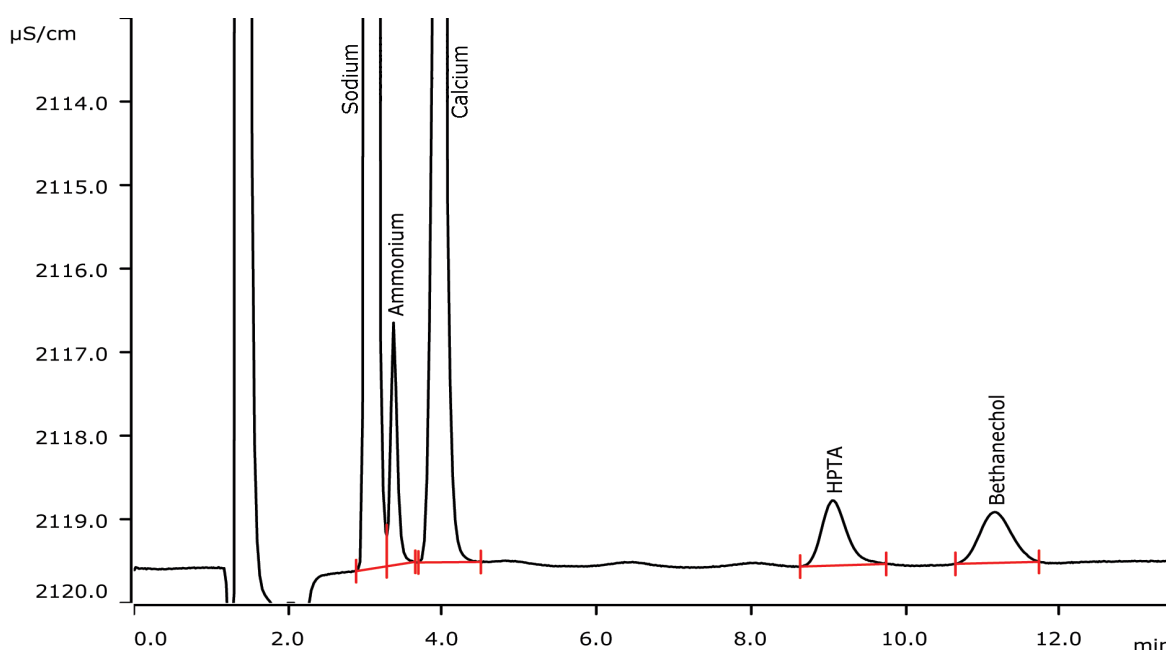


Bethanechol and HPTA (2-hydroxy-propyl-trimethyl ammonium) besides sodium and calcium (Metrosep C 6 - 250/4.0)



Bethanechol is a pharmaceutical compound which is used to treat urinary retention. This API (active pharmaceutical ingredient) can be determined by cation chromatography with direct conductivity detection. Bethanechol is well separated from its degradation product 2-hydroxypropyltrimethyl ammonium (HPTA) and the standard cations. Peak shape and resolution fit the USP requirements for bethanechol.

Results

	Conc. [mg/L]
Sodium, calcium	10.0
Ammonium	n.q.
HPTA	10.0
Bethanechol	10.0

Sample

Standard solution

Sample preparation

Injection applying Metrohm intelligent Partial Loop Injection Technique

Columns

Metrosep C 6 - 250/4.0	6.1051.430
Metrosep C 4 Guard/4.0	6.1050.500

Solutions

Eluent	7.0 mmol/L nitric acid 10% acetone
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Analysis

Direct conductivity detection

Parameters

Flow rate	0.9 mL/min
Injection volume	25 μ L (MiPT)
P _{max}	20 MPa
Recording time	13.5 min
Column temperature	30 °C

Instrumentation

940 Professional IC Vario ONE	2.940.1100
IC Conductivity Detector	2.850.9010
858 Professional Sample Processor	2.858.0010
800 Dosino	2.800.0010
IC equipment: MiPT	6.5330.180

