

<< Develosil Column >>

TEST REPORT

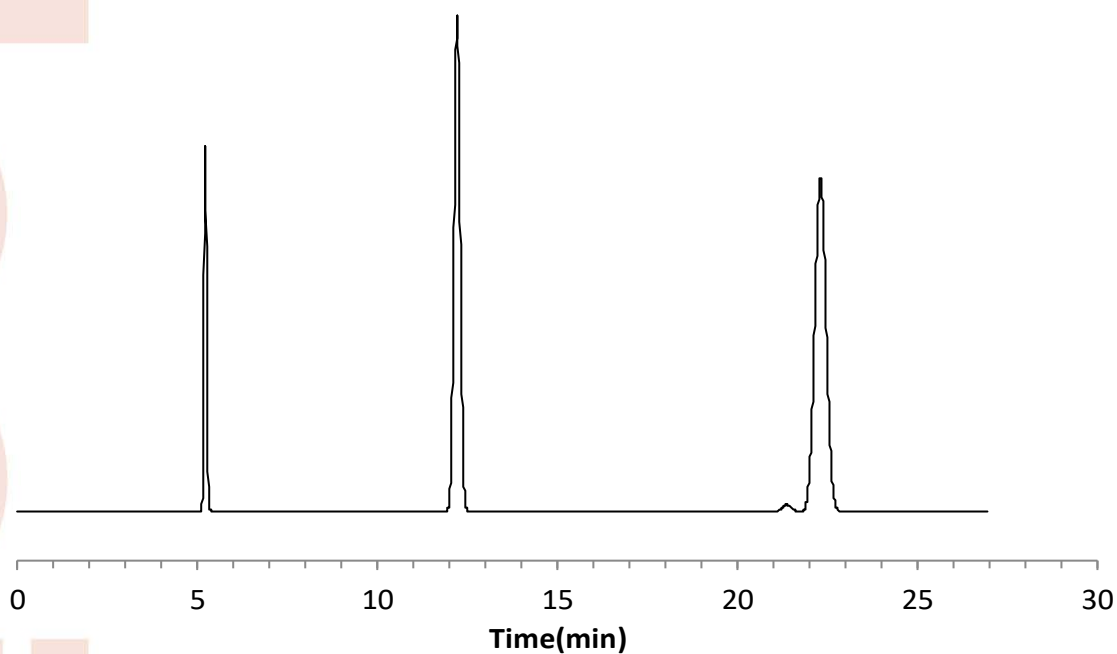
| | | | | |
|------------------|----------------|-----------|-----------|--------|
| Packings | Develosil | RPAQUEOUS | Batch No. | 020317 |
| Column size | Inner diameter | 4.6mm | Length | 250 mm |
| End fitting type | NW | | | |
| Mfg. No. | 09031862-SY | | | |

Operating conditions

| | | |
|--------------|---|--------------------------|
| Mobile phase | : | Acetonitrile:water=70:30 |
| Flow rate | : | 1.0 mL/min |
| Column temp. | : | 30 °C |
| Pressure | : | 5.8 MPa |
| Detection | : | UV 254 nm |

Sample (Order of elution)

- | | |
|---|----------|
| 1 | Benzene |
| 2 | Fluorene |
| 3 | Pyrene |



| | | |
|-------------------|--------------------------|---------------------------------------|
| Theoretical plate | (2nd peak) | $5.54 \times (t_R/W_{0.5})^2 = 23600$ |
| Asymmetry factor | (10% Height of 2nd peak) | = 1.00 |

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

Certificate of Analysis

Develosil RPAQUEOUS

Batch # 020317

Analytical Results for Develosil RPAQUEOUS

| Analysis of Unbonded Silica Gel | Result |
|--|-------------|
| Median Particle Size [μm] | 5.32 |
| Surface Area [m^2/g] | 296 |
| Pore Volume [ml/g] | 1.11 |
| Median Pore Diameter [nm] | 13.0 |

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

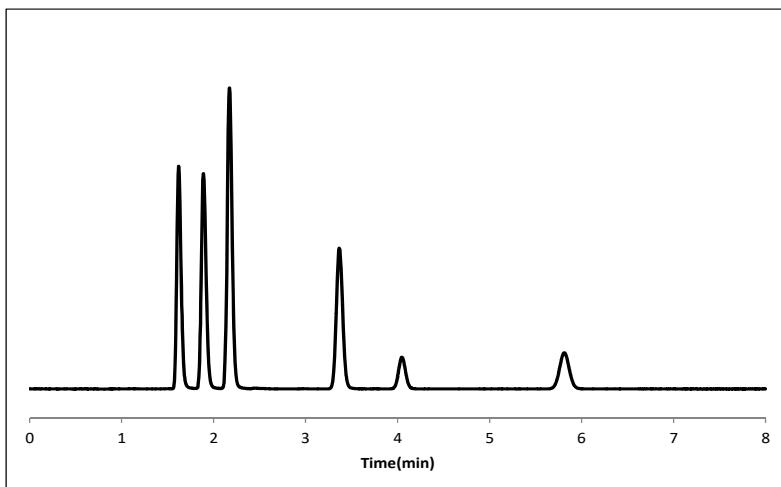
Analysis of Develosil RPAQUEOUS

| | |
|------------------|-------------|
| Total carbon [%] | 17.9 |
|------------------|-------------|

