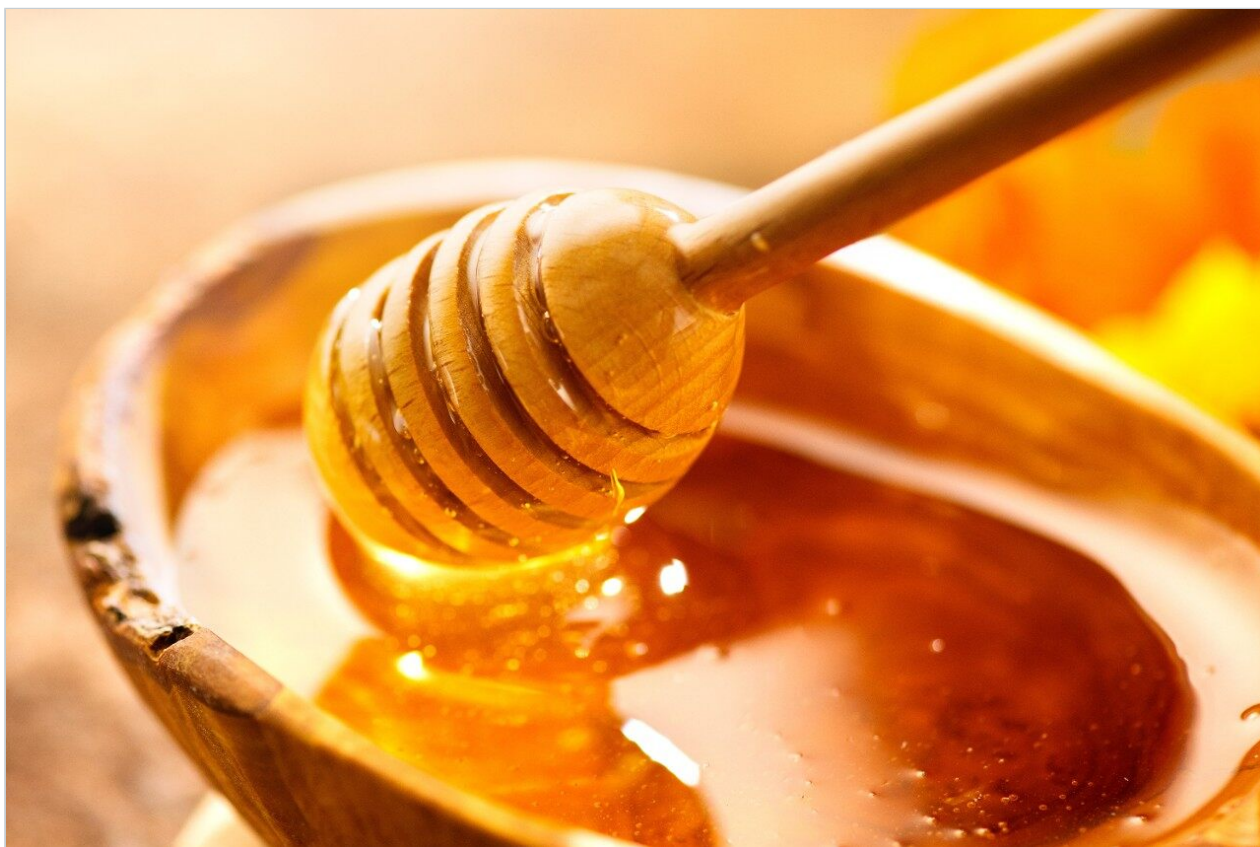


Note d'application

Analysis of Food Sugars/Saccharides in Honey Using ACQUITY UPLC BEH Amide Columns

Waters Corporation



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

Abstract

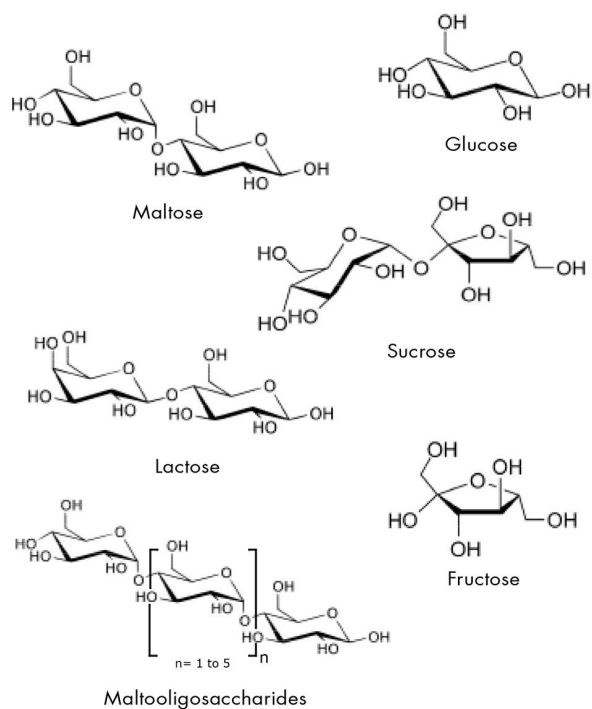
This application brief demonstrates analysis of food Sugars/Saccharides in honey.

