

HPLC Column for Liquid Chromatography

For Hydrophilic Interaction Liquid Chromatography (HILIC)

# Develosil™ ANIDIUS



Develosil™  
HPLC Column

for Liquid Chromatography

ННГС сојуши

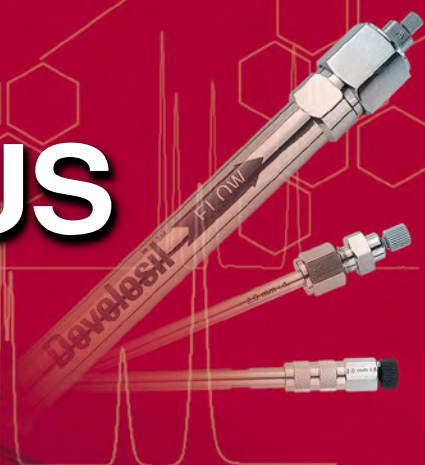
DEVELOSIIL

For Hydrophilic Interaction Liquid Chromatography (HILIC)

# Develosil™ ANIDIUS

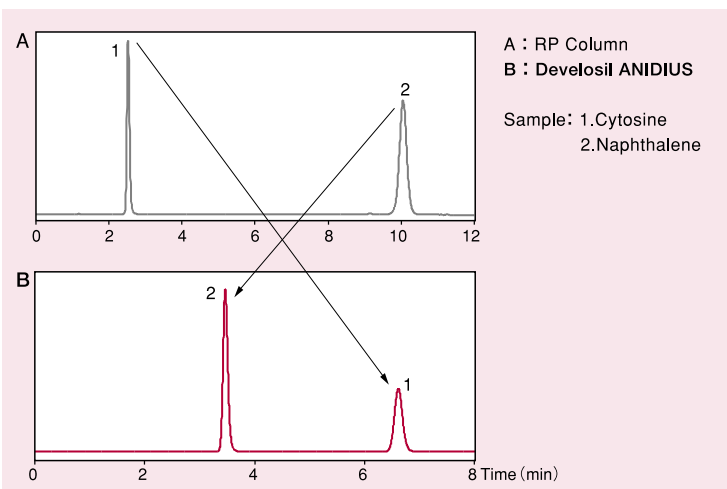
Develosil ANIDIUS was designed for HILIC.

Develosil ANIDIUS is most suitable for the analysis of the high polarity compound which cannot maintain it by the reverse phase chromatography.



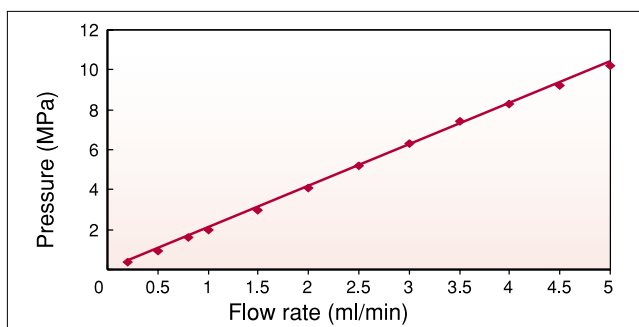
## Characteristic

- An elution pattern unlike reverse phase chromatography.
- The filler (Chemical bond type) was composed newly in own company.
- The mobile phase uses organic solvent and water or buffer.
- The silica base uses Surface Area:300m<sup>2</sup>/g, Pore Diameter:14nm, Pore capacity:1.15ml/g, and Bonded-Phase: -OH,-NH<sub>2</sub>



## 1 Relation of the Flow rate and Pressure

Develosil™ ANIDIUS



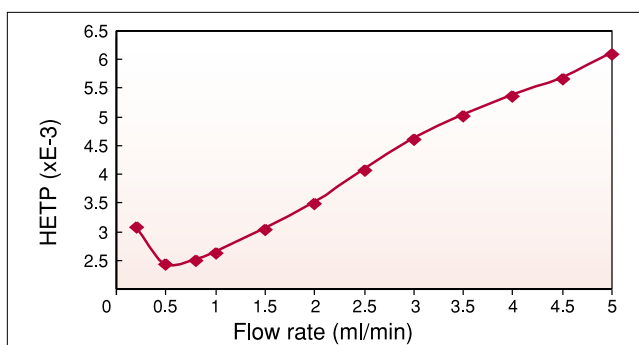
Relation of the Flow rate and Pressure were plotted in the of following conditions.

The pressure rises when they give Flow rate, and proportion relations have this. Develosil ANIDIUS sets organic solvent density in a high condition. Therefore, the analysis is performed by low pressure.

