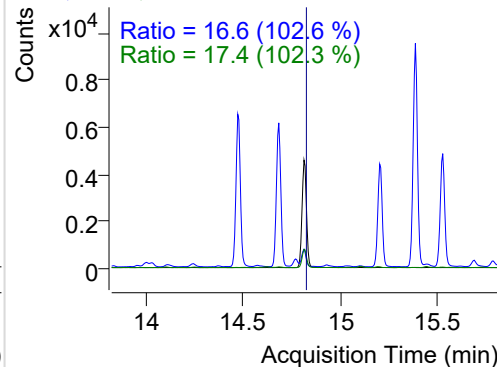
+ SIM (14.323-14.375 min, 10 scans) (\*\*) 2202

**LSS-D10-Pyrene**

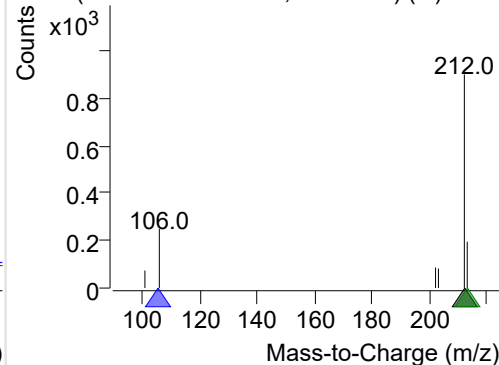
+ Selected Ion (212.0) 220204-PAHs-052.D



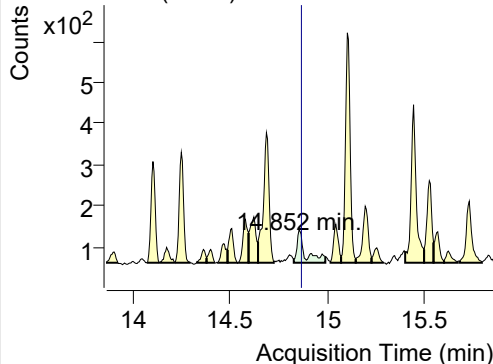
212.0, 106.0, 213.0



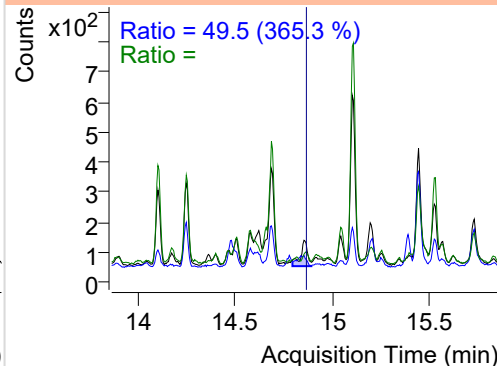
+ SIM (14.775-14.912 min, 26 scans) (\*\*) 2202

**Pyrene**

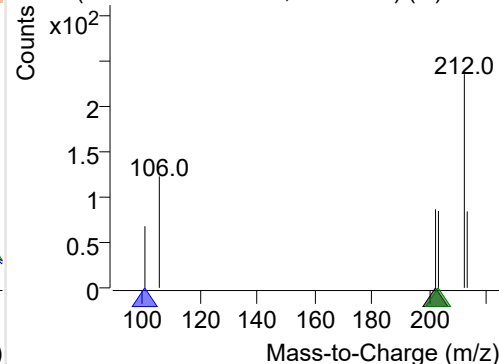
+ Selected Ion (202.0) 220204-PAHs-052.D



202.0, 101.0, 203.0



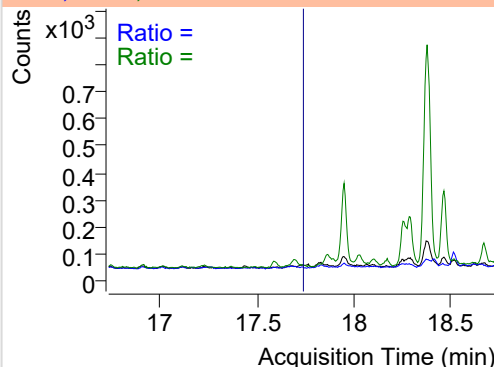
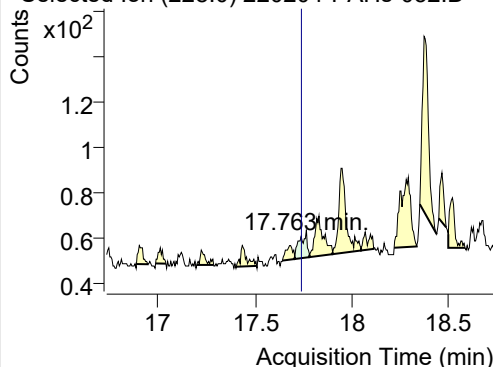
+ SIM (14.825-14.988 min, 31 scans) (\*\*) 2202



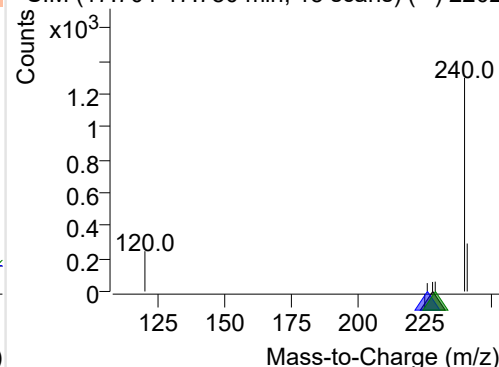
**Benz(a)anthracene**

+ Selected Ion (228.0) 220204-PAHs-052.D

228.0, 226.0, 229.0

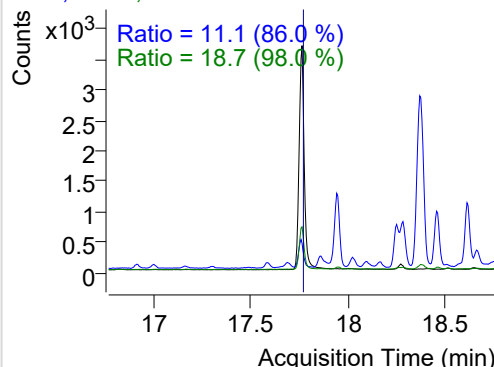
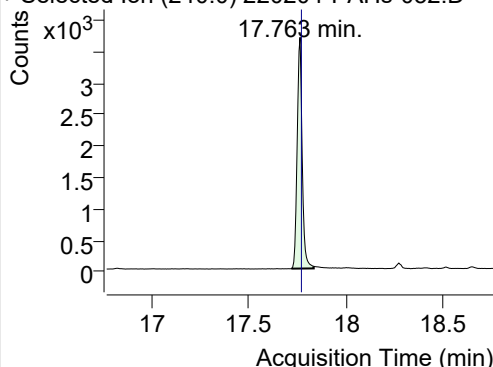


+ SIM (17.704-17.780 min, 15 scans) (\*\*) 2202

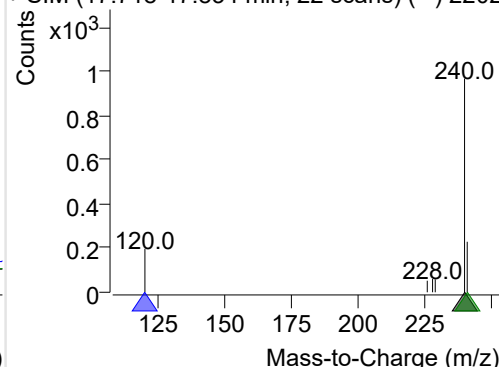
**IS-D12-Chrysene**

+ Selected Ion (240.0) 220204-PAHs-052.D

240.0, 120.0, 241.0

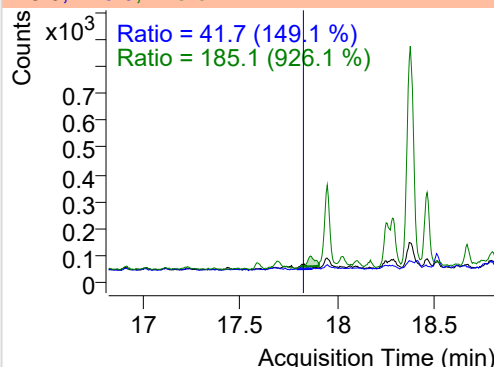
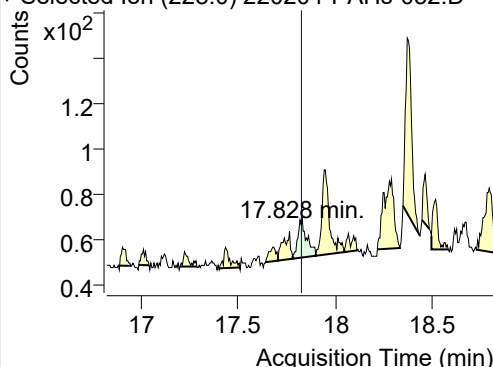


+ SIM (17.718-17.834 min, 22 scans) (\*\*) 2202

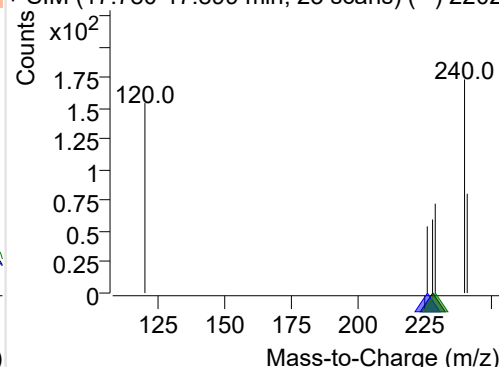
**Chrysene**

+ Selected Ion (228.0) 220204-PAHs-052.D

228.0, 226.0, 229.0

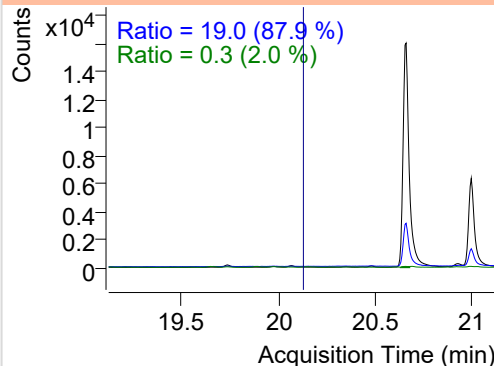
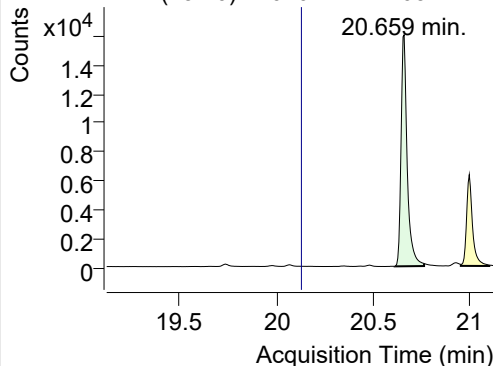


+ SIM (17.780-17.899 min, 23 scans) (\*\*) 2202

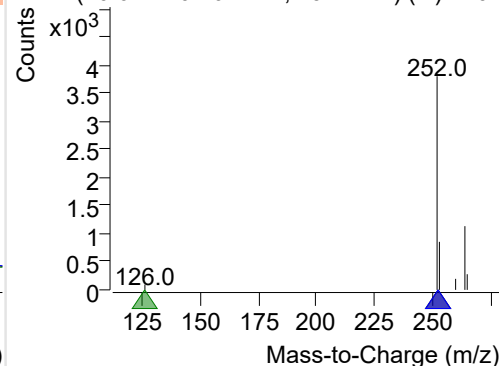
**Benzo(b)fluoranthene**

+ Selected Ion (252.0) 220204-PAHs-052.D

252.0, 253.0, 126.0



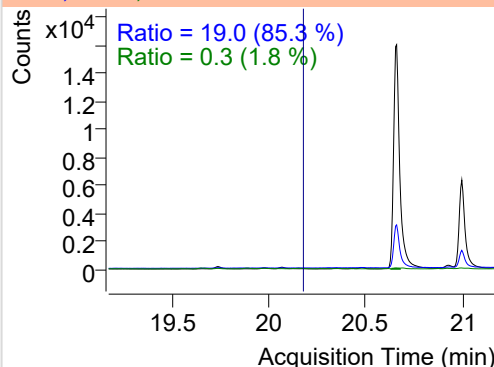
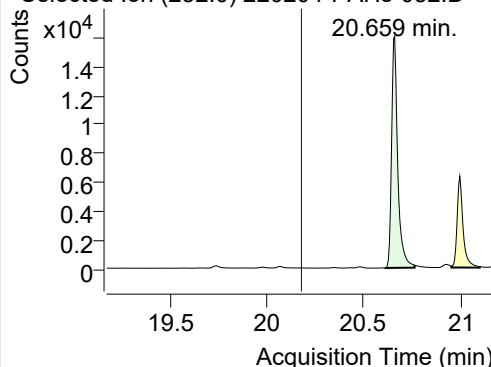
+ SIM (20.611-20.762 min, 29 scans) (\*\*) 2202



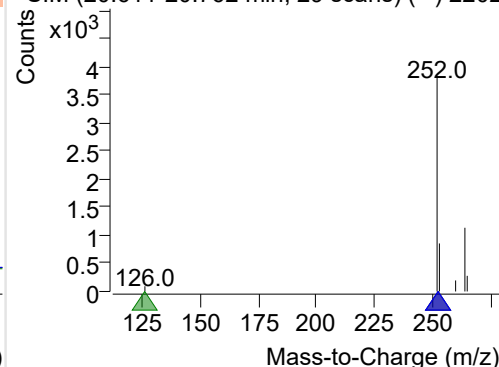
**Benzo(k)fluoranthene**

+ Selected Ion (252.0) 220204-PAHs-052.D

252.0, 253.0, 126.0

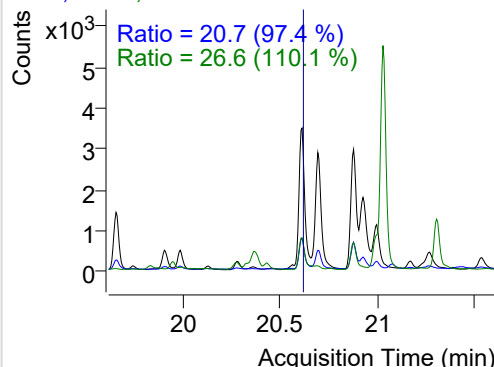
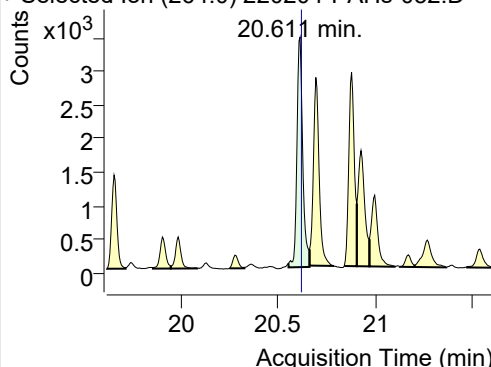


+ SIM (20.611-20.762 min, 29 scans) (\*\*) 2202

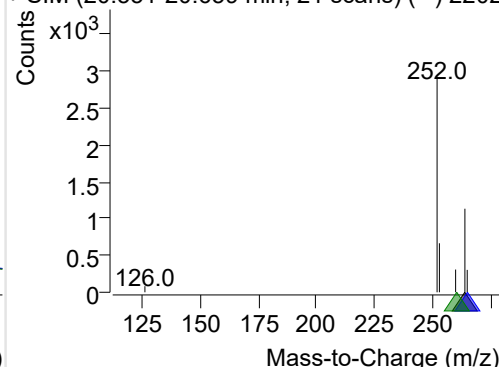
**SS-D12-Benzo(e)pyrene**

+ Selected Ion (264.0) 220204-PAHs-052.D

264.0, 265.0, 260.0

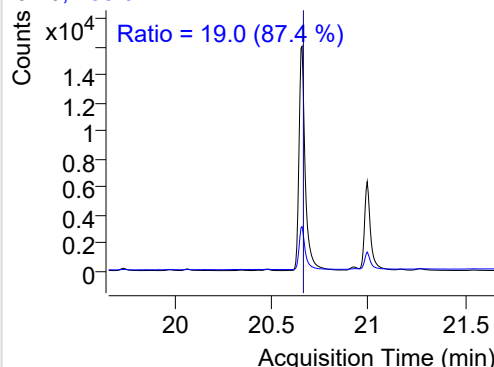
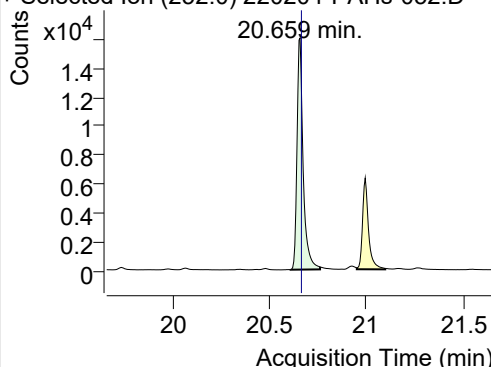


+ SIM (20.551-20.659 min, 21 scans) (\*\*) 2202

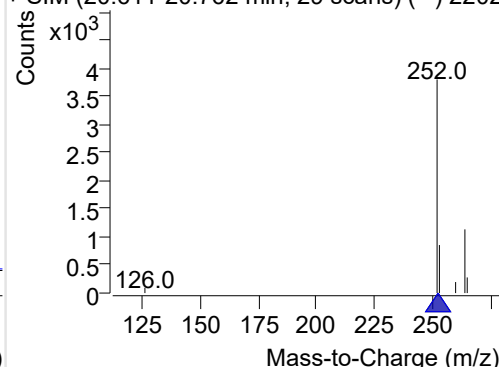
**Benzo(e)pyrene**

+ Selected Ion (252.0) 220204-PAHs-052.D

252.0, 253.0

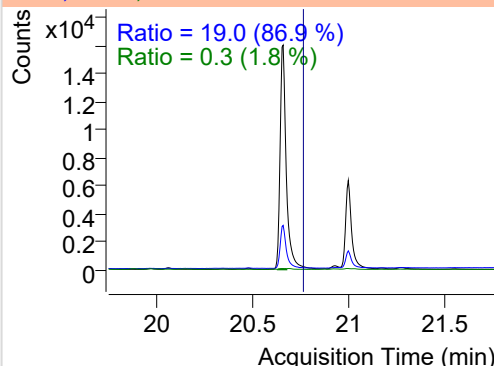
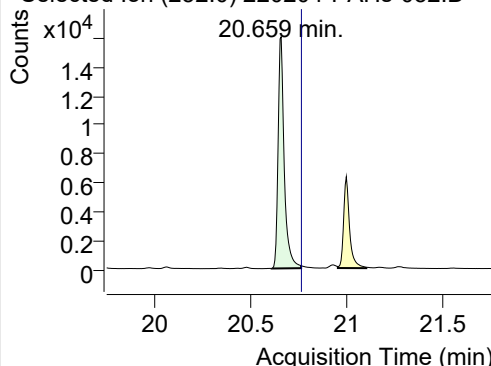


+ SIM (20.611-20.762 min, 29 scans) (\*\*) 2202

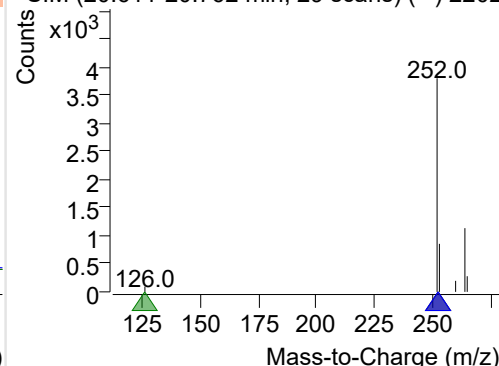
**Benzo(a)pyrene**

+ Selected Ion (252.0) 220204-PAHs-052.D

252.0, 253.0, 126.0

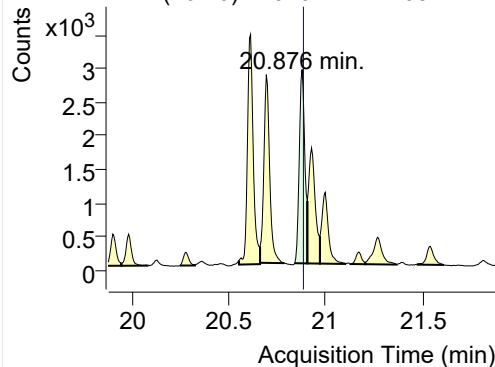


+ SIM (20.611-20.762 min, 29 scans) (\*\*) 2202

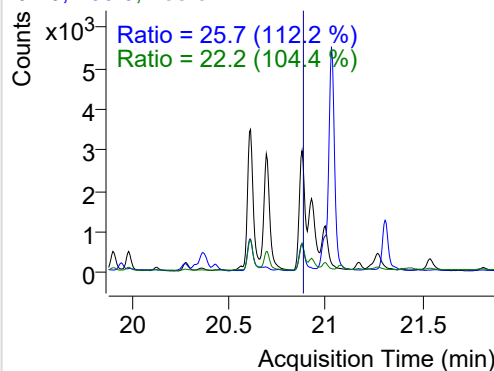


## IS-D12-Perylene

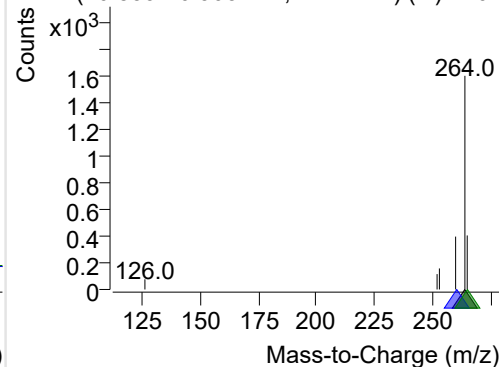
+ Selected Ion (264.0) 220204-PAHs-052.D



264.0, 260.0, 265.0

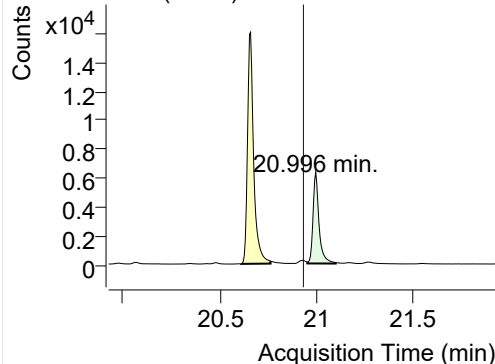


+ SIM (20.839-20.903 min, 12 scans) (\*\*) 2202

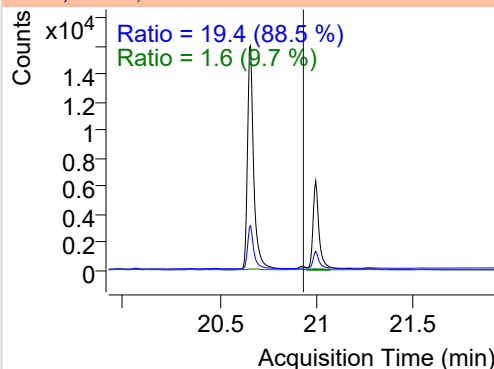


## Perylene

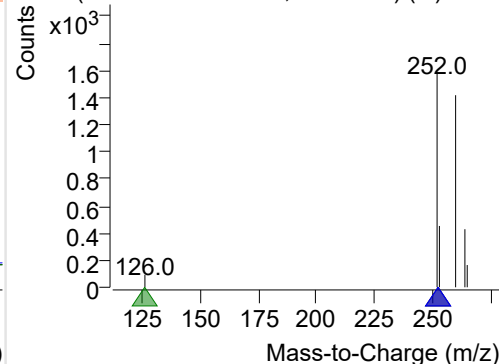
+ Selected Ion (252.0) 220204-PAHs-052.D



252.0, 253.0, 126.0

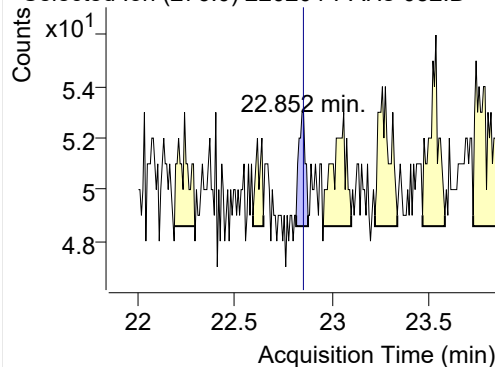


+ SIM (20.952-21.099 min, 28 scans) (\*\*) 2202

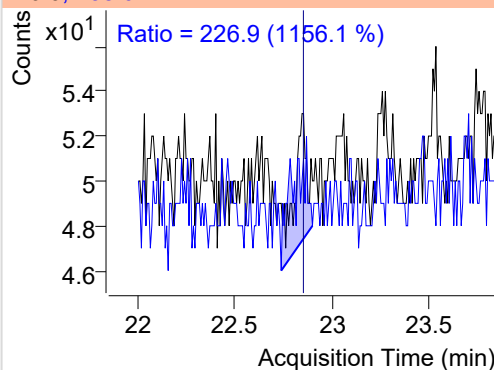


## Indeno(1,2,3-c,d)pyrene

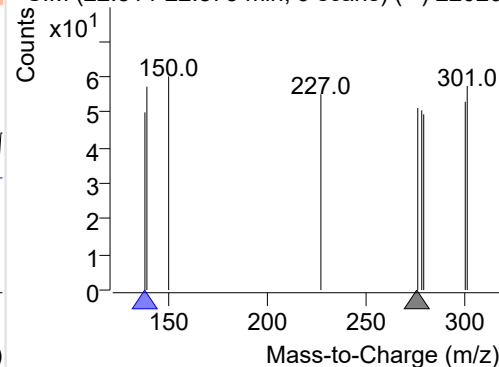
+ Selected Ion (276.0) 220204-PAHs-052.D



276.0, 138.0

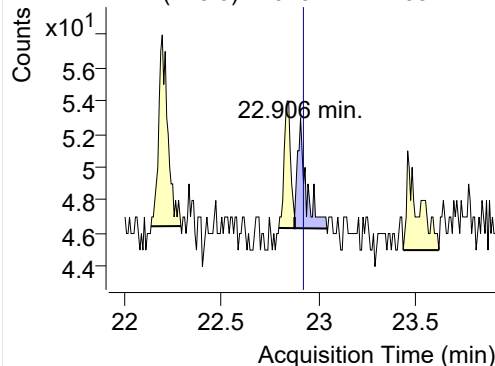


+ SIM (22.814-22.875 min, 9 scans) (\*\*) 22020

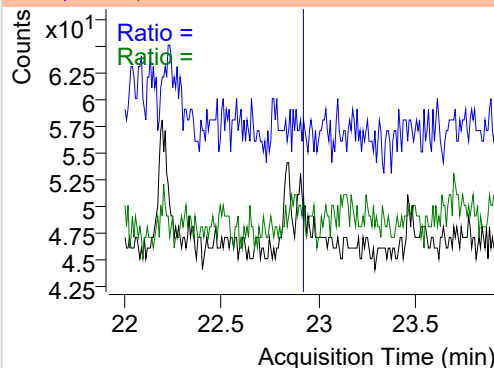


## Dibenz(a,h)anthracene

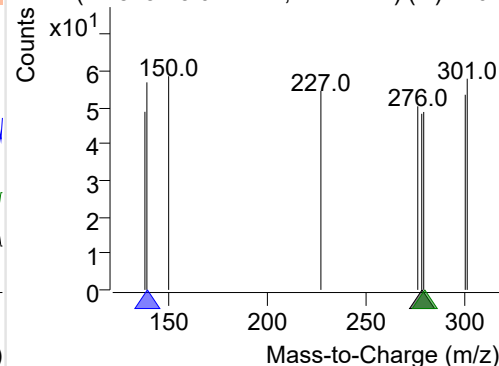
+ Selected Ion (278.0) 220204-PAHs-052.D



278.0, 139.0, 279.0



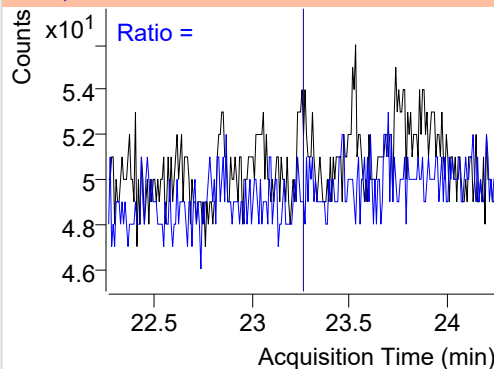
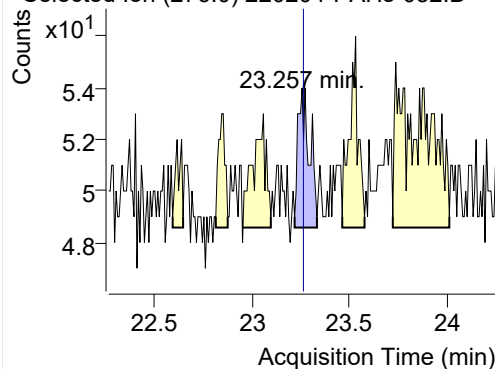
+ SIM (22.875-23.041 min, 22 scans) (\*\*) 2202



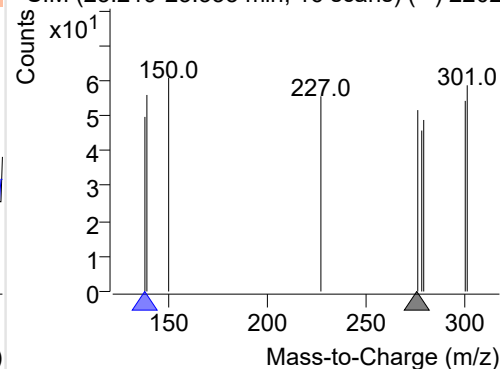
**Benzo(g,h,i)perylene**

+ Selected Ion (276.0) 220204-PAHs-052.D

276.0, 138.0

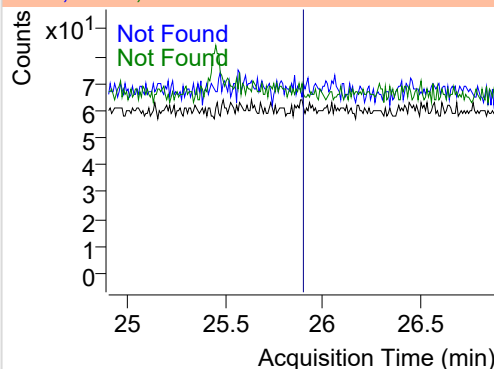
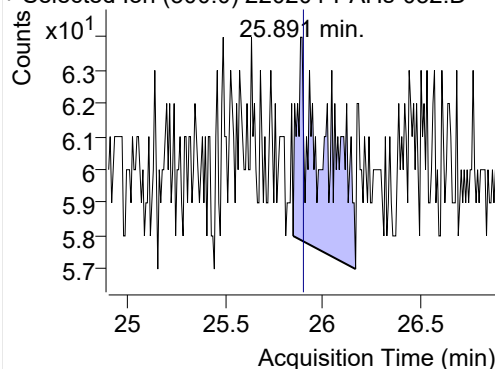


+ SIM (23.219-23.333 min, 16 scans) (\*\*) 2202

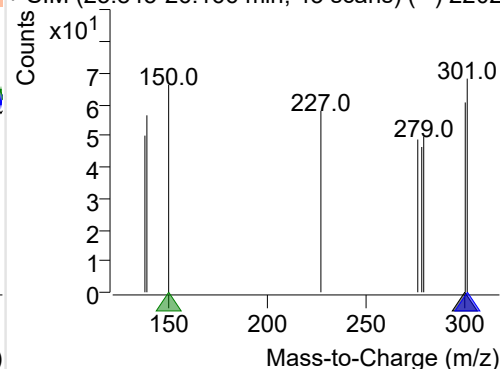
**Coronene**

+ Selected Ion (300.0) 220204-PAHs-052.D

300.0, 301.0, 150.0



+ SIM (25.845-26.166 min, 43 scans) (\*\*) 2202





## Quantitative Analysis Sample Based Report

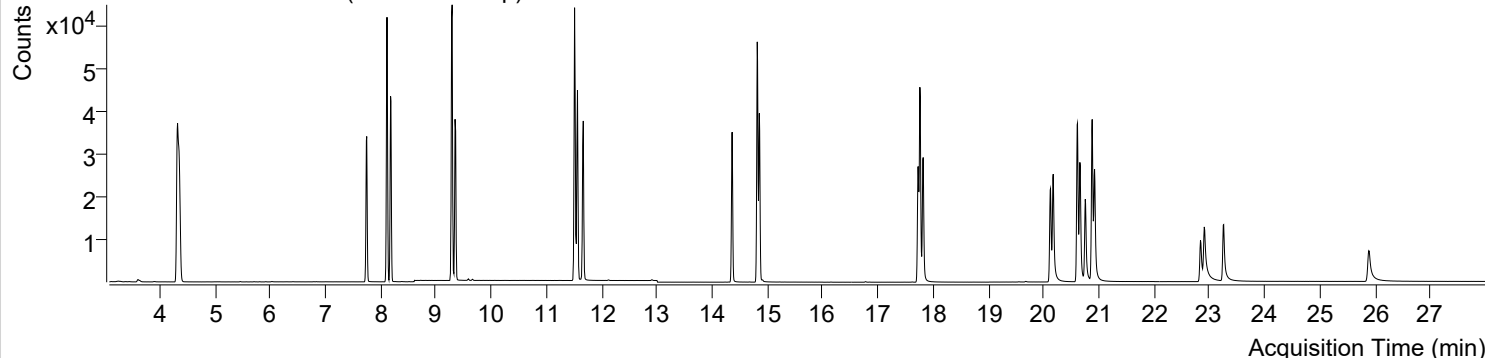


Trusted Answers

Batch Data Path File Name	D:\MassHunter\GCMS\1\data\PAHs\220204-PAHs-Sample\QuantResults\220204-PAHs-Quant.batch.bin		
Analysis Time Stamp	2022-04-13 오후 3:18:46	Analyst Name	DESKTOP-86B7UPG\5975MS
Report Generation Time	2022-04-13 오후 3:19:11	Report Generator Name	DESKTOP-86B7UPG\5975MS
Calibration Last Update	2022-04-13 오후 3:16:00	Batch State	Processed
Analyze Quant Version	10.2	Report Quant Version	10.2
Acq. Date-Time	2022-02-05 오후 5:41:24	Data File	220204-PAHs-054.D
Type	Sample	Name	CCV-STD-0.5p
Dil.	1	Acq. Method File	PAHs 19mix-Method

## Sample Chromatogram

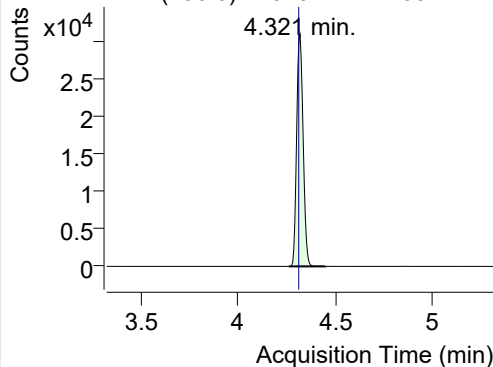
+ TIC SIM 220204-PAHs-054.D (CCV-STD-0.5p)



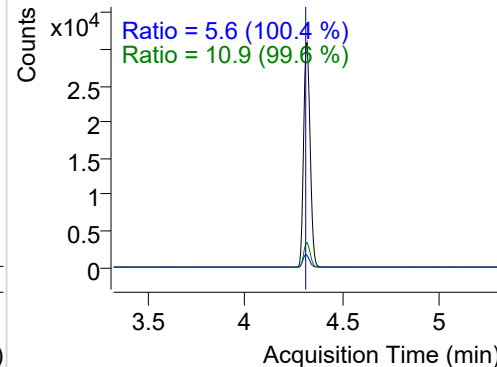
Name	RT	Transition	Resp.	Height	Final Conc. Units	Ratio
IS-D8-Naphthalene	4.321	136.0	71829	30850.13	ND ng/ml	10.9
Naphthalene	4.354	128.0	44285	19157.81	ND ng/ml	13.3
Acenaphthylene	7.745	152.0	39392	25390.90	ND ng/ml	19.9
IS-D10-Acenaphthene	8.112	164.0	44232	30036.53	ND ng/ml	92.0
Acenaphthene	8.183	154.0	24226	15784.61	ND ng/ml	105.5
LSS-D10-Fluorene	9.292	176.0	48911	30881.12	ND µg/mL	88.7
Fluorene	9.344	166.0	29703	17871.81	ND µg/mL	90.8
IS-D10-Phenanthrene	11.508	188.0	76921	51155.09	ND µg/mL	15.2
Phenanthrene	11.560	178.0	44183	29461.14	ND µg/mL	17.7
Anthracene	11.665	178.0	40247	25331.98	ND µg/mL	17.2
Fluoranthene	14.359	202.0	42463	27125.08	ND µg/mL	17.3
LSS-D10-Pyrene	14.814	212.0	66187	41971.97	ND µg/mL	16.9
Pyrene	14.852	202.0	47432	29498.13	ND µg/mL	17.5
Benz(a)anthracene	17.725	228.0	32916	18418.08	ND µg/mL	24.6
IS-D12-Chrysene	17.758	240.0	59171	32835.04	ND µg/mL	19.0
Chrysene	17.818	228.0	36317	19322.60	ND µg/mL	27.3
Benzo(b)fluoranthene	20.122	252.0	30484	16047.79	ND µg/mL	21.5
Benzo(k)fluoranthene	20.171	252.0	41757	18309.46	ND µg/mL	22.0
SS-D12-Benzo(e)pyrene	20.610	264.0	52003	25307.15	ND µg/mL	23.6
Benzo(e)pyrene	20.654	252.0	38313	18907.93	ND µg/mL	20.2
Benzo(a)pyrene	20.752	252.0	29781	13716.32	ND µg/mL	19.2
IS-D12-Perylene	20.876	264.0	53153	25673.09	ND µg/mL	22.2
Perylene	20.920	252.0	35018	16695.04	ND µg/mL	20.8
Indeno(1,2,3-c,d)pyrene	22.837	276.0	18545	7706.57	ND µg/mL	19.5
Dibenz(a,h)anthracene	22.906	278.0	22101	6510.93	ND µg/mL	22.9
Benzo(g,h,i)perylene	23.257	276.0	27900	10517.26	ND µg/mL	21.6
Coronene	25.883	300.0	21305	4677.16	ND µg/mL	27.1

## IS-D8-Naphthalene

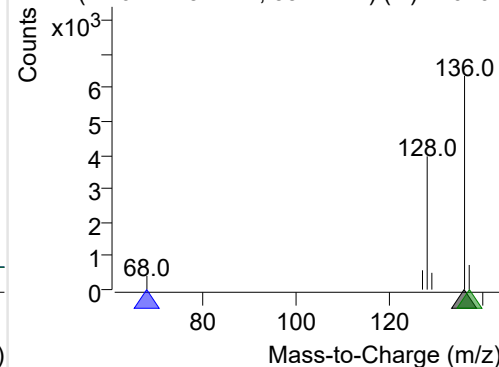
+ Selected Ion (136.0) 220204-PAHs-054.D



136.0, 68.0, 137.0

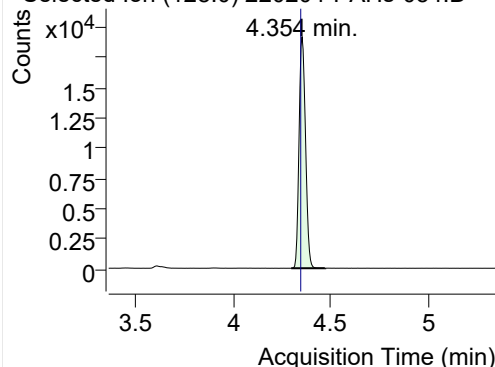


+ SIM (4.264-4.451 min, 35 scans) (\*\*) 220204

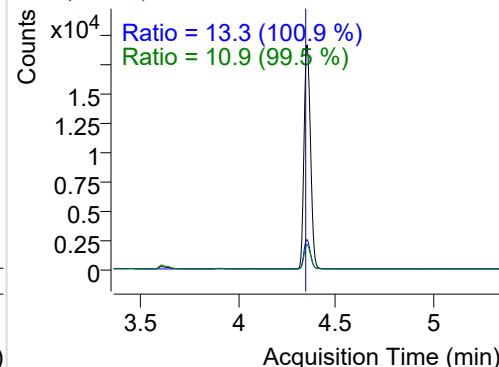


**Naphthalene**

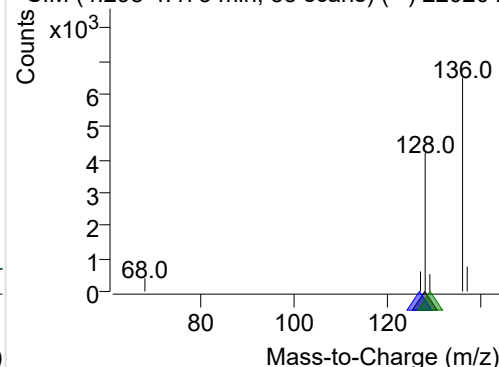
+ Selected Ion (128.0) 220204-PAHs-054.D



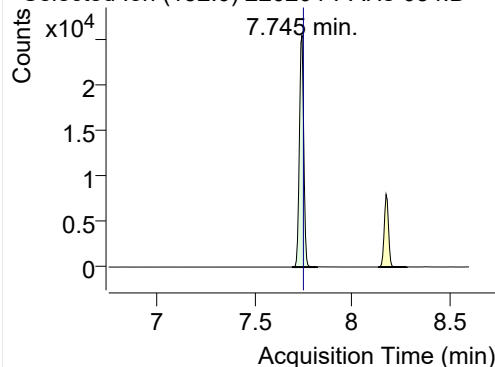
128.0, 127.0, 129.0



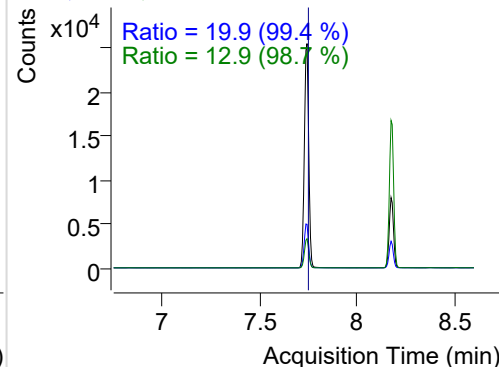
+ SIM (4.298-4.473 min, 33 scans) (\*\*) 220204

**Acenaphthylene**

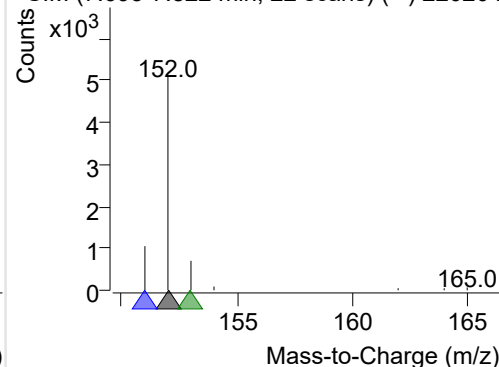
+ Selected Ion (152.0) 220204-PAHs-054.D



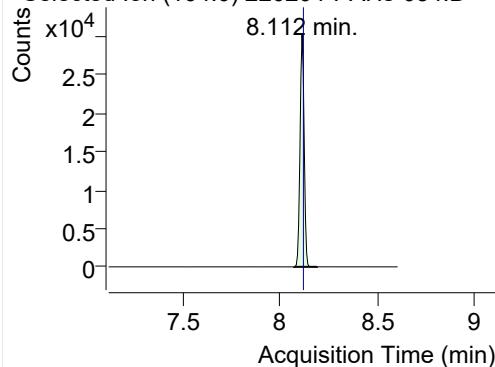
152.0, 151.0, 153.0



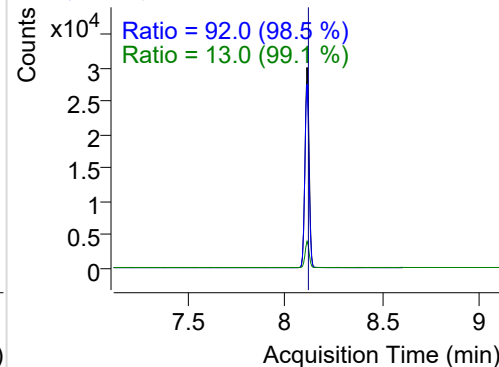
+ SIM (7.693-7.822 min, 22 scans) (\*\*) 220204

**IS-D10-Acenaphthene**

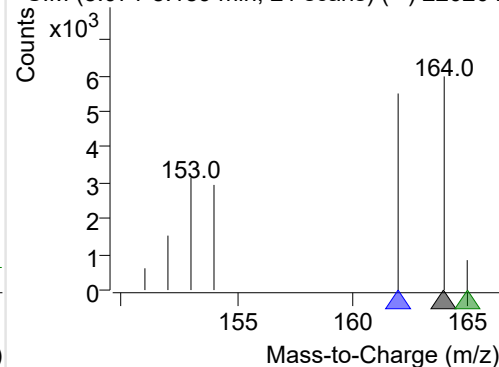
+ Selected Ion (164.0) 220204-PAHs-054.D



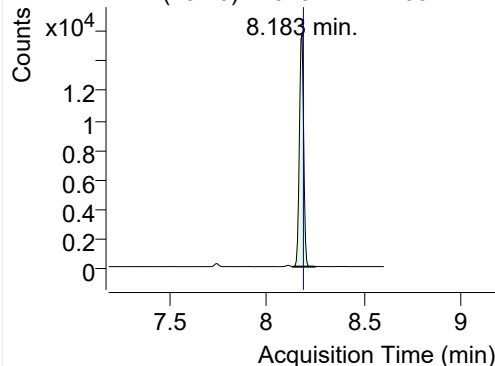
164.0, 162.0, 165.0



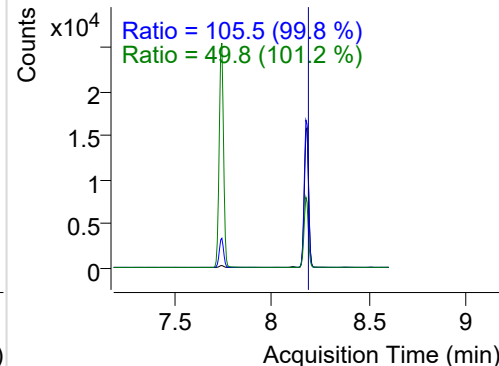
+ SIM (8.071-8.189 min, 21 scans) (\*\*) 220204

**Acenaphthene**

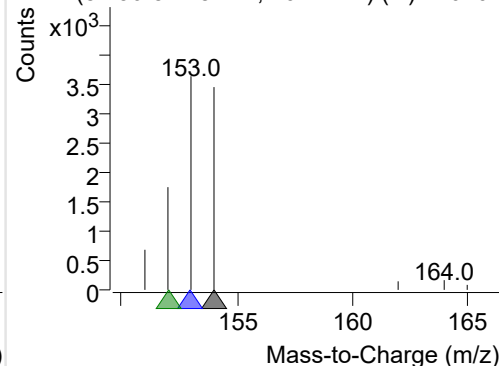
+ Selected Ion (154.0) 220204-PAHs-054.D



154.0, 153.0, 152.0

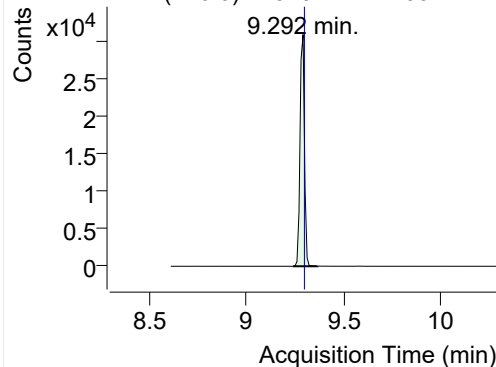


+ SIM (8.136-8.248 min, 20 scans) (\*\*) 220204

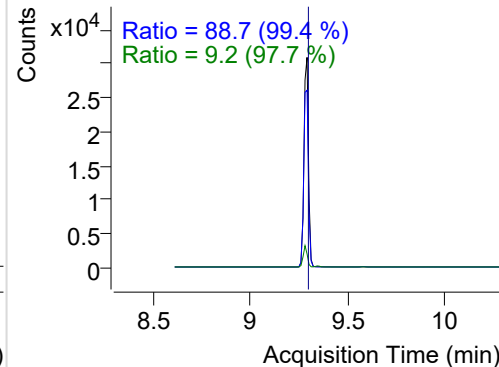


## LSS-D10-Fluorene

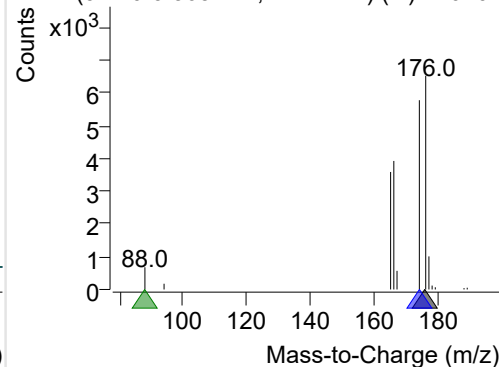
+ Selected Ion (176.0) 220204-PAHs-054.D



