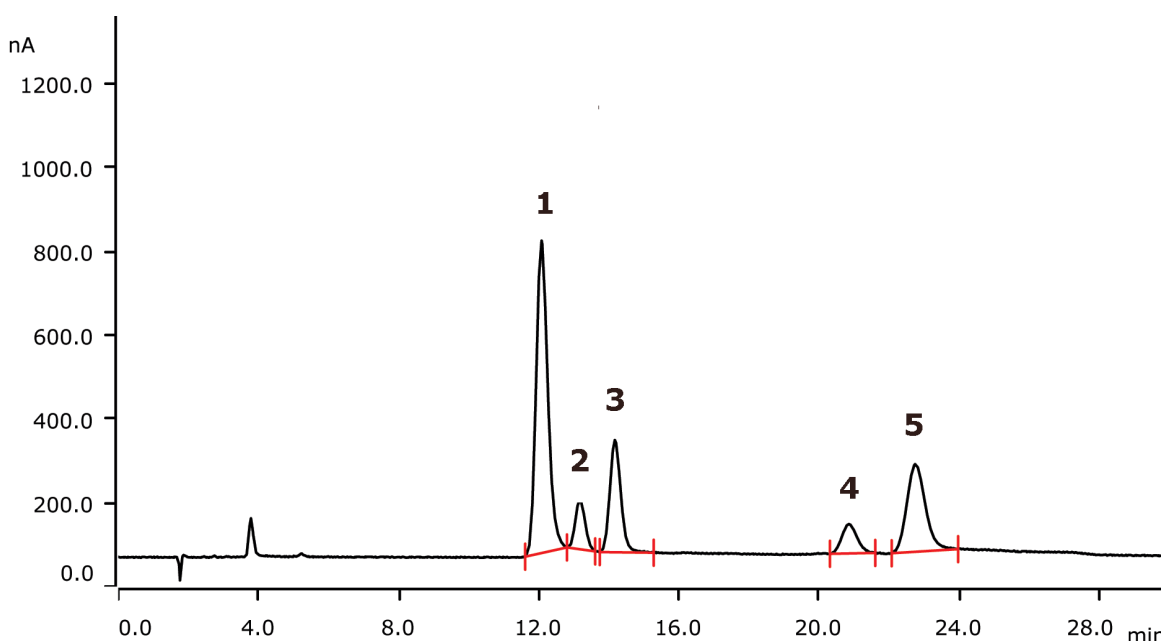


# Sugar analysis in fruit yoghurt applying Inline Dialysis according to EU regulation 1169/2011



The EU Regulation 1169/2011 lays out specifications for nutrition labelling. Therein, sugar is a major aspect, given its role relating to human health. This Application Note shows the determination of five sugars in cherry yoghurt after Inline Dialysis on a Metrosep Carb 2 - 150/2.0 column.

## Results

| Compound    | Conc. [g/kg] | RSD (% , n = 3) | Compound   | Conc. [g/kg] | RSD (% , n = 3) |
|-------------|--------------|-----------------|------------|--------------|-----------------|
| 1 Sucrose   | 65.6         | 1.0             | 5 Fructose | 15.6         | 1.9             |
| 2 Galactose | 4.1          | 1.3             | 6 Lactose  | 31.4         | 5.4             |
| 3 Glucose   | 9.9          | 1.4             |            |              |                 |

## Sample

Cherry yoghurt

## Sample preparation

0.5 g weighed in and filled up to 100 g with ultrapure water. Injection after Inline Dialysis.

## Columns

|                                                         |             |
|---------------------------------------------------------|-------------|
| Metrosep Carb 2 - 150/2.0                               | 6.01090.220 |
| Metrosep Carb 2 Guard/2.0                               | 6.01090.600 |
| Metrosep CO <sub>3</sub> <sup>2-</sup> Trap 1 - 100/4.0 | 6.1015.300  |

## Solutions

|        |                                                      |
|--------|------------------------------------------------------|
| Eluent | 5 mmol/L sodium hydroxide<br>2 mmol/L sodium acetate |
|--------|------------------------------------------------------|

## Parameters

|                    |             |
|--------------------|-------------|
| Flow rate          | 0.13 mL/min |
| Injection volume   | 5 µL        |
| Recording time     | 30 min      |
| Column temperature | 40 °C       |

## PAD Parameters

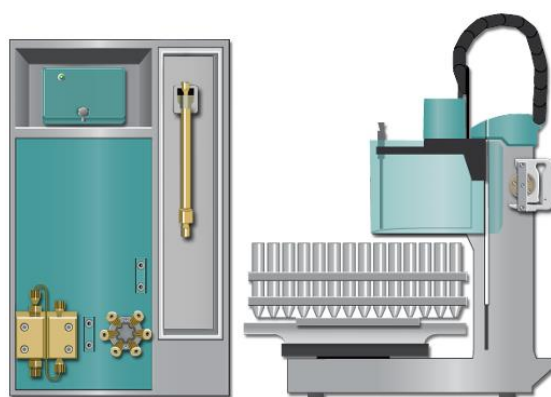
|                     |               |
|---------------------|---------------|
| Cell                | Wall-Jet cell |
| Working electrode   | Gold          |
| Reference electrode | Palladium     |
| Spacer              | 50 µm         |
| Measuring potential | 0.05 V        |
| Measuring duration  | 100 ms        |
| Cycle duration      | 550 ms        |
| Measuring range     | 200 µA        |
| Temperature         | 35 °C         |
| Mode                | PAD           |

## Analysis

Pulsed amperometric detection

## Instrumentation

|                                           |            |
|-------------------------------------------|------------|
| 930 Compact IC Flex Oven/Deg              | 2.930.2160 |
| IC Amperometric Detector                  | 2.850.9110 |
| 858 Professional Sample Processor         | 2.858.0020 |
| IC equipment Wall-Jet cell: Carb (Au, Pd) | 6.5337.010 |
| IC equipment: Inline Dialysis             | 6.5330.100 |



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