Application Note

Date: No. 110013I-E

Analysis of anions in tap water by ion chromatography with ion suppressor

Tap water anions were analyzed by suppressed ion chromatography equipped with an auto-suppressor unit. The chromatograms of a standard 7-anion solution (Fig. 1) and tap water (Fig. 2) are shown.
The chromatogram in Fig. 3 shows analysis of chloride and nitrous ions in the ratio 250:1.
In tap water, the presence of considerable chloride ions adjacent to the nitrous ion frequently impedes separation and quantification but this report good quantification was possible despite the large concentration difference.

Keywords : 1.anion, 2.STD mixture, tap water, 3.IF-4 24, 4.conductivity detector, 5.suppressed IC

Conditions:

Column:	Shodex IC IF-424 + IF-G
Eluent:	3mM Na_2CO_3
Flow rate:	1.0mL/min
Column temperature:	40 degree celsius
Detector:	Shodex CD-5
Suppresser unit:	Alltech ERIS™ 1000HP
Sample:	STD mixture (each 0.5mg/L) tap water
Injection volume:	50uL

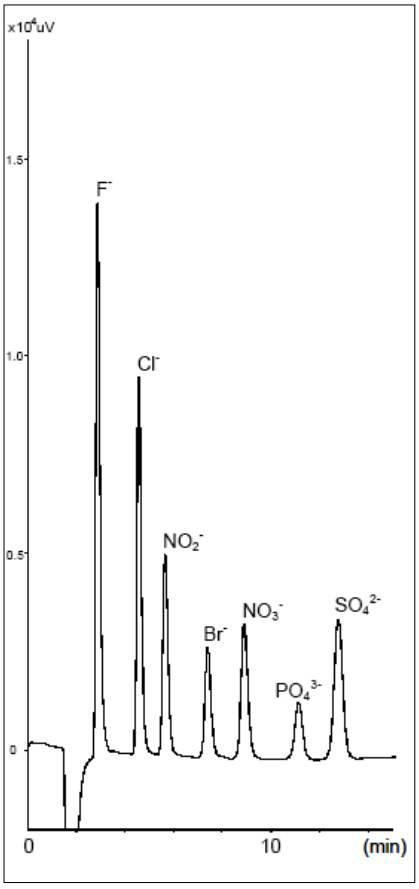

Fig. 1 standard solution mixture

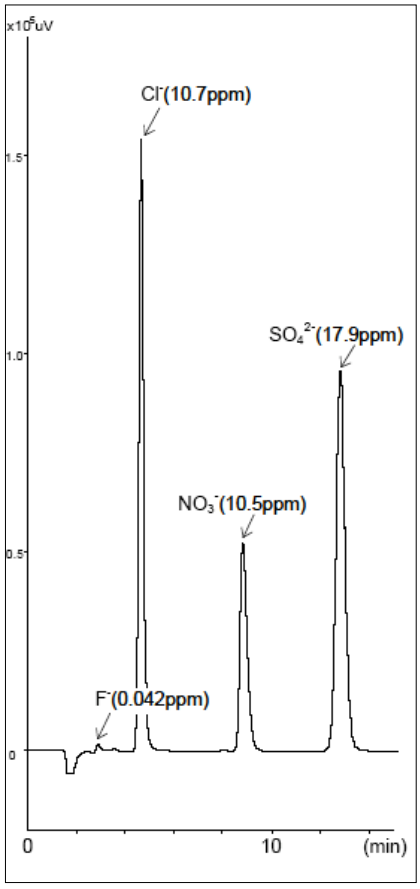

Fig. 2 tap water

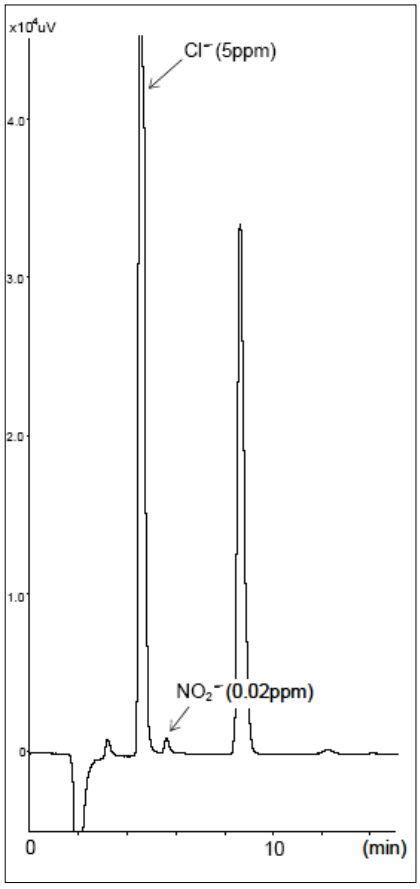

Fig. 3 chloride (5 ppm) and nitrous (0.02 ppm)

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