

Purospher STAR

- 高纯硅胶，金属杂质含量 ≤5 ppm
- PH范围较宽，完全达到PH 1.5-10.5
- 不同批次间每支色谱柱都拥有相同的重现性
- 使用寿命长

填料参数

	粒径	孔径	孔隙	表面积	碳载量	封尾	PH稳定性	USP
Purospher® STAR RP-18 endcapped	3 or 5µm	120 Å	1.1 ml/g	330m²/g	17%	Hydrophobic endcapping	pH 1.5-10.5	L1
Purospher® STAR RP-8 endcapped	3 or 5µm	120 Å	1.1 ml/g	330m²/g	11.2%	Hydrophobic endcapping	pH 1.5-10.5	L7
Purospher® STAR Si	5µm	120 Å	1.1 ml/g	330m²/g	-	No endcapping	-	L3
Purospher® STAR NH2	5µm	120 Å	1.1 ml/g	330m²/g	3.5%	-	pH 2-7.5	L8
Purospher® RP-18 endcapped	5µm	120 Å	1.0 ml/g	350m²/g	18.0%	Hydrophobic endcapping	pH 2-8	L1
Purospher® RP-18	5µm	90 Å	0.95 ml/g	500m²/g	18.5%	Amino endcapping	pH 2-7.5	L1
Purospher® RP-18 HC	5µm	90 Å	1.0 ml/g	> 470m²/g	18.0%	No endcapping	pH 2-7.5	L1

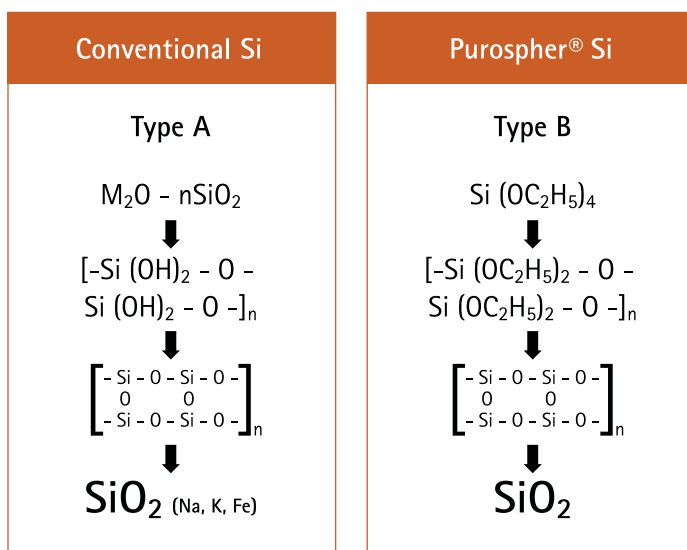
<高纯硅胶>

Purospher STAR的高纯硅胶品质出色，金属杂质含量不到5ppm，其完美的硅胶表面键合覆盖技术使得它可以在获得极好的峰对称性的同时，拥有极强的耐高碱性流动相的能力。

右图所示的是A型类硅胶的制备过程，我们可以发现， $M_2O-nSiO_2$ 中，M所代表的是大量的价金属元素，如Na, K, Fe等。用传统的硅胶合成工艺，无法去除大量的金属杂质，因此，在遇到分析碱性化合物或易发生螯合作用的化合物时，拖尾影响较大，同时，容易发生样品被固定相基质所吸附的情况。而采用B型硅胶的色谱柱，其硅胶制备的原料物质 $Si(OC_2H_5)_4$ 中几乎不含任何金属杂质，因此，选择色谱柱时尽量选用B型硅胶的色谱柱。

Purospher STAR 对已制得的B型高纯硅胶采取特殊的表面覆盖技术，使得C18键合相在硅胶表面处彼此互相连接，以此起到即使在强酸、强碱流动相的条件下，也能大幅延长其使用寿命的作用。

