

Metrohm Column and their Applications



Ultratrace level cation analysis in power plant water

The monitoring of sodium ions indicates leakages in the condenser where sodium-enriched cooling water infiltrates the high-purity process water. IC with suppression is the method of choice for trace sodium determination beside other cations. **The Metrosep C Supp 2 column is ideally suited for cation chromatography at ultratrace levels of sodium and further cations, transition metals, and amines.** The column excels by its excellent separating efficiency, short retention times, and high stability helping utility operators of power plants to avoid downtime, repair, and loss of revenue.



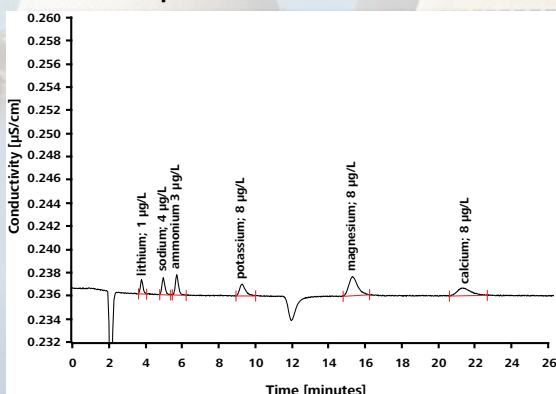
Metrosep C Supp 2

Metrosep C Supp 2 – Excellent sodium-ammonium separation at ultratrace levels

The Metrosep C Supp 2 column is the preferred column for the separation and determination of monovalent and divalent cations with an excellent sodium-ammonium separation. The Metrosep C Supp 2 separation material is based on a polystyrene-divinylbenzene copolymer with

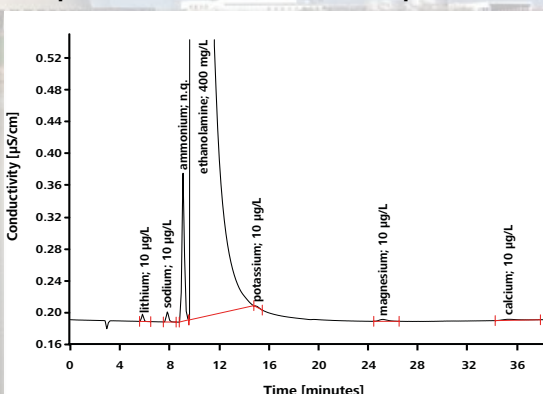
carboxyl groups with high pH stability withstanding typical power plant matrices. The column is used with sequential suppression. It is particularly suitable for the determination of concentrations in the middle $\mu\text{g/L}$ range and below.

Standard sample without matrix



Metrosep C Supp 2 - 150/4.0: 5.0 mmol/L HNO_3 ; 50 $\mu\text{g/L}$ Rb^+ , column temperature 40 °C, sample volume 20 μL , flow 1.0 mL/min, sequential suppression with MSM-HC rotor C, conductivity detector.

Sample with ethanolamine used as pH modifier



Metrosep C Supp 2 - 250/4.0: 5.0 mmol/L HNO_3 ; 50 $\mu\text{g/L}$ Rb^+ , column temperature 40 °C, sample volume 20 μL , flow 1.0 mL/min, sequential suppression with MSM-HC rotor C, conductivity detector.

The Metrosep C Supp 2 column ...

- is ideally suited for the analysis of amines, cations, and transition metals in one single analysis.
- provides for an excellent separation of sodium and ammonium.
- makes gradient applications possible.

Did you know? Metrohm columns ...

- record the number of injections and working hours of each column.
- offer a wide choice of different lengths and capacities, depending on your application.
- can be used with instruments of third-party manufacturers as well.
- offer robust Swiss Quality for a long column life.
- can be used with organic modifiers such as e.g. aceton, and acetonitrile.

Ordering Information

[6.01053.410 Metrosep C Supp 2 - 100/4.0](#)

[6.01053.420 Metrosep C Supp 2 - 150/4.0](#)

[6.01053.430 Metrosep C Supp 2 - 250/4.0](#)

www.metrohm.com

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