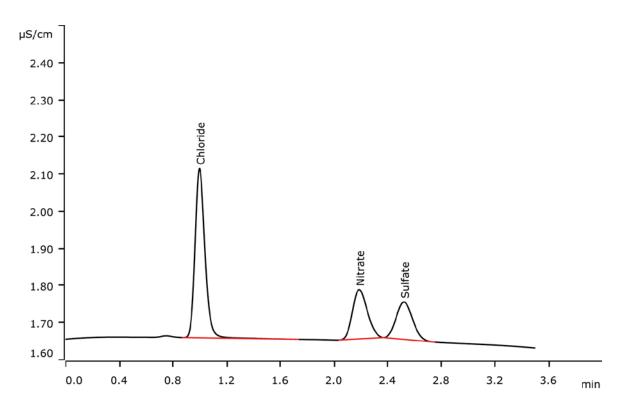
## IC Application Note S–320

# Fast IC: Drinking water analysis within three minutes



Fast IC means high sample throughput on short columns with relatively high flow rates and strong eluents. Applied to drinking water analysis, this means: determination of chloride, nitrate, and sulfate within three minutes on a Metrosep A Supp 10 - 50/2.0.

### Results

| Anion    | Concentration [mg/L] |  |
|----------|----------------------|--|
| Chloride | 3.83                 |  |
| Nitrate  | 3.83                 |  |
| Sulfate  | 2.44                 |  |



#### Sample

Drinking water

#### Sample preparation

None

#### Columns

| Metrosep A Supp 10 - 50/2.0  | 6.1020.250 |
|------------------------------|------------|
| Metrosep A Supp 10 Guard/2.0 | 6.1020.600 |

#### Solutions

| <u>Eluent</u> (941 Eluent<br>Production Module) | 5.0 mmol/L sodium<br>carbonate<br>5.0 mmol/L sodium<br>hydrogen carbonate |
|---|---|
| Suppressor regenerant                           | 500 mmol/L sulfuric acid  |
| Rinsing solution                                | STREAM  |

#### Analysis

Conductivity detection after sequential suppression

#### Instrumentation

|  | 940 Professional IC Vario ONE/SeS/PP | 2.940.1500 |
|--|--------------------------------------|------------|
|  | IC Conductivity Detector             | 2.850.9010 |
|  | 941 Eluent Production Module         | 2.941.0010 |
|  | 800 Dosino                           | 2.800.0010 |
|  | 858 Professional Sample Processor    | 2.858.0020 |
|  | MSM Rotor A                          | 6.2832.000 |

#### Parameters

| Flow rate          | 1.0 mL/min  |
|--------------------|-------------|
| Injection volume   | 2 µL (MiPT) |
| P <sub>max</sub>   | 25 MPa      |
| Recording time     | 3.2 min     |
| Column temperature | 45 °C       |



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