176.0, 174.0, 88.0

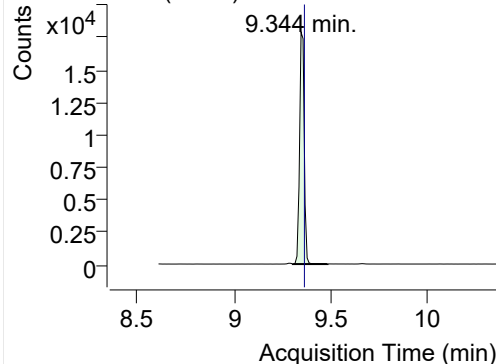


+ SIM (9.240-9.365 min, 12 scans) (\*\*) 220204

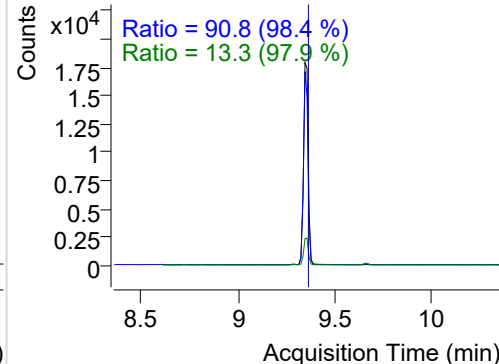


## Fluorene

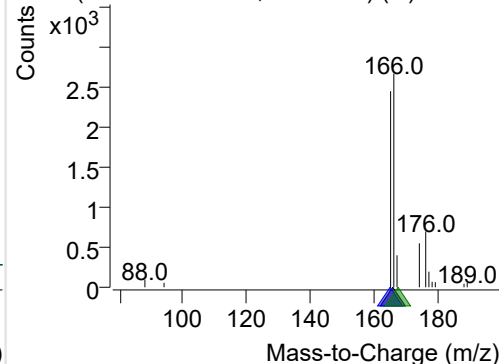
+ Selected Ion (166.0) 220204-PAHs-054.D



166.0, 165.0, 167.0

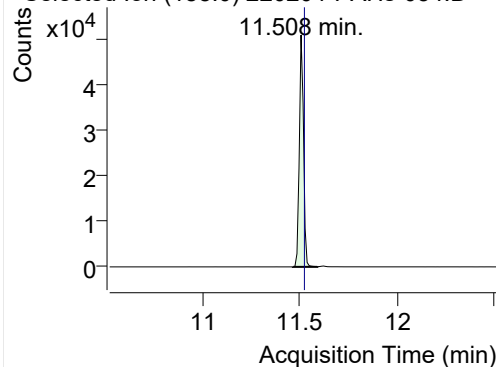


+ SIM (9.302-9.481 min, 18 scans) (\*\*) 220204

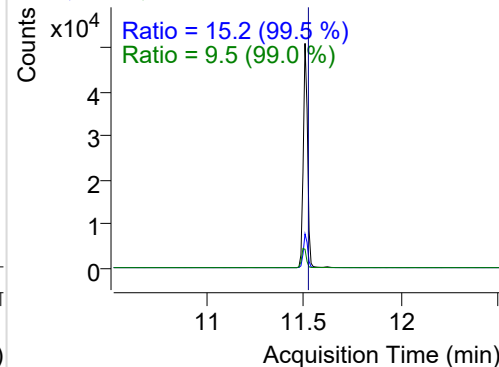


## IS-D10-Phenanthrene

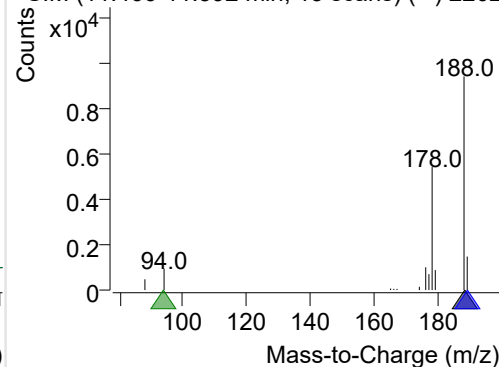
+ Selected Ion (188.0) 220204-PAHs-054.D



188.0, 189.0, 94.0

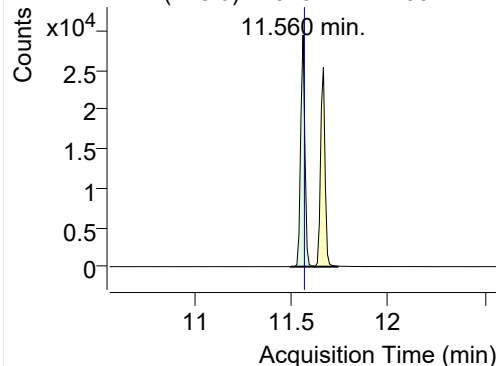


+ SIM (11.466-11.592 min, 13 scans) (\*\*) 2202

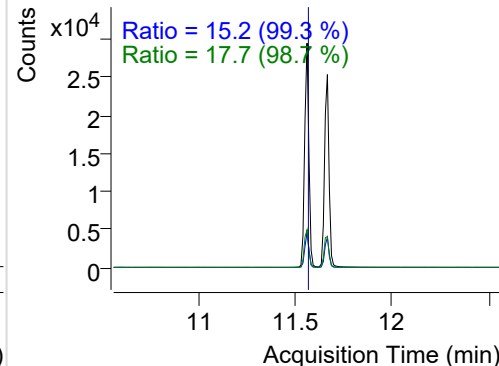


## Phenanthrene

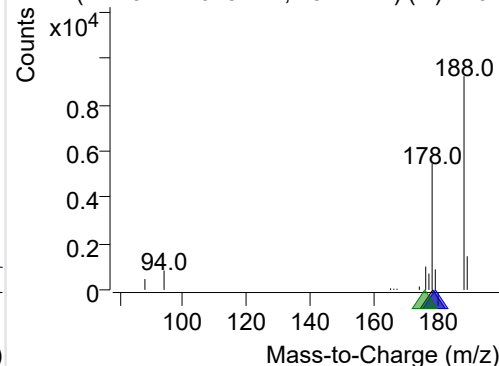
+ Selected Ion (178.0) 220204-PAHs-054.D



178.0, 179.0, 176.0

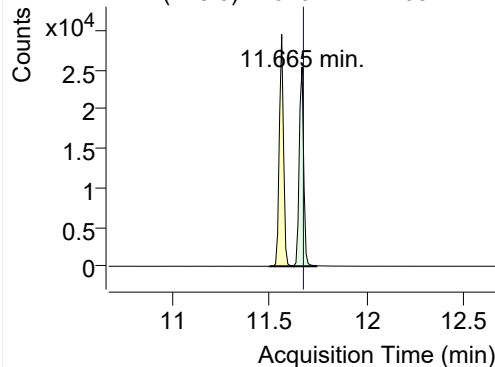


+ SIM (11.497-11.623 min, 13 scans) (\*\*) 2202

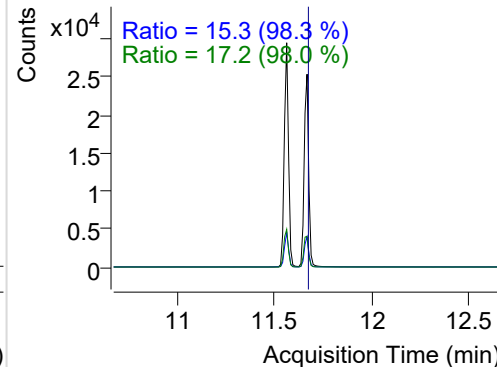


**Anthracene**

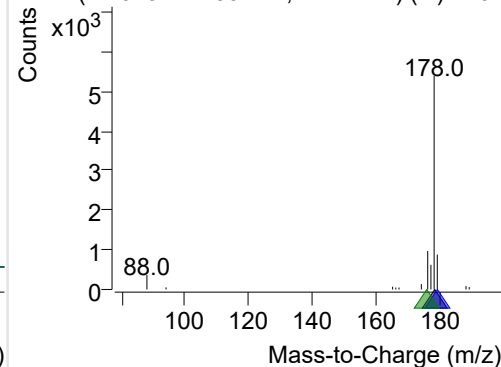
+ Selected Ion (178.0) 220204-PAHs-054.D



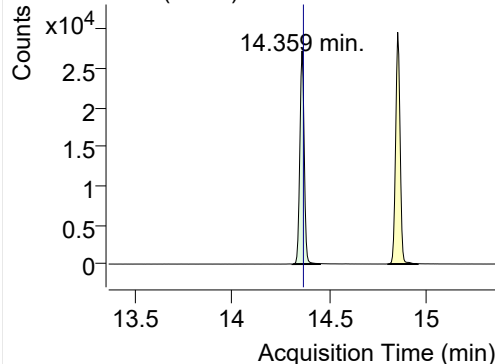
178.0, 179.0, 176.0



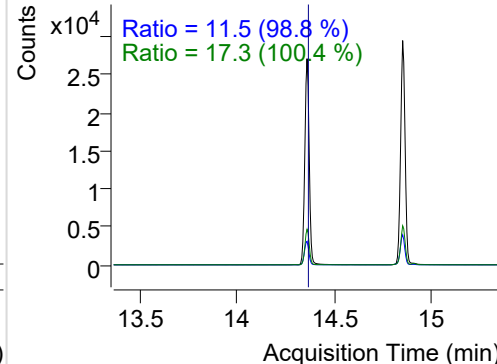
+ SIM (11.623-11.739 min, 12 scans) (\*\*) 2202

**Fluoranthene**

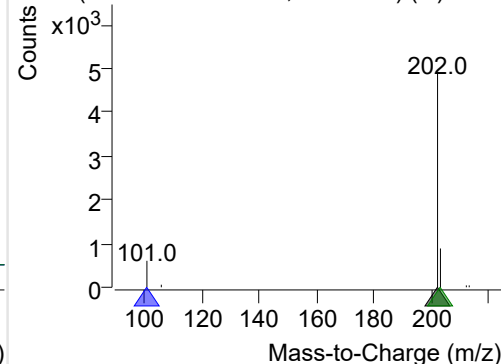
+ Selected Ion (202.0) 220204-PAHs-054.D



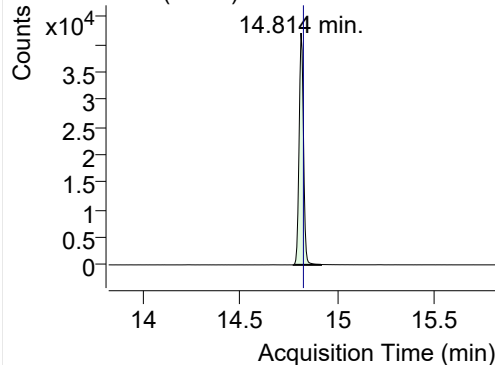
202.0, 101.0, 203.0



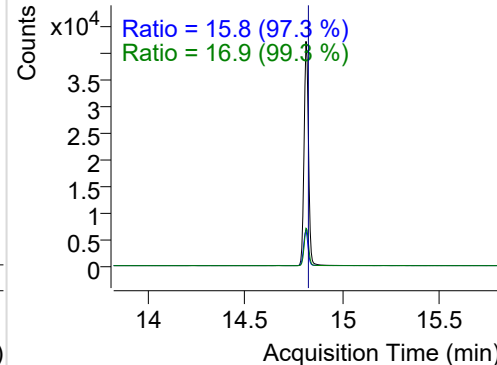
+ SIM (14.310-14.451 min, 27 scans) (\*\*) 2202

**LSS-D10-Pyrene**

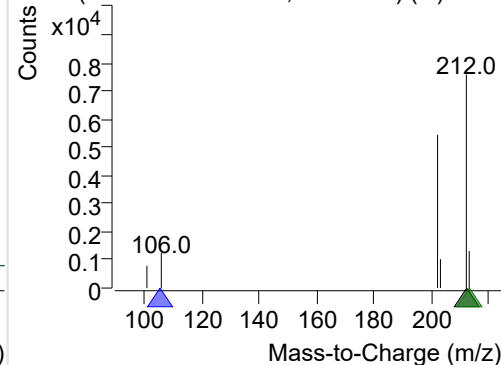
+ Selected Ion (212.0) 220204-PAHs-054.D



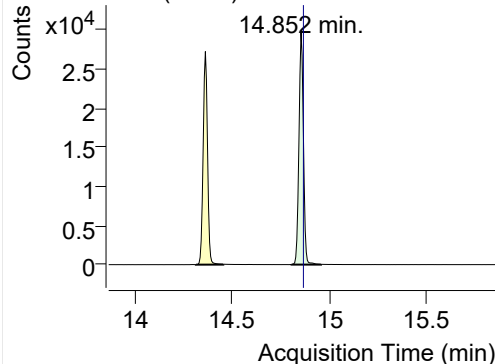
212.0, 106.0, 213.0



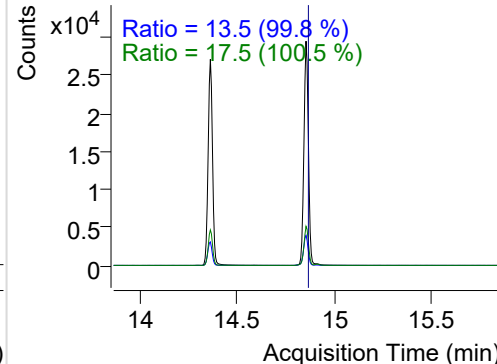
+ SIM (14.776-14.917 min, 27 scans) (\*\*) 2202

**Pyrene**

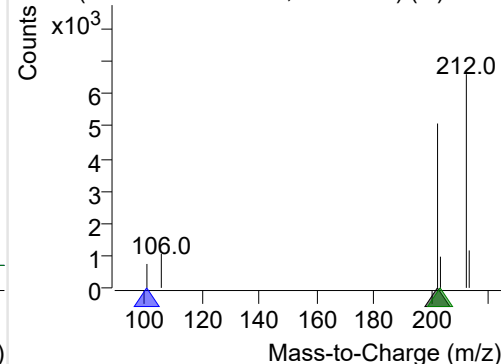
+ Selected Ion (202.0) 220204-PAHs-054.D



202.0, 101.0, 203.0

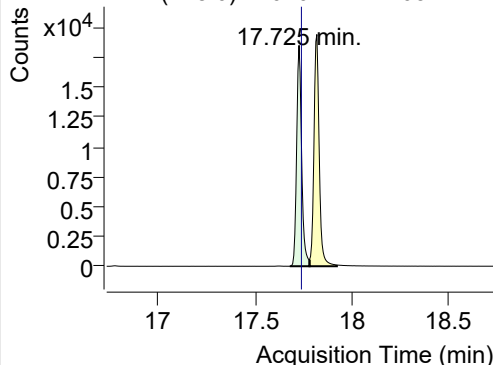


+ SIM (14.803-14.955 min, 29 scans) (\*\*) 2202

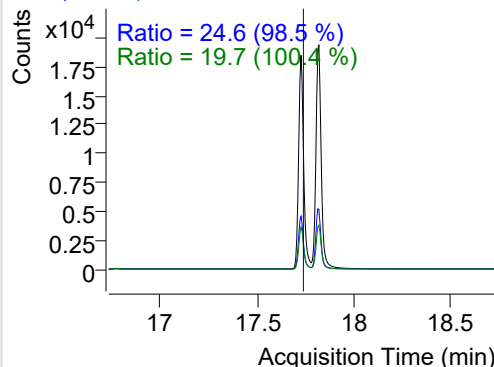


**Benz(a)anthracene**

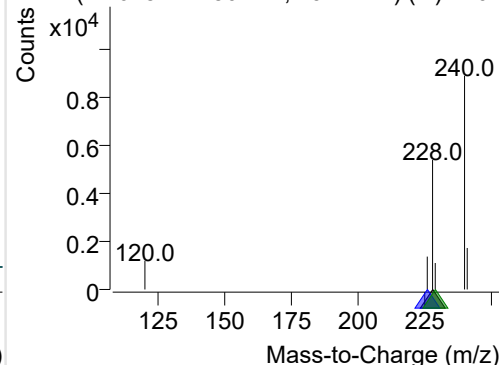
+ Selected Ion (228.0) 220204-PAHs-054.D



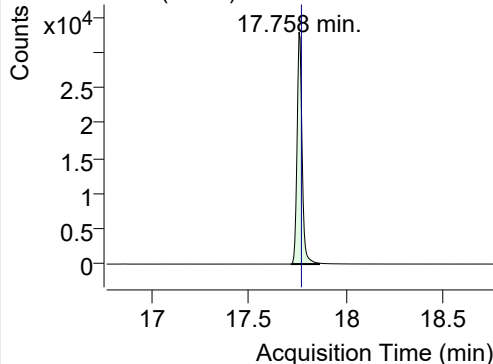
228.0, 226.0, 229.0



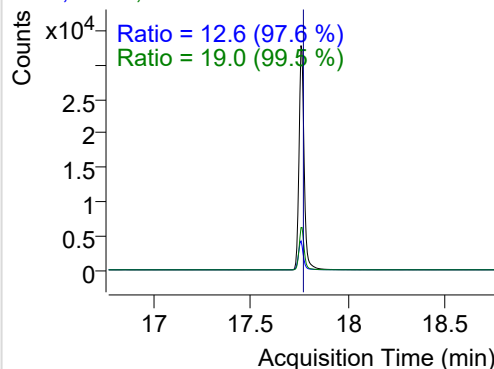
+ SIM (17.678-17.780 min, 19 scans) (\*\*) 2202

**IS-D12-Chrysene**

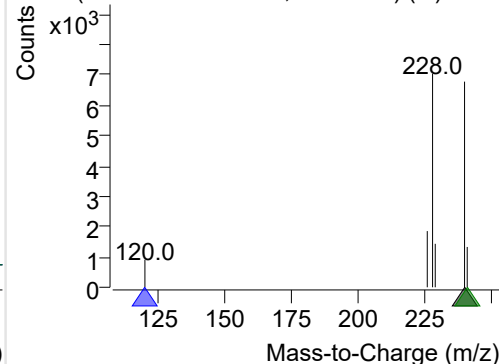
+ Selected Ion (240.0) 220204-PAHs-054.D



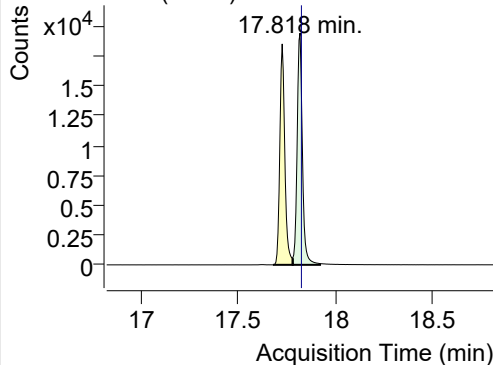
240.0, 120.0, 241.0



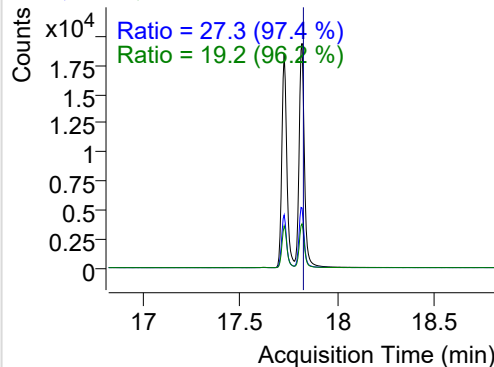
+ SIM (17.720-17.861 min, 27 scans) (\*\*) 2202

**Chrysene**

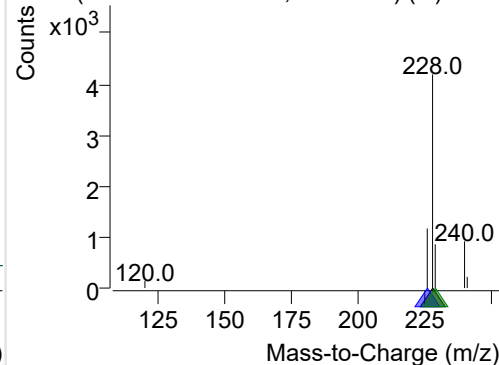
+ Selected Ion (228.0) 220204-PAHs-054.D



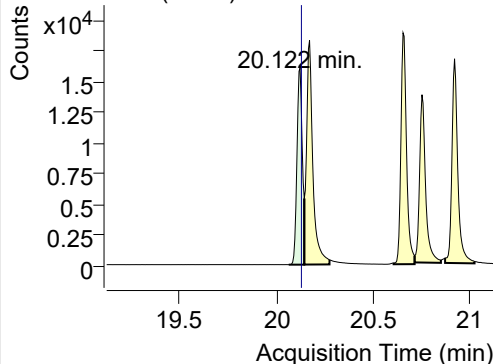
228.0, 226.0, 229.0



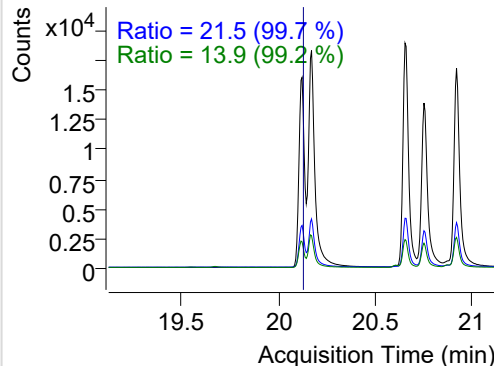
+ SIM (17.780-17.921 min, 27 scans) (\*\*) 2202

**Benzo(b)fluoranthene**

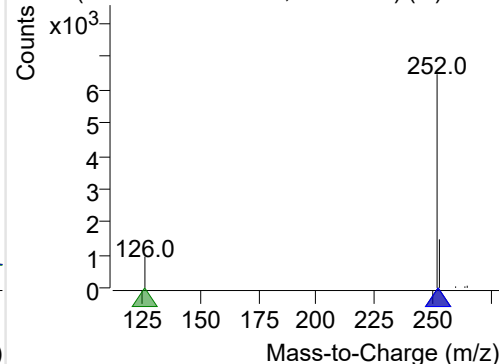
+ Selected Ion (252.0) 220204-PAHs-054.D



252.0, 253.0, 126.0

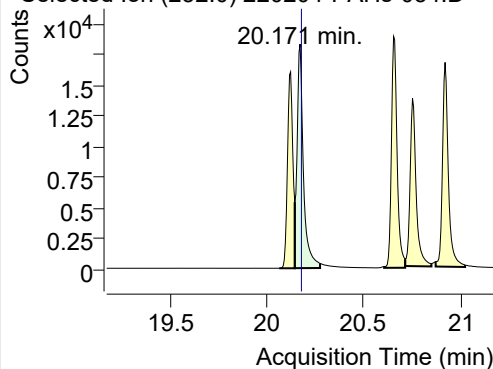


+ SIM (20.064-20.144 min, 15 scans) (\*\*) 2202

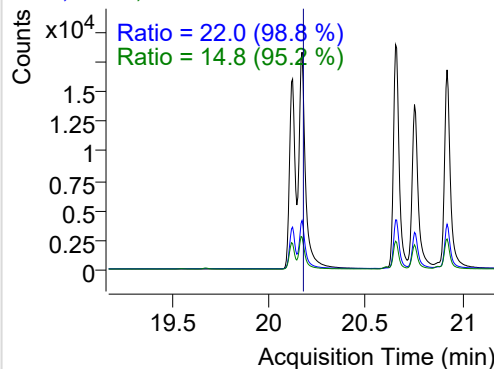


**Benzo(k)fluoranthene**

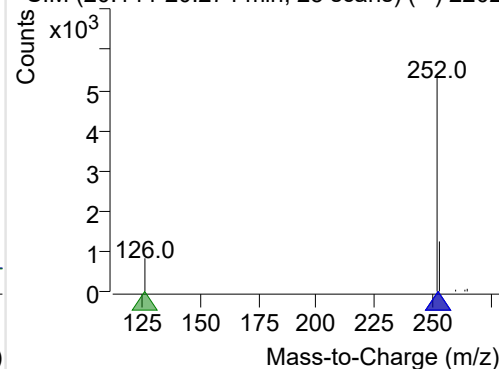
+ Selected Ion (252.0) 220204-PAHs-054.D



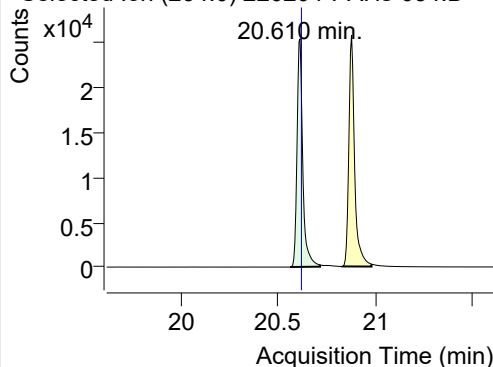
252.0, 253.0, 126.0



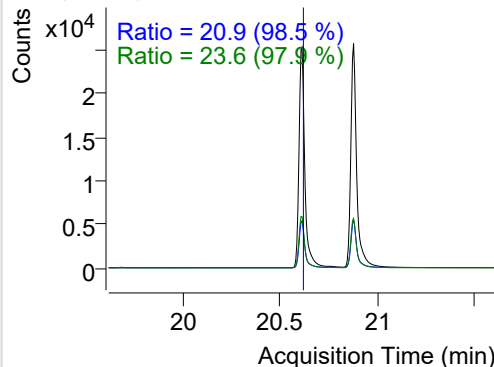
+ SIM (20.144-20.274 min, 25 scans) (\*\*) 2202

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

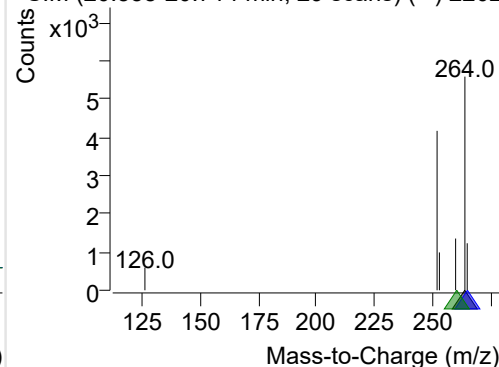
+ Selected Ion (264.0) 220204-PAHs-054.D



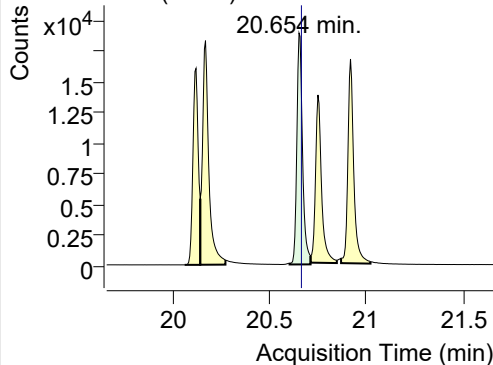
264.0, 265.0, 260.0



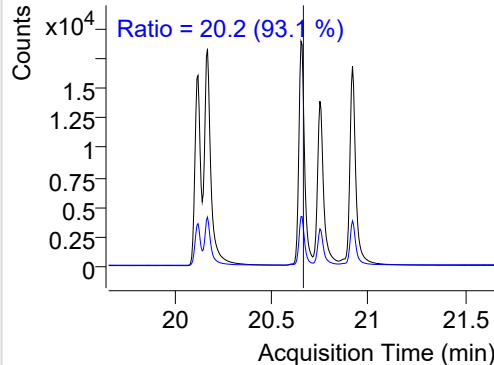
+ SIM (20.558-20.714 min, 29 scans) (\*\*) 2202

**Benzo(e)pyrene**

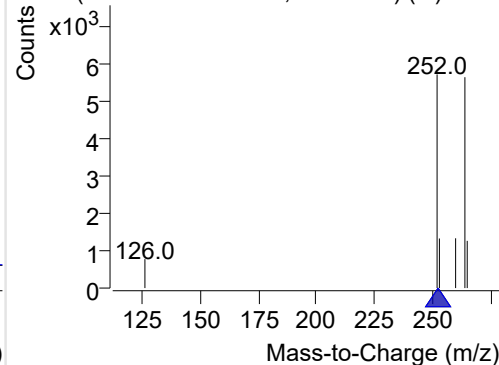
+ Selected Ion (252.0) 220204-PAHs-054.D



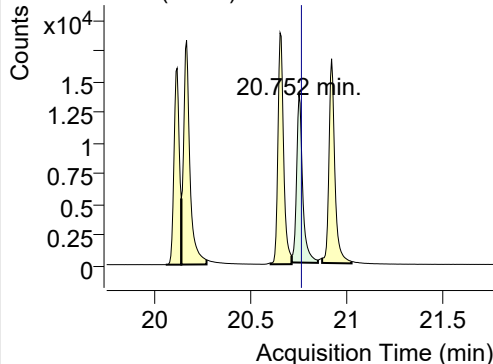
252.0, 253.0



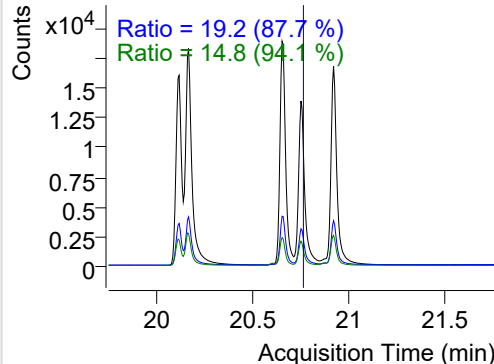
+ SIM (20.605-20.714 min, 21 scans) (\*\*) 2202

**Benzo(a)pyrene**

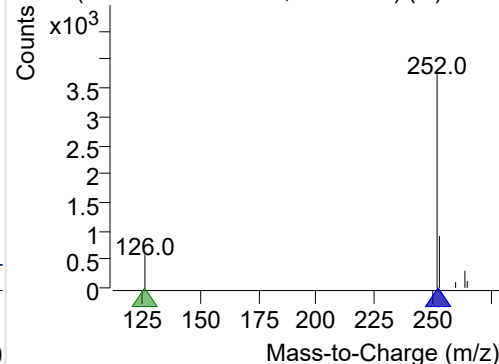
+ Selected Ion (252.0) 220204-PAHs-054.D



252.0, 253.0, 126.0

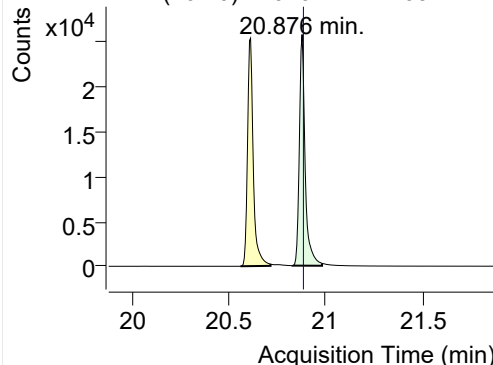


+ SIM (20.714-20.849 min, 26 scans) (\*\*) 2202

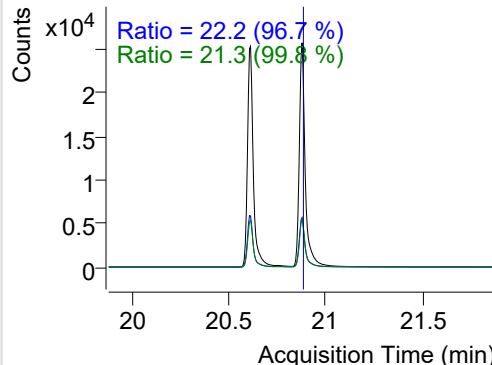


## IS-D12-Perylene

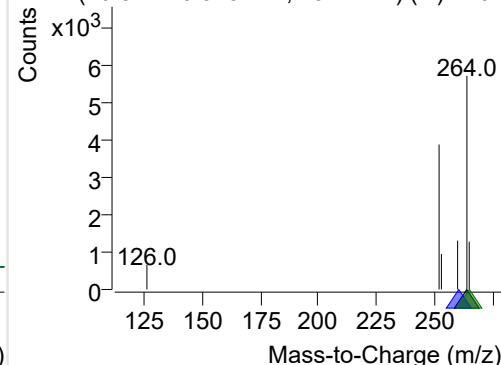
+ Selected Ion (264.0) 220204-PAHs-054.D



264.0, 260.0, 265.0

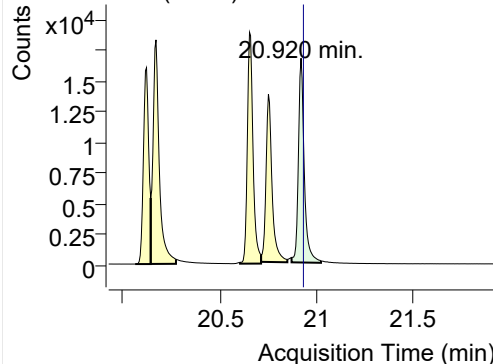


+ SIM (20.827-20.979 min, 29 scans) (\*\*) 2202

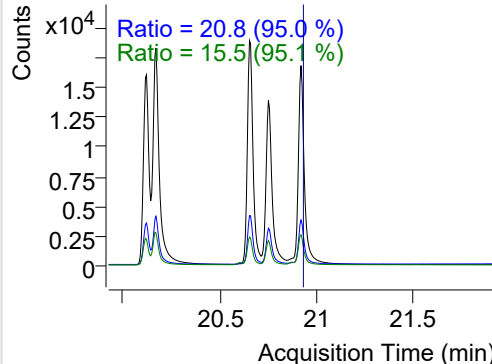


## Perylene

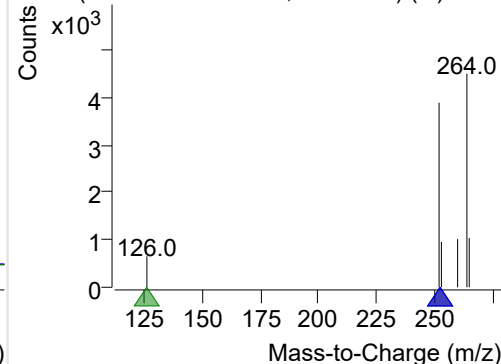
+ Selected Ion (252.0) 220204-PAHs-054.D



252.0, 253.0, 126.0

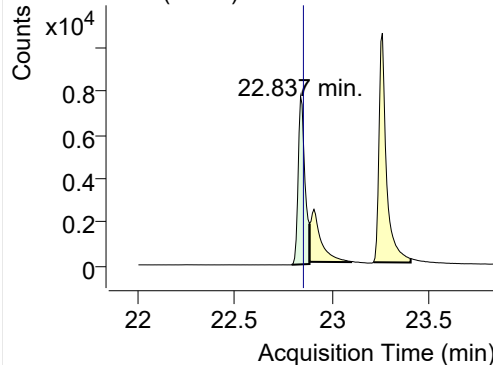


+ SIM (20.871-21.023 min, 29 scans) (\*\*) 2202

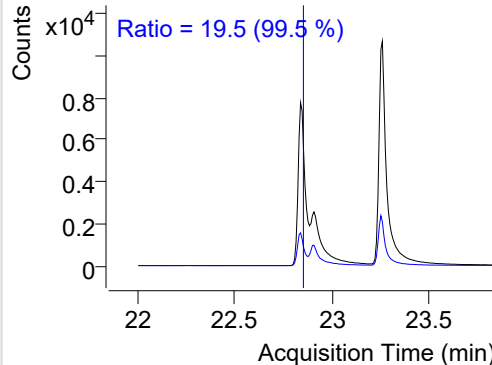


## Indeno(1,2,3-c,d)pyrene

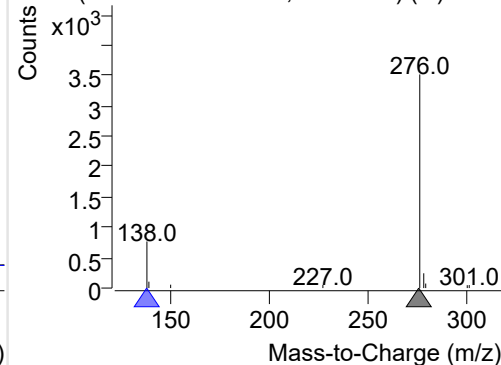
+ Selected Ion (276.0) 220204-PAHs-054.D



276.0, 138.0

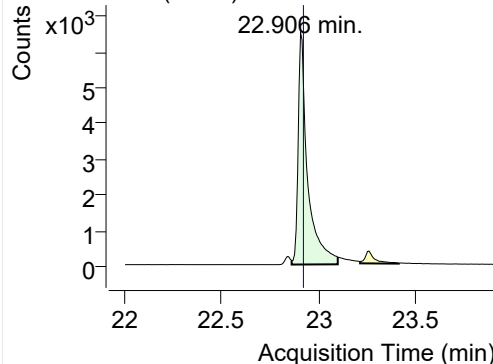


+ SIM (22.791-22.883 min, 12 scans) (\*\*) 2202

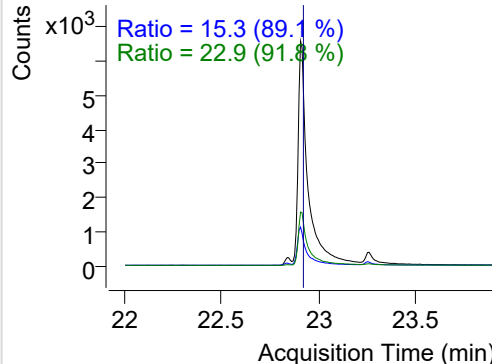


## Dibenz(a,h)anthracene

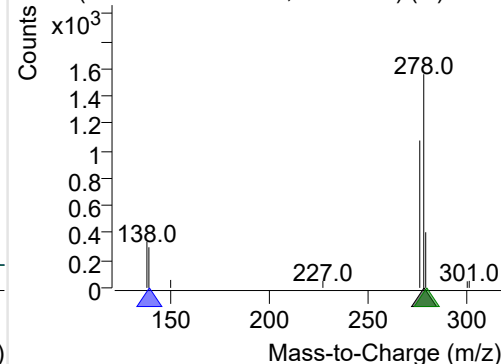
+ Selected Ion (278.0) 220204-PAHs-054.D



278.0, 139.0, 279.0

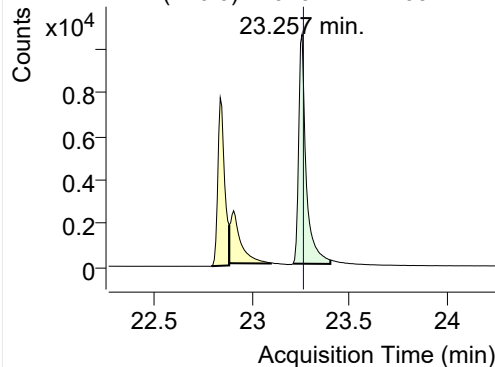


+ SIM (22.860-23.096 min, 32 scans) (\*\*) 2202

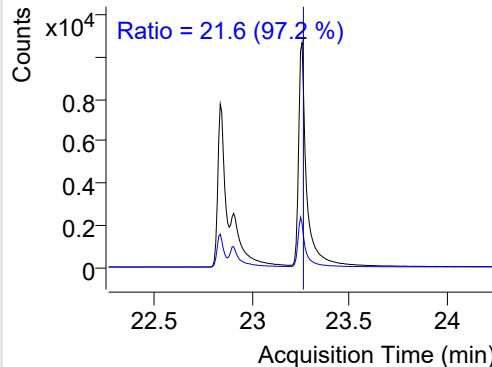


**Benzo(g,h,i)perylene**

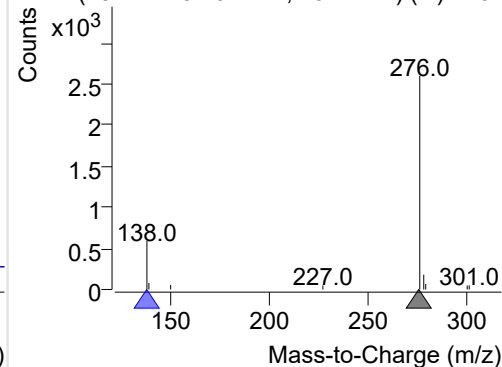
+ Selected Ion (276.0) 220204-PAHs-054.D



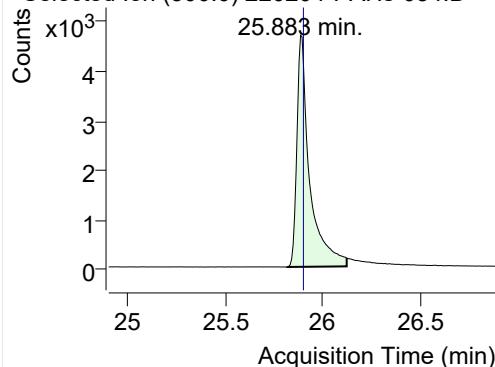
276.0, 138.0



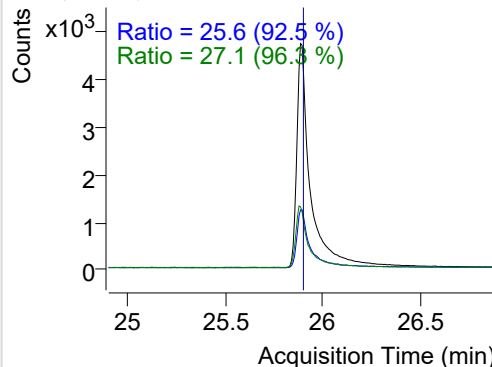
+ SIM (23.211-23.402 min, 25 scans) (\*\*) 2202

**Coronene**

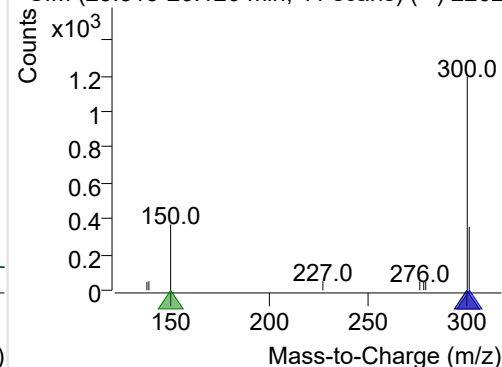
+ Selected Ion (300.0) 220204-PAHs-054.D



300.0, 301.0, 150.0



+ SIM (25.815-26.120 min, 41 scans) (\*\*) 2202





## Quantitative Analysis Sample Based Report

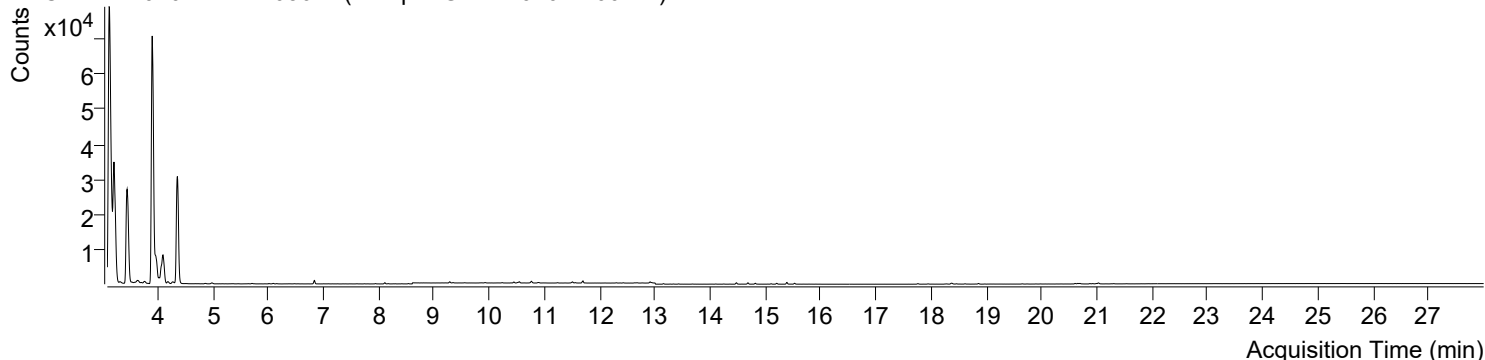


Trusted Answers

Batch Data Path File Name	D:\MassHunter\GCMS\1\data\PAHs\220204-PAHs-Sample\QuantResults\220204-PAHs-Quant.batch.bin		
Analysis Time Stamp	2022-04-13 오후 3:18:46	Analyst Name	DESKTOP-86B7UPG\5975MS
Report Generation Time	2022-04-13 오후 3:19:11	Report Generator Name	DESKTOP-86B7UPG\5975MS
Calibration Last Update	2022-04-13 오후 3:16:00	Batch State	Processed
Analyze Quant Version	10.2	Report Quant Version	10.2
Acq. Date-Time	2022-02-06 오후 12:08:38	Data File	220204-PAHs-056.D
Type	Sample	Name	Sample-Gas-220107-200DIL
Dil.	1	Acq. Method File	PAHs 19mix-Method

## Sample Chromatogram

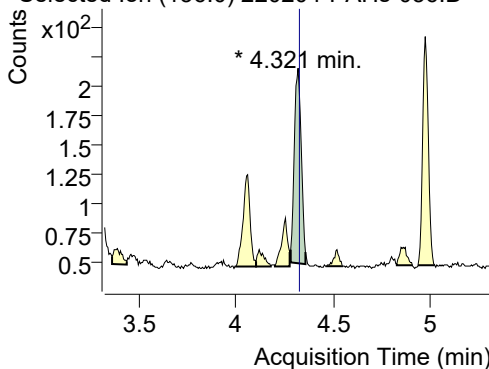
+ TIC SIM 220204-PAHs-056.D (Sample-Gas-220107-200DIL)



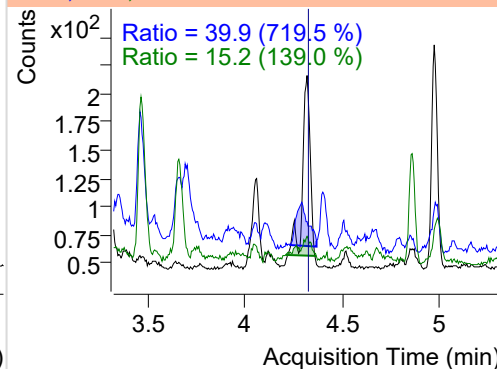
Name	RT	Transition	Resp.	Height	Final Conc. Units	Ratio
IS-D8-Naphthalene	4.321	136.0	417	166.60	ND ng/ml	15.2
Naphthalene	4.354	128.0	65348	24485.32	ND ng/ml	13.3
Acenaphthylene	7.739	152.0	34	23.46	ND ng/ml	
IS-D10-Acenaphthene	8.112	164.0	244	163.40	ND ng/ml	96.6
Acenaphthene	8.177	154.0	32	19.17	ND ng/ml	123.1
LSS-D10-Fluorene	9.281	176.0	250	148.69	ND µg/mL	85.8
Fluorene	9.344	166.0	74	51.03	ND µg/mL	81.6
IS-D10-Phenanthrene	11.508	188.0	385	252.42	ND µg/mL	14.1
Phenanthrene	11.560	178.0	110	69.57	ND µg/mL	21.3
Anthracene	11.697	178.0	254	161.57	ND µg/mL	25.9
Fluoranthene	14.354	202.0	22	13.92	ND µg/mL	
LSS-D10-Pyrene	14.814	212.0	291	188.12	ND µg/mL	16.2
Pyrene	14.858	202.0	17	11.92	ND µg/mL	
Benz(a)anthracene	17.942	228.0	7	3.62	ND µg/mL	
IS-D12-Chrysene	17.758	240.0	197	111.88	ND µg/mL	19.5
Chrysene	17.942	228.0	7	3.62	ND µg/mL	
Benzo(b)fluoranthene	20.068	252.0	19	10.47	ND µg/mL	
Benzo(k)fluoranthene	20.068	252.0	19	10.47	ND µg/mL	
SS-D12-Benzo(e)pyrene	20.605	264.0	209	105.09	ND µg/mL	23.8
Benzo(e)pyrene	20.654	252.0	314	128.64	ND µg/mL	18.9
Benzo(a)pyrene	20.654	252.0	314	128.64	ND µg/mL	18.9
IS-D12-Perylene	20.871	264.0	131	68.09	ND µg/mL	21.3
Perylene	20.925	252.0	44	19.29	ND µg/mL	
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	25.494	300.0	61	6.69	ND µg/mL	

