

# IC Application Note No. S-272

**Title:** Column-switching method for anions in water samples with two different analytical requirements

**Summary:** Determination of fluoride, chloride, nitrate, phosphate and sulfate on a short column or the ions mentioned plus bromate and nitrite on a long column in water samples applying intelligent column-switching using anion chromatography with conductivity detection after sequential suppression.

**Sample:** Water

**Sample Preparation:** Metrohm Inline Ultrafiltration

**Column A:** 6.1006.510 Metrosep A Supp 5 – 100

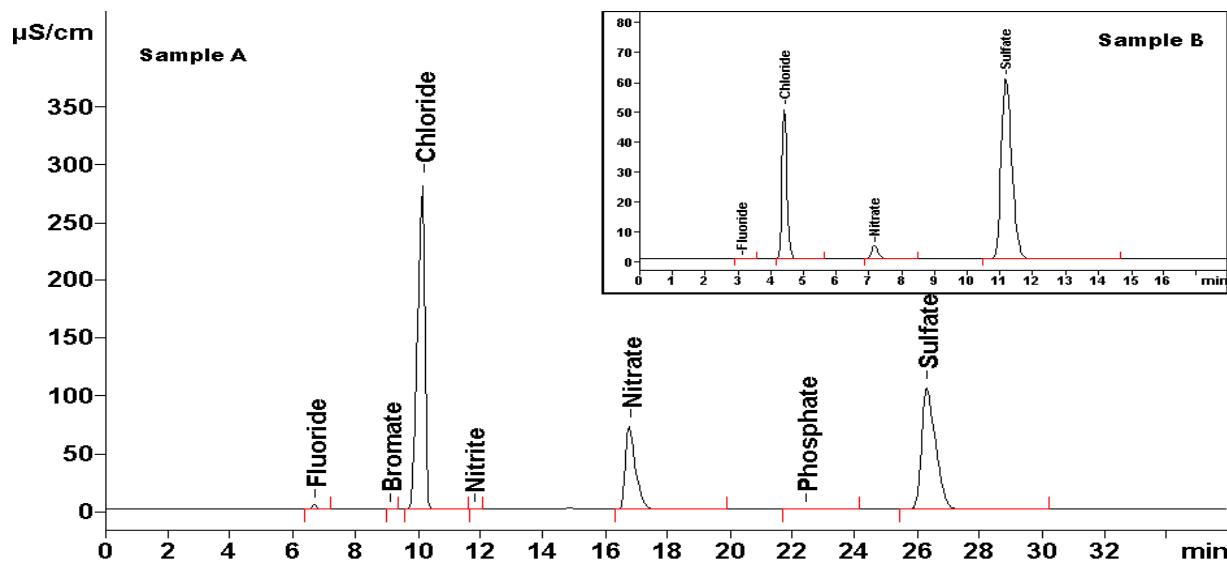
**Column B:** 6.1006.530 Metrosep A Supp 5 – 250

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

**Suppressor:** Sequential suppression (MSM: 50 mmol/L H<sub>2</sub>SO<sub>4</sub>)

**Flow:** 0.7 mL/min

**Injection Volume:** 20 µL



<b>Results:</b>	Fluoride	Bromate	Chloride	Nitrite	Nitrate	Phosphate	Sulfate
Sample A	0.07.		25.1		6.58		82.26
Sample B	1.41	n.d.	208.4	n.d.	135.6	1.43	187.1

Setup of the column switching valve:

