

IC Application Note No. S-24

Title: Fluoride, chloride and nitrate in acidic Ni / Zn-bath

Summary: Determination of fluoride, chloride and nitrate in a solution of NiSO₄, ZnSO₄ in sulfuric acid using anion chromatography with conductivity detection after chemical suppression.

Sample: 50 g/L Ni²⁺, 80 g/L Zn²⁺ as sulfates in 0.02 mol/l sulfuric acid

Sample Preparation: Dilution 1:400, cation exchange (Na⁺-loaded)

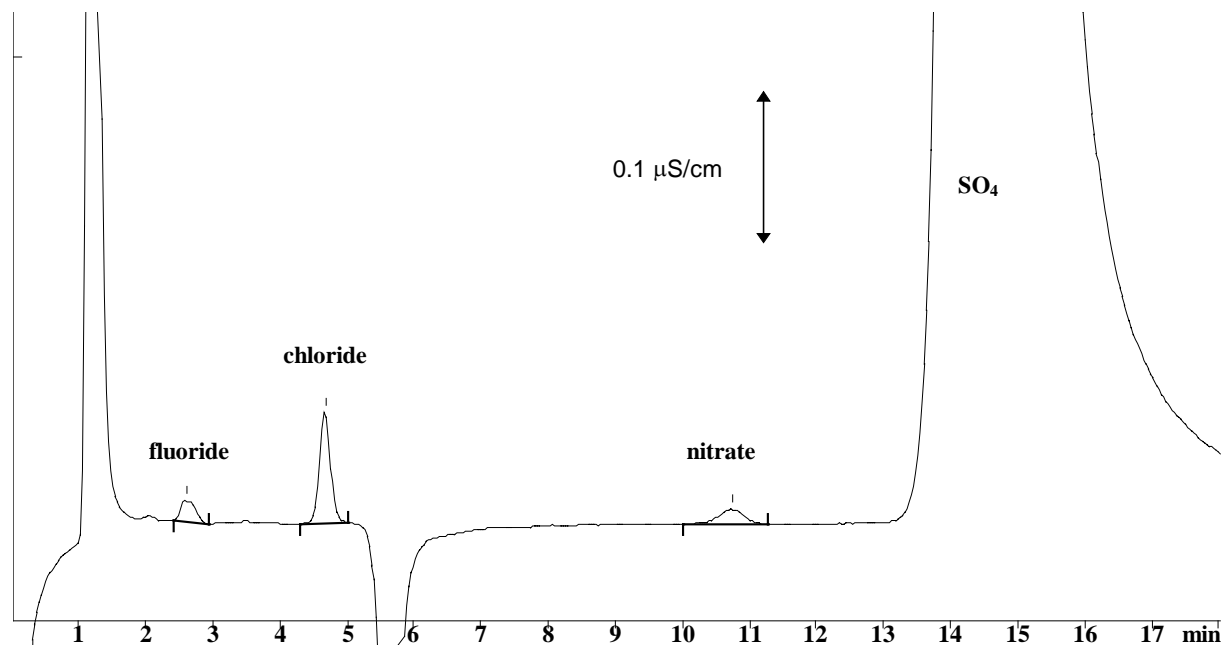
Column: 6.1006.100 Metrosep Anion Dual 2

Eluent: 2.0 mmol/L sodium hydrogencarbonate, 1.5 mmol/L sodium carbonate

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

Flow: 0.8 mL/min

Injection Volume: 20 µL



Results:	fluoride mg/L	chloride mg/L	nitrate mg/L
	9.6	38.1	21.6