## IS-D8-Naphthalene

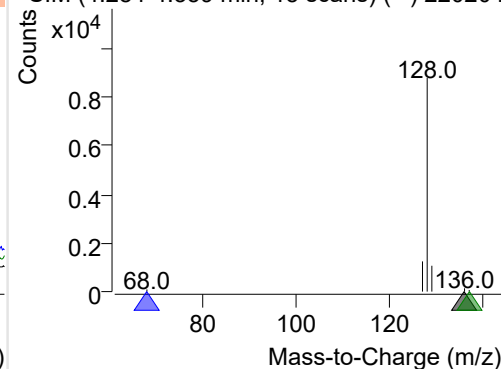
+ Selected Ion (136.0) 220204-PAHs-056.D



136.0, 68.0, 137.0

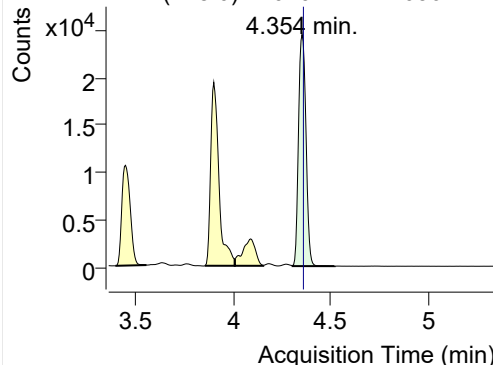


+ SIM (4.284-4.359 min, 15 scans) (\*\*) 220204

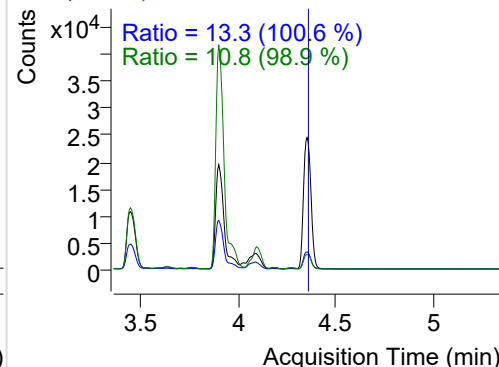


**Naphthalene**

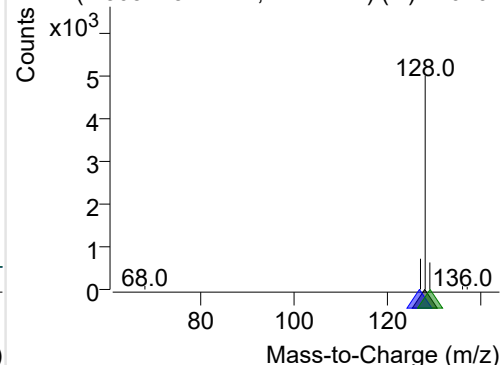
+ Selected Ion (128.0) 220204-PAHs-056.D



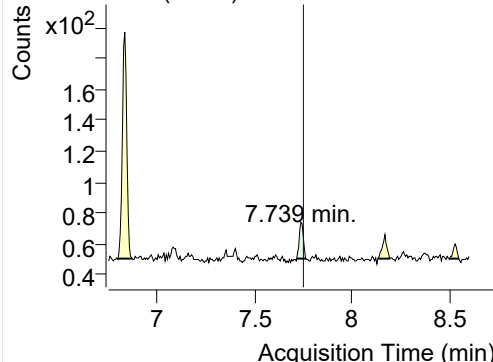
128.0, 127.0, 129.0



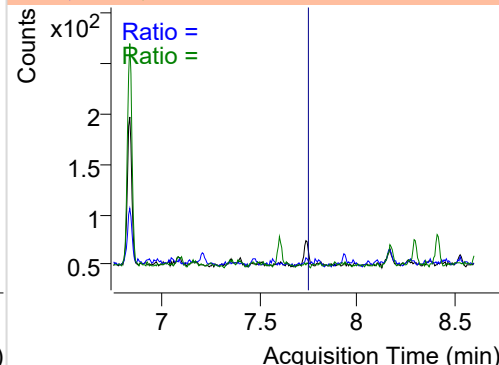
+ SIM (4.305-4.522 min, 41 scans) (\*\*) 220204

**Acenaphthylene**

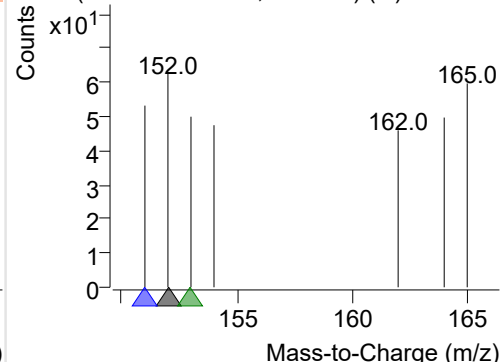
+ Selected Ion (152.0) 220204-PAHs-056.D



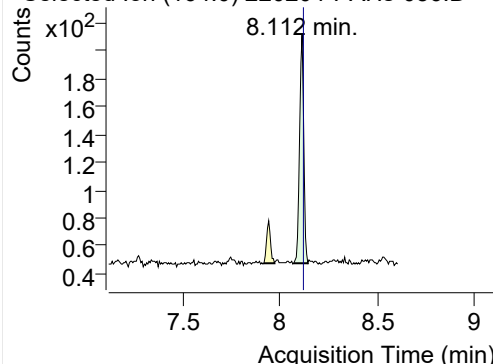
152.0, 151.0, 153.0



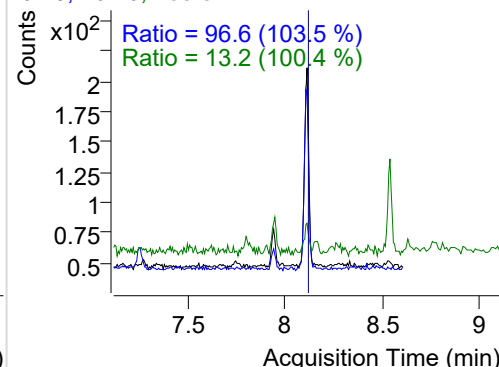
+ SIM (7.717-7.766 min, 8 scans) (\*\*) 220204-I

**IS-D10-Acenaphthene**

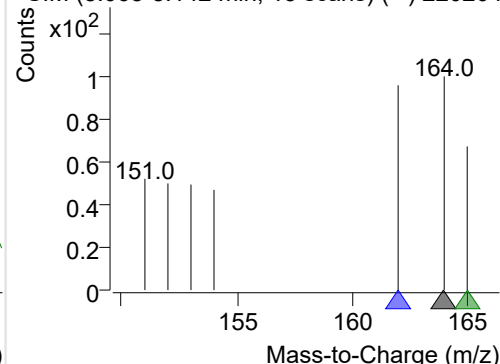
+ Selected Ion (164.0) 220204-PAHs-056.D



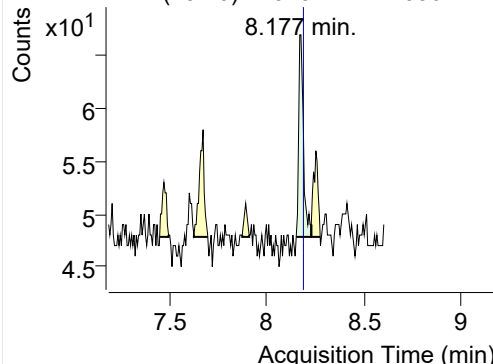
164.0, 162.0, 165.0



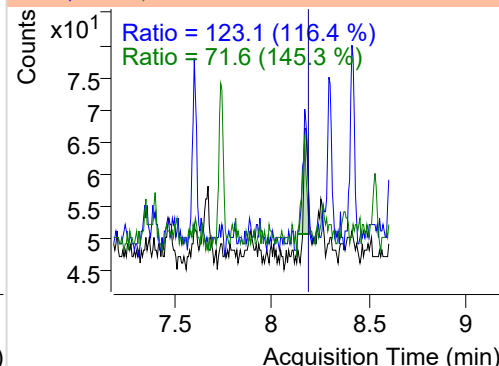
+ SIM (8.068-8.142 min, 13 scans) (\*\*) 220204

**Acenaphthene**

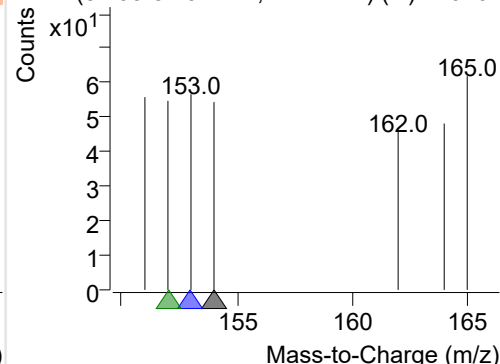
+ Selected Ion (154.0) 220204-PAHs-056.D



154.0, 153.0, 152.0

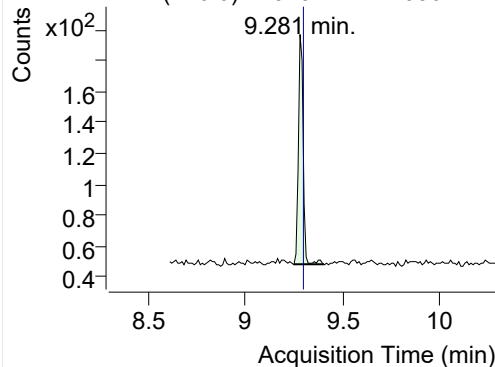


+ SIM (8.153-8.231 min, 14 scans) (\*\*) 220204

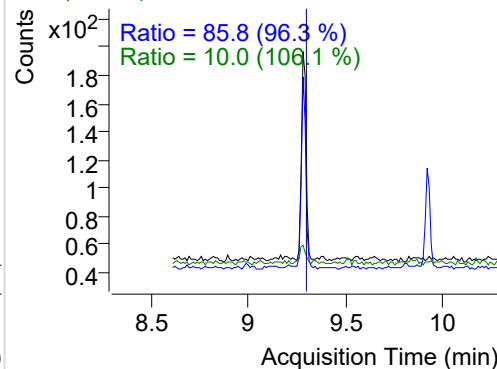


## LSS-D10-Fluorene

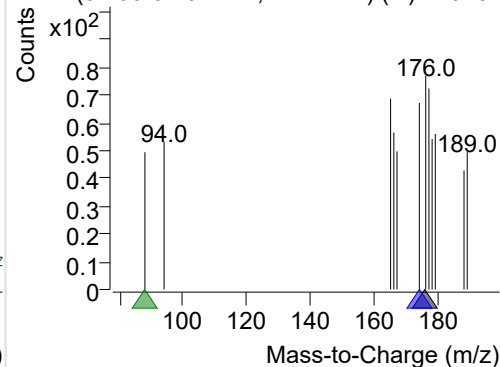
+ Selected Ion (176.0) 220204-PAHs-056.D



176.0, 174.0, 88.0

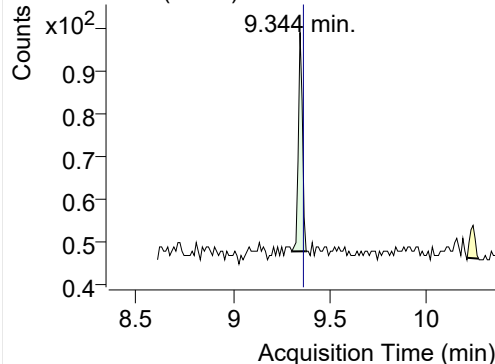


+ SIM (9.250-9.404 min, 14 scans) (\*\*) 220204

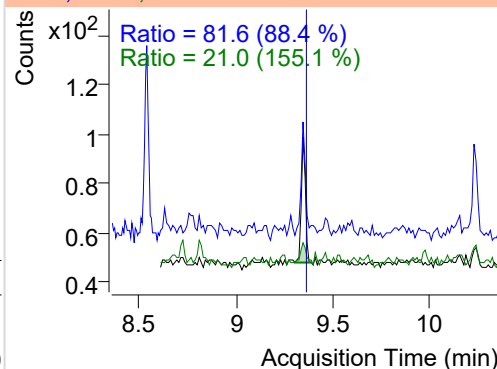


## Fluorene

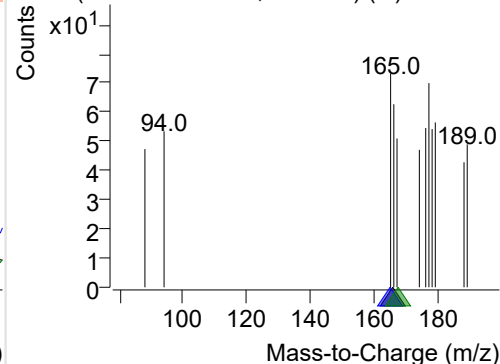
+ Selected Ion (166.0) 220204-PAHs-056.D



166.0, 165.0, 167.0

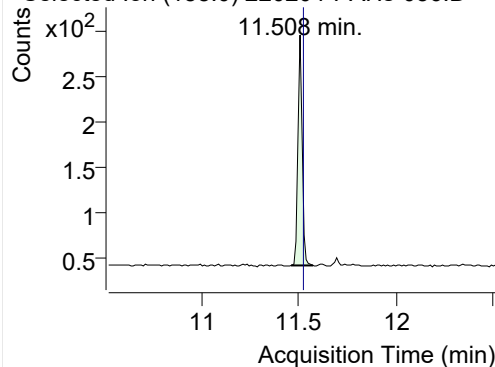


+ SIM (9.302-9.376 min, 8 scans) (\*\*) 220204-I

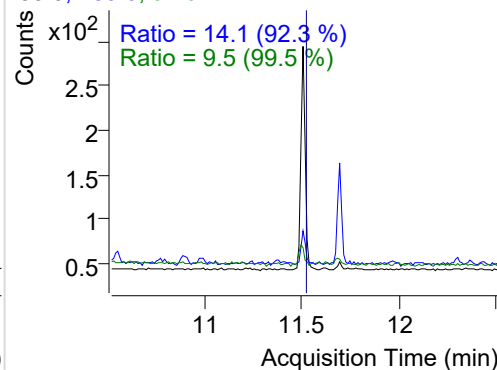


## IS-D10-Phenanthrene

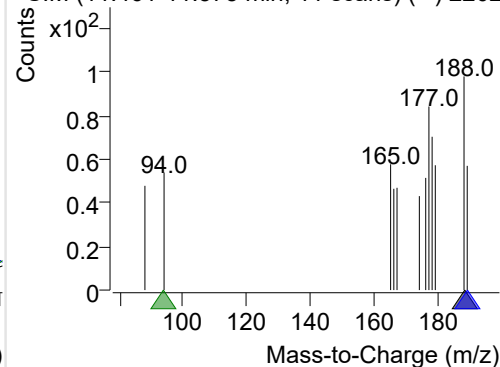
+ Selected Ion (188.0) 220204-PAHs-056.D



188.0, 189.0, 94.0

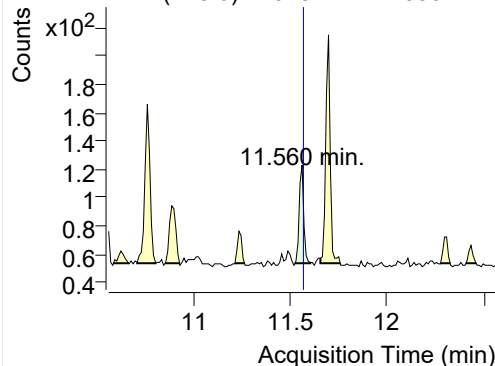


+ SIM (11.461-11.575 min, 11 scans) (\*\*) 2202

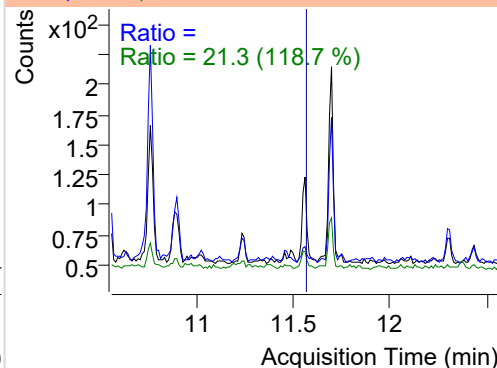


## Phenanthrene

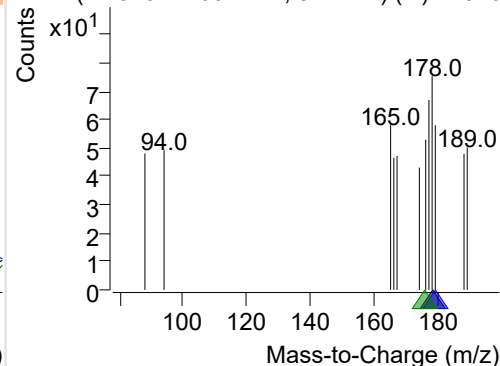
+ Selected Ion (178.0) 220204-PAHs-056.D



178.0, 179.0, 176.0

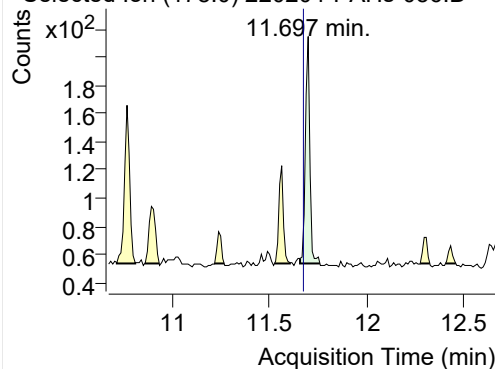


+ SIM (11.523-11.602 min, 8 scans) (\*\*) 22020

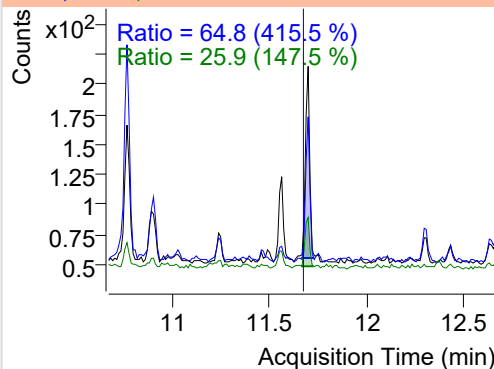


**Anthracene**

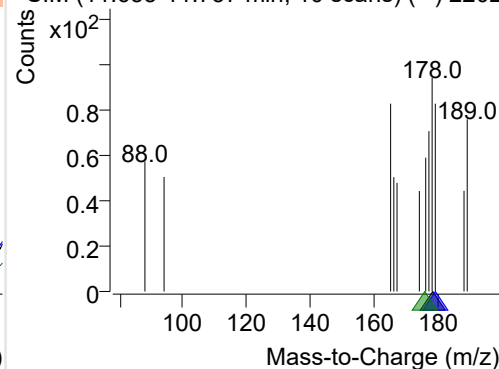
+ Selected Ion (178.0) 220204-PAHs-056.D



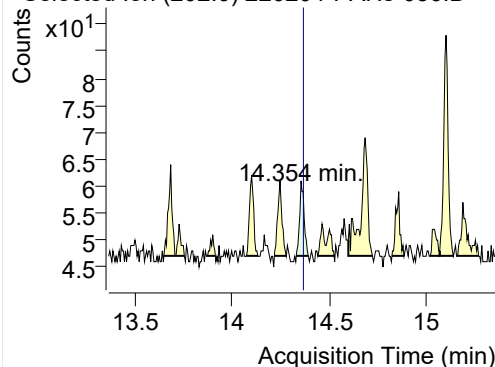
178.0, 179.0, 176.0



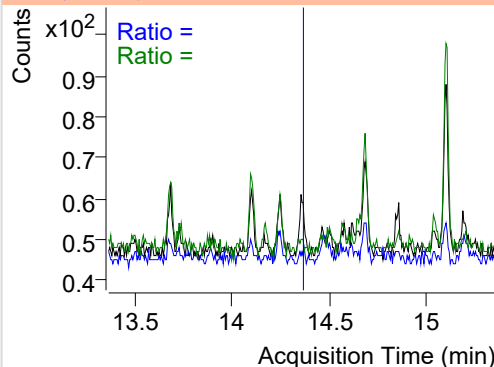
+ SIM (11.655-11.757 min, 10 scans) (\*\*) 2202

**Fluoranthene**

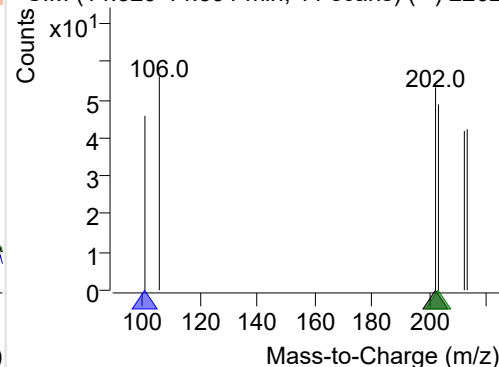
+ Selected Ion (202.0) 220204-PAHs-056.D



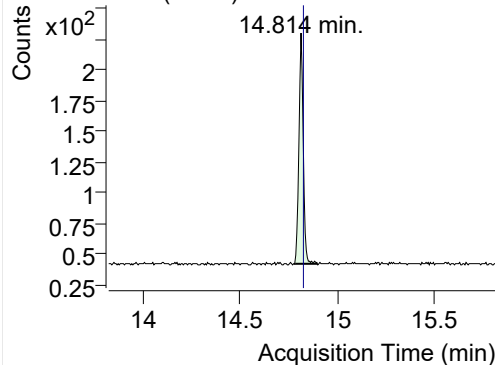
202.0, 101.0, 203.0



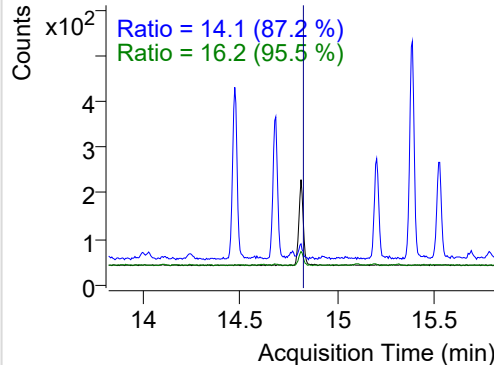
+ SIM (14.329-14.391 min, 11 scans) (\*\*) 2202

**LSS-D10-Pyrene**

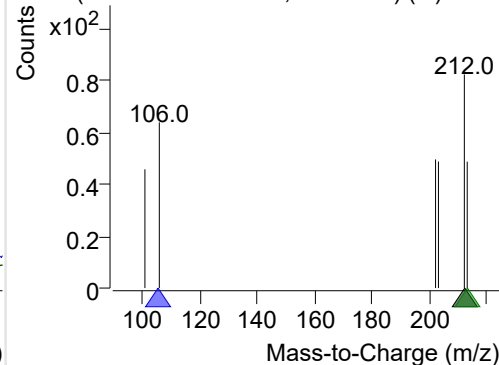
+ Selected Ion (212.0) 220204-PAHs-056.D



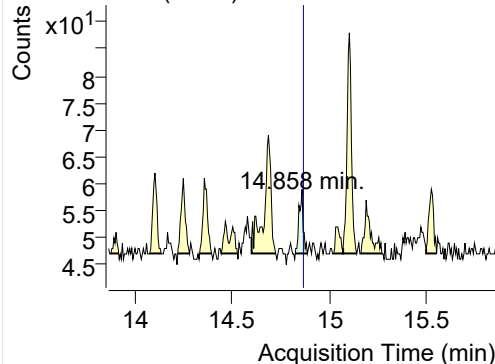
212.0, 106.0, 213.0



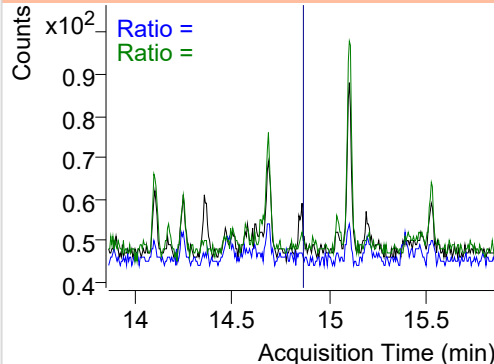
+ SIM (14.782-14.899 min, 22 scans) (\*\*) 2202

**Pyrene**

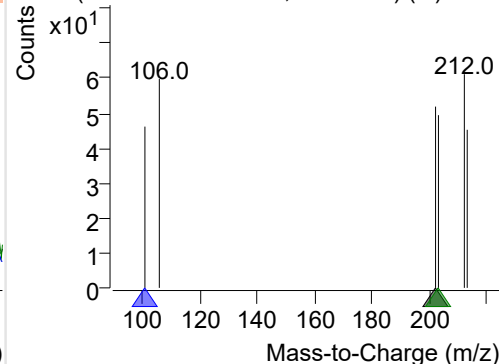
+ Selected Ion (202.0) 220204-PAHs-056.D



202.0, 101.0, 203.0



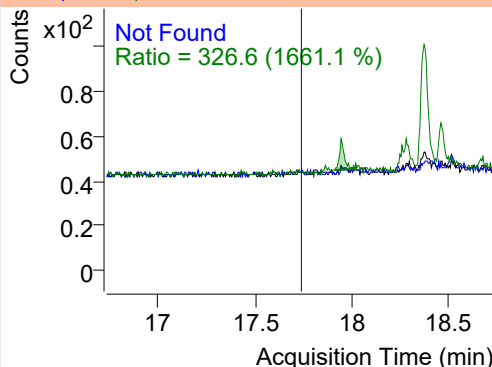
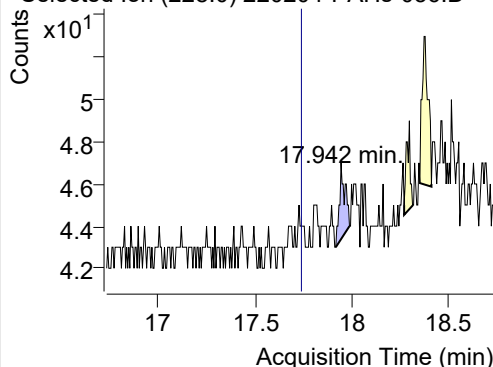
+ SIM (14.823-14.885 min, 11 scans) (\*\*) 2202



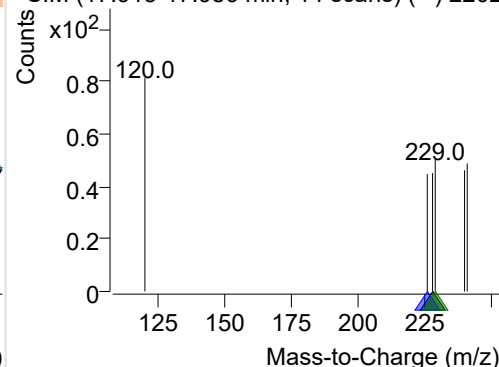
**Benz(a)anthracene**

+ Selected Ion (228.0) 220204-PAHs-056.D

228.0, 226.0, 229.0

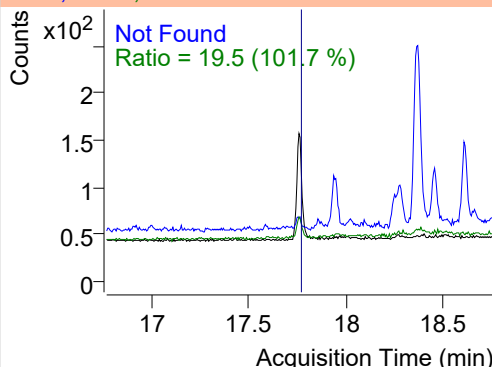
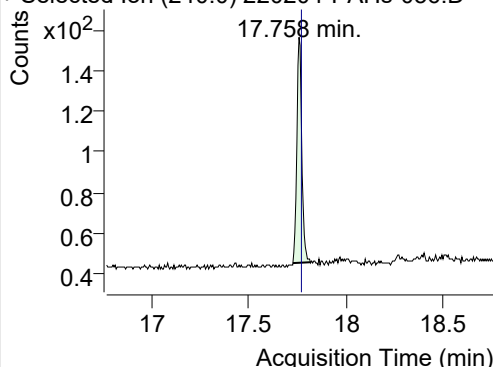


+ SIM (17.915-17.986 min, 14 scans) (\*\*) 2202

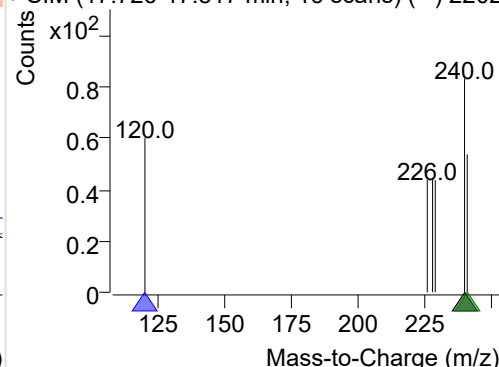
**IS-D12-Chrysene**

+ Selected Ion (240.0) 220204-PAHs-056.D

240.0, 120.0, 241.0

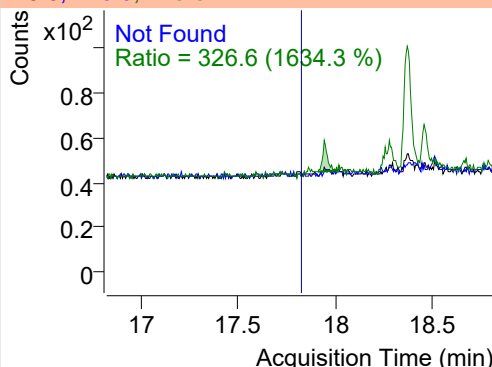
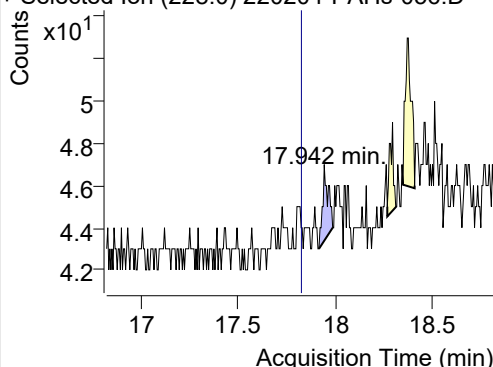


+ SIM (17.726-17.817 min, 16 scans) (\*\*) 2202

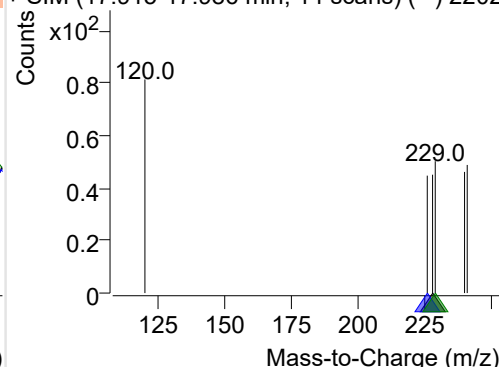
**Chrysene**

+ Selected Ion (228.0) 220204-PAHs-056.D

228.0, 226.0, 229.0

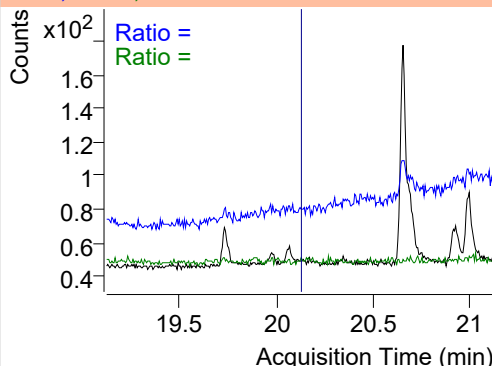
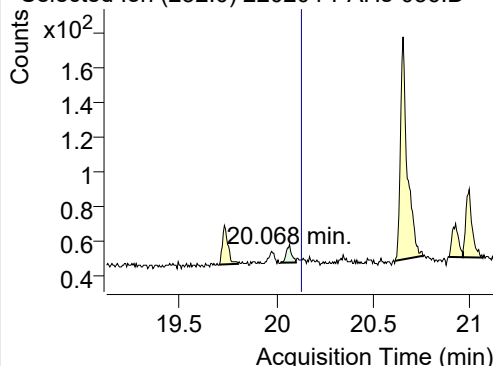


+ SIM (17.915-17.986 min, 14 scans) (\*\*) 2202

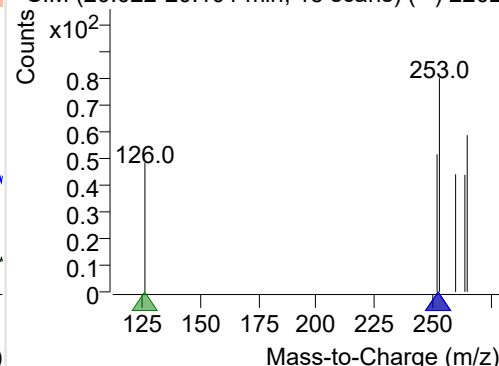
**Benzo(b)fluoranthene**

+ Selected Ion (252.0) 220204-PAHs-056.D

252.0, 253.0, 126.0



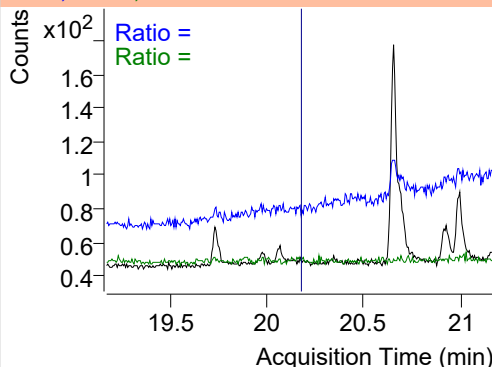
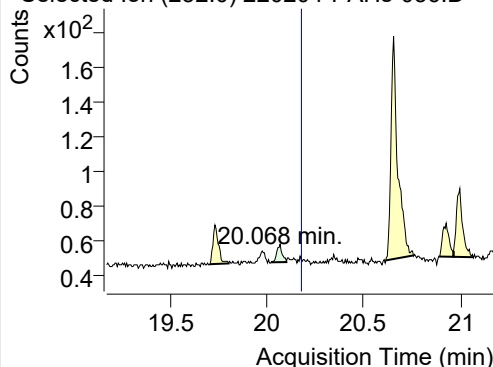
+ SIM (20.022-20.101 min, 15 scans) (\*\*) 2202



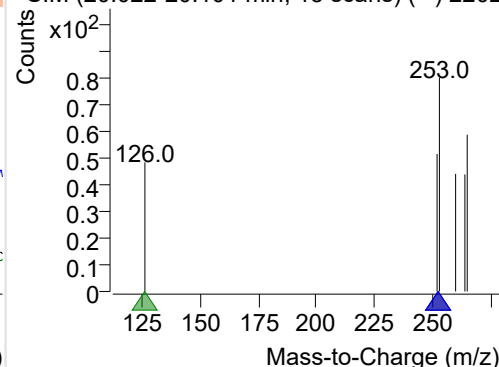
**Benzo(k)fluoranthene**

+ Selected Ion (252.0) 220204-PAHs-056.D

252.0, 253.0, 126.0

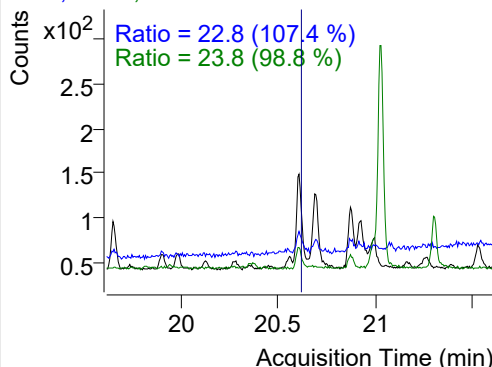
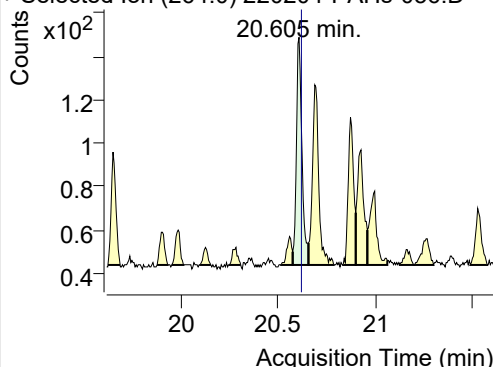


+ SIM (20.022-20.101 min, 15 scans) (\*\*) 2202

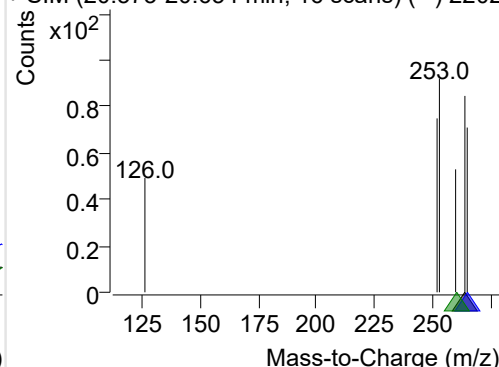
**SS-D12-Benzo(e)pyrene**

+ Selected Ion (264.0) 220204-PAHs-056.D

264.0, 265.0, 260.0

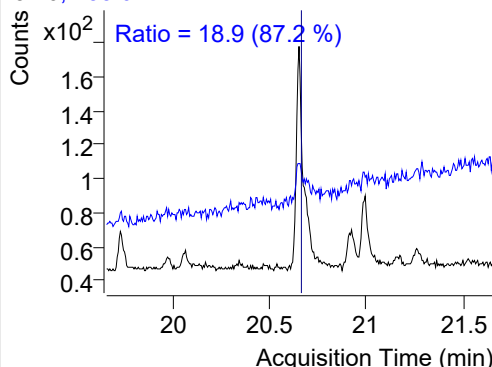
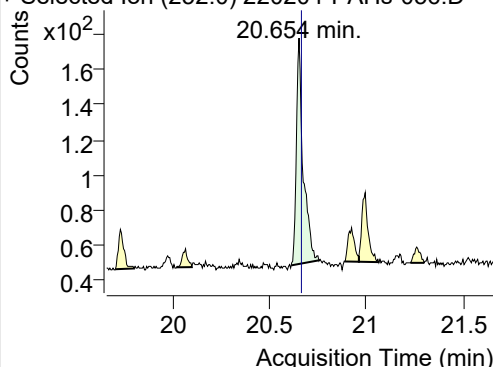


+ SIM (20.573-20.654 min, 16 scans) (\*\*) 2202

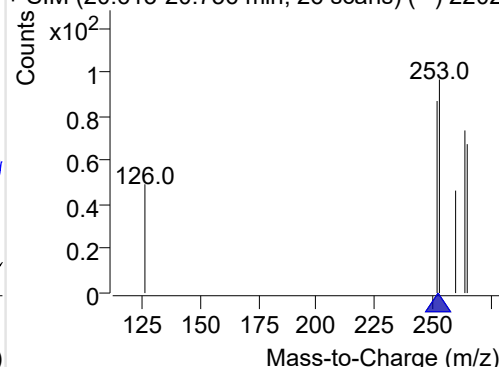
**Benzo(e)pyrene**

+ Selected Ion (252.0) 220204-PAHs-056.D

252.0, 253.0

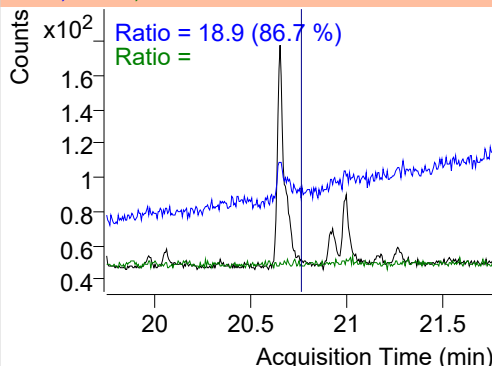
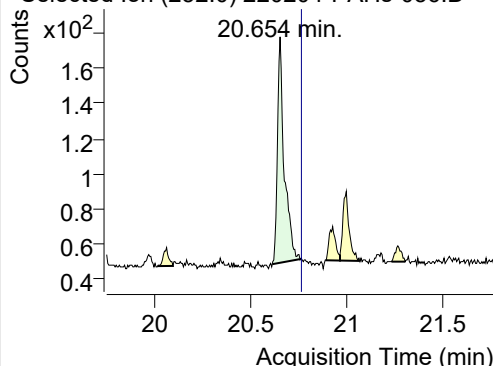


+ SIM (20.613-20.756 min, 26 scans) (\*\*) 2202

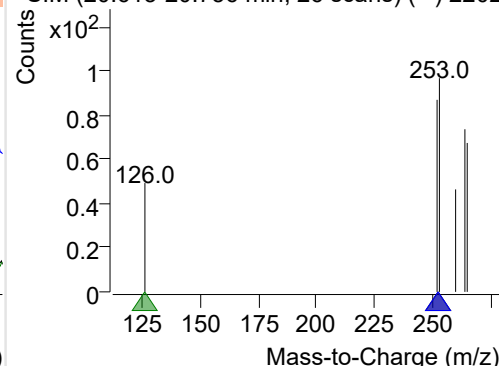
**Benzo(a)pyrene**

+ Selected Ion (252.0) 220204-PAHs-056.D

252.0, 253.0, 126.0



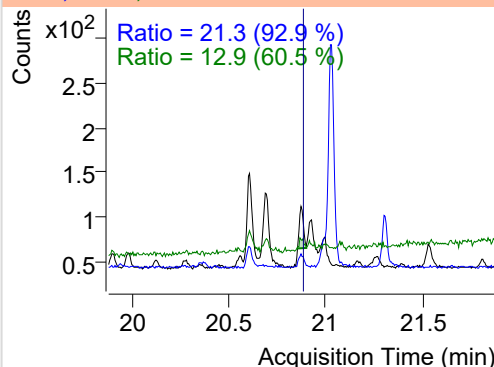
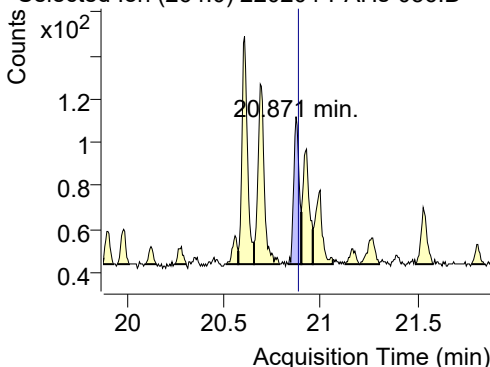
+ SIM (20.613-20.756 min, 26 scans) (\*\*) 2202



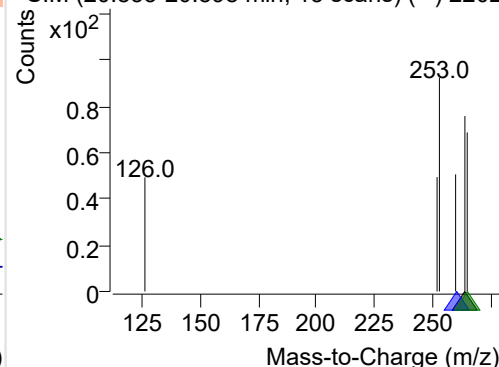
## IS-D12-Perylene

+ Selected Ion (264.0) 220204-PAHs-056.D

264.0, 260.0, 265.0



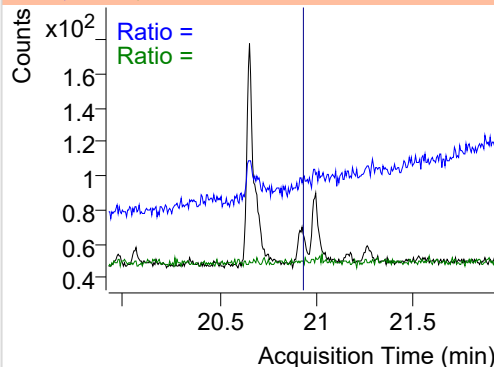
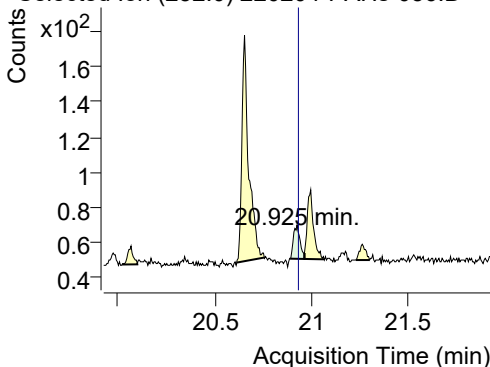
+ SIM (20.833-20.898 min, 13 scans) (\*\*) 2202



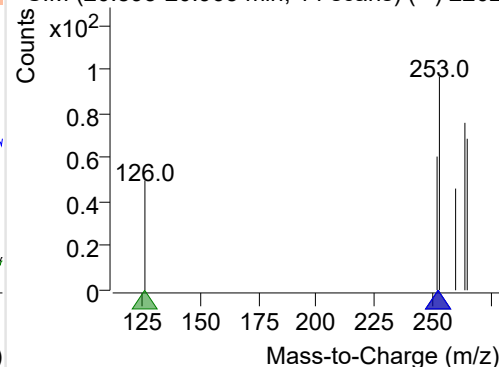
## Perylene

+ Selected Ion (252.0) 220204-PAHs-056.D

252.0, 253.0, 126.0



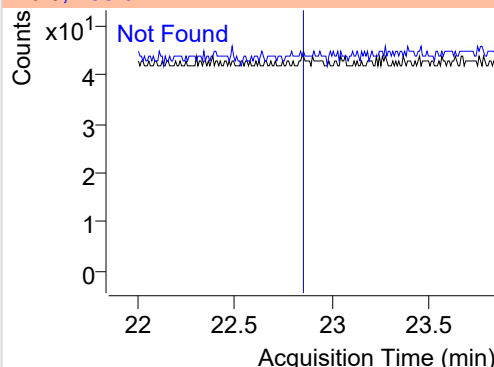
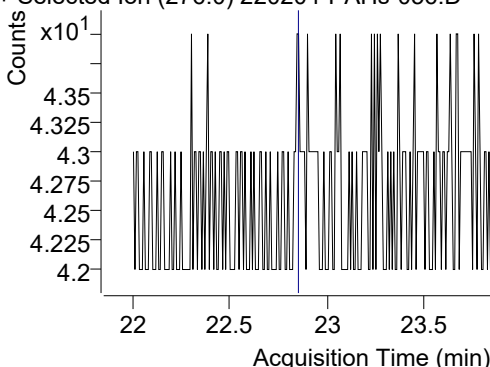
+ SIM (20.893-20.963 min, 14 scans) (\*\*) 2202



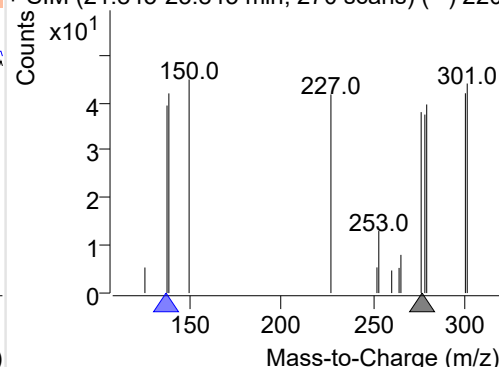
## Indeno(1,2,3-c,d)pyrene

+ Selected Ion (276.0) 220204-PAHs-056.D

276.0, 138.0



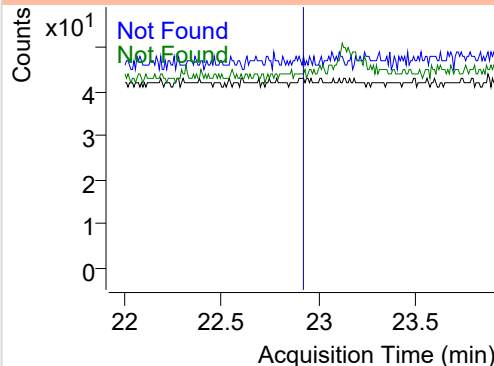
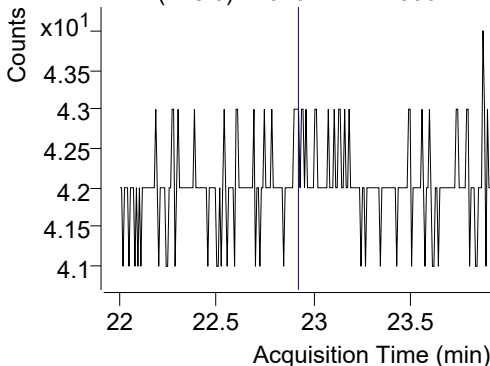
+ SIM (21.845-23.845 min, 270 scans) (\*\*) 220



