

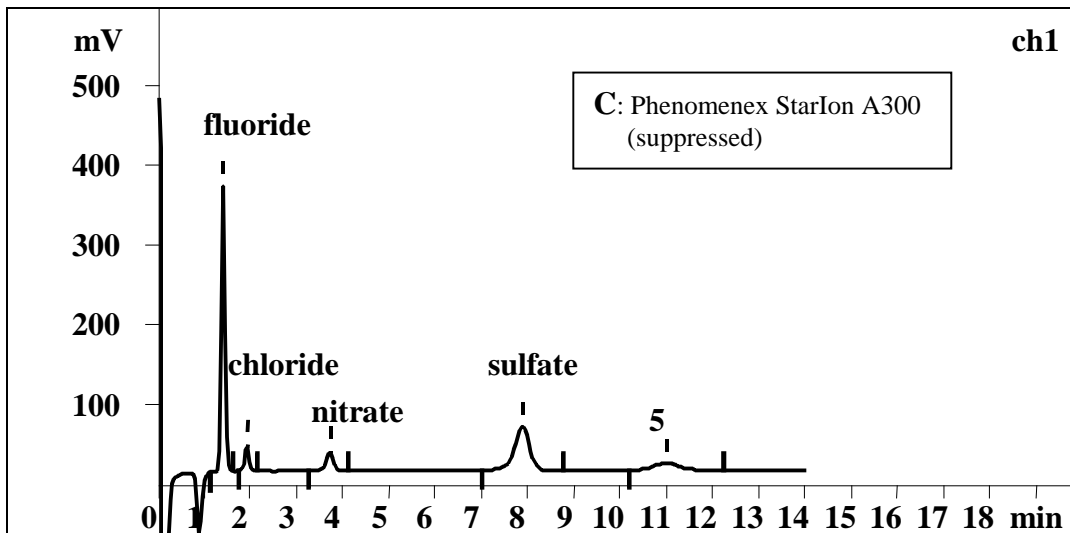
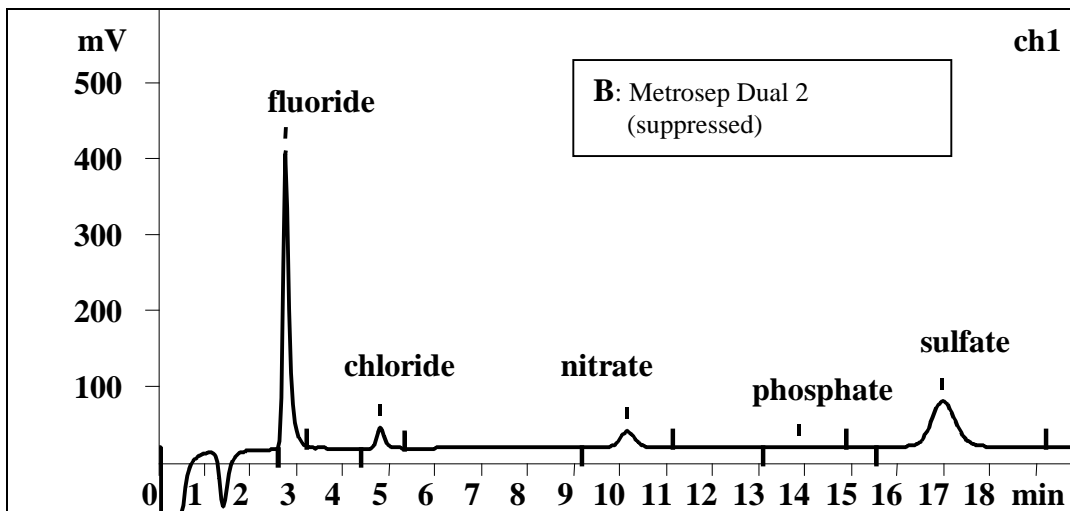
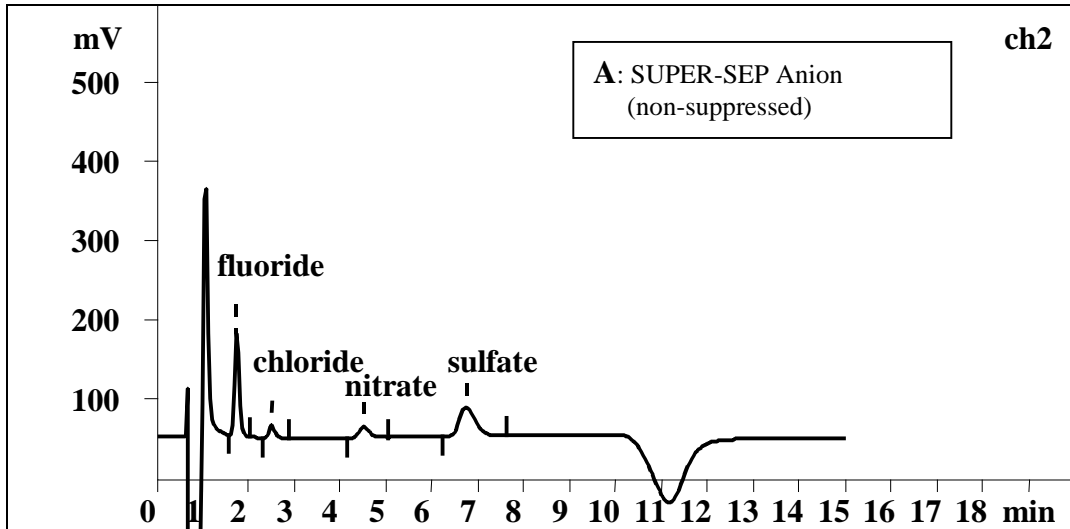
# IC Application Note No. S-92

