



气相色谱柱 综合目录

GC·GC/MS Column



技尔（上海）商贸有限公司

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订购方式/ISO认证

订购方式

如您需要订货或咨询时, 请联系我司代理商或通过 400-089-1889 咨询热线联系我们; 咨询时, 烦请您能告知右侧信息栏中的所提及的内容。

关于货期

- 部分商品为订制生产。关于货期请咨询我们。

关于退货

- 我们在交货之前, 会做周全的检查及检测。对于退货, 除我司失误以外的情况原则上不予受理。
- 若需要退货, 经双方友好协商一致后, 烦请在收到产品的10天内予以返还。

关于目录刊登内容

- 规格、尺寸等信息, 可能会因产品升级等原因发生变化; 若未能及时告知, 烦请谅解。

关于品质保证

- InertCap系列的生产、检查、捆包、发货均有严格的质量管理体系。若出现性能不良等情况, 烦请联系我司。若由产品使用寿命或操作不当等导致的色谱柱劣化问题, 我司无法给予退换货服务。

- | | | |
|--------|--------|------|
| ① 产品货号 | ② 产品名称 | ③ 内径 |
| ④ 长度 | ⑤ 膜厚 | ⑥ 数量 |

关于开箱

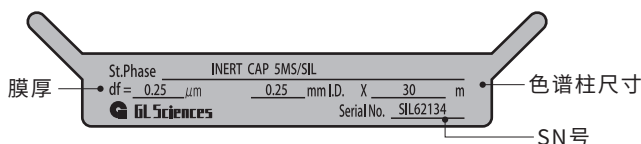
- 请确认色谱柱外观、包装等是否有异常?
- 开盒后, 请确认里面的色谱柱尺寸等是否有异常。
- 出厂检测报告会在盒子内部, 请注意保管。

【盒子的标签】

Liquid phase InertCap 5MS/Sil		
I. D. 0.25 mm	Length 30 m	df 0.25 µm
Max.Temp. 325 °C	prog. 350 °C	
Cat.No. 15142	Mfg.No. SIL62134	
GL Sciences Made in JAPAN		

品名/固定相名称

【色谱柱标签图】



关于特殊商品

- 特殊尺寸的制作, 可参考36页的定制确认事项进行

ISO的认证



GL Sciences公司取得ISO1.4001认证

GL Sciences很早就意识到保护全球环境是人类面临的最重要的课题之一, 尽量减少给环境造成的负担也是一个公司可持续发展的关键所在。因此, 我司发起保护全球环境的活动, 为环保尽一份自己的贡献。



技术综合中心



生产工厂、开发部、仪器开发部、开发管理部 荣获ISO 9001质量管理认证

以客户第一为原则, 以产品和服务品质及用户和市场需求为导向, 以用户满足度为动力, GL Sciences公司取得ISO9001的认证



生产工厂

InertCap毛细管柱特点

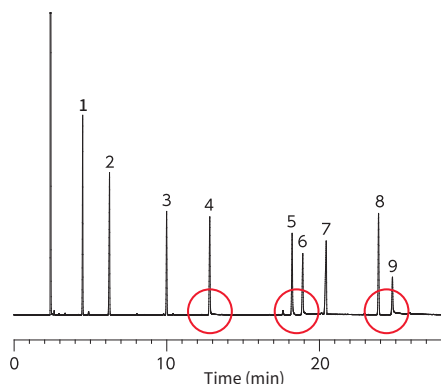
高惰性

独特的内壁表面去活技术能够清除残余在管内表面的卤代化合物、硅烷醇基团和金属离子。因此即便分析强吸附性化合物，酸性、碱性、金属配位性化合物也能获得对称峰形。

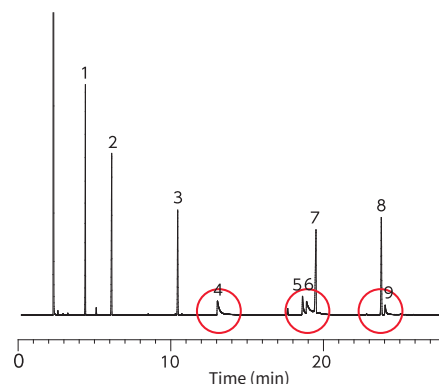
高吸附性样品的分析比较

System : GC-FID
Column : 0.25mm I.D. x 30m df=0.25 μ m
Col.Temp. : 60°C - 4°C/min - 250°C
Injection : 250°C
Detection : 250°C
Sample Size : 0.1 mg/mL in methanol 0.2 μ L

1. n - Undecane
2. n - Dodecane
3. 4,6-Dimethylpyrimidine
4. 1-Aminooctane
5. N,N - Dicyclohexylamine
6. 1-Aminodecane
7. n - Heptadecane
8. 2,6-Dimethylaniline
9. 1-Aminododecane



InertCap Pure-WAX

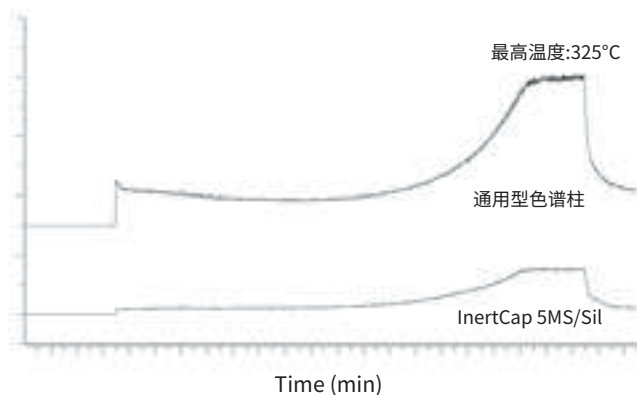


A社WAX色谱柱

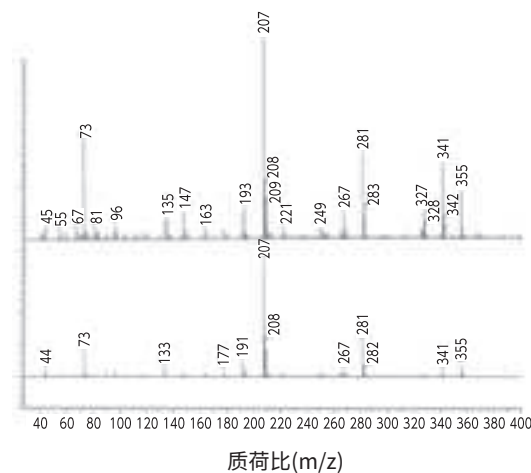
低流失

在进行GC/MS分析时,为提高信噪比和检出限,同时为了防止质谱部分的污染,选择具有低流失的毛细管柱是非常有必要的。毛细管柱的流失率将影响到MS的灵敏度,随着毛细柱流失率增加,检测响应信号和灵敏度也随之降低。柱流失是由柱内固定相,以m/z 207为例的环状硅氧烷的溶出造成的。我们公司凭借优良的聚合技术,实现了InertCap系列GC/MS用毛细管柱的低流失的特性。

柱流失比较



质谱图强度对比



品质保证

在荣获ISO9001质量管理认证的日本工厂质检时会采用易吸附的物质作为样品,例如醇类、二醇类、苯酚类以及伯胺类化合物,对每根InertCap系列毛细管柱进行严格的检验测试。

检验用样品和报告

(例: InertCap 1MS)

- ①保留常数(k)
- ②理论塔板数(N)
- ③正癸烷(碱性化合物吸附)
- ④2,4,5三氯苯酚(酸性化合物吸附)
- ⑤萘(金属配位型化合物吸附)
- ⑥壬醇(硅烷醇残留)
- ⑦升温基线(流失率)

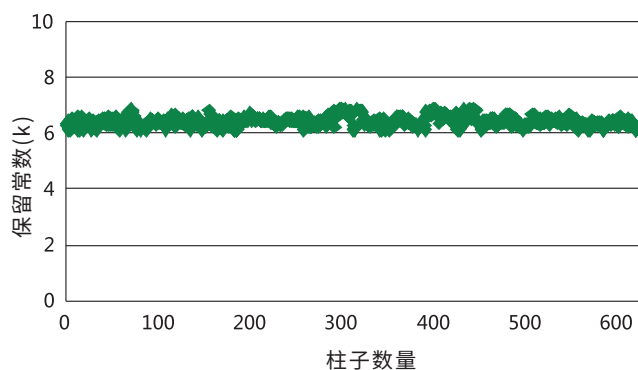
产品稳定性

保留常数(k)是衡量色谱柱批次之间稳定性的重要参数,出厂检验时,InertCap系列色谱柱不同批次间的保留常数之间的相对标准偏差都在2%以下,因此保证了我们能够为客户提供品质稳定的色谱柱。

$$k' = (t_1 - t_0) / t_0$$

t₁ : 目标化合物保留时间

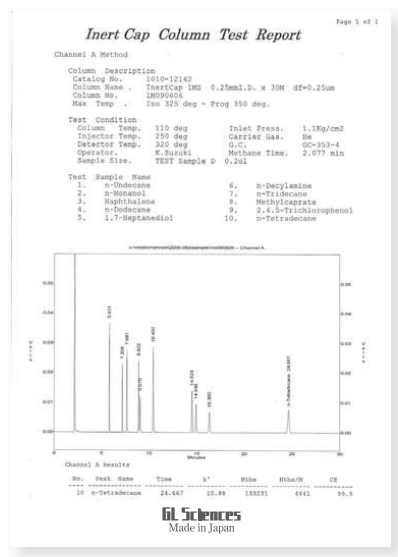
t₀ : 未被保留的气体出峰时间



发货检测报告

我们以世界顶尖标准为目标和要求,对所有出厂色谱柱产品做严格的质量管理。

每一根色谱柱出厂时都会附带质检报告,记录了理论塔板数(N)等能够确保色谱柱分离度和稳定质量的技术参数。另外,为了保证部分特殊产品的性能水准,还另行实施了特定成分的分离度及吸附性确认。



InertCap系列产品列表

产品列表-InertCap系列-

通用色谱柱

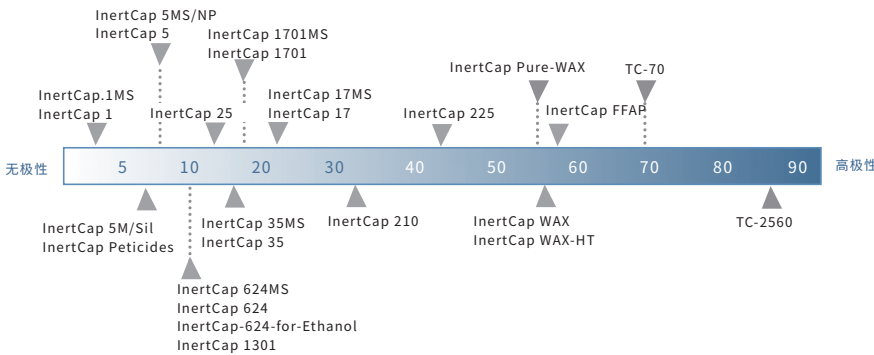
Lineup - InertCap Series -

品名	固定相	USP 编码	极性	应用
InertCap 1MS	100%二甲基聚硅氧烷	G1,G2,G38	无	常规分析、烃类、高沸点成分、酚类
InertCap 1	100%二甲基聚硅氧烷	G1,G2,G38	无	常规分析、烃类、高沸点成分、酚类
InertCap 5MS/Sil	5%苯基 95%甲基聚硅氧烷	G27,G36	弱	常规分析、卤素化合物、酚类、农药、FAME
InertCap 5MS/NP	5%苯基 95%甲基聚硅氧烷	G27,G36	弱	常规分析、卤素化合物、酚类、农药、FAME
InertCap 5	5%苯基 95%甲基聚硅氧烷	G27,G36	弱	常规分析、卤素化合物、酚类、农药、FAME
InertCap 624MS	6%氰丙基苯基 94%甲基聚硅氧烷	G43	中	医药品溶剂残留、VOC、酒类
InertCap 624	6%氰丙基苯基 94%甲基聚硅氧烷	G43	中	VOC、酒精
InertCap 1301	6%氰丙基苯基 94%二甲基聚硅氧烷	G43	中	农药、酒精、VOC
InertCap 25	25%苯基 75%二甲基聚硅氧烷	G28	中	农药、酒精、VOC
InertCap 35MS	35%苯基 65%甲基聚硅氧烷	G42	中	农药、医药品、多环芳烃
InertCap 35	35%苯基 65%甲基聚硅氧烷	G42	中	农药、医药品
InertCap 1701MS	14%氰丙基苯基 86%二甲基聚硅氧烷	G46	中	农药、糖类、TMS衍生化、药品、酒类、类固醇
InertCap 1701	14%氰丙基苯基 86%二甲基聚硅氧烷	G46	中	农药、糖类、TMS衍生化、药品、酒类、类固醇
InertCap 17MS	50%苯基 50%甲基聚硅氧烷	G3	中	类固醇、药品、农药
InertCap 17	50%苯基 50%甲基聚硅氧烷	G3	中	类固醇、药品、农药
InertCap 210	50%三氟丙基 50%甲基聚硅氧烷	G6	中	有机磷农药
InertCap 225	50%氰丙基苯基 50%二甲基聚硅氧烷	G7,G19	中~高	FAME
InertCap Pure-WAX	聚乙二醇	G14,G15,G16, G20,G39,G47	高	常规分析、脂类、香料、酒类、芳香族、FAME
InertCap WAX	聚乙二醇	G14,G15,G16, G20,G39,G47	高	常规分析、脂类、香料、酒类、芳香族、FAME
InertCap WAX-HT	聚乙二醇	G14,G15,G16, G20,G39,G47	高	常规分析、脂类、香料、酒类、芳香族、FAME
InertCap FFAP	硝基对苯甲酸改性聚乙二醇	G25,G35	高	FAME、游离脂肪酸、有机酸、酒类、醛酮类

专用柱

品名	固定相	USP 编码	极性	应用
InertCap Pesticides	5%苯基 95%甲基聚硅氧烷	G27	弱	农药多成分同时分析
InertCap AQUATIC	25%苯基 75%二甲基聚硅氧烷	G28	中	VOC、1,4-二恶烷、有机溶剂
InertCap AQUATIC-2	25%苯基 75%二甲基聚硅氧烷	G28	中	VOC、有机溶剂
InertCap for Amines	特殊固定相	-	-	胺类、酒精
InertCap 624 for Ethanol	6%氰丙基苯基 94%二甲基聚硅氧烷	G43	中	中国药典二部 乙醇 挥发性杂质
InertCap CHIRAMIX	特殊固定相	-	-	旋光异构体

色谱柱极性排列



气相色谱仪GC-4000 Plus

GC-4000 Plus是一款通用型气相色谱仪。具有自动量程调节的FID检测器、电子压力和流量控制功能、节气模式等,能满足常规气相分析需求。

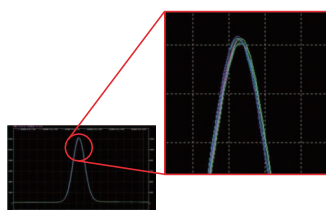
产品特点:

- 快速升降温,提升效率
- 高性能EPFC,实验重复性良好
- 四色背光LCD,仪器状态一目了然

进样口:

- 直接进样口(填充柱)
- 插入式进样口(填充柱)
- 分流/不分流进样口(毛细柱)
- 带隔垫吹扫功能的直接进样(大口径填充柱)

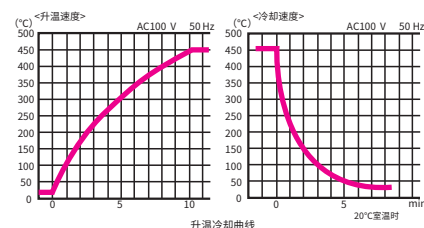
高性能EPFC:



次数	1	2	3	4	5	6	RSD%
保留时间(min)	6.342	6.343	6.343	6.343	6.343	6.343	0.0066



柱温箱:



快速升温:

- 1.升温至300°C时,速率达到30°C/min;
- 2.升温至450°C时,速率达到20°C/min

快速冷却

- 1.从450°C降温至50°C时,所需时间不到6分钟

LD239气体检漏仪

气体检漏仪LD239可用于对实验室或现场各类气体的管线或连接处进行快速检测,以确定泄漏点位置。

应用场景

进样口、色谱柱连接处、配管与接口处、钢瓶连接处、减压阀、接头连接处、焊接点等。

检测气体

氦气、氢气、二氧化碳、氙气和氖气等

*不可用于腐蚀性气体



检测灵敏度

Std Rang:He条件下,最低0.005mL/min

High Rang:He条件下,最低0.0005mL/min

仪器规格: 50mm(W)×20mm(D)×111mm(H)

产品描述	货号
Leak Detector LD239	2702-19340

GF1010流量计

便携式气体流量计GF1010作简便,可用于多种气体流量的测定。

测量气体

氮气、空气、氦气、氙气和氢气等

*不可用于测量具有腐蚀性和潮湿的气体



产品参数

流量范围:0.5-1200mL/min、使用温度:10-40°C

仪器重量:240g

仪器规格

76mm(W)×135mm(D)×35mm(H)



搭配专用接头,可用于测量毛细管柱(内径0.25-0.53 mm)的流量



搭配1/8英寸的SL型接头,可连接TCD检测器出口

产品描述	货号
Gas Flow Meter GF1010	2709-10100
Column Adaptor	2709-55015
TCD Vent Adaptor (1/8 in.)	2709-10103

InertCap系列通用色谱柱

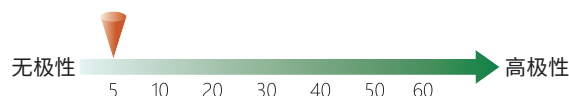
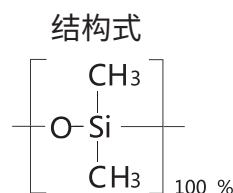
InertCap Series General Columns

● InertCap IMS	010	● InertCap 1701	024
● InertCap 1	011	● InertCap 17MS	025
● InertCap 1HT	012	● InertCap 17	026
● InertCap 5MS/Sil.....	013	● InertCap 210	027
● InertCap 5MS/NP.....	015	● InertCap 225	028
● InertCap 5	016	● InertCap WAX.....	029
● InertCap 624MS	017	● InertCap Pure-WAX.....	030
● InertCap 624	018	● InertCap WAX-HT	032
● InertCap 1301	019	● InertCap FFAP.....	033
● InertCap 25	020	● InertCap Fast GC Column.....	034
● InertCap 35MS	021	● InertCap ProGuard	035
● InertCap 35	022	● InertCap T.L.	035
● InertCap 1701MS	023	● InertCap定制柱	036

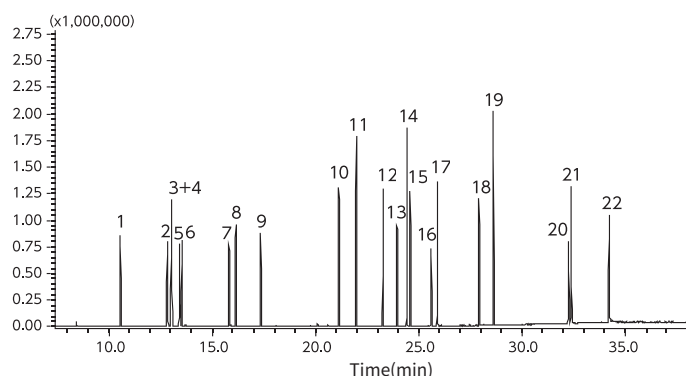
InertCap 1MS

- 100%二甲基聚硅氧烷
- 与USP G2固定相相当
- 非极性
- 键合交联
- 更低流失
- 适合常规分析、烃类、高沸点成分、酚类
- 同类产品: DB-1ms, HP-1ms, Rxi-1ms, VF-1ms, Equity-1

InertCap 1MS是一款键合100%二甲基聚硅氧烷的非极性毛细柱。样品按照沸点的高低依次出峰。由于其专为GC/MS设计, 因此具有高惰性、低流失的特点。



汽车内饰材料分析例



System : GC-MS Thermal Desorption
 Column : InertCap 1MS
 0.25 mm I.D. × 60m df = 0.25 μm
 Col. Temp. : 40°C (5 minhold) - 10°C/min - 280°C (21minhold)
 Carrier Gas : He 1 mL/min (constant flow)
 Injection : Thermal Desorption 270°C
 Split 1:5
 Detection : MS Scan
 Sample Size: 100 μg/mL in Ethanol 1μL
 Data Source: GC InertSearch No.GA060

- | | |
|---------------------------------------|---|
| 1. Toluene | 13. DEP : Diethyl phthalate |
| 2. Ethylbenzene | 14. C16 : n-Hexadecane |
| 3. m-Xylene | 15. TBP : Tributyl phosphate |
| 4. p-Xylene | 16. TCEP : Tris (2-chloroethyl) phosphate |
| 5. Styrene | 17. DBA : Di-n-butyl adipate |
| 6. o-Xylene | 18. DBP : Di-n-butyl phthalate |
| 7. p-Dichlorobenzene | 19. C20 : n-Eicosane |
| 8. 2-Ethyl-1-hexanol | 20. TPP : Triphenyl phosphate |
| 9. Nonanal | 21. DOA : Di (2-ethylhexyl) adipate |
| 10. D6 : Dodecamethylcyclotrisiloxane | 22. DOP : Di (2-ethylhexyl) phthalate |
| 11. Tetradecane | |
| 12. BHT : Butylated hydroxytoluene | |

InertCap 1MS规格选择

内径 (mm)	长度 (m)	膜厚 (μm)	最高使用温度 (°C)	Cat.No.
0.25	15	0.25	iso.325-prog.350	1010-12122
	30	0.10	iso.325-prog.350	1010-12140
		0.25	iso.325-prog.350	1010-12142
	60	1.00	iso.300-prog.320	1010-12145
		0.25	iso.325-prog.350	1010-12162
		1.00	iso.300-prog.320	1010-12165
0.32	15	0.25	iso.325-prog.350	1010-12222
	30	0.25	iso.325-prog.350	1010-12242
		1.00	iso.300-prog.320	1010-12245
	60	0.25	iso.325-prog.350	1010-12262
		1.00	iso.300-prog.320	1010-12265

InertCap 1MS ProGuard (保护柱一体型)

内径 (mm)	长度 (m)	膜厚 (μm)	保护柱 (m)	最高使用温度 (°C)	Cat.No.
0.25	30	0.25	2	iso.325-prog.350	1010-12172
			5	iso.325-prog.350	1010-12173
			10	iso.325-prog.350	1010-12174

InertCap 1MS T.L. (传输口-体型色谱柱)

内径 (mm)	长度 (m)	膜厚 (μm)	传输线 (m)	最高使用温度 (°C)	Cat.No.
0.25	30	0.25	2	iso.325-prog.350	1010-12192

