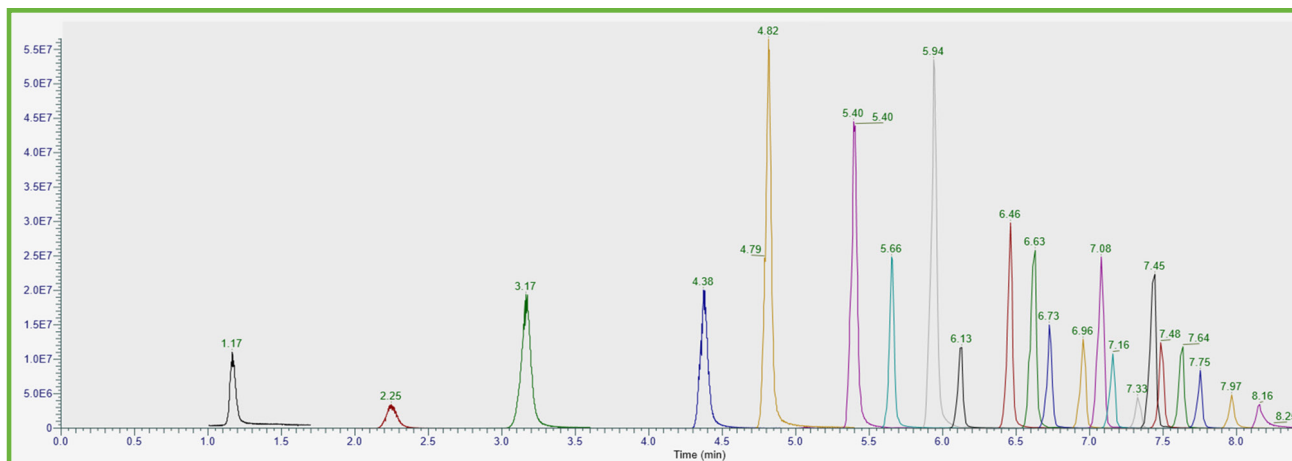




Short and Long Chain PFAS Analysis using HALO® PFAS PCS Phenyl-Hexyl Column

403



Peak	Acronym	Collision energy (eV)	RT (min)	m/z
1	TFA	15	1.17	113.2
2	PFMtS	47	2.25	148.95
3	PFPrA	14	3.17	163.3
4	PFEtS	48	4.38	199.25
5	PFBA	16	4.82	213.00
6	PFPrS	48	5.40	249.20
7	PFPeA	16	5.66	263.00
8	PFBS	48	5.94	299.00
9	PFHxA	24	6.13	313.00
10	PFHpA	18	6.46	363.00
11	PFHxS	46	6.63	399.00
12	PFOA	17	6.73	413.00
13	PFNA	21	6.96	463.00
14	PFOS	45	7.08	499.00
15	PFDA	17	7.16	513.00
16	PFUnA	18	7.33	563.00
17	PFDS	48	7.45	599.00
18	PFDoA	23	7.48	613.00
19	PFTriA	29	7.64	663.00
20	PFTreA	20	7.75	713.00
21	PFHxDA	19	7.97	813.00
22	PFODA	18	8.16	913.00

TEST CONDITIONS:

Column: HALO 90 Å PFAS PCS Phenyl-Hexyl, 2.7µm, 2.1x100mm

Part Number: 92882-619

Delay Column: HALO® PFAS Delay, 2.7µm, 3.0x50 mm

Part Number: 92113-415

Mobile Phase A: 5 mM Ammonium Formate, 0.05% Formic Acid

Mobile Phase B: Methanol

Gradient:	Time	%B
	0.0	2.0
	7.0	95.0
	9.0	95.0
	11.0	2.0
	15.0	2.0

Flow Rate: 0.4 mL/min.

Pressure: 452 bar

Temperature: 40 °C

Injection Volume: 2.0 µL

Sample Solvent: 98/2 Water/ MeOH

MS System: Thermo QE-HF

LC System: Shimadzu Nexera X2

Detector: MS (ESI-), MRM

Sheath Gas: 25

Aux Gas Flow: 10

Sweep Gas Flow: 1

Capillary Temp.: 325°C

A broad gradient (2–95% organic) was employed to ensure effective separation of both polar and non-polar PFAS compounds. The use of a HALO® PFAS PCS Phenyl-Hexyl column, in combination with a HALO® PFAS Delay Column, enabled robust retention and resolution of ultra-short to long-chain PFAS analytes. The PCS (Positively Charged Surface) ligand provides enhanced interaction with highly polar, short-chain PFAS—resulting in significantly improved retention compared to conventional C18 phases. This unique selectivity facilitates comprehensive PFAS profiling, including compounds that typically elute early or are poorly retained on traditional reversed-phase columns.

