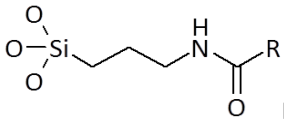
Sepsil Core HILIC-Amide, HILIC-S, 2.6 µm

亲水性相互作用色谱用柱

物理参数

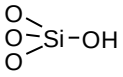
	粒径	孔径	比表面积	含碳量	键合相	封尾	最大压力	Available pH range
Sepsil Core HILIC-Amide	2.6 µm	9 nm	150 m^2/g	3%	Amide	No	60 MPa	2 - 8
Sepsil Core HILIC-S	2.6 µm	9 nm	150 m^2/g	0%	Bare silica	No	60 MPa	1 - 5

HILIC-Amide 的键合相

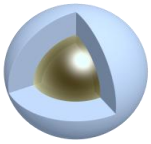


R: 亲水基

HILIC-S的键合相

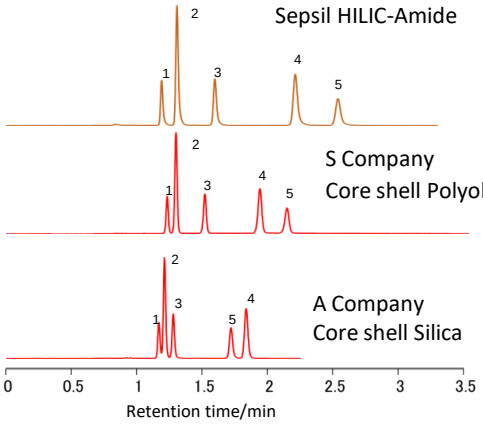


未键合硅胶



HILIC-Amide键合相的氨基结合亲水基，氨基和亲水基相互作用，比单独时具有更高的亲水性，从而在亲水状态下的保留时间变长。同时用比较短的壳核柱就可以达到很高的理论塔板数，因此可以实现高速的亲水化分离。

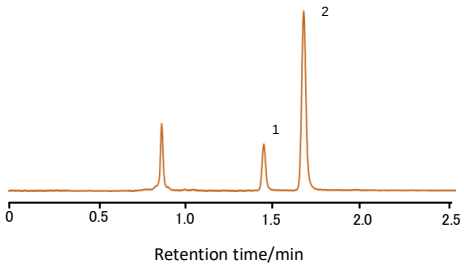
核酸碱基的分离：与其他公司的壳核柱对比



Column:
Sepsil Core HILIC-Amide, 2.6 µm 100 x 4.6 mm,
Coreshell polyol, 2.7 µm 100 x 4.6 mm,
Core shell Silica, 2.7 µm 100 x 4.6 mm
Mobile phase:
Acetonitrile/20 mM ammonium acetate(pH4.7) = 8/2
Flow rate: 1.0 mL/min
Temperature: 40 °C
Detection: UV@250 nm
Sample: 1 = Thymine, 2 = Uracil, 3 = Uridine, 4 = Cytosine, 5 = Cytidine

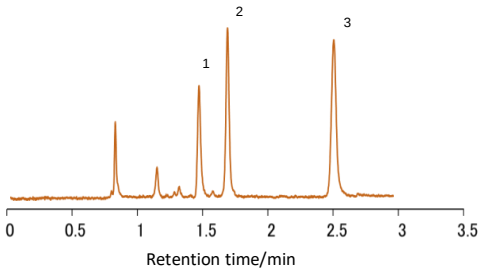
HILIC-Amide柱与其他公司的聚二醇柱相比，保留时间大约增加30%， 与其他公司的壳核柱相比更是有很大优势。

三聚氰酸和三聚氰胺的分离



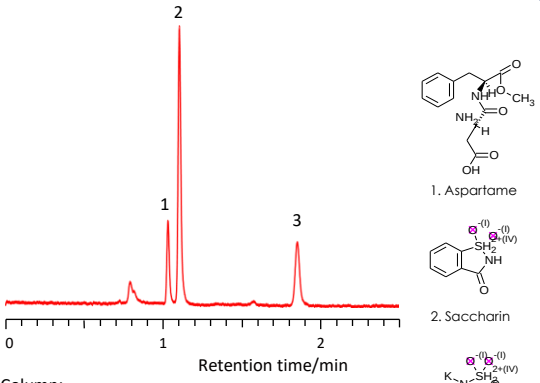
Column: Sepsil Core HILIC-Amide, 2.6 µm 100 x 4.6 mm
Mobile phase:
Acetonitrile/5 mM phosphate Buffer (pH6.9) =75/25
Flow rate: 1.0 mL/min
Temperature: 40 °C
Detection: UV@220 nm,
Sample: 1 = Cyanuric acid, 2 = Melamine

