

IC Application Note No. S-265

Title: Semi-continuous determination of anions in aerosol applying PILS-IC

Summary: Determination of chloride, nitrite, nitrate and sulfate in an ambient aerosol (PM_{2.5}) applying aerosol sampling with the PILS (Particle Into Liquid Sampler) using anion chromatography with conductivity detection after sequential suppression.

Sample: Ambient air (sampling rate: 3 samples/h)

Sample Preparation: Sampling 1 m³/h ambient air and feeding the collected aerosols (PM_{2.5}) directly into the IC.

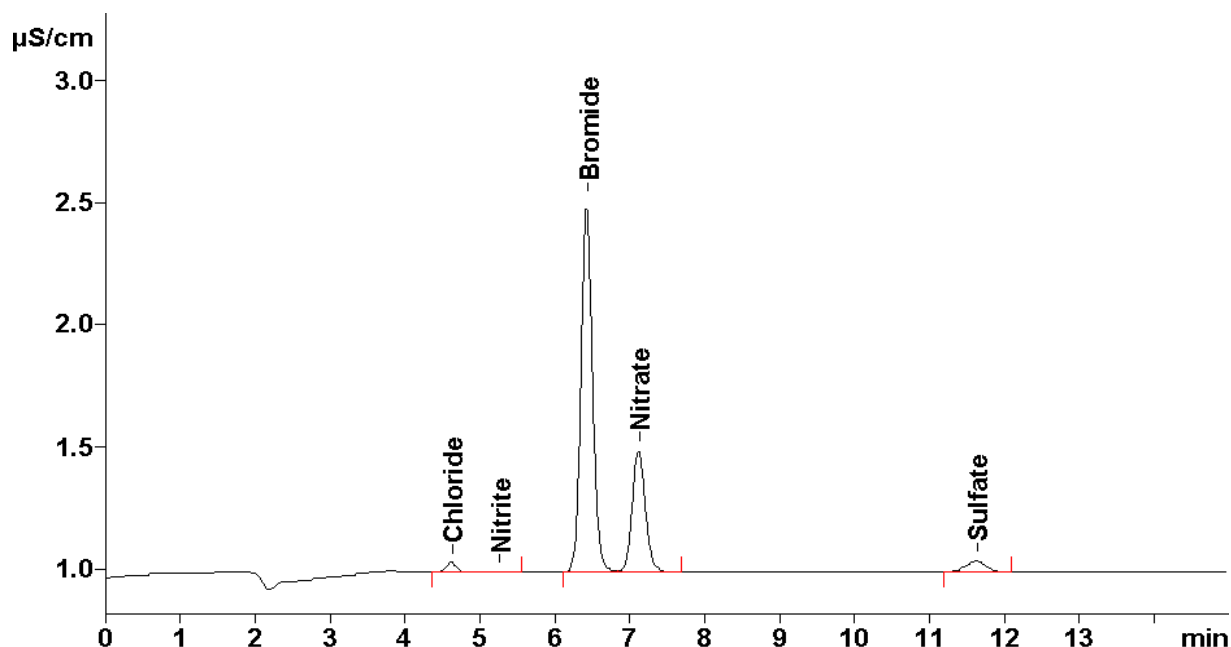
Column: 6.1006.510 Metrosep A Supp 5 – 100

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: 250 µL



Results:	Chloride µg/m ³	Nitrite µg/m ³	Bromide (internal standard) µg/L	Nitrate µg/m ³	Sulfate µg/m ³
	11.0	2.46	920	295.2	31.5