

Note d'application

## Analysis of Food Sugars Using ACQUITY UPLC BEH Amide Columns

---

Waters Corporation



This is an Application Brief and does not contain a detailed Experimental section.

---

### Abstract

This application brief demonstrates analysis of food sugars.

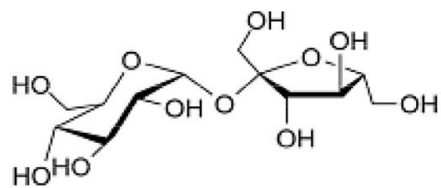
---

## Introduction

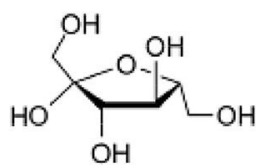
Compounds analysed in this application brief are:

1. p-Toluamide
2. Fructose
3. Glucose
4. Sucrose
5. Maltose
6. Lactose

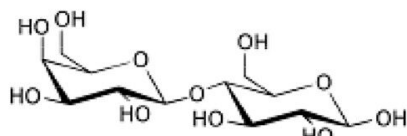
## Structures



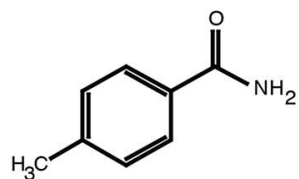
Sucrose



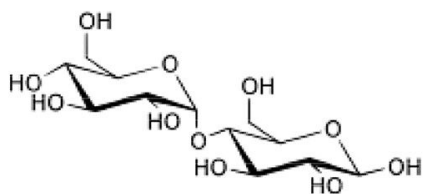
Fructose



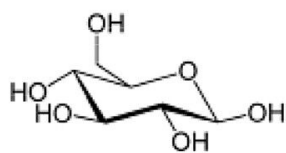
Lactose



p-Toluamide  
(unretained compound)



Maltose



Glucose

---

## Experimental

Test Conditions

### Chromatographic Conditions

Column: ACQUITY UPLC BEH Amide 2.1 x 100 mm, 1.7  $\mu$ m

Part Number: 186004801

Mobile Phase A: 80/20 MeCN/H<sub>2</sub>O with 0.2% triethylamine [TEA]

Mobile Phase B: 30/70 MeCN/H<sub>2</sub>O with 0.2% triethylamine [TEA]

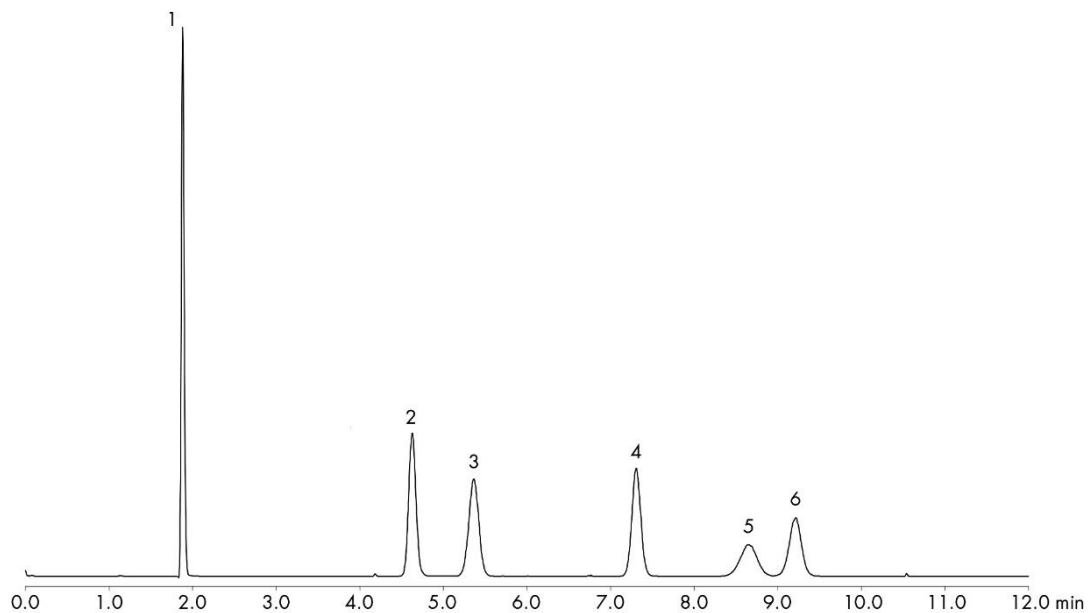
Flow Rate:	0.13 mL/min
Flow Profile:	90% A/10% B (75% MeCN with 0.2 % TEA)
Injection Volume:	1.3 µL (PLNO)
Sample Concentration:	1 mg/mL each
Sample Diluent:	50/50 MeCN/H <sub>2</sub> O
Column Temperature:	35 °C
Strong Needle Wash:	20/80 MeCN/H <sub>2</sub> O (800 µL)
Weak Needle Wash:	75/25 MeCN/H <sub>2</sub> O (500 µL)
Seal Wash:	50/50 MeCN/H <sub>2</sub> O
Instrument:	Waters ACQUITY UPLC with ELSD

### ELSD Conditions

Gain:	200
Pressure:	40 psi
Drift Tube Temperature:	40 °C
Nebulizer:	Cooling
Data Rate:	10 pps
Filter Time Constant:	Normal

---

## Results and Discussion



---

## Featured Products

[ACQUITY UPLC System <https://www.waters.com/514207>](https://www.waters.com/514207)

[ACQUITY UPLC ELS Detector <https://www.waters.com/514219>](https://www.waters.com/514219)

WA60109, October 2009