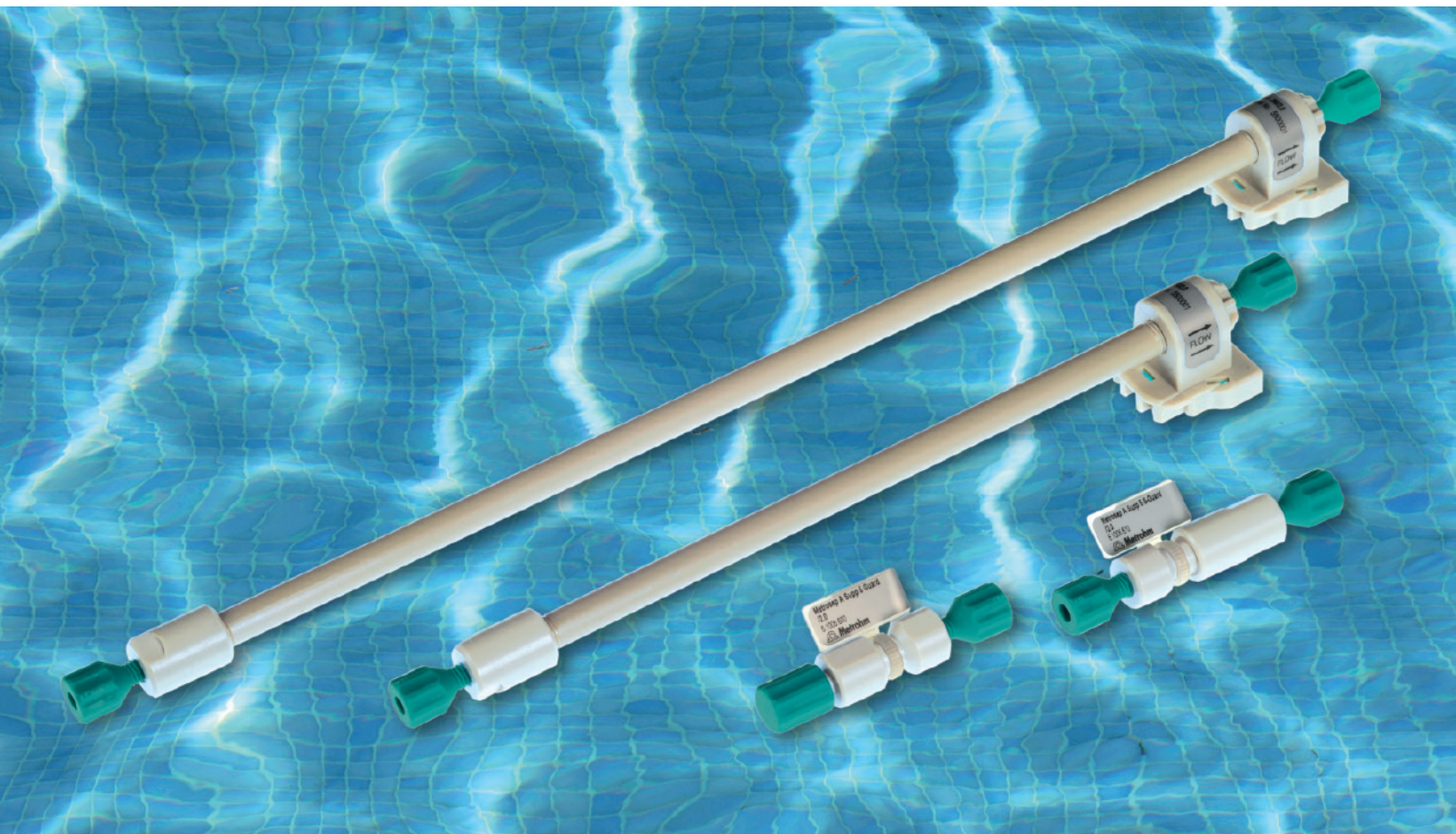# Metrosep A Supp 5 - Microbore

2 mm anion column for ion chromatography

Ω Metrohm

Anion analysis with the new Metrosep A Supp 5 - Microbore

Metrohm is continually expanding its own range of columns and is improving existing separation column types using state-of-the-art manufacturing processes and materials. The result is columns with outstanding separation performance, short retention times, high stability and lower costs per injection.

The high-efficiency anion separation column Metrosep A Supp 5 is offered as a 2 mm iColumn. The «i» stands for «intelligent»: A single chip stores not only the serial number of the column, but all of the functional parameters (e.g., maximum permissible pressure and maximum permissible flow). In addition, data such as working hours and the number of determinations are recorded automatically and provided to the IC System for monitoring the proper function of the individual system components.

