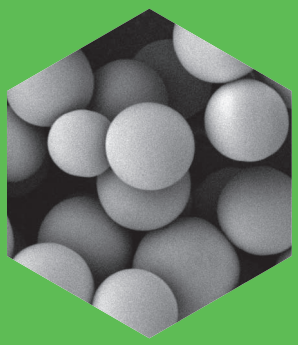
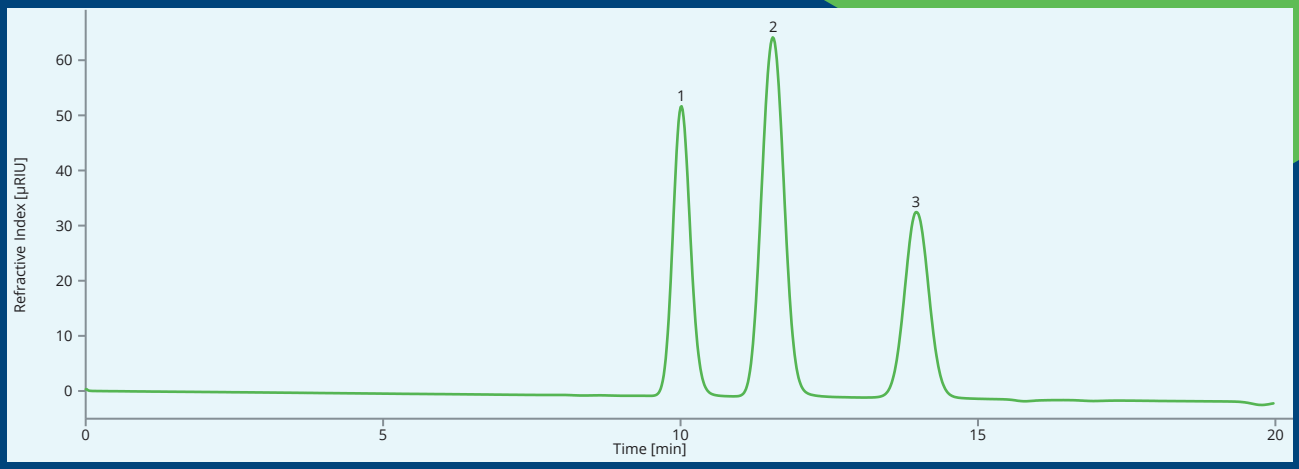
# SPEED UP
## your sugar analysis

ASTRA® Sugar series extends silica based HPLC column range. New polymer stationary phase offers faster analysis thanks to excellent particle shape and particle size distribution. Cross-linked sulfonated styrene-divinyl benzene (SDVB) is available in $Ca^{2+}$ and $K^{+}$ form. The columns are ideal for saccharides, sugar alcohols and oligosaccharides analysis.

