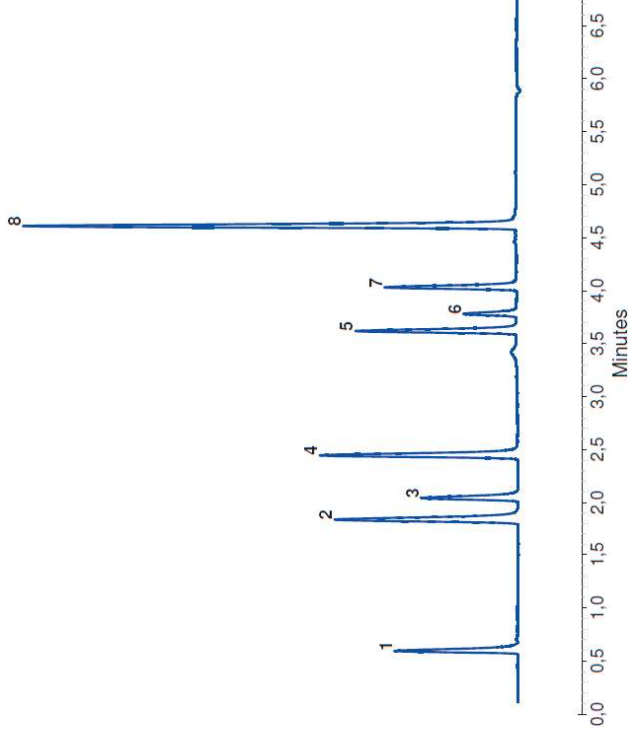


## BlueShell classic 4.5 $\mu\text{m}$

- ▶ *Similar system, similar method, similar phase selectivity ... and better results?*



- ▶ lower back pressure
- ▶ narrower peaks
- ▶ higher sensitivity

## BlueShell classic

- ▶ *Do you want to enjoy performance far beyond that of classical 5  $\mu\text{m}$  HPLC columns?*

*Ultimate core-shell performance for classical HPLC methods*

*Robust, fast and easy-to-use*

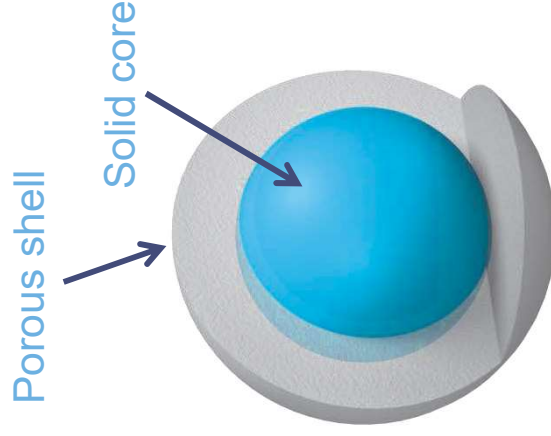
Very high separation efficiency, even with 400 bar standard HPLC instruments and conditions

- Increased peak resolution and peak height
- Lower limit of detection

Typical increase in performance compared to fully porous particles:

25 % better than 5  $\mu\text{m}$  stationary phase

10 % better than 3  $\mu\text{m}$  stationary phase



## BlueShell classic

### ► Which modifications are available?

Modification	USP code	% Carbon	pH range	Column code
BlueShell C18	L1	7%	1 - 11	xxxD181SHI
BlueShell C8	L7	4%	2 - 9	xxxD081SHI