天然硅胶和合成硅胶的区别

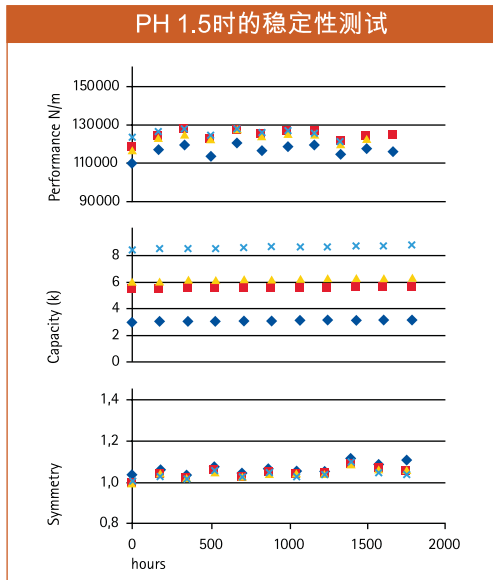




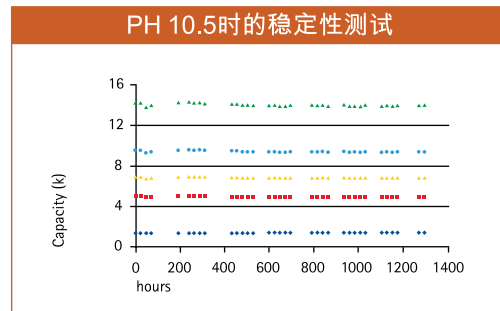
Merck液相色谱柱

PH稳定性测试

Purospher STAR 具有极出色的PH稳定性，长时间的数据测试证明Purospher STAR可以在PH 1.5-10.5的范围内稳定使用。

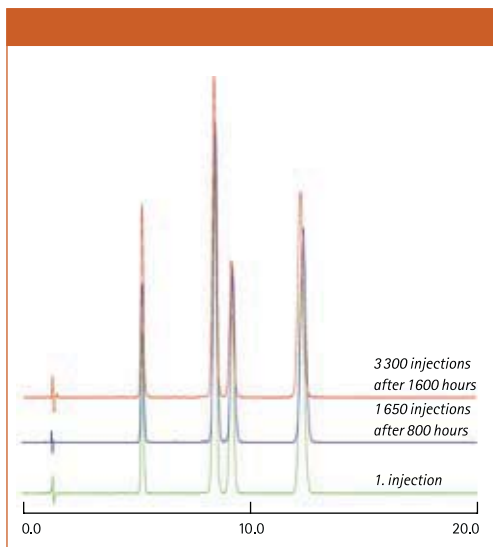


Column: LiChroCART® 150-4.6,
Purospher® STAR
RP-18 endcapped, 5µm
Eluent: Acetonitrile/Water
(0.01% TFA; 50:50)
Flow rate: 1.0 ml/min
Detection: UV 254 nm
Temperature: RT
Inj. volume: 10µl
Sample: Ketoprofen ◆ 酮洛芬
Fenoprofen ■ 非诺洛芬
Flurbiprofen ▲ 氟吡洛芬
Ibuprofen × 布洛芬



Column: LiChroCART® 150-4.6,
Purospher® STAR
RP-18 endcapped, 5µm
Eluent: Acetonitrile/Water
(0.1% NH3 [25%]; 60:40)
Flow rate: 1.0 ml/min
Detection: UV 254 nm
Temperature: RT
Inj. volume: 10µl
Sample: 1. 酮洛芬 ◆
2. 苯 ■
3. 甲苯 ▲
4. 丙苯 ×
5. 丁苯 ▲

长期柱寿命测试



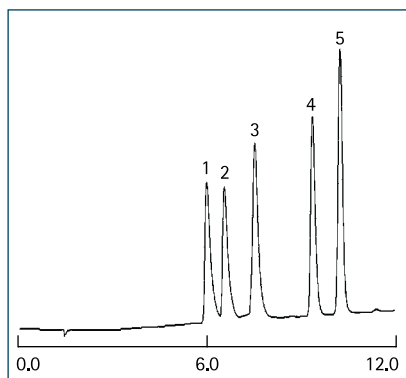
色谱柱: LiChroCART® 150-4.6,
Purospher® STAR
RP-18 endcapped, 5µm
流动相: 乙腈: 水 = 50:50
(0.01% TFA)
流速: 1.0 ml/min
检测条件: UV 254 nm
温度: 室温
进样体积: 10µl
样品: 1. Ketoprofen 酮洛芬
2. Fenoprofen 非诺洛芬
3. Flurbiprofen 氟吡洛芬
4. Ibuprofen 布洛芬

