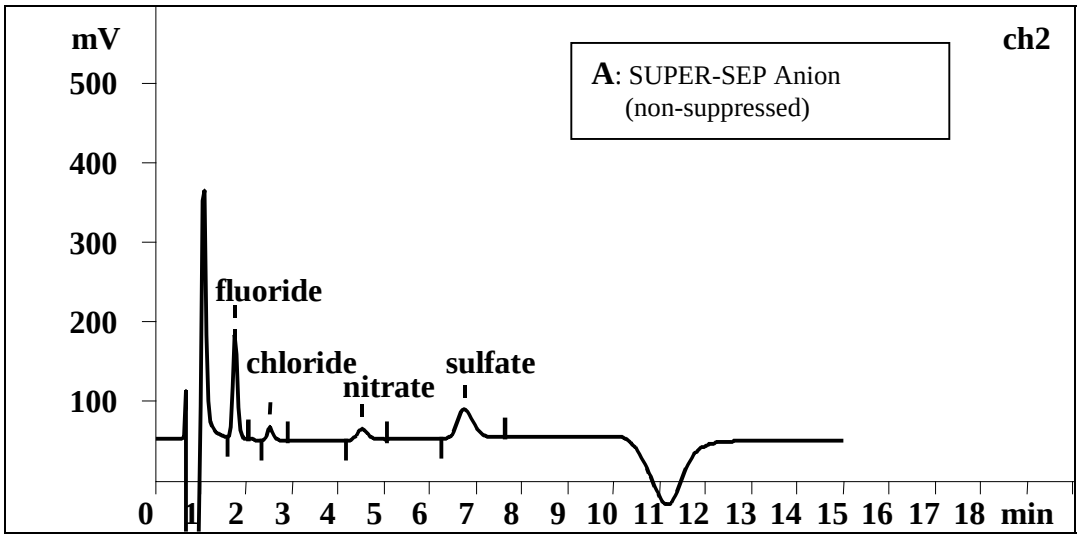
IC Application Note No. N-35

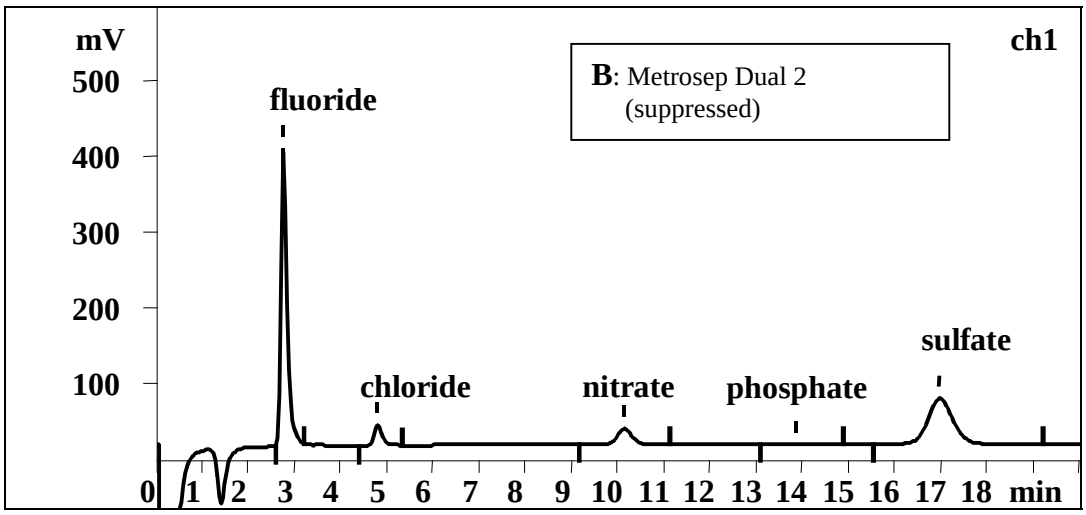
Title:	**Standard anions in galvanic sludge. Comparison of IC methods (N-35 = S-92)**

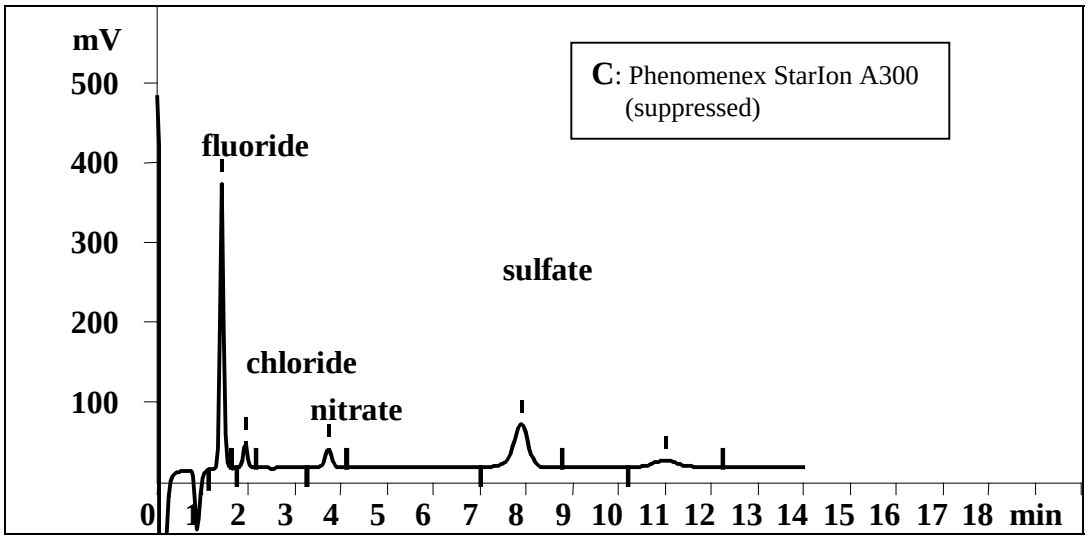
***Summary*:**	Determination of fluoride, chloride, nitrate, phosphate and sulfate in galvanic sludge using anion chromatography with suppressed and non-suppressed conductometric detection respectively.

Sample:	Solution of galvanic sludge
Sample Preparation:	Dilution 1 : 25, injection through H^+ cartridge

A:	
Column:	6.1009.000 SUPER-SEP Anion
Eluent:	2.0 mmol/L phthalic acid, 2% acetonitrile, pH = 4.0 (TRIS)
Flow:	1.5 mL/min
Injection Volume:	100 µL
B:	
Column:	6.1006.100 Metrosep Anion Dual 2
Eluent:	2.0 mmol/L sodium bicarbonate, 1.3 mmol/L sodium carbonate
Suppressor:	Metrohm Suppressor Module (MSM, 50 mmol/L H_2SO_4)
Flow:	0.8 mL/min
Injection Volume:	20 µL
C:	
Column:	6.1005.100 Phenomenex StarIon A300
Eluent:	1.7 mmol/L sodium bicarbonate, 1.8 mmol/L sodium carbonate
Suppressor:	Metrohm Suppressor Module (MSM, 50 mmol/L H_2SO_4)
Flow:	1.5 mL/min
Injection Volume:	20 µL
Full Scale: (A – C)	10 µS cm^{-1}/ 1V







Results:	Fluoride mg/L	Chloride mg/L	Nitrate mg/L	Phosphate *) mg/L	Sulfate mg/L
	59.7	**8.4**	**24.1**	**2.0**	**81.9**

*) Phosphate determined on Metrosep Anion Dual 2 only!