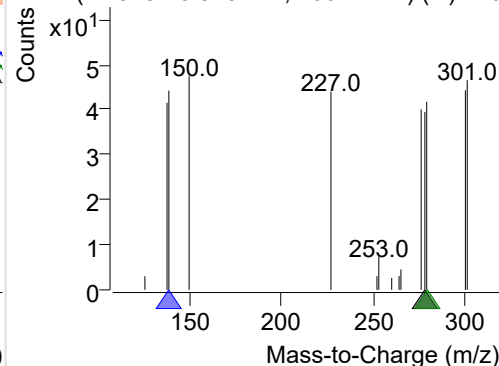
## Dibenz(a,h)anthracene

+ Selected Ion (278.0) 220204-PAHs-056.D

278.0, 139.0, 279.0

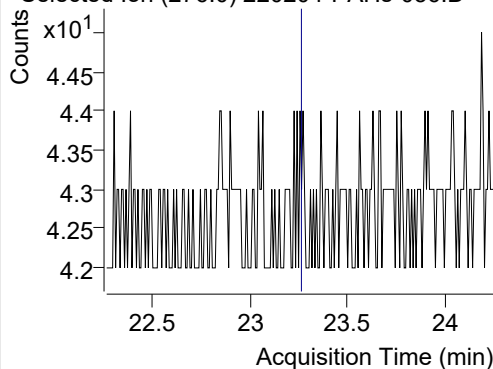


+ SIM (21.913-23.913 min, 266 scans) (\*\*) 220

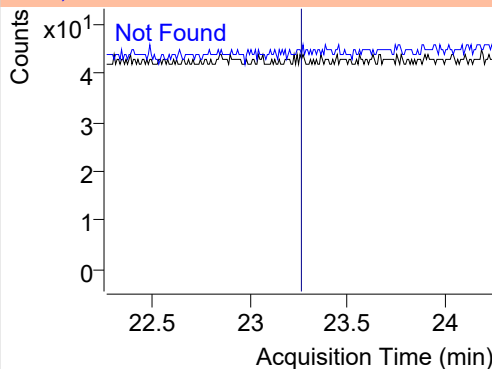


**Benzo(g,h,i)perylene**

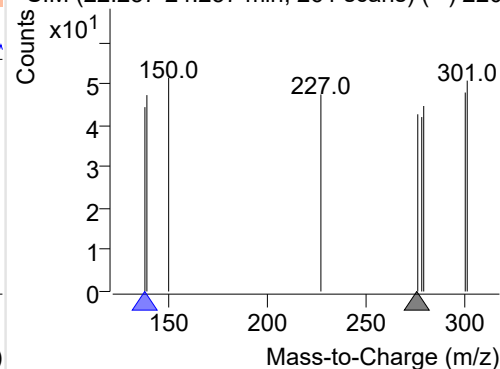
+ Selected Ion (276.0) 220204-PAHs-056.D



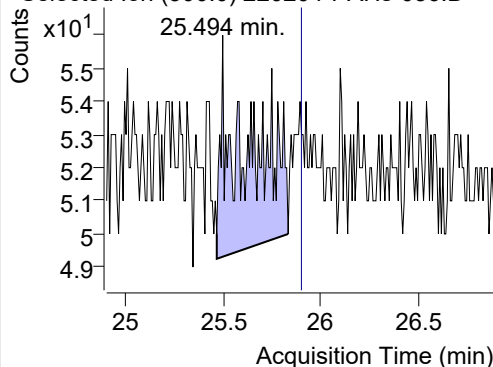
276.0, 138.0



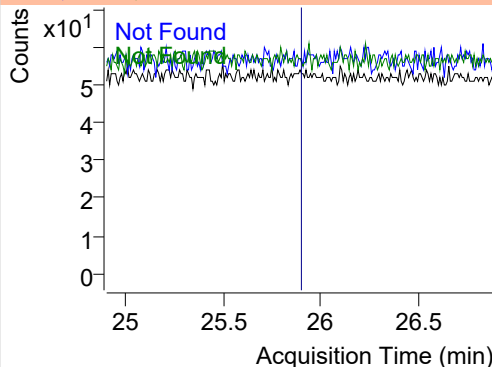
+ SIM (22.257-24.257 min, 261 scans) (\*\*) 220

**Coronene**

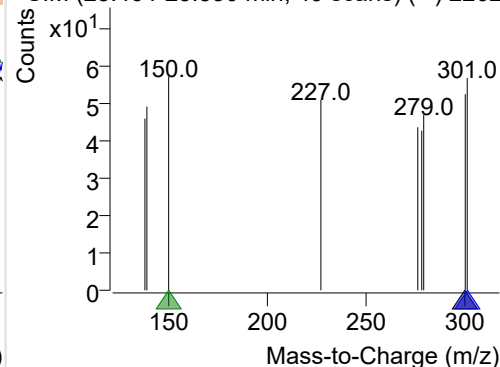
+ Selected Ion (300.0) 220204-PAHs-056.D



300.0, 301.0, 150.0



+ SIM (25.464-25.830 min, 49 scans) (\*\*) 2202





## Quantitative Analysis Sample Based Report

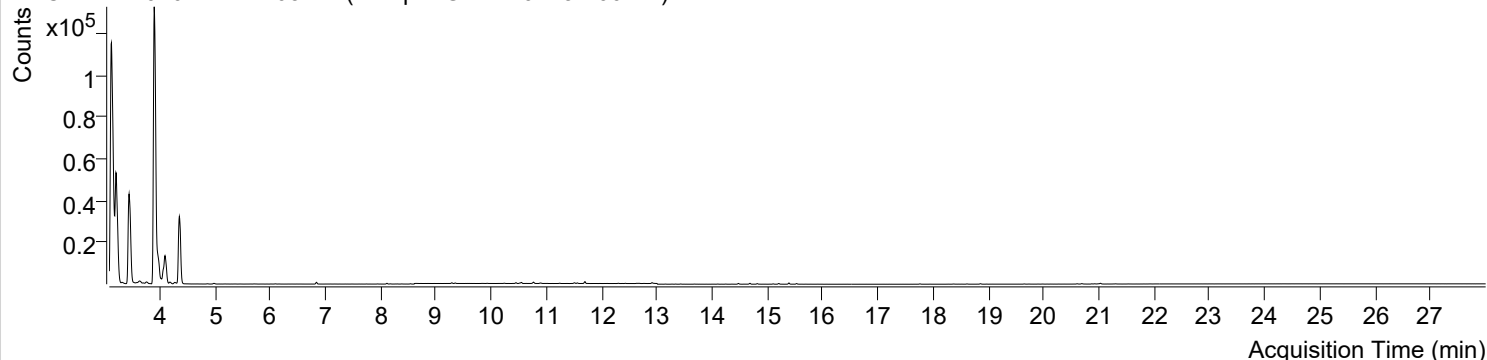


Trusted Answers

Batch Data Path File Name	D:\MassHunter\GCMS\1\data\PAHs\220204-PAHs-Sample\QuantResults\220204-PAHs-Quant.batch.bin		
Analysis Time Stamp	2022-04-13 오후 3:18:46	Analyst Name	DESKTOP-86B7UPG\5975MS
Report Generation Time	2022-04-13 오후 3:19:11	Report Generator Name	DESKTOP-86B7UPG\5975MS
Calibration Last Update	2022-04-13 오후 3:16:00	Batch State	Processed
Analyze Quant Version	10.2	Report Quant Version	10.2
Acq. Date-Time	2022-02-06 오후 12:39:43	Data File	220204-PAHs-057.D
Type	Sample	Name	Sample-Gas-220113-200DIL
Dil.	1	Acq. Method File	PAHs 19mix-Method

## Sample Chromatogram

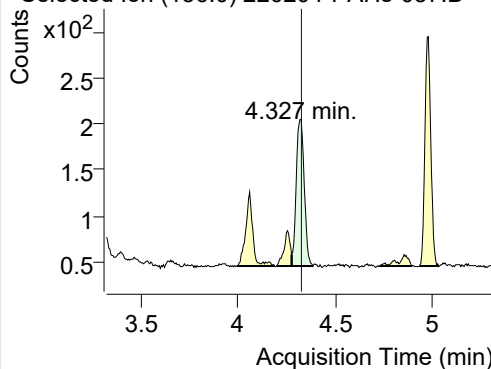
+ TIC SIM 220204-PAHs-057.D (Sample-Gas-220113-200DIL)



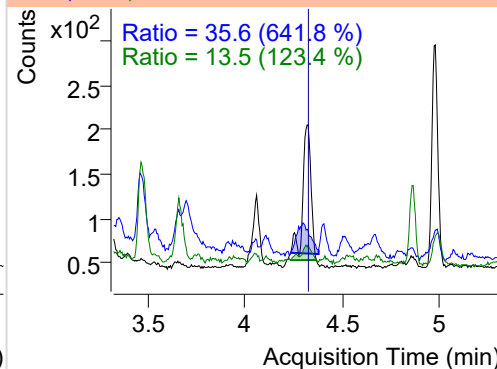
Name	RT	Transition	Resp.	Height	Final Conc. Units	Ratio
IS-D8-Naphthalene	4.327	136.0	458	159.39	ND ng/ml	13.5
Naphthalene	4.354	128.0	72263	25871.33	ND ng/ml	13.2
Acenaphthylene	7.745	152.0	39	26.23	ND ng/ml	21.0
IS-D10-Acenaphthene	8.112	164.0	253	173.43	ND ng/ml	94.8
Acenaphthene	8.177	154.0	43	28.41	ND ng/ml	119.5
LSS-D10-Fluorene	9.282	176.0	250	146.44	ND µg/mL	86.8
Fluorene	9.345	166.0	176	107.82	ND µg/mL	96.8
IS-D10-Phenanthrene	11.508	188.0	411	259.51	ND µg/mL	15.2
Phenanthrene	11.560	178.0	293	187.87	ND µg/mL	15.4
Anthracene	11.697	178.0	386	245.87	ND µg/mL	25.7
Fluoranthene	14.359	202.0	42	24.71	ND µg/mL	
LSS-D10-Pyrene	14.814	212.0	309	187.01	ND µg/mL	16.8
Pyrene	14.852	202.0	25	16.71	ND µg/mL	22.5
Benz(a)anthracene	18.512	228.0	10	5.00	ND µg/mL	155.1
IS-D12-Chrysene	17.758	240.0	202	115.74	ND µg/mL	16.5
Chrysene	18.512	228.0	10	5.00	ND µg/mL	155.1
Benzo(b)fluoranthene	20.057	252.0	35	12.63	ND µg/mL	
Benzo(k)fluoranthene	20.057	252.0	35	12.63	ND µg/mL	
SS-D12-Benzo(e)pyrene	20.605	264.0	193	97.92	ND µg/mL	25.1
Benzo(e)pyrene	20.686	252.0	110	39.35	ND µg/mL	10.0
Benzo(a)pyrene	20.686	252.0	110	39.35	ND µg/mL	10.0
IS-D12-Perylene	20.871	264.0	119	64.48	ND µg/mL	
Perylene	20.925	252.0	75	28.02	ND µg/mL	
Indeno(1,2,3-c,d)pytene		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	25.593	300.0	8	6.00	ND µg/mL	

## IS-D8-Naphthalene

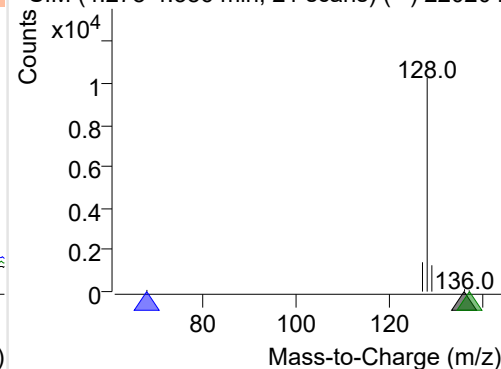
+ Selected Ion (136.0) 220204-PAHs-057.D



136.0, 68.0, 137.0

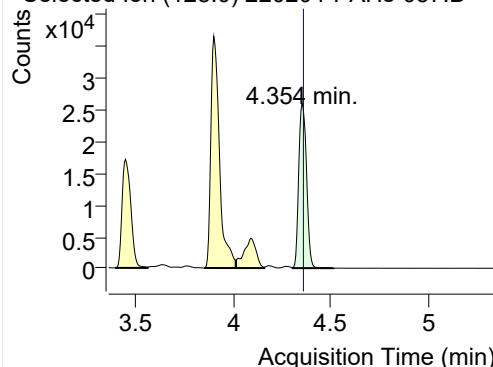


+ SIM (4.278-4.386 min, 21 scans) (\*\*) 220204

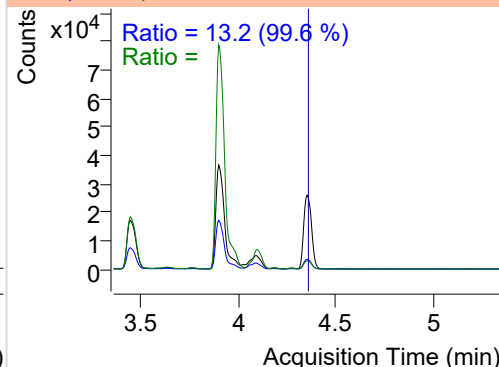


**Naphthalene**

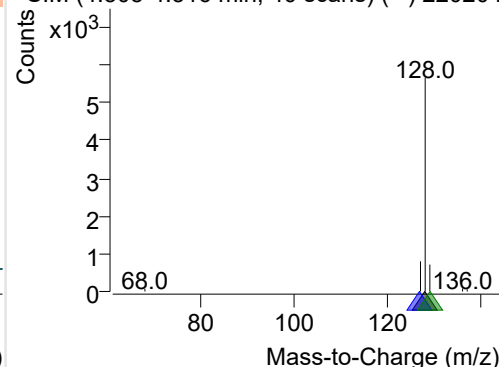
+ Selected Ion (128.0) 220204-PAHs-057.D



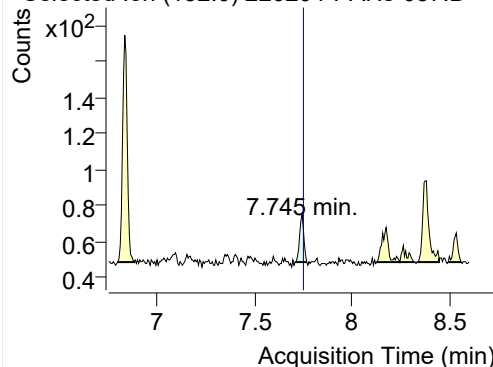
128.0, 127.0, 129.0



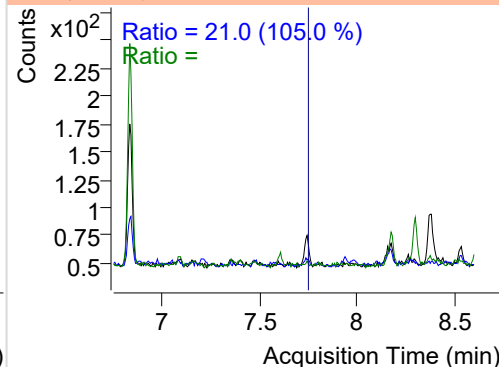
+ SIM (4.305-4.516 min, 40 scans) (\*\*) 220204

**Acenaphthylene**

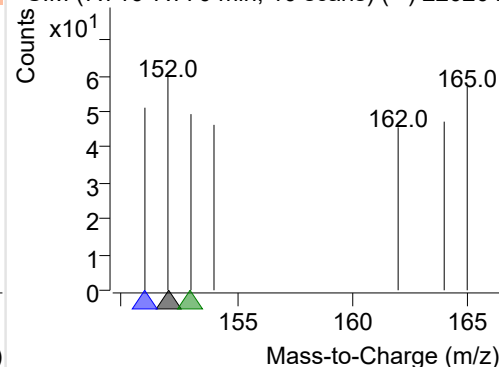
+ Selected Ion (152.0) 220204-PAHs-057.D



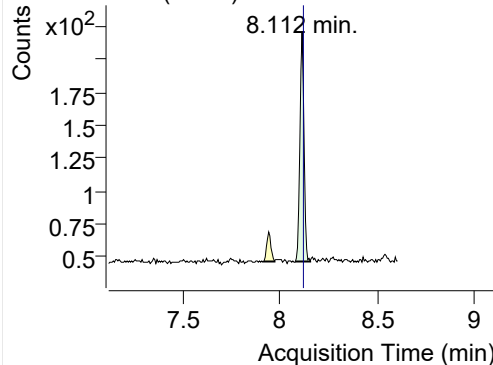
152.0, 151.0, 153.0



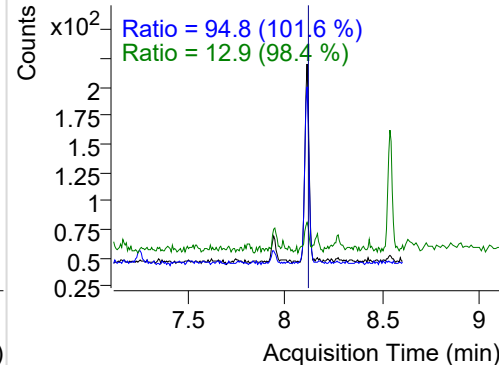
+ SIM (7.716-7.770 min, 10 scans) (\*\*) 220204

**IS-D10-Acenaphthene**

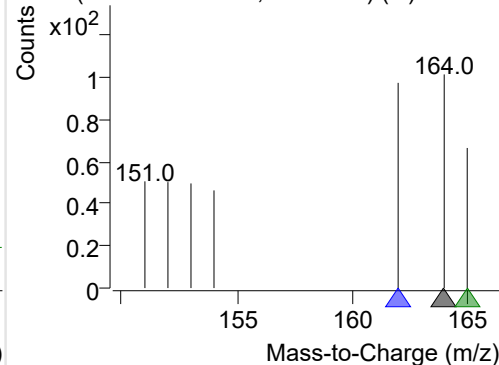
+ Selected Ion (164.0) 220204-PAHs-057.D



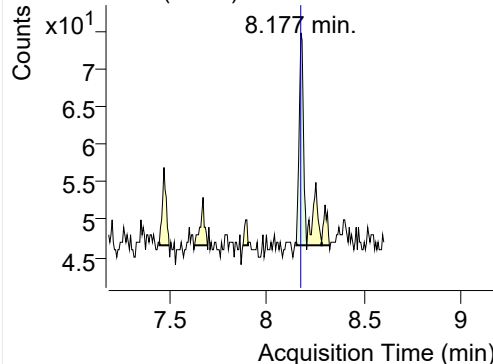
164.0, 162.0, 165.0



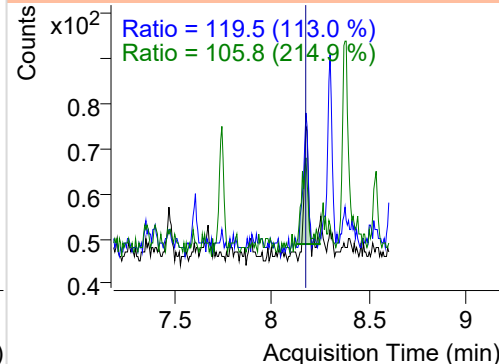
+ SIM (8.078-8.154 min, 13 scans) (\*\*) 220204

**Acenaphthene**

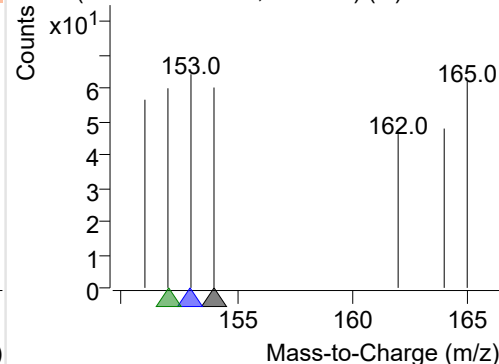
+ Selected Ion (154.0) 220204-PAHs-057.D



154.0, 153.0, 152.0

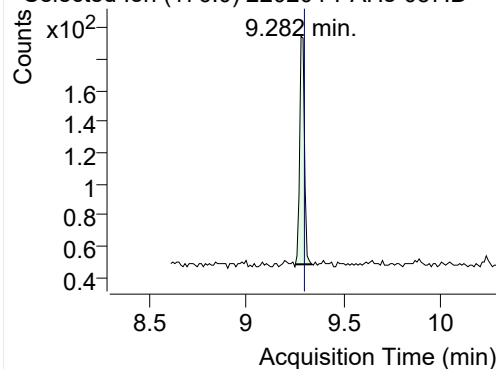


+ SIM (8.154-8.206 min, 9 scans) (\*\*) 220204-I

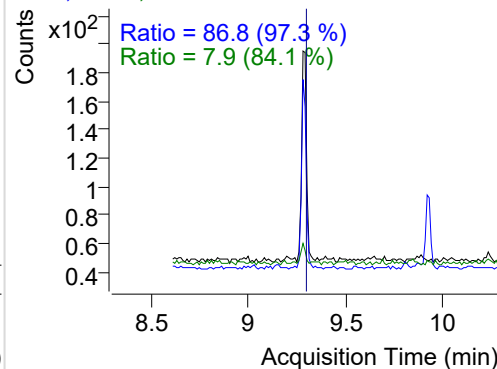


## LSS-D10-Fluorene

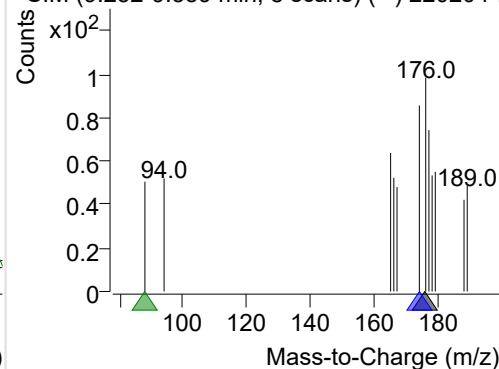
+ Selected Ion (176.0) 220204-PAHs-057.D



176.0, 174.0, 88.0

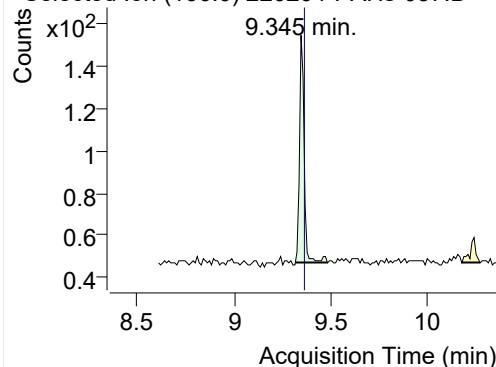


+ SIM (9.252-9.339 min, 8 scans) (\*\*) 220204-I

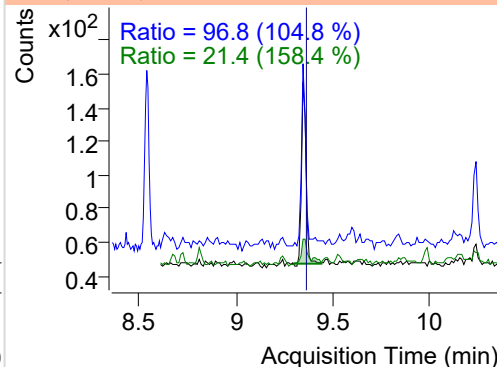


## Fluorene

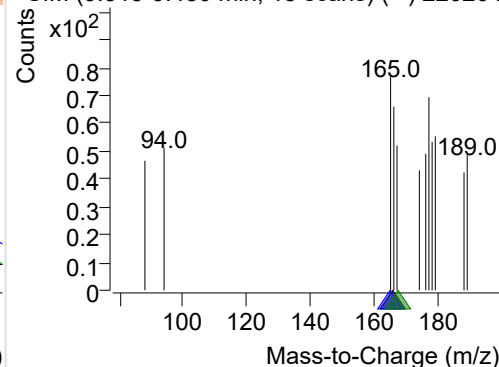
+ Selected Ion (166.0) 220204-PAHs-057.D



166.0, 165.0, 167.0

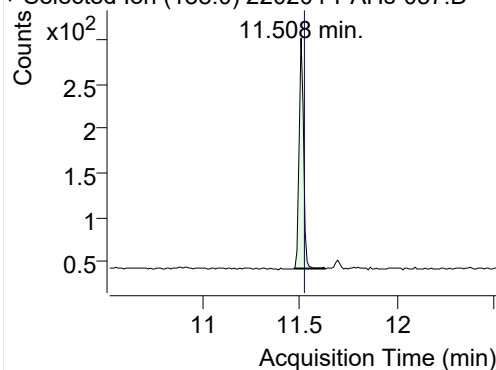


+ SIM (9.315-9.480 min, 15 scans) (\*\*) 220204

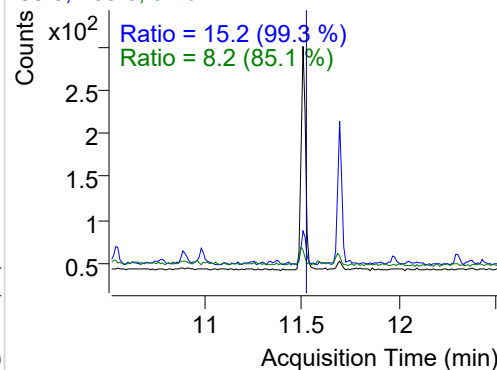


## IS-D10-Phenanthrene

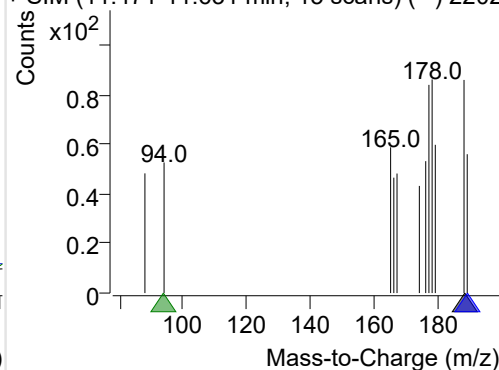
+ Selected Ion (188.0) 220204-PAHs-057.D



188.0, 189.0, 94.0

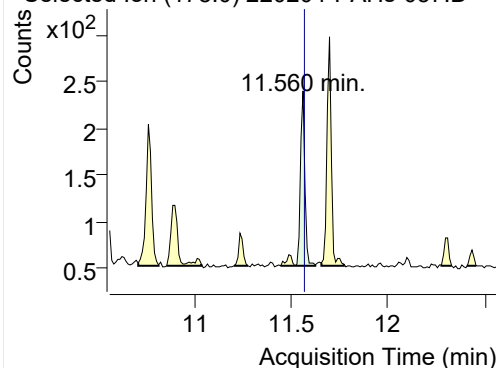


+ SIM (11.471-11.631 min, 15 scans) (\*\*) 2202

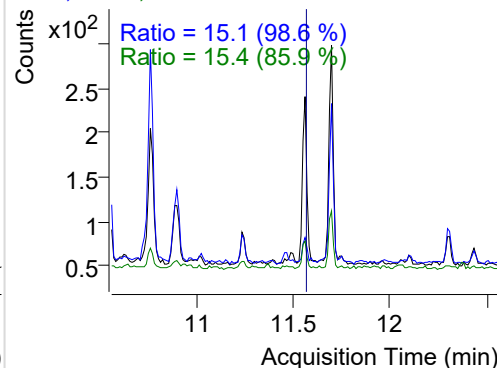


## Phenanthrene

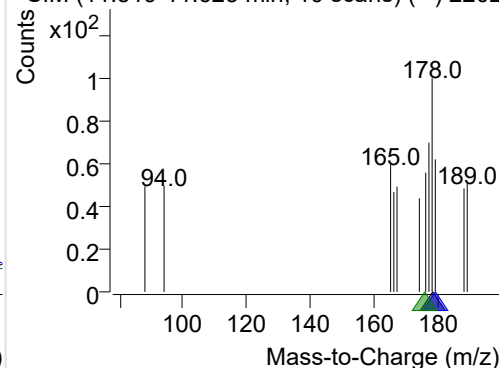
+ Selected Ion (178.0) 220204-PAHs-057.D



178.0, 179.0, 176.0

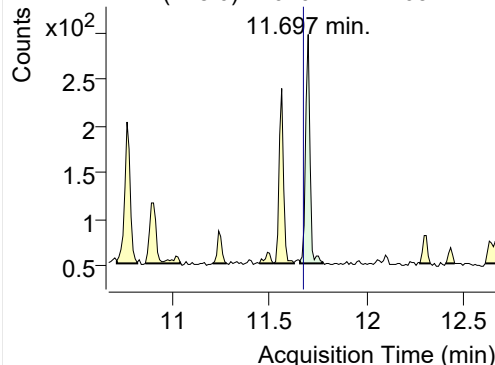


+ SIM (11.519-11.623 min, 10 scans) (\*\*) 2202

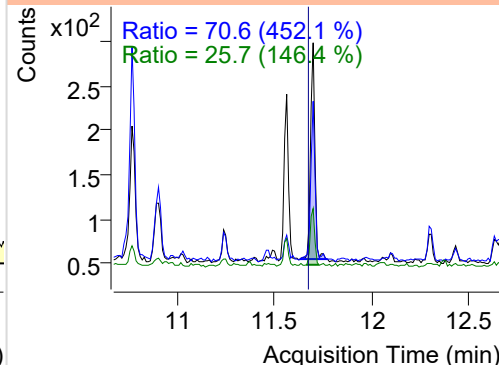


**Anthracene**

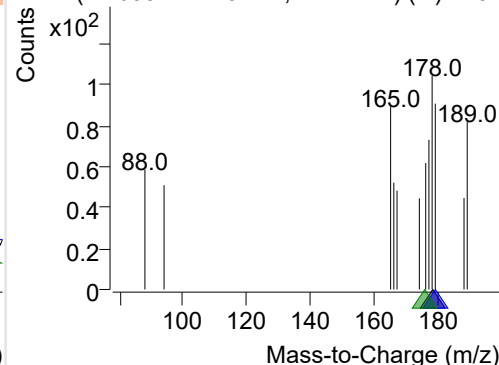
+ Selected Ion (178.0) 220204-PAHs-057.D



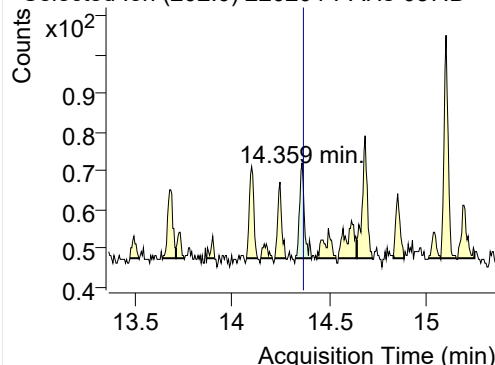
178.0, 179.0, 176.0



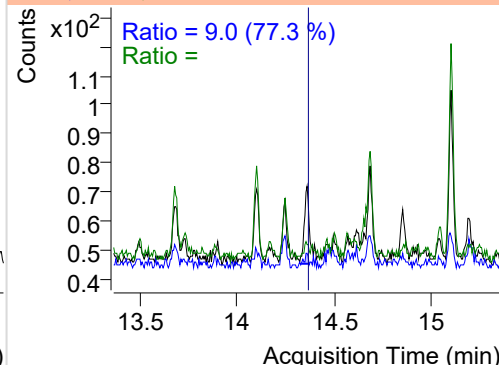
+ SIM (11.655-11.770 min, 12 scans) (\*\*) 2202

**Fluoranthene**

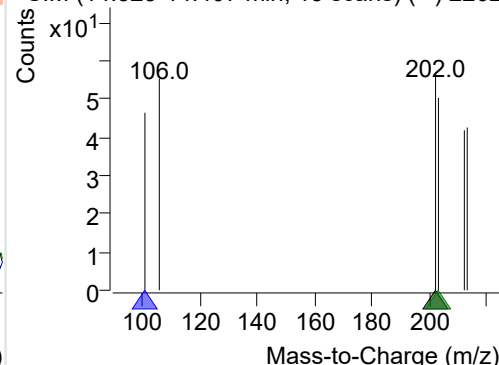
+ Selected Ion (202.0) 220204-PAHs-057.D



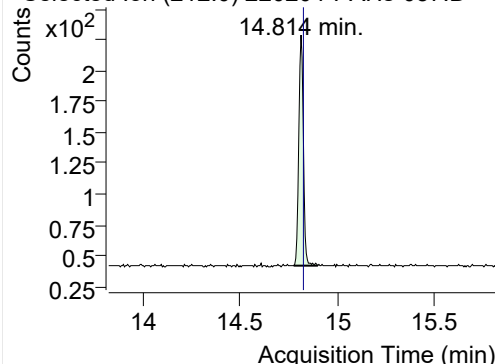
202.0, 101.0, 203.0



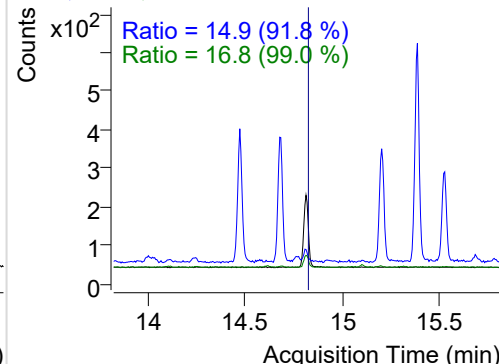
+ SIM (14.325-14.407 min, 15 scans) (\*\*) 2202

**LSS-D10-Pyrene**

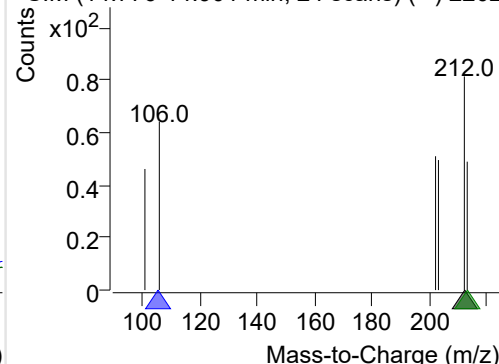
+ Selected Ion (212.0) 220204-PAHs-057.D



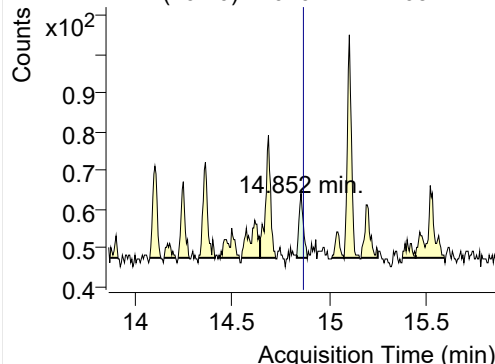
212.0, 106.0, 213.0



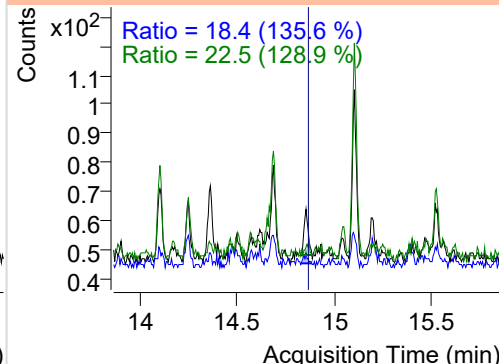
+ SIM (14.776-14.901 min, 24 scans) (\*\*) 2202

**Pyrene**

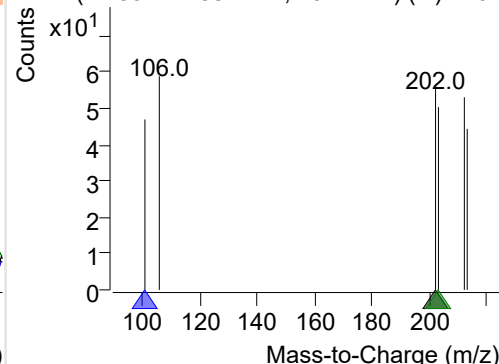
+ Selected Ion (202.0) 220204-PAHs-057.D

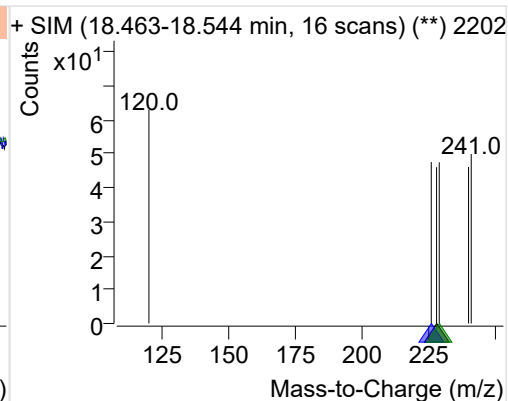
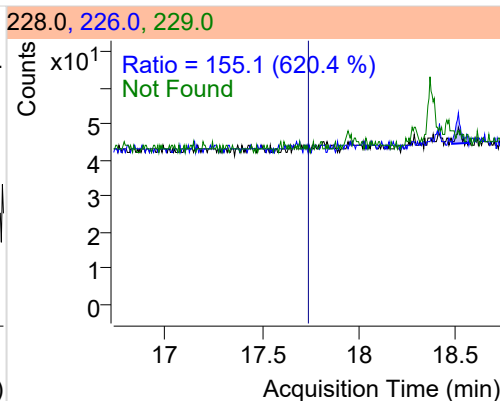
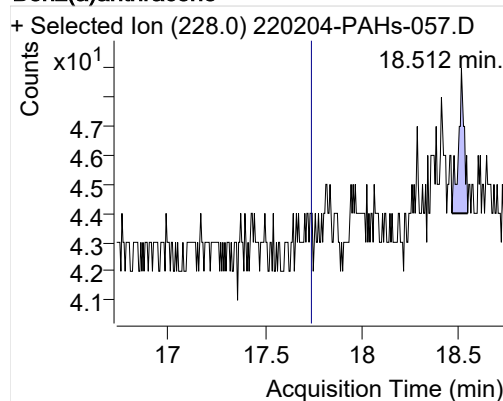
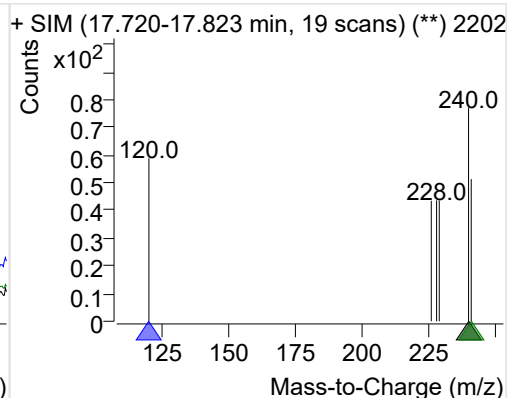
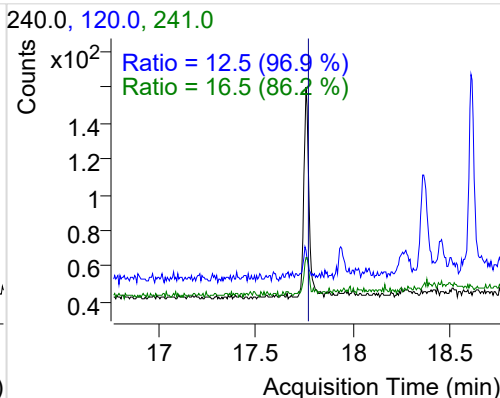
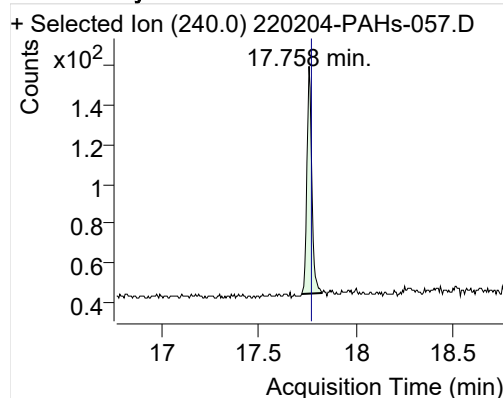
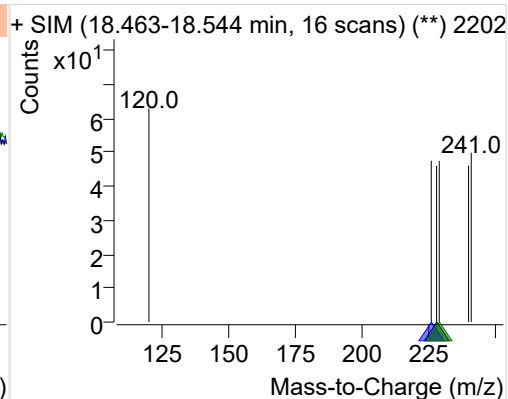
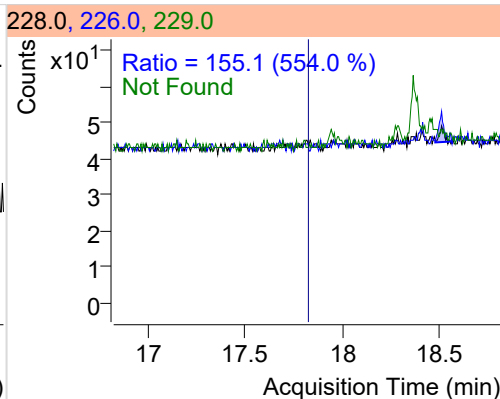
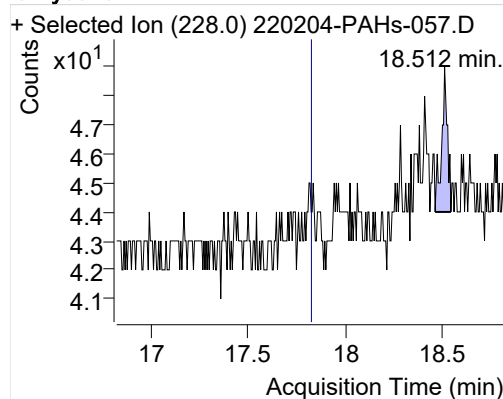
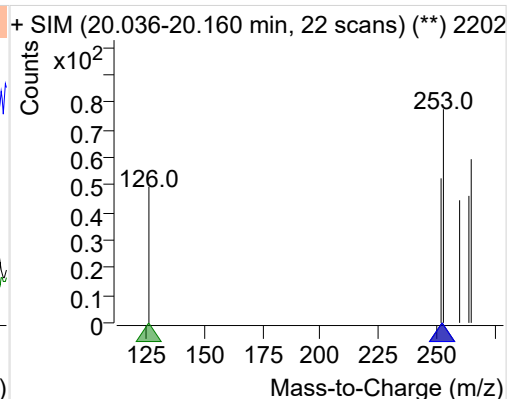
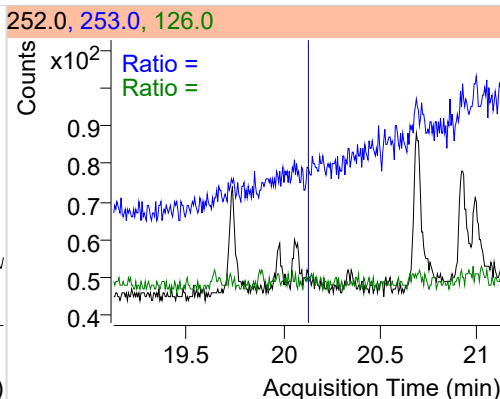
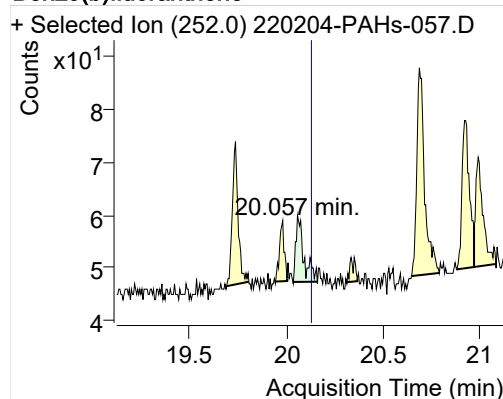


202.0, 101.0, 203.0



+ SIM (14.831-14.884 min, 10 scans) (\*\*) 2202

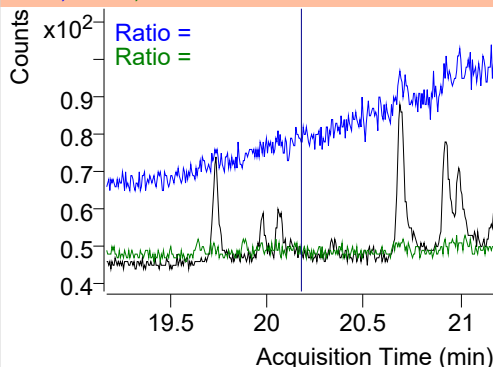
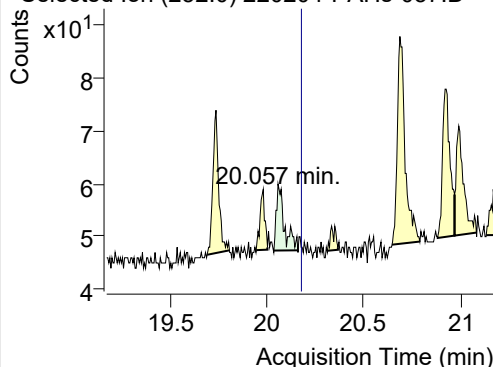


**Benz(a)anthracene****IS-D12-Chrysene****Chrysene****Benzo(b)fluoranthene**

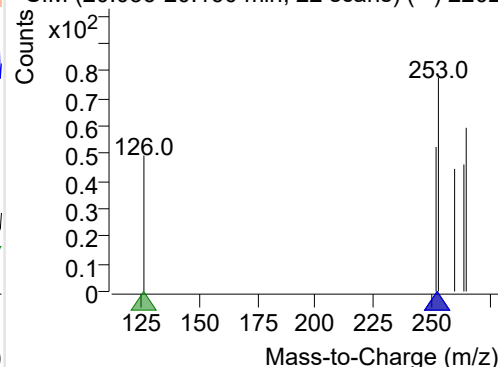
**Benzo(k)fluoranthene**

+ Selected Ion (252.0) 220204-PAHs-057.D

252.0, 253.0, 126.0

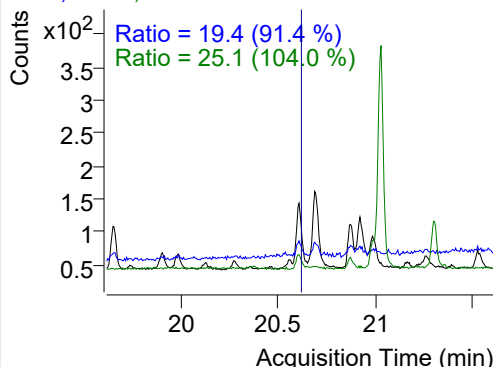
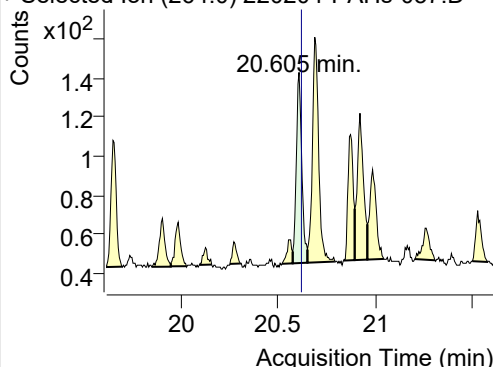


