

ANALYSIS OF FOOD SUGARS/SACCHARIDES IN POTATO CHIPS USING ACQUITY UPLC BEH AMIDE COLUMNS

CLICK ON THE UNDERLINED BLUE TEXT FOR DETAILS ON THE PRODUCTS USED IN THIS APPLICATION

TEST CONDITIONS

Chromatographic Conditions

Column: ACQUITY UPLC® BEH Amide
2.1 x 100 mm, 1.7 µm

Part Number: [186004801](#)

Mobile Phase A: 80/20 MeCN/H₂O with 0.2% triethylamine [TEA]

Mobile Phase B: 30/70 MeCN/H₂O with 0.2% triethylamine [TEA]

Flow Rate: 0.13 mL/min

Gradient: 10 minute gradient, 80%-50% MeCN (w/0.2% TEA) with 25 minute re-equilibration

Time (min)	Profile %A	%B
0.00	100.00	0.00
10.00	40.00	60.00
10.01	100.00	0.00
35.00	100.00	0.00

Injection Volume: 1.3 µL (PLNO)

Sample Concentration: Standards at 1 mg/mL each, potato chips extracted at 120 mg/mL

Sample Diluent: 50/50 MeCN/H₂O

Column Temperature: 35 °C

Strong Needle Wash: 20/80 MeCN/H₂O (800 µL)

Weak Needle Wash: 75/25 MeCN/H₂O (500 µL)

Seal Wash: 50/50 MeCN/H₂O

Instrument: Waters ACQUITY UPLC with ELSD

ELSD Conditions

Gain: 200

Pressure: 40 psi

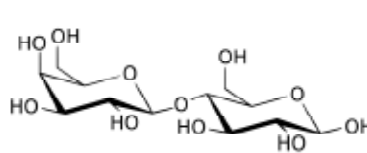
Drift Tube Temperature: 40 °C

Nebulizer: Cooling

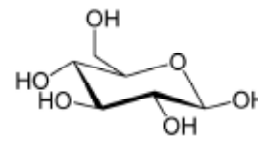
Data Rate: 10 pps

Filter Time Constant: Normal

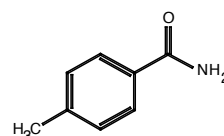
STRUCTURES



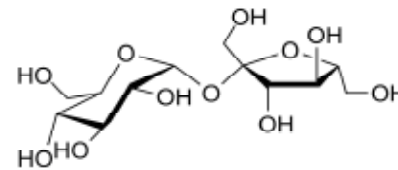
Lactose



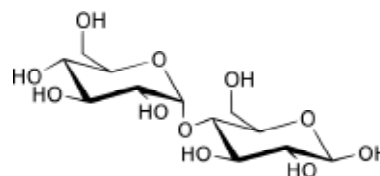
Glucose



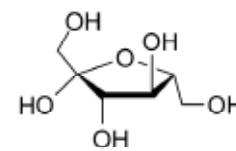
p-Toluamide
(unretained compound)



Sucrose



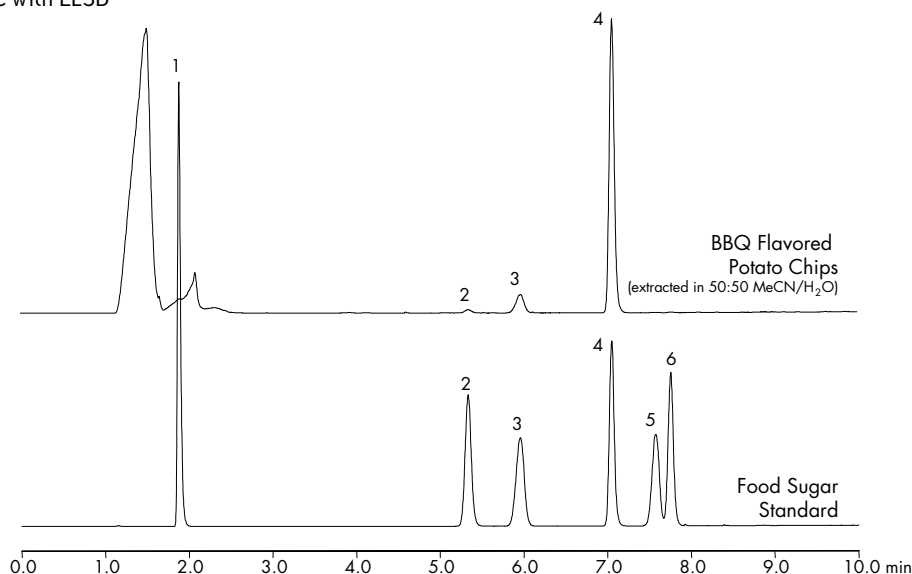
Maltose



Fructose

COMPOUNDS

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



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