注) 保护柱一体型色谱柱, 传输线一体型色谱柱的详细介绍可参考27页。

InertCap 1MS FAST GC

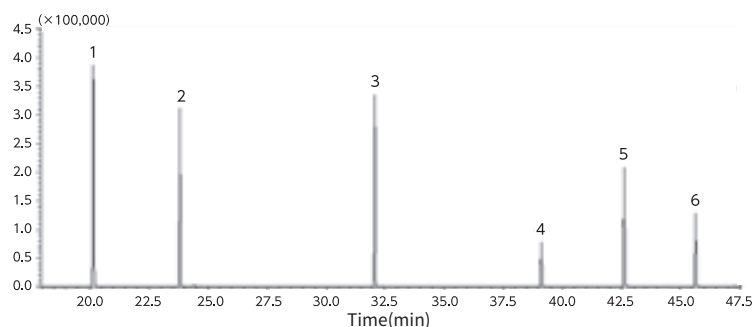
内径 (mm)	长度 (m)	膜厚 (μm)	最高使用温度 (°C)	Cat.No.
0.18	20	0.18	iso.325-prog.350	1010-12031

InertCap 1

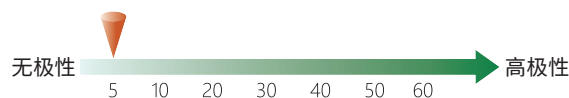
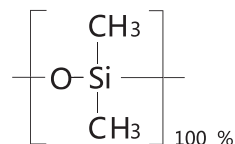
- 100%二甲基聚硅氧烷
- 与USP G2固定相相当
- 非极性
- 键合交联
- 适合常规分析、烃类、高沸点成分、酚类
- 同类产品: DB-1, HP-1, Rtx-1, CP-Sil 5CB, SPB-1

InertCap 1 是键合了100%二甲基聚硅氧烷的非极性色谱柱。InertCap 1 MS相同, 样品以沸点的高低顺序出峰。适用于常规分析的通用型色谱柱。

邻苯二甲酸酯 分析例



结构式



System : GC-MS
Column : InertCap 1
0.25 mm I.D. × 30m df = 0.25 μm
Col. Temp. : 60°C (3 min hold) - 5°C/min- 280°C (3 min hold)
Injection : Splitless
280°C
Detection : MS SIM
Sample Size: 1 μL
Data Source: GC InertSearch No.GA051

1. Dimethylphthalate
2. Diethylphthalate
3. Di-n-butylphthalate
4. Butylbenzylphthalate
5. Di(2-ethylhexyl) phthalate
6. Dioctylphthalate

InertCap 1

内径 (mm)	长度 (m)	膜厚 (μm)	最高使用温度 (°C)	Cat.No.
0.25	15	0.10	iso.325-prog.350	1010-11120
		0.25	iso.325-prog.350	1010-11122
		0.40	iso.325-prog.350	1010-11123
		5.00	iso. 260-prog.300	1010-11129
	30	0.10	iso.325-prog.350	1010-11140
		0.25	iso.325-prog.350	1010-11142
		0.40	iso.325-prog.350	1010-11143
		1.00	iso.300-prog.320	1010-11145
		1.50	iso.300-prog.320	1010-11146
		5.00	iso.260-prog.300	1010-11149
	60	0.25	iso.325-prog.350	1010-11162
		0.40	iso.325-prog.350	1010-11163
		1.00	iso.300-prog.320	1010-11165
		1.50	iso.300-prog.320	1010-11166
0.32	15	0.25	iso.325-prog.350	1010-11222
		0.40	iso.325-prog.350	1010-11223
		5.00	iso.260-prog.300	1010-11229

内径 (mm)	长度 (m)	膜厚 (μm)	最高使用温度 (°C)	Cat.No.
0.32	30	0.25	iso.325-prog.350	1010-11242
		0.40	iso.325-prog.350	1010-11243
		1.00	iso.300-prog.320	1010-11245
		5.00	iso.260-prog.300	1010-11249
		0.25	iso.325-prog.350	1010-11262
	60	0.40	iso.325-prog.350	1010-11263
		0.50	iso.325-prog.350	1010-11264
		1.00	iso.300-prog.320	1010-11265
		5.00	iso.260-prog.300	1010-11269
		1.00	iso.300-prog.320	1010-11425
0.53	15	1.50	iso.300-prog.320	1010-11426
		2.00	iso.300-prog.320	1010-11427
		3.00	iso.260-prog.280	1010-11428
		5.00	iso.260-prog.280	1010-11429
		1.00	iso.300-prog.320	1010-11445
	30	1.50	iso.300-prog.320	1010-11446
		2.00	iso.300-prog.320	1010-11447
		3.00	iso.260-prog.280	1010-11448
		5.00	iso.260-prog.280	1010-11449
		2.00	iso.300-prog.320	1010-11467
	60	5.00	iso.260-prog.280	1010-11469

InertCap 1 ProGurad (保护柱一体型)

内径 (mm)	长度 (m)	膜厚 (μm)	保护柱 (m)	最高使用温度 (°C)	Cat.No.
0.25	30	0.25	2	iso.325-prog.350	1010-11172
			5	iso.325-prog.350	1010-11173
			10	iso.325-prog.350	1010-11174

注)保护柱一体型色谱柱的详细介绍可参考35页。

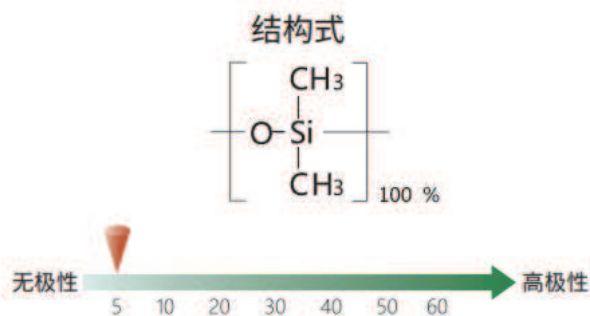
InertCap 1 FAST GC

内径 (mm)	长度 (m)	膜厚 (μm)	最高使用温度 (°C)	Cat.No.
0.18	15	0.18	iso.325-prog.350	1010-11021
		0.28	iso.325-prog.350	1010-11022
	20	0.18	iso.325-prog.350	1010-11031
		0.28	iso.325-prog.350	1010-11032

InertCap 1HT

- 100%二甲基聚硅氧烷
- 与USP G2固定相相当
- 非极性
- 键合交联
- 更低流失
- 适合常规分析、烃类、高沸点成分、酚类

InertCap 1HT是键合了100%二甲基聚硅氧烷的非极性毛细管色谱柱。固定相通过特殊键合工艺处理, 增强其热稳定性, 最高耐受可达400°C, 适合高沸点烃类化合物的分析。



InertCap 1HT

内径 (mm)	长度 (m)	膜厚 (μm)	最高使用温度 (°C)	Cat.No.
0.25	15	0.1	prog.400°C	1010-90901
	30	0.1	prog.400°C	1010-01140
	30	0.25	prog.400°C	1010-01142
0.32	15	0.1	prog.400°C	1010-01220
	5	0.25	prog.400°C	1010-90905
	15	0.25	prog.400°C	1010-90906
	30	0.1	prog.400°C	1010-01240
	30	0.25	prog.400°C	1010-90904

InertCap 1HT ProGuard (保护柱一体型)

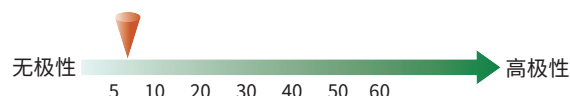
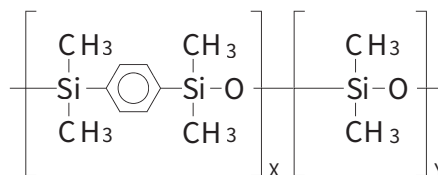
内径 (mm)	长度 (m)	膜厚 (μm)	最高使用温度 (°C)	Cat.No.
0.25	30	0.25	prog.400°C	1010-90902
0.32	30	0.25	prog.400°C	1010-90907

InertCap 5MS/Sil

- 5%苯基-95%甲基聚硅氧烷
- 与USP G27固定相相当
- 弱极性
- 键合交联
- 更低流失
- 常规分析、卤素化合物、酚类、农药、FAME
- 同类产品: DB-5ms, Rxi-5sil ms, VF-5ms, SLB-5MS

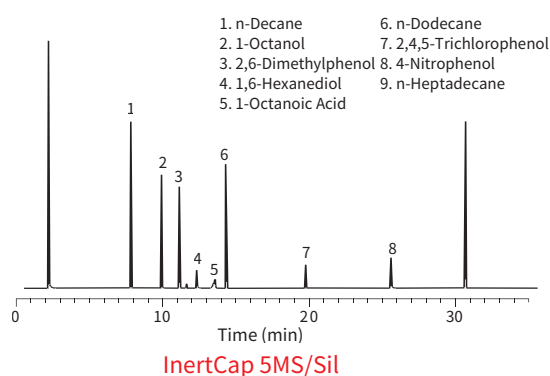
InertCap 5MS/Sil是键合了5%苯基和95%甲基聚硅氧烷弱极性固定相的色谱柱。专为GC/MS仪器所设计, InertCap 5MS/Sil采用亚芳基技术实现了耐高温和低流失的特性。

结构式

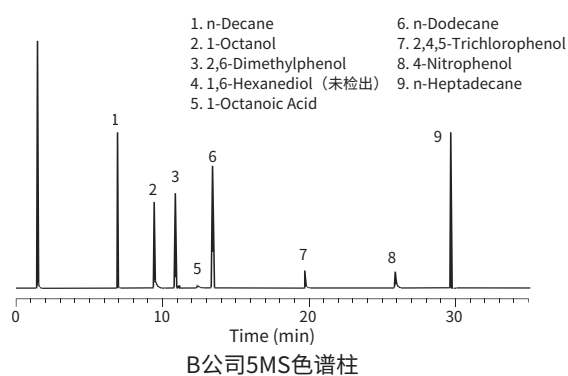


品牌间性能对比

酸性化合物比较

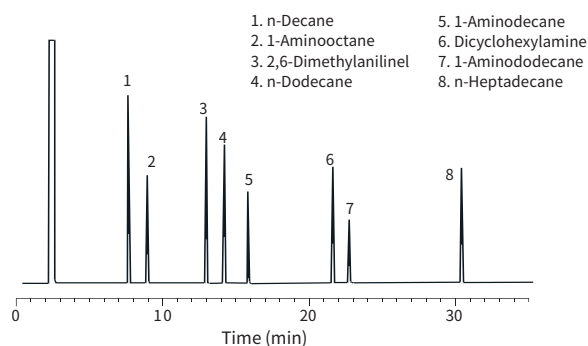


InertCap 5MS/Sil

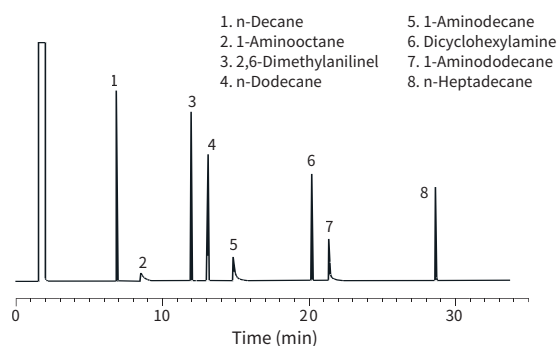


B公司5MS色谱柱

碱性化合物分析对比

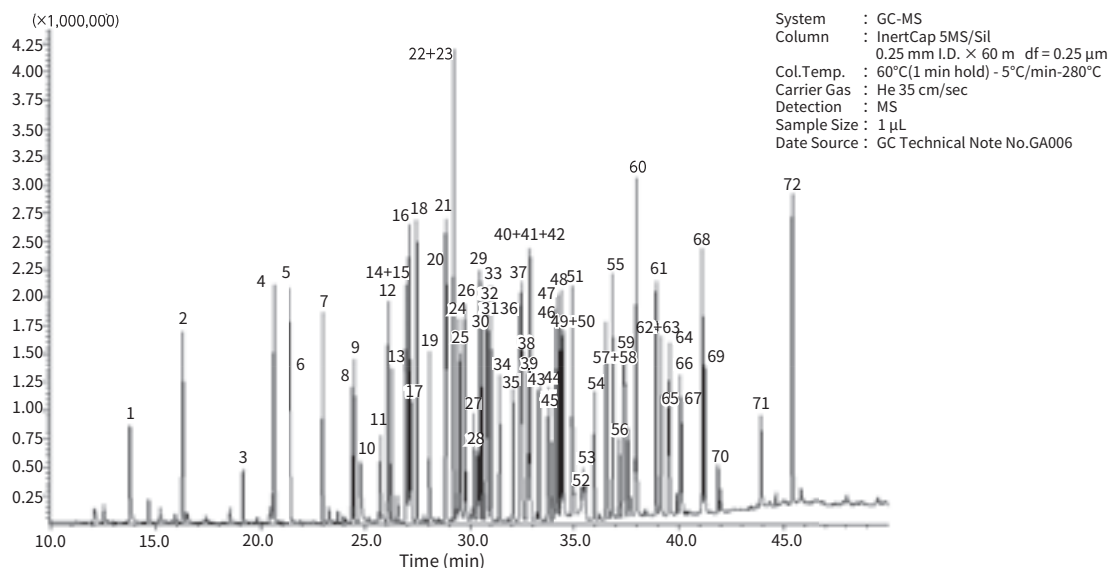


InertCap 5MS/Sil



B公司5MS色谱柱

农药72成分 分析例



- | | | | | | | |
|----------------------|--------------------|-------------------------|-------------------|--------------------|------------------------|------------------|
| 1. Dichlorvos (DDVP) | 12. Simazine | 23. Tolclophosphomethyl | 34. Fthalide | 45. Butamifos | 56. Chlornitrofen | 67. Bifenox |
| 2. Dichlobenil | 13. Atrazine | 24. Simetryn | 35. Pendimethalin | 46. Napropamide | 57. Propiconazole | 68. Pyriproxyfen |
| 3. Etridiazole | 14. Propyzamide | 25. Metalaxyl | 36. Dimethametryn | 47. Flutranil | 58. Edifenphos | 69. Mefenacet |
| 4. Chloroneb | 15. Pyroquilon | 26. Dithiopyr | 37. Isofenphos | 48. Pretilachlor | 59. Endosulfan sulfate | 70. Benfuracarb |
| 5. Isoprocarb | 16. Diazinon | 27. Fenitrothion | 38. Methyl dymron | 49. Isoprothiolane | 60. Thenylchlor | 71. Cafenstrole |
| 6. Molinate | 17. Chlorothalonil | 28. Probenazole | 39. Phenthoate | 50. Tricyclazole | 61. Pyributicarb | 72. Ethofenprox |
| 7. Fenobucarb | 18. Disulfoton | 29. Esprocarb | 40. Procyimdone | 51. Buprofezin | 62. Pyridaphenthion | |
| 8. Trifluralin | 19. Iprobenfos | 30. Malathion | 41. Captan | 52. Isoxathion | 63. Iprodione | |
| 9. Benfluralin | 20. Terbutcarb | 31. Chlorpyrifos | 42. Dimepiperate | 53. Carpropamid | 64. EPN | |
| 10. Pencycuron | 21. Bromobutide | 32. Benthicarb | 43. Methidathion | 54. β-Endosulfan | 65. Piperophos | |
| 11. Dimethoate | 22. Alachlor | 33. Fenthion | 44. α-Endosulfan | 55. Mepronil | 66. Anilofos | |

InertCap 5MS/Sil 规格选择

内径 (mm)	长度 (m)	膜厚 (μm)	最高使用温度 (°C)	Cat.No.
0.25	15	0.10	iso.325-prog.350	1010-15120
		0.25	iso.325-prog.350	1010-15122
		0.50	iso.325-prog.350	1010-15124
	30	0.10	iso.325-prog.350	1010-15140
		0.25	iso.325-prog.350	1010-15142
		0.50	iso.325-prog.350	1010-15144
		1.00	iso.325-prog.350	1010-15145
	60	0.10	iso.325-prog.350	1010-15160
		0.25	iso.325-prog.350	1010-15162
0.32	15	0.10	iso.325-prog.350	1010-15220
		0.25	iso.325-prog.350	1010-15222
		0.50	iso.325-prog.350	1010-15224
	30	0.10	iso.325-prog.350	1010-15240
		0.25	iso.325-prog.350	1010-15242
		0.50	iso.325-prog.350	1010-15244
		1.00	iso.325-prog.350	1010-15245
	60	0.10	iso.325-prog.350	1010-15260
		0.25	iso.325-prog.350	1010-15262

InertCap 5MS/Sil ProGuard (保护柱一体型)

内径 (mm)	长度 (m)	膜厚 (μm)	保护柱 (m)	最高使用温度 (°C)	Cat.No.
0.25	30	0.25	2	iso.325-prog.350	1010-15172
			5	iso.325-prog.350	1010-15173
			10	iso.325-prog.350	1010-15174

InertCap 5MS/Sil (传输口一体型色谱柱)

内径 (mm)	长度 (m)	膜厚 (μm)	传输线 (m)	最高使用温度 (°C)	Cat.No.
0.25	30	0.25	2	iso.325-prog.350	1010-15192

注) 保护柱一体型色谱柱的详细介绍可参考27页。

InertCap 5MS/Sil FAST GC

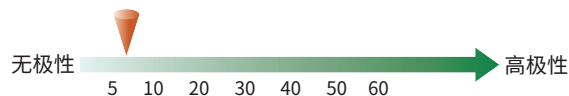
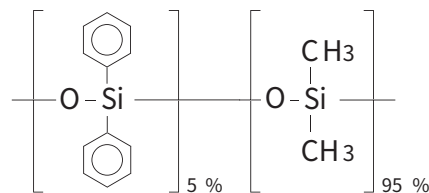
内径 (mm)	长度 (m)	膜厚 (μm)	最高使用温度 (°C)	Cat.No.
0.18	20	0.18	iso.325-prog.350	1010-15031
	40	0.18	iso.325-prog.350	1010-15051

InertCap 5MS/NP

- 5 % 二苯基 - 95 % 甲基聚硅氧烷
- 与USPS G27固定相相当
- 弱极性
- 键合交联
- 更低流失
- 常规分析、卤素化合物、酚类、农药、FAME
- 同类产品: HP-5ms, Rxi-5ms, Rtx-5MS, Equity-5

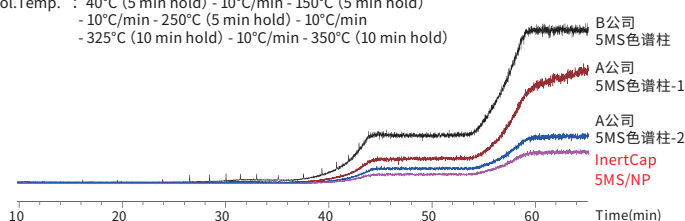
InertCap 5MS/NP是键合了5%苯基-95%甲基聚硅氧烷低极性固定相的色谱柱, InertCap 5MS/NP是一款为GC/MS仪器用设计的毛细管柱, 具备高惰性和低流失的优质特性。

结构式



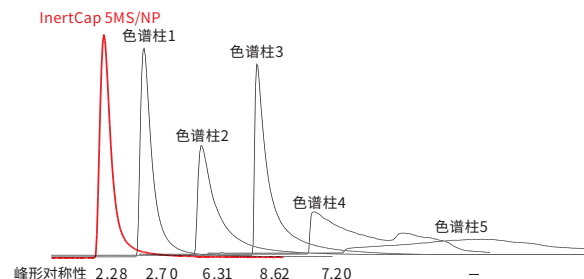
流失对比

System : GC-MS
Column : 0.25 mm I.D. × 30 m df = 0.25 μm
Col.Temp. : 40°C (5 min hold) - 10°C/min - 150°C (5 min hold)
- 10°C/min - 250°C (5 min hold) - 10°C/min
- 325°C (10 min hold) - 10°C/min - 350°C (10 min hold)

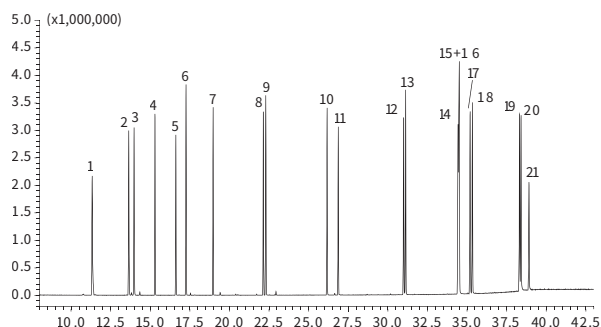


惰性比较

样品: 正辛胺



多环芳烃21成分分析例



1. Naphthalene	6. Acenaphthene	10. Fluoranthene
2. 2-Methylnaphthalene	7. Fluorene	11. Pyrene
3. 1-Methylnaphthalene	8. Phenanthrene	12. Benzo[a] anthracene
4. Biphenyl	9. Anthracene	13. Chrysene
5. Acenaphthylene		
	14. Benzo[b] fluoranthene	18. Benzo[a] pyrene
	15. Benzo[j] fluoranthene	19. Indeno[1,2,3-c, d] pyrene
	16. Benzo[k] fluoranthene	20. Dibenzo[a, h] anthracene
	17. Benzo[e] pyrene	21. Benzo[g, h, i] perylene

System : GC-MS
Column : InertCap 5MS/NP
0.25 mm I.D. × 30 m df = 0.25 μm
Col.Temp. : 60°C (3 min hold) - 7°C/min - 310°C
Carrier Gas : He 41.6 cm/sec
Injection : Splitless 1 min
250°C
Detection : MSScan (m/z = 35 - 500)
Interface Temp. 300°C
Sample Size : 10 μg/mL in Dichloromethane
1 μL
Date Source : GC InertSearch No.GA187

InertCap 5MS/NP

内径 (mm)	长度 (m)	膜厚 (μm)	最高使用温度 (°C)	Cat.No.
0.25	15	0.10	iso.325-prog.350	1010-18620
		0.25	iso.325-prog.350	1010-18622
		0.50	iso.325-prog.350	1010-18624
	30	0.10	iso.325-prog.350	1010-18640
		0.25	iso.325-prog.350	1010-18642
		0.50	iso.325-prog.350	1010-18644
		1.00	iso.325-prog.350	1010-18645
	60	0.10	iso.325-prog.350	1010-18660
		0.25	iso.325-prog.350	1010-18662

内径 (mm)	长度 (m)	膜厚 (μm)	最高使用温度 (°C)	Cat.No.
0.32	15	0.10	iso.325-prog.350	1010-18720
		0.25	iso.325-prog.350	1010-18722
		0.50	iso.325-prog.350	1010-18724
	30	0.10	iso.325-prog.350	1010-18740
		0.25	iso.325-prog.350	1010-18742
		0.50	iso.325-prog.350	1010-18744
		1.00	iso.325-prog.350	1010-18745
	60	0.10	iso.325-prog.350	1010-18760
		0.25	iso.325-prog.350	1010-18762

