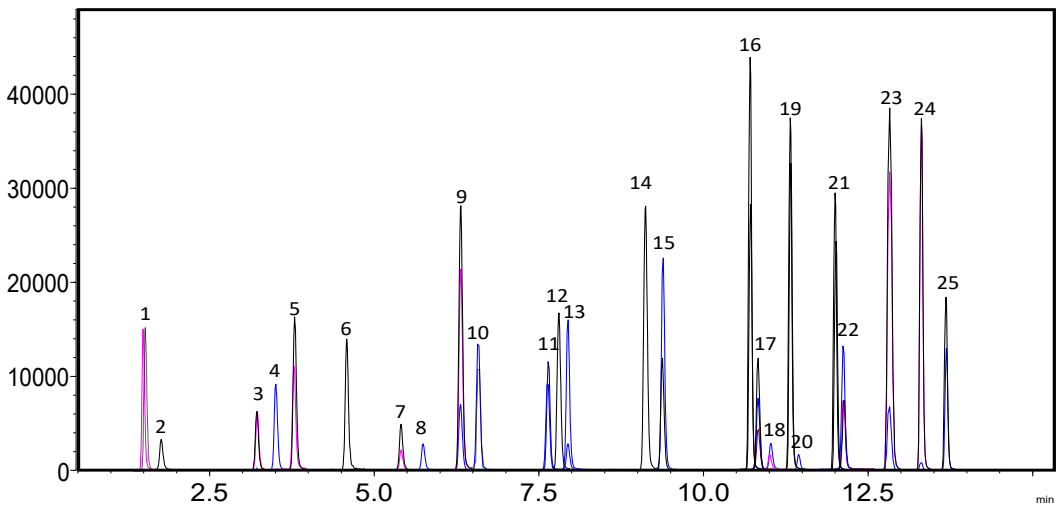
PFAS Analysis According to EPA 533

245-PF



Peak #	Compound	Transition	t_R (min)
1	PFBA	213.0000>169.0000	1.358
2	4:2FTS	229.0000>85.0000	1.890
3	PFPeA	263.0000>219.0000	3.219
4	PFBS	299.0000>80.0000	3.810
5	PFHpS	279.0000>85.0000	3.967
6	PFPeS	315.0000>135.0000	4.791
7	PFMPA	327.0000>307.0000	5.431
8	PFHxA	313.0000>269.0000	5.684
9	PFEESA	349.0000>80.0000	6.099
10	HFPO-DA	285.0000>169.0000	6.335
11	PFHpA	363.0000>319.0000	7.763
12	PFHxS	399.0000>80.0000	7.985
13	ADONA	377.0000>250.9000	8.012

Peak #	Compound	Transition	t_R (min)
14	PFOA	413.0000>369.0000	9.398
15	PFMBA	449.0000>80.0000	9.512
16	PFNA	463.0000>419.0000	10.751
17	PFOS	499.0000>80.0000	10.793
18	9Cl-PF3ONS	530.9000>351.0000	11.459
19	PFDA	513.0000>469.0000	11.885
20	8:2FTS	549.0000>80.0000	11.897
21	6:2FTS	498.0000>78.0000	12.680
22	NFDHA	599.0000>80.0000	12.847
23	PFUnA	563.0000>519.0000	12.862
24	11Cl-PF3OUdS	630.7000>451.0000	13.329
25	PFDoA	613.0000>569.0000	13.708

TEST CONDITIONS:

Analytical Column: HALO® PFAS, 2.7 µm, 2.1 x 100 mm
Part Number: 92812-613
Delay Column: HALO® PFAS Delay, 3.0 x 50 mm
Part Number: 92113-415
Mobile Phase A: 10 mM Ammonium Acetete
Mobile Phase B: Methanol

Gradient:

Time	%B
0.0	33
18	98
18.1	100
21.0	100
21.1	33
26.0	End

Flow Rate: 0.4 mL/min
Initial Back Pressure: 485 bar
Temperature: 35 °C
Injection Volume: 2.0 µL
Sample Solvent: Methanol (96%) Water (4%)

MS Conditions:

Detection: -ESI MS/MS
LC System: Shimadzu Nexera X2
ESI LCMS System: Shimadzu LCMS-8040
Spray Voltage: -2.0 kV
Nebulizing Gas: 2 L/min
Drying Gas: 15 L/min
DL Temperature: 250 ˚C
Heat Block: 400 ˚C

In 2019 EPA method 533 was introduced and focused on "short chain" PFAS, those PFAS with carbon chain lengths of four to 12. Method 533 complements EPA Method 537.1 and can be used to test for 11 additional PFAS species. Here we present this high resolution separation on the HALO® PFAS delay column and the HALO® PFAS analytical column.