

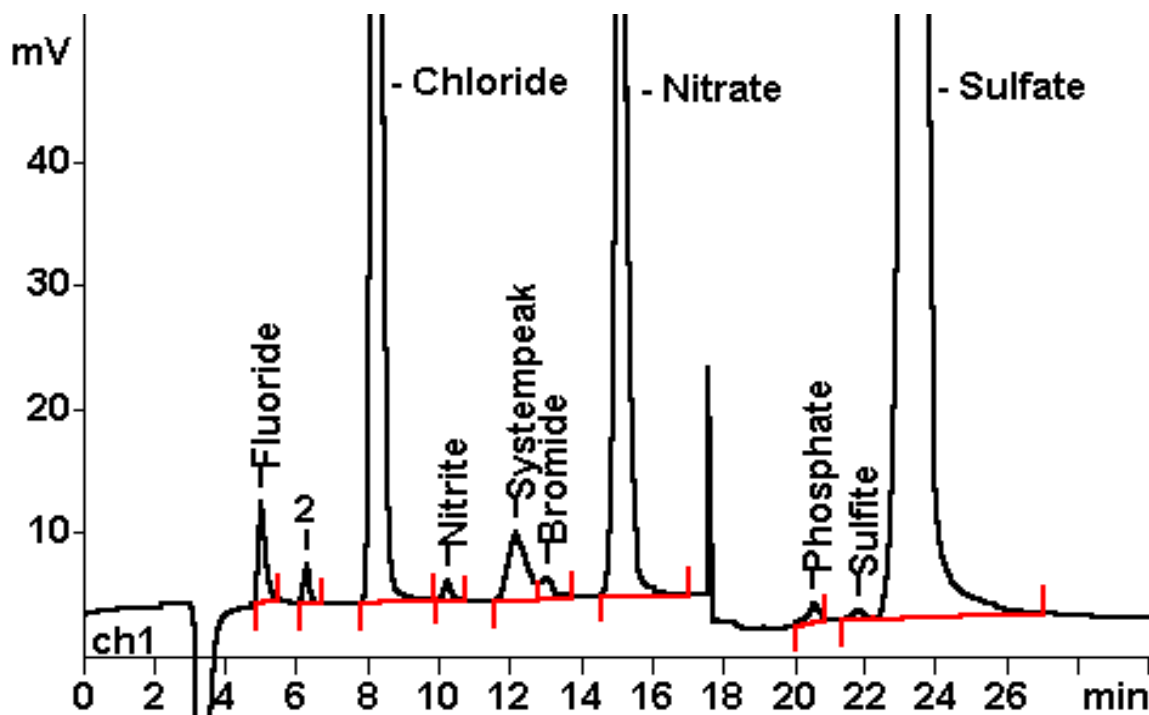
IC Application Note No. S-135

Title: Eight anions in river water

Summary: Determination of fluoride, chloride, nitrite, bromide, nitrate, phosphate, sulfite and sulfate in river water using anion chromatography with conductivity detection after chemical suppression.

Sample: River water
Sample Preparation: Filtration through 0.45 µm, addition of 2.0 % acetone and 0.5 % isopropanol (IPA) for sulfite stabilization

Column: 6.1006.530 Metrosep A SUPP 5-250
Eluent: 1.0 mmol/L sodium hydrogencarbonate, 3.2 mmol/L sodium carbonate, 2.0% acetone, 0.5% IPA
Suppressor: MSM (50 mmol/L H₂SO₄)
Flow: 0.6 mL/min
Injection Volume: 20 µL



Results:	Fluoride µg/L	Chloride mg/L	Nitrite µg/L	Bromide µg/L	Nitrate mg/L	Phosphate µg/L	Sulfite µg/L	Sulfate mg/L
	74.9	6.133	48.5	76.6	3.683	14.9	92.8	20.54

Full Scale: 0 – 17.5 min. 10 µS/cm / 1000 mV
 17.5 – 21 min. 1 µS/cm / 1000 mV
 21 – 28 min. 10 µS/cm / 1000 mV