+ SIM (20.036-20.160 min, 22 scans) (\*\*) 2202

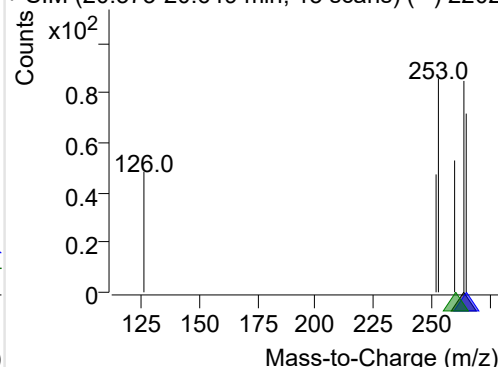
**SS-D12-Benzo(e)pyrene**

+ Selected Ion (264.0) 220204-PAHs-057.D

264.0, 265.0, 260.0

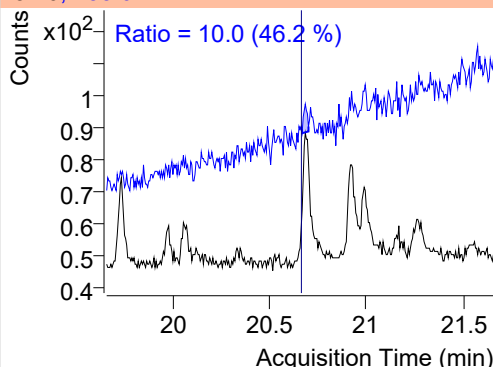
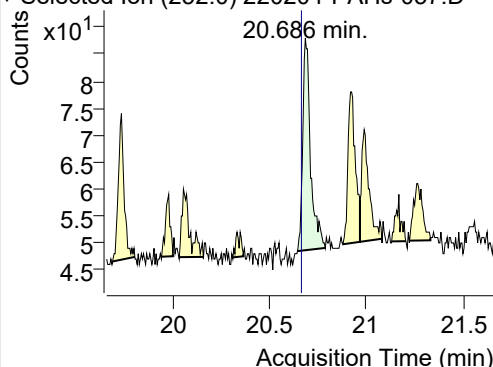


+ SIM (20.573-20.649 min, 15 scans) (\*\*) 2202

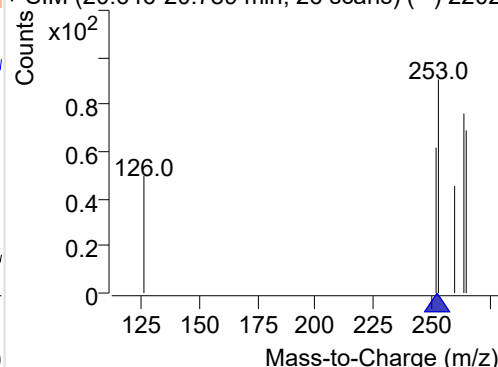
**Benzo(e)pyrene**

+ Selected Ion (252.0) 220204-PAHs-057.D

252.0, 253.0

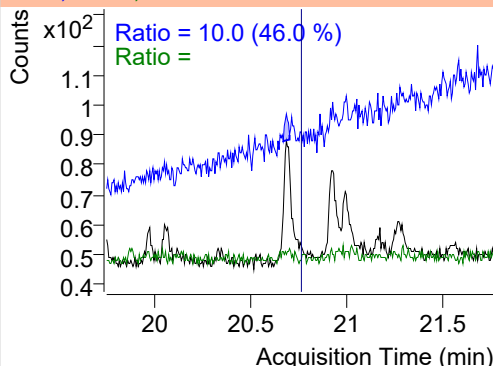
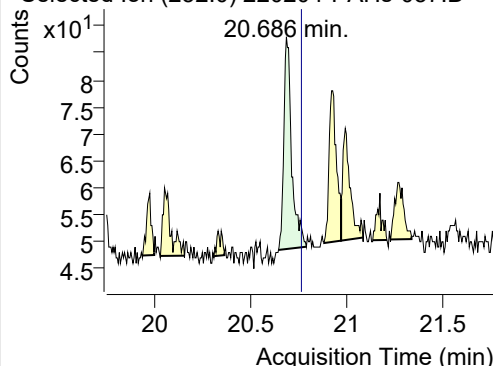


+ SIM (20.646-20.789 min, 26 scans) (\*\*) 2202

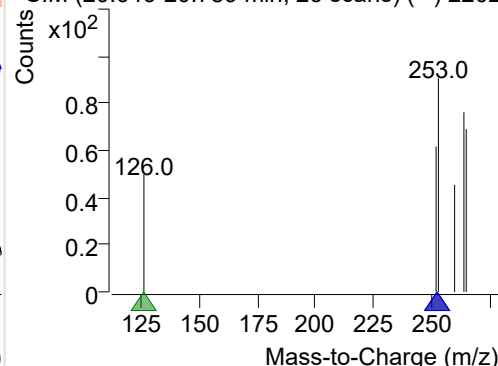
**Benzo(a)pyrene**

+ Selected Ion (252.0) 220204-PAHs-057.D

252.0, 253.0, 126.0



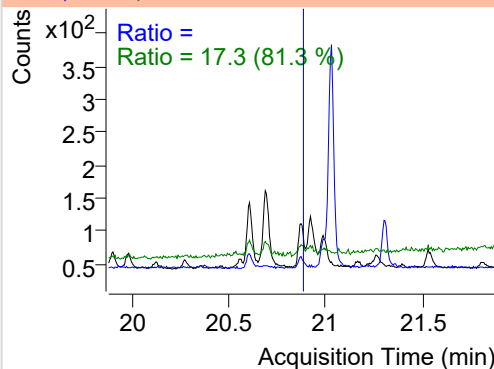
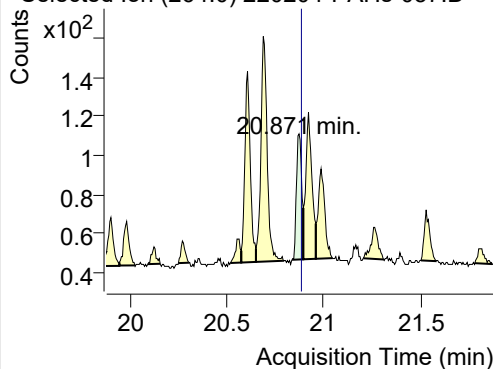
+ SIM (20.646-20.789 min, 26 scans) (\*\*) 2202



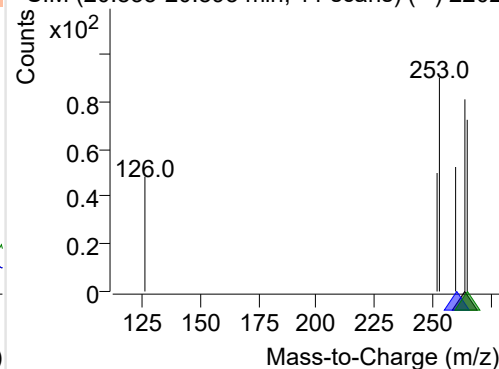
## IS-D12-Perylene

+ Selected Ion (264.0) 220204-PAHs-057.D

264.0, 260.0, 265.0



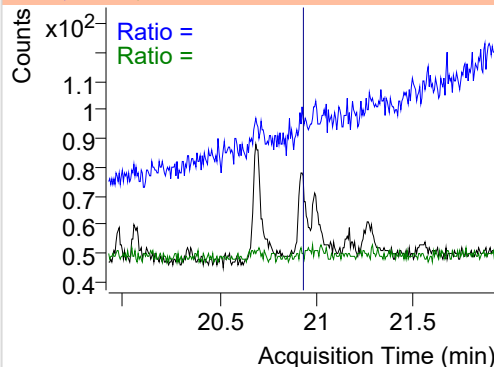
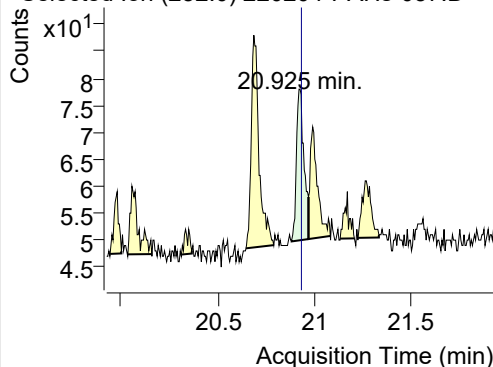
+ SIM (20.835-20.893 min, 11 scans) (\*\*) 2202



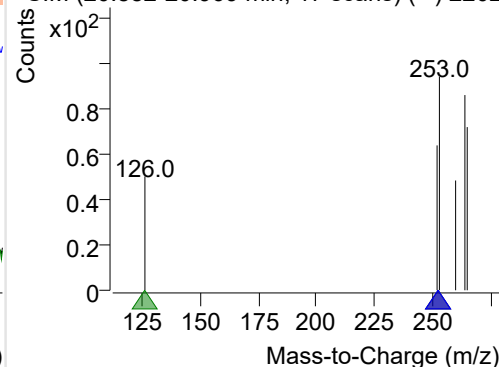
## Perylene

+ Selected Ion (252.0) 220204-PAHs-057.D

252.0, 253.0, 126.0



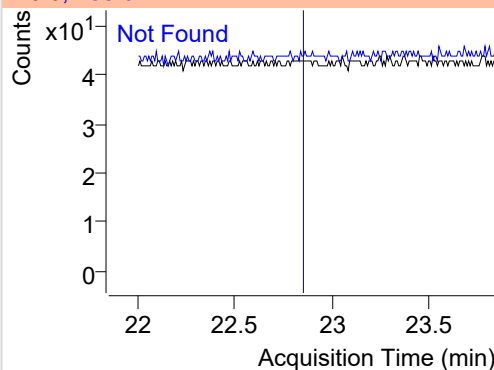
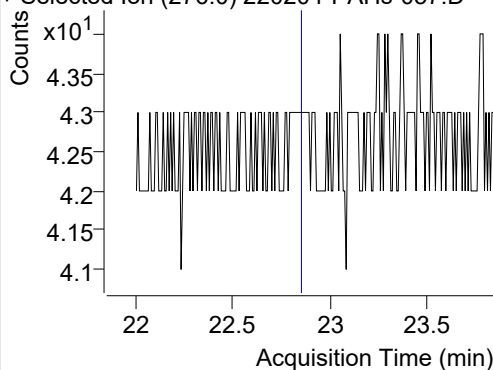
+ SIM (20.882-20.969 min, 17 scans) (\*\*) 2202



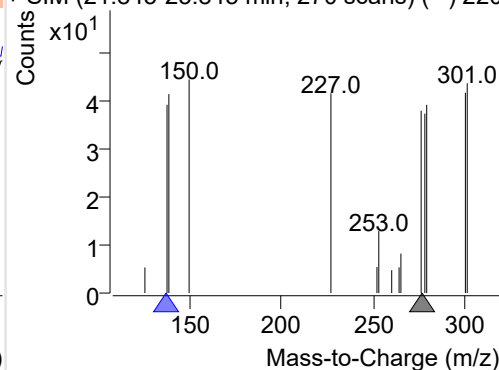
## Indeno(1,2,3-c,d)pyrene

+ Selected Ion (276.0) 220204-PAHs-057.D

276.0, 138.0



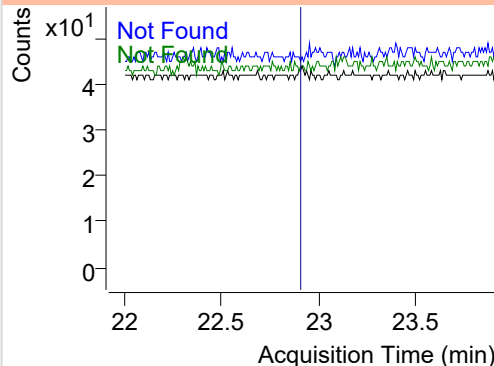
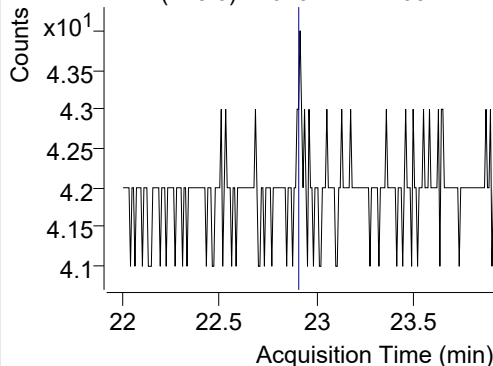
+ SIM (21.845-23.845 min, 270 scans) (\*\*) 220



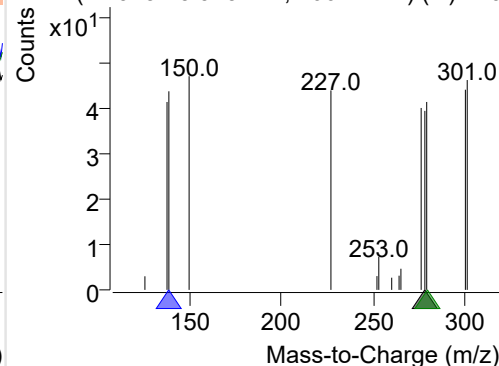
## Dibenz(a,h)anthracene

+ Selected Ion (278.0) 220204-PAHs-057.D

278.0, 139.0, 279.0

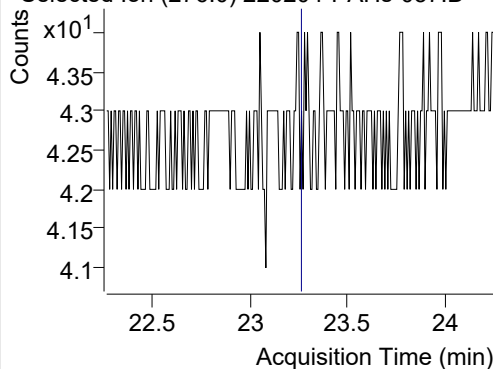


+ SIM (21.913-23.913 min, 266 scans) (\*\*) 220

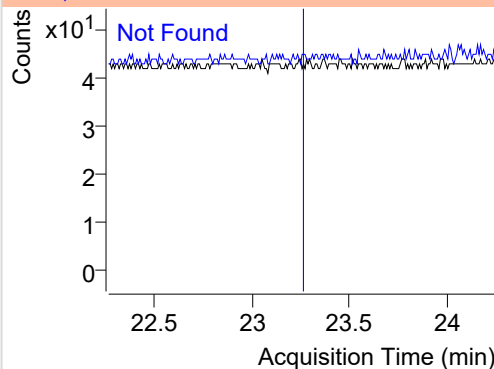


**Benzo(g,h,i)perylene**

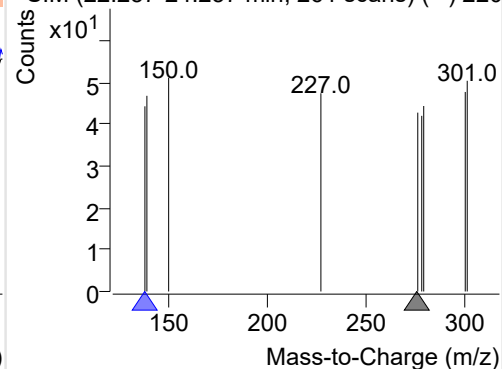
+ Selected Ion (276.0) 220204-PAHs-057.D



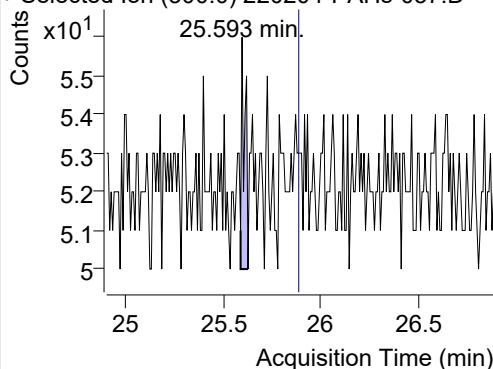
276.0, 138.0



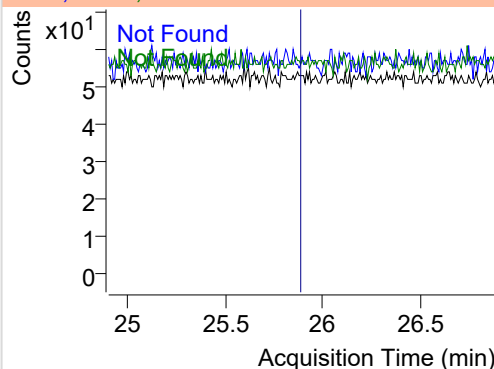
+ SIM (22.257-24.257 min, 261 scans) (\*\*) 220

**Coronene**

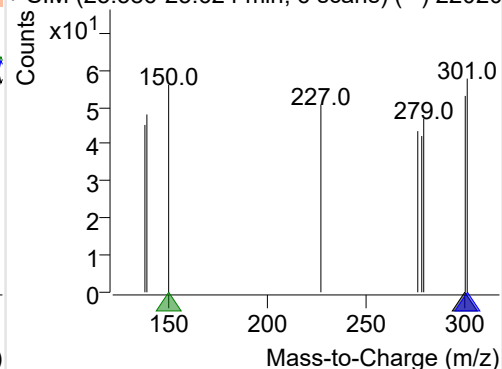
+ Selected Ion (300.0) 220204-PAHs-057.D



300.0, 301.0, 150.0



+ SIM (25.586-25.624 min, 6 scans) (\*\*) 22020





## Quantitative Analysis Sample Based Report

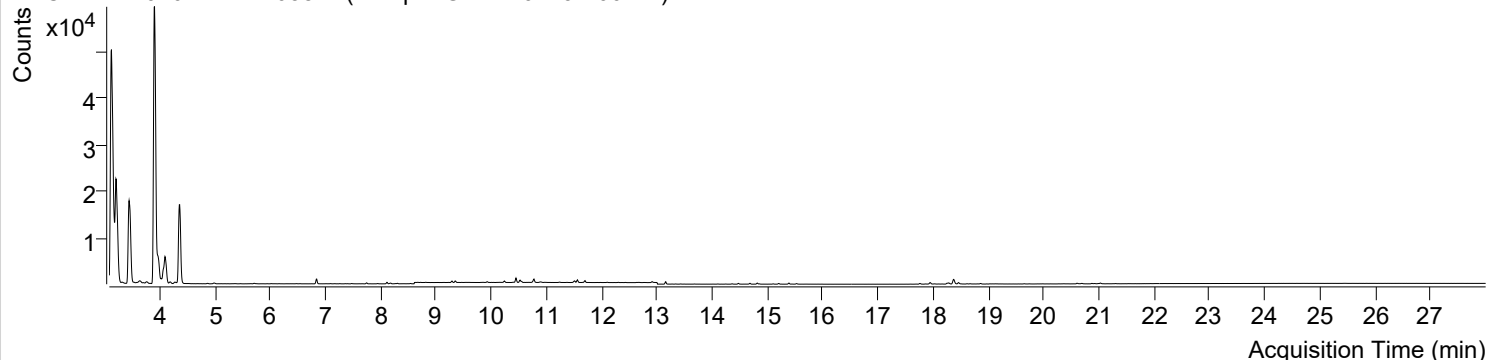


Trusted Answers

Batch Data Path File Name	D:\MassHunter\GCMS\1\data\PAHs\220204-PAHs-Sample\QuantResults\220204-PAHs-Quant.batch.bin		
Analysis Time Stamp	2022-04-13 오후 3:18:46	Analyst Name	DESKTOP-86B7UPG\5975MS
Report Generation Time	2022-04-13 오후 3:19:11	Report Generator Name	DESKTOP-86B7UPG\5975MS
Calibration Last Update	2022-04-13 오후 3:16:00	Batch State	Processed
Analyze Quant Version	10.2	Report Quant Version	10.2
Acq. Date-Time	2022-02-06 오후 1:10:45	Data File	220204-PAHs-058.D
Type	Sample	Name	Sample-Gas-220119-200DIL
Dil.	1	Acq. Method File	PAHs 19mix-Method

## Sample Chromatogram

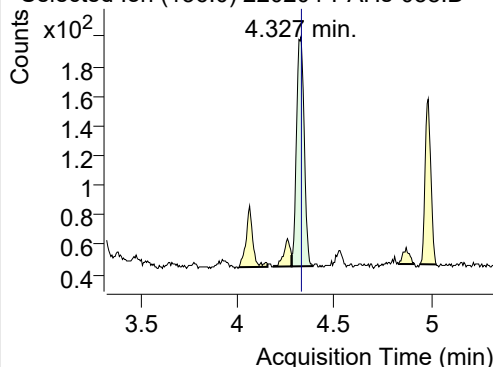
+ TIC SIM 220204-PAHs-058.D (Sample-Gas-220119-200DIL)



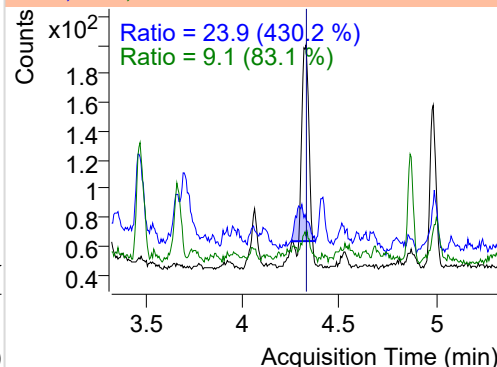
Name	RT	Transition	Resp.	Height	Final Conc. Units	Ratio
IS-D8-Naphthalene	4.327	136.0	424	154.56	ND ng/ml	9.1
Naphthalene	4.359	128.0	36438	13545.47	ND ng/ml	13.6
Acenaphthylene	7.745	152.0	226	148.67	ND ng/ml	16.3
IS-D10-Acenaphthene	8.112	164.0	239	155.96	ND ng/ml	90.9
Acenaphthene	8.183	154.0	75	46.93	ND ng/ml	129.1
LSS-D10-Fluorene	9.292	176.0	228	138.78	ND µg/mL	92.8
Fluorene	9.344	166.0	264	151.91	ND µg/mL	91.1
IS-D10-Phenanthrene	11.508	188.0	393	247.11	ND µg/mL	15.4
Phenanthrene	11.560	178.0	594	380.67	ND µg/mL	18.3
Anthracene	11.697	178.0	205	108.67	ND µg/mL	25.5
Fluoranthene	14.359	202.0	87	57.20	ND µg/mL	17.7
LSS-D10-Pyrene	14.814	212.0	278	169.90	ND µg/mL	15.9
Pyrene	14.852	202.0	70	42.20	ND µg/mL	14.7
Benz(a)anthracene	17.953	228.0	27	10.80	ND µg/mL	25.3
IS-D12-Chrysene	17.758	240.0	216	109.15	ND µg/mL	15.7
Chrysene	17.953	228.0	27	10.80	ND µg/mL	25.3
Benzo(b)fluoranthene	20.062	252.0	11	7.59	ND µg/mL	
Benzo(k)fluoranthene	20.062	252.0	11	7.59	ND µg/mL	
SS-D12-Benzo(e)pyrene	20.605	264.0	187	91.89	ND µg/mL	22.5
Benzo(e)pyrene	20.686	252.0	77	24.17	ND µg/mL	
Benzo(a)pyrene	20.686	252.0	77	24.17	ND µg/mL	
IS-D12-Perylene	20.871	264.0	121	62.43	ND µg/mL	19.7
Perylene	20.925	252.0	34	15.82	ND µg/mL	
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

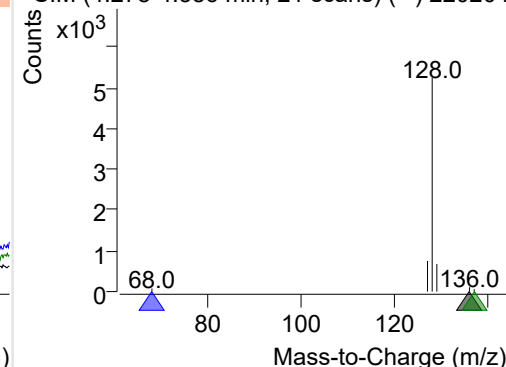
+ Selected Ion (136.0) 220204-PAHs-058.D



136.0, 68.0, 137.0

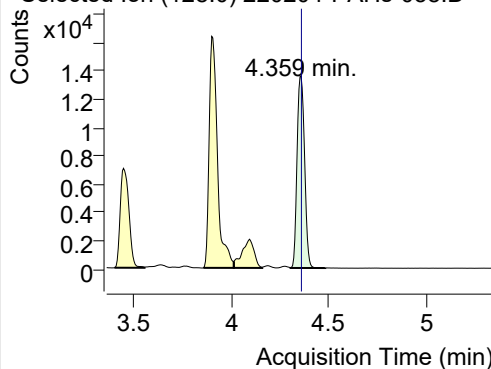


+ SIM (4.278-4.386 min, 21 scans) (\*\*) 220204

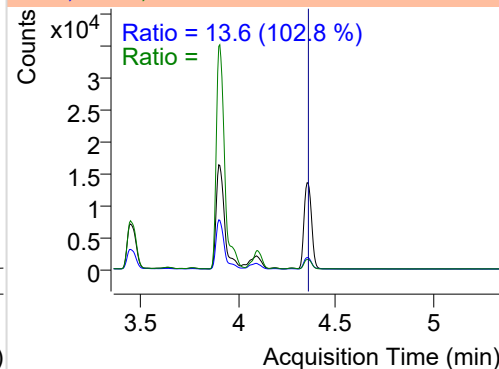


**Naphthalene**

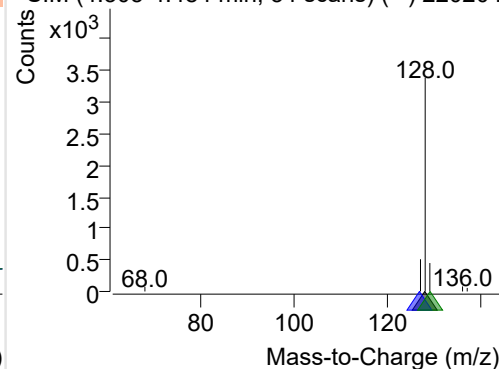
+ Selected Ion (128.0) 220204-PAHs-058.D



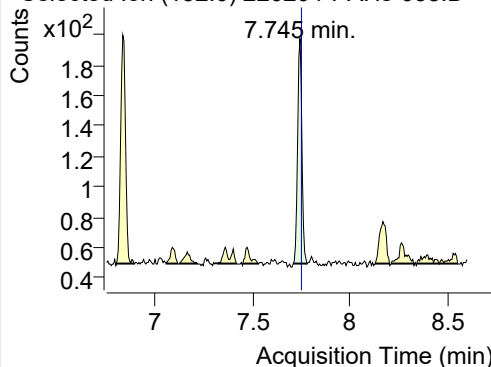
128.0, 127.0, 129.0



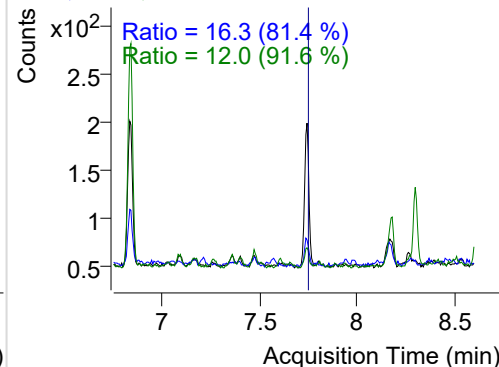
+ SIM (4.305-4.484 min, 34 scans) (\*\*) 220204

**Acenaphthylene**

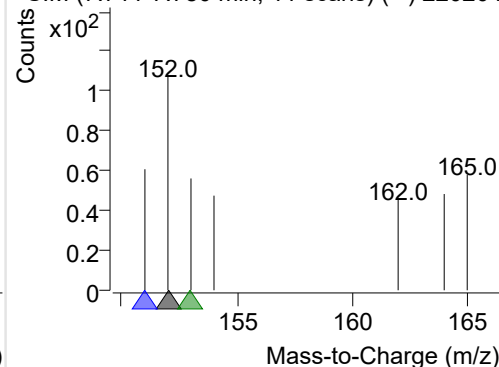
+ Selected Ion (152.0) 220204-PAHs-058.D



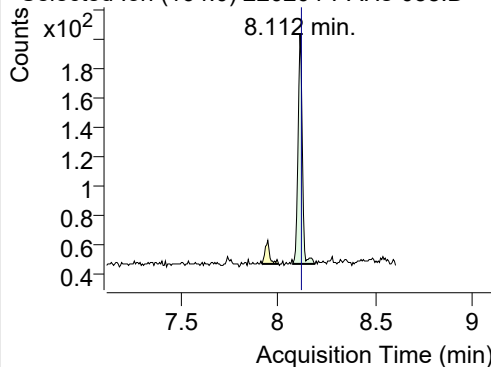
152.0, 151.0, 153.0



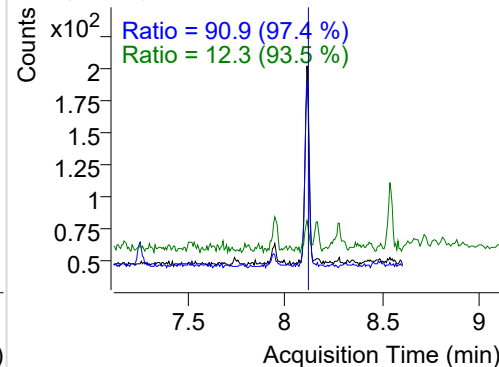
+ SIM (7.711-7.780 min, 11 scans) (\*\*) 220204

**IS-D10-Acenaphthene**

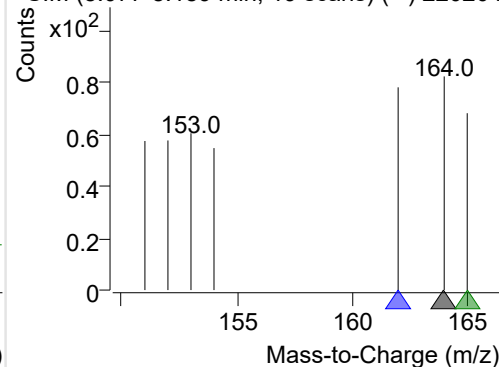
+ Selected Ion (164.0) 220204-PAHs-058.D



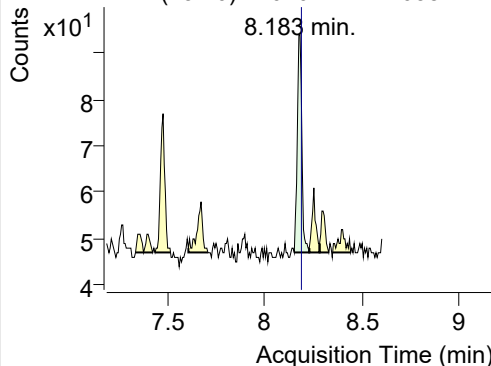
164.0, 162.0, 165.0



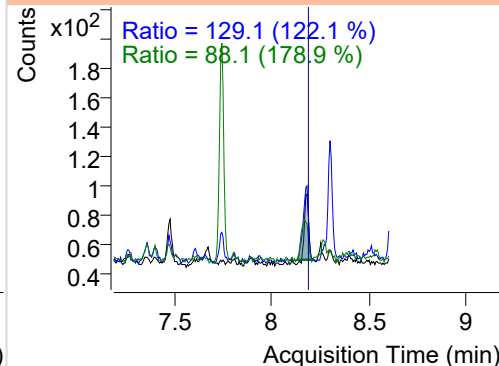
+ SIM (8.077-8.189 min, 19 scans) (\*\*) 220204

**Acenaphthene**

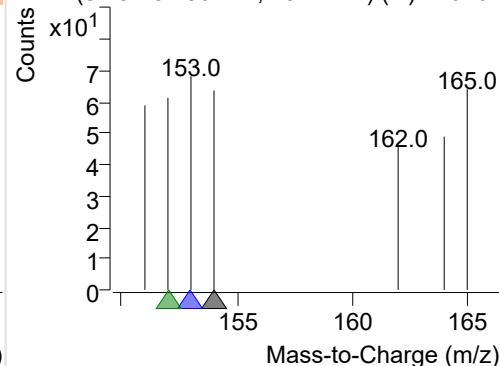
+ Selected Ion (154.0) 220204-PAHs-058.D



154.0, 153.0, 152.0

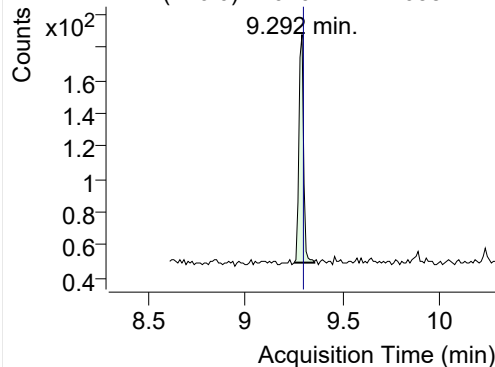


+ SIM (8.154-8.230 min, 13 scans) (\*\*) 220204

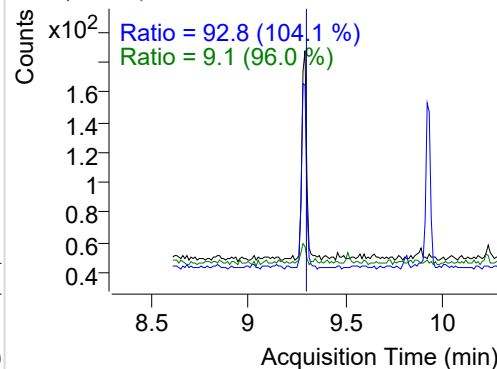


## LSS-D10-Fluorene

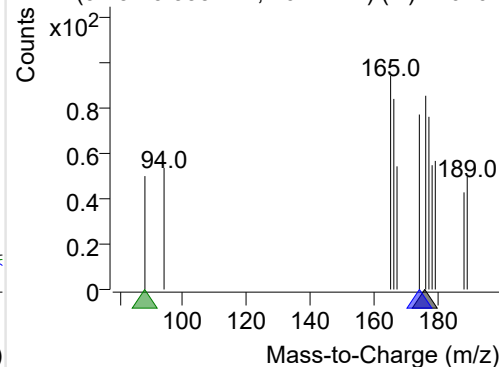
+ Selected Ion (176.0) 220204-PAHs-058.D



176.0, 174.0, 88.0

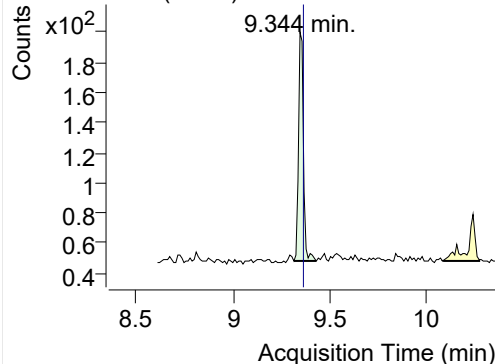


+ SIM (9.251-9.355 min, 10 scans) (\*\*) 220204

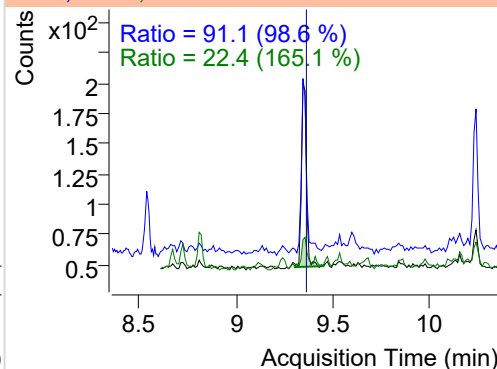


## Fluorene

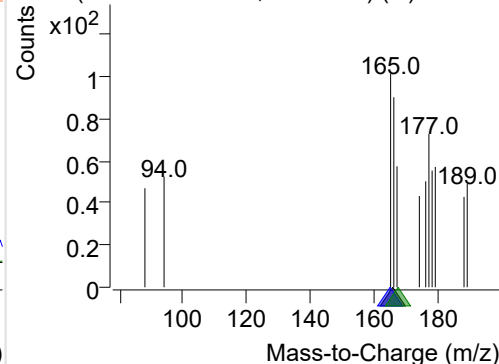
+ Selected Ion (166.0) 220204-PAHs-058.D



166.0, 165.0, 167.0

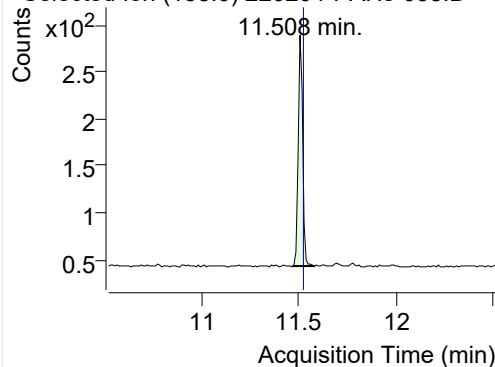


+ SIM (9.313-9.428 min, 10 scans) (\*\*) 220204

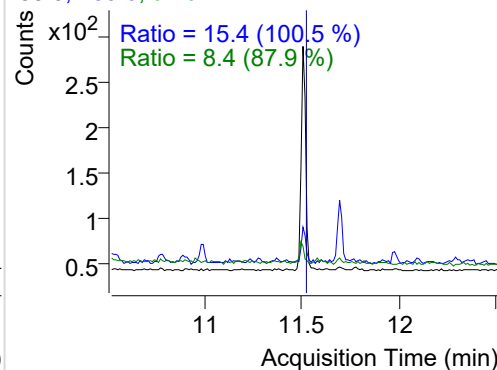


## IS-D10-Phenanthrene

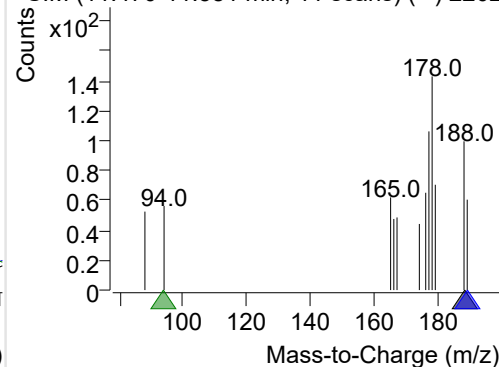
+ Selected Ion (188.0) 220204-PAHs-058.D



188.0, 189.0, 94.0

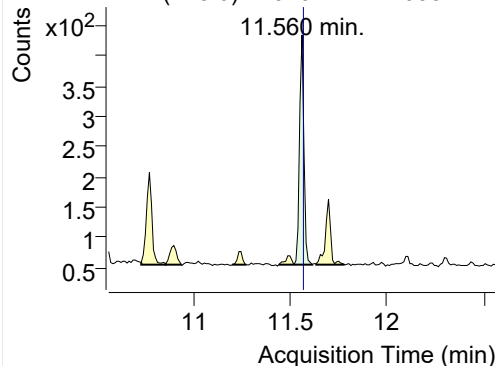


+ SIM (11.470-11.581 min, 11 scans) (\*\*) 2202

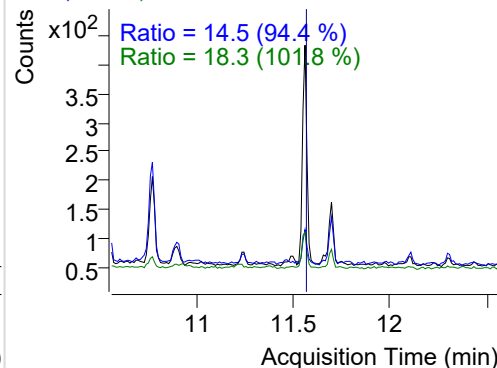


## Phenanthrene

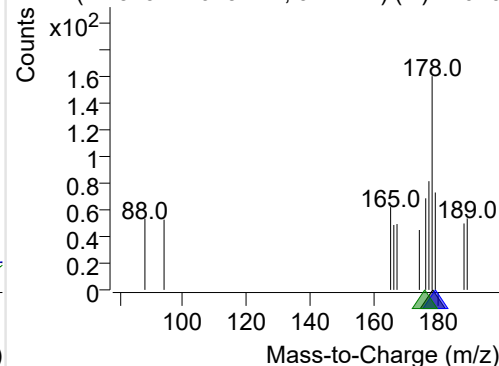
+ Selected Ion (178.0) 220204-PAHs-058.D



178.0, 179.0, 176.0

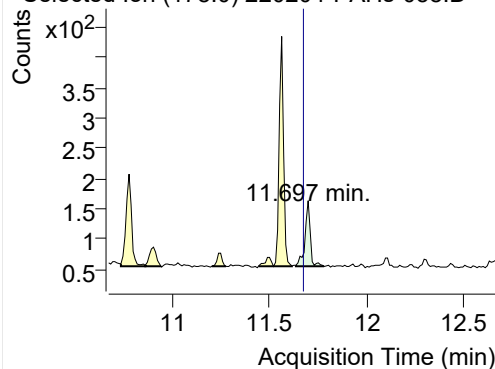


+ SIM (11.519-11.613 min, 9 scans) (\*\*) 22020

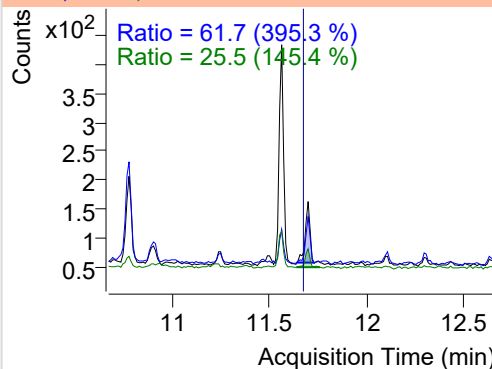


**Anthracene**

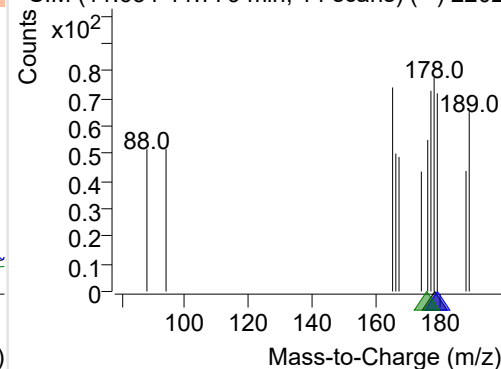
+ Selected Ion (178.0) 220204-PAHs-058.D



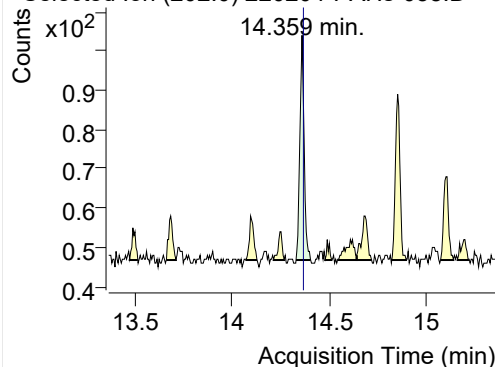
178.0, 179.0, 176.0



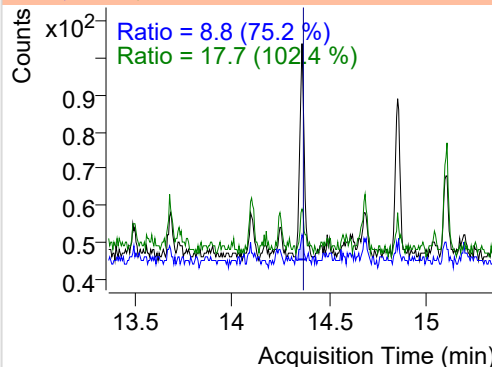
+ SIM (11.634-11.779 min, 14 scans) (\*\*) 2202

**Fluoranthene**

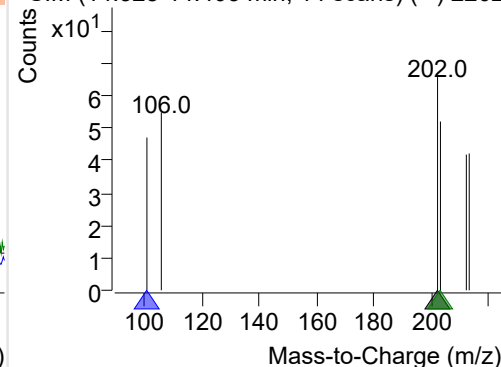
+ Selected Ion (202.0) 220204-PAHs-058.D



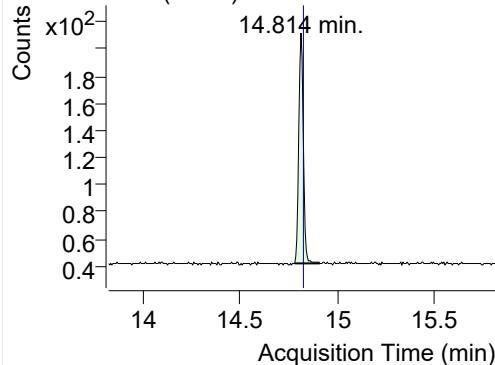
202.0, 101.0, 203.0



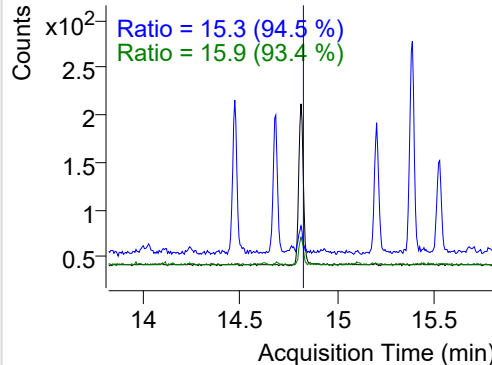
+ SIM (14.328-14.403 min, 14 scans) (\*\*) 2202

**LSS-D10-Pyrene**

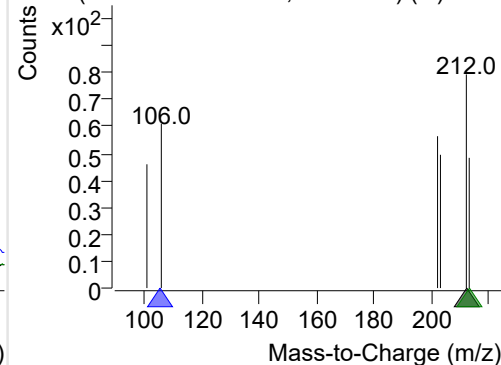
+ Selected Ion (212.0) 220204-PAHs-058.D



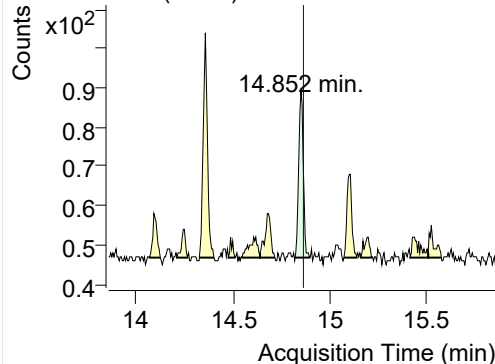
212.0, 106.0, 213.0



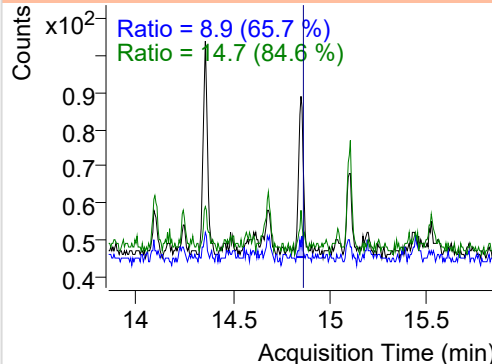
+ SIM (14.782-14.911 min, 23 scans) (\*\*) 2202

**Pyrene**

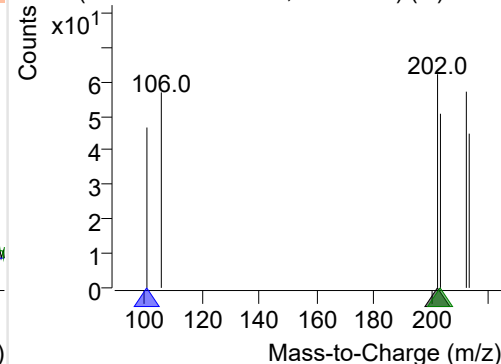
+ Selected Ion (202.0) 220204-PAHs-058.D



202.0, 101.0, 203.0



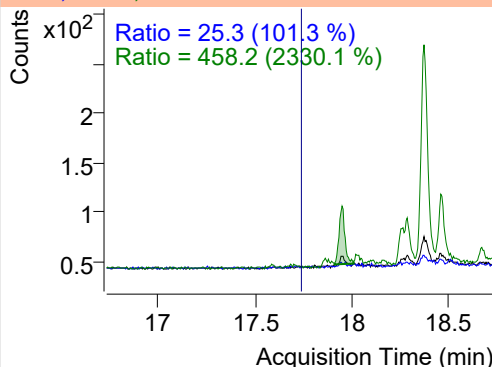
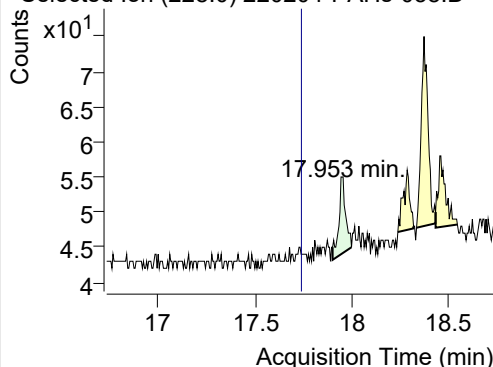
+ SIM (14.822-14.896 min, 14 scans) (\*\*) 2202



