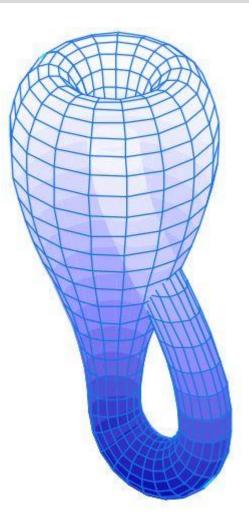


## **NEWCROM**<sup>©</sup> HPLC COLUMNS OF THE FUTURE



# HPLC COLUMN OF THE FUTURE

#### SIELC introduces a new single ended column design

For as long as people have done HPLC they have used the same column format, the same method of connecting the column to the HPLC, and they have experienced the same problems:

- Clogging at the tube-column junction
- Leakage around the high pressure solvent connections
- Installation problems with tubing to achieve zero dead volume
- Sorting through many available high pressure fittings
- Selecting the proper tube length and ID

To address these issues a new column design was developed. This column and corresponding adapter entirely eliminate the need for any high-pressure fittings or tubing as well as minimizing all possible dead volumes. Furthermore, if a leak ever occurs in the highpressure column inlet, the mobile phase is contained within the column adapter (no external leakage).

You need to install a column adapter once on your HPLC. Then without any tools you can install a column which never leaks, it is easy to replace and can be changed in seconds. The column hardware was designed specifically to be used with any HPLC instrument. It can be installed in most column heaters as well.

#### A new single ended column guard system

If your method requires a guard column then use our special guardcolumn adapter. It is a single piece of hardware which combines a column and a guard all in one convenient assembly.

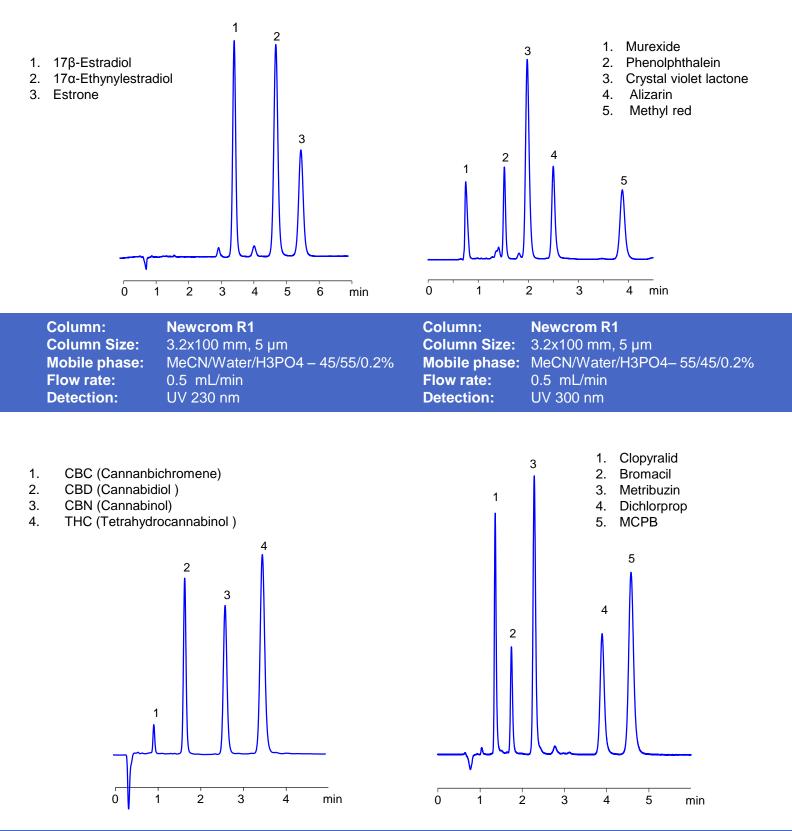
- Special guard column with an inlet and outlet at one end allows you to replace the guard without disconnecting the column from your HPLC system.
- The finger-tightening installation is entirely tool free.
- Compact design allows you to install a column with guard into any column heater.



A column with a new outer design and with new chemistry inside.

Newcrom R1 takes full advantage of new chemistry with advanced proprietary end-capping.

