

IC Application Note No. S-264

Title: Inline eluent preparation for anion analysis

Summary: Long-term determination of standard anions with automatic inline eluent preparation applying Dosino and Level Control technology using anion chromatography with conductivity detection after sequential suppression.

Sample: Standard solution (0.25 mg/L each)

Sample Preparation: None

Column: 6.1006.520 Metrosep A Supp 5 – 150

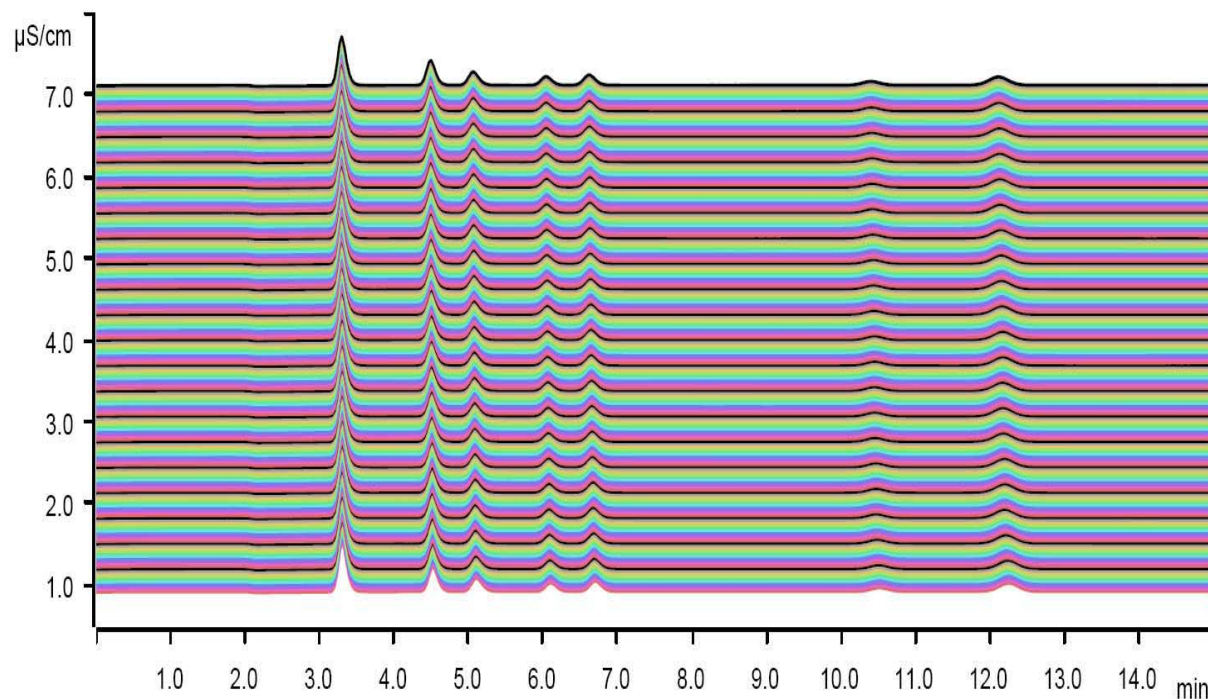
Eluent (concentrate): 3.2 mmol/L sodium carbonate (64.0 mmol/L)
1.0 mmol/L sodium hydrogen carbonate (20.0 mmol/L)

