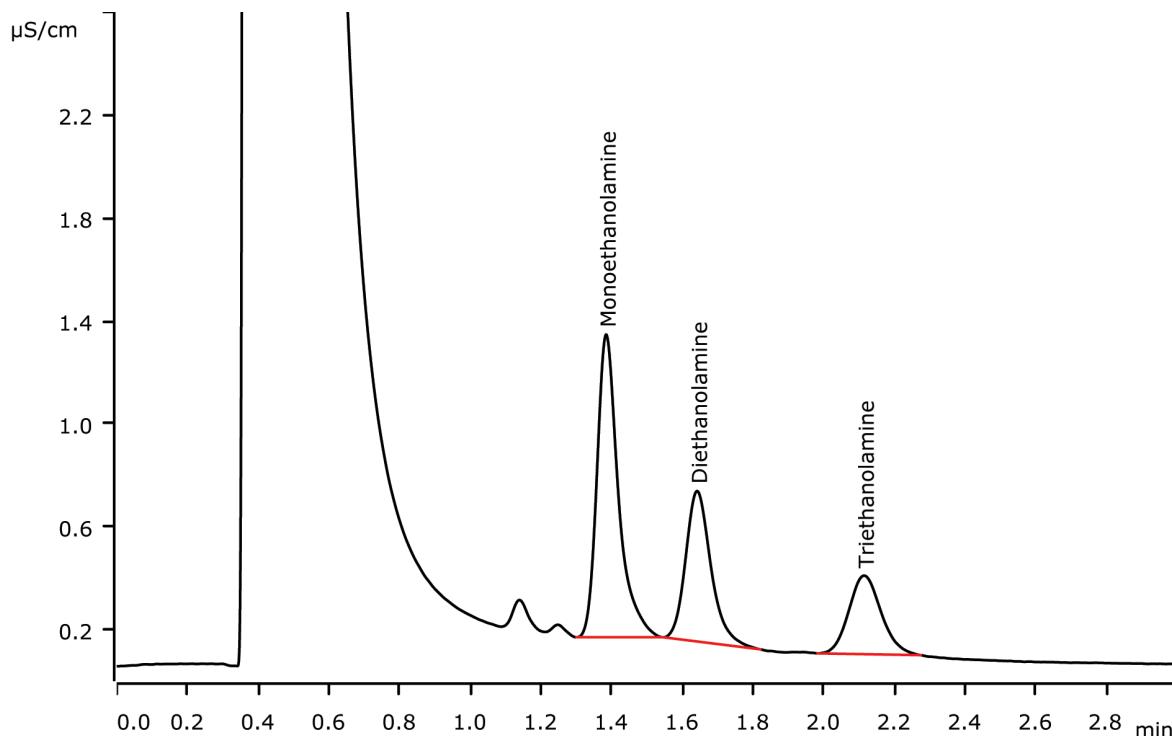


Fast IC: Separation of ethanolamines within 2.5 minutes



Fast IC means short runtimes and high sample throughput on columns with relatively high flow rates and standard eluent. The separation and determination of mono-, di-, and triethanolamine is accomplished under three minutes using Metrosep C 4 - 150/2.0.

Results

| Cations | Concentration [mg/L] |
|------------------|----------------------|
| Monoethanolamine | 1.00 |
| Diethanolamine | 1.00 |
| Triethanolamine | 1.00 |

Sample

Standard solution

Sample preparation

None

Columns

| | |
|------------------------|------------|
| Metrosep C 4 - 150/2.0 | 6.1050.220 |
| Metrosep C 4 Guard/2.0 | 6.1050.600 |

Solutions

| | |
|---------------------------------------|---|
| Eluent (941 Eluent Production Module) | 1.7 mmol/L nitric acid 0.7 mmol/L dipicolinic acid |
|---------------------------------------|---|

Analysis

Direct conductivity detection

Instrumentation

| | |
|-----------------------------------|------------|
| 940 Professional IC Vario ONE | 2.940.1100 |
| 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 |

Parameters

| | |
|--------------------|------------|
| Flow rate | 1.1 mL/min |
| Injection volume | 20 µL |
| P _{max} | 25 MPa |
| Recording time | 3 min |
| Column temperature | 25 °C |