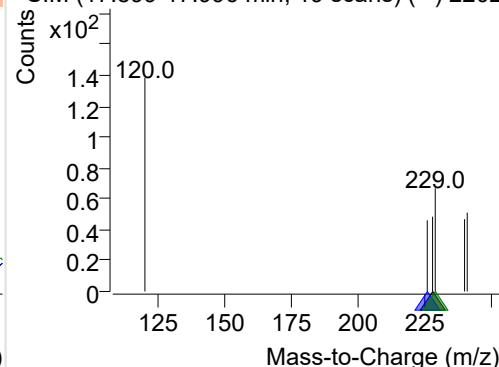
**Benz(a)anthracene**

+ Selected Ion (228.0) 220204-PAHs-058.D

228.0, 226.0, 229.0

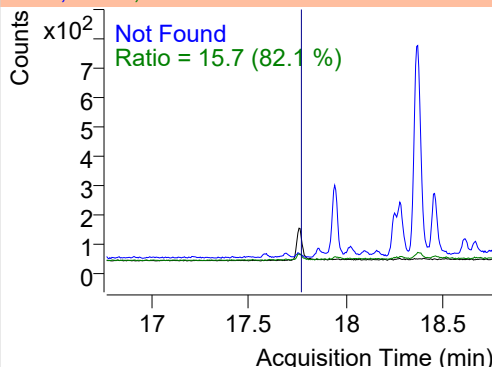
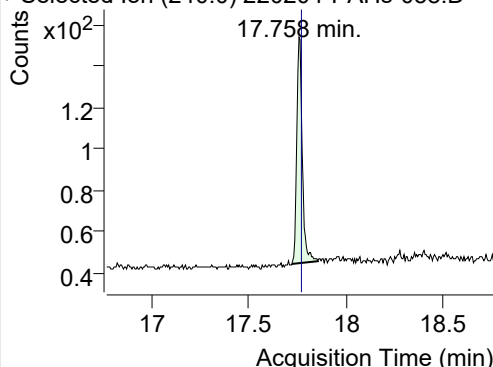


+ SIM (17.899-17.996 min, 19 scans) (\*\*) 2202

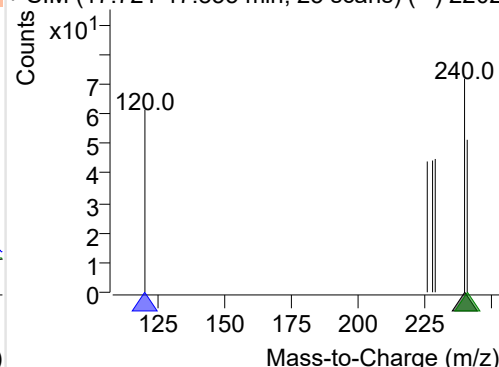
**IS-D12-Chrysene**

+ Selected Ion (240.0) 220204-PAHs-058.D

240.0, 120.0, 241.0

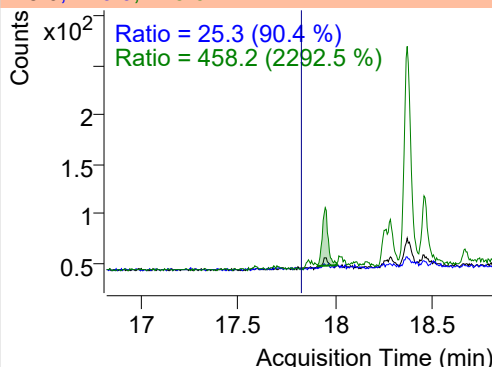
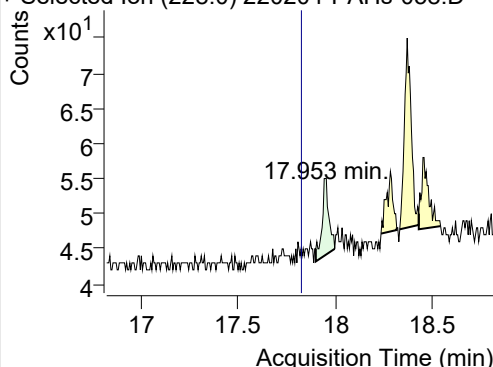


+ SIM (17.721-17.855 min, 25 scans) (\*\*) 2202

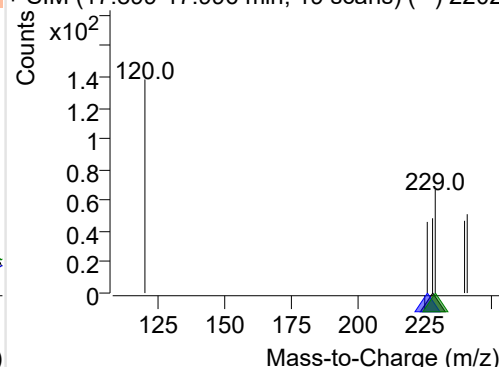
**Chrysene**

+ Selected Ion (228.0) 220204-PAHs-058.D

228.0, 226.0, 229.0

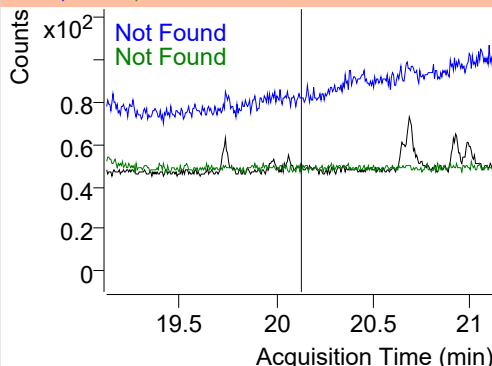
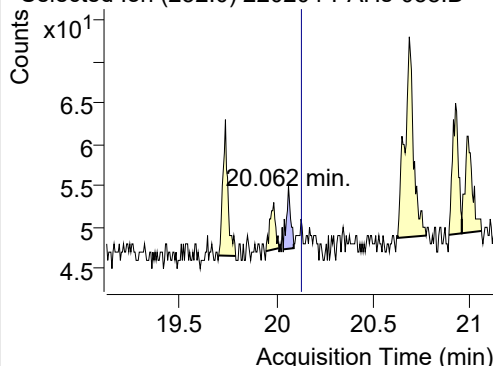


+ SIM (17.899-17.996 min, 19 scans) (\*\*) 2202

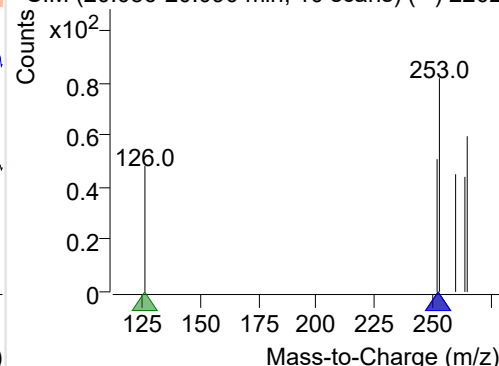
**Benzo(b)fluoranthene**

+ Selected Ion (252.0) 220204-PAHs-058.D

252.0, 253.0, 126.0



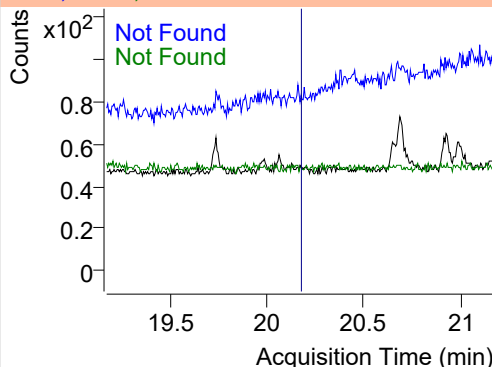
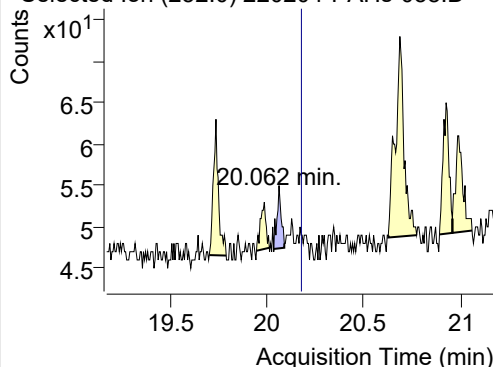
+ SIM (20.036-20.090 min, 10 scans) (\*\*) 2202



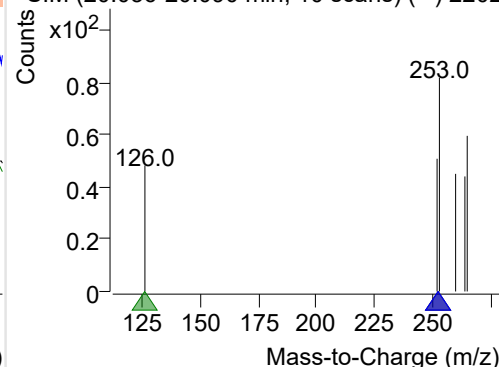
**Benzo(k)fluoranthene**

+ Selected Ion (252.0) 220204-PAHs-058.D

252.0, 253.0, 126.0

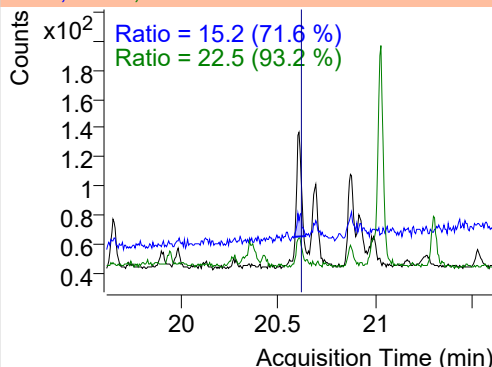
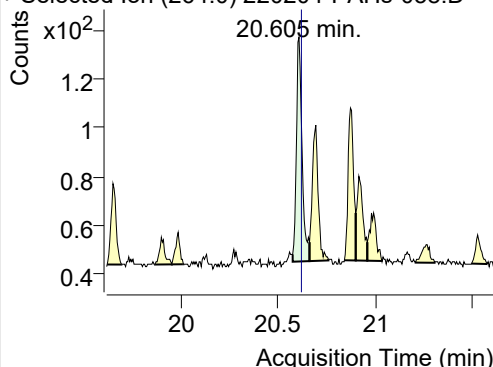


+ SIM (20.036-20.090 min, 10 scans) (\*\*) 2202

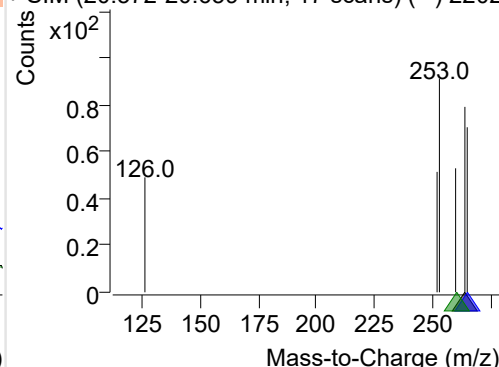
**SS-D12-Benzo(e)pyrene**

+ Selected Ion (264.0) 220204-PAHs-058.D

264.0, 265.0, 260.0

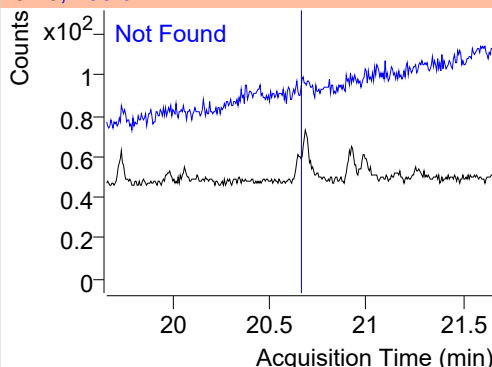
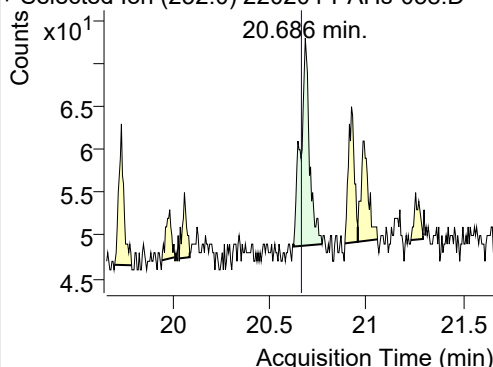


+ SIM (20.572-20.659 min, 17 scans) (\*\*) 2202

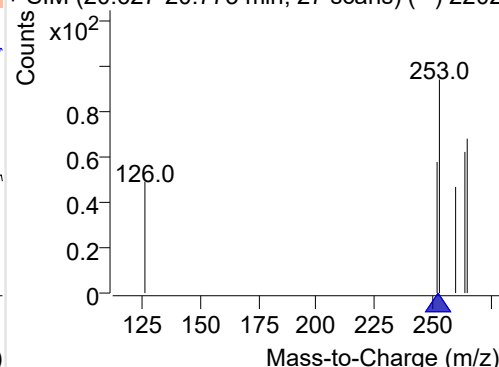
**Benzo(e)pyrene**

+ Selected Ion (252.0) 220204-PAHs-058.D

252.0, 253.0

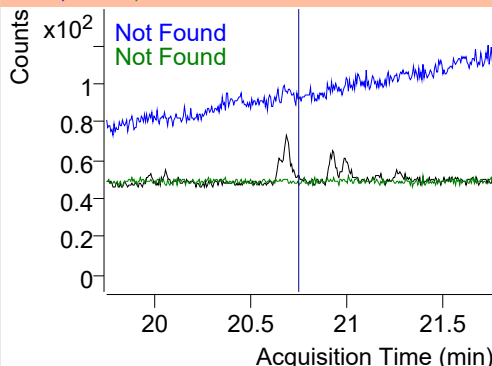
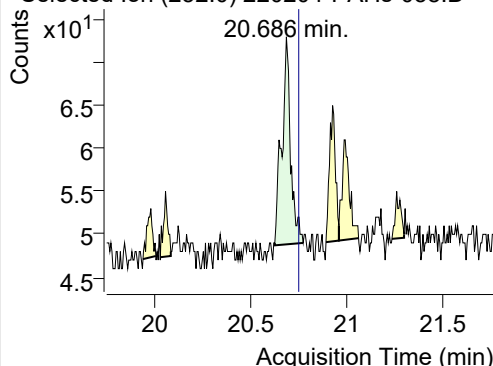


+ SIM (20.627-20.773 min, 27 scans) (\*\*) 2202

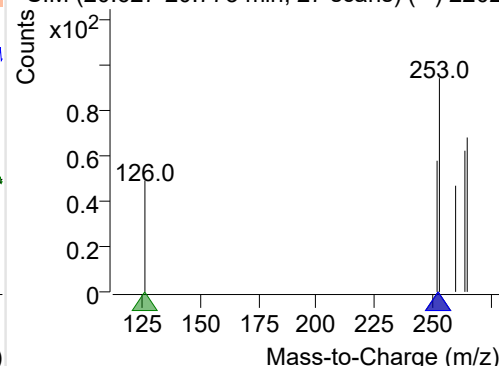
**Benzo(a)pyrene**

+ Selected Ion (252.0) 220204-PAHs-058.D

252.0, 253.0, 126.0

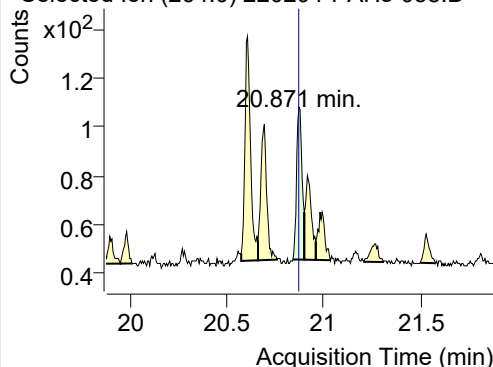


+ SIM (20.627-20.773 min, 27 scans) (\*\*) 2202

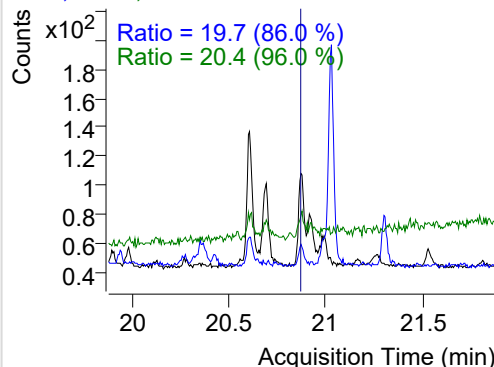


## IS-D12-Perylene

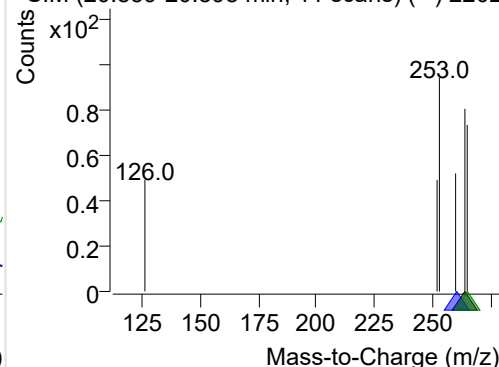
+ Selected Ion (264.0) 220204-PAHs-058.D



264.0, 260.0, 265.0

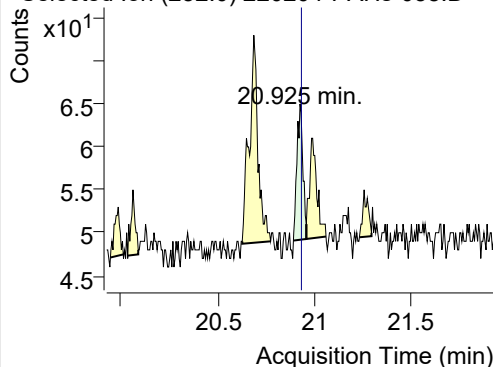


+ SIM (20.839-20.898 min, 11 scans) (\*\*) 2202

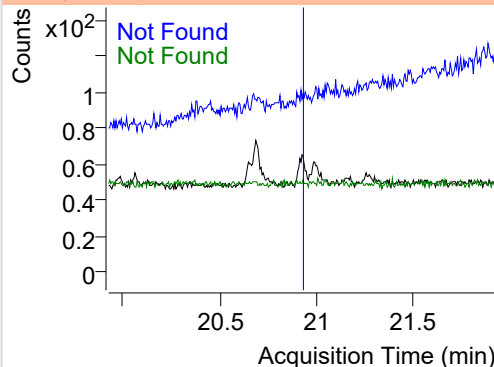


## Perylene

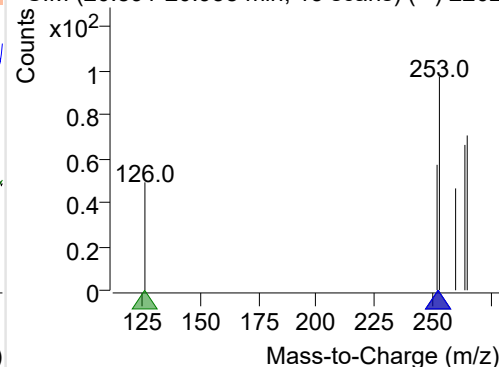
+ Selected Ion (252.0) 220204-PAHs-058.D



252.0, 253.0, 126.0

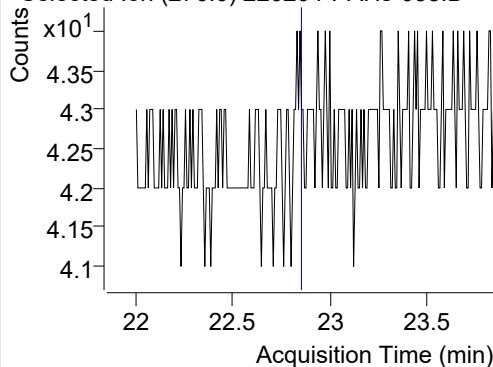


+ SIM (20.891-20.958 min, 13 scans) (\*\*) 2202

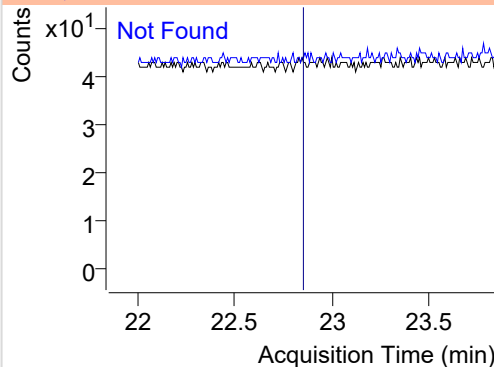


## Indeno(1,2,3-c,d)pyrene

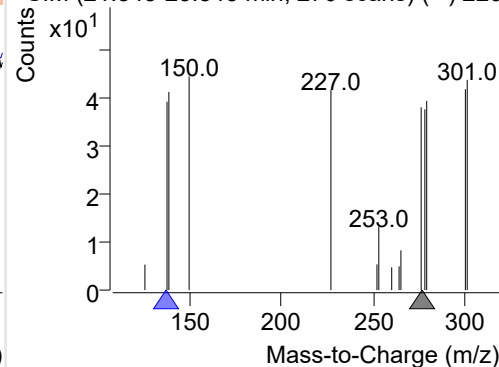
+ Selected Ion (276.0) 220204-PAHs-058.D



276.0, 138.0

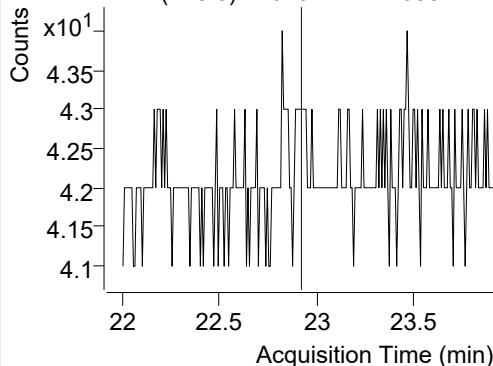


+ SIM (21.845-23.845 min, 270 scans) (\*\*) 220

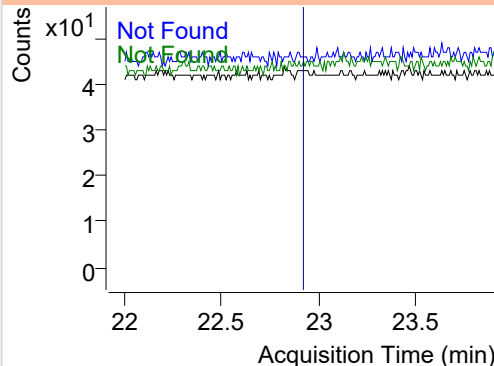


## Dibenz(a,h)anthracene

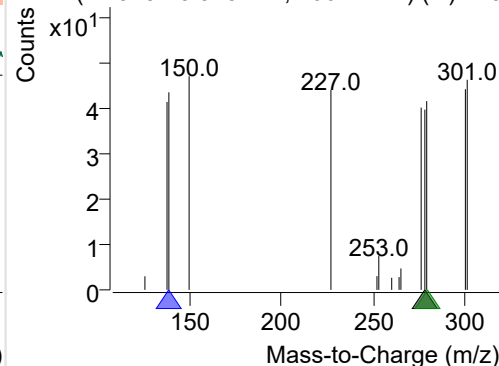
+ Selected Ion (278.0) 220204-PAHs-058.D



278.0, 139.0, 279.0



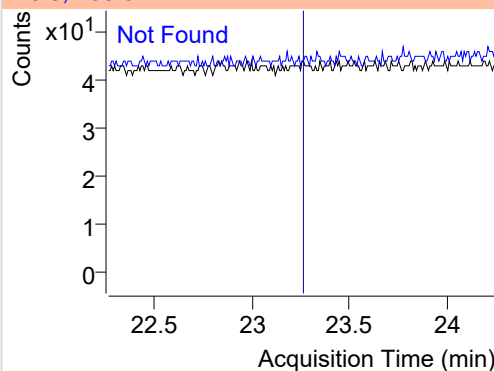
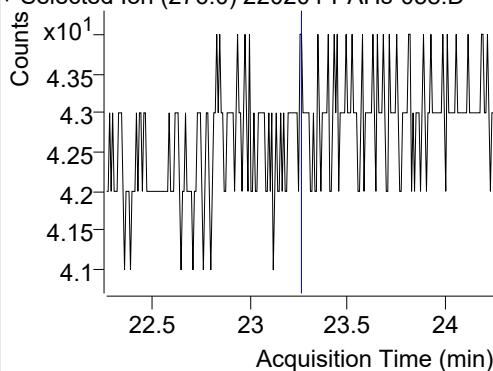
+ SIM (21.913-23.913 min, 266 scans) (\*\*) 220



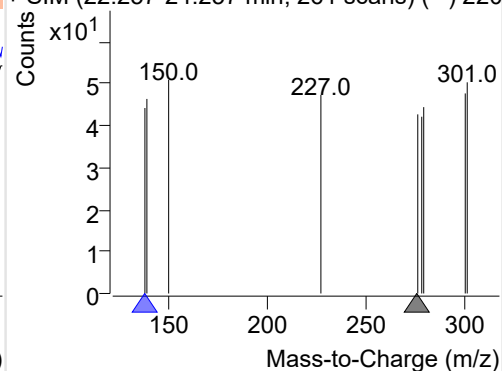
**Benzo(g,h,i)perylene**

+ Selected Ion (276.0) 220204-PAHs-058.D

276.0, 138.0

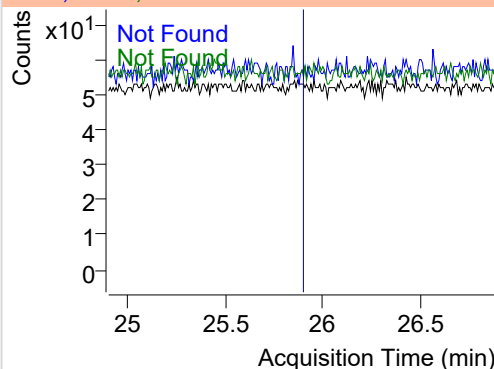
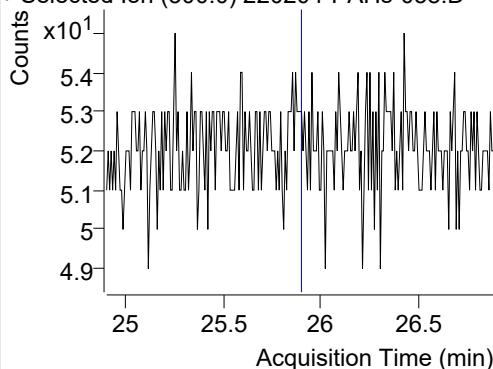


+ SIM (22.257-24.257 min, 261 scans) (\*\*) 220

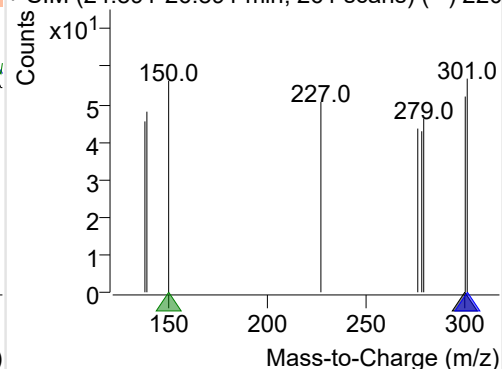
**Coronene**

+ Selected Ion (300.0) 220204-PAHs-058.D

300.0, 301.0, 150.0



+ SIM (24.891-26.891 min, 261 scans) (\*\*) 220





## Quantitative Analysis Sample Based Report

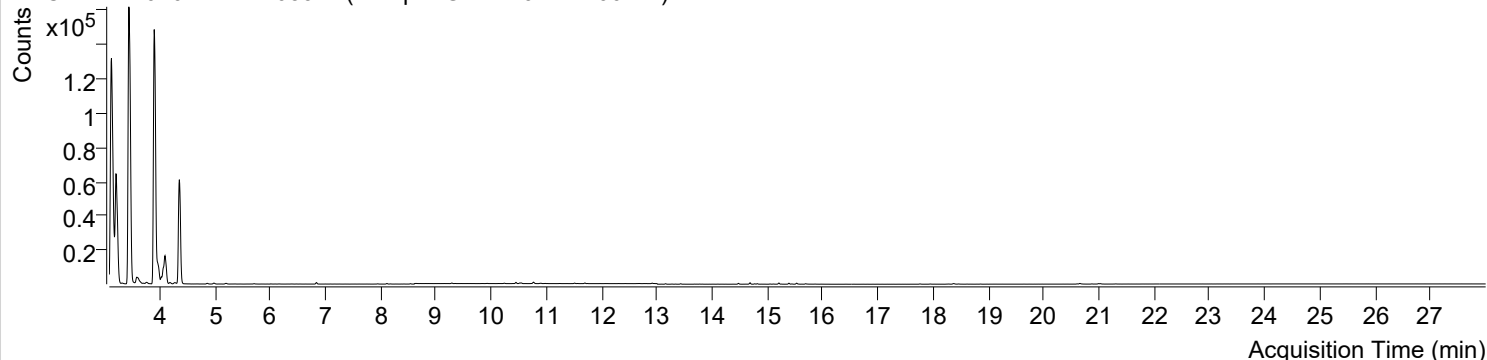


Trusted Answers

Batch Data Path File Name	D:\MassHunter\GCMS\1\data\PAHs\220204-PAHs-Sample\QuantResults\220204-PAHs-Quant.batch.bin		
Analysis Time Stamp	2022-04-13 오후 3:18:46	Analyst Name	DESKTOP-86B7UPG\5975MS
Report Generation Time	2022-04-13 오후 3:19:11	Report Generator Name	DESKTOP-86B7UPG\5975MS
Calibration Last Update	2022-04-13 오후 3:16:00	Batch State	Processed
Analyze Quant Version	10.2	Report Quant Version	10.2
Acq. Date-Time	2022-02-06 오후 1:41:57	Data File	220204-PAHs-059.D
Type	Sample	Name	Sample-Gas-220127-200DIL
Dil.	1	Acq. Method File	PAHs 19mix-Method

## Sample Chromatogram

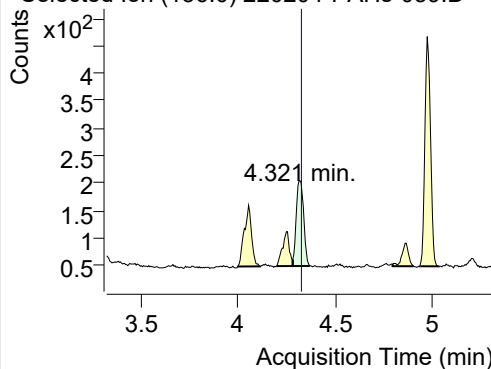
+ TIC SIM 220204-PAHs-059.D (Sample-Gas-220127-200DIL)



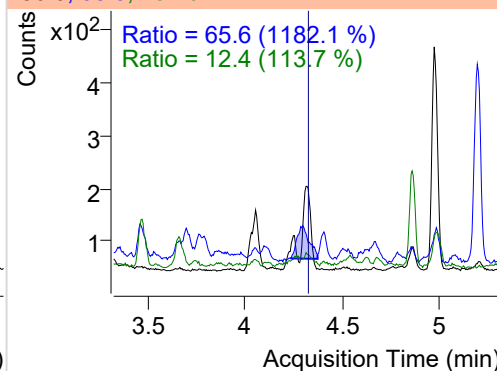
Name	RT	Transition	Resp.	Height	Final Conc. Units	Ratio
IS-D8-Naphthalene	4.321	136.0	413	155.67	ND ng/ml	12.4
Naphthalene	4.354	128.0	126218	48838.11	ND ng/ml	13.2
Acenaphthylene	8.177	152.0	28	15.85	ND ng/ml	95.6
IS-D10-Acenaphthene	8.112	164.0	230	153.19	ND ng/ml	98.9
Acenaphthene	8.177	154.0	41	27.97	ND ng/ml	109.1
LSS-D10-Fluorene	9.292	176.0	236	140.35	ND µg/mL	89.5
Fluorene	9.345	166.0	45	27.67	ND µg/mL	107.3
IS-D10-Phenanthrene	11.508	188.0	385	248.50	ND µg/mL	12.9
Phenanthrene	11.560	178.0	73	47.50	ND µg/mL	17.1
Anthracene	11.697	178.0	169	100.50	ND µg/mL	23.9
Fluoranthene	14.397	202.0	15	6.28	ND µg/mL	57.0
LSS-D10-Pyrene	14.814	212.0	313	194.90	ND µg/mL	16.1
Pyrene	14.896	202.0	19	9.48	ND µg/mL	149.7
Benz(a)anthracene	17.959	228.0	9	4.14	ND µg/mL	
IS-D12-Chrysene	17.758	240.0	217	110.86	ND µg/mL	18.4
Chrysene	17.959	228.0	9	4.14	ND µg/mL	
Benzo(b)fluoranthene	20.654	252.0	680	297.35	ND µg/mL	18.9
Benzo(k)fluoranthene	20.654	252.0	680	297.35	ND µg/mL	18.9
SS-D12-Benzo(e)pyrene	20.605	264.0	181	83.05	ND µg/mL	24.8
Benzo(e)pyrene	20.654	252.0	680	297.35	ND µg/mL	18.9
Benzo(a)pyrene	20.654	252.0	680	297.35	ND µg/mL	18.9
IS-D12-Perylene	20.871	264.0	155	66.02	ND µg/mL	17.4
Perylene	20.990	252.0	359	163.38	ND µg/mL	19.7
Indeno(1,2,3-c,d)pytene		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

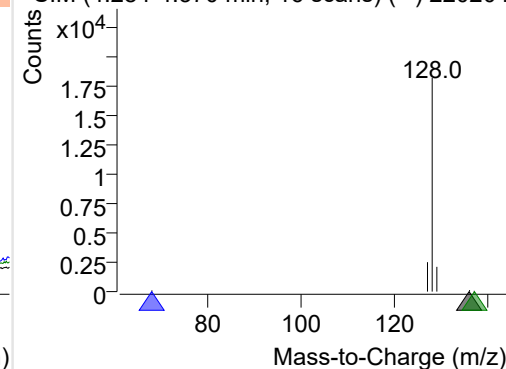
+ Selected Ion (136.0) 220204-PAHs-059.D



136.0, 68.0, 137.0

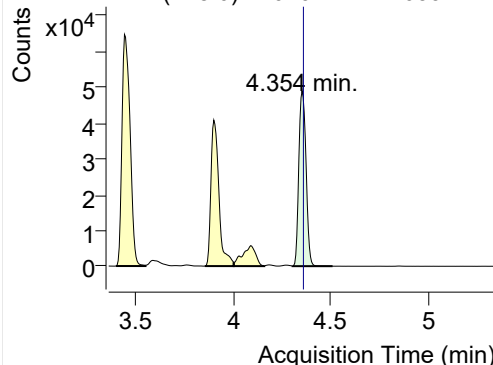


+ SIM (4.284-4.370 min, 16 scans) (\*\*) 220204

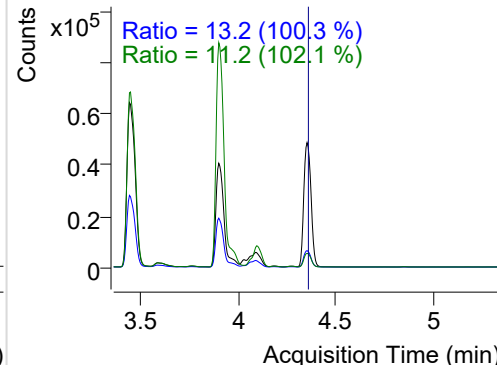


**Naphthalene**

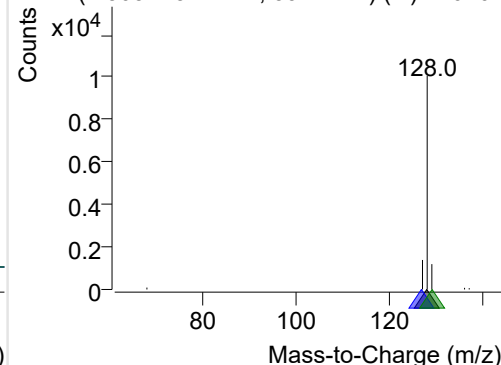
+ Selected Ion (128.0) 220204-PAHs-059.D



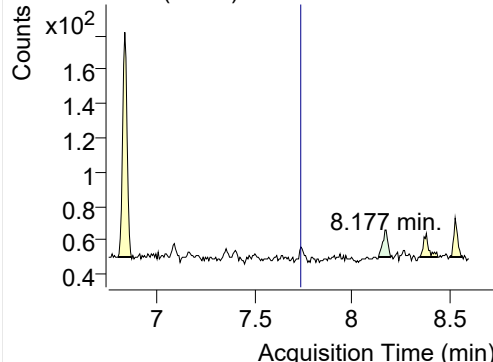
128.0, 127.0, 129.0



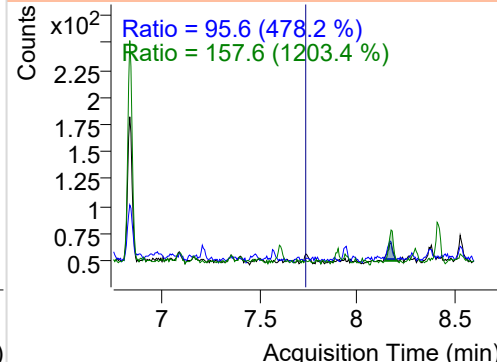
+ SIM (4.305-4.511 min, 39 scans) (\*\*) 220204

**Acenaphthylene**

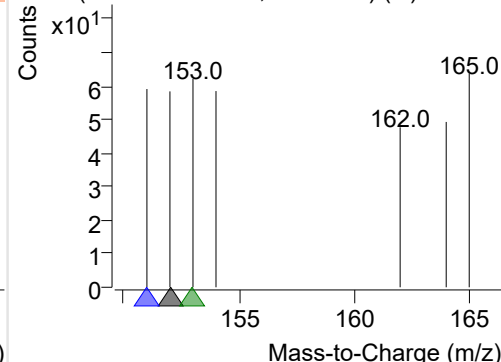
+ Selected Ion (152.0) 220204-PAHs-059.D



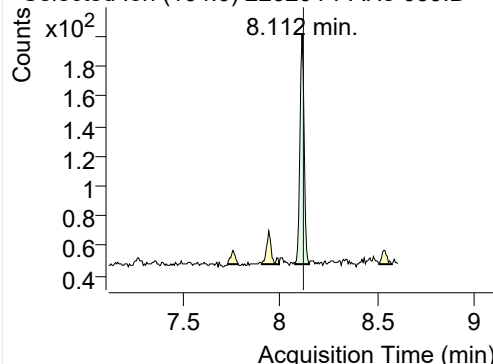
152.0, 151.0, 153.0



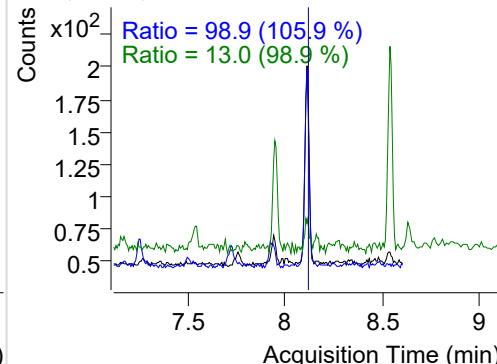
+ SIM (8.138-8.201 min, 10 scans) (\*\*) 220204

**IS-D10-Acenaphthene**

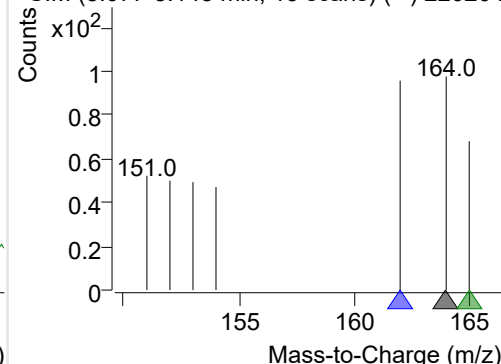
+ Selected Ion (164.0) 220204-PAHs-059.D



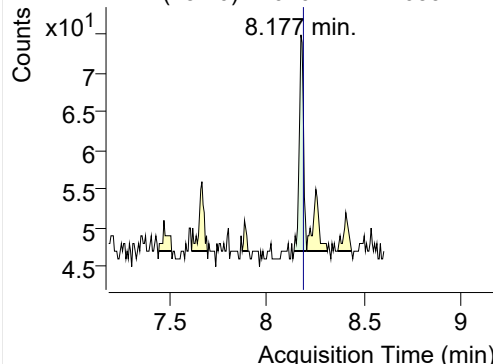
164.0, 162.0, 165.0



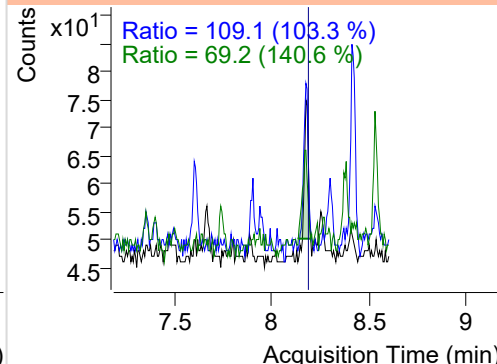
+ SIM (8.077-8.148 min, 13 scans) (\*\*) 220204

**Acenaphthene**

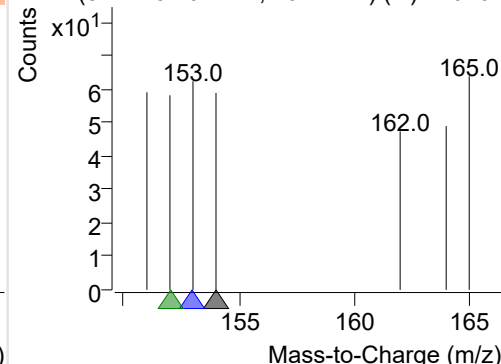
+ Selected Ion (154.0) 220204-PAHs-059.D



154.0, 153.0, 152.0

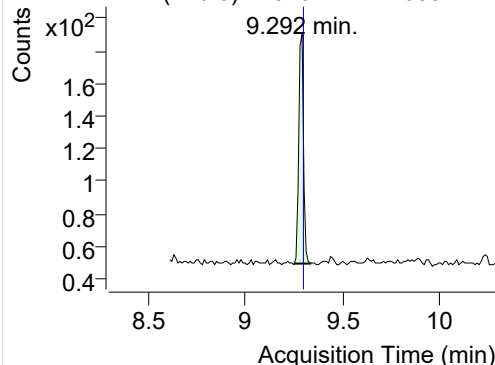


+ SIM (8.142-8.207 min, 10 scans) (\*\*) 220204

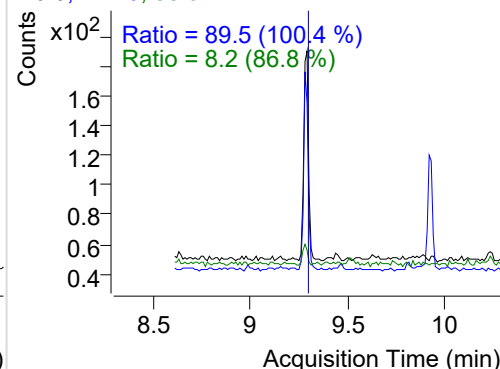


## LSS-D10-Fluorene

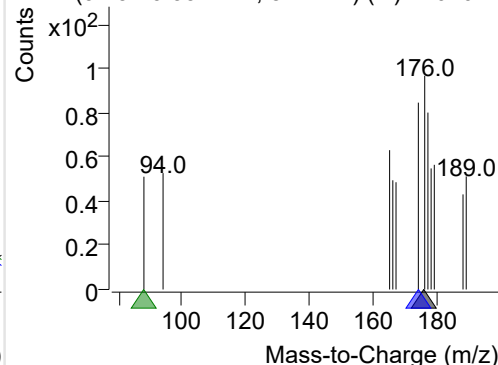
+ Selected Ion (176.0) 220204-PAHs-059.D



176.0, 174.0, 88.0

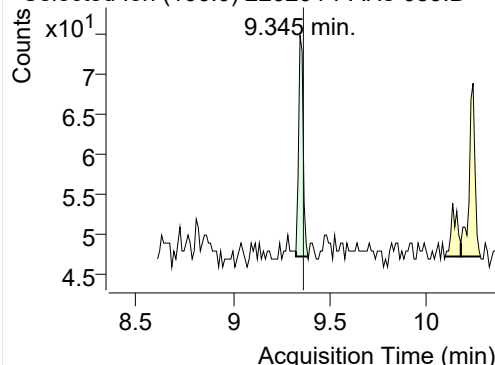


+ SIM (9.252-9.334 min, 8 scans) (\*\*) 220204-I

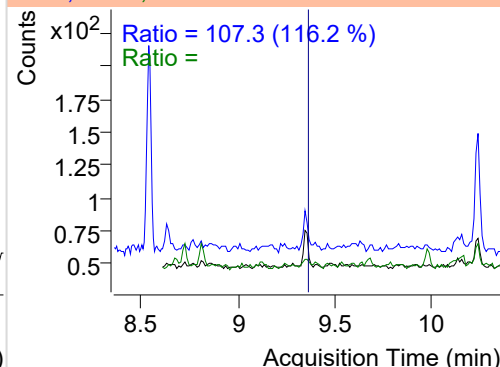


## Fluorene

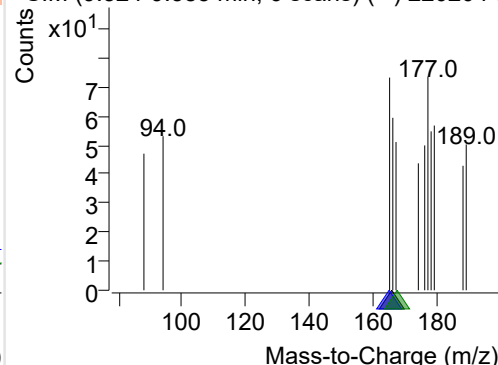
+ Selected Ion (166.0) 220204-PAHs-059.D



166.0, 165.0, 167.0

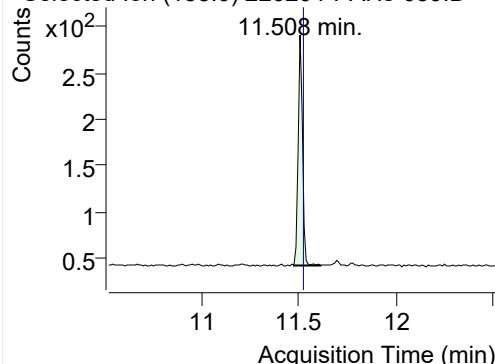


+ SIM (9.324-9.385 min, 6 scans) (\*\*) 220204-I

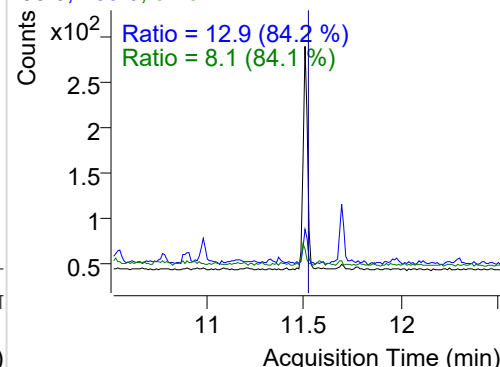


## IS-D10-Phenanthrene

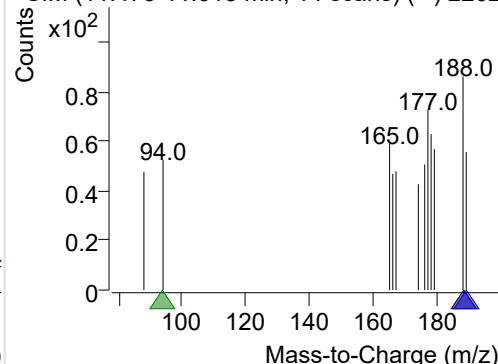
+ Selected Ion (188.0) 220204-PAHs-059.D



