

# << Develosil Column >>

## TEST REPORT

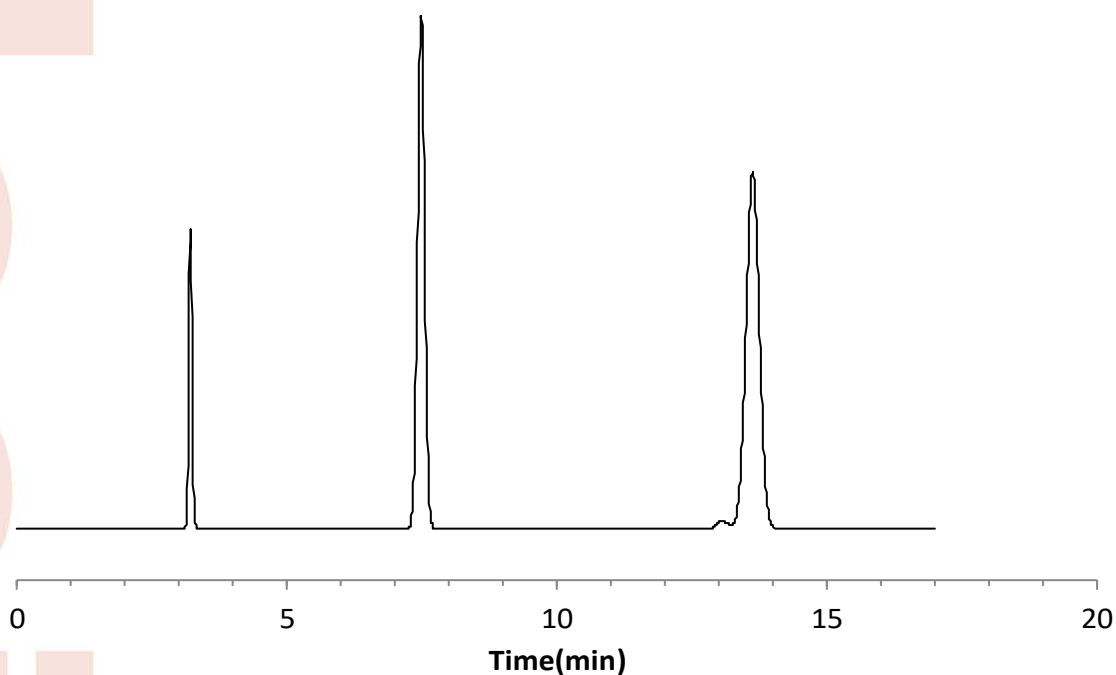
Packings	Develosil	C30-UG, 5 $\mu$ m	Batch No.	020317
Column size	Inner diameter	4.6 mm	Length	150 mm
End fitting type	NW			
Mfg. No.	09051870-JH			

### Operating conditions

Mobile phase	:	Acetonitrile:water=70:30
Flow rate	:	1.0 mL/min
Column temp.	:	30 $^{\circ}$ C
Pressure	:	3.7 MPa
Detection	:	UV 254 nm

### Sample (Order of elution)

- 1 Benzene
- 2 Fluorene
- 3 Pyrene



Theoretical plate	(2nd peak)	$5.54 \times (t_R/W_{0.5})^2 = 13940$
Asymmetry factor	(10% Height of 2nd peak)	= 0.98

Mobile phase at shipment: Acetonitrile:water=70:30

# Certificate of Analysis

Develosil C30-UG-5

Batch # 020317

## Analytical Results for Develosil C30-UG-5

Analysis of Unbonded Silica Gel	Result
Median Particle Size [ $\mu\text{m}$ ]	<b>5.32</b>
Surface Area [ $\text{m}^2/\text{g}$ ]	<b>296</b>
Pore Volume [ $\text{ml}/\text{g}$ ]	<b>1.11</b>
Median Pore Diameter [ $\text{nm}$ ]	<b>13.0</b>

※Median Particle Size was measured using Coulter Multisizer III, and Surface Area, Pore Volume and Median Pore Diameter were measured using Coulter SA3100.