Column : Develosil ANIDIUS  
Size : 4.6x250mm  
Mobile Phase : Acetonitrile/5mM Ammonium Formate (pH3) =90/10  
Temp. : 30°C  
Detector : UV254nm  
Sample : Cytosine

## 2 Relation of the Flow rate and HETP

Develosil™ ANIDIUS

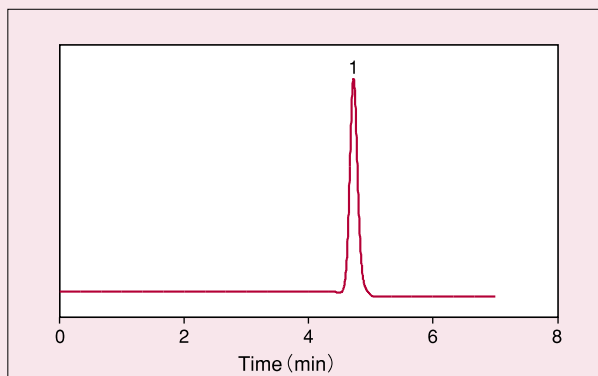


The most suitable Flow rate is judged by plotting Flow rate and HETP. HETP is a reciprocal number of the plate, and performance will appear if this value is small. However, please be careful to the expanses in the column.

Column : Develosil ANIDIUS  
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Temp. : 30°C  
Detector : UV254nm  
Sample : Cytosine

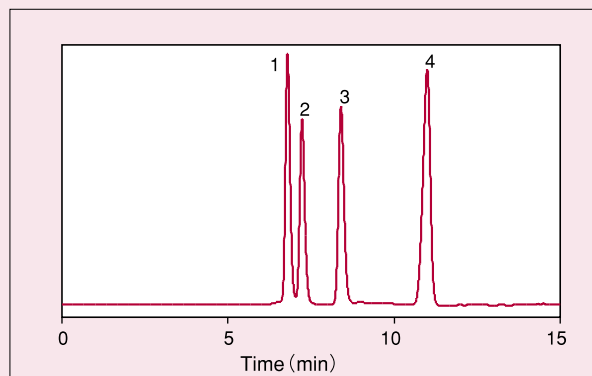
### 3 Application data

#### ⬡ Allantoin



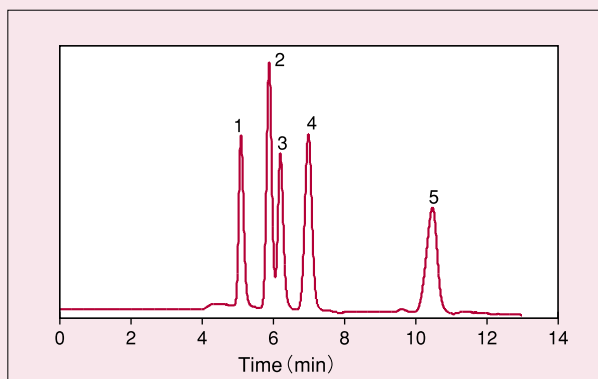
Column : Develosil ANIDIUS  
Size : 4.6x150mm  
Mobile Phase : Acetonitrile/5mM Ammonium Formate (pH2) =85/15  
Flow rate : 1.0ml/min  
Temp. : 30°C  
Detector : RI  
Sample : 1.Allantoin

#### ⬡ Amino acids



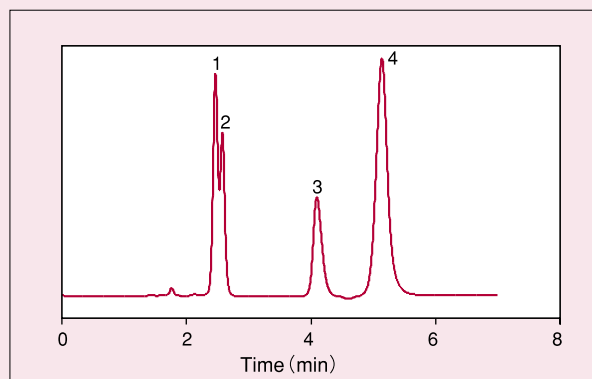
Column : Develosil ANIDIUS  
Size : 4.6x250mm  
Mobile Phase : Acetonitrile/20mM Ammonium Formate (pH7) =75/25  
Flow rate : 1.0ml/min  
Temp. : 30°C  
Detector : RI  
Sample : 1.Leu/2.Ile/3.Val/4.Ala