► Other modifications coming soon

Particle size: 4.5 µm

Particle form: spherical, core-shell technology

Pore size: 80 Å

Specific surface: 130 m<sup>2</sup>/g

Pore volume: 0.8 ml/g



## BlueShell classic

### ► Finally core-shell particles for *all* users!

Especially designed for all users of standard 400 bar HPLC instruments

Get the best performance with these HPLC systems

*Important: Low system dead volume is recommended for best results*

### *Which phase for which application?*

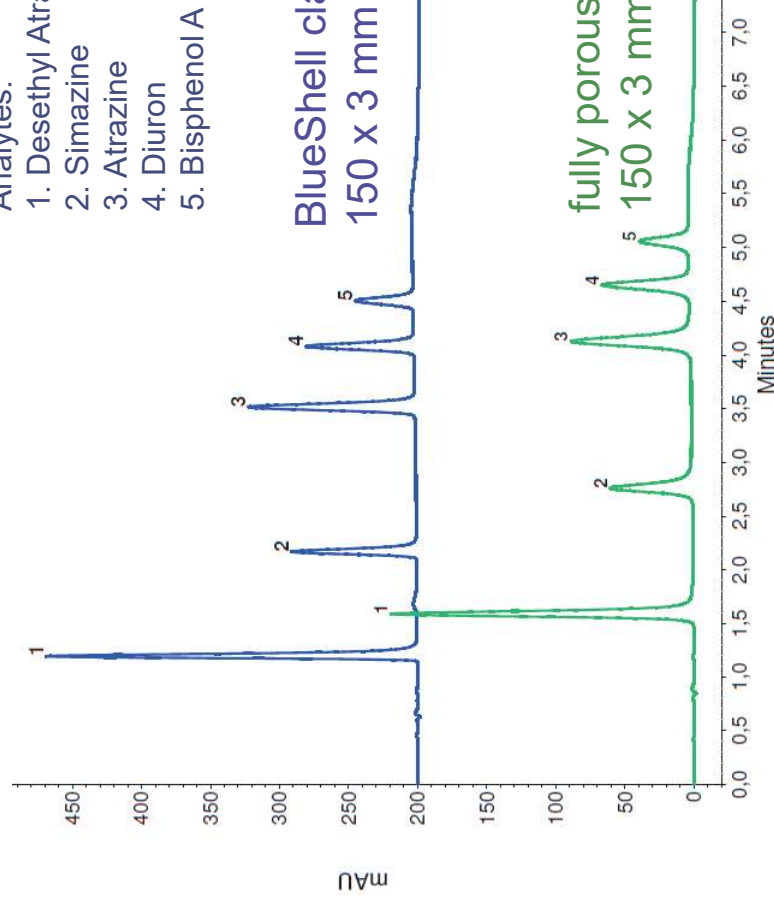
Modification	Application areas	Separation mechanism
C18	for acidic, basic and neutral analytes in reversed-phase mode (sulfonamides; anabolic steroids; anti-psychotics; beta blockers; Sudan dyes; phenols, preservatives etc.); excellent pH stability	hydrophobic interaction
C8	similar selectivity to C18 phase but less retention due to the lower hydrophobicity; useful for the determination of water soluble vitamins, steroids, catecholamines, sedatives, etc.	reduced hydrophobic interaction compared to C18 phase

# Application with BlueShell classic C8

## ► Endocrine disruptors

Analytes:

1. Desethyl Atrazine
2. Simazine
3. Atrazine
4. Diuron
5. Bisphenol A



By changing nothing but the stationary phase you can get:

- 40% higher peaks
- 48% narrower peaks
- 43% more theoretical plates
- 44% higher resolution
- 55% higher S/N

(Simazine as an example)