InertCap 5MS/NP ProGuard (保护柱一体型)

内径 (mm)	长度 (m)	膜厚 (μm)	保护柱 (m)	最高使用温度 (°C)	Cat.No.
0.25	30	0.25	2	iso.325-prog.350	1010-18941
			5	iso.325-prog.350	1010-18942
			10	iso.325-prog.350	1010-18943

注) 保护柱一体型色谱柱的详细介绍可参考27页。

InertCap 5MS/NP FAST GC

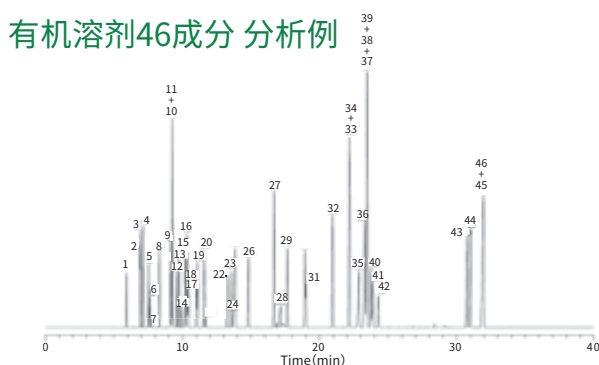
内径 (mm)	长度 (m)	膜厚 (μm)	最高使用温度 (°C)	Cat.No.
0.18	20	0.18	iso.325-prog.350	1010-18531

InertCap 5

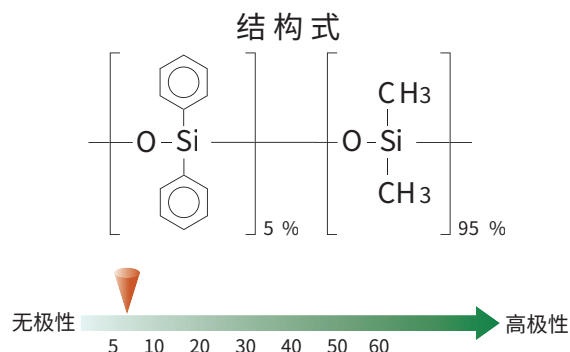
- 5 %二苯基 - 95 %甲基聚硅氧烷
- 与USPS G27固定相当
- 弱极性
- 键合交联
- 常规分析、卤素化合物、酚类、农药、FAME
- 同类产品: DB-5, HP-5, Rtx-5, CP-Sil 8CB, SPB-5

InertCap 5是键合了5%苯基-95%甲基聚硅氧烷的弱极性固定相的毛细管柱。InertCap 5是常规分析中农残及VOC等领域分析的更好选择。

有机溶剂46成分 分析例



- | | | | | |
|--------------------------------|-------------------------------|----------------------------|----------------------------|-------------------------------|
| 1. Methanol | 11. n -Hexane | 20. n -Butanol | 29. Methyl-n -butyl ketone | 38. 1-Methylcyclohexanol |
| 2. Acetone | 12. cis -1,2-Dichloroethylene | 21. Carbon Tetrachloride | 30. n -Butyl acetate | 39. o -Xylene |
| 3. Isopropanol | 13. Ethyl acetate | 22. Trichloroethylene | 31. Tetrachloroethylene | 40. Cellosolve acetate |
| 4. Ethyl ether | 14. Chloroform | 23. 1,4-Dioxane | 32. Chlorobenzene | 41. Butyl cellosolve |
| 5. Methyl acetate | 15. Isobutanol | 24. Ethyl cellosolve | 33. m -Xylene | 42. 1,1,2,2-Tetrachloroethane |
| 6. Dichloromethane | 16. Tetrahydrofuran | 25. n -Propyl acetate | 34. p -Xylene | 43. o -Dichlorobenzene |
| 7. Carbon disulfide | 17. Methyl cellosolve | 26. Isoamyl alcohol | 35. Cyclohexanol | 44. o -Cresol |
| 8. trans -1,2-Dichloroethylene | 18. 1,1,1-Trichloroethane | 27. Toluene | 36. Styrene | 45. m -Cresol |
| 9. Methyl ethyl ketone | 19. 1,2-Dichloroethane | 28. N,N-Dimethyl formamide | 37. Cyclohexanone | 46. p -Cresol |
| 10. 2-Butanol | | | | |



System : GC-MS
 Column : InertCap5
 0.25 mm I.D. × 60 m df = 0.45 μm
 Col.Temp. : 40°C(5 min hold) - 4°C/min - 230°C(5 min hold)
 Carrier Gas : He 130 kPa
 Injection : Split flow 100 mL/min
 250°C
 Detection : FID Range 10⁻¹
 250°C
 Sample Size : Mixed evenly
 1 μL
 Date Source : GC InertSearch No.GA036

InertCap 5

内径 (mm)	长度 (m)	膜厚 (μm)	最高使用温度 (°C)	Cat.No.
0.25	15	0.25	iso.325-prog.350	1010-18122
		0.40	iso.325-prog.350	1010-18123
	30	0.10	iso.325-prog.350	1010-18140
		0.25	iso.325-prog.350	1010-18142
		0.40	iso.325-prog.350	1010-18143
		1.00	iso.300-prog.320	1010-18145
		1.50	iso.300-prog.320	1010-18146
	60	0.25	iso.325-prog.350	1010-18162
		0.40	iso.325-prog.350	1010-18163
		1.00	iso.300-prog.320	1010-18165
0.32	15	0.25	iso.325-prog.350	1010-18222
		0.40	iso.325-prog.350	1010-18223
	30	0.25	iso.325-prog.350	1010-18242
		0.40	iso.325-prog.350	1010-18243
		1.00	iso.300-prog.320	1010-18245

内径 (mm)	长度 (m)	膜厚 (μm)	最高使用温度 (°C)	Cat.No.
0.32	60	0.25	iso.325-prog.350	1010-18262
		0.40	iso.325-prog.350	1010-18263
0.53	15	1.00	iso.300-prog.320	1010-18425
		1.50	iso.300-prog.320	1010-18426
		2.00	iso.300-prog.320	1010-18427
		3.00	iso.260-prog.280	1010-18428
		5.00	iso.260-prog.280	1010-18429
		1.00	iso.300-prog.320	1010-18445
	30	1.50	iso.300-prog.320	1010-18446
		2.00	iso.300-prog.320	1010-18447
		3.00	iso.260-prog.280	1010-18448
		5.00	iso.260-prog.280	1010-18449
	50	5.00	iso.260-prog.280	1010-18459
		2.00	iso.300-prog.320	1010-18467

InertCap 5 ProGuard (保护柱一体型)

内径 (mm)	长度 (m)	膜厚 (μm)	保护柱 (m)	最高使用温度 (°C)	Cat.No.
0.25	30	0.25	2	iso.325-prog.350	1010-18172
			5	iso.325-prog.350	1010-18173
			10	iso.325-prog.350	1010-18174

注) 保护柱一体型色谱柱的详细介绍可参考27页。

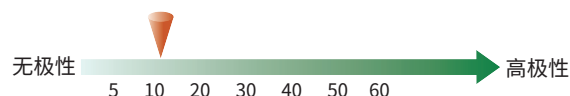
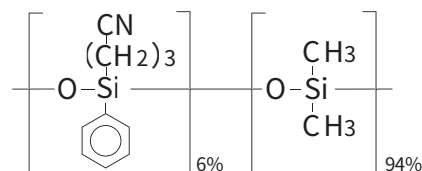
InertCap 5 FAST GC

内径 (mm)	长度 (m)	膜厚 (μm)	最高使用温度 (°C)	Cat.No.
0.18	15	0.18	iso.325-prog.350	1010-18021
		0.28	iso.325-prog.350	1010-18022
	20	0.18	iso.325-prog.350	1010-18031
		0.28	iso.325-prog.350	1010-18032

InertCap 624MS

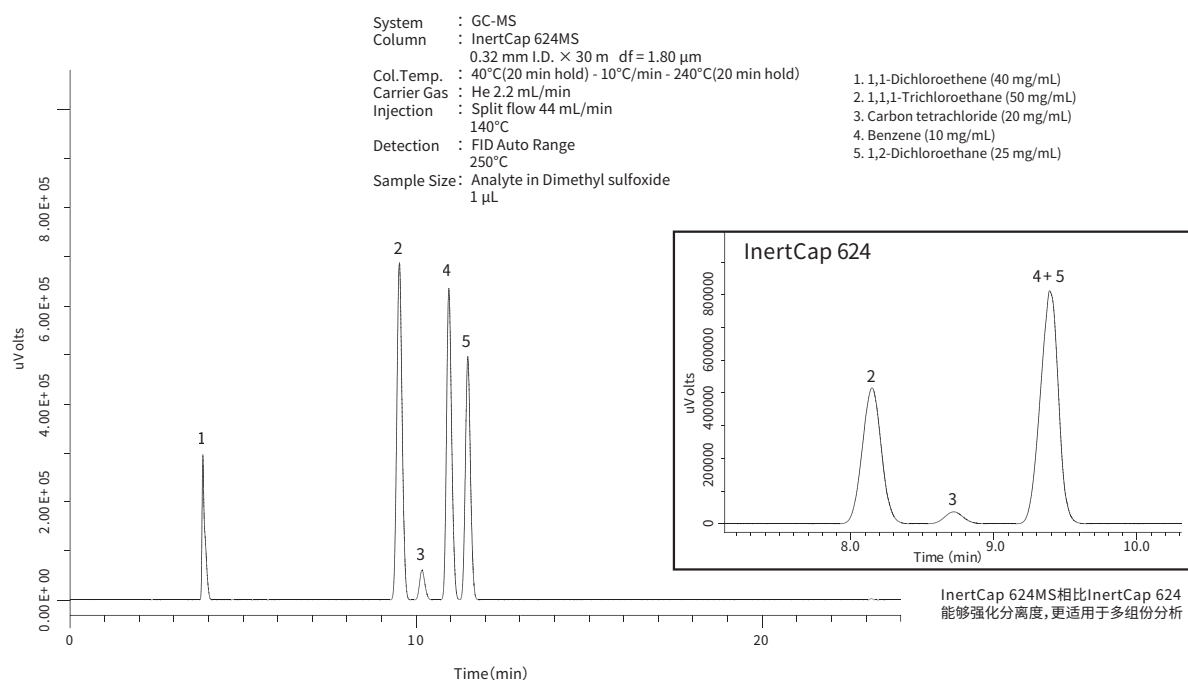
- 6 % 氰丙基苯基 - 94 % 甲基聚硅氧烷
- 与G43固定相当
- 中等极性
- 键合交联
- 适合医药品溶剂残留、VOC、酒类
- 同类产品: DB-624, HP-VOC, Rtx-624, Rxi-624Sil MS, VF-624ms

结构式

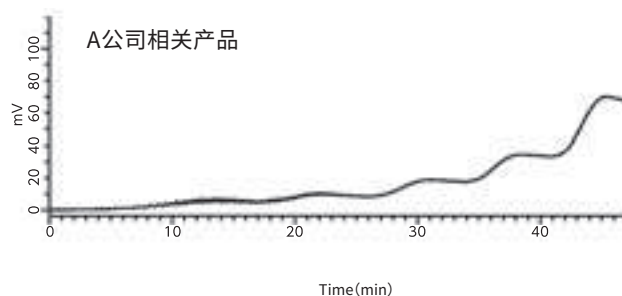
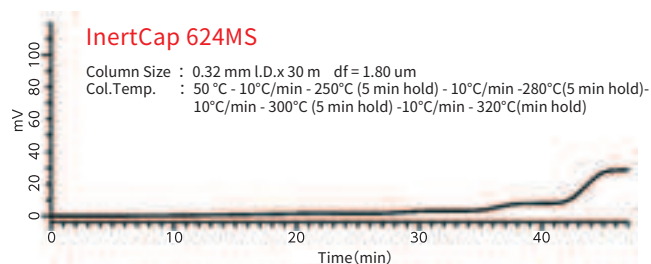


InertCap 624MS是键合了6%的氰丙基苯基 - 94%的甲基聚硅氧烷的中等极性固定相毛细管柱, 固定相组成与InertCap 624相当, 低流失, 批次稳定, 高惰性。

有机溶剂分析



柱流失比较



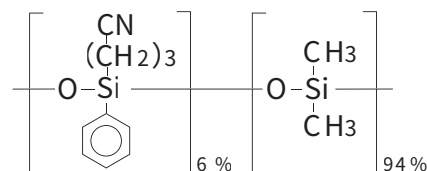
InertCap 624MS

内径 (mm)	长度 (m)	膜厚 (μm)	最高使用温度 (°C)	Cat.No.
0.18	20	1.00	iso.300 - prog.320	1010-64535
0.25	30	1.40	iso.300 - prog.320	1010-64646
	60		iso.300 - prog.320	1010-64666
0.32	30	1.80	iso.300 - prog.320	1010-64747
	60		iso.300 - prog.320	1010-64767
0.53	30	3.00	iso.300 - prog.320	1010-64948
	60		iso.300 - prog.320	1010-64968

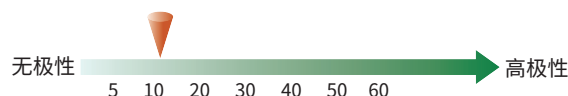
InertCap 624

- 6 % 氟丙基苯基 - 94 % 甲基聚硅氧烷
- 与 USP G43 固定相当
- 中等极性
- 键合交联
- 适合 VOC、酒类
- 同类产品: DB-624, HP-VOC, Rtx-624, VF-624ms

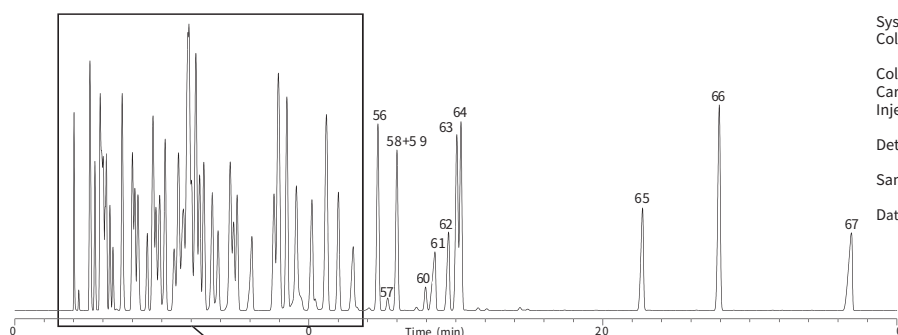
结构式



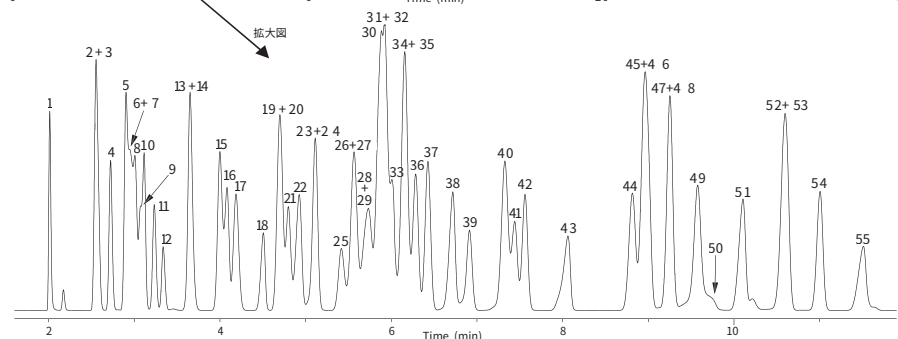
InertCap 624 是键合了 6% 的氟丙基苯基 - 94% 的甲基聚硅氧烷的中等极性毛细管柱。



医疗品溶剂残留 分析例



System : GC-FID
Column : InertCap 624
0.53 mm I.D. × 30 m df = 3.00 μm
Col.Temp. : 40°C - 5°C/min - 230°C)
Carrier Gas : He 20 kPa
Injection : Split flow 25 mL/min
240°C
Detection : FID Range 10²
240°C
Sample Size : Mixed evenly
0.5 μL
Data Source : GC InertSearch No.GA123



- | | | | | |
|-----------------------------------|------------------------------|--|--|-----------------------------------|
| 1. Methanol | 14. tert-Butyl methyl ether | 28. Carbon tetrachloride | 41. 1,4-Dioxane | 54. n-Butyl acetate |
| 2. Ethanol | 15. n-Hexane | 29. 2-Methyl-1-propanol (Isobutyl alcohol) | 42. n-Propyl acetate | 55. N,N-Dimethylformamide |
| 3. n-Pentane | 16. 1-Propanol | 30. 1,2-Dimethoxyethane | 43. 2-Ethoxyethanol | 56. Chlorobenzene |
| 4. Diethyl ether | 17. Diisopropyl ether | 31. 1,2-Dichloroethane | 44. 4-Methyl-2-pentanone(MIBK) | 57. Ethylbenzene |
| 5. Acetone | 18. Nitromethane | 32. Benzene | 45. Pyridine | 58. m-Xylene |
| 6. 1,1-Dichloroethylene | 19. 2-Butanone(MEK) | 33. Isopropyl acetate | 46. 3-Methyl-1-butanol (Isoamyl alcohol) | 59. p-Xylene |
| 7. 1,1-Dimethoxymethane | 20. cis-1,2-Dichloroethylene | 34. 2,2,4-Trimethylpentane | 47. Toluene | 60. o-Xylene |
| 8. 2-Propanol (Isopropyl alcohol) | 21. Ethyl acetate | 35. 2-Methyltetrahydrofuran | 48. Ethylene glycol | 61. Dimethyl sulfoxide(DMSO) |
| 9. Ethyl formate | 22. 2-Butanol | 36. Methyl isopropyl ketone | 49. Isobutyl acetate | 62. N,N-Dimethylacetamide |
| 10. Acetonitrile | 23. Tetrahydrofuran | 37. n-Heptane | 50. Formamide | 63. Cumene |
| 11. Methyl acetate | 24. Chloroform | 38. 1-Butanol | 51. 1-Pentanol(Amyl alcohol) | 64. Anisole |
| 12. Dichloromethane | 25. 1,1,1-Trichloroethane | 39. Trichloroethylene | 52. Propionaldehyde diethyl acetal | 65. N-methyl-2-pyrrolidone |
| 13. trans,2-Dichloroethylene | 26. Cyclohexane | 40. Methylcyclohexane | 53. 2-Hexanone(MBK) | 66. 1,2,3,4-Tetrahydronaphthalene |
| | 27. 2,2-Dimethoxypropane | | | 67. Sulfolane |

Xylene mixture (m-Xylene, p-Xylene, o-Xylene, Ethylbenzene) was used.

InertCap 624

内径 (mm)	长度 (m)	膜厚 (μm)	最高使用温度 (°C)	Cat.No.
0.25	30	1.40	iso.260-prog.260	1010-14646
	60	1.40	iso.260-prog.260	1010-14666
0.32	30	1.80	iso.260-prog.260	1010-14747
	60	3.00	iso.260-prog.260	1010-14748
0.53	30	1.80	iso.260-prog.260	1010-14767
	75	3.00	iso.260-prog.260	1010-14948
		3.00	iso.260-prog.260	1010-14978

InertCap 624 FAST GC

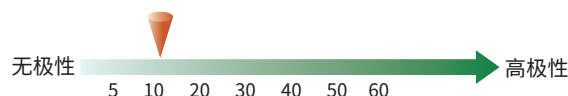
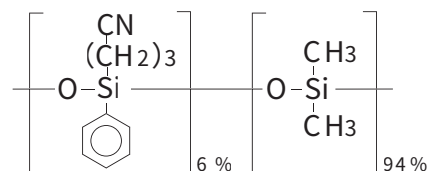
内径 (mm)	长度 (m)	膜厚 (μm)	最高使用温度 (°C)	Cat.No.
0.18	20	1.00	iso.260-prog.260	1010-14535
	40	1.00	iso.260-prog.260	1010-14555

InertCap 1301

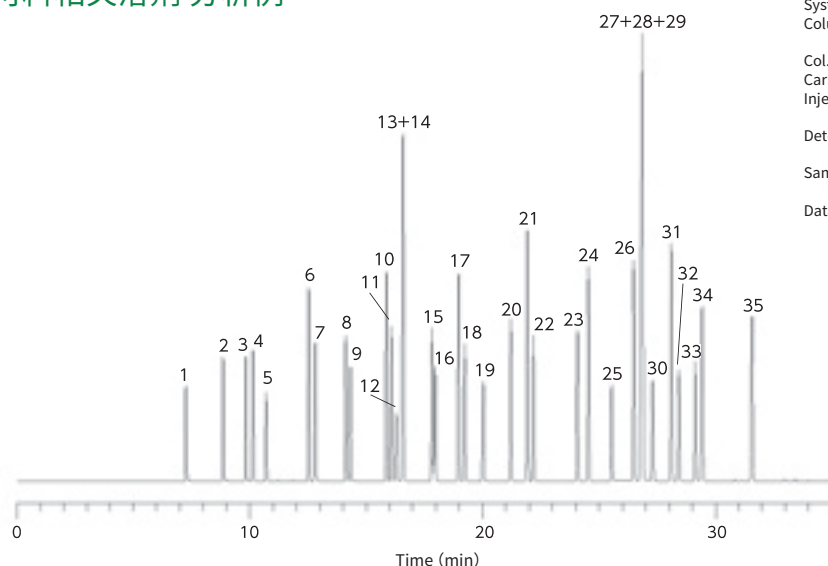
- 6 % 氰丙基苯基 - 94 % 二甲基聚硅氧烷
- 与 USP G43 固定相相当
- 中等极性
- 键合交联
- 适合农业、酒类、VOC
- 同类产品: DB-1301, HP-1301, Rtx-1301, VF-1301ms

InertCap 1301 是键合了 6% 氰丙基苯基 - 94% 二甲基聚硅氧烷中等极性固定相的一款毛细管柱。与 InertCap 25 相比, InertCap 1301 的极性稍低, 固定液中存在的氰基提供了独特的选择性。

结构式



包装材料相关溶剂 分析例



System : GC-FID
Column : InertCap 1301
0.25 mm I.D. × 60 m df = 1.00 μm
Col. Temp. : 40°C (5 min hold) - 5°C/min - 200°C
Carrier Gas : He 160 kPa
Injection : Split flow 100 mL/min
200°C
Detection : FID Range 10⁻¹
200°C
Sample Size : Mixed evenly
0.2 μL
Data Source : GC InertSearch No.GA138

