

Stationary Phase Characteristics

Phase	Particle Size	Pore Size	Carbon Loading	Surface Area	End-capped Style	pH Range	Typical Backpressure
Bonshell ASB C18	2.7 μm	90 Å	7%	150 m^2/g	No	1.0-7.5	600bar(9000psi)
Bonshell C18	2.7 μm	90 Å	10%	150 m^2/g	Double	1.5-9.0	600bar(9000psi)
Bonshell AQ C18	2.7 μm	90 Å	9%	150 m^2/g	Single	1.5-9.0	600bar(9000psi)

Ordering Information

Type	Particle Size(μm)	ID×L(mm)	Bonshell ASB C18	Bonshell C18	Bonshell AQ C18
Bonshell Columns	2.7	2.1×30	SS920302-0	SC920302-0	SA920302-0
	2.7	2.1×50	SS920502-0	SC920502-0	SA920502-0
	2.7	2.1×100	SS921002-0	SC921002-0	SA921002-0
	2.7	3.0×30	SS920303-0	SC920303-0	SA920303-0
	2.7	3.0×50	SS920503-0	SC920503-0	SA920503-0
	2.7	3.0×100	SS921003-0	SC921003-0	SA921003-0
	2.7	4.6×50	SS920505-0	SC920505-0	SA920505-0
	2.7	4.6×75	SS920805-0	SC920805-0	SA920805-0
	2.7	4.6×100	SS921005-0	SC921005-0	SA921005-0
	2.7	4.6×150	SS921505-0	SC921505-0	SA921505-0



BONNA-AGELA TECHNOLOGIES

Bonna-Agela USA
 2038A Telegraph Rd.
 Wilmington, DE 19808, USA
 Tel: (302) 438 8798
 Fax: (302) 636 9339
 E-mail: info@bonnaagela.com

Bonna-Agela India
 #212, 2nd Floor, Sector-63,
 Noida, Uttar Pradesh
 Tel: 91120-4225466/67
 Fax: 91120-4225465
 E-mail: sales@bonnaagela.com

Bonna-Agela China
 179 South Street, Teda West Zone,
 Tianjin 300462, China
 Tel: +86(22) 25321032/7023
 Fax: +86(22) 25321033
 E-mail: service@agela.com.cn

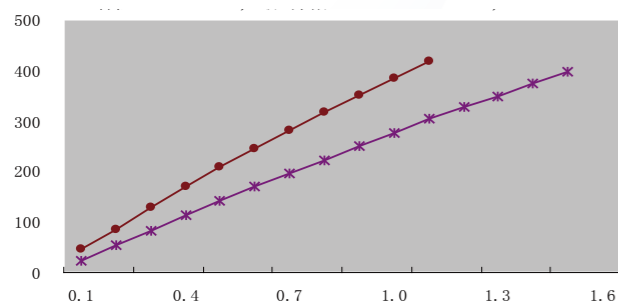
BONNA-AGELA TECHNOLOGIES

Bonshell HPLC Column

Shell Technology Solutions for Faster Separations

Bonshell Columns are made up of shell particle to carry out faster separations with low back pressures. Bonshell has 0.5 μm porous shell covering solid core inside with diameter of 1.7 μm . With overall particle size of 2.7 μm . Bonshell Columns are ideal to be used with both UPLC and Conventional HPLC Systems which enables the scientist to easily transfer their existing method from HPLC to UPLC & Vice-versa without changing the expensive hardware in HPLC system.

