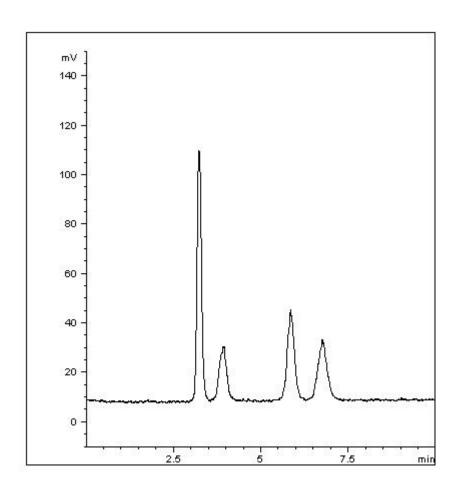


## Sugar Mixture Analyzed with ELSD – AppNote

## **Retention and Separation of Mono and Disaccharides**

Click <u>HERE</u> for Column Ordering Information.

This Method demonstrates the ability to retain two highly polar test solutes. Lactose, for example, has a log P of -4.7 and hence would be unlikely to retain in Reversed Phase. Great separation is observed for these Mono and Disaccharides.



## Peaks:

- 2. D-Galactose
  - 3. Sucrose
  - 4. Lactose

## **Method Conditions**

Column: Cogent Amide™, 4µm, 100Å

**Catalog No.:** <u>40036-10P</u> **Dimensions:** 4.6 x 100mm

Mobile Phase: 85% Acetonitrile 15% DI Water / 0.1% Triethylamine (TEA) (v/v)

Flow rate: 1.0 mL/minute

**Detection:** ELSD (Evaporative Light Scattering Detector) Gain: 10; Temperature: 65°C;

Injection vol.: 1µL

Sample Preparation: Reference standards (1 mg/mL) in diluent of 50% Acetonitrile / 50% DI Water

(v/v)

**t0:** 1.50 Minutes

**K1:** 0.39

Note: Galactose is a monosaccharide and Sucrose (common name "table sugar") is a disaccharide. Although a ubiquitous component of sweet foods and beverages today, refined Sucrose was once considered a luxury in many parts of the world.

Capacity Factor - Relative Retention k = (tR-t0)/t0



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