Sugar Analyzer

YL Sugar Analyzer is for the use of detection and the quantitative measurement of various kinds of sugars that, as a major component of food, are very soluble in water and have various types of stereoisomers, moreover, many kinds of sugars or sugar alcohols are used as an additive or to create a sweet taste. Commonly there are many testing limitations such as low peak-resolution due to various stereoisomers, poor column durability due to water-soluble solvent and limited usage of detectors like a RI detector with low sensitivity and no gradient mode. RI detector can be used if the concentrations of sugars are 500ppm to % level.

To remove these problems, YL Sugar Analyzer provides ELSD (Evaporative Light Scattering Detector) to get an accurate analysis result with various analysis methods.

• Features

1) Entire solutions from instruments to consumables for sugar analysis

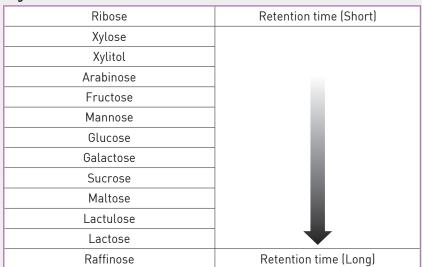
- 2) ELSD for better sensitivity and gradient elution
- 3) Accurate application support based on a specific analysis method
- 4) Reasonable price with optimized operation efficiency

Useful Information

1) Sample & standard preparation

- Sample preparation
 - a. Dissolve samples in warm water (30~35 °C) at 1:10 (W:V)
 b. Stir it for 5 min. → Centrifuge if needed.
 - c. Filter it to water-soluble syringe filter (PVDF, 0.45 µm)
- Standard preparation
 Dissolve sugars in ultra pure water at following ratio.
 → 300 ppm, 600 ppm, 1000 ppm

2) Sugars Elution Order



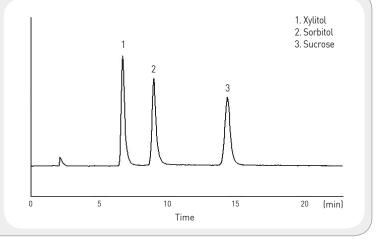
• Application

- Analysis of Sugars & Sugar Alcohols in Food and Beverages
- Analysis of Sugars & Amino Saccharides in Natural Substance and Health Food



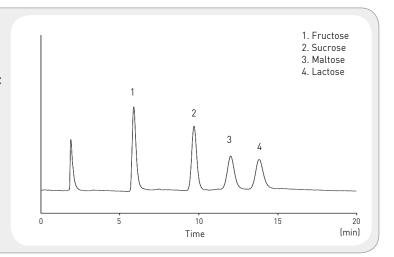
Xylitol, Sorbitol and Sucrose

- Mobile phase : ACN:Water=80:20 (Isocratic mode)
- Flow rate : 1.5 ml/min
- Column oven : 35 °C
- Detector : ELSD Range ¼, gas 2 L/min, Temp 60 °C
- Column : Carbohydrate (4.6 mm, 250 mm, 5 μm)
- Injection volume : 20 μl sample loop



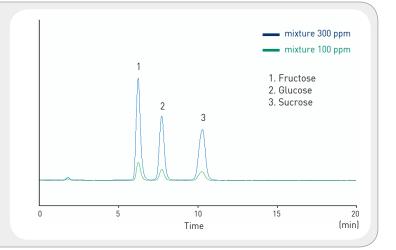
Sugars (Fructose, Sucrose, Maltose, Lactose)

- Mobile phase : ACN:Water=75:25 (Isocratic mode)
- Flow rate : 1.5 ml/min
- Column oven : 35 °C
- Detector : ELSD Range $\frac{1}{2}$, gas 1.5 L/min, Temp 60 °C
- Column : Carbohydrate (4.6 mm, 250 mm, 5 μm)
- Injection volumn : 20 µl sample loop



Sugars

- Mobile phase : ACN:Water=75:25 (Isocratic mode)
- Flow rate : 1 ml/min
- Column oven : 40 °C
- Detector : ELSD (SC 43 °C /DT 60 °C, Cal 50, Filter=9)
- Column : Shodex NH2 (4.6 mm, 250 mm, 5 µm)
- Injection volumn : 20 µl sample loop



Food

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