#### ⬡ Sugars



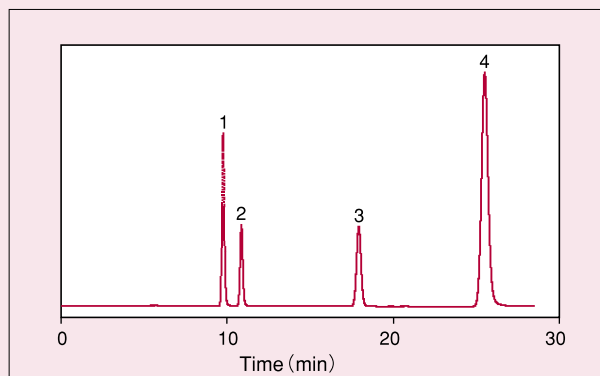
Column : Develosil ANIDIUS  
Size : 4.6x250mm  
Mobile Phase : Acetonitrile/H<sub>2</sub>O=80/20  
Flow rate : 1.0ml/min  
Temp. : 30°C  
Detector : RI  
Sample : 1.Rhamnose/2.Ribitol/3.Fluctose  
4.Glucose/5.Maltose

#### ⬡ Organic acids



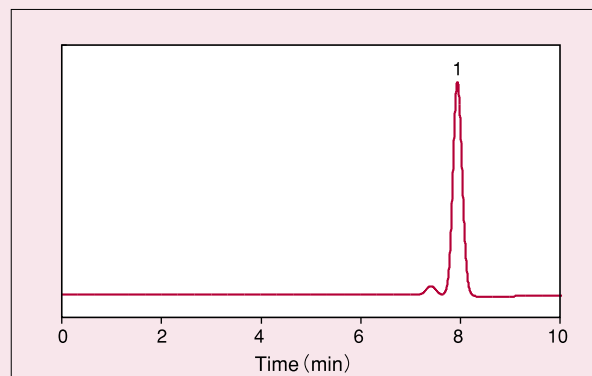
Column : Develosil ANIDIUS  
Size : 4.6x150mm  
Mobile phase : Acetonitrile/100mM Ammonium Phosphate(pH7)=50/50  
Flow rate : 0.5ml/min  
Temp. : 30°C  
Detector : UV210nm  
Sample : 1.Propionic acid/2.Formic acid/3.Malonic acid  
4.Oxalic acid

## Nucleobase



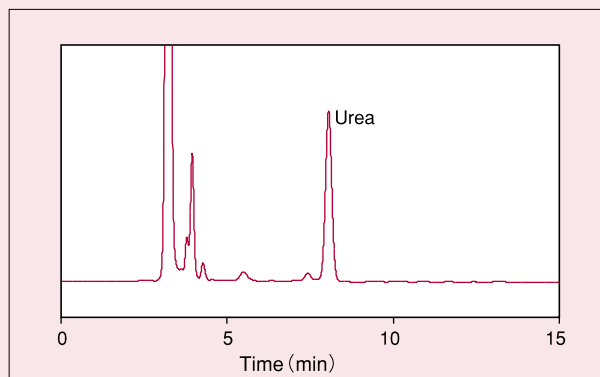
Column : Develosil ANIDIUS  
 Size : 4.6x250mm  
 Mobile Phase : Acetonitrile/5mM Ammonium Formate (pH3) =90/10  
 Flow rate : 0.5ml/min  
 Temp. : 30°C  
 Detector : UV254nm  
 Sample : 1.Thymine / 2.Uracil / 3.Adenosine / 4.Cytosine

## Urea



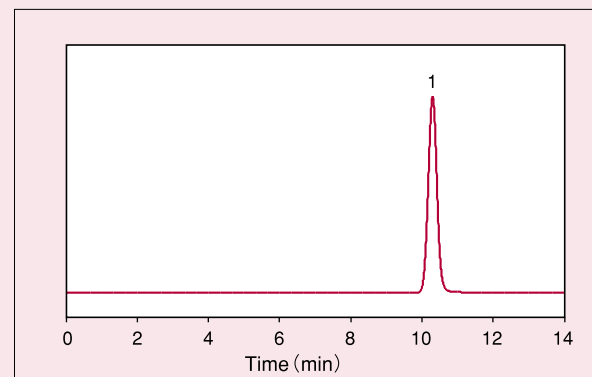
Column : Develosil ANIDIUS  
 Size : 4.6x150mm  
 Mobile phase : Acetonitrile/5mM Ammonium Formate (pH3) =90/10  
 Flow rate : 0.5ml/min  
 Temp. : 30°C  
 Sample : 1.Urea

## Urea of hand cream



Column : Develosil ANIDIUS  
 Mobile phase : Acetonitrile/5mM Ammonium Formate (pH3) =90/10  
 Flow rate : 0.5ml/min  
 Temp. : 30°C  
 Detector : UV210nm  
 Sample : Commercial hand cream

## Creatinine



Column : Develosil ANIDIUS  
 Size : 4.6x150mm  
 Mobile phase : Acetonitrile/10mM Ammonium Formate (pH3) =90/10  
 Flow rate : 0.5ml/min  
 Temp. : 30°C  
 Detector : UV254nm  
 Sample : 1.Creatinine



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