- | | | | |
|--|--|---|--|
| 1. Methanol | 12. 2-Methoxyethanol (Methyl cellosolve) | 22. Isobutyl acetate | 30. Diacetone alcohol |
| 2. Ethanol | 13. Benzene | 23. n-Butyl acetate | 31. o-Xylene |
| 3. Acetone | 14. Isopropyl acetate | 24. Ethylcyclohexane | 32. 2-Ethoxyethyl acetate |
| 4. 2-Propanol (Isopropyl alcohol) | 15. 1-Butanol | 25. 2-Methoxyethyl acetate | (Cellosolve acetate) |
| 5. Methyl acetate | 16. 1-Methoxy-2-propanol | (Methyl cellosolve acetate) | 33. 2-Butoxyethanol (Butyl cellosolve) |
| 6. n-Hexane | (Propylene glycol monomethyl ether) | 26. Ethylbenzene | 34. Cyclohexanone |
| 7. 1-Propanol | 17. Methylcyclohexane | 27. 1-Methoxy-2-propyl acetate | 35. 2-Methylcyclohexanone |
| 8. 2-Butanone (MEK) | 18. n-Propyl acetate | (Propylene glycol monomethyl ether acetate) | |
| 9. Ethyl acetate | 19. 2-Ethoxyethanol (Cellosolve) | 28. m-Xylene | |
| 10. Cyclohexane | 20. 4-Methyl-2-pentanone (MIBK) | 29. p-Xylene | |
| 11. 2-Methyl-1-propanol (Isobutyl alcohol) | 21. Toluene | | |

InertCap 1301

内径 (mm)	长度 (m)	膜厚 (μm)	最高使用温度 (°C)	Cat.No.
0.25	15	0.25	iso.280-prog.300	1010-60122
		0.50	iso.280-prog.300	1010-60124
		1.00	iso.260-prog.280	1010-60125
	30	0.25	iso.280-prog.300	1010-60142
		0.50	iso.280-prog.300	1010-60144
		1.00	iso.260-prog.280	1010-60145
	60	0.25	iso.280-prog.300	1010-60162
		0.50	iso.280-prog.300	1010-60164
		1.00	iso.260-prog.280	1010-60165

内径 (mm)	长度 (m)	膜厚 (μm)	最高使用温度 (°C)	Cat.No.
0.32	15	0.25	iso.280-prog.300	1010-60222
		0.50	iso.280-prog.300	1010-60224
		1.00	iso.260-prog.280	1010-60225
	30	0.25	iso.280-prog.300	1010-60242
		0.50	iso.280-prog.300	1010-60244
		1.00	iso.260-prog.280	1010-60245
	60	0.25	iso.280-prog.300	1010-60262
		0.50	iso.280-prog.300	1010-60264
		1.00	iso.260-prog.280	1010-60265
0.53	15	1.00	iso.260-prog.280	1010-60425
	30	1.00	iso.260-prog.280	1010-60445

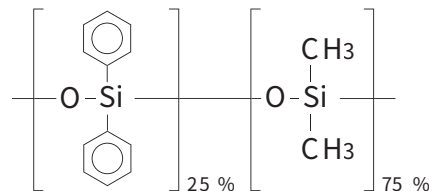
InertCap 1301 FAST GC

内径 (mm)	长度 (m)	膜厚 (μm)	最高使用温度 (°C)	Cat.No.
0.18	20	0.18	iso.280-prog.300	1010-60031

InertCap 25

- 25 % 苯基 - 75 % 二甲基聚硅氧烷
- 与USP G28固定相当
- 中等极性
- 键合交联
- 适合农药、酒类、VOC分析
- 无同类产品

结构式

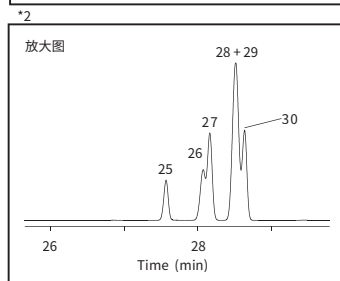
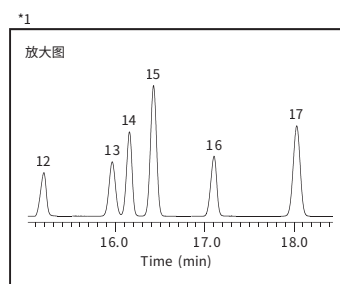
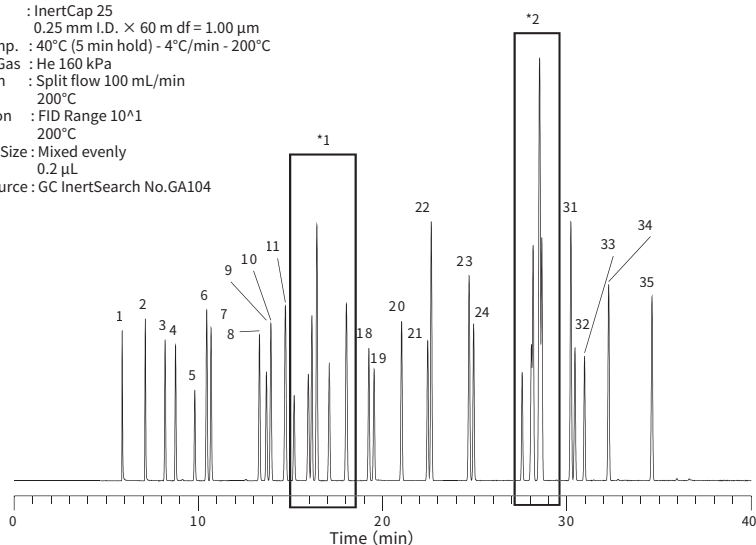


无极性 → 5 10 20 30 40 50 60 → 高极性

InertCap 25 是键合了25 % 苯基 - 75 % 二甲基聚硅氧烷中等极性固定相的毛细管柱。与其他具有不同选择性的中等极性的色谱柱相比有所不同,能够改变各类化合物的分析模式,适用于定性定量分析。

包装材料相关溶剂 分析例

System : GC-FID
Column : InertCap 25
0.25 mm I.D. × 60 m df = 1.00 μm
Col. Temp. : 40°C (5 min hold) - 4°C/min - 200°C
Carrier Gas : He 160 kPa
Injection : Split flow 100 mL/min
200°C
Detection : FID Range 10¹
200°C
Sample Size : Mixed evenly
0.2 μL
Data Source : GC InertSearch No.GA104



- | | | |
|---|--|---|
| 1. Methanol | 14. 1-Butanol | 26. Diacetone alcohol |
| 2. Ethanol | 15. Benzene | 27. Ethylbenzene |
| 3. 2-Propanol(Isopropyl alcohol) | 16. 1-Methoxy-2-propanol
(Propylene glycol monomethylether) | 28. m -Xylene |
| 4. Acetone | 17. Methylcyclohexane | 29. p -Xylene |
| 5. Methyl acetate | 18. n -Propyl acetate | 30. 1-Methoxy-2-propyl acetate
(Propylene glycol monomethyl ether acetate) |
| 6. n -Hexane | 19. 2-Ethoxyethanol(Cellosolve) | 31. o -Xylene |
| 7. 1-Propanol | 20. 4-Methyl-2-pentanone(MIBK) | 32. 2-Butoxyethanol(Butyl cellosolve) |
| 8. 2-Butanone(MEK) | 21. Isobutyl acetate | 33. 2-Ethoxyethyl acetate(Cellosolve acetate) |
| 9. Ethyl acetate | 22. Toluene | 34. Cyclohexanone |
| 10. 2-Methyl-1-propanol(Isobutyl alcohol) | 23. Ethylcyclohexane | 35. 2-Methylcyclohexanone |
| 11. Cyclohexane | 24. n -Butyl acetate | |
| 12. 2-Methoxyethanol(Methyl cellosolve) | 25. 2-Methoxyethyl acetate(Methyl cellosolve acetate) | |
| 13. Isopropyl acetate | | |

InertCap 25

内径 (mm)	长度 (m)	膜厚 (μm)	最高使用温度 (°C)	Cat.No.
0.25	15	0.25	iso.280-prog.300	1010-60122
		0.50	iso.280-prog.300	1010-60124
		1.00	iso.260-prog.280	1010-60125
	30	0.25	iso.280-prog.300	1010-60142
		0.50	iso.280-prog.300	1010-60144
		1.00	iso.260-prog.280	1010-60145
	60	0.25	iso.280-prog.300	1010-60162
		0.50	iso.280-prog.300	1010-60164
		1.00	iso.260-prog.280	1010-60165

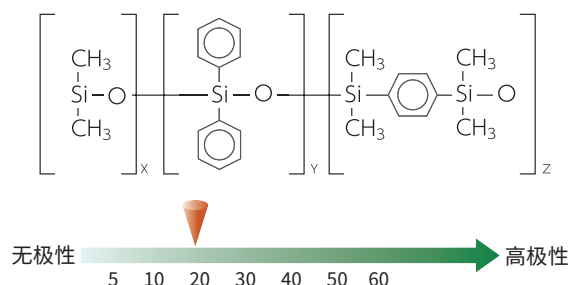
内径 (mm)	长度 (m)	膜厚 (μm)	最高使用温度 (°C)	Cat.No.
0.32	15	0.25	iso.280-prog.300	1010-62222
		0.50	iso.280-prog.300	1010-62224
		1.00	iso.260-prog.280	1010-62225
	30	0.25	iso.280-prog.300	1010-62242
		0.50	iso.280-prog.300	1010-62244
		1.00	iso.260-prog.280	1010-62245
	60	0.25	iso.280-prog.300	1010-62262
		0.50	iso.280-prog.300	1010-62264
		1.00	iso.260-prog.280	1010-62265
0.53	15	1.00	iso.260-prog.280	1010-62425
	30	1.00	iso.260-prog.280	1010-62445

InertCap 35MS

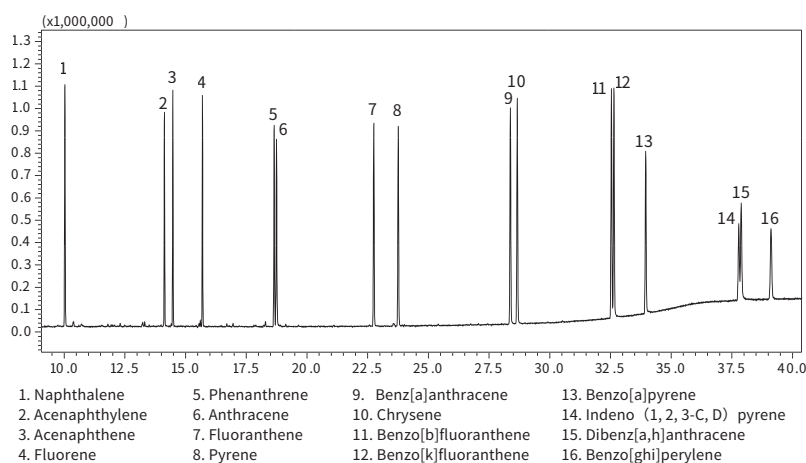
- 35%苯基 - 65%甲基聚硅氧烷
- 与USP G42固定相当
- 中等极性
- 键合交联
- 适合农业、多环芳烃、医药品的分析
- 同类产品: DB-35ms UI, VF-35ms, Rti-35sil MS

InertCap 35 是键合了35%苯基 - 65%甲基聚硅氧烷中等极性固定相的毛细管柱。比InertCap 25的极性更强, 适合半挥发性有机物或溶剂的分析。该柱专为GC/MS分析设计, 实现更高的惰性和更低柱流失, 且耐热性更强, 最高使用温度达360°C。

结构式

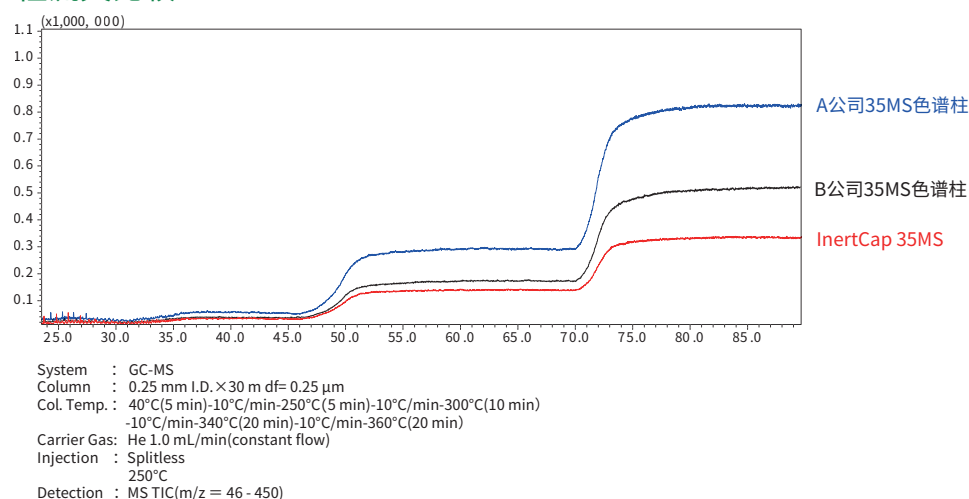


多环芳烃 分析例



System : GC-MS
 Column : InertCap 35MS
 0.25 mm I.D. × 30 m df= 0.25 μm
 Col.Temp. : 55°C(1 min) -10°C/min - 200°C -
 6°C/min - 320°C(10 min)
 Carrier Gas : He, 40 cm/sec constant
 Injection : Splitless
 300°C
 Detection : MS Scan(m/z = 70-400), SIM
 Detector Temp.: 300°C
 Sample : TIC : 16 PAHs 1 ppm in
 (Dichloromethane/Benzene=1/1) ,
 1μL

柱流失比较



InertCap 35MS

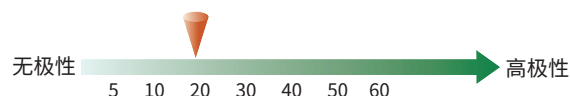
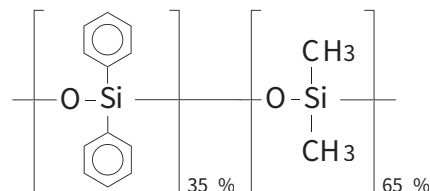
内径 (mm)	长度 (m)	膜厚 (μm)	最高使用温度 (°C)	Cat.No.
0.18	20	0.18	iso.340-prog.360	1010-63531
	15	0.25	iso.340-prog.360	1010-63622
	30	0.25	iso.340-prog.360	1010-63642
0.25	60	0.25	iso.340-prog.360	1010-63662
	15	0.25	iso.340-prog.360	1010-63722
	30	0.25	iso.340-prog.360	1010-63742
0.32	60	0.25	iso.340-prog.360	1010-63762

InertCap 35

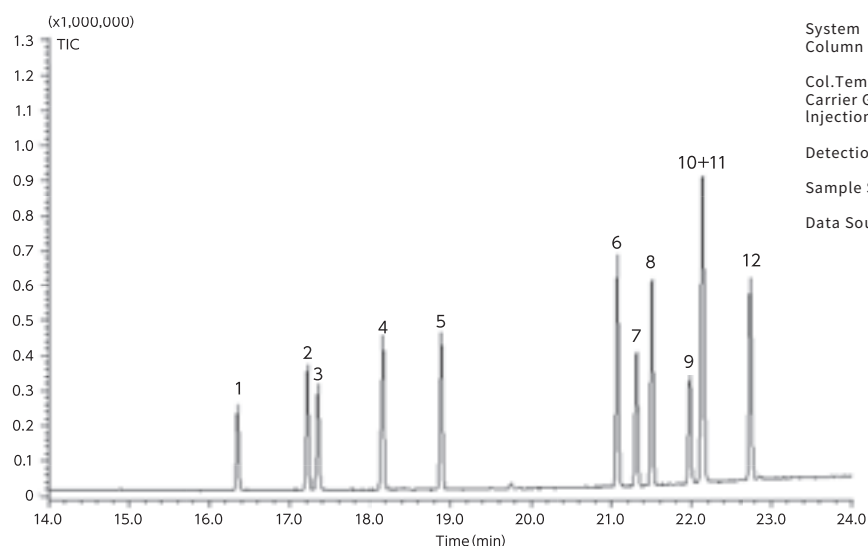
- 35%苯基 - 65%甲基聚硅氧烷
- 与USP G42固定相相当
- 中等极性
- 键合交联
- 适合农业、多环芳烃、医药品的分析
- 同类产品: DB-35ms, DB-35, HP-35ms, HP-35, Rtx-35, VF-35ms

InertCap 35是键合了35%苯基 - 65%甲基聚硅氧烷中等极性固定相的毛细管柱。比InertCap 25的极性更强, 适合半挥发性有机物或溶剂的分析。

结构式



农残12成分 分析例



System : GC-MS
 Column : InertCap 35
 0.25 mm I.D. $\times$ 30 m df = 0.25 μ m
 Col.Temp. : 60°C - 10°C/min - 290°C(7 min hold)
 Carrier Gas : He 35 cm/sec
 Injection : Split 1:302
 50°C
 Detection : MS Scan (m/z = 45 - 500)
 Interface Temp. 280°C
 Sample Size : 100 ug/mL in Isooctane
 1 μ L
 Data Source : GC InertSearch No.GA139

1. α -HCH
2. γ -HCH
3. β -HCH
4. Heptachlor
5. Aldrin
6. p,p'-DDE
7. Dieldrin
8. o,p'-DDD
9. Endrin
10. p,p'-DDD
11. o,p'-DDT
12. p,p'-DDT

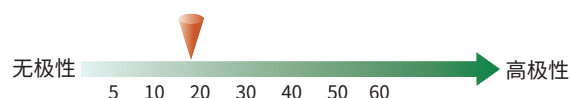
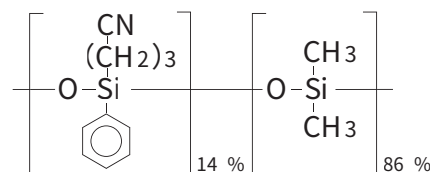
InertCap 35

内径 (mm)	长度 (m)	膜厚 (μ m)	最高使用温度 (°C)	Cat.No.
0.25	15	0.25	iso.280-prog.300	1010-63122
		0.50	iso.280-prog.300	1010-63124
		1.00	iso.260-prog.280	1010-63125
	30	0.25	iso.280-prog.300	1010-63142
		0.50	iso.280-prog.300	1010-63144
		1.00	iso.260-prog.280	1010-63145
	60	0.25	iso.280-prog.300	1010-63162
		0.50	iso.280-prog.300	1010-63164
		1.00	iso.260-prog.280	1010-63165
0.32	15	0.25	iso.280-prog.300	1010-63222
		0.50	iso.280-prog.300	1010-63224
		1.00	iso.260-prog.280	1010-63225
	30	0.25	iso.280-prog.300	1010-63242
		0.50	iso.280-prog.300	1010-63244
		1.00	iso.260-prog.280	1010-63245
	60	0.25	iso.280-prog.300	1010-63262
		0.50	iso.280-prog.300	1010-63264
		1.00	iso.260-prog.280	1010-63265
0.53	15	1.00	iso.260-prog.280	1010-63425
	30	0.50	iso.280-prog.300	1010-63444
		1.00	iso.260-prog.280	1010-63445

InertCap 1701MS

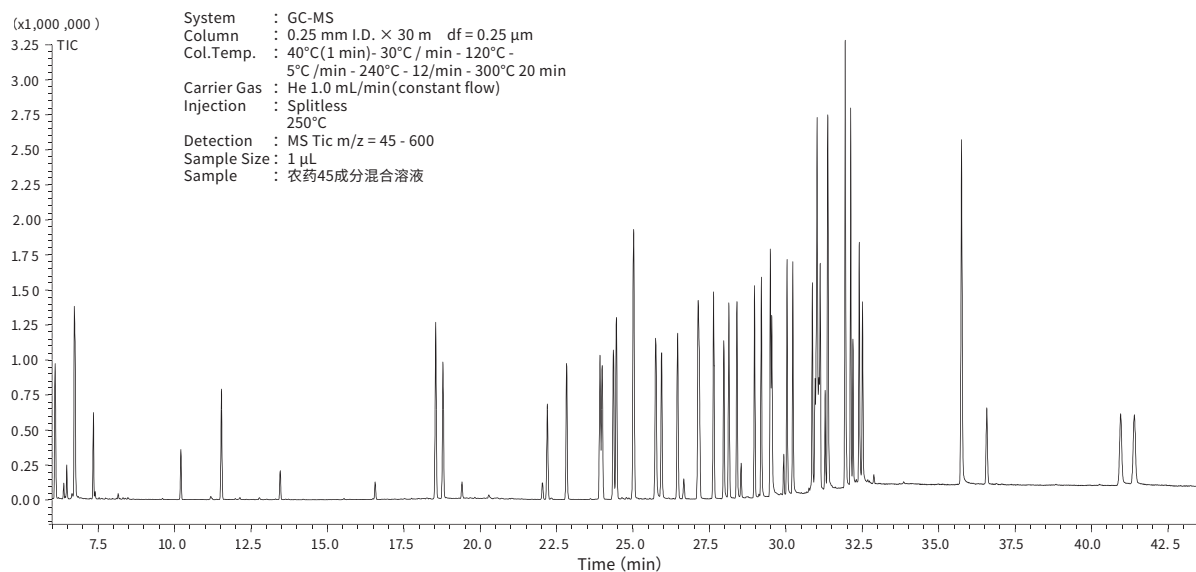
- 14%氰丙基苯基-86%二甲基聚硅氧烷
- 与USP G46固定相当
- 中等极性
- 键合交联
- 适合农药、糖类、TMS衍生化、药物、酒类、类固醇
- 同类产品:DB-1701, Rtx-1701, VF-1701ms, SPB-1701

结构式



InertCap 1701MS 是键合了14%氰丙基苯基-86%二甲基聚硅氧烷的中等极性毛细管柱,用于GC/MS分析,可实现高惰性和低柱流失。与InertCap 1301 一样含有氰丙基基团,并且相比InertCap 25极性更高。适用于多农残分析。

农残45成分 同时分析应用例



InertCap 1701MS

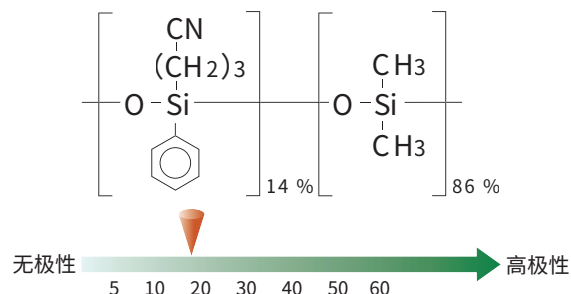
内径 (mm)	长度 (m)	膜厚 (μm)	最高使用温度 (°C)	Cat.No.
0.25	15	0.25	iso.280-prog.300	1010-61622
		0.50		1010-61624
		1.00		1010-61625
	30	0.25	iso.280-prog.300	1010-61642
		0.50		1010-61644
		1.00		1010-61645
	60	0.25	iso.280-prog.300	1010-61662
		0.50		1010-61664
		1.00		1010-61665
0.32	15	0.25	iso.280-prog.300	1010-61722
		0.50		1010-61724
		1.00		1010-61725
	30	0.25	iso.280-prog.300	1010-61742
		0.50		1010-61744
		1.00		1010-61745
	60	0.25	iso.280-prog.300	1010-61762
		0.50		1010-61764
		1.00		1010-61765

