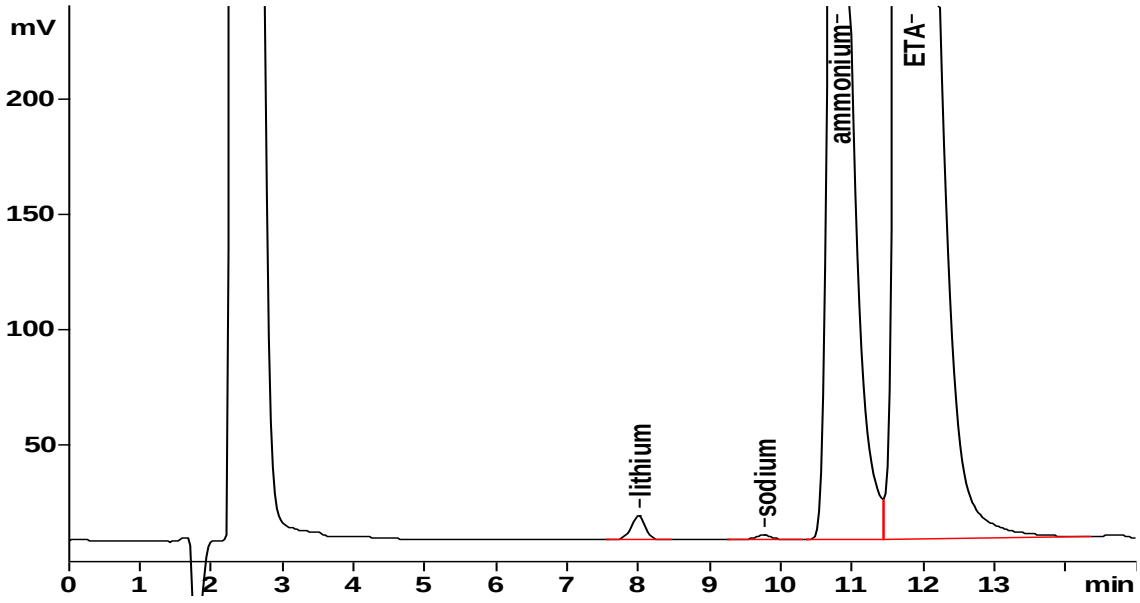
IC Application Note No. C-96

Title:	**Trace analysis of monovalent cations in ethanolamine matrix (secondary circuit of a pressurized water reactor) applying Metrohm Inline Sample Preparation with an 800 Dosino for liquid handling**

***Summary*:**	Determination of traces of lithium, sodium and ammonium in ethanolamine containing water using cation chromatography with direct conductivity detection.

Sample:	Artificial secondary circuit water from pressurized water reactor (PWR)
Sample Preparation:	Metrohm Inline Preconcentration

Column:	6.1010.230 Metrosep C 2 – 250 6.1010.310 Metrosep PCC 1 HC (preconcentration)
Eluent:	4.0 mmol/L tartaric acid 0.1 mmol/L dipicolinic acid
Flow:	1.0 mL/min
Injection Volume:	5 mL preconcentrated



Results:	Lithium	Sodium	Ammonium	Ethanolamine
Conc. [µg/L]	**0.8**	**0.8**	**200**	**2000**
RSD (n = 6) [%]	**0.6%**	**1.5%**	**0.4%**	**0.2%**

Setup of the Metrohm Inline Calibration and Preconcentration with the 800 Dosino

Overlay of the Inline Calibration chromatograms