188.0, 189.0, 94.0

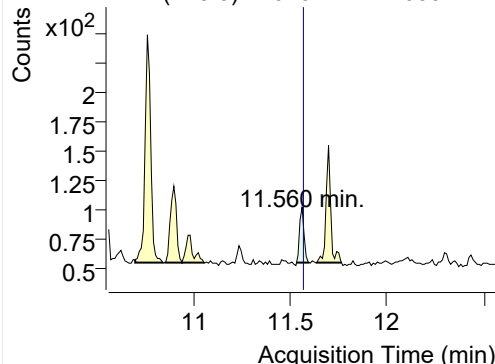


+ SIM (11.476-11.613 min, 14 scans) (\*\*) 2202

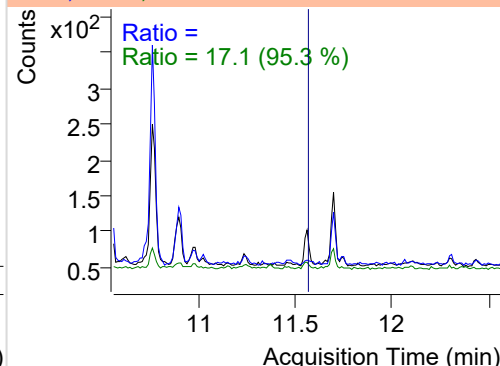


## Phenanthrene

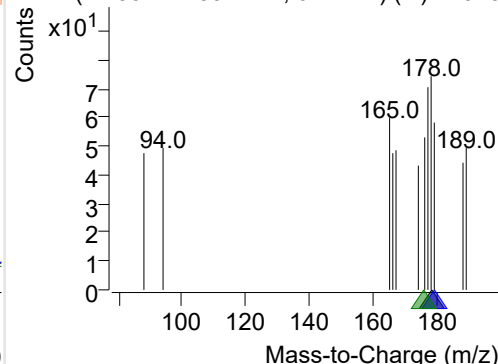
+ Selected Ion (178.0) 220204-PAHs-059.D



178.0, 179.0, 176.0

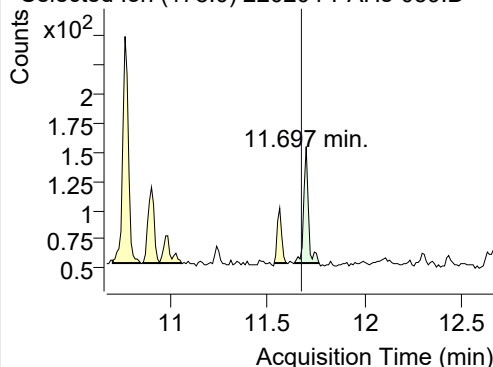


+ SIM (11.532-11.597 min, 6 scans) (\*\*) 22020

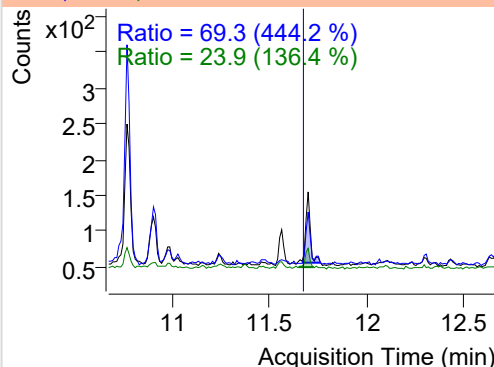


**Anthracene**

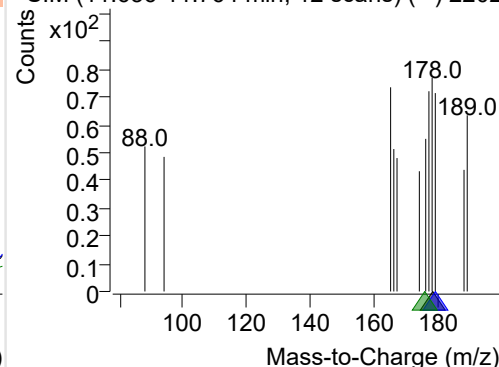
+ Selected Ion (178.0) 220204-PAHs-059.D



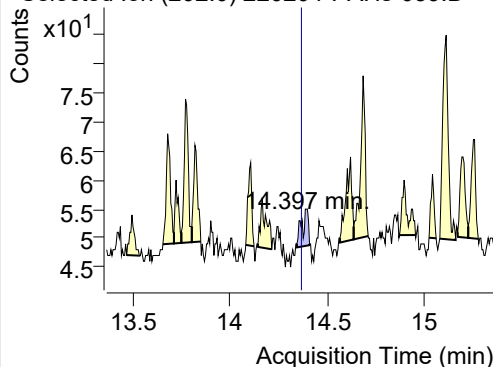
178.0, 179.0, 176.0



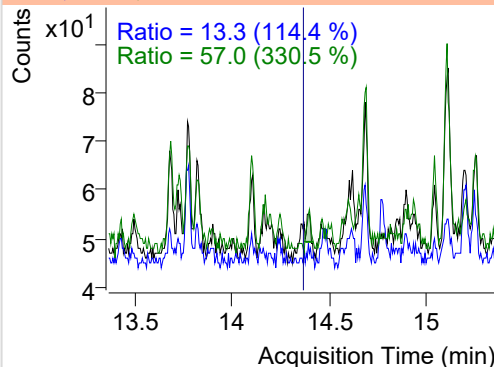
+ SIM (11.636-11.764 min, 12 scans) (\*\*) 2202

**Fluoranthene**

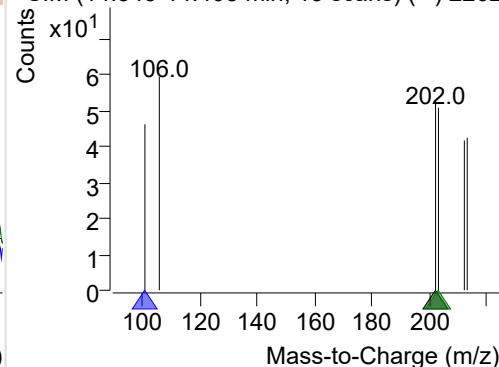
+ Selected Ion (202.0) 220204-PAHs-059.D



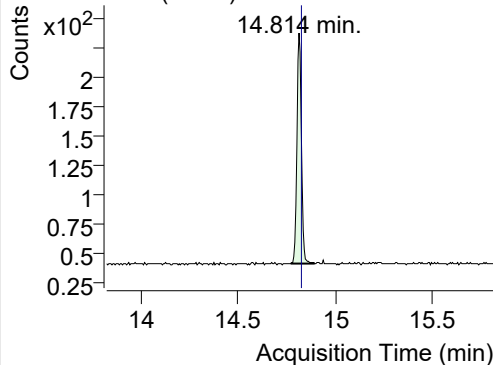
202.0, 101.0, 203.0



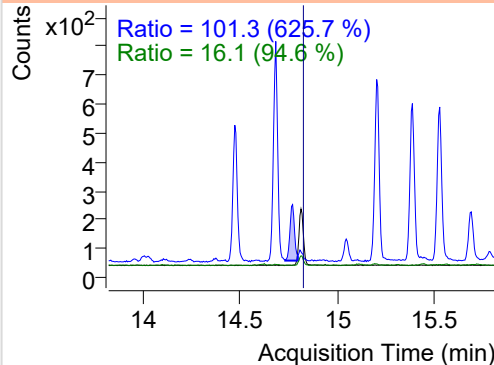
+ SIM (14.343-14.408 min, 13 scans) (\*\*) 2202

**LSS-D10-Pyrene**

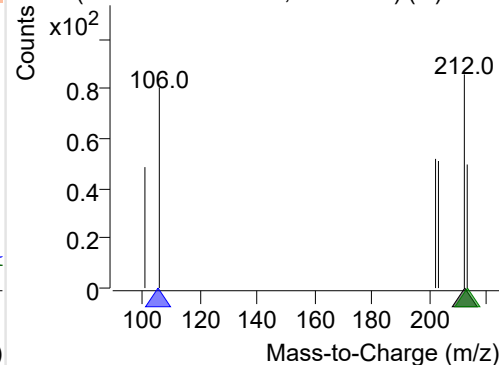
+ Selected Ion (212.0) 220204-PAHs-059.D



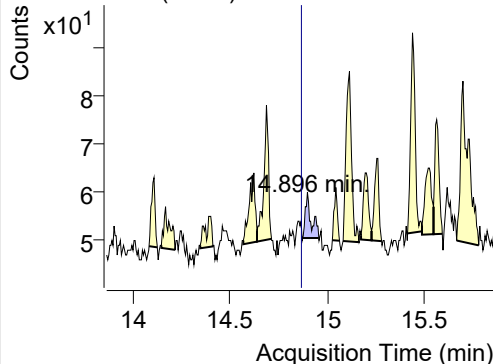
212.0, 106.0, 213.0



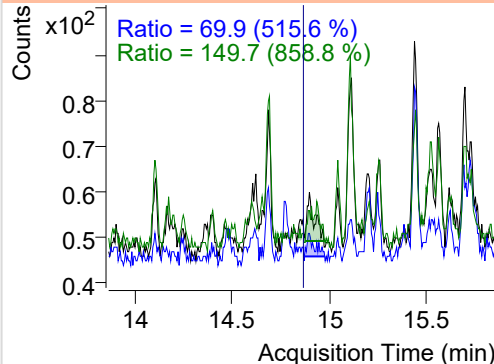
+ SIM (14.772-14.895 min, 22 scans) (\*\*) 2202

**Pyrene**

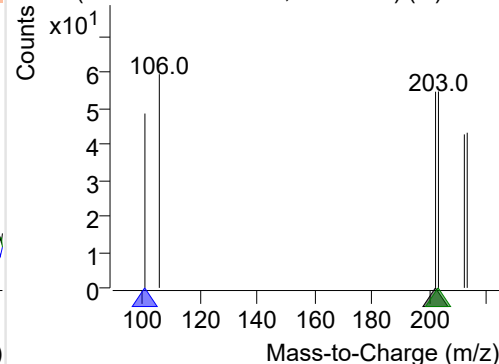
+ Selected Ion (202.0) 220204-PAHs-059.D



202.0, 101.0, 203.0



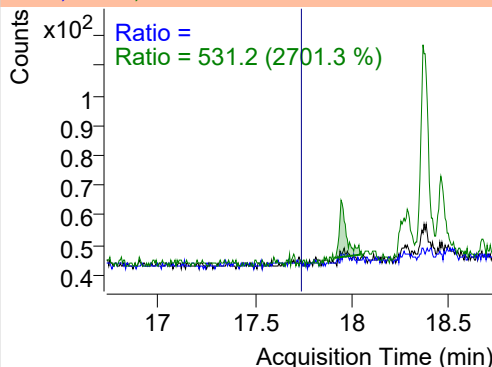
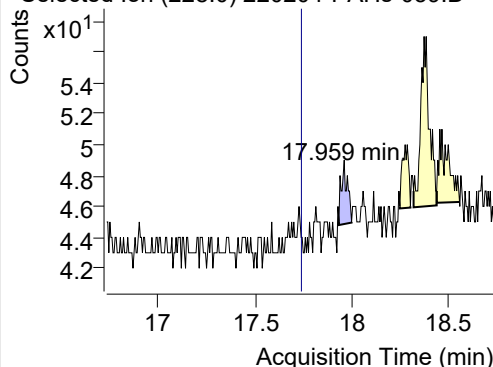
+ SIM (14.871-14.954 min, 15 scans) (\*\*) 2202



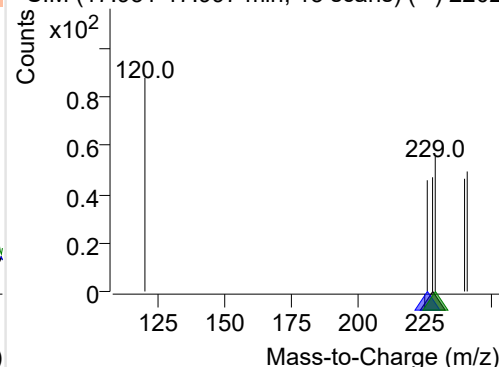
**Benz(a)anthracene**

+ Selected Ion (228.0) 220204-PAHs-059.D

228.0, 226.0, 229.0

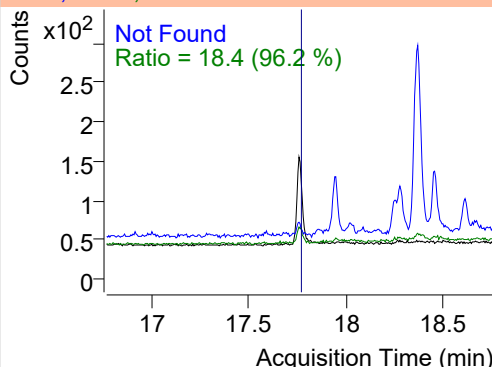
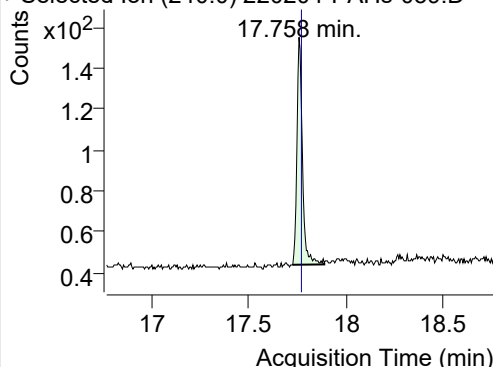


+ SIM (17.931-17.997 min, 13 scans) (\*\*) 2202

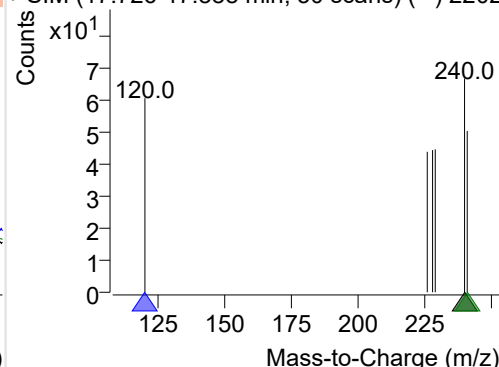
**IS-D12-Chrysene**

+ Selected Ion (240.0) 220204-PAHs-059.D

240.0, 120.0, 241.0

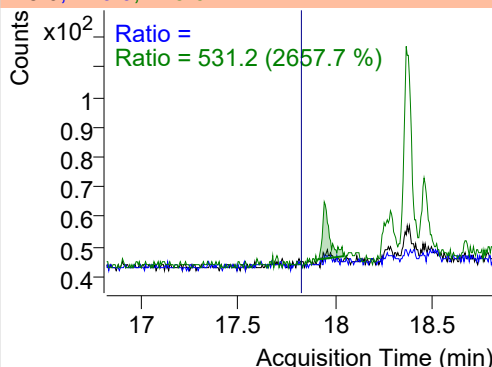
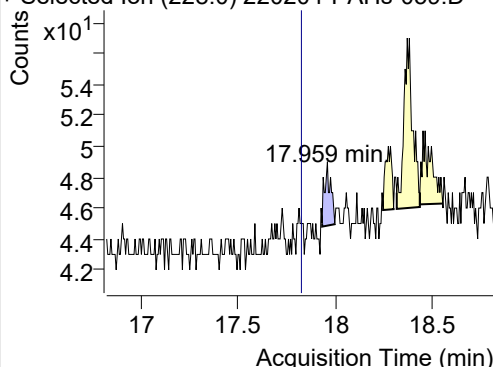


+ SIM (17.726-17.888 min, 30 scans) (\*\*) 2202

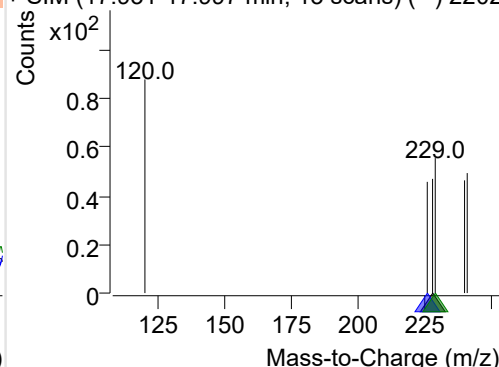
**Chrysene**

+ Selected Ion (228.0) 220204-PAHs-059.D

228.0, 226.0, 229.0

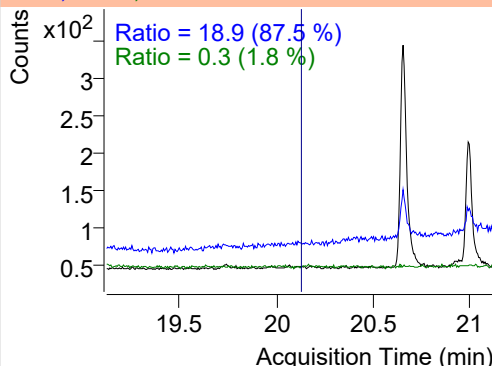
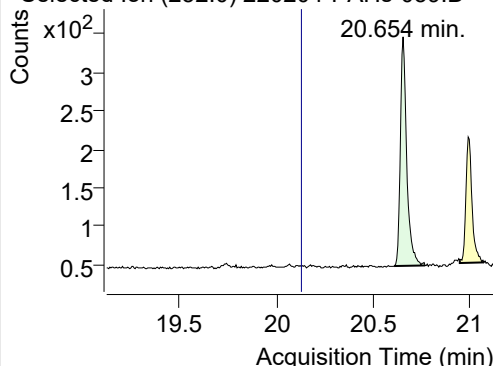


+ SIM (17.931-17.997 min, 13 scans) (\*\*) 2202

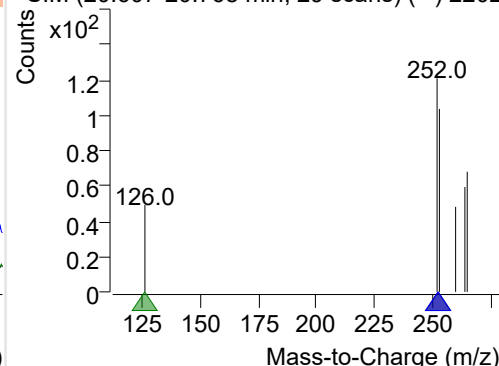
**Benzo(b)fluoranthene**

+ Selected Ion (252.0) 220204-PAHs-059.D

252.0, 253.0, 126.0



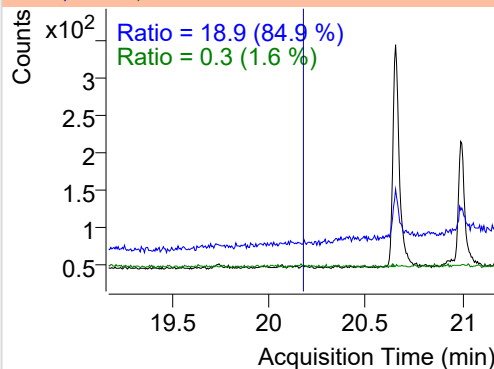
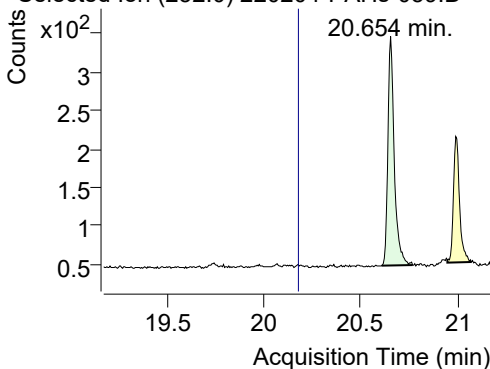
+ SIM (20.607-20.768 min, 29 scans) (\*\*) 2202



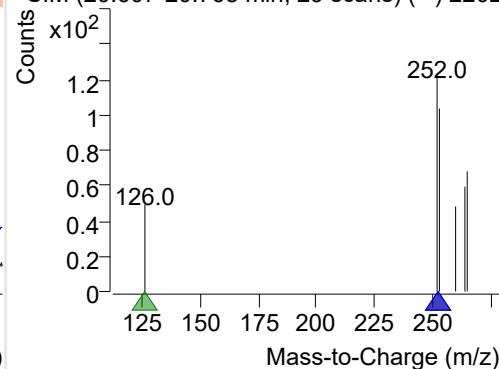
**Benzo(k)fluoranthene**

+ Selected Ion (252.0) 220204-PAHs-059.D

252.0, 253.0, 126.0

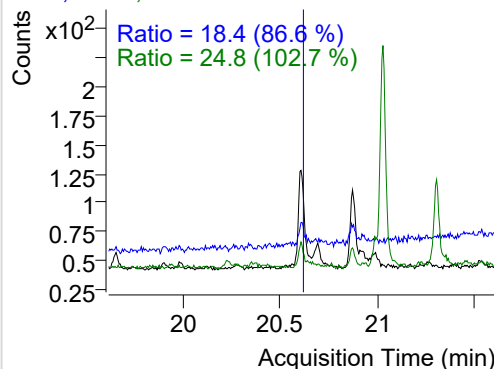
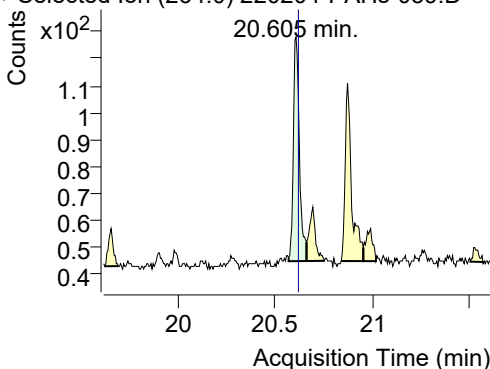


+ SIM (20.607-20.768 min, 29 scans) (\*\*) 2202

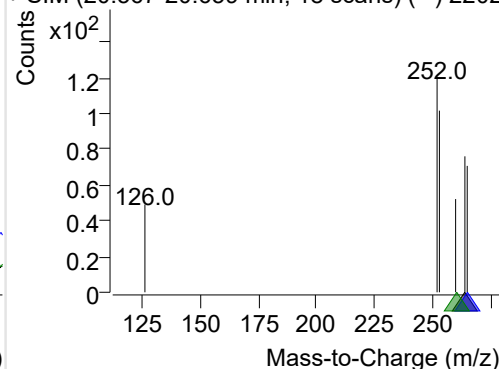
**SS-D12-Benzo(e)pyrene**

+ Selected Ion (264.0) 220204-PAHs-059.D

264.0, 265.0, 260.0

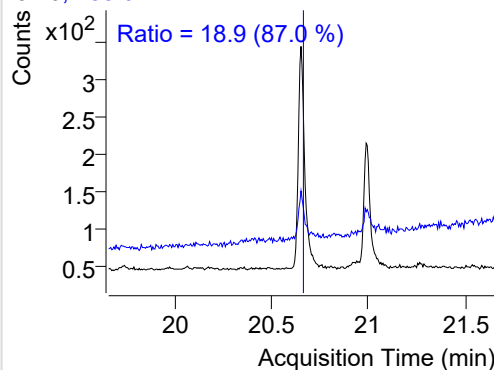
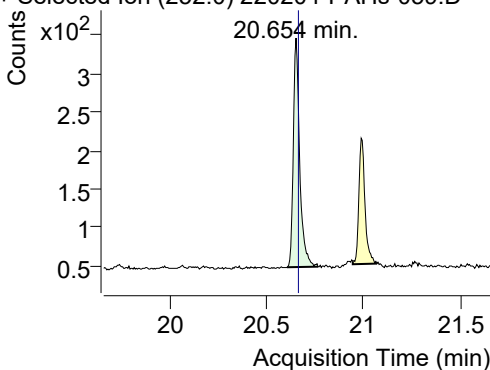


+ SIM (20.567-20.659 min, 18 scans) (\*\*) 2202

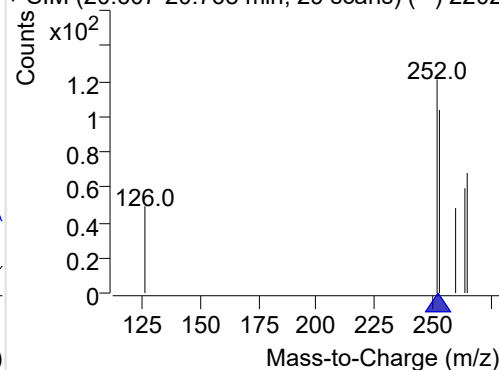
**Benzo(e)pyrene**

+ Selected Ion (252.0) 220204-PAHs-059.D

252.0, 253.0

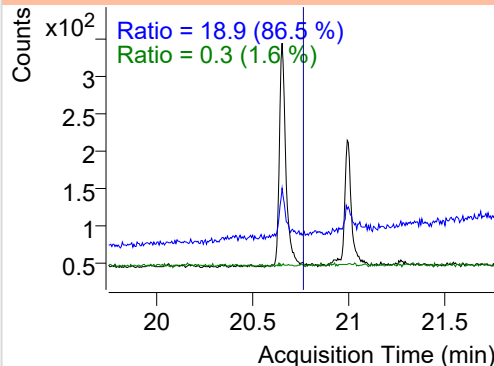
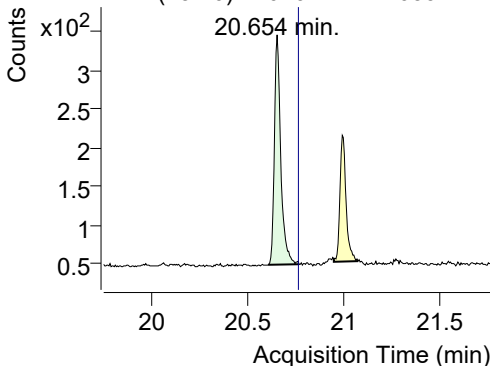


+ SIM (20.607-20.768 min, 29 scans) (\*\*) 2202

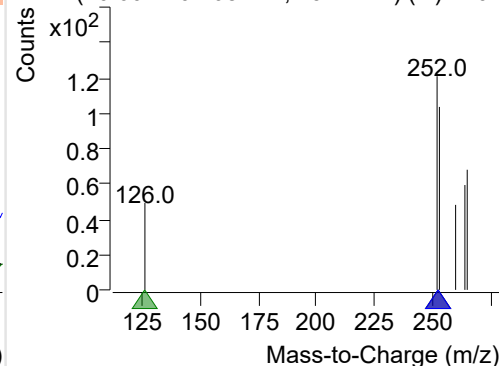
**Benzo(a)pyrene**

+ Selected Ion (252.0) 220204-PAHs-059.D

252.0, 253.0, 126.0



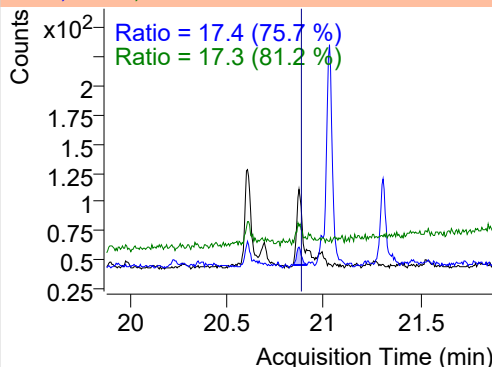
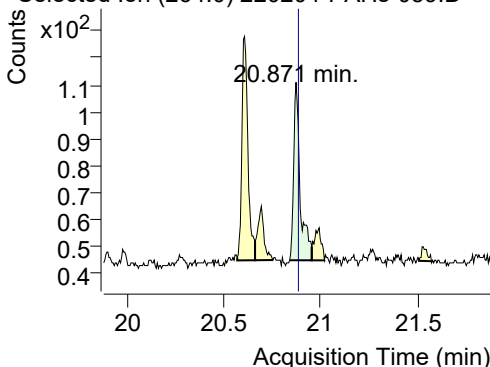
+ SIM (20.607-20.768 min, 29 scans) (\*\*) 2202



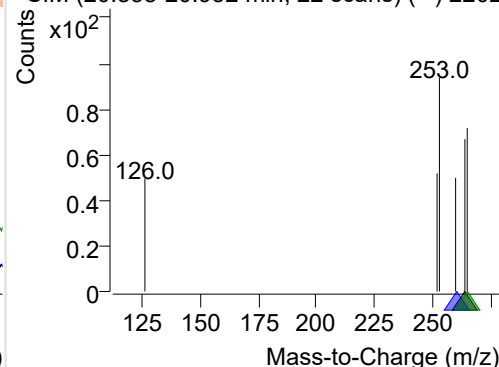
## IS-D12-Perylene

+ Selected Ion (264.0) 220204-PAHs-059.D

264.0, 260.0, 265.0



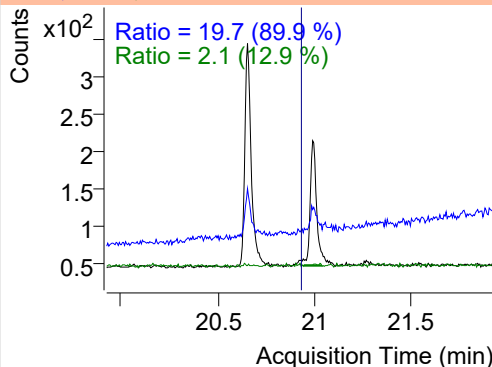
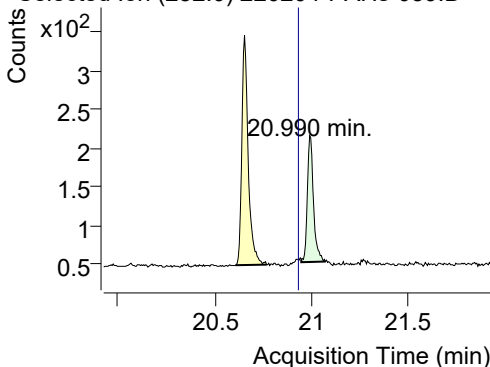
+ SIM (20.838-20.952 min, 22 scans) (\*\*) 2202



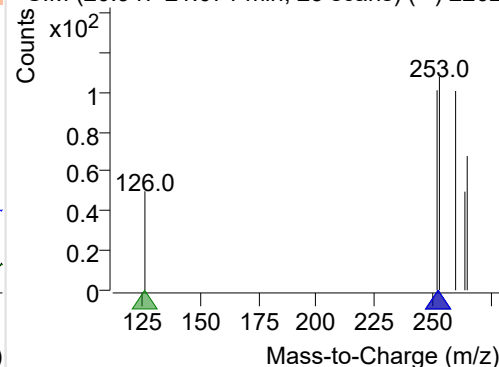
## Perylene

+ Selected Ion (252.0) 220204-PAHs-059.D

252.0, 253.0, 126.0



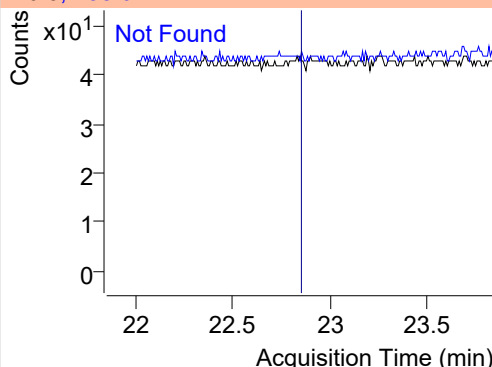
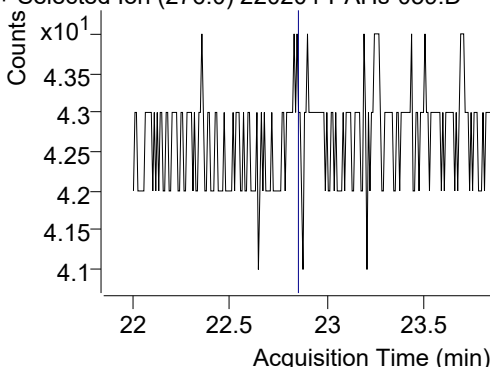
+ SIM (20.947-21.071 min, 23 scans) (\*\*) 2202



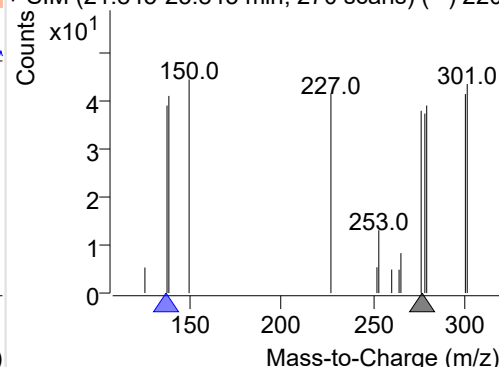
## Indeno(1,2,3-c,d)pyrene

+ Selected Ion (276.0) 220204-PAHs-059.D

276.0, 138.0



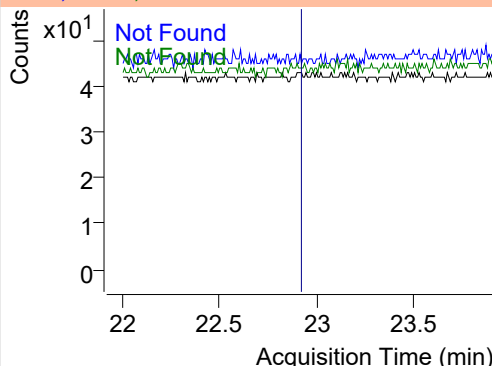
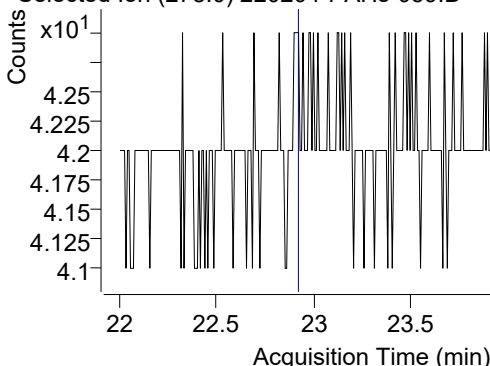
+ SIM (21.845-23.845 min, 270 scans) (\*\*) 2202



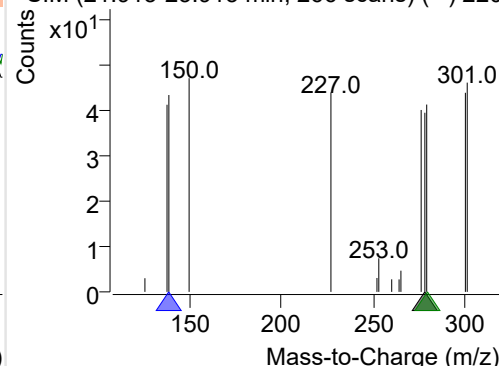
## Dibenz(a,h)anthracene

+ Selected Ion (278.0) 220204-PAHs-059.D

278.0, 139.0, 279.0

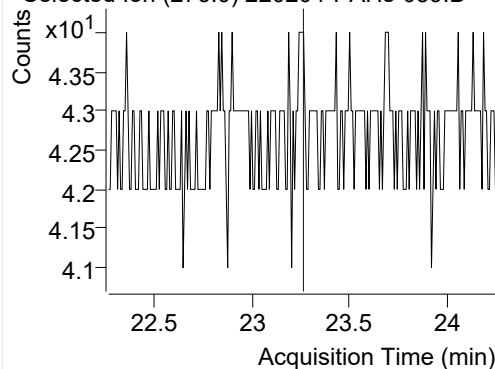


+ SIM (21.913-23.913 min, 266 scans) (\*\*) 2202

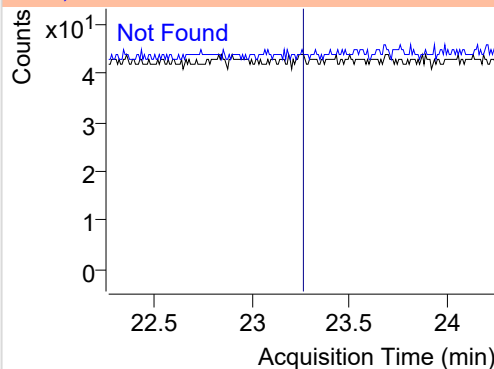


**Benzo(g,h,i)perylene**

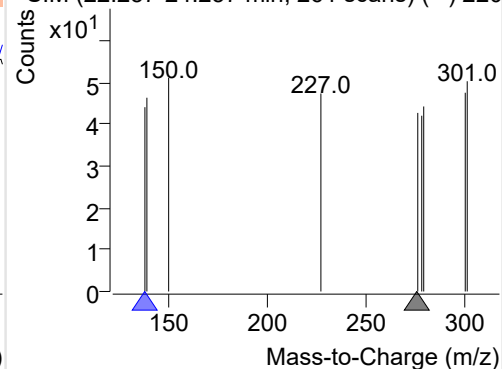
+ Selected Ion (276.0) 220204-PAHs-059.D



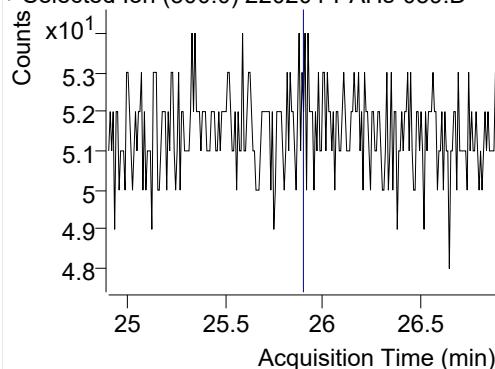
276.0, 138.0



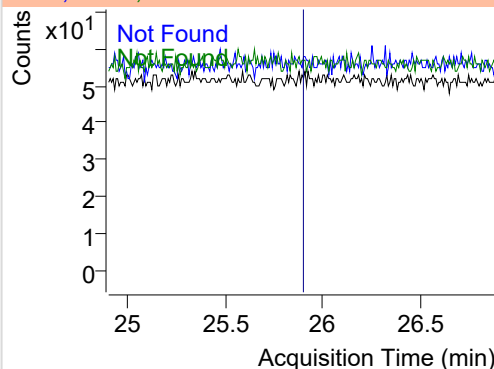
+ SIM (22.257-24.257 min, 261 scans) (\*\*) 220

**Coronene**

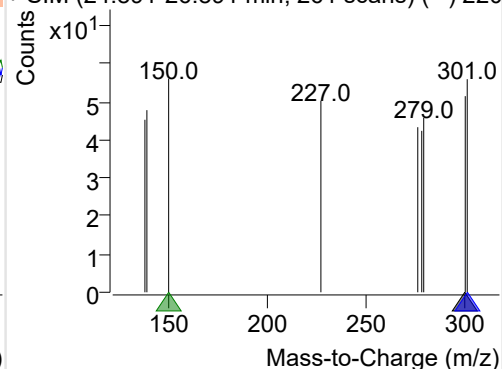
+ Selected Ion (300.0) 220204-PAHs-059.D



300.0, 301.0, 150.0



+ SIM (24.891-26.891 min, 261 scans) (\*\*) 220





## Quantitative Analysis Sample Based Report

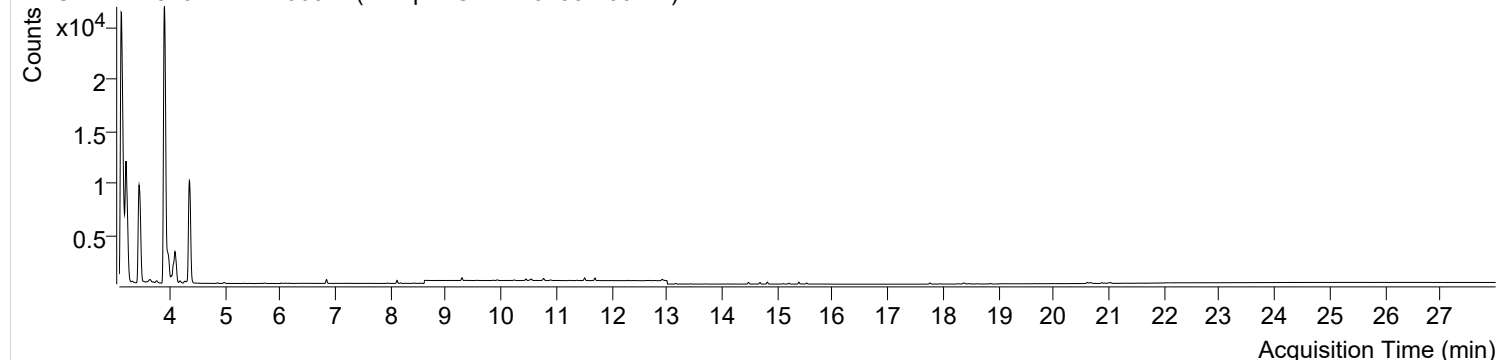


Trusted Answers

Batch Data Path File Name	D:\MassHunter\GCMS\1\data\PAHs\220204-PAHs-Sample\QuantResults\220204-PAHs-Quant.batch.bin		
Analysis Time Stamp	2022-04-13 오후 3:18:46	Analyst Name	DESKTOP-86B7UPG\5975MS
Report Generation Time	2022-04-13 오후 3:19:11	Report Generator Name	DESKTOP-86B7UPG\5975MS
Calibration Last Update	2022-04-13 오후 3:16:00	Batch State	Processed
Analyze Quant Version	10.2	Report Quant Version	10.2
Acq. Date-Time	2022-02-06 오후 2:13:01	Data File	220204-PAHs-060.D
Type	Sample	Name	Sample-Gas-220130-200DIL
Dil.	1	Acq. Method File	PAHs 19mix-Method

## Sample Chromatogram

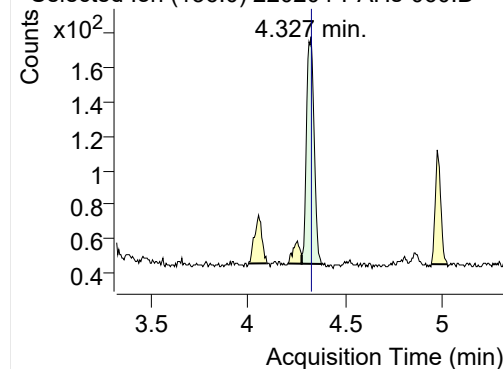
+ TIC SIM 220204-PAHs-060.D (Sample-Gas-220130-200DIL)



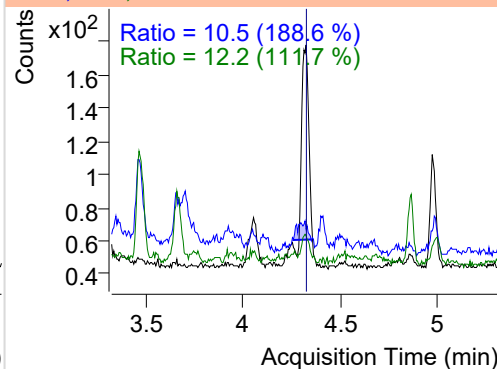
Name	RT	Transition	Resp.	Height	Final Conc. Units	Ratio
IS-D8-Naphthalene	4.327	136.0	359	132.33	ND ng/ml	12.2
Naphthalene	4.354	128.0	21350	7924.73	ND ng/ml	13.6
Acenaphthylene	7.745	152.0	5	3.50	ND ng/ml	
IS-D10-Acenaphthene	8.112	164.0	203	139.40	ND ng/ml	93.6
Acenaphthene	8.177	154.0	18	13.12	ND ng/ml	143.6
LSS-D10-Fluorene	9.292	176.0	197	124.86	ND µg/mL	88.9
Fluorene	9.344	166.0	16	9.87	ND µg/mL	75.1
IS-D10-Phenanthrene	11.508	188.0	323	203.71	ND µg/mL	14.5
Phenanthrene	11.560	178.0	10	7.49	ND µg/mL	
Anthracene	11.697	178.0	103	67.49	ND µg/mL	24.1
Fluoranthene	14.245	202.0	6	4.07	ND µg/mL	92.5
LSS-D10-Pyrene	14.814	212.0	231	139.08	ND µg/mL	16.5
Pyrene	14.852	202.0	4	5.07	ND µg/mL	
Benz(a)anthracene	17.812	228.0	12	3.27	ND µg/mL	
IS-D12-Chrysene	17.758	240.0	156	86.15	ND µg/mL	18.9
Chrysene	17.812	228.0	12	3.27	ND µg/mL	
Benzo(b)fluoranthene	19.743	252.0	12	7.03	ND µg/mL	
Benzo(k)fluoranthene	19.743	252.0	12	7.03	ND µg/mL	
SS-D12-Benzo(e)pyrene	20.605	264.0	152	75.89	ND µg/mL	23.7
Benzo(e)pyrene	20.648	252.0	167	64.62	ND µg/mL	18.6
Benzo(a)pyrene	20.648	252.0	167	64.62	ND µg/mL	18.6
IS-D12-Perylene	20.871	264.0	144	48.89	ND µg/mL	15.0
Perylene	20.931	252.0	17	7.45	ND µg/mL	
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	26.426	300.0	2	3.50	ND µg/mL	

## IS-D8-Naphthalene

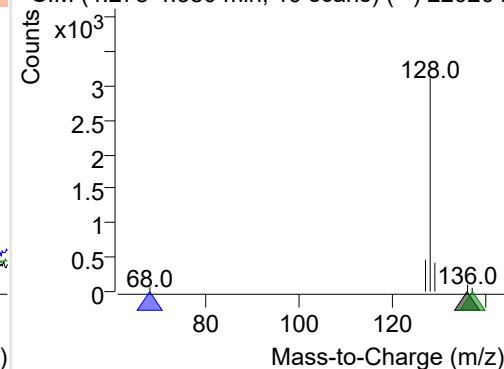
+ Selected Ion (136.0) 220204-PAHs-060.D



136.0, 68.0, 137.0

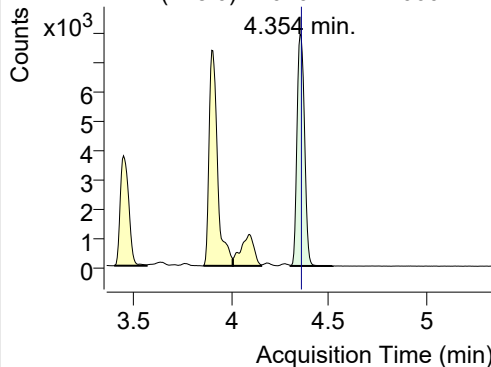


+ SIM (4.278-4.380 min, 19 scans) (\*\*) 220204

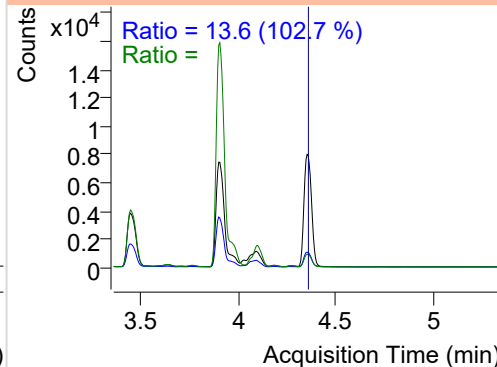


**Naphthalene**

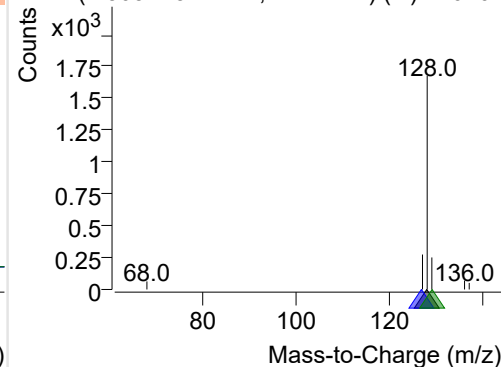
+ Selected Ion (128.0) 220204-PAHs-060.D



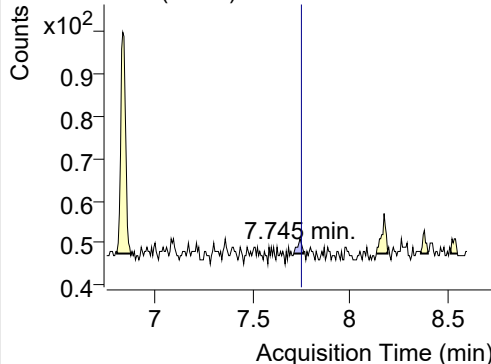
128.0, 127.0, 129.0



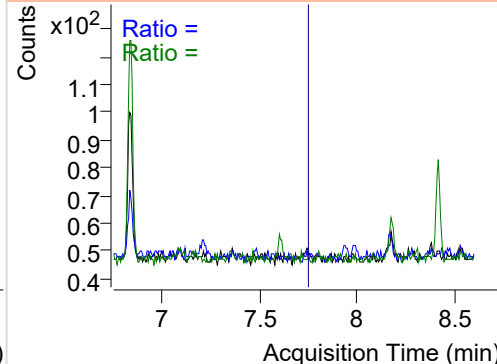
+ SIM (4.305-4.522 min, 41 scans) (\*\*) 220204

