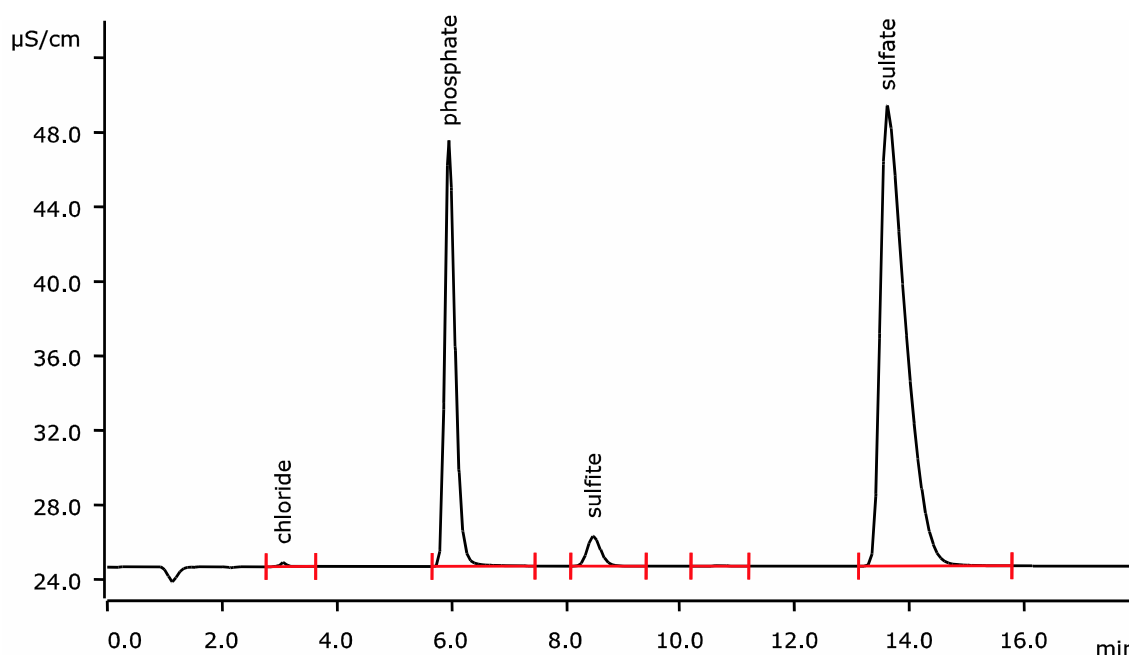


# Anions in boiler water including sulfur speciation (sulfite and sulfate)



Boiler water analysis is an important task in power plant applications. Under the given conditions, the Metrosep A Supp 10 - 100/4.0 column separates sulfite and sulfate without any organic modifier in the eluent. Even without any stabilizer, sulfite can be determined with a high reproducibility.

## Results

Anion	Average [mg/L]	RSD (% , n = 13)
Chloride	0.29	0.42
Phosphate	88.08	0.16
Sulfite	14.61	1.40
Sulfate	115.20	0.37

# Method description

## Sample

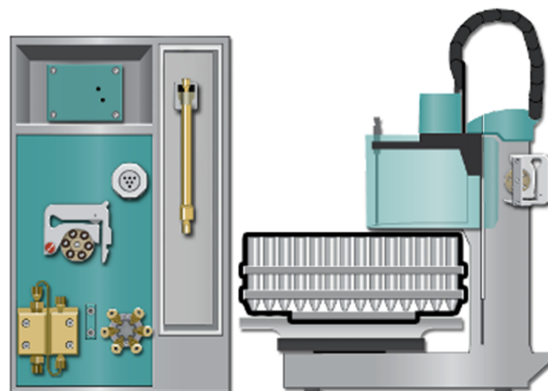
Boiler water

## Sample preparation

Direct injection

## Column

Metrosep A Supp 10 - 100/4.0	6.1020.010
Metrosep A Supp 10 Guard/4.0	6.1020.500



## Solutions

Eluent	6.0 mmol/L sodium carbonate 4.0 mmol/L sodium hydrogen carbonate 5.0 µmol/L sodium perchlorate
Regenerant	100 mmol/L sulfuric acid
Rinsing solution	Ultrapure water

## Instrumentation

881 Compact IC pro	2.881.0020
858 Professional Sample Processor – Pump	2.858.0020

## Analysis

Suppressed conductivity

## Parameters

Flow rate	1.0 mL/min
Injection volume	20 µL
P <sub>max</sub>	20.0 MPa
Recording time	18 min
Column temperature	Room temperature