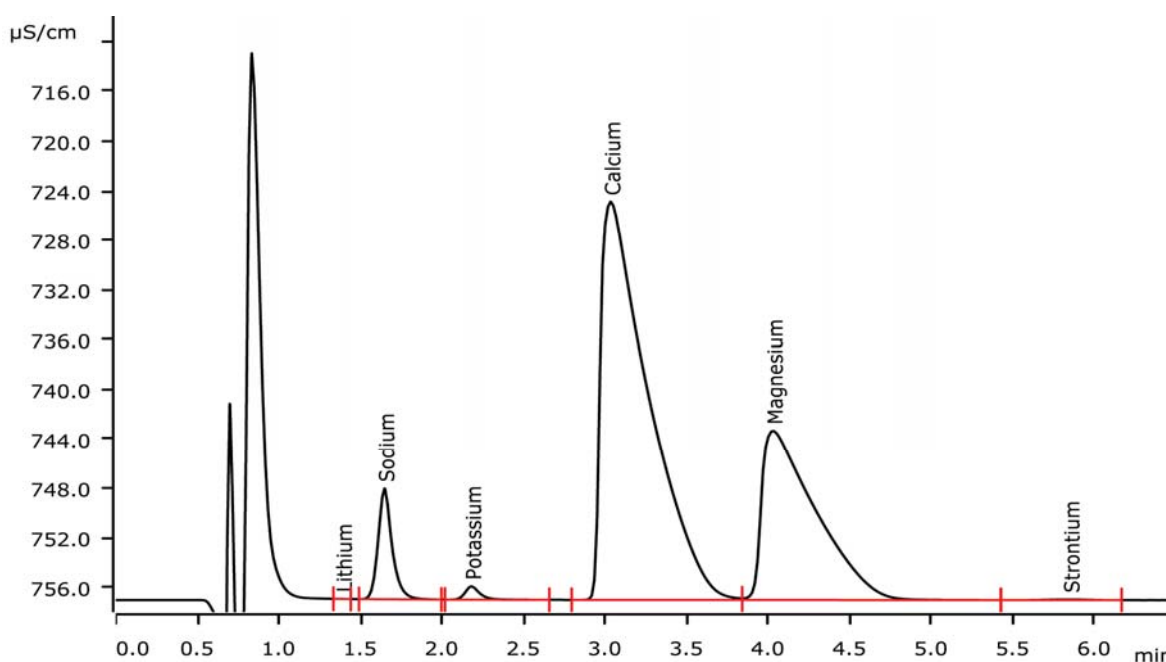


# Fast analysis of cations in tap water using Metrosep C 4 - 100/2.0



Reducing the analysis time is a demanding task because peak resolution is the limiting factor. With a microbore column of 100 mm length, standard cations in tap water can be analyzed within only 5 minutes. Strontium can also be determined by simply extending the run time to 6.5 min.

## Results

Cation	Conc. [mg/L]
Lithium	n.q.
Sodium	6.03
Potassium	1.69
Calcium	87.43
Magnesium	19.94
Strontium	n.q.

### Sample

Tap water

### Sample preparation

Direct injection

### Columns

Metrosep C 4 - 100/2.0	6.1050.210
Metrosep C 4 Guard/2.0	6.1050.600

### Solutions

Eluent	2.0 mmol/L nitric acid 1.2 mmol/L dipicolinic acid
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### Analysis

Direct conductivity detection

### Parameters

Flow rate	0.5 mL/min
Injection volume	10 $\mu$ L
P <sub>max</sub>	20 MPa
Recording time	6.5 min
Column temperature	30 °C

### Instrumentation

930 Compact IC Flex Oven/Deg	2.930.2160
IC Conductivity Detector	2.850.9010
858 Professional Sample Processor	2.858.0020