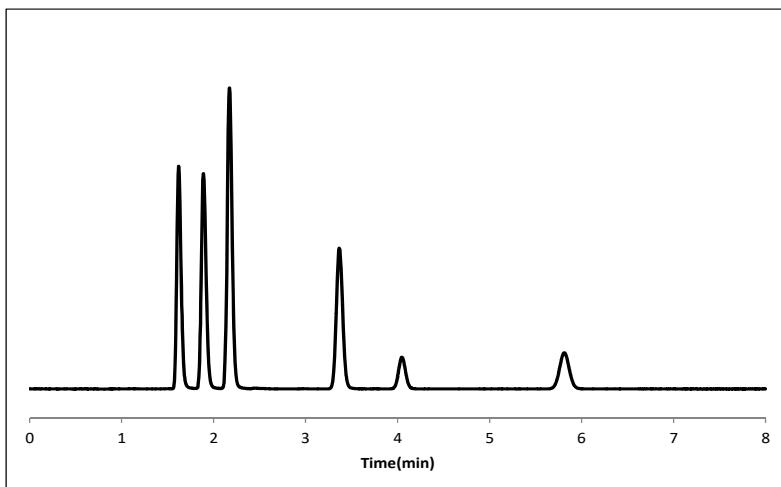
## Analysis of Develosil C30-UG-5

Total carbon [%]	<b>17.9</b>
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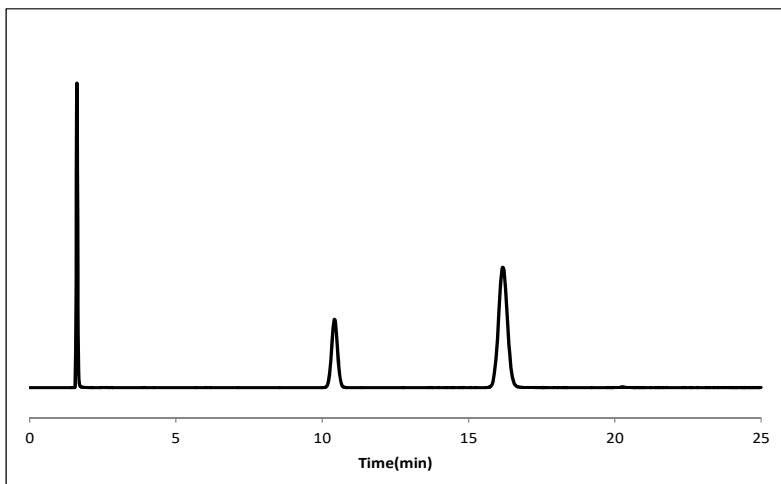
## Chromatographic Results for Develosil C30-UG-5

### Separation Factor

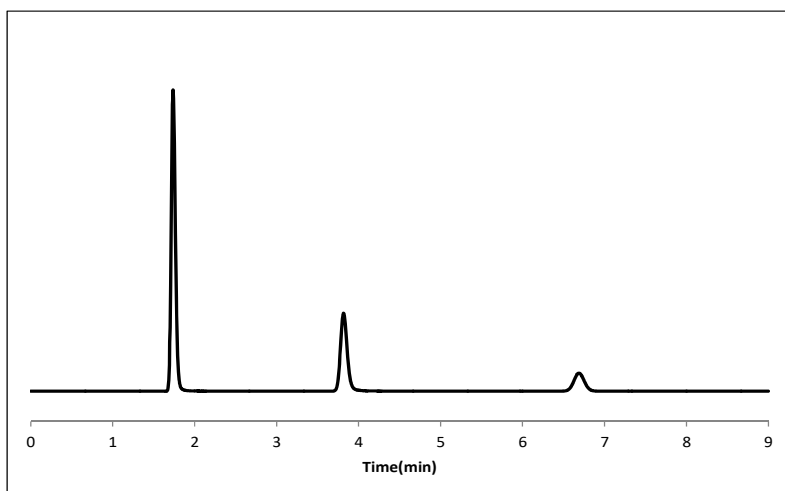
$\alpha$ (Caffeine/Phenol)	<b>0.49</b>
$\alpha$ (Toluene/Benzene)	<b>1.73</b>
$\alpha$ (Methyl benzoate/Toluene)	<b>0.42</b>
$\alpha$ (Triphenylene/o-Terphenyl)	<b>1.65</b>
$\alpha$ (Pyridine/Phenol)	<b>0.42</b>
$\alpha$ (Oxine-Copper/Caffeine)	<b>0.14</b>



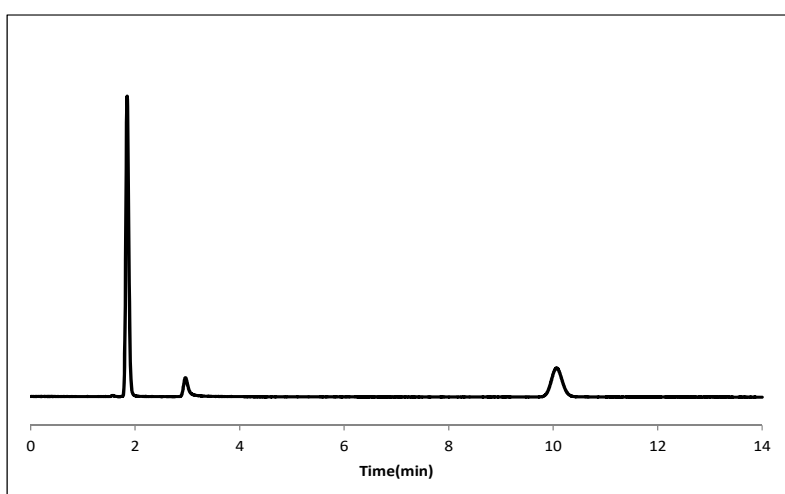
Column size :150x4.6mm I.D.  
 Mobile Phase :CH<sub>3</sub>OH/Water(70/30)  
 Flow rate :1.0ml/min  
 Detection :UV 254nm  
 Temperature :40°C  
 Sample 1:Uracil  
 2:Caffeine  
 3:Phenol  
 4:Methyl benzoate  
 5:Benzene  
 6:Toluene



Column size :150x4.6mm I.D.  
 Mobile Phase :CH<sub>3</sub>OH/Water(80/20)  
 Flow rate :1.0ml/min  
 Detection :UV 254nm  
 Temperature :40°C  
 Sample 1:Uracil  
 2:o-Terphenyl  
 3:Triphenylene



Column size :150x4.6mm I.D.  
Mobile Phase :CH<sub>3</sub>OH/Buffer(30/70)  
Flow rate :1.0ml/min  
Detection :UV 254nm  
Temperature :40°C  
Sample 1:Uracil  
2:Pyridine  
3:Phenol  
Buffer: 25mM Ammonium Phosphate (pH7.0)



Column size :150x4.6mm I.D.  
Mobile Phase :CH<sub>3</sub>OH/Buffer(20/80)  
Flow rate :1.0ml/min  
Detection :UV 254nm  
Temperature :40°C  
Sample 1:Uracil  
2:Oxine-Copper  
3:Caffeine  
Buffer: 25mM Ammonium Phosphate (pH2.0)