

IC Application Note No. S-155

Title: Sulfite, oxalate and thiosulfate besides standard anions in process water of paper industry

Summary: Determination of chloride, bromide, nitrate, sulfite, sulfate, oxalate and thiosulfate in a process water of the paper industry using anion chromatography with conductivity detection after chemical suppression.

Sample: Process water

Sample preparation: Filtration through 0.45 µm (formaldehyde added for the stabilization of sulfite)

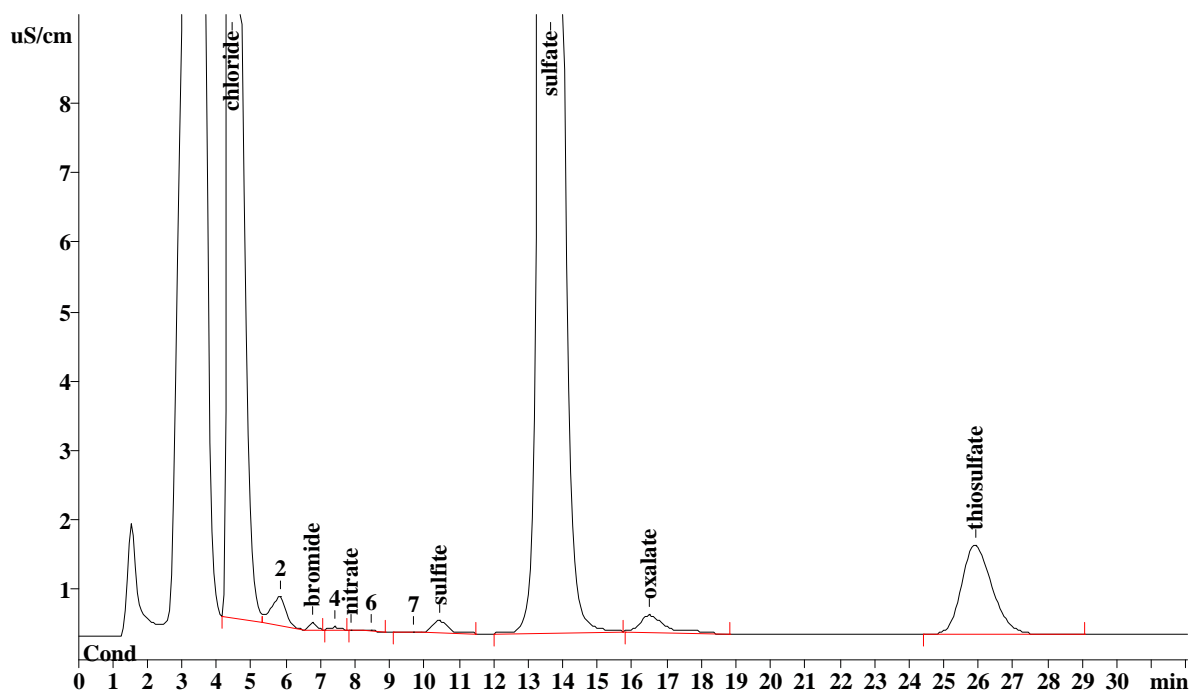
Column: 6.1006.100 Metrosep Dual 2 (with 6.1011.020 RP Guard)

Eluent A: 2.0 mmol/L sodium hydrogen carbonate, 1.8 mmol/L sodium carbonate, 15.0% acetone

Suppressor: Metrohm Suppressor Module (MSM, 50 mmol/L H₂SO₄)

Flow: 0.8 mL/min

Injection Volume: 20 µL



Results:	Chloride mg/L	Bromide mg/L	Nitrate mg/L	Sulfite mg/L	Sulfate mg/L	Oxalate mg/L	Thiosulfate mg/L
	38.8	0.34	n.q.	1.54	146	2.12	12.7