InertCap 1701

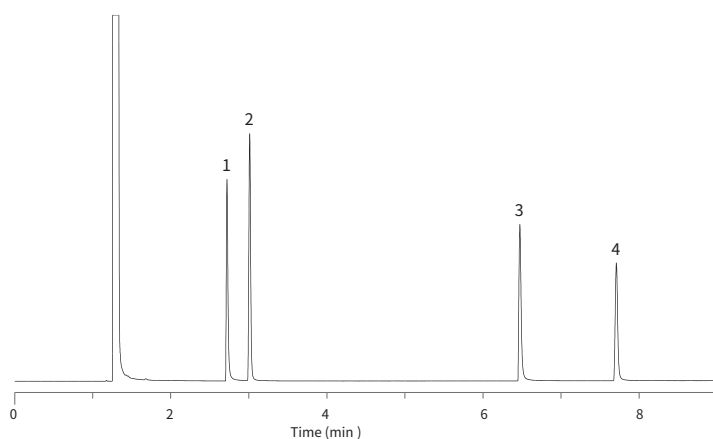
- 14%氰丙基苯基-86%二甲基聚硅氧烷
- 与USP G46固定相当
- 中等极性
- 键合交联
- 适合农药、糖类、TMS衍生化、药物、酒类、类固醇
- 同类产品: DB-1701, Rtx-1701, VF-1701ms, SPB-1701

InertCap 1701是键合了14%氰丙基苯基-86%二甲基聚硅氧烷的中等极性毛细管柱, 与InertCap 1301 一样含有氰丙基基团, 并且相比InertCap 25 极性更高。适合于多农残分析。

结构式



乙二醇, 甘油 分析例



System : GC-FID
 Column : InertCap 1701
 0.32 mm I.D. × 30 m df = 1.00 μm
 Col. Temp. : 100°C (5 min hold) - 7.5°C/min - 220°C
 Carrier Gas : He 100 kPa
 Injection : Split flow 53.6 mL/min
 220°C
 Detection : FID Range 10¹⁰
 250°C
 Sample Size : 500 μg/mL in Methanol
 1 μL
 Data Source : GC InertSearch No.GA100
 1. Ethylene glycol
 2. Propylene glycol
 3. Diethylene glycol
 4. Glycerine

InertCap 1701

内径 (mm)	长度 (m)	膜厚 (μm)	最高使用温度 (°C)	Cat.No.
0.25	15	0.25	iso.280-prog.300	1010-61122
		0.50	iso.280-prog.300	1010-61124
		1.00	iso.260-prog.280	1010-61125
	30	0.25	iso.280-prog.300	1010-61142
		0.50	iso.280-prog.300	1010-61144
		1.00	iso.260-prog.280	1010-61145
	60	0.25	iso.280-prog.300	1010-61162
		0.50	iso.280-prog.300	1010-61164
		1.00	iso.260-prog.280	1010-61165
0.32	15	0.25	iso.280-prog.300	1010-61222
		0.50	iso.280-prog.300	1010-61224
		1.00	iso.260-prog.280	1010-61225
	30	0.25	iso.280-prog.300	1010-61242
		0.50	iso.280-prog.300	1010-61244
		1.00	iso.260-prog.280	1010-61245
	60	0.25	iso.280-prog.300	1010-61262
		0.50	iso.280-prog.300	1010-61264
		1.00	iso.260-prog.280	1010-61265
0.53	15	1.00	iso.260-prog.280	1010-61425
	30	1.00	iso.260-prog.280	1010-61445

InertCap 1701 FAST GC

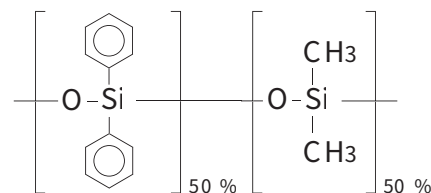
内径 (mm)	长度 (m)	膜厚 (μm)	最高使用温度 (°C)	Cat.No.
0.18	20	0.18	iso.280-prog.300	1010-61031

InertCap 17MS

- 50%苯基-50%甲基聚硅氧烷
- 与USP G3固定相相当
- 中等极性
- 键合交联
- 更低流失
- 适合常规分析、类固醇、药品、农药
- 同类产品: DB-17ms, Rxi-17Sil MS, VF-17ms

InertCap 17MS 是键合了50%苯基-50%甲基聚硅氧烷的中等极性固定相的色谱柱。可用于2020版中国药典四部2341法多农残分析。

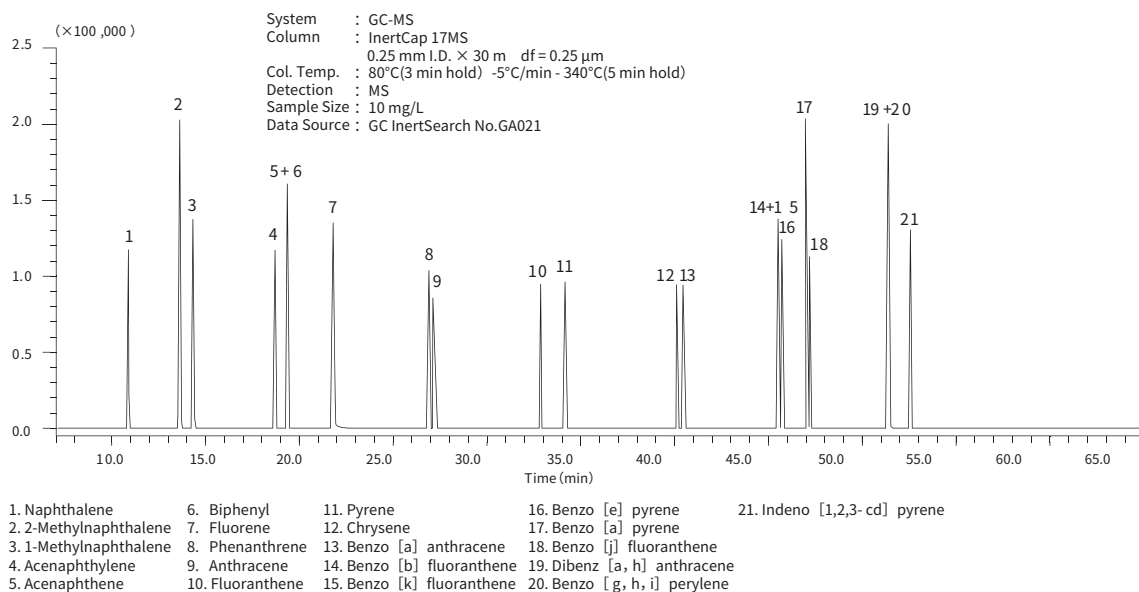
结构式



无极性 → 极性

5 10 20 30 40 50 60

多环芳烃21成分 分析例



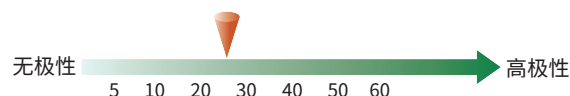
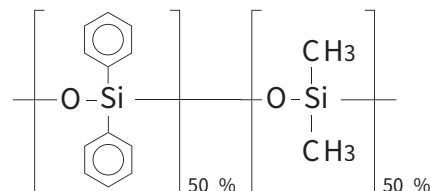
InertCap 17MS

内径 (mm)	长度 (m)	膜厚 (μm)	iso.320-prog.340	Cat.No.
0.25	15	0.25	iso.320-prog.340	1010-20122
	30	0.25	iso.320-prog.340	1010-20142
	60	0.25	iso.320-prog.340	1010-20162
	15	0.25	iso.320-prog.340	1010-20222
0.32	30	0.25	iso.320-prog.340	1010-20242
	60	0.25	iso.320-prog.340	1010-20262

InertCap 17

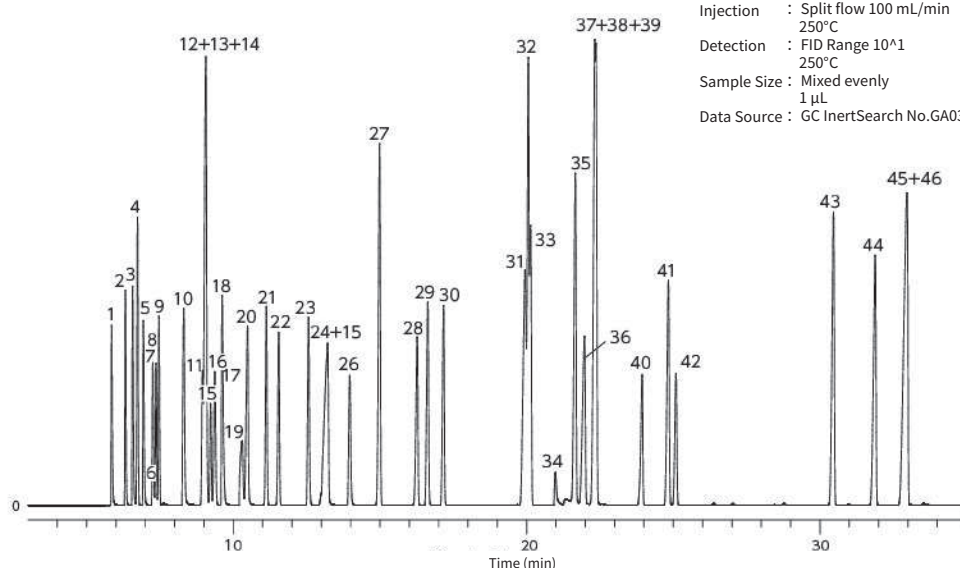
- 50%苯基-50%甲基聚硅氧烷
- 与USP G3固定相相当
- 中等极性
- 键合交联
- 适合类固醇、药品、农药
- 同类产品: DB-17, HP-50, Rtx-50, CP-Sil 24CB, SPB-50

结构式



InertCap 17是键合了50%苯基-50%甲基聚硅氧烷的中等极性固定相的色谱柱。比InertCap35极性更高, 适合常规分析及农残分析。

有机溶剂46成分 分析例



System : GC-FID
Column : InertCap 17
0.25mm I.D. × 60m df=0.25 μm
Col.Temp. : 40°C(5 min hold)-4 °C/min-230°C(5 min hold)
Carrier Gas : He 130 kPa
Injection : Split flow 100 mL/min
250°C
Detection : FID Range 10⁻¹¹
250°C
Sample Size : Mixed evenly
1 μL
Data Source : GC InertSearch No.GA034

- | | | | | |
|-------------------------------|------------------------------|---------------------------|----------------------------|-------------------------------|
| 1. Methanol | 11. cis-1,2-Dichloroethylene | 21. 1,2-Dichloroethane | 31. p-Xylene | 41. Cyclohexanone |
| 2. Ethyl ether | 12. Methyl ethyl ketone | 22. Trichloroethylene | 32. m-Xylene | 42. 1,1,2,2-Tetrachloroethane |
| 3. Isopropanol | 13. Isobutanol | 23. n-Propyl acetate | 33. Chlorobenzene | 43. o-Dichlorobenzene |
| 4. n-Hexane | 14. Ethyl acetate | 24. Isoamyl alcohol | 34. N,N-Dimethyl formamide | 44. o-Cresol |
| 5. Acetone | 15. Chloroform | 25. Ethyl cellosolve | 35. o-Xylene | 45. p-Cresol |
| 6. Carbon disulfide | 16. 1,1,1-Trichloroethane | 26. 1,4-Dioxane | 36. 1-Methylcyclohexanol | 46. m-Cresol |
| 7. Methyl acetate | 17. Carbon Tetrachloride | 27. Toluene | 37. Cyclohexanol | |
| 8. Dichloromethane | 18. Tetrahydrofuran | 28. Tetrachloroethylene | 38. Butyl cellosolve | |
| 9. trans-1,2-Dichloroethylene | 19. Methylcellosolve | 29. Methyl-n-butyl ketone | 39. Styrene | |
| 10. 2-Butanol | 20. n-Butanol | 30. n-Butyl acetate | 40. Cellosolve acetate | |

InertCap 17

内径 (mm)	长度 (m)	膜厚 (μm)	最高使用温度 (°C)	Cat.No.
0.25	15	0.25	iso.320-prog.340	1010-65122
	30	0.25	iso.320-prog.340	1010-65142
	60	0.25	iso.320-prog.340	1010-65162
0.32	30	0.25	iso.320-prog.340	1010-65242
	60	0.25	iso.320-prog.340	1010-65262
0.53	15	1.00	iso.300-prog.320	1010-65425
	30	1.00	iso.300-prog.320	1010-65445

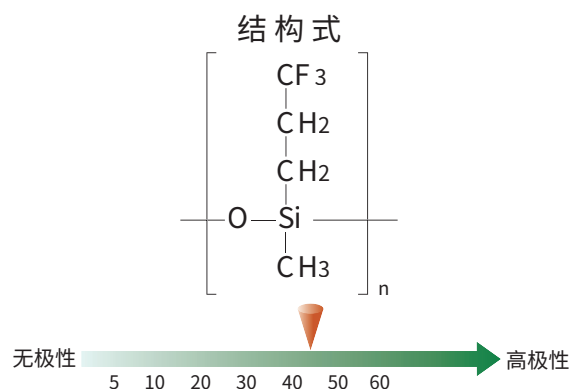
InertCap 17 FAST GC

内径 (mm)	长度 (m)	膜厚 (μm)	最高使用温度 (°C)	Cat.No.
0.18	20	0.18	iso.320-prog.340	1010-65031

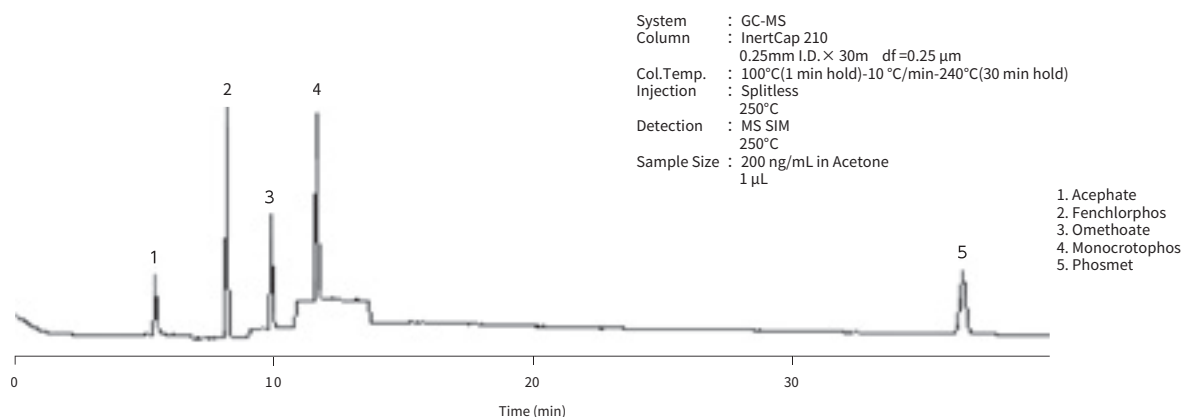
InertCap 210

- 50%三氟丙基-50%甲基聚硅氧烷
- 与USP G6固定相相当
- 中等极性
- 键合交联
- 对有机农药有较好的分离度
- 同类产品: DB-210, Rtx-200, VF-200ms

InertCap 210 是键合了50%三氟丙基-50%甲基聚硅氧烷的中等极性固定相毛细管柱, 对极性化合物有着较好的选择性, 非常适合含磷、含氮等强极性化合物的分析。



有机磷农药 分析例



InertCap 210

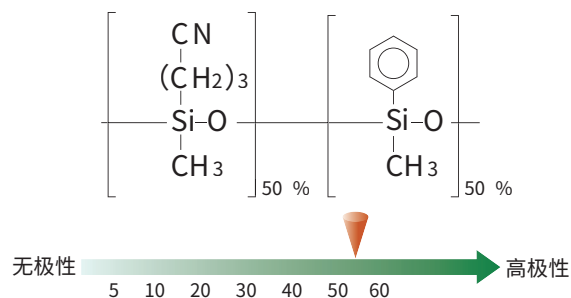
内径 (mm)	长度 (m)	膜厚 (μm)	最高使用温度 (°C)	Cat.No.
0.25	30	0.25	iso.240-prog.260	1010-66142
0.32	30	0.25	iso.240-prog.260	1010-66242
0.53	15	1.00	iso.220-prog.240	1010-66425
	30	1.00	iso.220-prog.240	1010-66445

InertCap 225

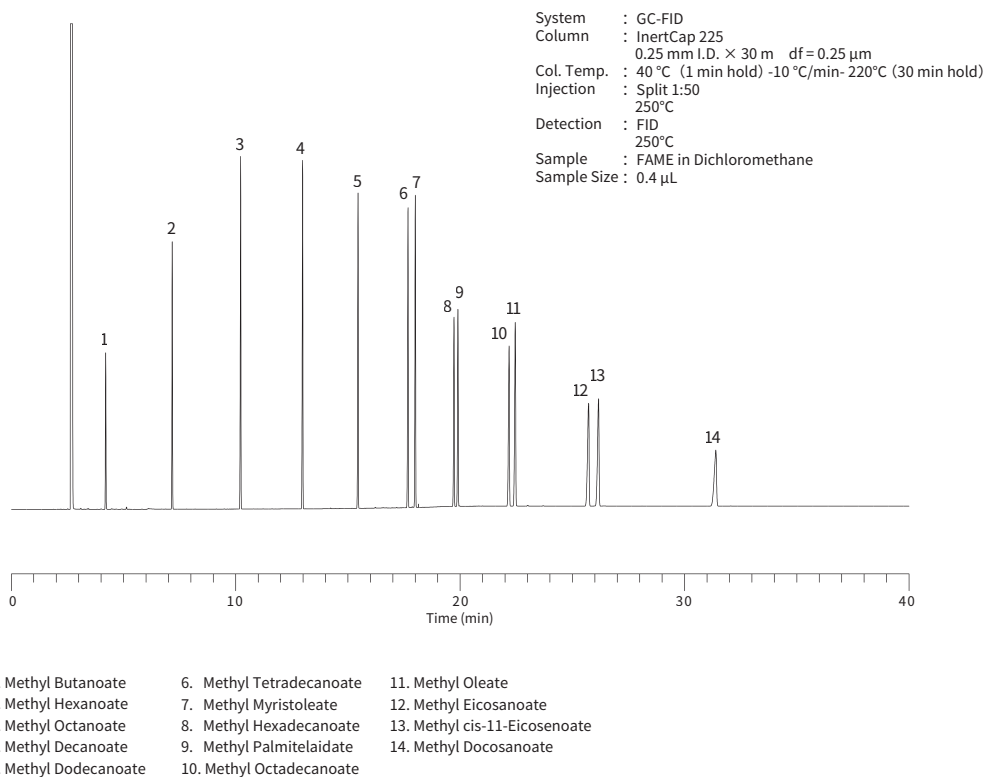
- 50%氰丙基苯基-50%二甲基聚硅氧烷
- 与USP G19固定相当
- 中-高等极性
- 键合交联
- 对脂肪酸甲酯类有优异的分离度
- 同类产品: DB-225, Rtx-225, CP-Sil 43CB

InertCap 225 是键合了50%氰丙基苯基-50%二甲基聚硅氧烷的中等极性固定相的毛细管柱。固定相中含有三重结合的氰丙基, 根据取向力作用, 对不饱和度较高物质的保留很强, 适用于脂肪酸甲酯分析。

结构式



脂肪酸甲酯 (FAME) 分析例



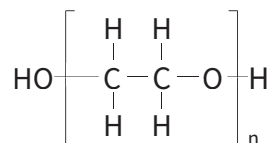
InertCap 225

内径 (mm)	长度 (m)	膜厚 (μm)	最高使用温度 (°C)	Cat.No.
0.25	30	0.25	iso.220-prog.240	1010-66642
0.32	30	0.25	iso.220-prog.240	1010-66742
0.53	30	0.50	iso.220-prog.240	1010-66844

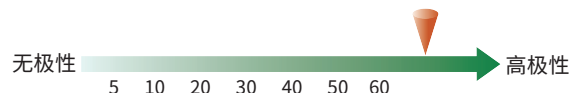
InertCap WAX

- 聚乙二醇(PEG)
- 与USP G16固定相当
- 高极性
- 键合交联
- 常规分析、脂类、香料、酒类、芳香族、FAME
- 同类产品:DB-WAX, HP-INNOWax, Rtx-Wax, Stabilwax

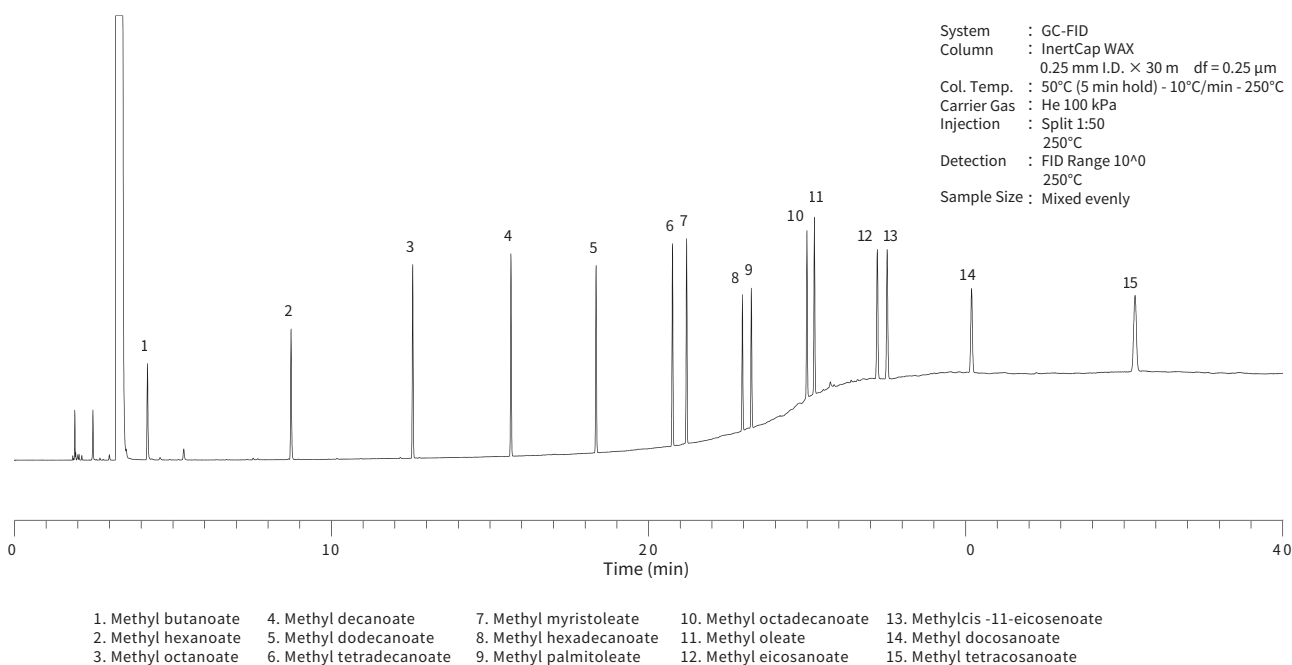
结构式



InertCap WAX 是键合了100%聚乙二醇的强极性固定相毛细管柱,比InertCap Pure-WAX极性略强,所以对于极性较强的化合物有更好的分离度,适合强极性样品。