如图，3300针进样后没有任何影响

Purospher STAR RP-18e Purospher STAR RP-8e

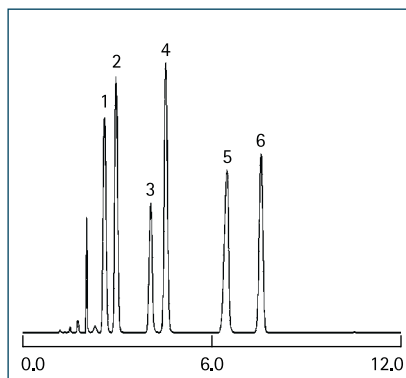
碱性化合物

色谱柱: LiChroCART® 150-4.6, Purospher® STAR RP-18 endcapped, 5 μm
 流动相: A: Methanol
 B: 0.02 M Phosphate buffer pH 7.5
 0.0 min 80% A
 15.0 min 100% A
 流速: 1.0 ml/min
 检测条件: UV 220 nm
 温度: 30°C
 进样体积: 10 μl
 样品:
 1. Protriptyline 普罗替林
 2. Desipramine 地昔帕明
 3. Nortriptyline 去甲替林
 4. Imipramine 咪帕明
 5. Amitriptyline 阿米替林



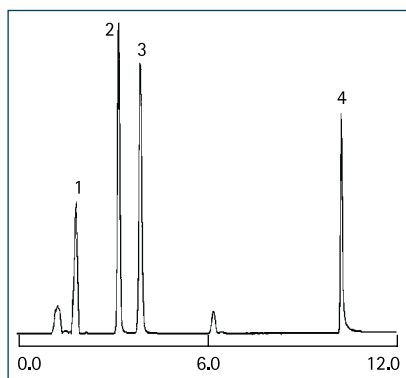
极性和酸性化合物

色谱柱: LiChroCART® 150-4.6, Purospher® STAR RP-18 endcapped, 5 μm
 流动相: A: Acetonitrile
 B: 0.02 M Phosphate buffer pH 5.0
 0.0 min 15% A | 3.0 min 15% A | 10.0 min 30% A
 流速: 1.0 ml/min
 检测条件: UV 227 nm
 温度: 30°C
 进样体积: 10 μl
 样品:
 1. Acesulfame - K (23 μg/ml) AK糖
 2. Saccharin (29 μg/ml) 糖精
 3. Benzoic acid (13 μg/ml) 苯甲酸
 4. Sorbic acid (14 μg/ml) 山梨酸
 5. Caffeine (47 μg/ml) 咖啡因
 6. Aspartame (100 μg/ml) 阿斯巴甜



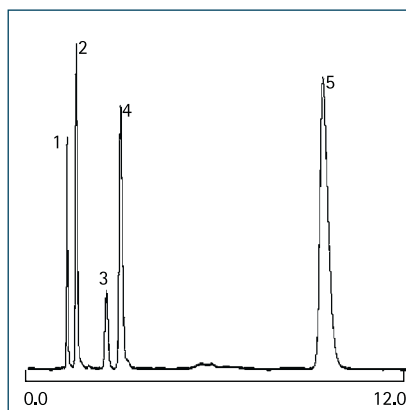
易整合的化合物 黄酮类

色谱柱: LiChroCART® 150-4.6, Purospher® STAR RP-18 endcapped, 5 μm
 流动相: A: Acetonitrile
 B: 0.1% phosphoric acid
 0.0 min 40% A
 3.0 min 40% A
 8.0 min 95% A
 流速: 1.0 ml/min
 检测条件: UV 365 nm
 温度: 30°C
 进样体积: 10 μl
 样品:
 1. Rutin 芦丁
 2. Morin 桑黄素
 3. Quercetin 槲黄素
 4. 3-Hydroxyflavon 3-羟基黄酮



