

IC Application Note No. S-276

Title: Halogens and sulfur in residual solvent applying Combustion IC

Summary: Determination of fluoride, chloride, bromide and sulfate in a residual solvent using anion chromatography with conductivity detection after sequential suppression.

Sample: Used methanol

Sample Preparation: Direct injection into the combustion unit followed by Inline Matrix elimination

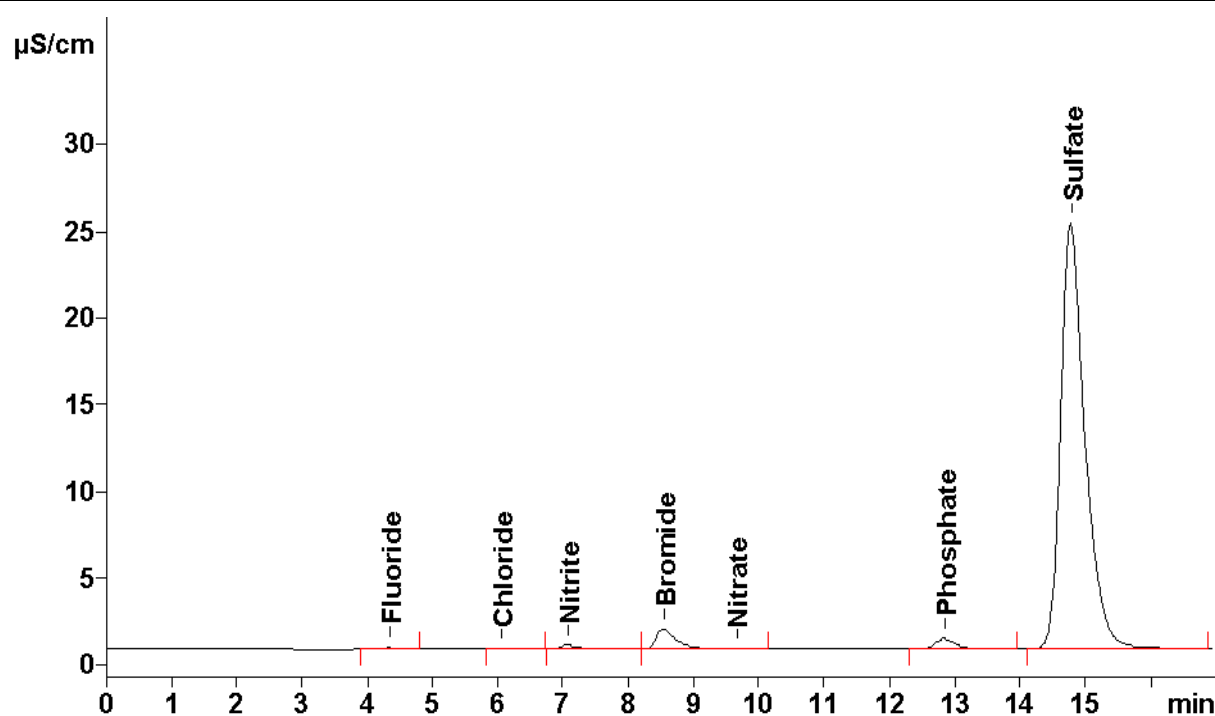
Column: 6.1006.520 Metrosep A Supp 5 – 150

Eluent: 3.2 mmol/L sodium carbonate
1.0 mmol/L sodium hydrogen carbonate

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

Flow: 0.7 mL/min

Injection Volume: 100 µL



| Results: | Fluoride mg/L | Chloride mg/L | Nitrite | Bromide mg/L | Nitrate | Phosphate mg/L | S (sulfate) mg/L |
|-----------------|------------------|------------------|---------|-----------------|---------|-------------------|---------------------|
| | 2.5 | 7.1 | n.q. | 147.0 | n.q. | 1.0 (IS) | 631.2 |