脂肪酸甲酯 (FAME) 分析例



InertCap WAX

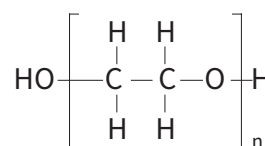
内径 (mm)	长度 (m)	膜厚 (μm)	最高使用温度 (°C)	Cat.No.
0.25	15	0.25	iso.250-prog.260	1010-67122
	30	0.25	iso.250-prog.260	1010-67142
		0.50	iso.250-prog.260	1010-67144
	60	0.25	iso.250-prog.260	1010-67162
		0.50	iso.250-prog.260	1010-67164

内径 (mm)	长度 (m)	膜厚 (μm)	最高使用温度 (°C)	Cat.No.
0.32	15	0.25	iso.250-prog.260	1010-67222
	30	0.25	iso.250-prog.260	1010-67242
		0.50	iso.250-prog.260	1010-67244
	60	0.25	iso.250-prog.260	1010-67262
		0.50	iso.250-prog.260	1010-67264
		1.00	iso.230-prog.240	1010-67265
0.53	15	1.00	iso.230-prog.240	1010-67425
	30	2.00	iso.230-prog.240	1010-67427
		1.00	iso.230-prog.240	1010-67445
		2.00	iso.230-prog.240	1010-67447
		3.00	iso.230-prog.240	1010-67449
	60	1.00	iso.230-prog.240	1010-67465

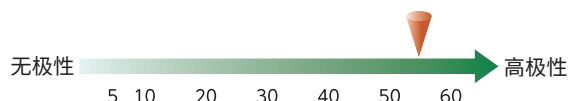
InertCap Pure-WAX

- 聚乙二醇(PEG)
- 与USP G16固定相当
- 高极性
- 键合交联
- 常规分析、脂类、香料、酒类、芳香族、FAME
- 同类产品: DB-WAX, HP-INNOWax, Rtx-Wax, Stabilwax

结构式



使用新柱管内壁表面处理技术,具有更高惰性。在常规WAX色谱柱对一些酸、碱化合物分析效果不好时可选用此柱。

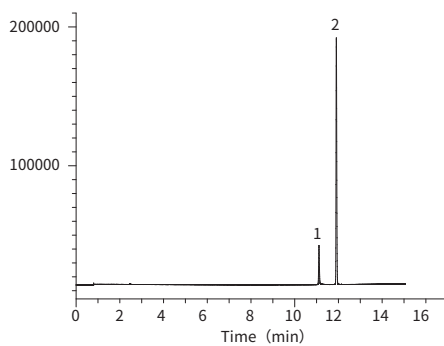


与其他公司性能比较

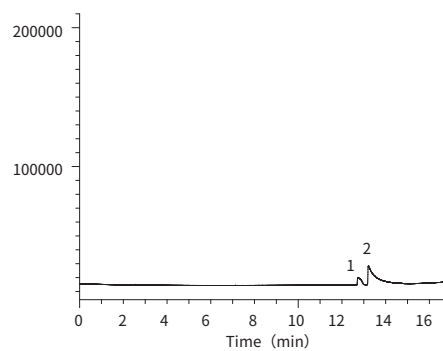
酸性化合物分析比较

System : GC-FID
Column : 0.25 mm I.D. × 30 m df = 0.25 μm
Col.Temp. : 90°C(5min hold) - 10°C/min - 240°C
Carrier Gas : He 100 kPa
Injection : Split flow 100 mL/min
240°C
Detection : FID Range 10¹⁰
240°C
Sample Size : 5 mg/mL 0.4 μL

1. Acrylic acid
2. Methacrylic acid



InertCap Pure-WAX

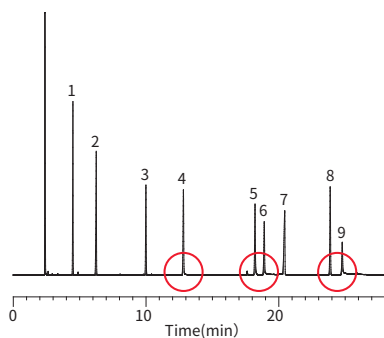


A公司WAX色谱柱

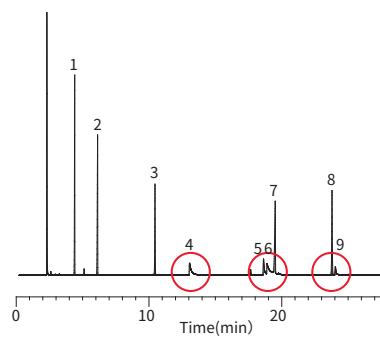
碱性化合物分析比较

System : GC-FID
Column : 0.25 mm I.D. × 30 m df = 0.25 μm
Col. Temp. : 60°C - 4°C/min - 250°C
Injection : 250°C
Detection : 250°C
Sample Size : 0.1 mg/mL in Methanol 0.2 μL

1. n-Undecane
2. n-Dodecane
3. 4,6-Dimethylpyrimidine
4. 1-Aminooctane
5. N,N-Dicyclohexylamine
6. 1-Aminodecane
7. n-Heptadecane
8. 2,6-Dimethylaniline
9. 1-Aminododecane



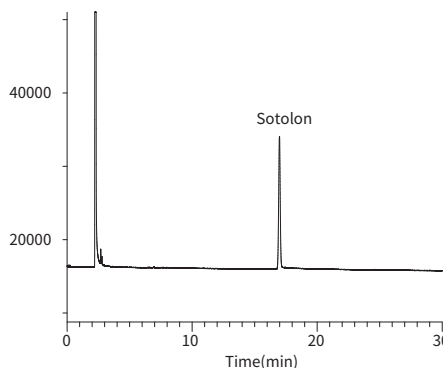
InertCap Pure-WAX



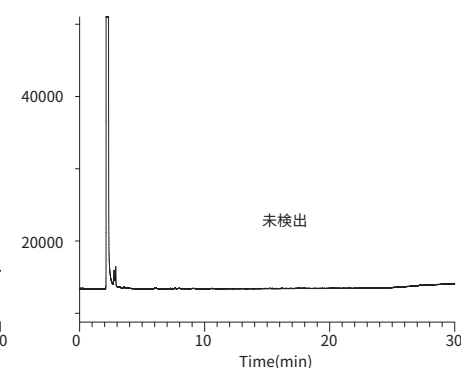
A公司WAX色谱柱

金属配位体化合物分析比较

System : GC-FID
Column : 0.25 mm I.D. × 30 m df = 0.25 μm
Col. Temp. : 160°C Isothermal
Carrier Gas : He 100 kPa
Injection : Split flow 50 mL/min
240°C
Detection : FID Range 10¹⁰
240°C
Sample Size : 1 mg/mL in Ethanol
1 μL

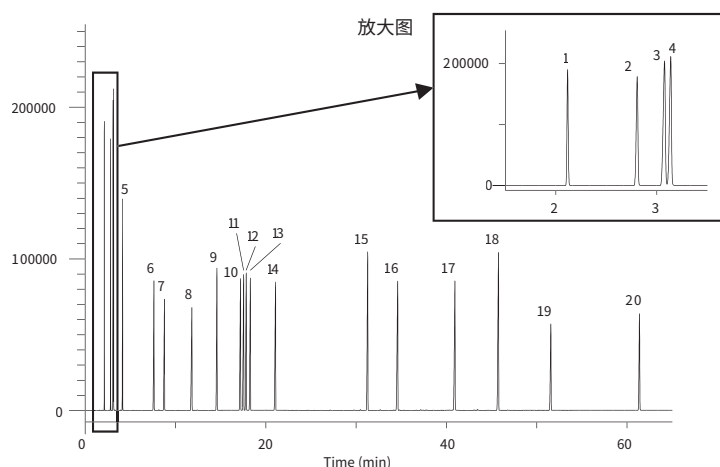


InertCap Pure-WAX



A公司WAX色谱柱

香料 分析例



System : GC-FID
 Column : InertCap Pure-WAX
 0.25 mm I.D. × 30 m df = 0.25 μm
 Col. Temp. : 40°C(5 min hold) - 3°C/min - 250°C
 Carrier Gas : He 100 kPa
 Injection : Split flow 150 mL/min
 260°C
 Detection : FID Range 10¹
 260°C
 Sample Size : Mixed evenly
 0.3 μL
 Data Source : GC InertSearch No.GA160

- | | |
|--------------------------|----------------------------------|
| 1. Propionaldehyde | 11. 2,6-Dimethylpyrazine |
| 2. Ethyl acetate | 12. 2-Ethylpyrazine |
| 3. 2-Methylbutyraldehyde | 13. 2,3-Dimethylpyrazine |
| 4. Isovaleraldehyde | 14. 2-Ethyl-3-methylpyrazine |
| 5. n-Valeraldehyde | 15. Acetophenone (Acetylbenzene) |
| 6. 3-Methyl-2-butanol | 16. 5,6,7,8-Tetrahydroquinoline |
| 7. 2-Pentanol | 17. Isobutyl phenyl acetate |
| 8. Isoamyl propionate | 18. 6-Methylquinoline |
| 9. 2-Methylpyrazine | 19. Piperonal |
| 10. 2,5-Dimethylpyrazine | 20. Vanillin |

InertCap Pure-WAX

内径 (mm)	长度 (m)	膜厚 (μm)	最高使用温度 (°C)	Cat.No.
0.25	30	0.25	iso.260-prog.260	1010-68142
		0.50	iso.260-prog.260	1010-68144
	60	0.25	iso.260-prog.260	1010-68162
		0.50	iso.260-prog.260	1010-68164
0.32	30	0.25	iso.260-prog.260	1010-68242
		0.50	iso.260-prog.260	1010-68244
	60	0.25	iso.260-prog.260	1010-68262
		0.50	iso.260-prog.260	1010-68264
0.53	15	1.00	iso.240-prog.240	1010-68425
	30	1.00	iso.240-prog.240	1010-68445
	60	1.00	iso.240-prog.240	1010-68465

InertCap Pure-WAX ProGuard (保护柱一体型)

内径 (mm)	长度 (m)	膜厚 (μm)	保护柱 (m)	最高使用温度 (°C)	Cat.No.
0.25	30	0.25	2	iso.260-prog.260	1010-68490
			5	iso.260-prog.260	1010-68491
			10	iso.260-prog.260	1010-68494

InertCap Pure-WAX T.L. (传输口一体型色谱柱)

内径 (mm)	长度 (m)	膜厚 (μm)	传输线 (m)	最高使用温度 (°C)	Cat.No.
0.25	30	0.25	2	iso.260-prog.260	1010-68492
	60	0.25	2	iso.260-prog.260	1010-68493

注) 保护柱一体型色谱柱的详细介绍可参考35页。

InertCap Pure-WAX FAST GC

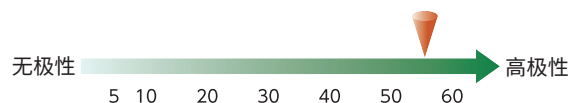
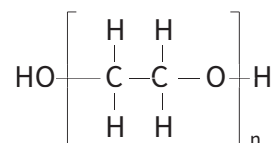
内径 (mm)	长度 (m)	膜厚 (μm)	最高使用温度 (°C)	Cat.No.
0.18	20	0.18	iso.260-prog.260	1010-68031
	40	0.18	iso.260-prog.260	1010-68051

InertCap WAX-HT

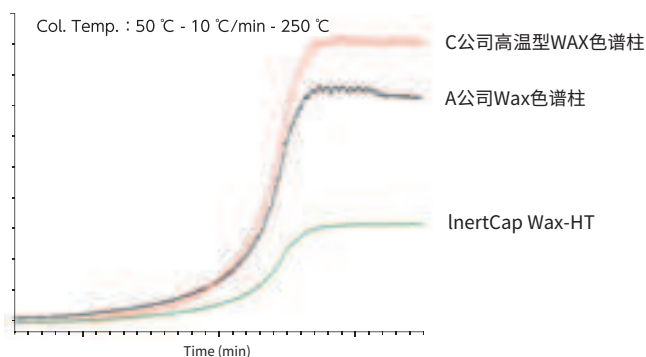
- 聚乙二醇(PEG)
- 与USP G16固定相当
- 高极性
- 键合交联
- 常规分析、脂类、香料、酒类、芳香族、FAME
- 同类产品: DB-WAX, SolGel-WAX

InertCap WAX-HT是键合了聚乙二醇强极性固定相的毛细管柱。固定液的耐热性增强,最高耐受温度达280°C。适合如溶剂等强极性有机化合物的分析,也可用于高沸点化合物的分离分析。

结构式



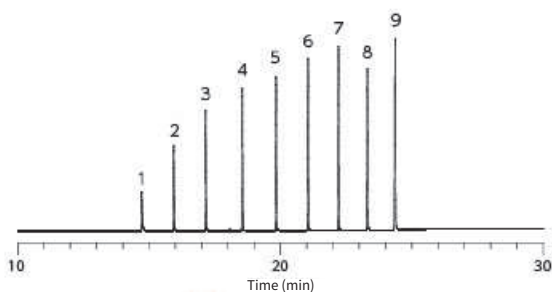
柱流失比较



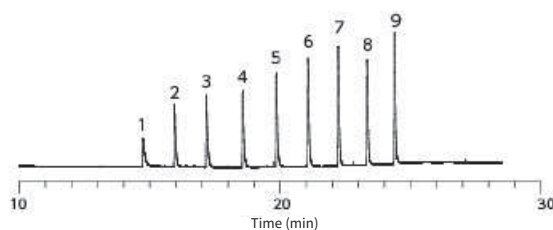
短链脂肪酸

System : GC-FID
Column : InertCap WAX-HT
0.25mm I.D. × 30m df=0.25 μm
Col.Temp. : 40°C(5 min hold)-10°C/min-240°C
Carrier Gas : He 100 kPa
Injection : Split flow 50 mL/min
240°C
Detection : FID Range 10¹⁰
240°C
Sample Size : 1000 μg / mL in Acetone
1.0 μL

1. Acetic Acid
2. Propionic Acid
3. Butyric Acid
4. Valeric Acid
5. Caproic Acid
6. Heptyric Acid
7. Caprylic Acid
8. Pelargonic Acid
9. Capric Acid



InertCap WAX-HT



C公司高温型WAX色谱柱

InertCap WAX-HT

内径 (mm)	长度 (m)	膜厚 (μm)	最高使用温度 (°C)	Cat.No.
0.25	30	0.25	iso.270-prog.280	1010-68542
		0.50	iso.260-prog.270	1010-68544
	60	0.25	iso.270-prog.280	1010-68562
		0.50	iso.260-prog.270	1010-68564

内径 (mm)	长度 (m)	膜厚 (μm)	最高使用温度 (°C)	Cat.No.
0.32	30	0.25	iso.270-prog.280	1010-68642
		0.50	iso.260-prog.270	1010-68644
	60	0.25	iso.270-prog.280	1010-68662
		0.50	iso.260-prog.270	1010-68664
0.53	15	1.00	iso.250-prog.260	1010-68725
	30	1.00	iso.250-prog.260	1010-68745
	60	1.00	iso.250-prog.260	1010-68765

InertCap Fast GC 色谱柱

InertCap Fast GC 色谱柱

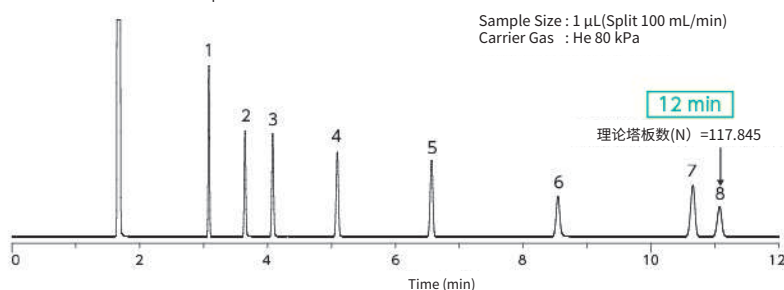
InertCap Fast GC Columns

减少GC,GC/MS投入成本

InertCap Fast GC毛细管柱内径只有0.18 mm，是一款小尺寸的GC,GC/MS用毛细管柱。能够在不降低理论塔板数的同时，实现高分离及快速分析，能够快速得到测试结果。而且，此毛细管柱无需高压进样，无需购置新仪器系统，也可正常使用。InertCap Fast GC色谱柱能短时间处理大量样品，在提升效率的同时不会增加额外成本。

Fast GC 色谱柱分析时间 减少应用例

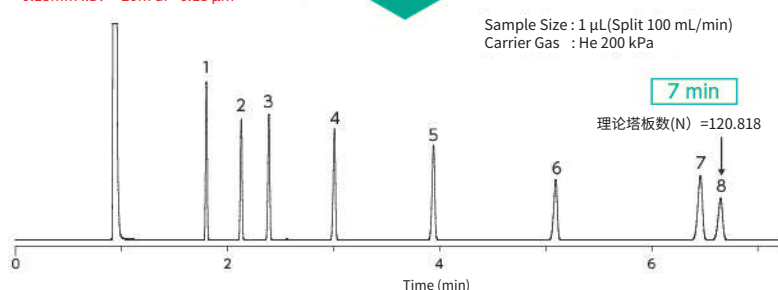
InertCap 1
0.25mm I.D. × 30m df=0.25 μm



1. n-Decane
2. n-Octanol
3. 2,6-Dimethylphenol
4. 2,6-Dimethylaniline
5. n-Dodecane
6. 1-Decanol
7. n-Tridecane
8. Methyl-n-Decanoate



InertCap 1 Fast GC色谱柱
0.18mm I.D. × 20m df=0.18 μm



小尺寸演示例

0.25 mm I.D. × 30 m df = 0.25 μm

0.18 mm I.D. × 20 m df = 0.18 μm

0.25 mm I.D. × 30 m df = 0.40 μm

0.18 mm I.D. × 20 m df = 0.28 μm

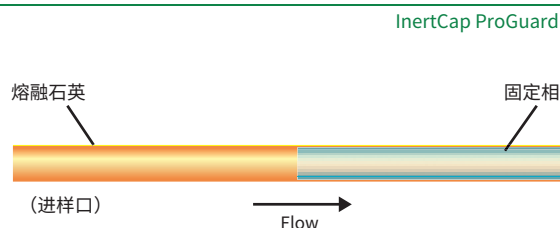
InertCap Fast GC 色谱柱

色谱柱	内径(mm)	长度(m)	膜厚(μm)	最高使用温度(°C)	Cat.No.
InertCap 1MS	0.18	20	0.18	iso.325-prog.350	1010-12031
InertCap1	0.18	15	0.18	iso.325-prog.350	1010-11021
			0.28	iso.325-prog.350	1010-11022
		20	0.18	iso.325-prog.350	1010-11031
			0.28	iso.325-prog.350	1010-11032
InertCap 5MS/Sil	0.18	20	0.18	iso.325-prog.350	1010-15031
InertCap 5MS/NP	0.18	40	0.18	iso.325-prog.350	1010-15051
		20	0.18	iso.325-prog.350	1010-18531
InertCap 5	0.18	15	0.18	iso.325-prog.350	1010-18021
			0.28	iso.325-prog.350	1010-18022
		20	0.18	iso.325-prog.350	1010-18031
			0.28	iso.325-prog.350	1010-18032
InertCap 624	0.18	20	1.00	iso.260-prog.260	1010-14535
		40	1.00	iso.260-prog.260	1010-14555
InertCap 1301	0.18	20	0.18	iso.280-prog.300	1010-60031
InertCap35MS	0.18	20	0.18	iso.340-prog.360	1010-63531
InertCap 1701	0.18	20	0.18	iso.280-prog.300	1010-61031
InertCap 17	0.18	20	0.18	iso.320-prog.340	1010-65031
InertCap Pure-WAX	0.18	20	0.18	iso.260-prog.260	1010-68031
		40	0.18	iso.260-prog.260	1010-68051
InertCap FFAP	0.18	20	0.18	iso.240-prog.250	1010-28531
		40	0.18	iso.240-prog.250	1010-28551

注) 可以定制内径0.20mm的色谱柱，请直接致电咨询。

保护柱一体型色谱柱InertCap ProGuard

气相色谱柱分析时，为了改善峰形，通常会使用保留间隙管法保护色谱柱不易吸附杂质。该方法是将没有涂布固定相的空管与色谱柱入口进行连接。InertCap ProGuard（预保护柱）是一款结合保留间隙法的一体化产品。由于保留间隙管和色谱柱经过了相同的预处理，可保证分析时的高惰性与低吸附。如您需要订购该产品，需要注明所需保留间隙管的长度。



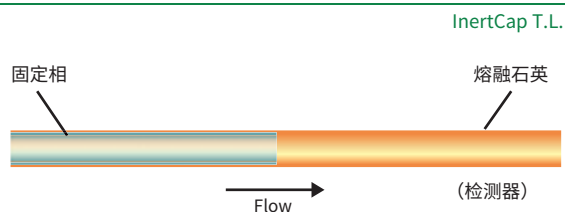
InertCap ProGuard

色谱柱	内径(mm)	长度(m)	膜厚(μm)	保护柱长度(m)	最高使用温度(°C)	Cat.No.
InertCap 1MS	0.25	30	0.25	2	iso.325-prog.350	1010-12172
				5	iso.325-prog.350	1010-12173
				10	iso.325-prog.350	1010-12174
InertCap 1	0.25	30	0.25	2	iso.325-prog.350	1010-11172
				5	iso.325-prog.350	1010-11173
				10	iso.325-prog.350	1010-11174
InertCap 5MS/Sil	0.25	30	0.25	2	iso.325-prog.350	1010-15172
				5	iso.325-prog.350	1010-15173
				10	iso.325-prog.350	1010-15174
InertCap 5MS/NP	0.25	30	0.25	2	iso.325-prog.350	1010-18941
				5	iso.325-prog.350	1010-18942
				10	iso.325-prog.350	1010-18943
InertCap 5	0.25	30	0.25	2	iso.325-prog.350	1010-18172
				5	iso.325-prog.350	1010-18173
				10	iso.325-prog.350	1010-18174
InertCap Pesticides	0.25	30	0.25	2	iso.325-prog.350	1010-15175
				5	iso.325-prog.350	1010-15176
				10	iso.325-prog.350	1010-15177
InertCap Pure-WAX	0.25	30	0.25	2	iso.260-prog.260	1010-68490
				5	iso.260-prog.260	1010-68491
				10	iso.260-prog.260	1010-68494

注) 上記以外の规格・种类请致电咨询。
保护柱的长度最长为10m。

传输口一体型色谱柱InertCap T.L.

