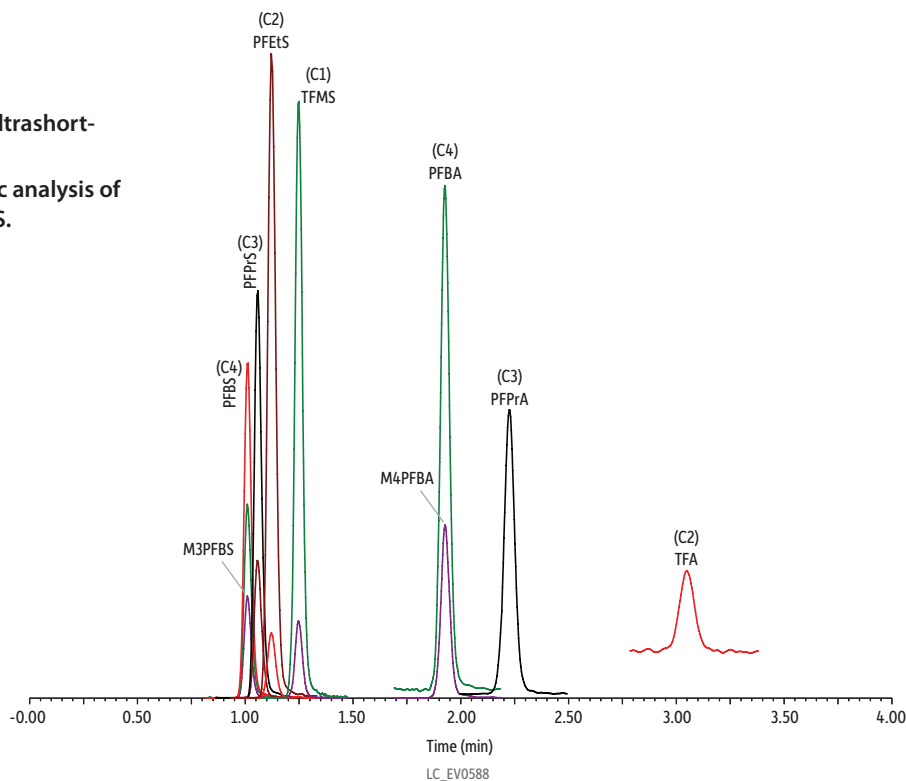


## Ultrashort-Chain and Short-Chain PFAS on Raptor Polar X

- Proper retention of ultrashort-chain PFAS.
- Fast chromatographic analysis of ultrashort-chain PFAS.



Peaks	Conc.			
	ta (min)	(ng/mL)	Precursor Ion	Product Ion
1. Perfluorobutanesulfonic acid (PFBS)	1.01	400	298.97	79.97
2. <sup>13</sup> C <sub>3</sub> -Perfluorobutanesulfonic acid (M3PFBS)	1.01	100	301.97	79.97
3. Perfluoropropanesulfonic acid (PFPrS)	1.06	400	248.97	79.91
4. Perfluoroethanesulfonic acid (PFETS)	1.12	400	198.90	79.92
5. Trifluoromethanesulfonic acid (TFMS)	1.25	400	148.97	79.93
6. Perfluorobutanoic acid (PFBA)	1.93	400	213.03	168.98
7. <sup>13</sup> C <sub>4</sub> -Perfluorobutanoic acid (M4PFBA)	1.93	100	217.03	171.98
8. Perfluoropropanoic acid (PFPrA)	2.23	400	162.97	119.02
9. Trifluoroacetic acid (TFA)	3.05	400	113.03	69.01

**Column** Raptor Polar X (cat.# 9311A52)  
**Dimensions:** 50 mm x 2.1 mm ID  
**Particle Size:** 2.7 µm  
**Pore Size:** 90 Å  
**Temp.:** 40 °C

**Standard/Sample**

**Diluent:** Reverse osmosis water  
**Conc.:** 100 - 400 ng/L (ppt)  
**Inj. Vol.:** 10 µL

**Mobile Phase**

**A:** Water, 10 mM ammonium formate, 0.1% formic acid  
**B:** 95:5 Acetonitrile:isopropanol, 0.1% formic acid

Time (min)	Flow (mL/min)	%A	%B
0.00	0.3	15	85
7.00	0.3	15	85

**Detector** Waters Xevo TQ-S

**Ion Mode:** ESI-

**Mode:** MRM

**Instrument** Waters ACQUITY UPLC I-Class

**Sample Preparation** The standard solution was prepared in reverse osmosis water at 400 ppt. An aliquot of 0.4 mL was transferred to a polypropylene HPLC vial and mixed with 4 µL of internal standard solution (10 ng/mL) containing M3PFBS and M4PFBA.