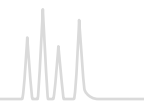




HPLC columns for sugar analyses



NUCLEOGEL® ION 300 OA / SUGAR

separation of sugars · USP L17 (H⁺ form) · USP L19 (Ca²⁺ form) · USP L34 (Pb²⁺ form) · USP L58 (Na⁺ form)

Technical data

- Sulfonated spherical PS/DVB resins in different ionic forms; mean particle size 10 µm, pore size 100 Å
- Separation mechanism includes steric exclusion, ligand exchange and partition effects, ligand exchange being the predominant force, since the hydrated metal ions form strong interactions with the hydroxyl groups of the sample molecules. The intensity of these interactions decreases in the sequence Pb > Ca > Na
- Recommended operating temperatures: 60–95 °C; maximum pressure 70 bar

Recommended application

- NUCLEOGEL® ION 300 OA:
H⁺ form for separation of sugars, alcohols and organic acids
- NUCLEOGEL® SUGAR:
Ca²⁺ form: separation of mono- and oligosaccharides, sugar alcohols
- Pb²⁺ form: separation of mono- and disaccharides from food and biological samples
- Na⁺ form: separation of oligosaccharides from starch hydrolysates and food

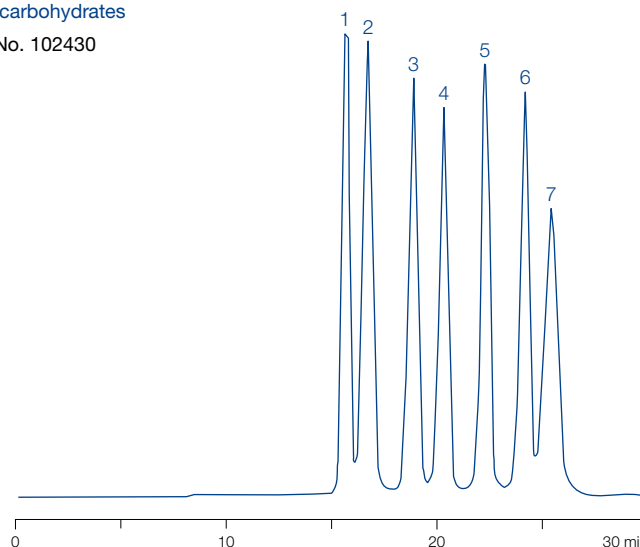
Separation of carbohydrates

MN Appl. No. 102430

Column: 300 x 7.8 mm NUCLEOGEL® SUGAR Pb
Eluent: deionized water
Flow rate: 0.4 mL/min
Temperature: 80 °C
Detection: RI

Peaks:

1. Sucrose
2. Maltose
3. Glucose
4. Xylose
5. Galactose
6. Arabinose
7. Mannose



ID	Length → 300 mm	Guard columns*
NUCLEOGEL® ION 300 OA; eluent in column 5 mmol/L H ₂ SO ₄ 5 mmol/L H ₂ SO ₄		
Analytical Valco type columns		
 7.8 mm	719501	719537
NUCLEOGEL® SUGAR Ca; eluent in column water + 0.02 % azide		
Analytical Valco type columns		
 6.5 mm	719531	719535
NUCLEOGEL® SUGAR Pb; eluent in column water + 0.02 % azide		
Analytical Valco type columns		
 7.8 mm	719530	719534
NUCLEOGEL® SUGAR Na; eluent in column water + 0.02 % azide		
Analytical Valco type columns		
 7.8 mm	719532	719536

* Valco Type guard columns measure 21 × 4 mm and require the guard column holder C, REF 719538, see page 258.
Columns in packs of 1, guard columns in packs of 2.