

<< Develosil Column >>

TEST REPORT

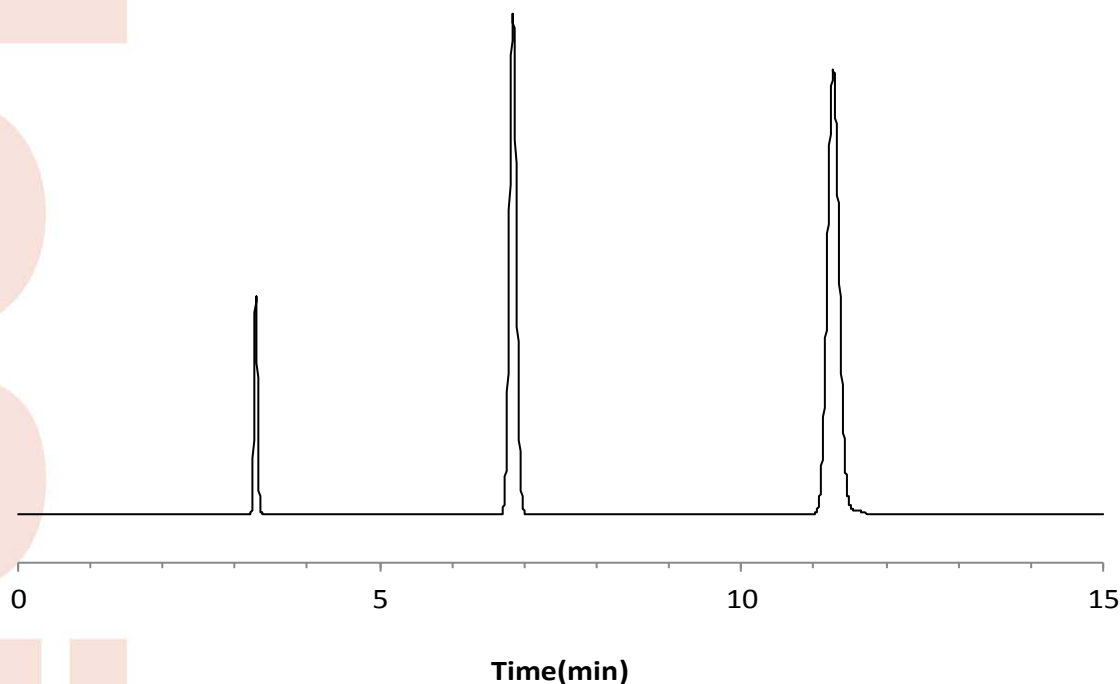
| | | | | |
|------------------|----------------|--------------|-----------|--------|
| Packings | Develosil | ODS-HG, 3 μm | Batch No. | 240414 |
| Column size | Inner diameter | 4.6 mm | Length | 150 mm |
| End fitting type | NW | | | |
| Mfg. No. | 21041865-BZ | | | |

Operating conditions

| | | |
|--------------|---|--------------------------|
| Mobile phase | : | Acetonitrile:water=70:30 |
| Flow rate | : | 1.0 mL/min |
| Column temp. | : | 30 °C |
| Pressure | : | 8.6 MPa |
| Detection | : | UV 254 nm |

Sample (Order of elution)

- 1 Benzene
- 2 Fluorene
- 3 Pyrene



| | | |
|-------------------|---------------------------|---------------------------------------|
| Theoretical plate | (Last peak) | $5.54 \times (t_R/W_{0.5})^2 = 21282$ |
| Asymmetry factor | (10% Height of Last peak) | = 1.05 |

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

Certificate of Analysis

Develosil ODS-HG-3

Batch # 240414

Analytical Results for Develosil ODS-HG-3

| Analysis of Unbonded Silica Gel | Result |
|--|--------------|
| Median Particle Size [μm] | 3.35 |
| Surface Area [m^2/g] | 304 |
| Pore Volume [ml/g] | 1.10 |
| Median Pore Diameter [nm] | 13.86 |