Introduction

Compounds analysed in this application brief :

1. Fructose
2. Glucose
3. Sucrose
4. Maltose
5. Maltotriose
6. Maltotetraose
7. Maltopentaose

Structures



Experimental

Chromatographic Conditions

| | |
|-----------------|--|
| Column: | ACQUITY UPLC BEH Amide 2.1 x 50 mm, 1.7 μ m |
| Part Number: | 186004800 |
| Mobile Phase A: | 80/20 MeCN/H ₂ O with 0.2% triethylamine [TEA] |
| Mobile Phase B: | 30/70 MeCN/H ₂ O with 0.2% triethylamine [TEA] |

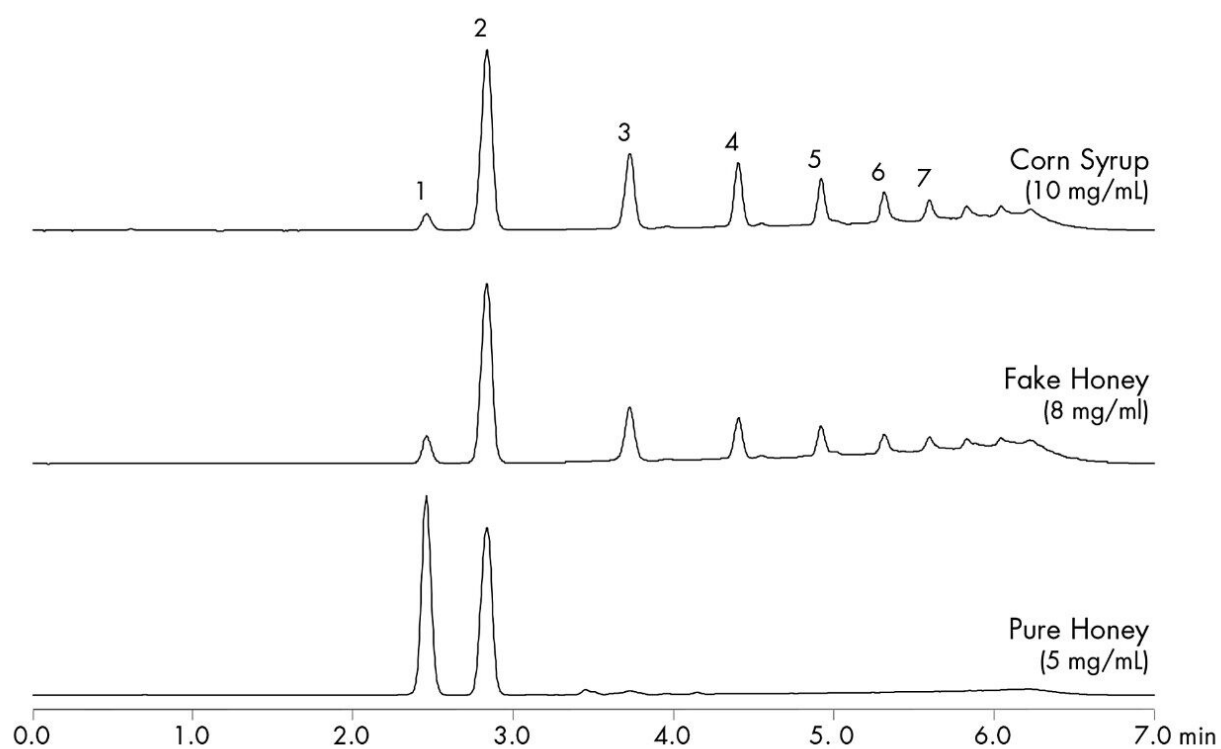
| | |
|-----------------------|--|
| Flow Rate: | 0.15 mL/min |
| Injection Volume: | 0.7 µL (PLNO) |
| Sample Concentration: | Honey and corn syrup at 5-10 mg/mL each |
| Sample Diluent: | 50/50 MeCN/H ₂ O |
| Column Temperature: | 45 °C |
| Strong Needle Wash: | 20/80 MeCN/H ₂ O (800 µL) |
| Weak Needle Wash: | 75/25 MeCN/H ₂ O (500 µL) |
| Seal Wash: | 50/50 MeCN/H ₂ O |
| Instrument: | Waters ACQUITY UPLC with ELSD |
| Gradient: | 5 minute gradient, 80%-50% MeCN (w/0.2% TEA) with 10 minute re-equilibration |

| Time (min) | Profile |
|------------|---------|
| | A% |
| 0.00 | 100.00 |
| 5.00 | 40.00 |
| 5.01 | 100.00 |
| 15.00 | 100.00 |

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



1. Fructose, 2. Glucose, 3. Sucrose, 4. Maltose, 5. Maltotriose, 6. Maltotetraose, 7. Maltopentaose

Featured Products

ACQUITY UPLC System <<https://www.waters.com/514207>>

2424 Evaporative Light Scattering (ELS) Detector <<https://www.waters.com/514428>>

WA60124, October 2009

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