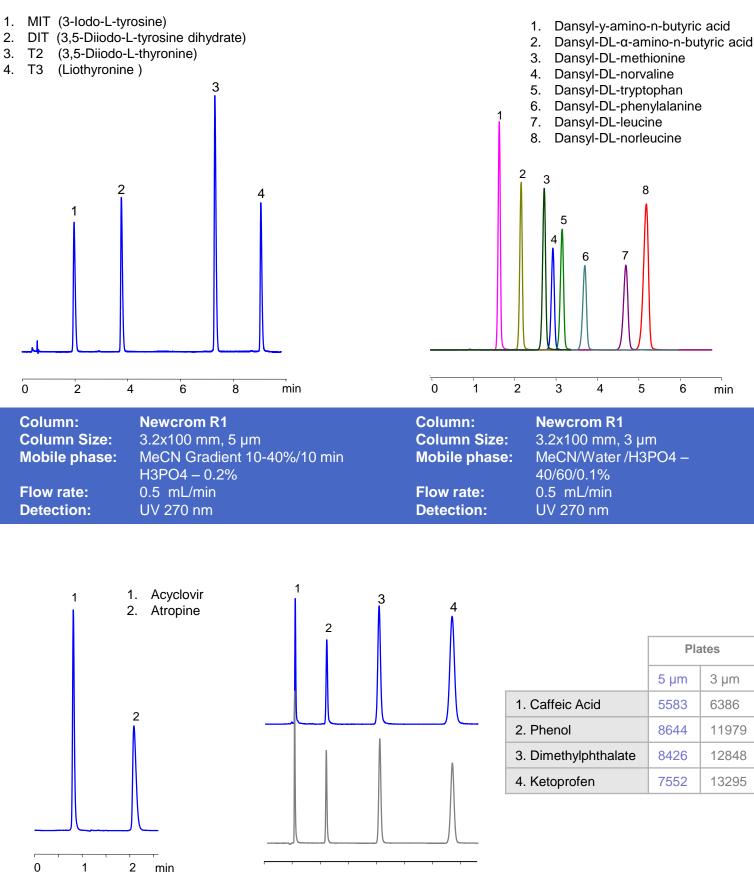
Available in 5 µm and 3 µm particle size with diameter 2.1, 3.2, and 4.6 mm and length 50, 100, and 150 mm.



Column:Newcrom R1Column Size:3.2x100 mm,Mobile phase:MeCN/Water/Flow rate:1 mL/minDetection:UV 210 nm

3.2x100 mm, 5 μm MeCN/Water/H3PO4 – 80/20/0.2% 1 mL/min UV 210 nm Column: Column Size: Mobile phase: Flow rate: Detection: Newcrom R1 3.2x100 mm, 5 μm MeCN/Water/H3PO4 – 60/40/0.2% 0.5 mL/min UV 210 nm





Column: **Newcrom R1 Column Size:** 3.2x100 mm, 3 µm Mobile phase: MeCN/Water/H3PO4 - 20/80/0.2% Flow rate: 0.5 mL/min **Detection:** UV 210 nm

min

0 1 2

3

4

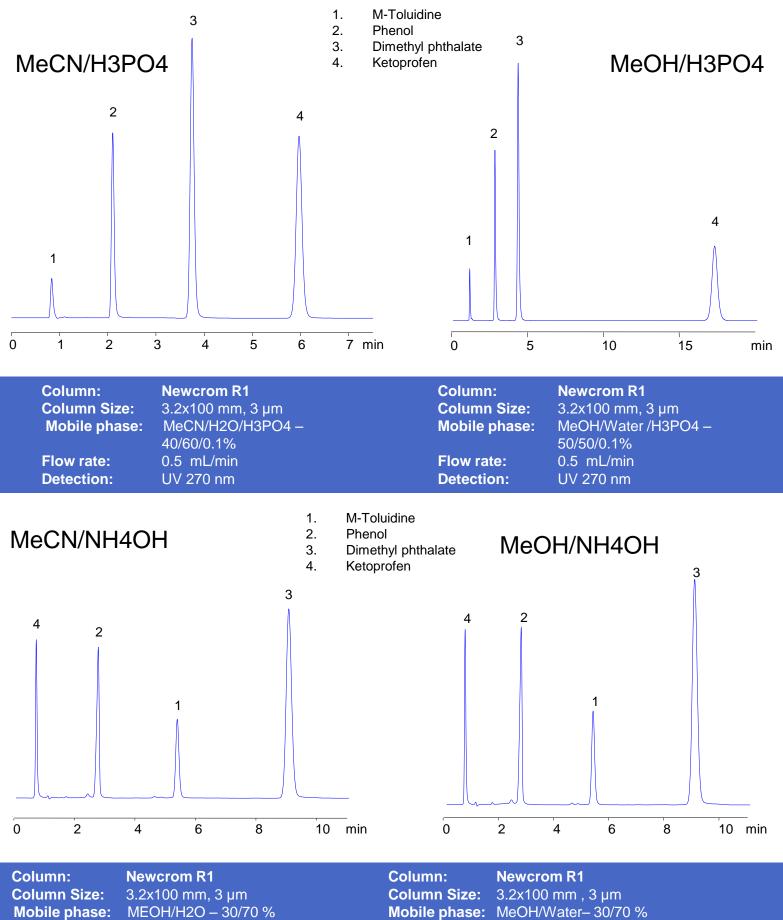
5

6

7 min

Column: **Newcrom R1 Column Size:** 3.2x100 mm Mobile phase: MeCN/Water/H3PO4-40/60/0.2% Flow rate: 0.5 mL/min **Detection:** UV 270 nm