Low Pressure than UPLC/UHPLC Column



Column: 2.1× 50 mm

Mobile phase: ACN : H₂O=70:30, 25°C

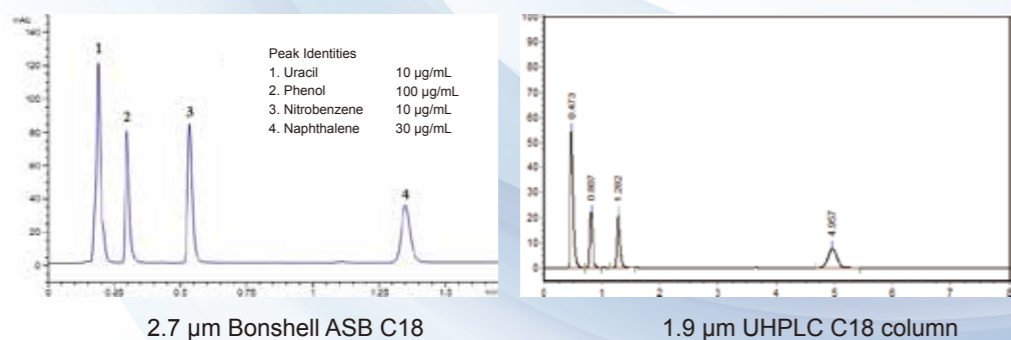
Red curve: 1.9 µm UHPLC column

Purple curve: Bonshell

Compared to the same dimension UHPLC column, Bonshell column has a column pressure 40% lower and the same column efficiency. Also, it enjoys a faster separation.

The scalability of Bonshell Columns from conventional analytical dimensions to shorter dimensions and vice versa makes it more special to use in the HPLC lab and for new method development it is ideal choice of the column which can easily work with both UPLC and HPLC to save the solvent cost, run time of the analysis & most importantly workable pressure range maximum up to 9000 psi making it best choice for the analytical separations in every real sense. The cost of coreshell technology products are lesser than sub 2 µm columns and in API & Formulation Analytical Method Development labs where sample is ran with aggressive mobile phase the life expectancy is better in comparison to sub 2 µm columns.

However, the life cannot be compared with regular longer length columns. We can conclude in nutshell Bonshell Columns are excellent tool for method development studies and shortening the overall analysis time with any commonly available HPLC System in lab in less cost and optimal pressure with excellent peak shapes & resolution between the compounds.



Column: 2.1×50 mm;

Mobile phase: 50% water and 50% ACN

Flow rate: 0.5 mL/min;

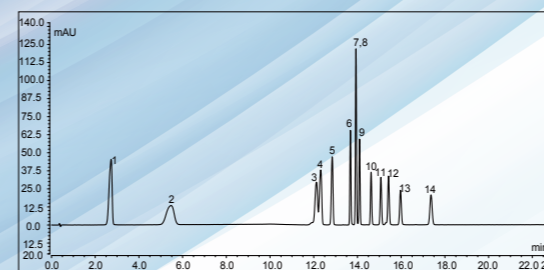
Temperature: 30°C;

Detector: UV 254 nm

	Bonshell ASB C18	1.9 µm Traditional C18
Column efficiency	9600	9100
Pressure	175 bar	275 bar

High Efficiency as UHPLC Column

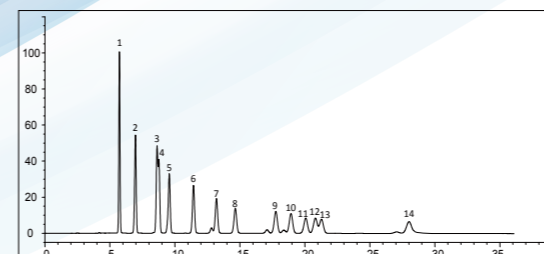
Separation of fourteen 2,4-dinitrophenylhydrazone derivatives formaldehyde, acetaldehyde, acraldehyde, propylaldehyde, crotonaldehyde, butanone, butaldehyde, methacrolein, benzaldehyde, amyl aldehyde, toluyl aldehyde, cyclohexanone, caproaldehyde



Sample: 14 DNPHs
Column: Bonshell C18, 4.6×100 mm, 2.7 µm, 90 Å,
Detection: UV 360 nm
Flow Rate: 1.2 mL/min

Mobile phase:

Time	Water%	ACN%
0	60	40
5	70	30
9	75	25
13	40	60



Sample: 14 DNPHs
Column: Venusil® XBP C18, 4.6×250 mm, 5 µm
P/N: VX952505-0
Detection: UV 360 nm
Flow Rate: 1 mL/min
Mobile Phase: ACN:Water=60:40