儿茶酚胺

色谱柱: LiChroCART® 150-4.6, Purospher® STAR RP-18 endcapped, 5 μm
 流动相: 20mM Potassium phosphate, pH 3.0/Methanol (97:3)
 流速: 1.5 ml/min
 检测条件: 270 nm
 温度: 30°C
 进样体积: 10 μl
 样品:
 1. Norepinephrin 195 μg/ml 去甲肾上腺素
 2. Epinephrin 202 μg/ml 肾上腺素
 3. Dopamin 214 μg/ml 多巴胺
 4. L-Dopa 205 μg/ml L-多巴
 5. Serotonin 099 μg/ml



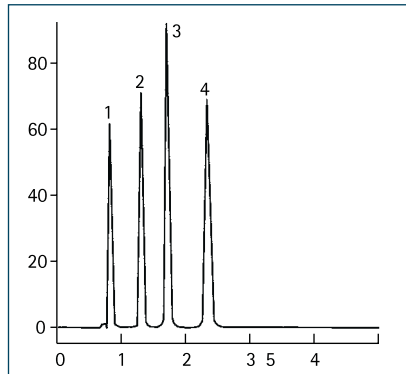


Merck液相色谱柱

Purospher STAR Si

苯甲醚

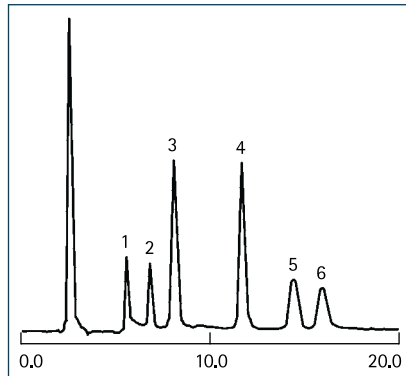
色谱柱: LiChroCART® 125-4 Purospher® STAR Si (5 μm)
 流动相: Heptane/Dioxan 95/5 v/v
 流速: 2 ml/min
 检测条件: UV 254 nm response fast
 温度: RT
 进样体积: 5 μl
 样品: 1. Anisole 苯甲醚
 2. 3-Nitroanisole 3-硝基苯甲醚
 3. 4-Nitroanisole 4-硝基苯甲醚
 4. 2-Nitroanisole 2-硝基苯甲醚



Purospher STAR NH2

糖类化合物

色谱柱: LiChroCART® 250-4, Purospher® STAR NH₂, 5 μm
 流动相: Acetonitrile / Water 75:25
 流速: 1.0 ml/min
 检测条件: RI
 温度: 30 °C
 进样体积: 10 μl
 样品: 1. Xylose 木糖
 2. Fructose 果糖
 3. Glucose 葡萄糖
 4. Saccharose 蔗糖
 5. Lactose 乳糖
 6. Maltose 麦芽糖



订货信息

Purospher STAR 标准柱

填料	粒径	柱长	内径	包装	订货号
Purospher STAR RP-18e	5 μm	250mm	4.6mm	1	1.51456.0001
Purospher STAR RP-18e	5 μm	150mm	4.6mm	1	1.51455.0001
Purospher STAR RP-18e	5 μm	250mm	4mm	1	1.50037.0001
Purospher STAR RP-18e	5 μm	125mm	4mm	1	1.50036.0001
Purospher STAR RP-8e	5 μm	250mm	4.6mm	1	1.51454.0001
Purospher STAR RP-8e	5 μm	250mm	4mm	1	1.50035.0001
Purospher STAR RP-8e	5 μm	150mm	4mm	1	1.50033.0001