The anion separation column is available in two lengths (150 and 250 mm), each with a 2.0 mm inner diameter. It is ideally suited for the separation of standard ions with an economical eluent flow.
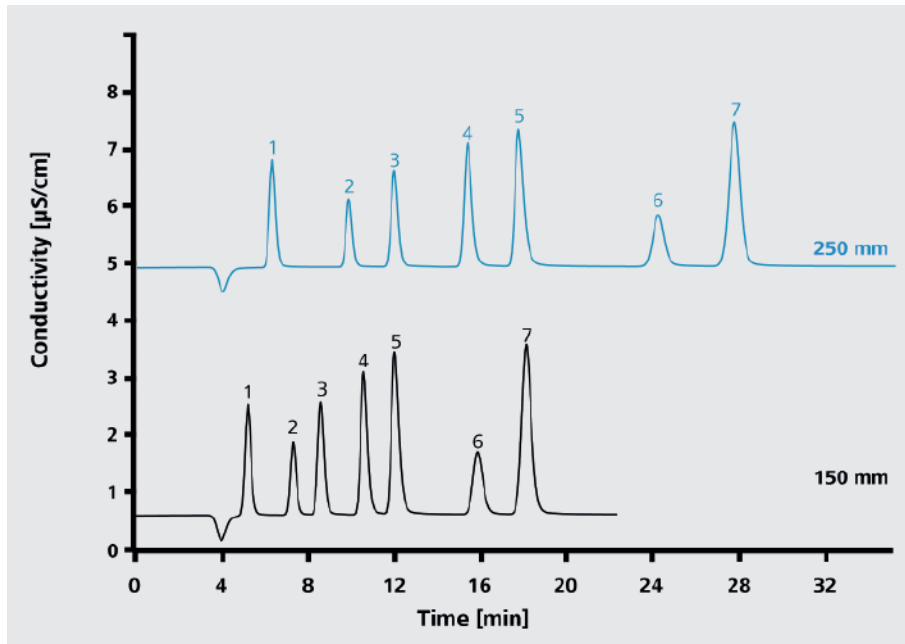

1	2 mg/L fluoride
2	3 mg/L chloride
3	5 mg/L nitrite
4	10 mg/L bromide
5	10 mg/L nitrate
6	10 mg/L phosphate
7	10 mg/L sulfate

Effect of column length on resolution and the analysis times under standard conditions using conductivity detection and chemical suppression: Eluent: 3.2 mmol/L sodium carbonate, 1.0 mmol/L sodium hydrogen carbonate; column temperature: 30 °C; sample volume: 10 µL; flow rate: 0.18 mL/min

