

Thermo Scientific Synchronis C8 HPLC Columns

Consistent, predictable separations,
Column after column, time after time

- Outstanding reproducibility
- Highly pure, high surface area silica
- Less hydrophobic than C18
- Double endcapped for extra surface coverage
- Highly inert towards basic compounds
- Rigorously tested to ensure quality

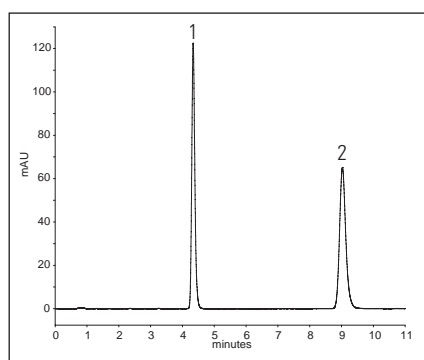
Specifications

| | | | |
|----------------------|-------------------------------------|---------------------------|------|
| Particle size | 1.7 μm , 5 μm | Carbon load | 10 % |
| Pore size | 100 \AA | Endcapped | Y |
| Surface area | 320 m^2/g | USP classification | L7 |
| pH range | 2 - 8 | | |

Less retentive than C18

Synchronis™ C8 columns are less hydrophobic than the C18 and are therefore particularly useful where the lesser degree of hydrophobicity is needed in order to successfully retain compounds of interest. Synchronis C8 columns can also be used where it is desirable to elute compounds more quickly than with a C18 column.

Application: Fenopropfen (USP)



Column: Synchronis C8, 5 μm , 150mm x 4.6mm

Mobile phase: Acetonitrile:Water:
Phosphoric Acid (50:49.6:0.4)

Flow rate: 2.0 mL/min

Temperature: 30°C

Detection: 272 nm

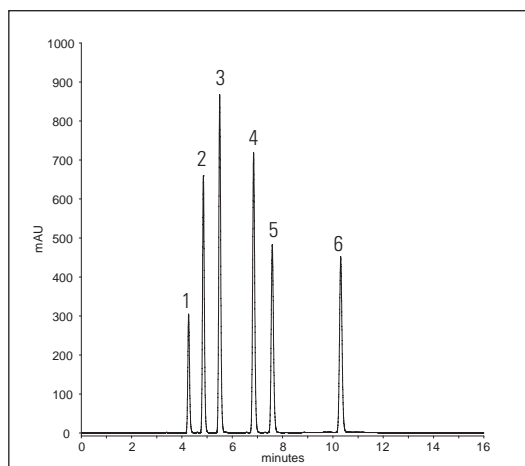
Injection volume: 20 μL

1. Fenopropfen
2. Gemfibrozil

| Parameter | USP Specification | Measured Fenopropfen (5 replicate injections) | Measured Gemfibrozil (5 replicate injections) |
|-------------------------|-------------------|--|--|
| Resolution | > 8 | – | 17.6 |
| Relative retention time | ~ 0.5 | 0.48 | – |
| Efficiency (N) | > 3000 | 9812 | 10254 |
| Tailing factor | < 2 | 1.21 | 1.22 |
| %RSD Retention time | < 2% | 0.13% | 0.14% |
| %RSD Peak area | < 2% | 1.6% | 1.8% |

| Description | Particle size | Length (mm) | 2.1 mm ID | 3 mm ID | 4 mm ID | 4.6 mm ID |
|---------------------------------|---------------|-------------|--------------|--------------|--------------|--------------|
| Synchronis C8 | 1.7 µm | 30 | 97202-032130 | – | – | – |
| | | 50 | 97202-052130 | 97202-053030 | – | 97202-054630 |
| | | 100 | 97202-102130 | 97202-103030 | – | – |
| | 5 µm | 30 | 97205-032130 | 97205-033030 | 97205-034030 | 97205-034630 |
| | | 50 | 97205-052130 | 97205-053030 | 97205-054030 | 97205-054630 |
| | | 100 | 97205-102130 | 97205-103030 | 97205-104030 | 97205-104630 |
| Drop-in guard cartridges (4/pk) | 5 µm | 10 | 97205-012101 | 97205-013001 | 97205-014001 | – |

Application: Uron Herbicides



Column: Synchronis C8, 5µm, 150mm x 4.6mm

Mobile phase: A: Water
B: Acetonitrile

Gradient: 35 to 60% B in 10 minutes

Flow rate: 1.0 mL/min

Temperature: 30°C

Detection: 240 nm

Injection volume.: 20 µL

1. Tebuthiuron
2. Metoxuron
3. Monuron
4. Chlorotoluron
5. Diuron
6. Linuron

| Herbicide | RT (%RSD) (6 replicate injections) | Peak Area (%RSD) (6 replicate injections) | Peak Asymmetry |
|-------------------|---------------------------------------|--|----------------|
| 1 - Tebuthiuron | 0.31 | 0.95 | 1.17 |
| 2 - Metoxuron | 0.25 | 0.64 | 1.18 |
| 3 - Monuron | 0.18 | 0.20 | 1.16 |
| 4 - Chlorotoluron | 0.12 | 0.55 | 1.15 |
| 5 - Diuron | 0.10 | 0.37 | 1.19 |
| 6 - Linuron | 0.05 | 0.65 | 1.13 |

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Synchronis HPLC columns are manufactured, packed and tested in ISO9000 accredited facilities. Each lot of silica is tested for the physical properties of the silica support and only released for production if it meets the stringent test specifications.

Each bonded lot of chromatographic packing material is rigorously tested for primary and secondary interactions with the bonded phase.

New, enhanced, automated packing methods drive consistency even further and every column is individually tested to ensure that it meets the required quality.

These extensive testing and quality control procedures ensure the delivery of a consistent product, column after column.

For more information, visit www.thermoscientific.com/Synchronis

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