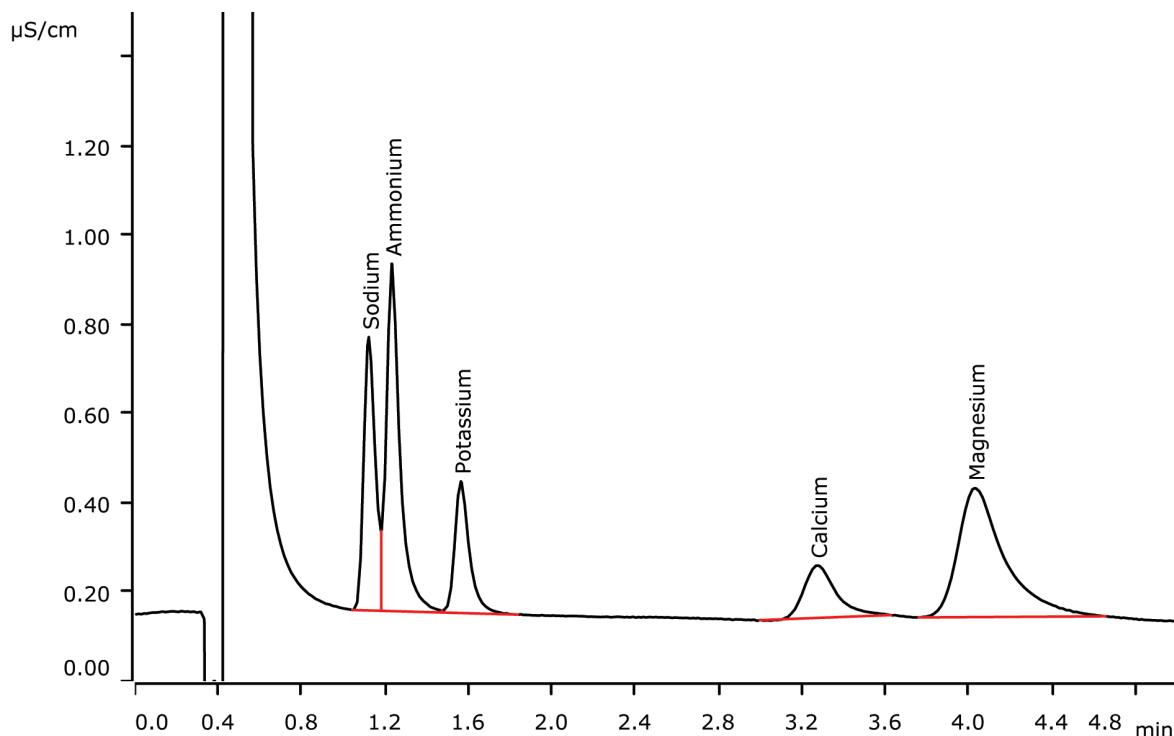


Fast IC: Separation of standard cations within five minutes



Fast IC means short runtimes on columns with high flow rates. Even faster than in AN-C-150 is the separation on Metosep C 4 - 150/2.0 at 1.1 mL/min. Here, the standard cations have been separated within five minutes. Under these conditions, baseline separation between sodium and ammonium is not fully achieved.

Results

| Cations | Concentration [mg/L] |
|-----------|----------------------|
| Sodium | 0.500 |
| Ammonium | 0.500 |
| Potassium | 0.500 |
| Calcium | 0.500 |
| Magnesium | 0.500 |

Sample

Standard solution

Sample preparation

None

Columns

| | |
|------------------------|------------|
| Metrosep C 4 - 150/2.0 | 6.1050.220 |
| Metrosep C 4 Guard/2.0 | 6.1050.600 |

Solutions

| | |
|---------------------------------------|---|
| Eluent (941 Eluent Production Module) | 1.7 mmol/L nitric acid 0.7 mmol/L dipicolinic acid |
|---------------------------------------|---|

Analysis

Direct conductivity detection

Instrumentation

| | |
|-----------------------------------|------------|
| 940 Professional IC Vario ONE | 2.940.1100 |
| IC Conductivity Detector | 2.850.9010 |
| 941 Eluent Production Module | 2.941.0010 |
| 800 Dosino | 2.800.0010 |
| 858 Professional Sample Processor | 2.858.0020 |

Parameters

| | |
|--------------------|------------|
| Flow rate | 1.1 mL/min |
| Injection volume | 5 µL |
| P _{max} | 25 MPa |
| Recording time | 5 min |
| Column temperature | 25 °C |