Applications

The Metrosep A Supp 5 is ideally suited for routine analysis of the seven standard anions and monovalent and divalent carboxylic acids. Applications can be found in all industries: for water and environmental analysis, in the pharmaceuticals and food industries, in forensic analysis, for quality control and, last but not least, in process analysis.
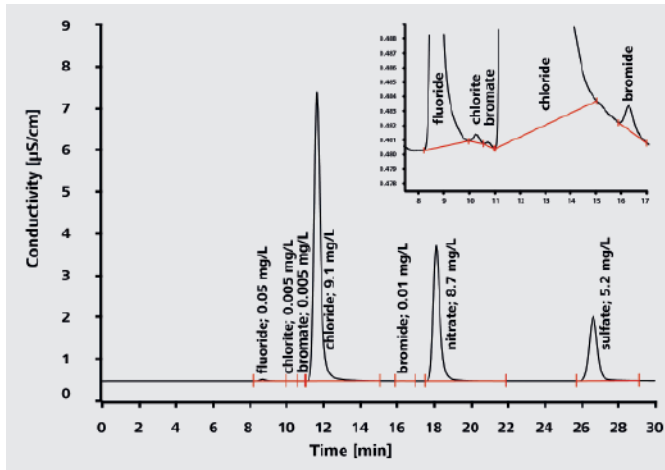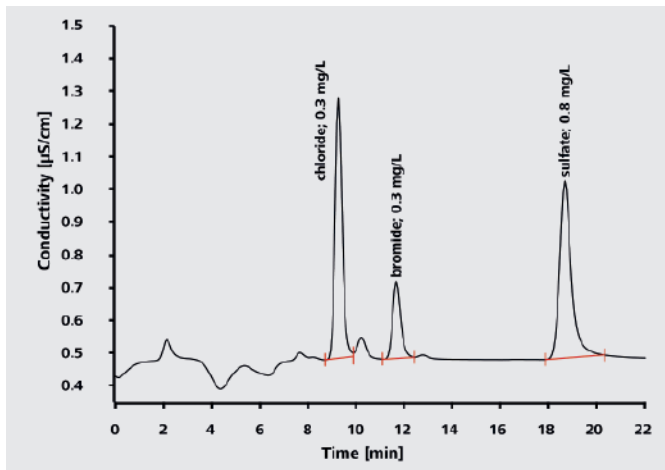
Chlorite and bromate in drinking water
Column: Metrosep A Supp 5 - 250/2.0; eluent: 3.2 mmol/L sodium carbonate, 1.0 mmol/L sodium hydrogen carbonate; column temperature: 30 °C; sample volume: 5 µL; flow rate: 0.18 mL/min; conductivity detection with sequential suppression
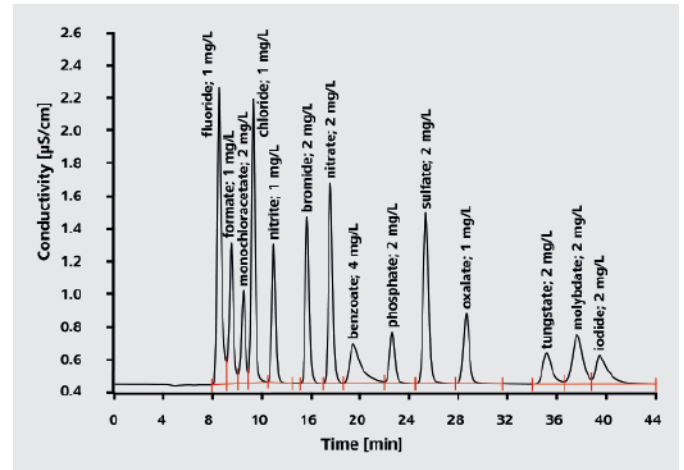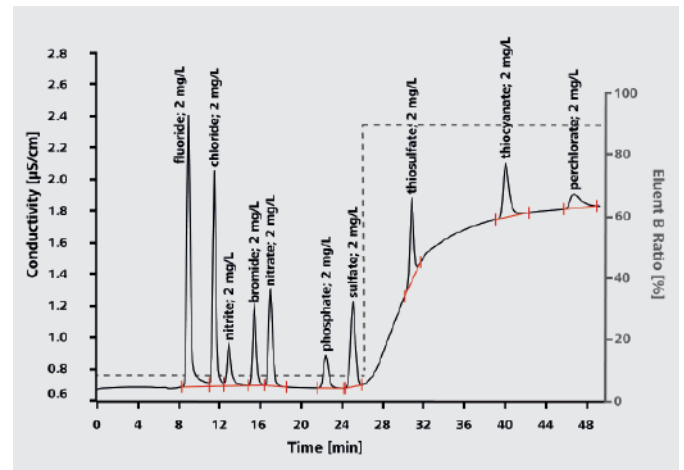

Multi-component analysis
Column: Metrosep A Supp 5 - 250/2.0; eluent: 3.2 mmol/L sodium carbonate, 1.0 mmol/L sodium hydrogen carbonate; column temperature: 30 °C; sample volume: 10 µL; flow rate: 0.18 mL/min; conductivity detection with sequential suppression

Polyethylene pellets with Combustion IC
Column: Metrosep A Supp 5 - 150/2.0; eluent: 3.2 mmol/L sodium carbonate, 1.0 mmol/L sodium hydrogen carbonate; column temperature: 30 °C; sample volume: 10 µL; flow rate: 0.18 mL/min; conductivity detection with sequential suppression

Analysis of explosion residues
Column: Metrosep A Supp 5 - 250/2.0; eluent with gradient: eluent A: 2% acetone in ultrapure water, eluent B: 20% acetone, 32 mmol/L sodium carbonate, 10 mmol/L sodium hydrogen carbonate; column temperature: 30 °C; sample volume: 5 µL; flow rate: 0.18 mL/min; conductivity detection with sequential suppression

The Metrosep A Supp 5 in 2 mm shows optimum peak shapes. Free selection of the column length enables high flexibility according to application.

Technical information

Housing	PEEK
Substrate	Polyvinyl alcohol with quaternary ammonium groups
Standard eluent	3.2 mmol/L sodium carbonate, 1.0 mmol/L sodium hydrogen carbonate
Standard flow	0.18 mL/min
Maximum flow	0.21 mL/min
Maximum pressure	20 MPa
Particle size	5 µm
Standard temperature	25 °C
Temperature range	20–60 °C
pH range	3–12
Organic modifier (eluent)	0–100% acetone, acetonitrile and methanol
Organic modifier (sample)	0–100% acetone, acetonitrile and methanol
Storage	in standard eluent
Capacity	18 µmol Cl- (150 × 2 mm)
	27 µmol Cl- (250 × 2 mm)

Ordering information

6.1006.220	Metrosep A Supp 5 - 150/2.0
6.1006.230	Metrosep A Supp 5 - 250/2.0
6.1006.600	Metrosep A Supp 5 Guard/2.0
6.1006.610	Metrosep A Supp 5 S-Guard/2.0

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