InertCap T.L.是一款将传输口（MS检测器端）和色谱柱一体化处理的色谱柱产品。由于传输口段处于长期维持高温条件的GC-MS离子源，容易发生柱流失现象。InertCap T.L.将传输口部分集成了一段未涂布固定相的空管，由于其经过了惰性化处理，因此在分析高吸附性化合物时也可保证低吸附。由于其与色谱柱为一体化结构，无需担心漏气问题。



InertCap T.L.

色谱柱	内径(mm)	长度(m)	膜厚(μm)	传输线长度(m)	最高使用温度(°C)	Cat.No.
InertCap 1MS	0.25	30	0.25	2	iso.325-prog.350	1010-12192
InertCap 5MS/Sil	0.25	30	0.25	2	iso.325-prog.350	1010-15192
InertCap Pesticides	0.25	30	0.25	2	iso.325-prog.350	1010-15191
InertCap Pure-WAX	0.25	30	0.25	2	iso.260-prog.260	1010-68492
	0.25	60	0.25	2	iso.260-prog.260	1010-68493

注) 上記以外の规格・种类请致电咨询。

InertCap 定制色谱柱

可根据您的要求定制色谱柱

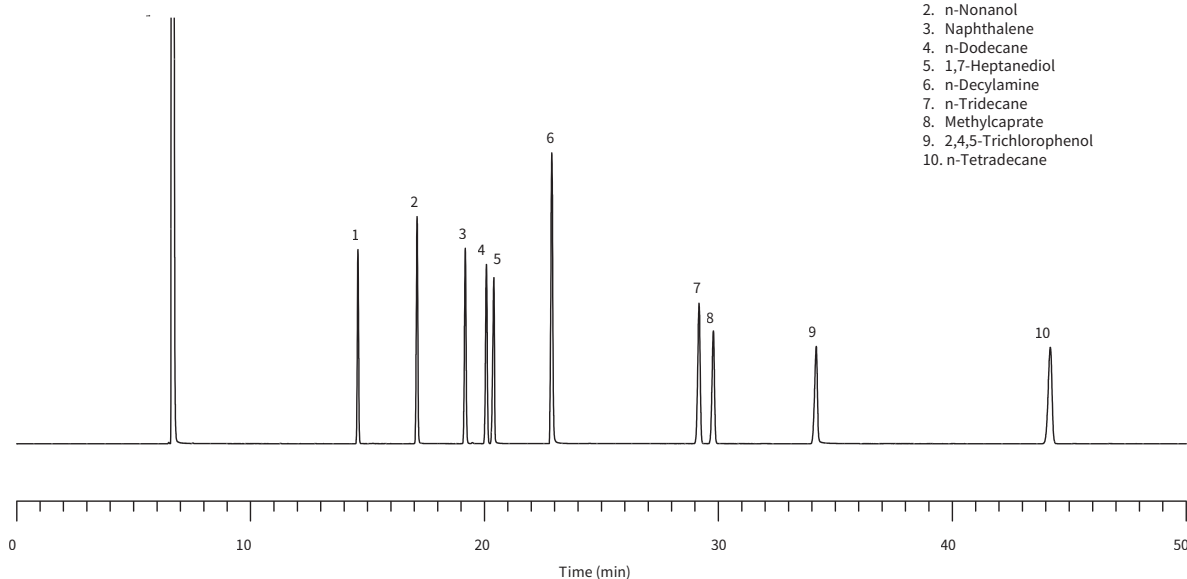
Custom-made GC Capillary Column



基于我们长期在色谱柱制造技术方面所累积的经验，可以根据用户的需求，为用户定制色谱柱。我们会在每根色谱柱出厂时附上检验报告。不仅如此，我们也可以根据您的要求，特别订制保护柱一体型或传输口一体型气相柱，或者同时包含两种需求的色谱柱。

制作例（100m色谱柱）

InertCap 1 0.25 mm I.D. × 100 m df = 0.50 μm



定制色谱柱的注意事项

固定相名称	膜厚	μm
内径	保护柱	m
长度	传输线*	m
选择范围		
内径：0.10、0.15、0.18、0.20、0.25、0.32、0.53 m		
长度：10 m、20 m、40 m、50 m、100 m 等		
膜厚：0.1 μm~5.0 μm		

注) 根据不同的组合也可能会有不能生产的情况出现。

*: 请在需要时填写
注) 下列类型色谱柱不能定做保护柱·传输线一体型色谱柱

InertCap 210、InertCap 225、
InertCap WAX、InertCap AQUATIC、
InertCap AQUATIC-2以及
内径 0.53 mm 全色谱柱种类

InertCap系列专用色谱柱

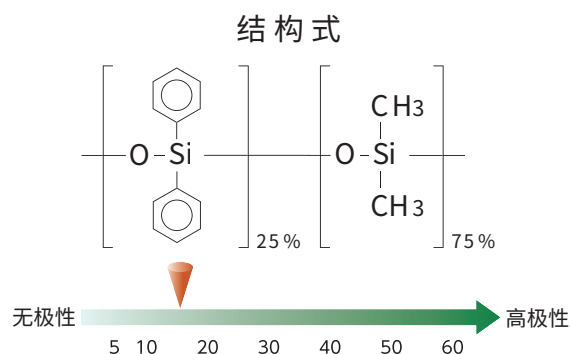
InertCap Series Special Columns

- InertCap AQUATIC 038
- InertCap AQUATIC-2 039
- InertCap for Amines 040
- InertCap 624 for Ethanol 042
- InertCap CHIRAMIX 044
- InertCap Pesticides 045

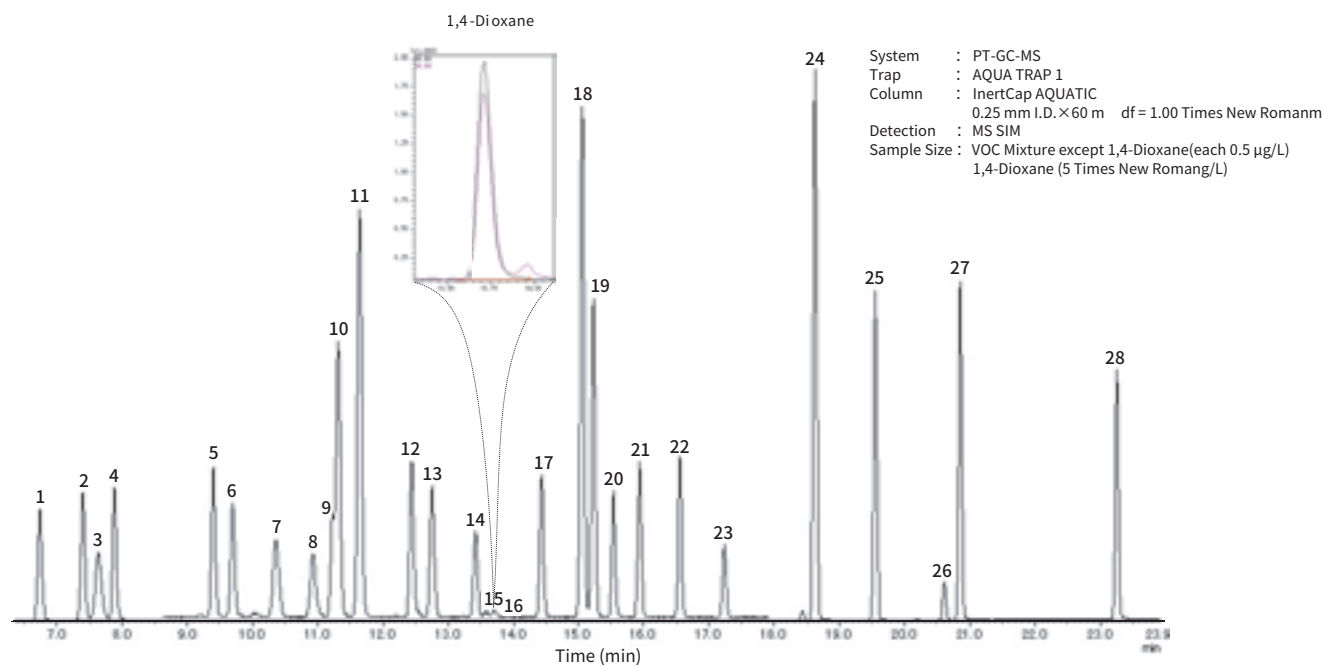
InertCap AQUATIC

- 25%苯基-75%甲基聚硅氧烷
- 与USP G28固定相当
- 中等极性
- 键合交联
- 无同类产品

AQUATIC是键合了25%苯基-75%甲基聚硅氧烷的中等极性固定相,用于测定挥发性有机物的专用柱。由于对固定相极性进行了优化,强化了分离度。在质检报告中,添加了33种挥发性有机物的分析数据,保证每根色谱柱都具有良好的分离度和重现性。尤其适合吹扫捕集方法进行VOC分析。



水中挥发性有机物 分析例



- | | | | |
|------------------------------|--------------------------|-------------------------------|--------------------------|
| 1. 1,1-Dichloroethene | 8. Carbon tetrachloride | 15. 1,4-Dioxane-d8 | 22. Tetrachloroethylene |
| 2. Dichloromethane | 9. 1,2- Dichloroethene | 16. 1,4-Dioxane | 23. Dibromochloromethane |
| 3. MTBE | 10. Benzene | 17. cis-1,3-Dichloropropene | 24. m,p-Xylene |
| 4. trans-1,2- Dichloroethene | 11. Fluorobenzene | 18. Toluene-d8 | 25. o-Xylene |
| 5. cis-1,2- Dichloroethene | 12. Trichloroethene | 19. Toluene | 26. Bromoform |
| 6. Chloroform | 13. 1,2-Dichloropropane | 20. trans-1,3-Dichloropropene | 27. p-Bromofluorobenzene |
| 7. 1,1,1-Trichloroethane | 14. Bromodichloromethane | 21. 1,1,2-Trichloroethane | 28. 1,4-Dichlorobenzene |

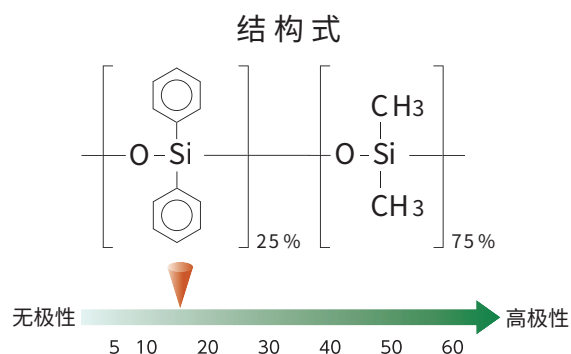
InertCap AQUATIC

内径(mm)	长度(m)	膜厚(µm)	最高使用温度(°C)	Cat.No.
0.25	30	1.00	iso.200-prog.220	1010-29145
	60	1.00	iso.200-prog.220	1010-29165
0.32	60	1.40	iso.200-prog.220	1010-29266
0.53	75	2.00	iso.200-prog.220	1010-29477

InertCap AQUATIC-2

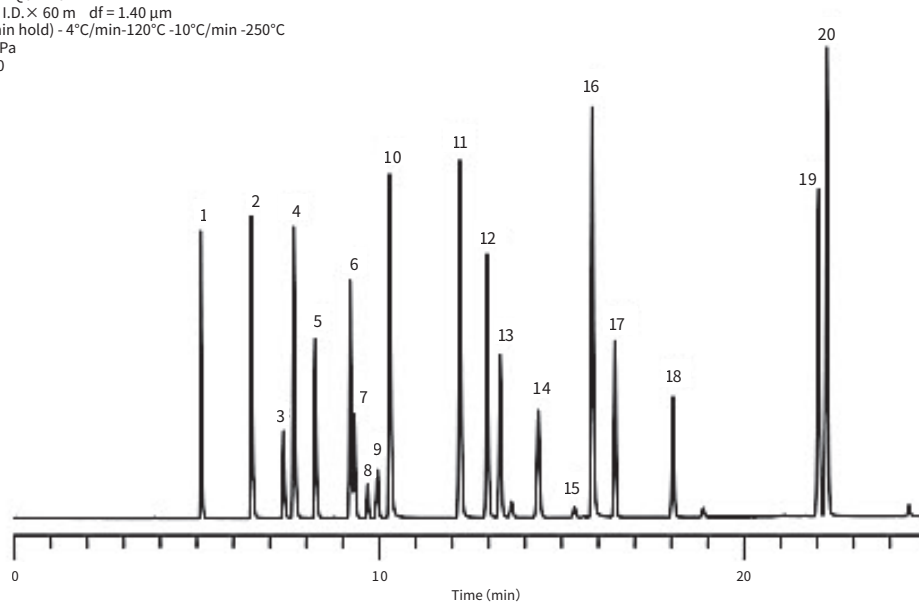
- 25%苯基-75%甲基聚硅氧烷
- 与USP G28固定相当
- 中等极性
- 键合交联
- 无同类产品

AQUATIC-2相比AQUATIC-1, 耐受温度被提高到了260°C。分离能力与AQUATIC-1相近, 但对于少数化合物的选择性稍有不同。



有机溶剂20成分 分析例

System : GC-FID
Column : InertCap AQUATIC-2
0.25 mm I.D. × 60 m df = 1.40 μm
Col.Temp. : 40°C(5 min hold) - 4°C/min-120°C -10°C/min -250°C
Carrier Gas : He 200 kPa
Injection : Split 1:80
Detection : FID
Sample Size : 1 μL



- | | | | |
|-----------------|--------------------|-------------------------|------------------------|
| 1. Methanol | 6. Acetonitrile | 11. 2-Butanol | 16. 1-Butanol |
| 2. Ethanol | 7. Methylacetate | 12. MEK | 17. 1,2-Dichloroethane |
| 3. Diethylether | 8. Dichloromethane | 13. Ethylacetate | 18. Trichloroethylene |
| 4. 2-Propanol | 9. n-Hexane | 14. Cyclohexane | 19. Isobutylacetate |
| 5. Acetone | 10. n-Propanol | 15. Carbontetrachloride | 20. Toluene |

InertCap AQUATIC-2

内径(mm)	长度(m)	膜厚(μm)	最高使用温度(°C)	Cat.No.
0.25	30	1.40	iso.260-prog.260	1010-19146
	60	1.40	iso.260-prog.260	1010-19166
0.32	30	1.40	iso.260-prog.260	1010-19245
	60	1.80	iso.260-prog.260	1010-19247
0.53	30	3.00	iso.260-prog.260	1010-19267
	75	3.00	iso.260-prog.260	1010-19448
			iso.260-prog.260	1010-19478

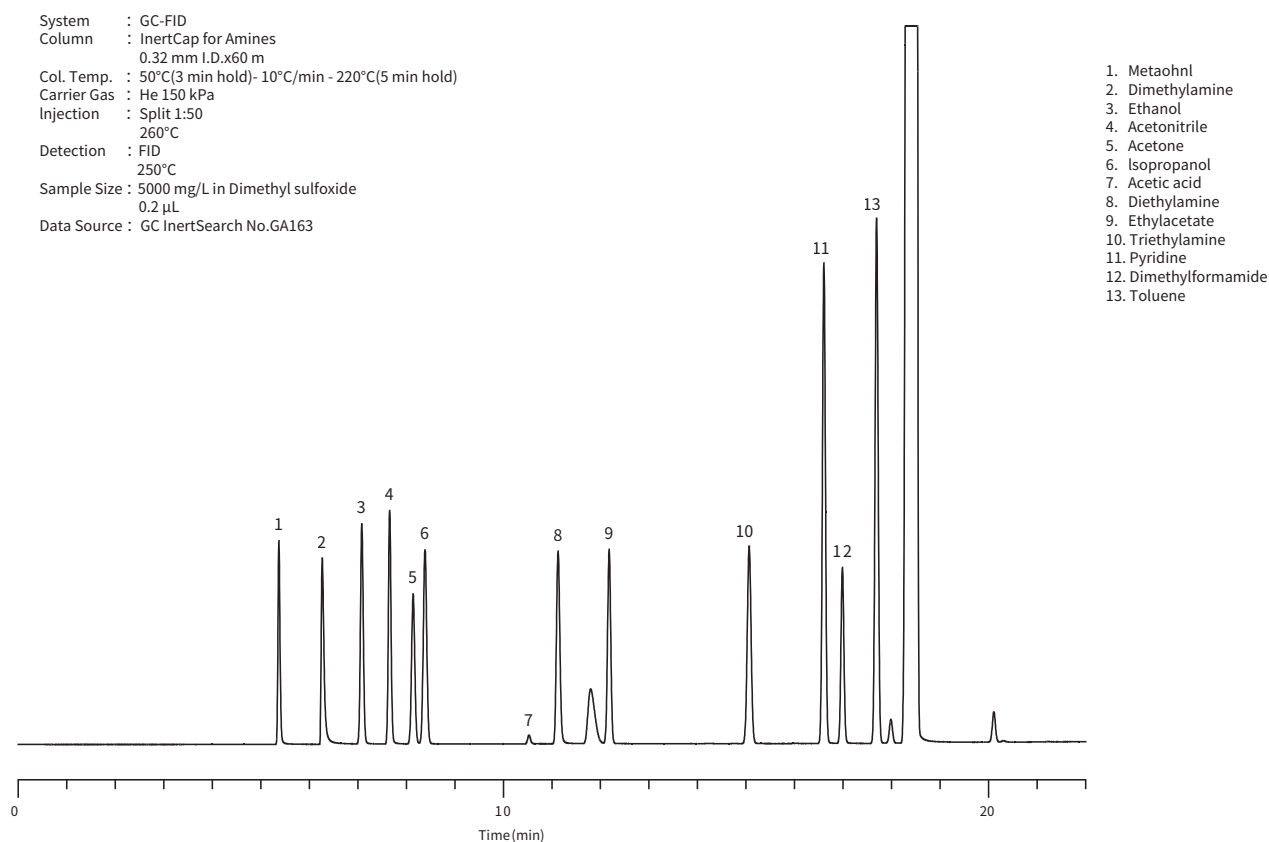
InertCap for Amines

- 键合交联
- 对C2 ~ C10 胺类化合物有优异的分度
- 对醇类等混合样品的同时分离效果理想
- 同类产品:CP-Volamine

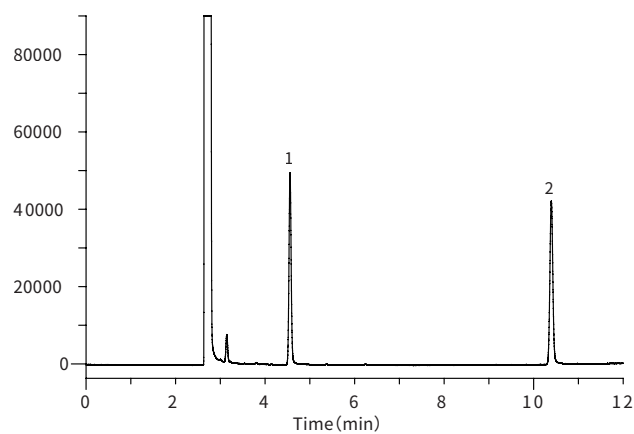
InertCap for Amines在分析C2-C10的胺类化合物时可获得良好的分离度及峰形。由于该款色谱柱经过了中性处理技术,可同时分析羧酸及醇类化合物。适用于胺类溶剂残留、环境胺类等分析。

[特殊固定相]

溶剂、碱性混合试样 分析例



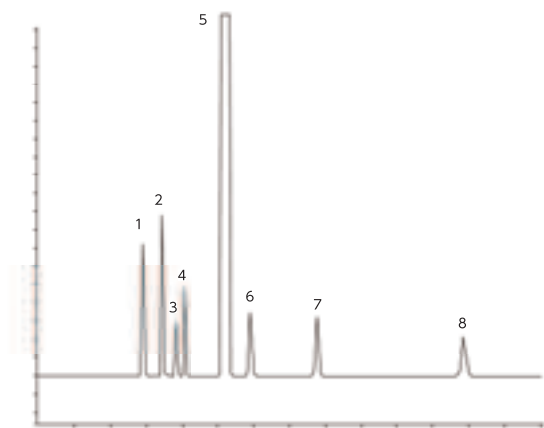
乙醇胺 分析例



System : GC-FID
Column : InertCap for Amines
0.32 mm I.D.x30 m
Col. Temp. : 120°C- 10°C/min - 240°C(5 min hold)
Carrier Gas : He 60 kPa
Injection : Split flow 50 mL/min
240°C
Detection : FID Range 10⁰
240°C
Sample Size : 1.0 mg/mL in Methanol
1.0 µL
Data Source : GC InertSearch No.GA153

- 1. Ethanolamine
- 2. Diethanolamine

挥发性有机化合物和胺类 分析例



System : GC-FID
Column : InertCap for Amines
0.32 mm I.D.x30 m
Col. Temp. : 50°C
Carrier Gas : He 70 kPa
Injection : split 1 :50
Detection : FID
Data Source : GC InertSearch No.GA065

- 1. Methanol
- 2. Dimethylamine(DMA)
- 3. Trimethylamine(TMA)
- 4. Ethanol
- 5. iso-Propanol
- 6. n-Pentane
- 7. n-Propanol
- 8. n-Hexane

InertCap for Amines

内径(mm)	长度(m)	膜厚(µm)	最高使用温度(°C)	Cat.No.
0.32	15	—	iso.265-prog.300	1006991-22
	30	—	iso.265-prog.300	1010-69249
	60	—	iso.265-prog.300	1010-69269

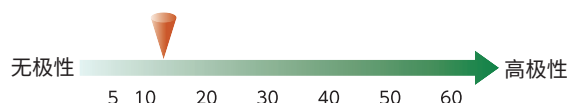
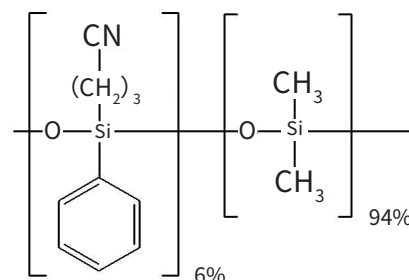
InertCap 624 for Ethanol

