

IC Application Note No. S-158

Title: Five anions besides 2 g/L nitrate in an ion exchanger eluate

Summary: Determination of traces of fluoride, acetate, formate, chloride and sulfate in an ion exchanger eluate containing 2 g/L nitrate using anion chromatography with a step gradient and conductivity detection after chemical suppression.

Sample: Ion exchanger eluate

Sample Preparation: –

Column: 6.1006.100 Metrosep Dual 2 (with 6.1011.020 RP Guard)

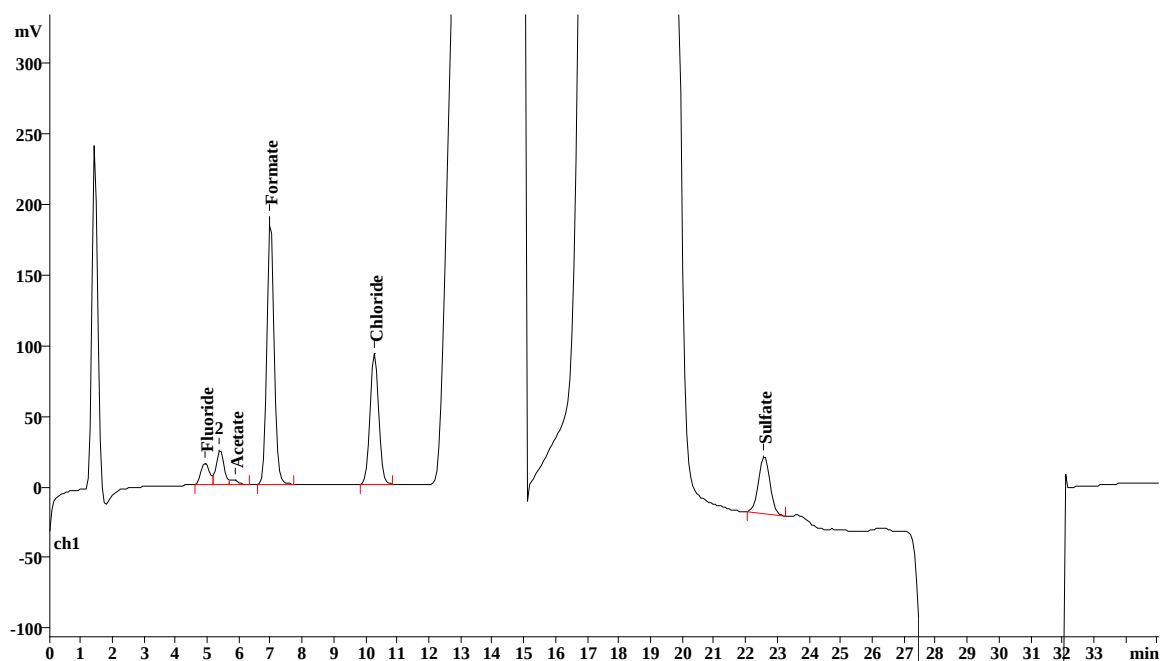
Eluent A: (0 ... 10 min.) 2.0 mmol/L sodium hydrogen carbonate
0.2 mmol/L sodium carbonate

Eluent B: (10 ... 24 min.) 5.0 mmol/L sodium hydrogen carbonate
1.5 mmol/L sodium carbonate

Suppressor: Metrohm Suppressor Module (MSM, 50 mmol/L H₂SO₄)

Flow: 0.8 mL/min

Injection Volume: 10 µL



Results:	Fluoride mg/L	Acetate mg/L	Formate mg/L	Chloride mg/L	Sulfate mg/L
	0.167	0.313	4.32	1.55	1.24