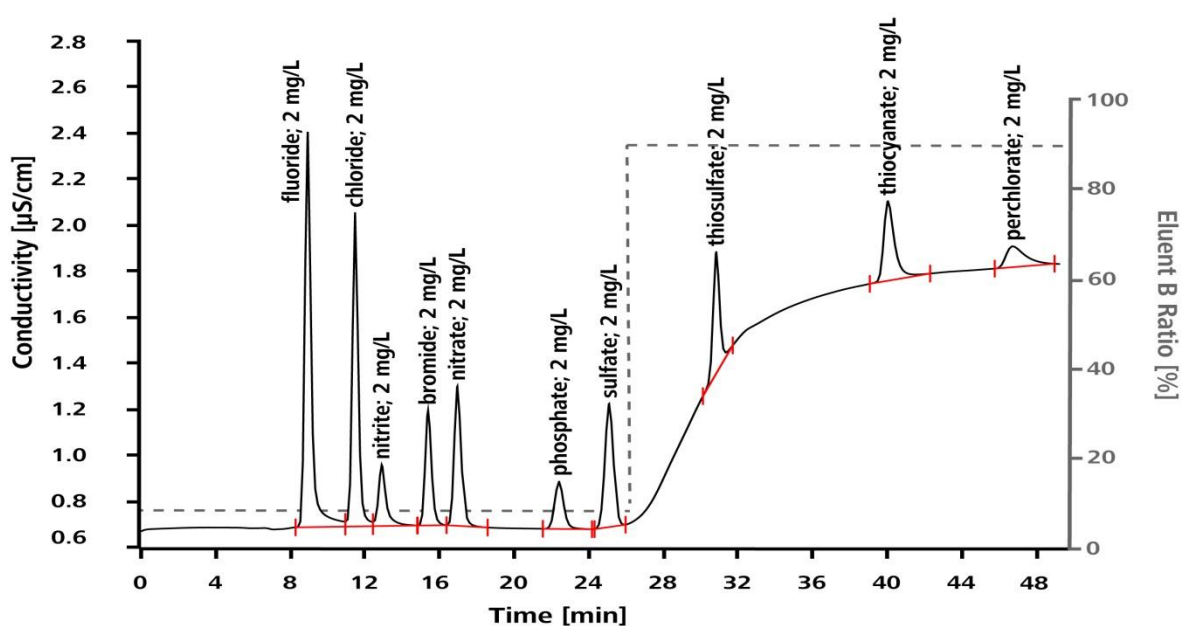


Thiosulfate, thiocyanate, and perchlorate besides standard anions applying a low-pressure gradient



Thiosulfate, thiocyanate, and perchlorate are strongly retained on the column Metrosep A Supp 5 - 250/2.0. To achieve acceptable analysis times for these three anions besides standard anions, a low-pressure gradient is applied.

Results

Anion	Concentration [mg/L]	Anion	Concentration [mg/L]
Fluoride	2.0	Phosphate	2.0
Chloride	2.0	Sulfate	2.0
Nitrite	2.0	Thiosulfate	2.0
Bromide	2.0	Thiocyanate	2.0
Nitrate	2.0	Perchlorate	2.0

Sample

Standard solution

Sample preparation

None

Columns

Metrosep A Supp 5 - 250/2.0	6.1006.230
Metrosep A Supp 5 Guard/2.0	6.1006.600

Solutions

Eluent A	2% acetone in ultrapure water
Eluent B	32 mmol/L sodium carbonate 10 mmol/L sodium hydrogen carbonate 20% acetone
Suppressor regenerant	100 mmol/L sulfuric acid
Rinsing solution	STREAM

Analysis

Conductivity detection after sequential suppression

Instrumentation

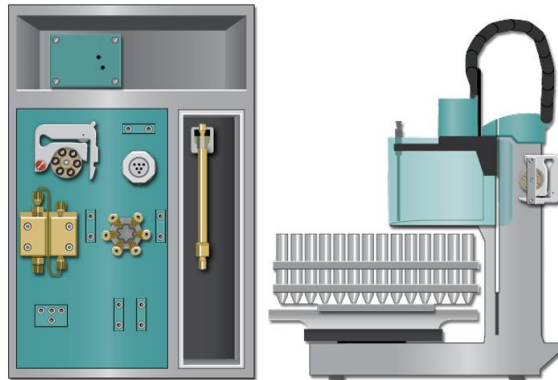
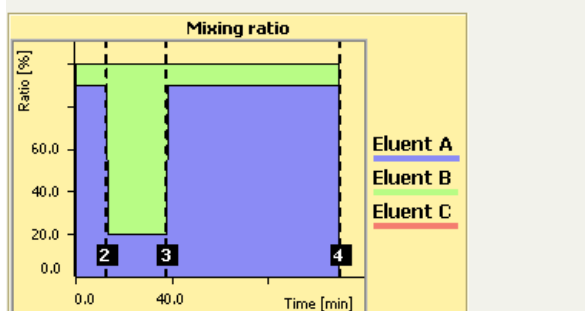
940 Professional IC Vario ONE/SeS/PP/LPG	2.940.1550
IC Conductivity Detector	2.850.9010
858 Professional Sample Processor	2.858.0020
MSM Rotor A	6.2832.000
Adapter sleeve for Suppressor Vario	6.2842.020

Parameters

Flow rate	0.18 mL/min
Injection volume	5 µL
P _{max}	20 MPa
Recording time	50 min
Column temperature	25 °C

Gradient

	Time [min]	Eluent A [%]	Eluent B [%]	Eluent C [%]	Curve	Flow
1	Start	90	10	0		0.18
2	13.0	20	80	0	Step	0.18
3	38.0	90	10	0	Step	0.18
▶ 4	110.0	90	10	0	Linear	0.18
5						



www.metrohm.com

 **Metrohm**