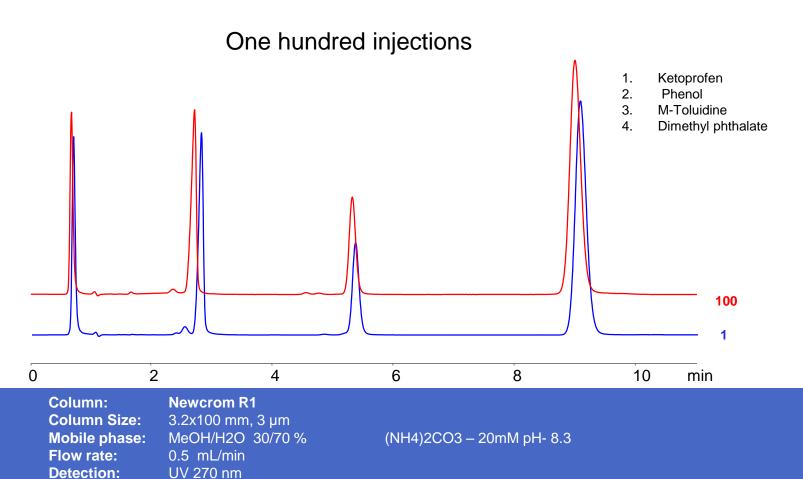
Flow rate:

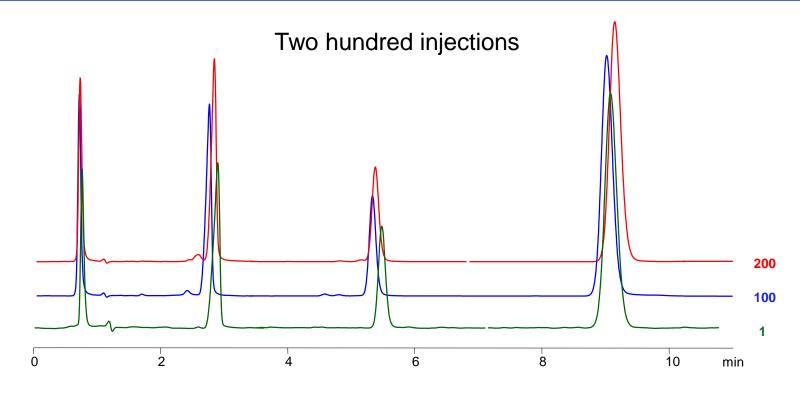
MEOH/H2O - 30/70 % NH4OH- 20 mM pH 10.6 0.5 mL/min

Mobile phase: MeOH/Water- 30/70 % Flow rate:

NH4OH- 20 mM pH 10.3 0.5 mL/min







Column: Column Size: Mobile phase: Flow rate: Detection: Newcrom R1 3.2x100 mm, 3 μm MeCN/H2O 30/70 % 0.5 mL/min UV 270 nm

(NH4)2CO3 - 20mM pH-8.3



formerly Allsep Technologies

For decades liquid chromatography stationary phase design has been dominated by the goal to eliminate multiple, or "unwanted", interactions and to obtain a simple and predictable retention mechanism. Unfortunately, the simplification of the retention process limits the ability to control elution order of the analytes and the scope of available applications this system can be used for. As a response to this limitation, hundreds of different reverse-phase columns were introduced in the last years to cover a variety of analytical situations.

In contrast, PrimesepTM stationary phases were intentionally designed with two major interactions offered on the same column. Both interactions are independently adjustable with mobile-phase composition producing unlimited states of the stationary phase. The hydrophobic interaction is controlled by the amount of organic modifier in the mobile phase (as in any reverse-phase column), while the ion-exchange interaction is controlled by the ion-strength and pH of the mobile phase (as in other ion-exchange columns). This unique property allows using one stationary phase for numerous applications, including analyses of polar and non-polar, ionizable and neutral, organic and inorganic compounds. The behavior of PrimesepTM columns is predictable and reproducible. The method development process is simple and versatile.

#### BGB GC LC MS CE

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