**Acenaphthylene**

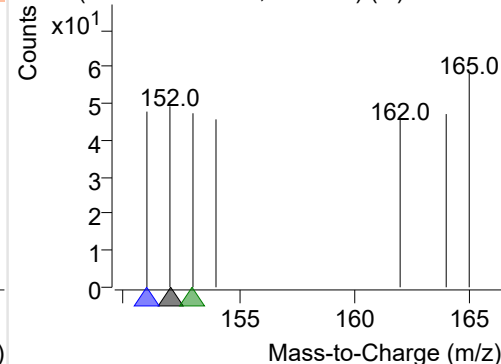
+ Selected Ion (152.0) 220204-PAHs-060.D



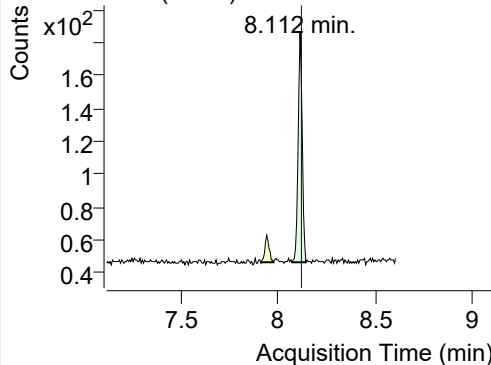
152.0, 151.0, 153.0



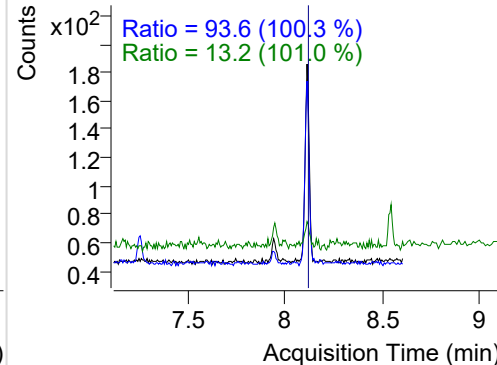
+ SIM (7.713-7.763 min, 9 scans) (\*\*) 220204-I

**IS-D10-Acenaphthene**

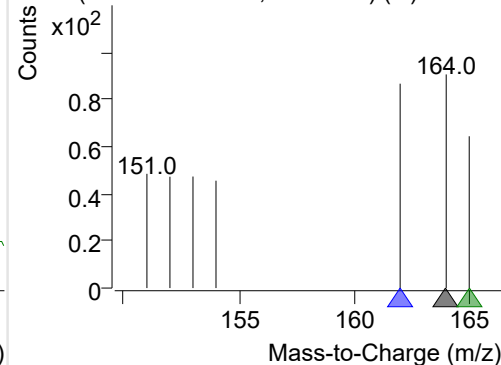
+ Selected Ion (164.0) 220204-PAHs-060.D



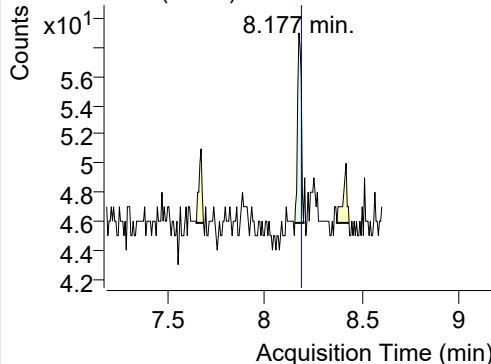
164.0, 162.0, 165.0



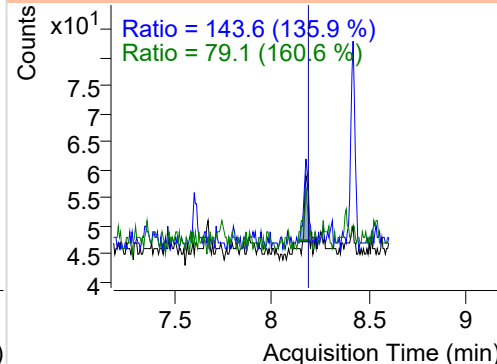
+ SIM (8.071-8.142 min, 13 scans) (\*\*) 220204

**Acenaphthene**

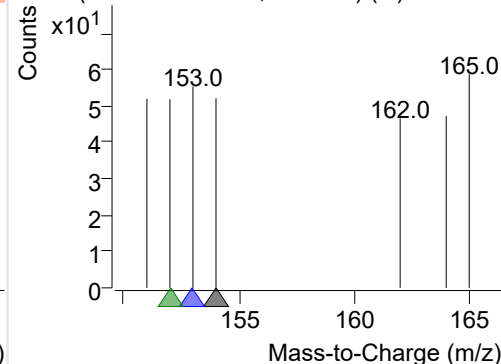
+ Selected Ion (154.0) 220204-PAHs-060.D



154.0, 153.0, 152.0

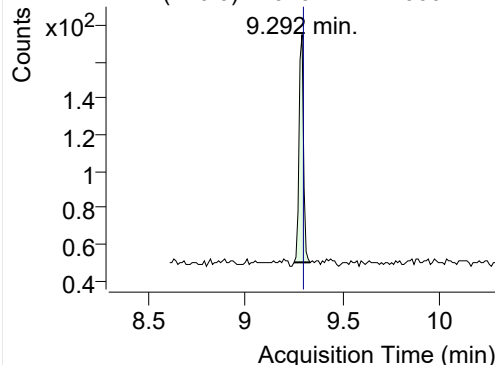


+ SIM (8.156-8.201 min, 8 scans) (\*\*) 220204-I

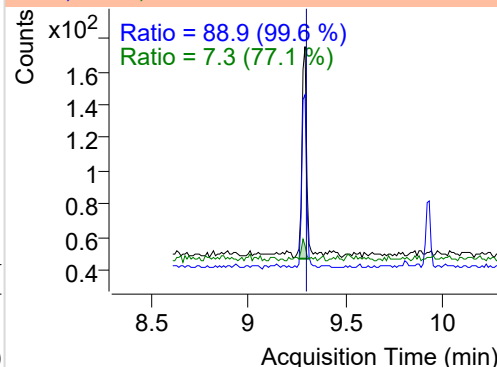


## LSS-D10-Fluorene

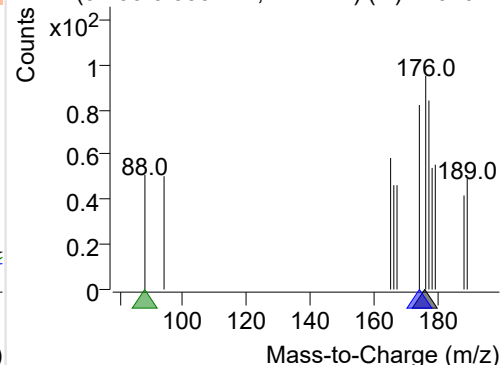
+ Selected Ion (176.0) 220204-PAHs-060.D



176.0, 174.0, 88.0

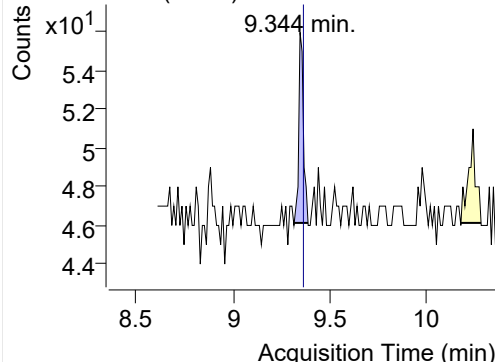


+ SIM (9.250-9.333 min, 7 scans) (\*\*) 220204-I

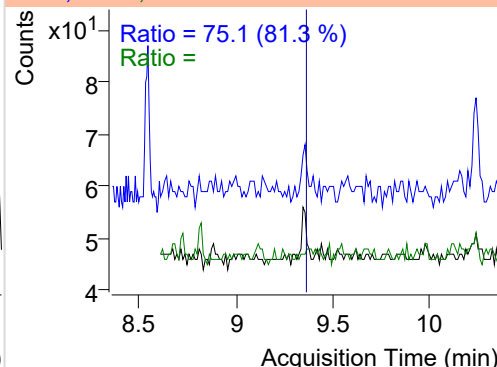


## Fluorene

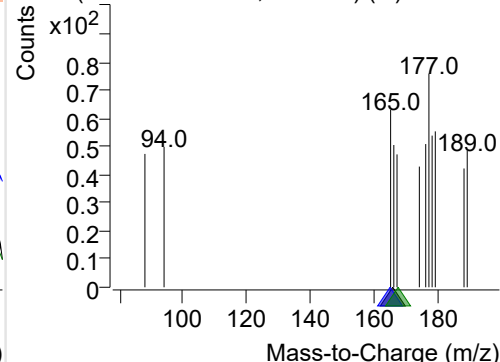
+ Selected Ion (166.0) 220204-PAHs-060.D



166.0, 165.0, 167.0

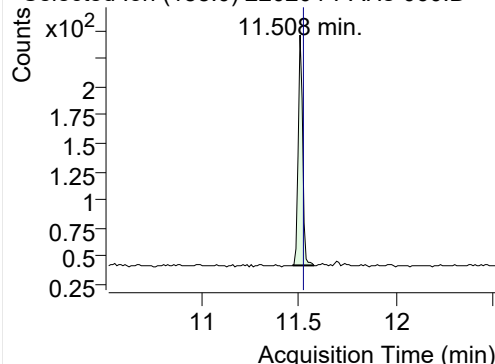


+ SIM (9.314-9.386 min, 6 scans) (\*\*) 220204-I

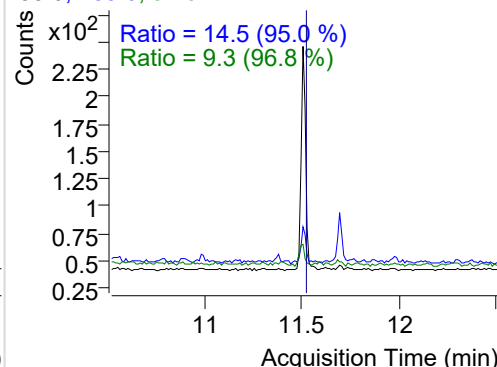


## IS-D10-Phenanthrene

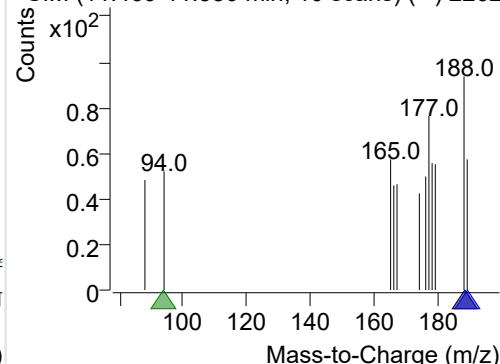
+ Selected Ion (188.0) 220204-PAHs-060.D



188.0, 189.0, 94.0

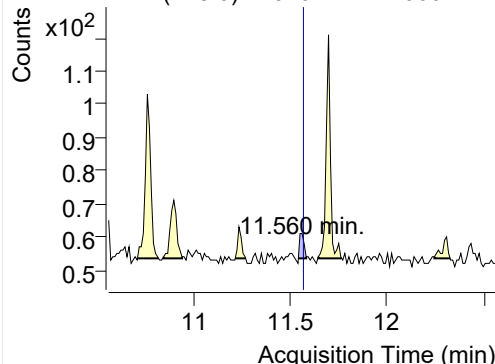


+ SIM (11.469-11.580 min, 10 scans) (\*\*) 2202

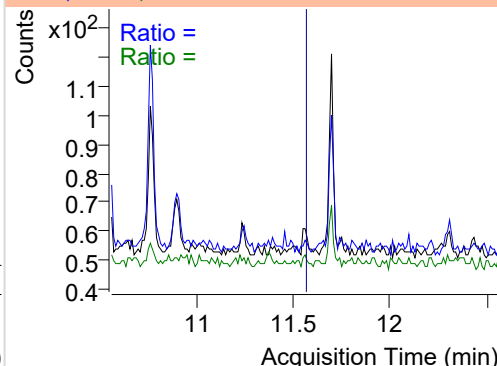


## Phenanthrene

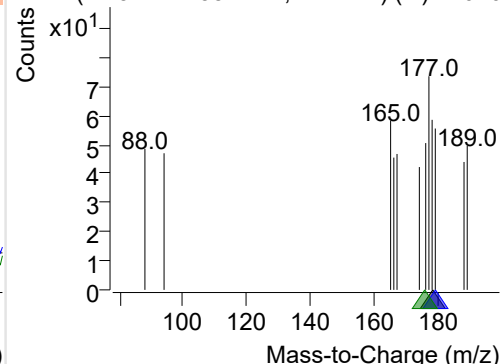
+ Selected Ion (178.0) 220204-PAHs-060.D



178.0, 179.0, 176.0

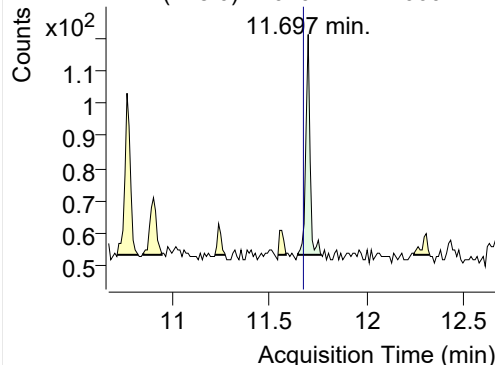


+ SIM (11.541-11.581 min, 4 scans) (\*\*) 22020

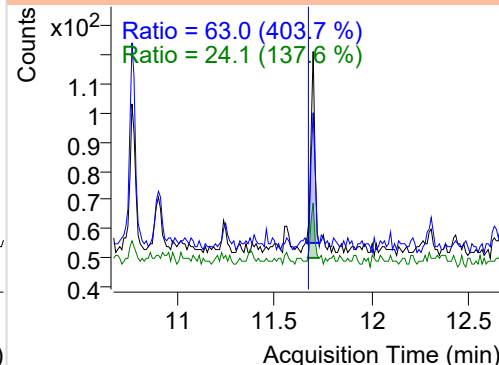


**Anthracene**

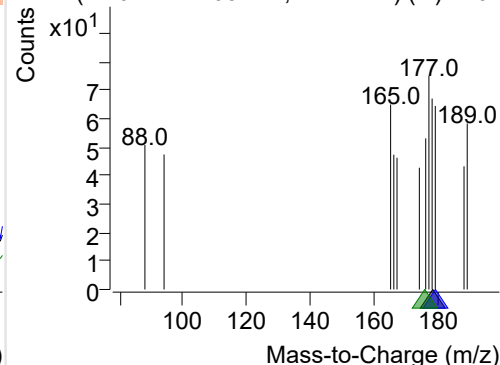
+ Selected Ion (178.0) 220204-PAHs-060.D



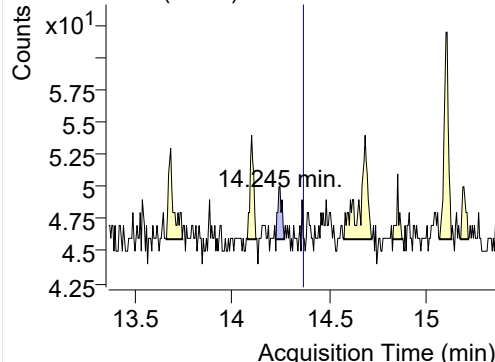
178.0, 179.0, 176.0



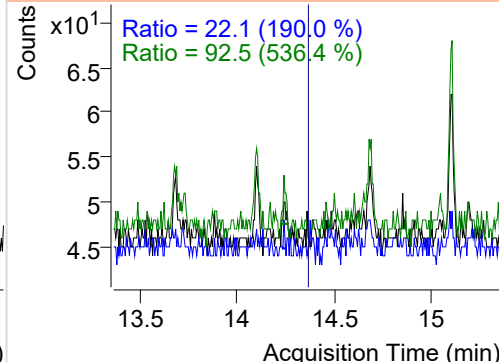
+ SIM (11.644-11.765 min, 12 scans) (\*\*) 2202

**Fluoranthene**

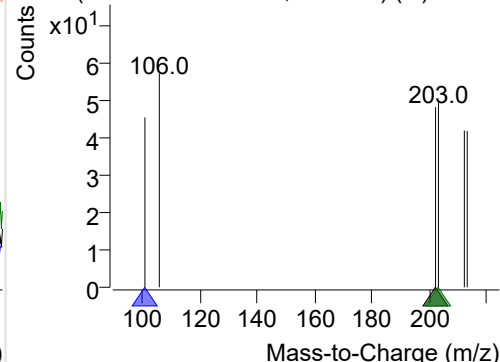
+ Selected Ion (202.0) 220204-PAHs-060.D



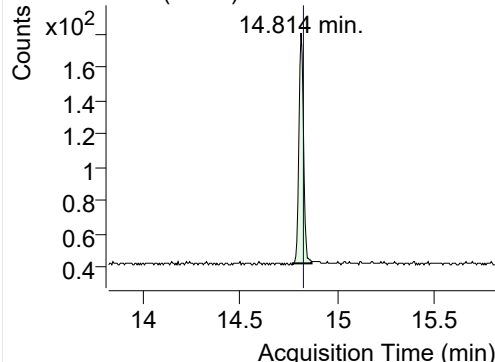
202.0, 101.0, 203.0



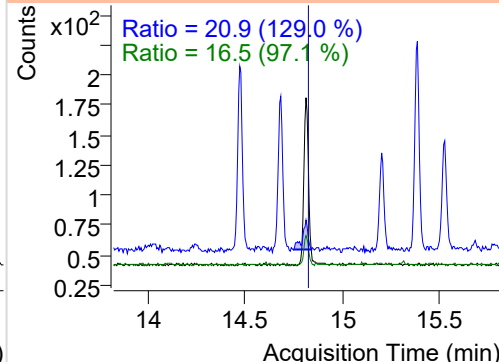
+ SIM (14.225-14.267 min, 8 scans) (\*\*) 22020

**LSS-D10-Pyrene**

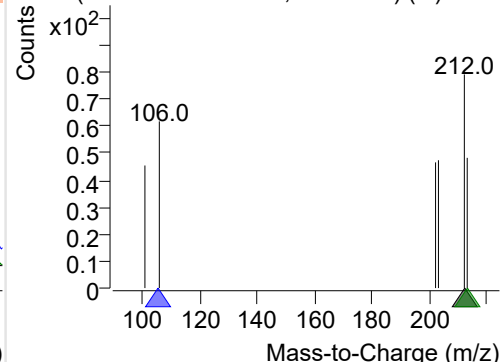
+ Selected Ion (212.0) 220204-PAHs-060.D



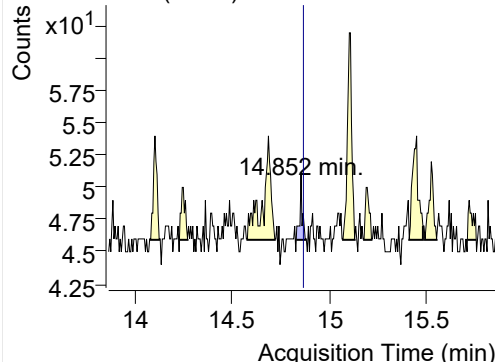
212.0, 106.0, 213.0



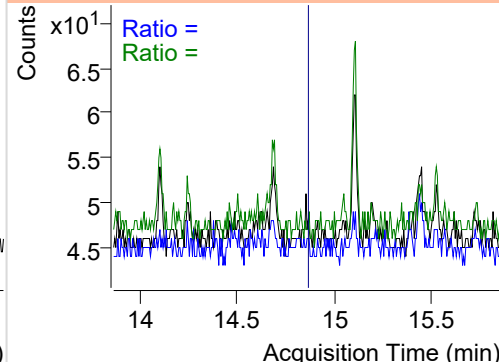
+ SIM (14.771-14.869 min, 19 scans) (\*\*) 2202

**Pyrene**

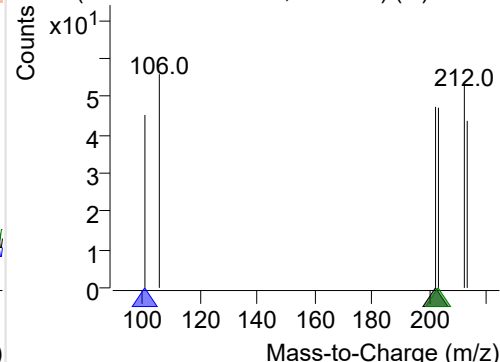
+ Selected Ion (202.0) 220204-PAHs-060.D



202.0, 101.0, 203.0



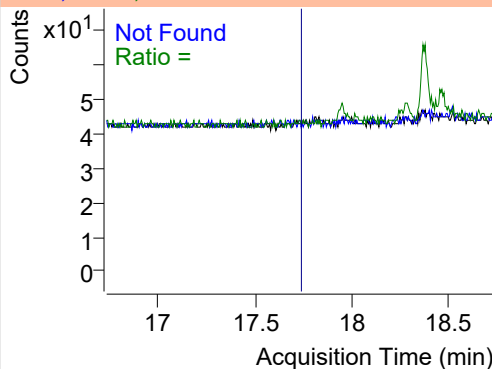
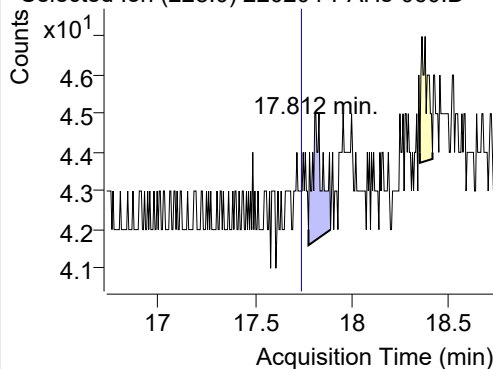
+ SIM (14.828-14.874 min, 9 scans) (\*\*) 22020



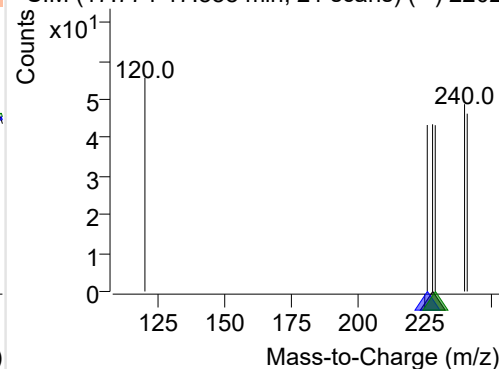
**Benz(a)anthracene**

+ Selected Ion (228.0) 220204-PAHs-060.D

228.0, 226.0, 229.0

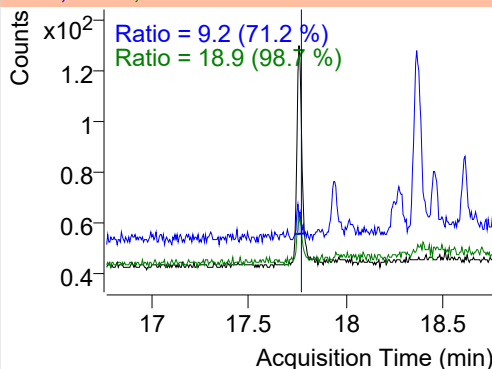
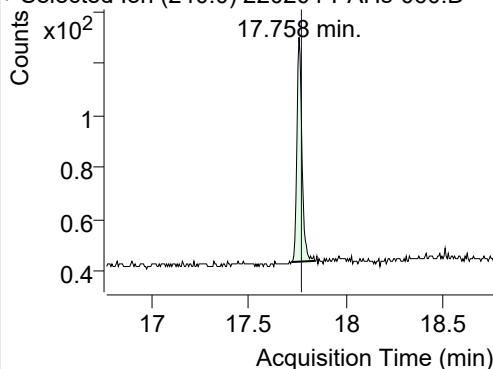


+ SIM (17.774-17.888 min, 21 scans) (\*\*) 2202

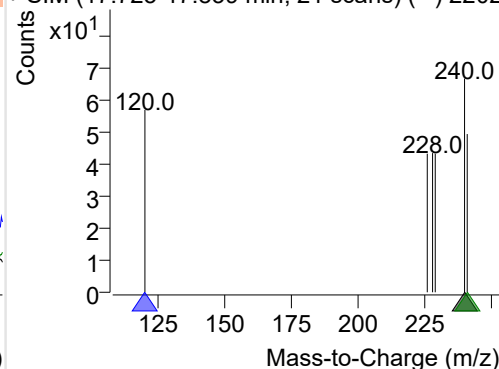
**IS-D12-Chrysene**

+ Selected Ion (240.0) 220204-PAHs-060.D

240.0, 120.0, 241.0

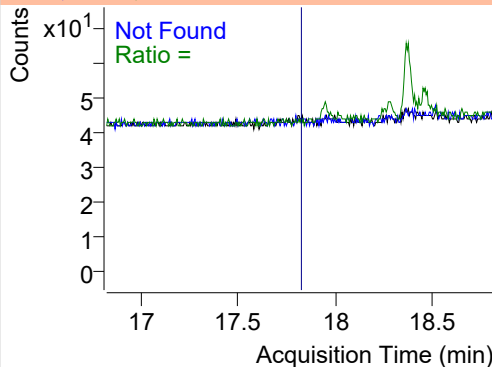
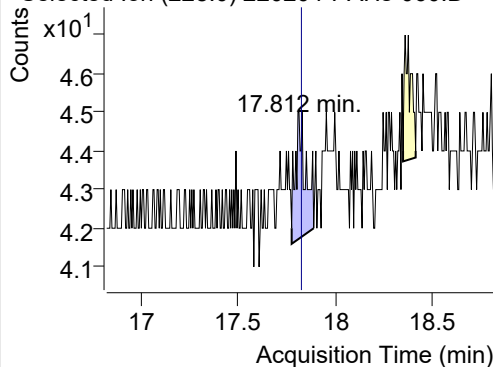


+ SIM (17.725-17.839 min, 21 scans) (\*\*) 2202

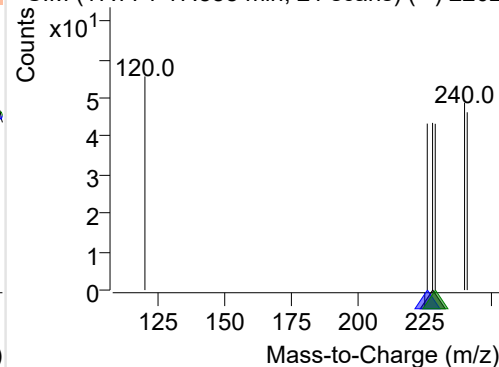
**Chrysene**

+ Selected Ion (228.0) 220204-PAHs-060.D

228.0, 226.0, 229.0

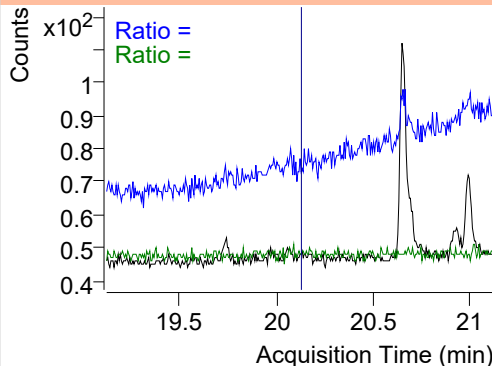
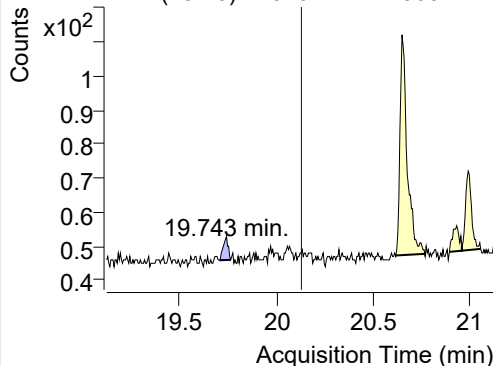


+ SIM (17.774-17.888 min, 21 scans) (\*\*) 2202

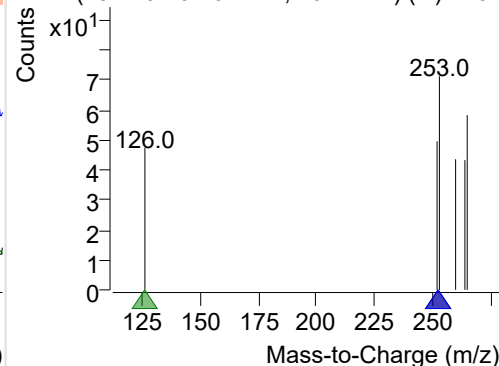
**Benzo(b)fluoranthene**

+ Selected Ion (252.0) 220204-PAHs-060.D

252.0, 253.0, 126.0



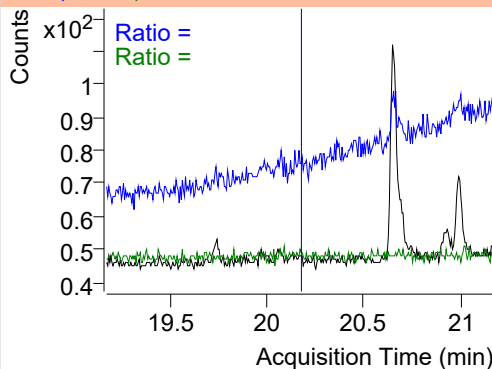
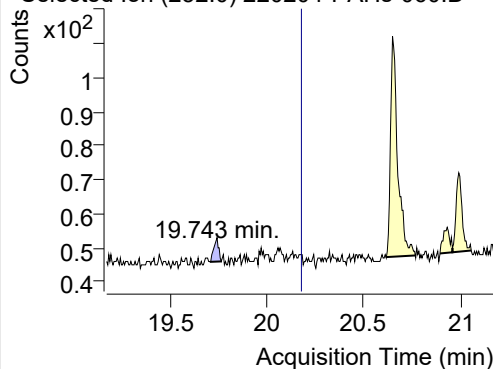
+ SIM (19.710-19.764 min, 10 scans) (\*\*) 2202



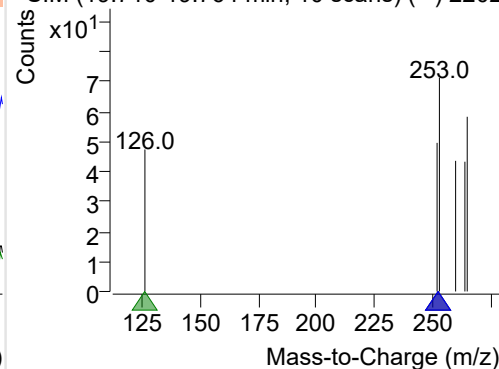
**Benzo(k)fluoranthene**

+ Selected Ion (252.0) 220204-PAHs-060.D

252.0, 253.0, 126.0

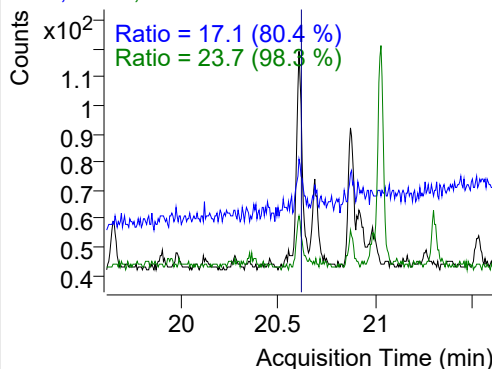
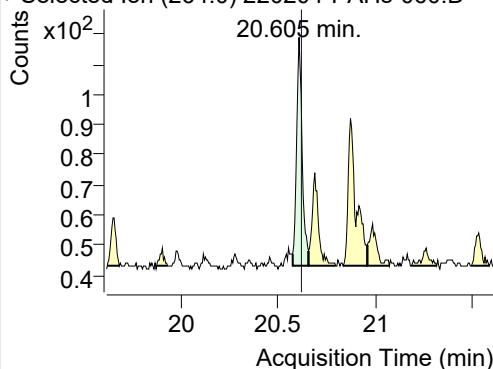


+ SIM (19.710-19.764 min, 10 scans) (\*\*) 2202

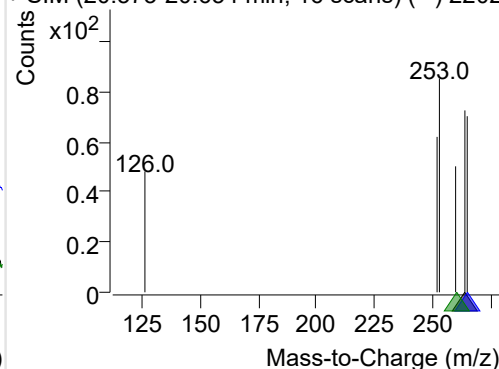
**SS-D12-Benzo(e)pyrene**

+ Selected Ion (264.0) 220204-PAHs-060.D

264.0, 265.0, 260.0

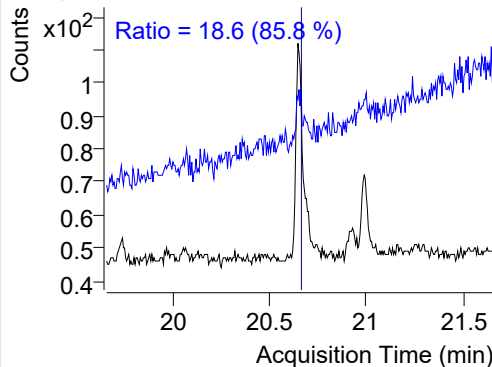
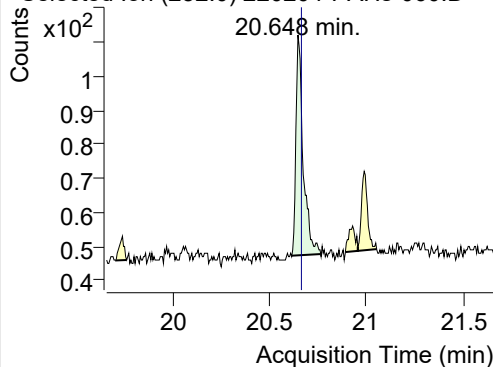


+ SIM (20.573-20.654 min, 16 scans) (\*\*) 2202

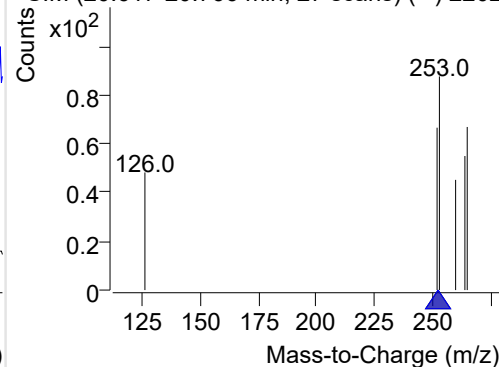
**Benzo(e)pyrene**

+ Selected Ion (252.0) 220204-PAHs-060.D

252.0, 253.0

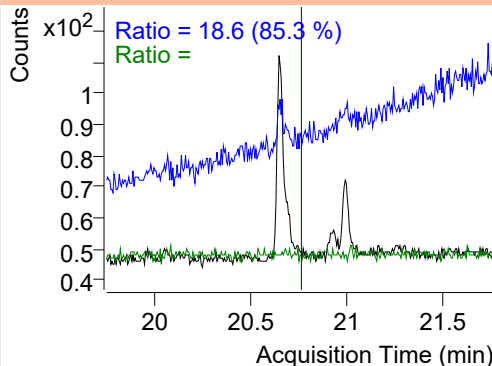
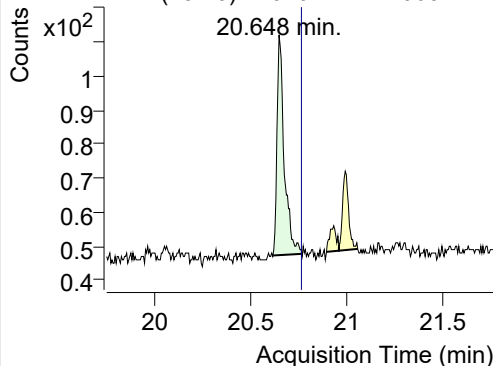


+ SIM (20.617-20.766 min, 27 scans) (\*\*) 2202

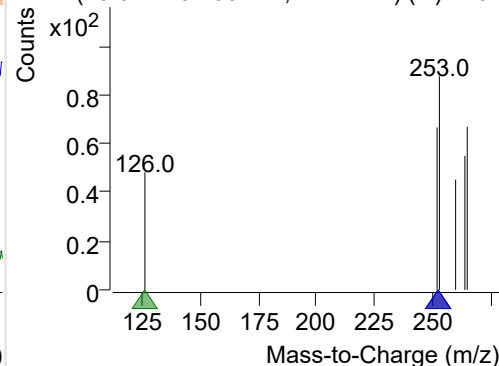
**Benzo(a)pyrene**

+ Selected Ion (252.0) 220204-PAHs-060.D

252.0, 253.0, 126.0



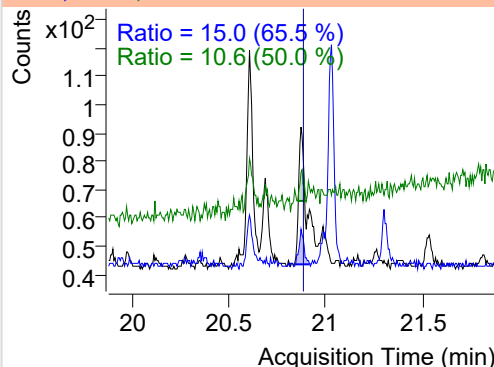
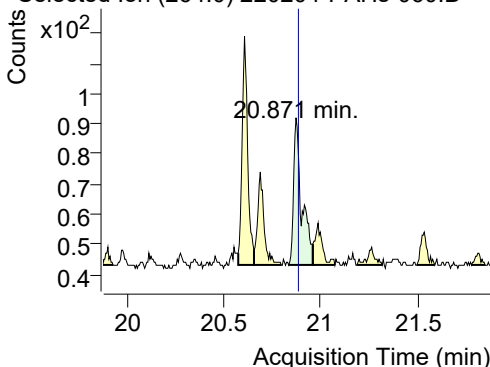
+ SIM (20.617-20.766 min, 27 scans) (\*\*) 2202



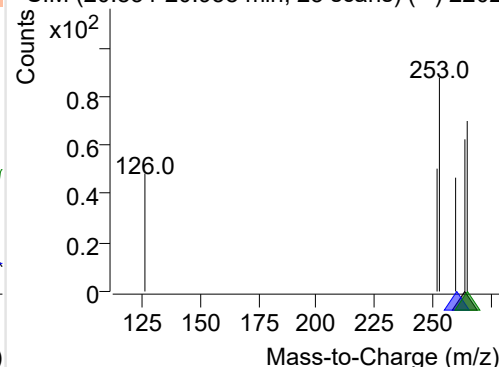
## IS-D12-Perylene

+ Selected Ion (264.0) 220204-PAHs-060.D

264.0, 260.0, 265.0



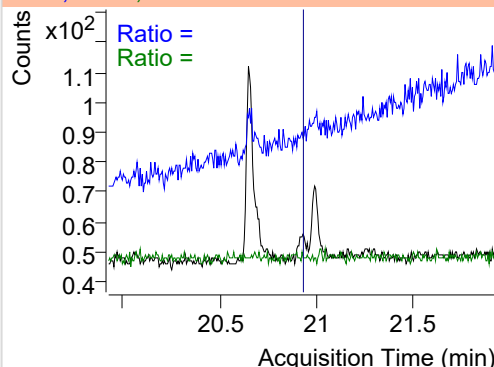
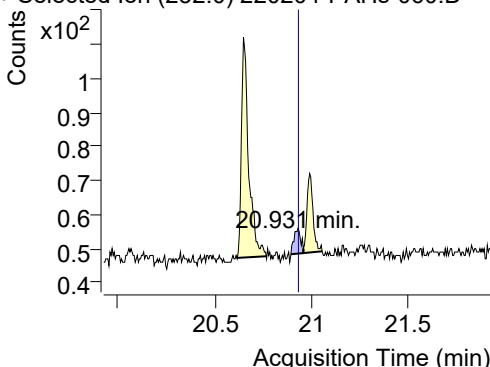
+ SIM (20.834-20.958 min, 23 scans) (\*\*) 2202



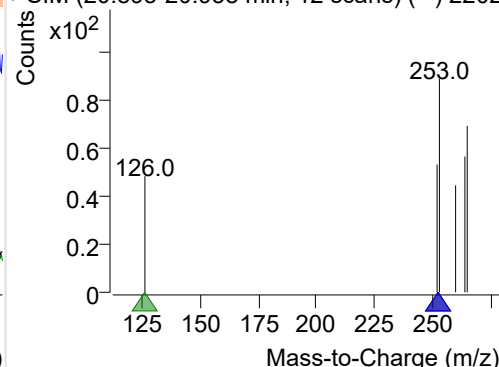
## Perylene

+ Selected Ion (252.0) 220204-PAHs-060.D

252.0, 253.0, 126.0



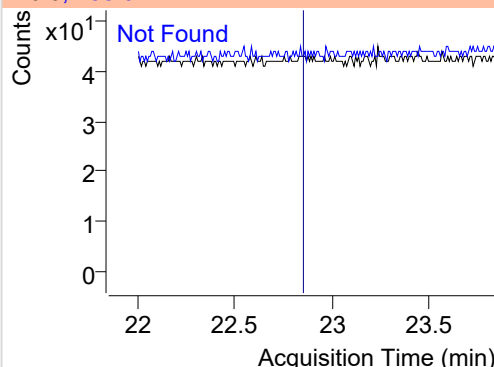
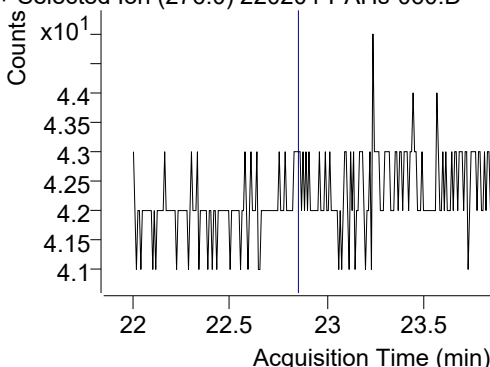
+ SIM (20.893-20.958 min, 12 scans) (\*\*) 2202



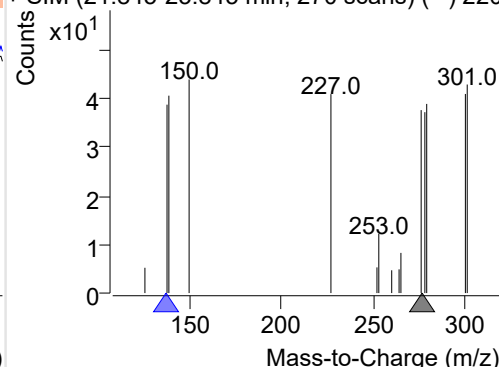
## Indeno(1,2,3-c,d)pyrene

+ Selected Ion (276.0) 220204-PAHs-060.D

276.0, 138.0



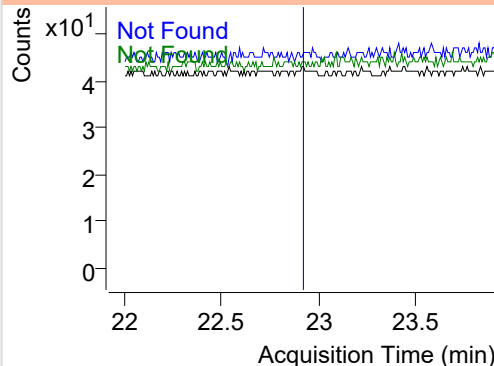
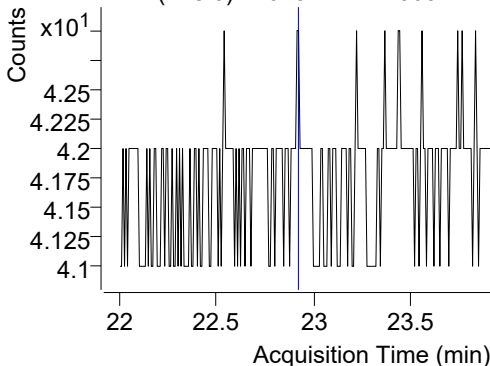
+ SIM (21.845-23.845 min, 270 scans) (\*\*) 220



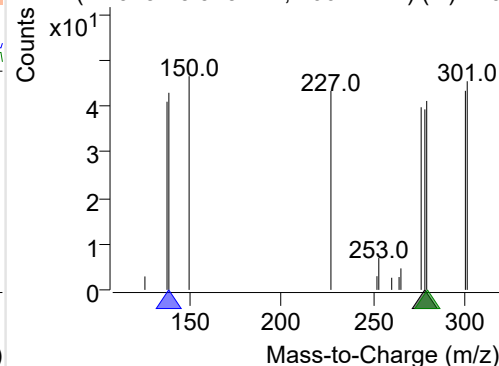
## Dibenz(a,h)anthracene

+ Selected Ion (278.0) 220204-PAHs-060.D

278.0, 139.0, 279.0



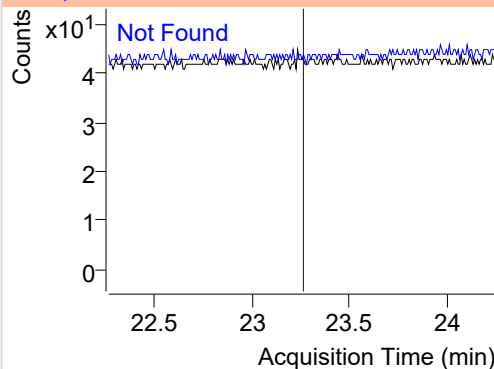
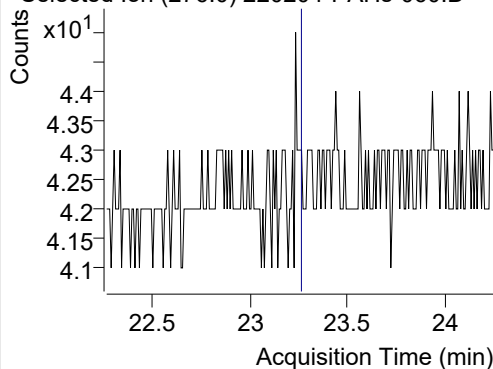
+ SIM (21.913-23.913 min, 266 scans) (\*\*) 220



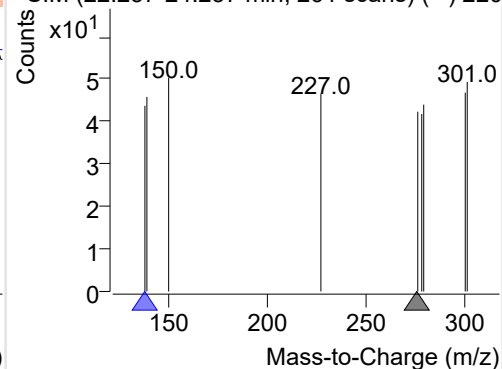
**Benzo(g,h,i)perylene**

+ Selected Ion (276.0) 220204-PAHs-060.D

276.0, 138.0

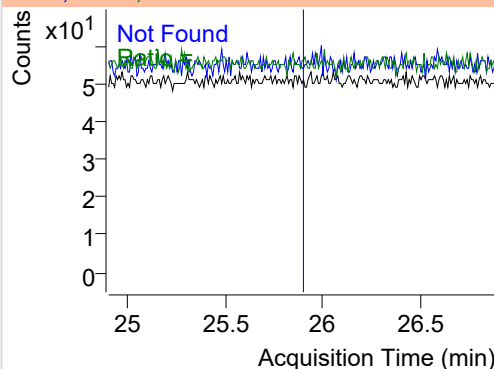
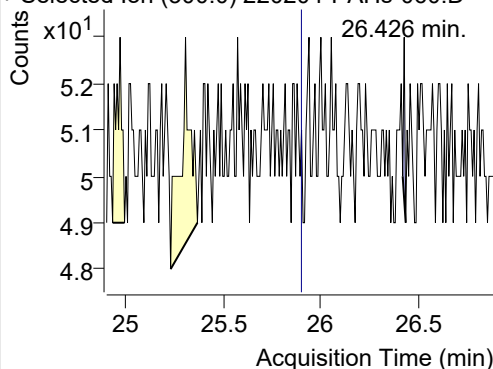


+ SIM (22.257-24.257 min, 261 scans) (\*\*) 220

**Coronene**

+ Selected Ion (300.0) 220204-PAHs-060.D

300.0, 301.0, 150.0



+ SIM (26.418-26.433 min, 3 scans) (\*\*) 22020