水溶性维生素的分离



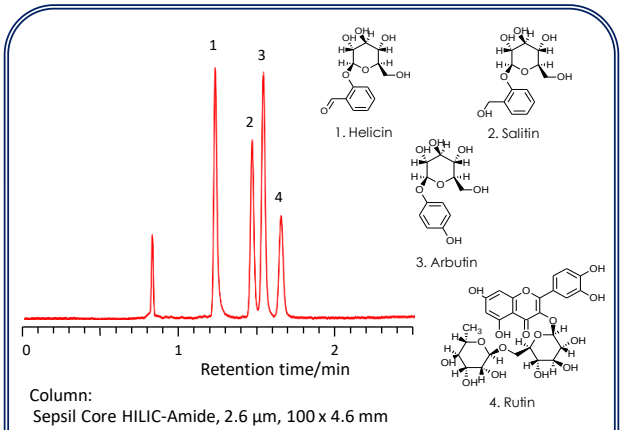
Column: Sepsil Core HILIC-Amide, 2.6 µm 100 x 4.6 mm
Mobile phase:
Acetonitrile/25 mM phosphate buffer (pH2.5) =8/2
Flow rate: 1.0 mL/min
Temperature: 40 °C
Detection: UV@250 nm,
Sample: 1 = Nicotinic acid, 2 = Ascorbic acid, 3 = Pyridoxine

甜味剂的分离



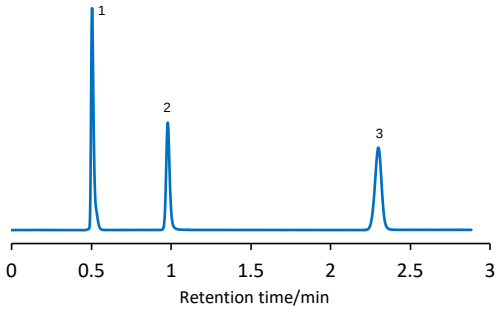
Column:
Sepsil Core HILIC-Amide, 2.6 µm, 100 x 4.6 mm
Mobile phase:
Acetonitrile: 25 mM phosphate buffer (pH2.5) =8:2
Flow rate: 1.0 mL/min ,
Temperature: Ambient
Detection: UV@215 nm
Sample: 1 = Aspartame, 2 = Saccharin, 3 = Acesulfame K

糖苷的分离



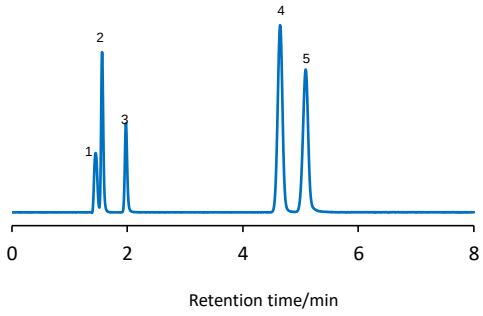
Column:
Sepsil Core HILIC-Amide, 2.6 µm, 100 x 4.6 mm
Mobile phase:
Acetonitrile:25 mM phosphate Ammonium (pH4.9) =8:2
Flow rate: 1.0 mL/min
Temperature: Ambient
Detection: UV@215 nm
Sample: 1 = Helicin, 2 = Salicin, 3,= Arbutin, 4 = Rutin

核酸碱基的分离



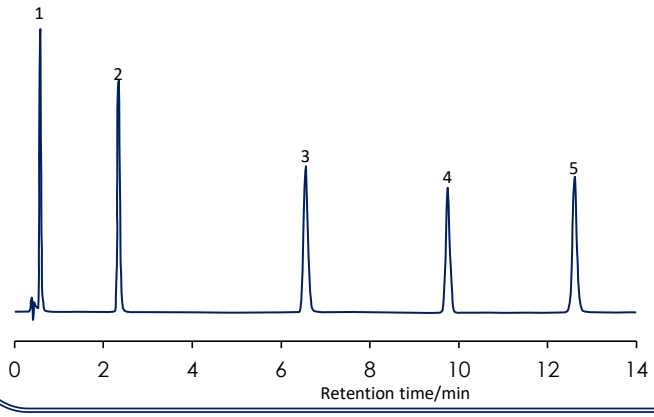
Column: Sepsil Core HILIC-S, 2.6 µm 100 x 2.1 mm
Mobile phase: 100 mM ammonium acetate (pH3.0) /acetonitrile = 1/9
Flow rate: 0.4 mL/min
Temperature: 40 ºC
Detection: UV@250 nm
Sample: 1 = Acenaphthene, 2 = Uridine, 3 = Cytosine

核酸碱基的分离



Column: Sepsil Core HILIC-S, 2.6 µm 100 x 2.1 mm
Mobile phase: 100 mM ammonium acetate (pH3.0) /acetonitrile = 1/9
Flow rate: 0.2 mL/min
Temperature: 40 ºC
Detection: UV@250 nm
Sample: 1 = Thymine, 2 = Uracil, 3 = Uridine, 4 = Cytosine, 5 = Cytidine

使用内径1mm柱分离多肽



Column: Sepsil Core RP-AQUA, 2.6 µm 100 x 1.0 mm
Mobile phase: A) 0.1 % trifluoroacetic acid (TFA) in water
B) 0.08 % trifluoroacetic acid (TFA) in acetonitrile
%B 10% to 30% in 25 min
Flow rate: 0.15 mL / min
Temperature: 60 ºC
Detection: UV@214 nm
Sample: 1 = Gly-Tyr, 2 = Val-Tyr-Val, 3 = Met enkephalin,
4 = Leu enkephalin, 5 = Angiotensin II
(HPLC peptide standard mixture by Sigma-Aldrich)