<b>Title:</b>	<b>Determination of anions in galvanic sludge. Comparison of IC methods (S-92 = N-35)</b>
---------------	---

<b>Summary:</b>	Determination of fluoride, chloride, nitrate, phosphate and sulphate in galvanic sludge using anion chromatography with suppressed and non-suppressed conductometric detection respectively.
-----------------	--

<b>Sample:</b>	Solution of galvanic sludge
<b>Sample Preparation:</b>	Dilution 1 : 25, injection through H <sup>+</sup> cartridge

<b>A:</b>	
<b>Column:</b>	6.1009.000 SUPER-SEP Anion
<b>Eluent:</b>	2.0 mmol/L phthalic acid, 2% acetonitrile, pH = 4.0 (TRIS)
<b>Flow:</b>	1.5 mL/min
<b>Injection Volume:</b>	100 µL
<b>B:</b>	
<b>Column:</b>	6.1006.100 Metrosep Anion Dual 2
<b>Eluent:</b>	2.0 mmol/L sodium hydrogencarbonate, 1.3 mmol/L sodium carbonate
<b>Suppressor:</b>	Metrohm Suppressor Module (MSM, 50 mmol/L H <sub>2</sub> SO <sub>4</sub> )
<b>Flow:</b>	0.8 mL/min
<b>Injection Volume:</b>	20 µL
<b>C:</b>	
<b>Column:</b>	6.1005.100 Phenomenex Starlon A300
<b>Eluent:</b>	1.7 mmol/L sodium hydrogencarbonate, 1.8 mmol/L sodium carbonate
<b>Suppressor:</b>	Metrohm Suppressor Module (MSM, 50 mmol/L H <sub>2</sub> SO <sub>4</sub> )
<b>Flow:</b>	1.5 mL/min
<b>Injection Volume:</b>	20 µL
<b>Full Scale: (A – C)</b>	10 µS cm <sup>-1</sup> / 1V



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

<sup>\*)</sup> Phosphate determined on Metrosep Anion Dual 2 only!