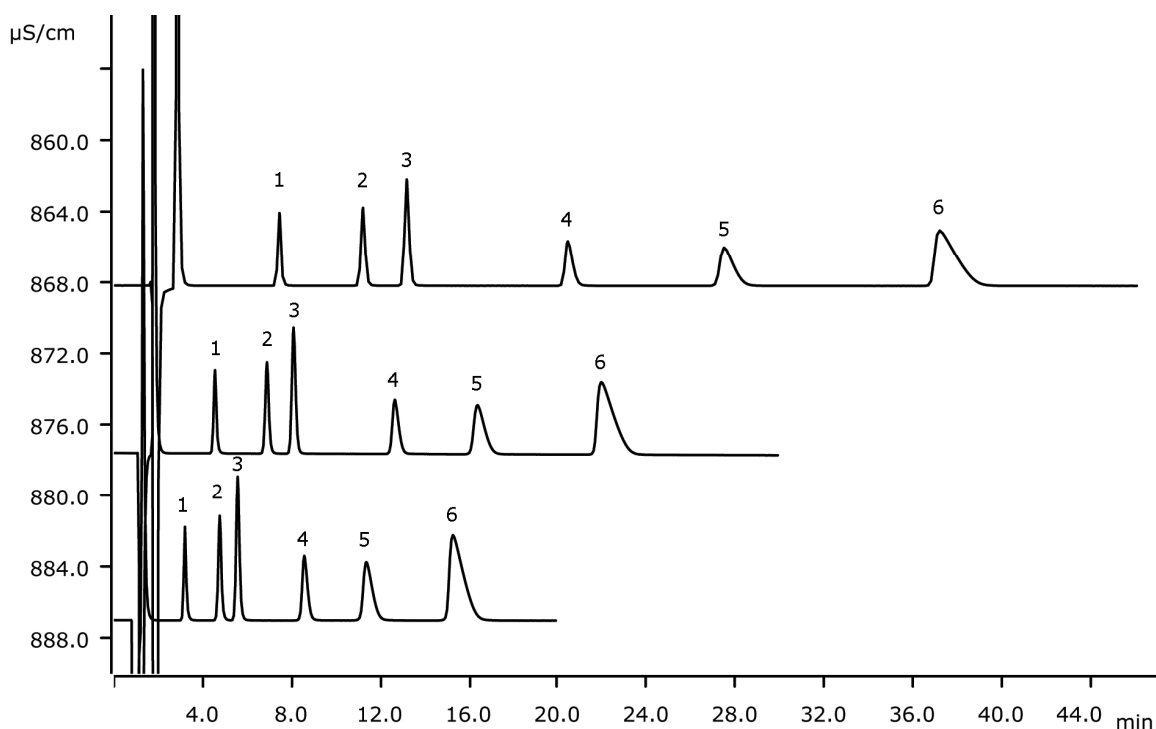


Separation of standard cations on high-capacity Metrosep C 6 columns



The Metrosep C 6 columns show a higher capacity than the standard Metrosep C 4 columns. This Application Note demonstrates the very good separation power for the standard cations on all three available Metrosep C 6 column lengths. What is particularly outstanding is the excellent sodium/ammonium separation.

Results

Cation	Concentration [mg/L]	Cation	Concentration [mg/L]
1 Lithium	1.0	4 Potassium	10.0
2 Sodium	5.0	5 Calcium	10.0
3 Ammonium	5.0	6 Magnesium	10.0

Sample

Standard solution

Sample preparation

None

Columns

Metrosep C 6 - 100/4.0	6.1051.410
Metrosep C 6 - 150/4.0	6.1051.420
Metrosep C 6 - 250/4.0	6.1051.430
Metrosep C 6 Guard/4.0	6.1051.500

Solutions

<u>Eluent</u>	1.7 mmol/L nitric acid 1.7 mmol/L dipicolinic acid
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Analyses

Direct conductivity detection

Instrumentation

930 Compact IC Flex Oven	2.930.2100
IC Conductivity Detector	2.850.9010

Parameters

Flow rate	0.9 mL/min
Injection volume	20 µL
P _{max}	20 MPa
Recording time	20, 30, 45 min
Column temperature	40 °C