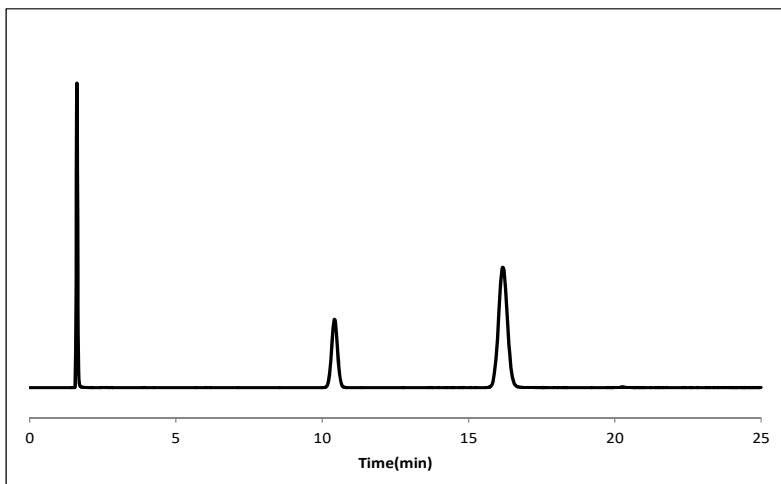
Chromatographic Results for Develosil RPAQUEOUS

Separation Factor

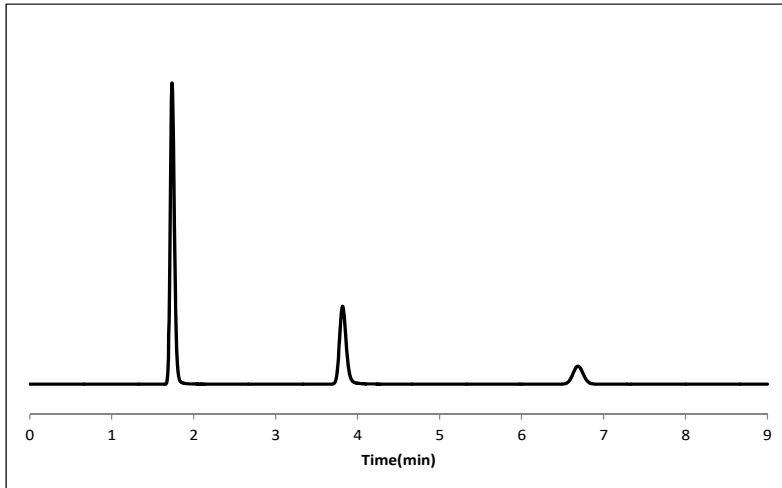
| | |
|-------------------------------------|-------------|
| α (Caffeine/Phenol) | 0.49 |
| α (Toluene/Benzene) | 1.73 |
| α (Methyl benzoate/Toluene) | 0.42 |
| α (Triphenylene/o-Terphenyl) | 1.65 |
| α (Pyridine/Phenol) | 0.42 |
| α (Oxine-Copper/Caffeine) | 0.14 |



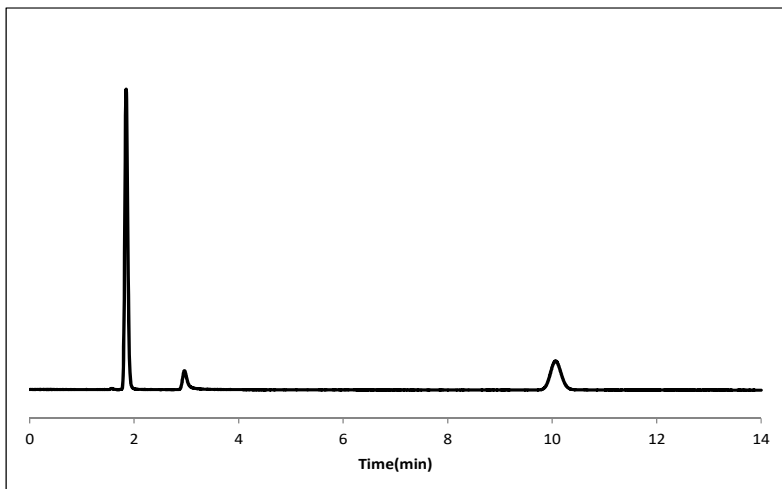
Column size :150x4.6mm I.D.
 Mobile Phase :CH₃OH/Water(70/30)
 Flow rate :1.0ml/min
 Detection :UV 254nm
 Temperature :40°C
 Sample 1:Uracil
 2:Caffeine
 3:Phenol
 4:Methyl benzoate
 5:Benzene
 6:Toluene



Column size :150x4.6mm I.D.
 Mobile Phase :CH₃OH/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 :CH₃OH/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 :CH₃OH/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)