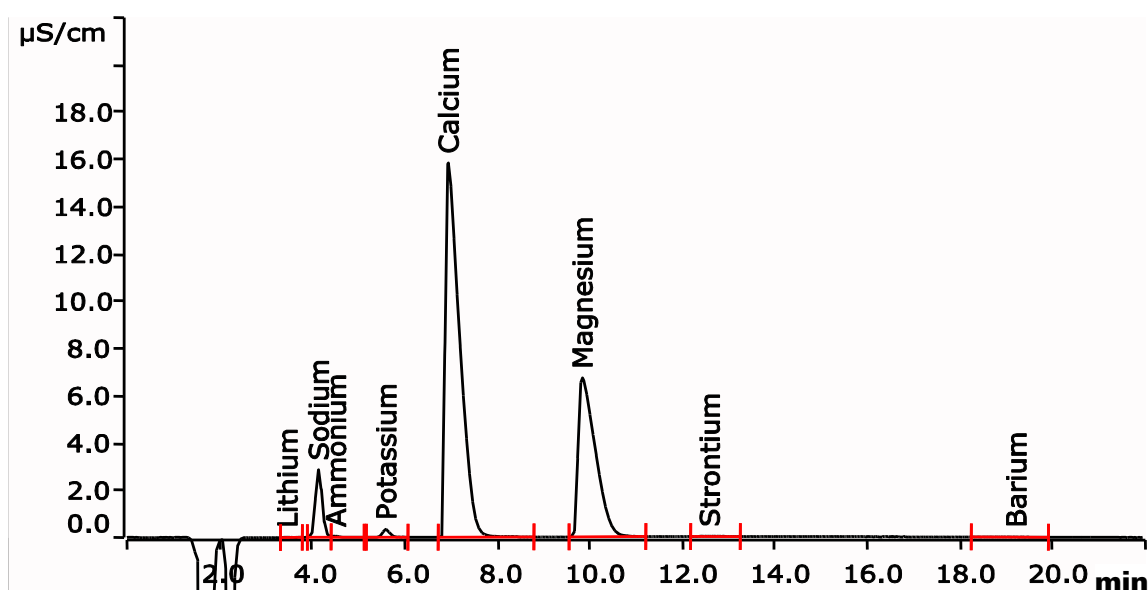


Cations in drinking water using Metrosep C 4 - 150/4.0 column according to ISO 14911



Drinking water analysis is strongly regulated by standards. In this Application Note, the cation determination according to ISO 14911 is shown. The Metrosep C 4 - 150/4.0 is the optimum separation column for this purpose.

Results

| Cation | [mg/L] | RSD (% , n = 3) |
|-----------|--------|-----------------|
| Lithium | < 0.01 | |
| Sodium | 5.33 | 0.5 |
| Ammonium | 0.07 | 3.1 |
| Potassium | 0.24 | 1.0 |
| Calcium | 85.30 | 0.5 |
| Magnesium | 18.52 | 0.6 |
| Strontium | 0.22 | 5.0 |
| Barium | < 0.10 | |

Method description

Sample

Drinking water

Sample preparation

Metrohm intelligent Partial Loop Technique (MIPT)

Column

| | |
|------------------------|------------|
| Metrosep C 4 - 150/4.0 | 6.1050.420 |
| Metrosep C 4 Guard/4.0 | 6.1050.500 |

Solutions

| | |
|--------|---|
| Eluent | 2.0 mmol/L nitric acid 2.0 mmol/L dipicolinic acid |
|--------|---|

Analysis

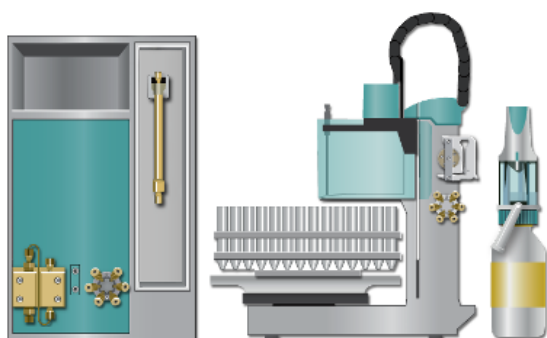
Non-suppressed conductivity

Parameters

| | |
|--------------------|------------|
| Flow rate | 0.9 mL/min |
| Injection volume | 10 μ L |
| P _{max} | 15.0 MPa |
| Recording time | 20 min |
| Column temperature | 30 °C |

Instrumentation

| | |
|-----------------------------------|------------|
| 881 Compact IC pro | 2.881.0010 |
| 858 Professional Sample Processor | 2.858.0010 |
| 800 Dosino | 2.800.0010 |



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