

SHINWA EXPRESS Application

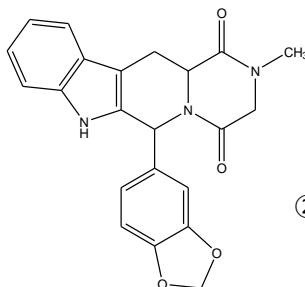
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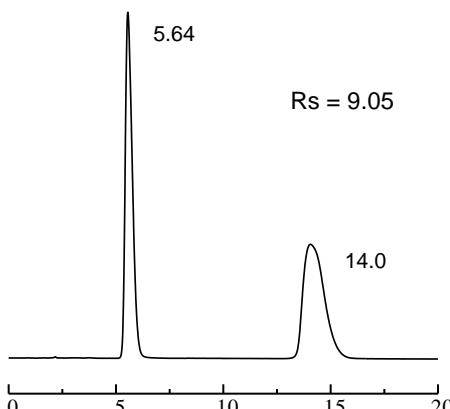
Analysis of tadalafil using the ULTRON ES-OVM (3 µm)

Shown below are comparative analyses of tadalafil performed using ULTRON ES-OVM 5 µm (150 x 4.6 mm I.D.) and ULTRON ES-OVM 3 µm (100 x 3.0 mm I.D.) columns.

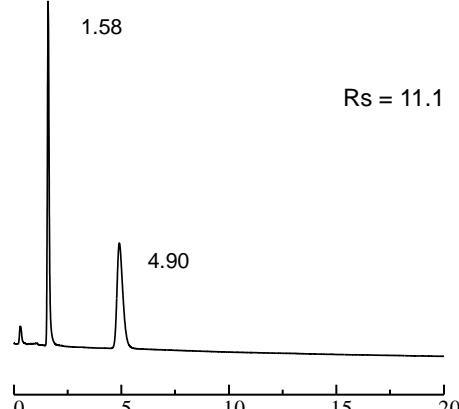
Faster analyses



① ULTRON ES-OVM (5 µm)
150 x 4.6 mm I.D.



② ULTRON ES-OVM (3 µm)
100 x 3.0 mm I.D.



*Resolution values will differ depending on the specifications of the system used.

Column: ULTRON ES-OVM (5 µm)/ULTRON ES-OVM-3 (3 µm)
 Column size: 150 x 4.6 mm I.D./100 x 3.0 mm I.D.
 Column temp.: 25°C
 Mobile phase: 20 mM KH₂PO₄ + H₃PO₄ (pH 3.0)/CH₃CN = 85/15
 Flow rate: 1.0 mL/min

Detection: UV-220 nm
 Sample: Tadalafil 200 mg/L (in methanol)
 Injection vol.: 2.0 µL (ES-OVM, 5 µm 150 x 4.6 mm I.D.)
 0.5 µL (ES-OVM, 3 µm 100 x 3.0 mm I.D.)

Features of the ULTRON ES-OVM (3µm) (compared to the 5 µm column)

- Maximum operating pressure of 30 MPa.
- Can be used in LC/MS systems as well.
- Employs a 3 µm packing material for higher peak resolution and theoretical plate numbers.
- Enables significant reductions in analysis times while maintaining high theoretical plate numbers.
- Enables further improvements in performance with optimization of LC system tubing and flow cells.
- 9 column length and inner diameter combinations available.



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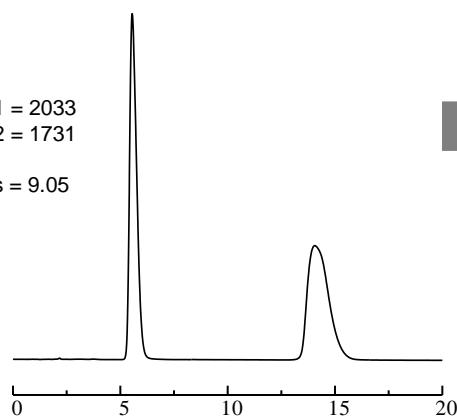
E-mail: info@shinwa-cpc.co.jp

Website: <http://shinwa-cpc.co.jp/en/>

■ Greater analytical performance (high resolution)

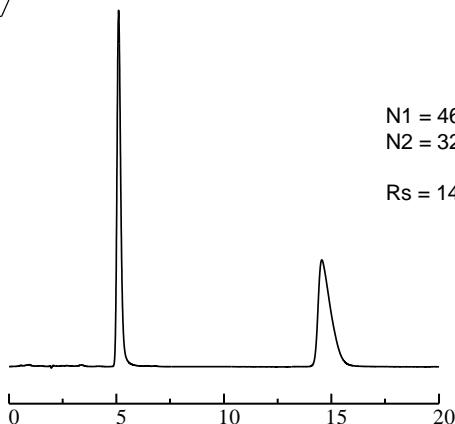
① ULTRON ES-OVM (5 µm)
150 x 4.6 mm I.D.

N1 = 2033
N2 = 1731
Rs = 9.05



② ULTRON ES-OVM-3 (3 µm)
100 x 3.0 mm I.D.

N1 = 4689
N2 = 3222
Rs = 14.3



* Theoretical plate numbers and resolution values will differ depending on the specifications of the system used.

Column: ULTRON ES-OVM (5 µm)/ULTRON ES-OVM (3 µm)
Column size: 150 x 4.6 mm I.D./100 x 3.0 mm I.D.
Column temp.: 25°C
Mobile phase: 20 mM KH₂PO₄ + H₃PO₄ (pH 3.0)/CH₃CN = 85/15
Flow rate: 1.0 mL/min (ES-OVM, 5 µm 150 x 4.6 mm I.D.)
0.28 mL/min (ES-OVM, 3 µm 100 x 3.0 mm I.D.)

Detection: UV-220 nm
Sample: Tadalafil 200 mg/L (in methanol)
Injection vol.: 2.0 µL (ES-OVM, 5 µm 150 x 4.6 mm I.D.)
0.5 µL (ES-OVM, 3 µm 100 x 3.0 mm I.D.)

ULTRON ES-OVM (3 µm) line-up

Application	Semi-micro LC	Semi-micro LC Conventional LC	Conventional LC
Column dimensions Length x I.D. (mm)	50 x 2.1	50 x 3.0	50 x 4.6
	100 x 2.1	100 x 3.0	100 x 4.6
	150 x 2.1	150 x 3.0	150 x 4.6



Please feel free to contact us with questions related to analyses.
Column screening services are also available.

Please be aware that specifications are subject to change without prior notification.