订货信息

Purospher STAR 卡套柱

填料	粒径	柱长	内径	包装	订货号
Purospher® STAR RP-18 endcapped	3 µm	30 mm	2 mm	1 set	1.50237.0001
Purospher® STAR RP-18 endcapped	3 µm	30 mm	2 mm	3 pieces	1.50238.0001
Purospher® STAR RP-18 endcapped	3 µm	55 mm	2 mm	1 set	1.50240.0001
Purospher® STAR RP-18 endcapped	3 µm	55 mm	2 mm	3 pieces	1.50241.0001
Purospher® STAR RP-18 endcapped	5 µm	125 mm	2 mm	1 piece	1.50255.0001
Purospher® STAR RP-18 endcapped	5 µm	250 mm	2 mm	1 piece	1.50256.0001
Purospher® STAR RP-18 endcapped	5 µm	125 mm	3 mm	1 piece	1.50253.0001
Purospher® STAR RP-18 endcapped	5 µm	250 mm	3 mm	1 piece	1.50254.0001
Purospher® STAR RP-18 endcapped	3 µm	30 mm	4 mm	1 set	1.50239.0001
Purospher® STAR RP-18 endcapped	3 µm	30 mm	4 mm	3 pieces	1.50225.0001
Purospher® STAR RP-18 endcapped	3 µm	55 mm	4 mm	1 set	1.50242.0001
Purospher® STAR RP-18 endcapped	3 µm	55 mm	4 mm	3 pieces	1.50231.0001
Purospher® STAR RP-18 endcapped	3 µm	75 mm	4 mm	1 piece	1.51460.0001
Purospher® STAR RP-18 endcapped	5 µm	4 mm	4 mm	10 pieces	1.50250.0001
Purospher® STAR RP-18 endcapped	5 µm	125 mm	4 mm	1 piece	1.50251.0001
Purospher® STAR RP-18 endcapped	5 µm	250 mm	4 mm	1 piece	1.50252.0001
Purospher® STAR RP-18 endcapped	5 µm	150 mm	4.6 mm	1 piece	1.50358.0001
Purospher® STAR RP-18 endcapped	5 µm	250 mm	4.6 mm	1 piece	1.50359.0001
Purospher® STAR RP-18 endcapped	5 µm	250 mm	10 mm	1 piece	1.50257.0001
Purospher® STAR RP-8 endcapped	3 µm	30 mm	2 mm	1 piece	1.50229.7220
Purospher® STAR RP-8 endcapped	3 µm	55 mm	2 mm	1 piece	1.50234.7220
Purospher® STAR RP-8 endcapped	5 µm	125 mm	2 mm	1 piece	1.50274.0001
Purospher® STAR RP-8 endcapped	5 µm	250 mm	2 mm	1 piece	1.50275.0001
Purospher® STAR RP-8 endcapped	5 µm	125 mm	3 mm	1 piece	1.50038.0001
Purospher® STAR RP-8 endcapped	5 µm	250 mm	3 mm	1 piece	1.50273.0001
Purospher® STAR RP-8 endcapped	3 µm	30 mm	4 mm	1 piece	1.50302.7220
Purospher® STAR RP-8 endcapped	3 µm	55 mm	4 mm	1 piece	1.50228.7220
Purospher® STAR RP-8 endcapped	3 µm	75 mm	4 mm	1 piece	1.50171.7220
Purospher® STAR RP-8 endcapped	5 µm	4 mm	4 mm	10 pieces	1.50270.0001
Purospher® STAR RP-8 endcapped	5 µm	125 mm	4 mm	1 piece	1.50271.0001
Purospher® STAR RP-8 endcapped	5 µm	250 mm	4 mm	1 piece	1.50272.0001
Purospher® STAR RP-8 endcapped	5 µm	150 mm	4.6 mm	1 piece	1.50031.0001
Purospher® STAR RP-8 endcapped	5 µm	250 mm	4.6 mm	1 piece	1.50032.0001
Purospher® STAR RP-8 endcapped	5 µm	250 mm	10 mm	1 piece	1.50276.0001
Purospher® STAR Si	5 µm	4 mm	4 mm	10 pieces	1.50249.0001
Purospher® STAR Si	5 µm	125 mm	4 mm	1 piece	1.50268.0001
Purospher® STAR Si	5 µm	250 mm	4 mm	1 piece	1.50269.0001
Purospher® STAR Si	5 µm	150 mm	4.6 mm	1 piece	1.50356.0001
Purospher® STAR Si	5 µm	250 mm	4.6 mm	1 piece	1.50357.0001
Purospher® STAR NH ₂	5 µm	4 mm	4 mm	10 pieces	1.50267.0001
Purospher® STAR NH ₂	5 µm	125 mm	4 mm	1 piece	1.50244.0001
Purospher® STAR NH ₂	5 µm	250 mm	4 mm	1 piece	1.50245.0001
Purospher® STAR NH ₂	5 µm	150 mm	4.6 mm	1 piece	1.50247.0001
Purospher® STAR NH ₂	5 µm	250 mm	4.6 mm	1 piece	1.50248.0001