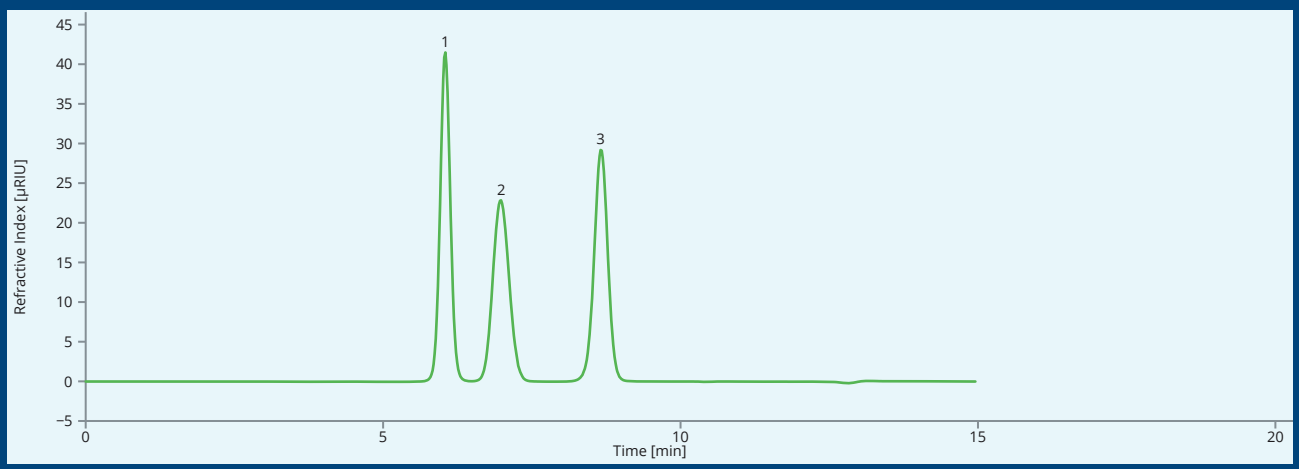


## ASTRA® Sugar Ca(S) benefits

- Fast analysis (possible flowrate up to 1.5 mL/min)
- High efficiency
- Low back pressure
- Column-to-column reproducibility




Syrup analysis on ASTRA® Sugar Ca(S)




Fast analysis of saccharides (1.0 mL/min)

CHROMSERVIS

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## Retention times at different flowrate on ASTRA® Sugar Ca(S)

| Analyte | Flowrate 0.5 mL/min | | | Flowrate 1.0 mL/min | | |
|---|---|---|---|---|---|---|
| | Rt | Symmetry | N | Rt | Symmetry | N |
| Melezitose | 11.375 | 1.179 | 3127 | 5.760 | 1.230 | 1831 |
| Sucrose | 12.189 | 1.185 | 4411 | 6.174 | 1.163 | 2976 |
| Maltose | 12.340 | 1.191 | 3973 | 6.260 | 1.152 | 2319 |
| Lactose | 12.552 | 1.202 | 3808 | 6.375 | 1.144 | 2194 |
| Glucose | 13.985 | 1.215 | 6005 | 7.095 | 1.138 | 2717 |
| Galactose | 15.187 | 1.185 | 6019 | 7.707 | 1.138 | 3599 |
| Xylose | 15.151 | 1.203 | 5719 | 7.671 | 1.126 | 2788 |
| Maltitol | 15.148 | 1.122 | 3316 | 7.743 | 1.106 | 1972 |
| Fructose | 16.677 | 1.130 | 5815 | 8.517 | 1.128 | 3664 |
| Manitol | 19.798 | 1.126 | 5799 | 10.202 | 1.105 | 3745 |
| Glycerol | 20.104 | 1.198 | 7101 | 10.047 | 1.181 | 5702 |
| Ethanol | 21.663 | 1.300 | 7025 | 10.842 | 1.277 | 5938 |
| Xylitol | 23.704 | 1.125 | 6654 | 12.217 | 1.102 | 4359 |
| Sorbitol | 23.452 | 1.109 | 5879 | 12.178 | 1.082 | 3810 |

## Ordering information

| Phase | Particle size | Max. pressure | Max. flowrate | USP | p/n |
|---|---|---|---|---|---|
| ASTRA® Sugar Ca(S) | 10 µm | 60 bar | 1.5 mL/min | L19 | AST-5906-VN80 |
| ASTRA® Sugar K(S) | 10 µm | 60 bar | 1.5 mL/min | – | AST-5926-VN80 |

*Note: Potassium form will be available soon. Other ionic forms on request*

## Method used in the chromatograms

| | |
|---|---|
| **Column** | ASTRA® Sugar Ca(S) |
| **Dimensions** | 300 mm × 8.0 mm |
| **Part number** | AST-5906-VN80 |
| **Mobile phase** | 100% $H_2O$ for HPLC |
| **Flow rate** | 0.6 mL/min (upper chromatogram)<br>1.0 mL/min (lower chromatogram) |
| **Temperature** | 70 °C |
| **Injection volume** | 20 µL |
| **Detection** | RID (55 °C) |
| **Analytes** | **1. Sucrose**<br>**2. Glucose**<br>**3. Fructose** |

Distributor