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

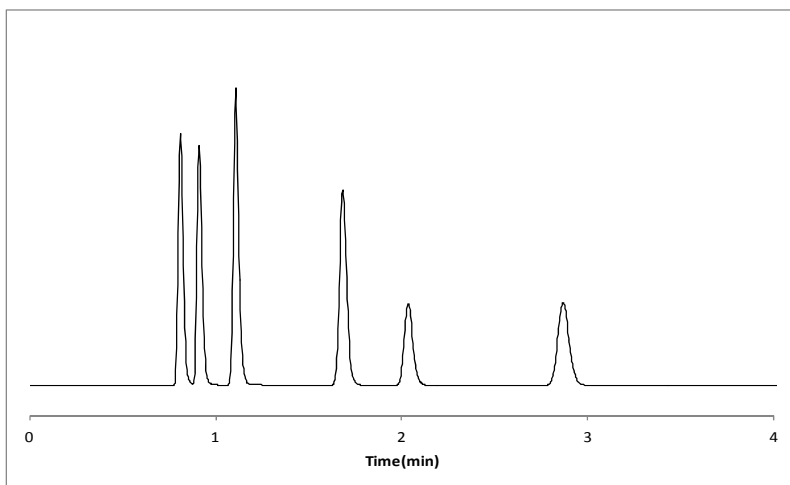
Analysis of Develosil ODS-HG-3

| | |
|------------------|--------------|
| Total carbon [%] | 17.97 |
|------------------|--------------|

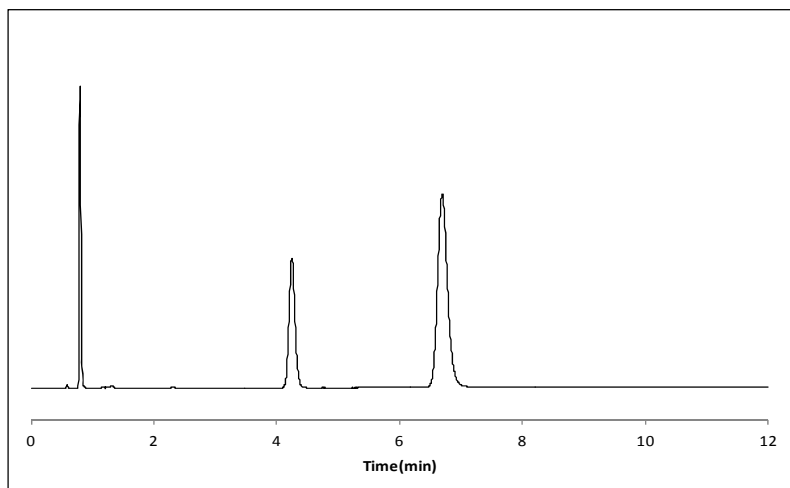
Chromatographic Results for Develosil ODS-HG-3

Separation Factor

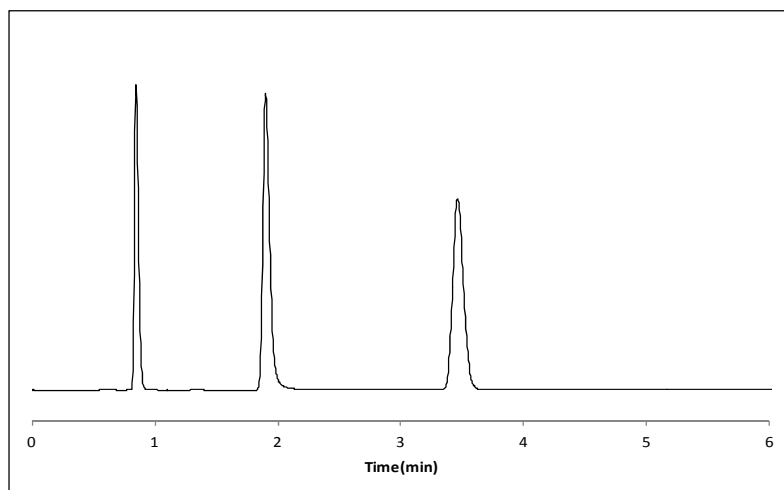
| | |
|-------------------------------------|-------------|
| α (Caffeine/Phenol) | 0.33 |
| α (Toluene/Benzene) | 1.69 |
| α (Methyl benzoate/Toluene) | 0.42 |
| α (Triphenylene/o-Terphenyl) | 1.60 |
| α (Pyridine/Phenol) | 0.39 |
| α (Oxine-Copper/Caffeine) | 0.18 |
| α (Formic acid/Acetic acid) | 0.25 |



