

IC Application Note No. S-273

Title: Fluoride, chloride and nitrate in concentrated sulfuric acid

Summary: Determination of fluoride, chloride and nitrate in concentrated sulfuric acid (96...98%) using anion chromatography with conductivity detection after sequential suppression.

Sample: Sulfuric acid (96...98%)

Sample Preparation: Dilution 1:100 and neutralization with ultrapure NaOH

Column: 6.1031.430 Metrosep A Supp 16 – 250

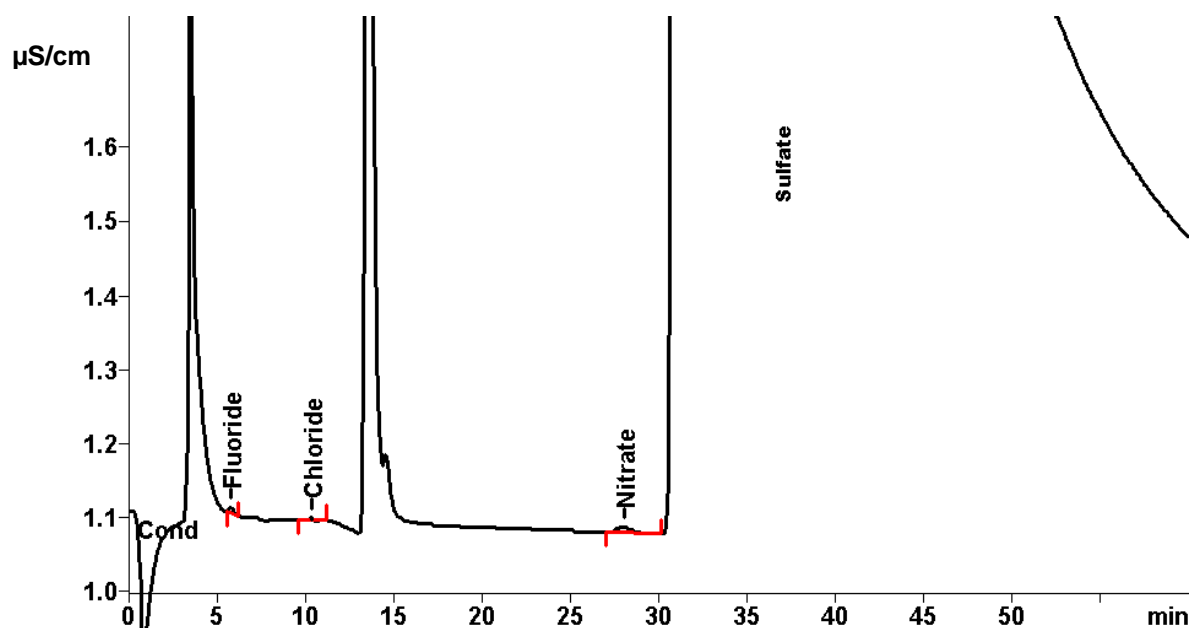
Temperature: 45 °C

Eluent: 5.5 mmol/L sodium carbonate
2.5 mmol/L sodium hydrogen carbonate

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

Flow: 0.8 mL/min

Injection Volume: 100 µL



Results:	Fluoride mg/L	Chloride mg/L	Nitrate mg/L	Sulfate
	< 5	<5	7.2	~ 98%