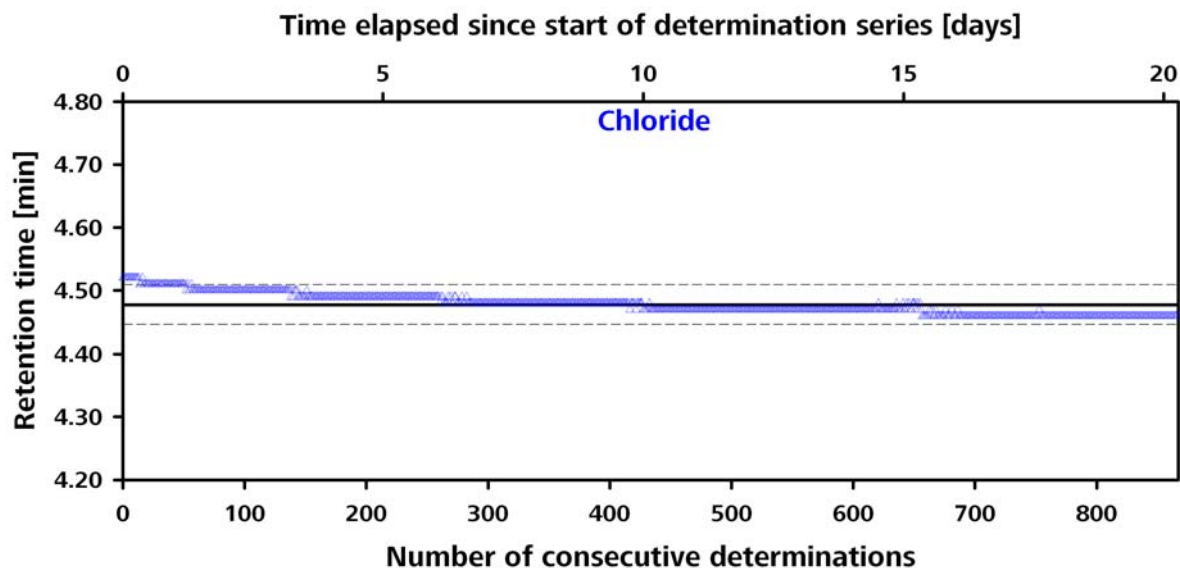
Suppressor: Sequential suppression (MSM: 50 mmol/L H₂SO₄)

Flow: 0.7 mL/min

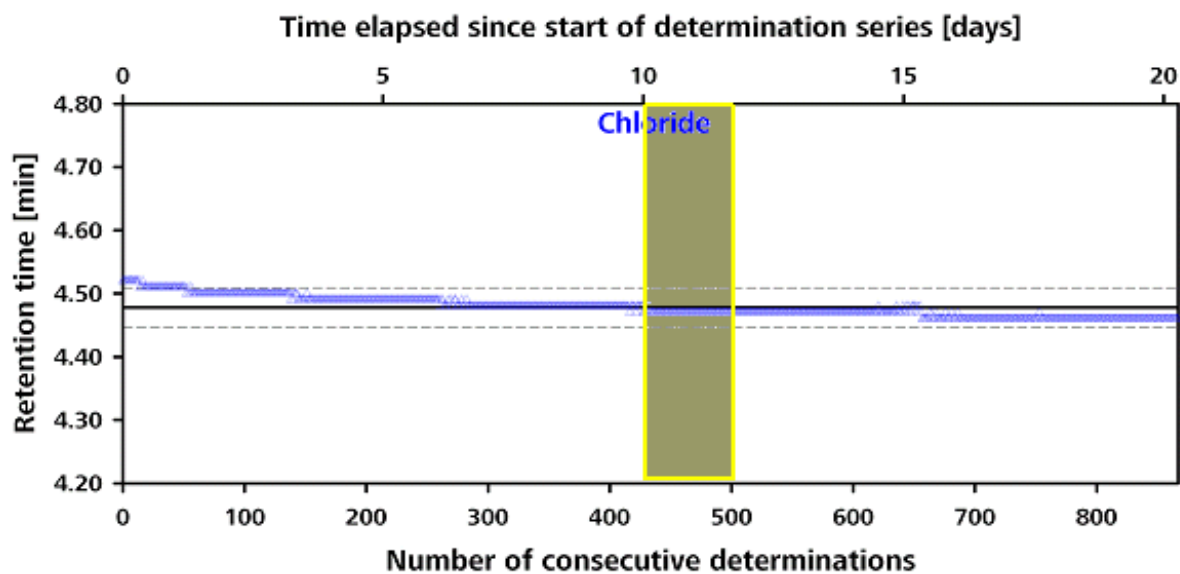
Injection Volume: 20 µL

Overlay of 200 subsequent injections





Results: (n = 887)	Fluoride	Chloride	Nitrite	Bromide	Nitrate	Phosphate	Sulfate
Retention time (RT)	3.20 min	4.48 min	5.05 min	6.02 min	6.59 min	10.38 min	12.08 min
Rel. std. dev.	0.16%	0.34%	0.41%	0.48%	0.55%	0.50%	0.51%



Results: (n = 40)	Fluoride	Chloride	Nitrite	Bromide	Nitrate	Phosphate	Sulfate
Mean RT	3.29 min	4.48 min	5.04 min	6.01 min	6.58 min	10.38 min	12.09 min
Δ RT	0.6	0.6	0.6	0.6	0.0	1.2	1.8
Rel. std. dev.	0.06%	0.06%	0.03%	0.03%	0.00%	0.07%	0.09%