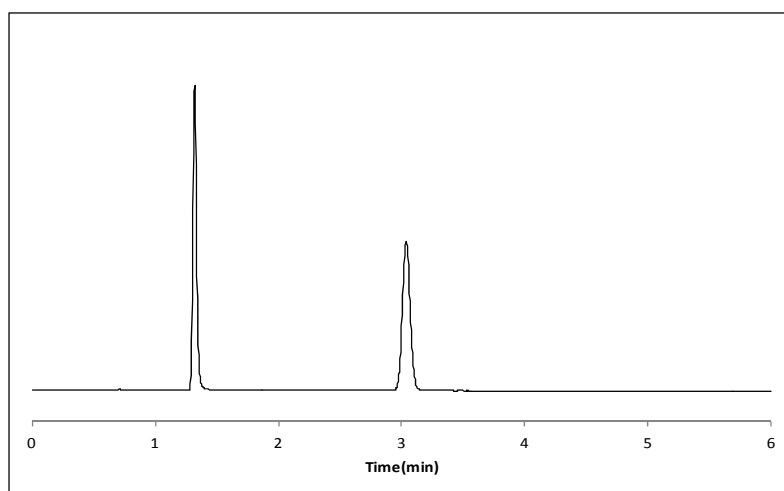
Column size :75x4.6mm I.D.
 Mobile Phase :CH₃OH/Water(70/30)
 Flow rate :1.0ml/min
 Detection :UV 254nm
 Temperature :40°C
 Sample 1:Uracil
 2:Caffeine
 3:Phenol
 4:Methyl benzoate
 5:Benzene
 6:Toluene



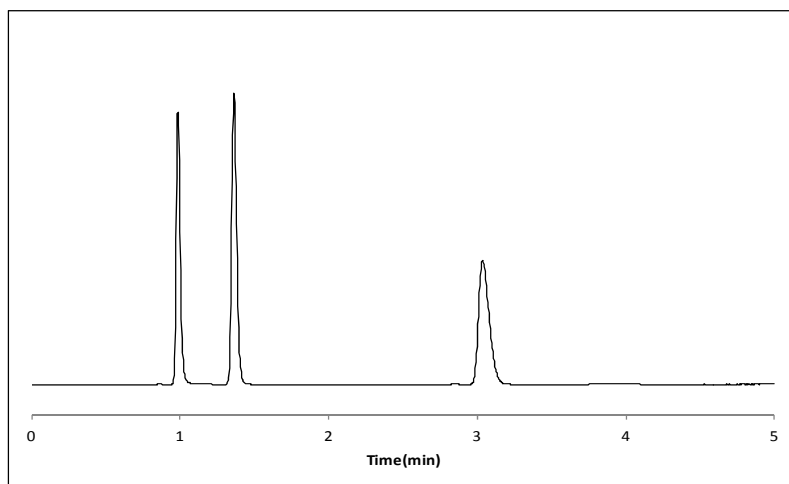
Column size :75x4.6mm I.D.
 Mobile Phase :CH₃OH/Water(80/20)
 Flow rate :1.0ml/min
 Detection :UV 254nm
 Temperature :40°C
 Sample 1:Uracil
 2:o-Terphenyl
 3:Triphenylene



Column size :75x4.6mm I.D.
 Mobile Phase :CH₃OH/Water(30/70)
 Flow rate :1.0ml/min
 Detection :UV 254nm
 Temperature :40°C
 Sample 1:Uracil
 2:Pyridine
 3:Phenol



Column size :75x4.6mm I.D.
 Mobile Phase :CH₃CN/0.2%H₃PO₄(10/90)
 Flow rate :1.0ml/min
 Detection :UV 254nm
 Temperature :40°C
 Sample 1:Oxine-Copper
 2:Caffeine



Column size :75x4.6mm I.D.
 Mobile Phase :CH₃CN/0.2%H₃PO₄(2/98)
 Flow rate :1.0ml/min
 Detection :UV 210nm
 Temperature :40°C
 Sample 1:Formic acid
 2:Acetic acid
 3:Propionic acid