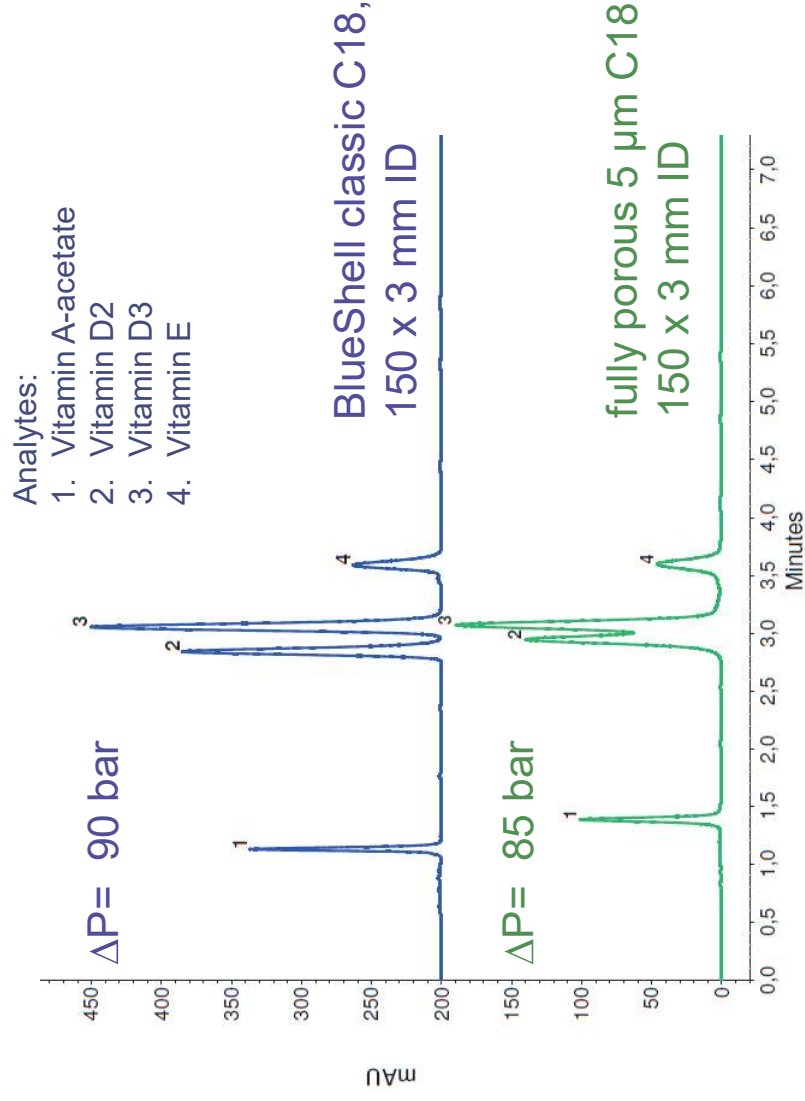


# Application with BlueShell classic C18

## ► Fat-soluble Vitamins

By changing nothing but the stationary phase you can get:

- baseline separation of critical pair
- 40% higher peaks
- 28% narrower peaks
- 39% more theoretical plates
- 260% higher S/N





# BlueShell classic

## ► Ordering Information

Order No.	BlueShell classic C18 core shell
05BD181SHI	BlueShell classic 80-4.5 C18 core shell, 50 x 2 mm ID
05CD181SHI	BlueShell classic 80-4.5 C18 core shell, 50 x 3 mm ID
10BD181SHI	BlueShell classic 80-4.5 C18 core shell, 100 x 2 mm ID
10CD181SHI	BlueShell classic 80-4.5 C18 core shell, 100 x 3 mm ID
15BD181SHI	BlueShell classic 80-4.5 C18 core shell, 150 x 2 mm ID
15CD181SHI	BlueShell classic 80-4.5 C18 core shell, 150 x 3 mm ID

Order No.	BlueShell classic C8 core shell
05BD081SHI	BlueShell classic 80-4.5 C8 core shell, 50 x 2 mm ID
05CD081SHI	BlueShell classic 80-4.5 C8 core shell, 50 x 3 mm ID
10BD081SHI	BlueShell classic 80-4.5 C8 core shell, 100 x 2 mm ID
10CD081SHI	BlueShell classic 80-4.5 C8 core shell, 100 x 3 mm ID
15BD081SHI	BlueShell classic 80-4.5 C8 core shell, 150 x 2 mm ID
15CD081SHI	BlueShell classic 80-4.5 C8 core shell, 150 x 3 mm ID

