

IONUS

FAST DETERMINATION OF
CATIONS AND ANIONS



THE INSTRUMENT IS IDEAL FOR ALL ISOCRATIC METHODS IN ION CHROMATOGRAPHY. THE COMBINATION OF HIGH QUALITY COMPONENTS PROVIDES A RELIABLE SYSTEM WITH LOW MAINTENANCE COST AND EXCELLENT SEPARATION. THE SUPPRESSOR TECHNIQUE SHOWS A VERY LONG LIFETIME.

The **IONUS** you will find in research and water labs. In universities the clear lay out of the instruments allows a very good understanding of all processes during the analysis, which makes the system interesting for education.

Several options are designed to upgrade the system when a more sophisticated analysis is required.

The anion suppressors can be used to lower the detection level for components with very low concentration. The column thermostat enhances your separation and the reproducibility of retention time with controlled and stable temperature conditions.

The most interesting modification of our **IONUS** is the post column derivatisation option which allows the detection of Bromate with a level of 5ppb or transition metals. The transition metals and Bromate are detectable after derivatisation with the membraPure single wavelength detector based on LED-technologie.

This produces on the day by day use results with the highest precision, reproducibility and accuracy.

THE COMPONENTS

Pump - the double-flow pump head guarantees the high precision of the eluent flowrate. In combination with the pulse dampening unit an almost pulsfree operation is possible.



Degasser - the integrated degassing unit reduces the time of eluent preparation and guarantees continuous operation.

Sample separation - columns with different resins and capacities enable the user to get optimal results with a very high reproducibility.

Suppression - the automated anion suppression system is pressure stable resulting in a low signal/noise ratio. This guarantees detection limits down to 1 µg/l.

Conductivity detector - highest sensitivity and a broad measuring range allow the determination of samples from trace analysis up to process water.

OPERATION SOFTWARE ICONTROL

IONUS is operated with the user friendly, self-explanatory software iControl. Implemented, optimized separation programs are correlated with each sample for the analysis. Data analysis, reintegration and chromatogram view of previous samples can be done while instrument is analysing a sample.

The current status of important instrument parameters are shown.

All operation parameters and events of each analysis are documented in a log-file.

Individual separation programs can be easily created and stored in the software.

DATA ACQUISITION AND HANDLING

The data acquisition and data analysis system records the data sent by the conductivity detector. Chromatograms are shown on-line.

Internal database allows fast peak identification. Quantitative calculations are performed with internal or external standards, dilution and/or multiplication factors.

Several analysis runs can be compared using compiler programs. The result of each analysis is documented in an individual report.



ANION ANALYTICS

APPLICATIONS FOR F⁻, Cl⁻, Br⁻, NO₂⁻, NO₃⁻, PO₄³⁻, SO₄²⁻ SILICATE IN WATER OR FOR EPA WITH AND WITHOUT SUPPRESSOR TECHNIQUE ARE AVAILABLE.

CATION ANALYTICS

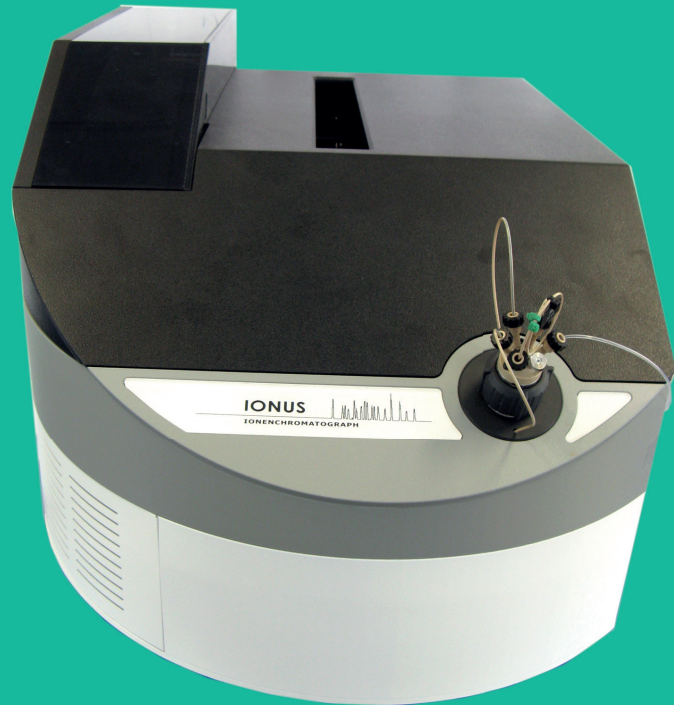
DIFFERENT METHODS ARE DEVELOPED FOR ANALYSIS OF CATIONS LIKE NH₄⁺, Li⁺, Na⁺, K⁺, Ca₂⁺, Mg₂⁺

DERIVATISATION

MODIFIED FOR POST COLUMN DERIVATISATION LOWEST DETECTION LEVELS FOR BROMATE OR TRANSITION METALS ARE REALISED.

IONUS

FAST DETERMINATION OF
CATIONS AND ANIONS



membraPure.de

ION

CHROMATOGRAPHY

TECHNICAL SPECIFICATIONS

Conductivity detector

- Thermostated stainless steel electrodes
- Noise: 0.02 μ S, 1s
- Linearity: <1 %
- Measurement range: 0 – 10.000 μ S/cm
- Analogue output: +/- 5 Volt
- Effective cell volume: 1 μ l volume
- Auto-zero function free programmable Maintenance free
- Option: anion suppressor technique

Pump

- Max. pressure: 400 bar Flow rate: 0,01 - 10,00 mL/min Reproducibility of flow rate: 0,1 % (RSD) at 100 μ L/min
- Vacuum degasser

Separation column

- Cation exchange column
- Anion exchange column
- Different dimensions; stainless steel or PEEK
- Accessible for other commercial IC-columns

Tubings

- PEEK or FEP

Data-acquisition/ handling Software - Options

- Data- acquisition and Data- analysis by aminoPeak software
- fast and user-friendly

Autosampler

- sample cooling as low as 4°C possible by peltier elements
Syringe pump, motor- injection valve Sample rack: 2 x 48 Vials
(1,5 mL Standard)
- Dosage in 3 different modes: full loop (100 µL),
microliter pickup (1 - 25 µL) or partial loop
- optional Manual injection





membraPure GmbH
Wolfgang-Kuentscher-Str. 14, 16761 Hennigsdorf/Berlin, Germany
+49 3302 - 201 20 0 info@membraPure.de www.membraPure.de

Managing director: Emil Flindt / Registration office: Neuruppin district court / Trade register: HRB 9604NP
WEEE-Reg.-Nr. DE 14696925 / VAT-ID number according to § 27a German VAT law: DE 160260388