- 6 % 氰丙基苯基- 94 % 二甲基聚硅氧烷
- USP 编码G43
- 中等极性
- 键合交联技术
- 中国药典2020版乙醇分析专用柱

InertCap 624 for Ethanol是药典中检测乙醇项目的专用柱。

中国药典:2020版药典2部乙醇(挥发性杂质中乙醛、甲醇、乙醇峰分离度需要达到1.5)。

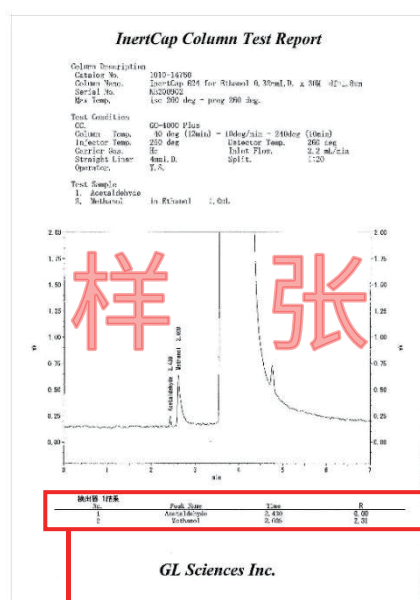
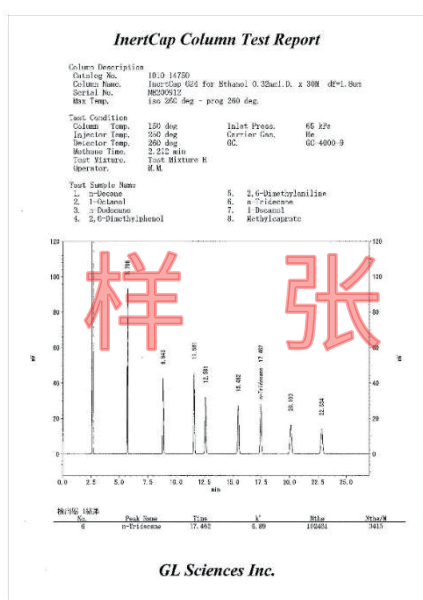
结构式



色谱柱包装盒内附加乙醇分析专用报告

GL Sciences的GC和GC/MS毛细柱都会附加一份柱效测试报告,描述了该色谱柱的理论塔板数与测试条件,保证产品质量,确保稳定性。

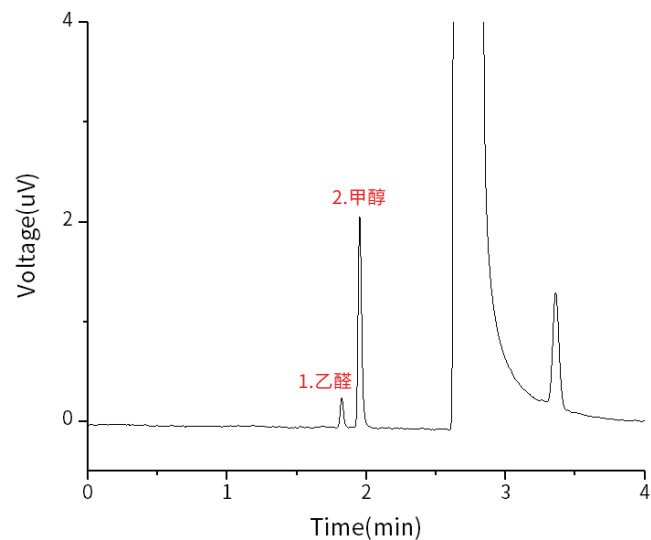
InertCap 624 for Ethanol除附加柱效测试报告外,还会附带一张根据药典条件分析乙醇的测试报告,报告中会明确乙醛与甲醇峰之间的分离度。



其中会对乙醛与甲醇峰的分度进行测试。

乙醇分析项目，InertCap 624 for Ethanol与其他厂家色谱柱的对比：

InertCap 624 for Ethanol

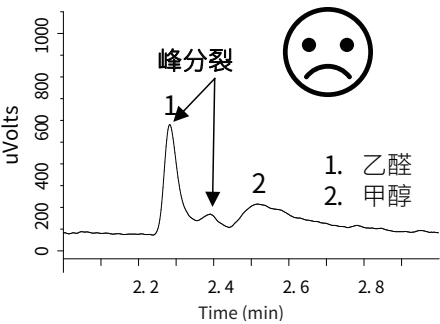


分离度: 2.83

→可以满足中国药典分离度大于1.5的要求。

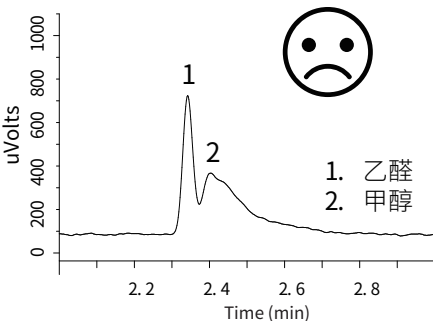
Column A
分离度: N/D

→分离度不符合要求



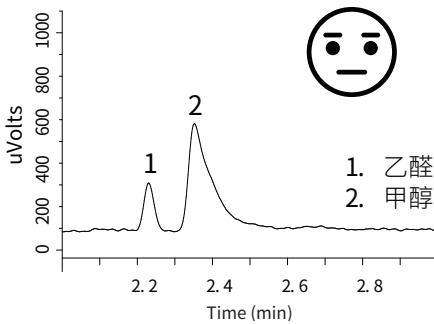
Column B
分离度: 0.52

→分离度不符合要求



Column C
分离度: 1.57

→分离度刚好符合要求,但连续进样后可能会导致分离度下降



分析条件

系统：GC-4000 Plus
载气：氮气, 3.0mL/min
色谱柱：InertCap 624 for Ethanol
升温程序：40°C(12min hold)-10°C/min-240°C(10min hold)
(0.32mm I.D. × 30m df=1.8μm)
检测器：FID, 280°C
Cat.No. 1010-14750
进样量：1 μL
进样口温度：200°C
进样模式：分流, 100:1

InertCap 624 for Ethanol规格选择

内径(mm)	长度(m)	膜厚(μm)	最高使用温度(°C)	Cat.No.
0.32	30	1.8	Iso.260°C-prog.260°C	1010-14750

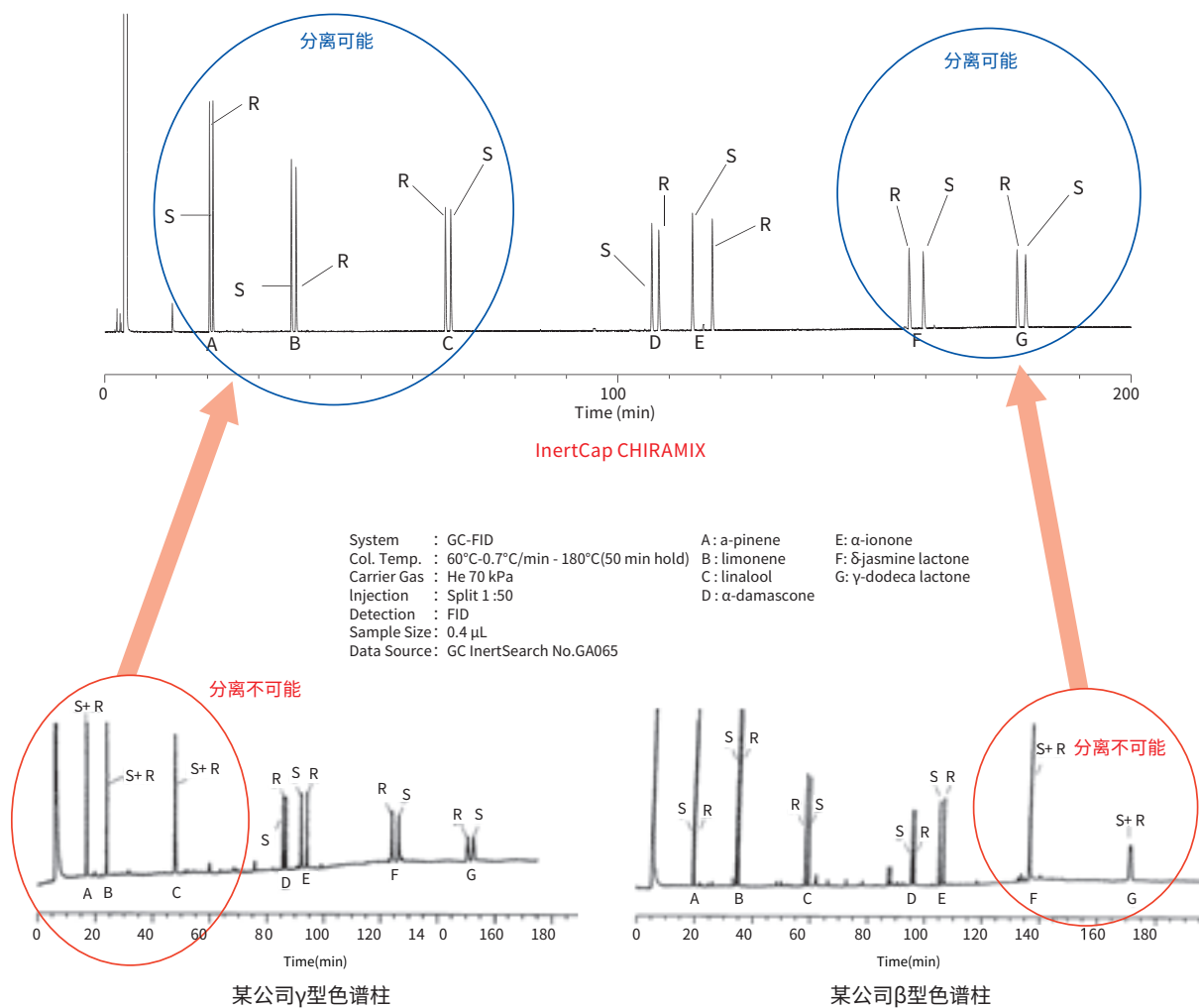
InertCap CHIRAMIX

- 对光学异构体有优异的分离度
- 涂布两种以上环糊精衍生剂, 分析范围更广
- 峰型尖锐
- 无同类产品

[特殊固定相]

InertCap CHIRAMIX是涂布了两种以上环糊精固定相的毛细管柱, 是一款分离旋光异构体的专用毛细柱。与其他只涂布了一种环糊精固定相的色谱柱相比, 可在很短的时间内分离并分析范围较宽的化合物, 适合旋光异构体分析。

旋光异构体 分析例



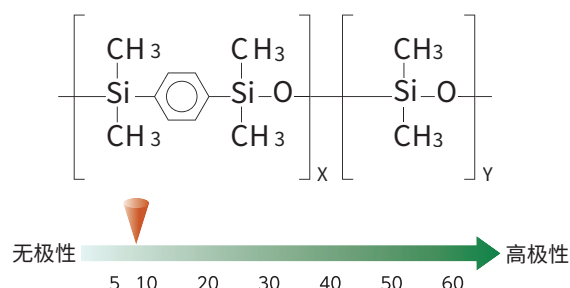
InertCap CHIRAMIX

内径(mm)	长度(m)	膜厚(μm)	最高使用温度(°C)	Cat.No.
0.25	30	0.25	iso.180-prog.200	1010-69142

InertCap Pesticides

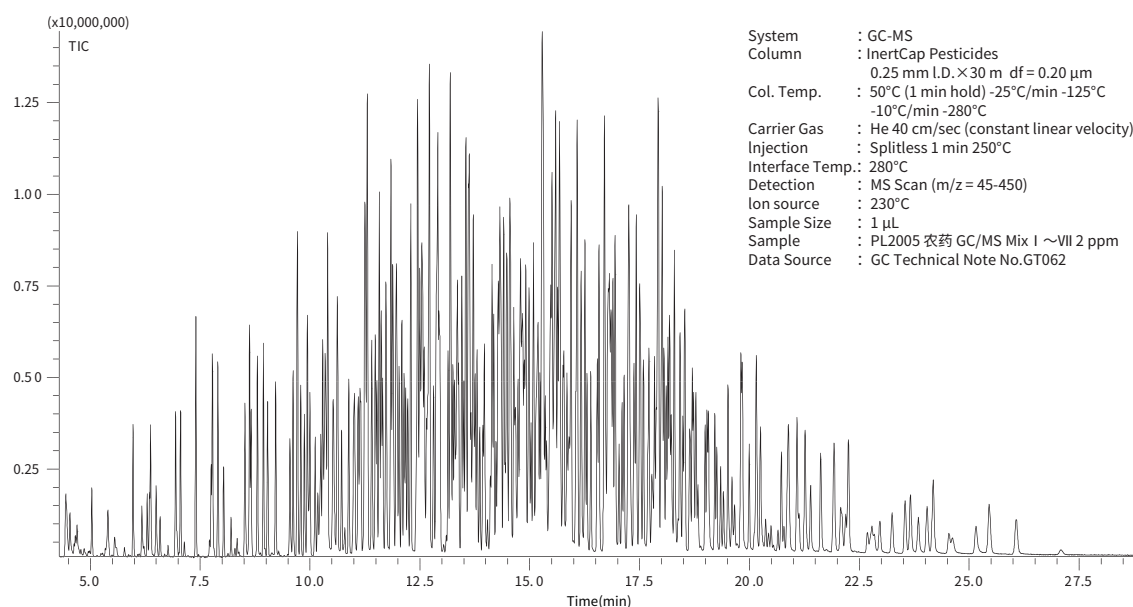
- 5 % 苯基 - 95 % 甲基聚硅氧烷
- 与 USP G27 固定相相当
- 弱极性
- 键合交联
- 更低流失
- 无同类产品

结构式



InertCap Pesticides是一款用于GC/MS分析多种农药分析而设计的专用柱。能够降低农药成分的热解及基质效应。

农药 分析例



InertCap Pesticides

内径(mm)	长度(m)	膜厚(μm)	最高使用温度(°C)	Cat.No.
0.25	30	0.20	iso.325-prog.350	1010-15141

InertCap Pesticides ProGuard(保护柱一体型)

内径(mm)	长度(m)	膜厚(μm)	保护柱(m)	最高使用温度(°C)	Cat.No.
0.25	30	0.20	2	iso.325-prog.350	1010-15175
			5	iso.325-prog.350	1010-15176
			10	iso.325-prog.350	1010-15177

InertCap Pesticides T.L.(传输口一体型色谱柱)

内径(mm)	长度(m)	膜厚(μm)	传输线(m)	最高使用温度(°C)	Cat.No.
0.25	30	0.20	2	iso.325-prog.350	1010-15191

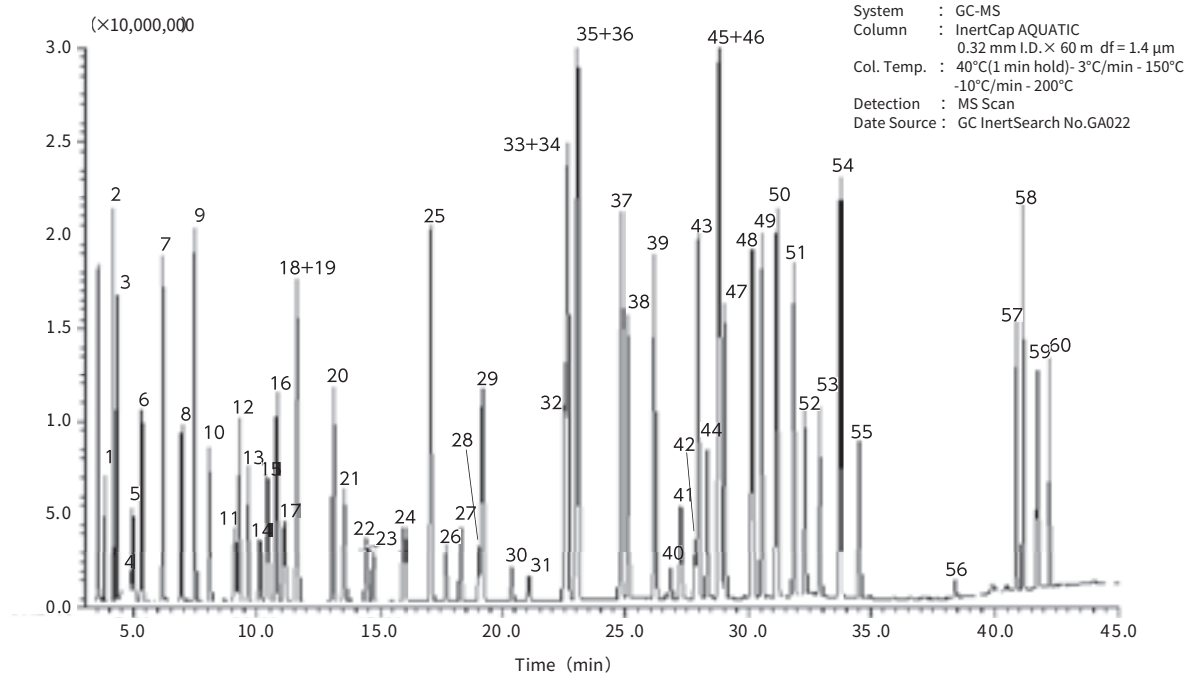
注) 保护柱一体型色谱柱的详细介绍可参考35页。

应用

Application

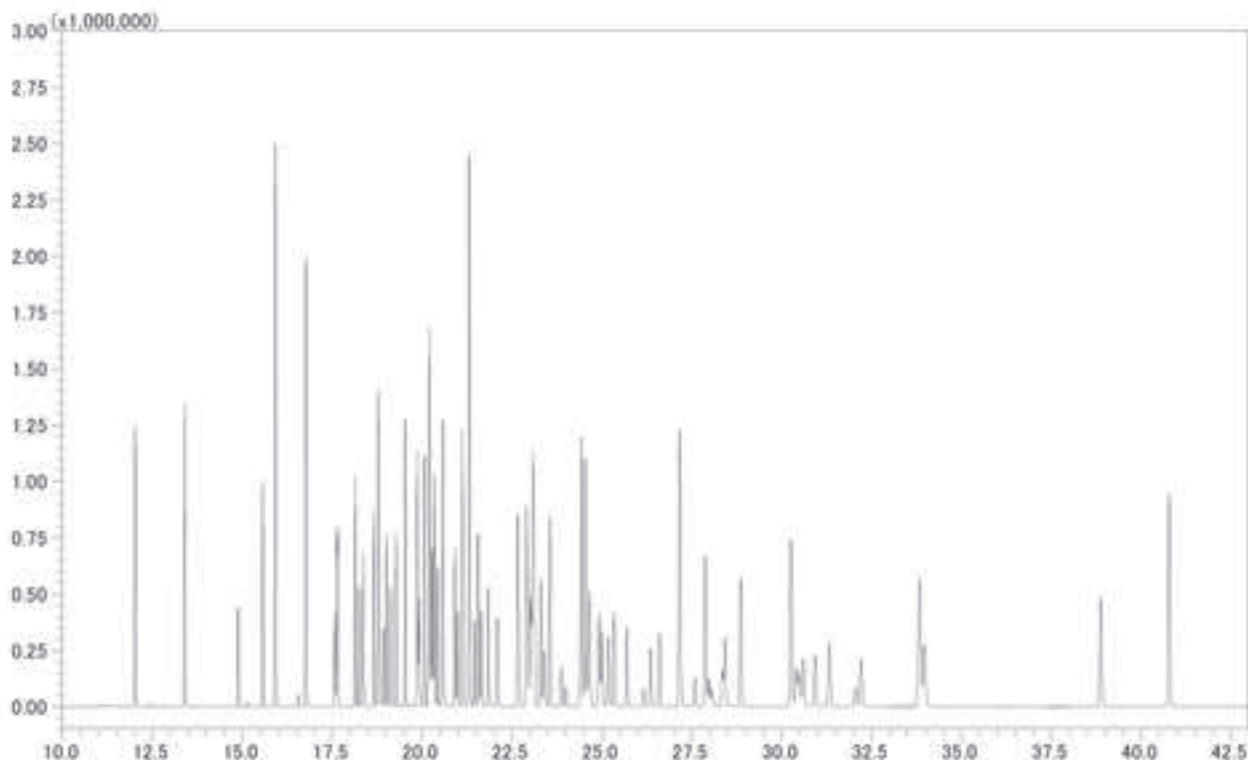
- 环境 047
- 香料·食品 051
- 制药 054
- 石油·石油化学制品 058
- 溶剂·化学制品 060

60种挥发性有机化合物 分析例



- | | | | | |
|-----------------------------|--------------------------------|----------------------------------|-------------------------------|---------------------------------|
| 1. Dichlorodifluoromethane | 13. Chloroform | 25. Toluene | 37. o-Xylene | 49. 1,2,4-Trimethylbenzene |
| 2. Chloromethane | 14. Bromochloromethane | 26. trans-1,3-Dichloro-1-propene | 38. Styrene | 50. sec-Butylbenzene |
| 3. Vinylchloride | 15. 1,1,1-Trichloroethane | 27. 1,1,2-Trichloroethane | 39. Isopropyl benzene | 51. 4-Isopropyltoluene |
| 4. Bromomethane | 16. 1,1-Dichloropropene | 28. 1,3-Dichloropropane | 40. Bromoform | 52. 1,3-Dichlorobenzene |
| 5. Chloroethane | 17. Carbon tetrachloride | 29. Tetrachloroethene | 41. 1,1,2,2-Tetrachloroethane | 53. 1,4-Dichlorobenzene |
| 6. Trichlorofluoromethane | 18. 1,2-Dichloroethane | 30. Dibromochloromethane | 42. 1,2,3-Trichloropropane | 54. n-Butylbenzene |
| 7. 1,1-Dichloroethene | 19. Benzene | 31. 1,2-Dibromoethane | 43. n-Propylbenzene | 55. 1,2-Dichlorobenzene |
| 8. Dichloromethane | 20. Trichloroethene | 32. Chlorobenzene | 44. Bromobenzene | 56. 1,2-Dibromo-3-chloropropane |
| 9. trans-1,2-Dichloroethene | 21. 1,2-Dichloropropane | 33. 1,1,1,2-Tetrachloroethane | 45. 2-Chlorotoluene | 57. 1,2,4-Trichlorobenzene |
| 10. 1,1-Dichloroethane | 22. Bromodichloromethane | 34. Ethylbenzene | 46. 1,3,5-Trimethylbenzene | 58. Hexachloro-1,3-butadiene |
| 11. 2,2-Dichloropropane | 23. Dibromomethane | 35. m-Xylene | 47. 4-Chlorotoluene | 59. Naphthalene |
| 12. cis-1,2-Dichloroethene | 24. cis-1,3-Dichloro-1-propene | 36. p-Xylene | 48. tert-Butylbenzene | 60. 1,2,3-Trichlorobenzene |

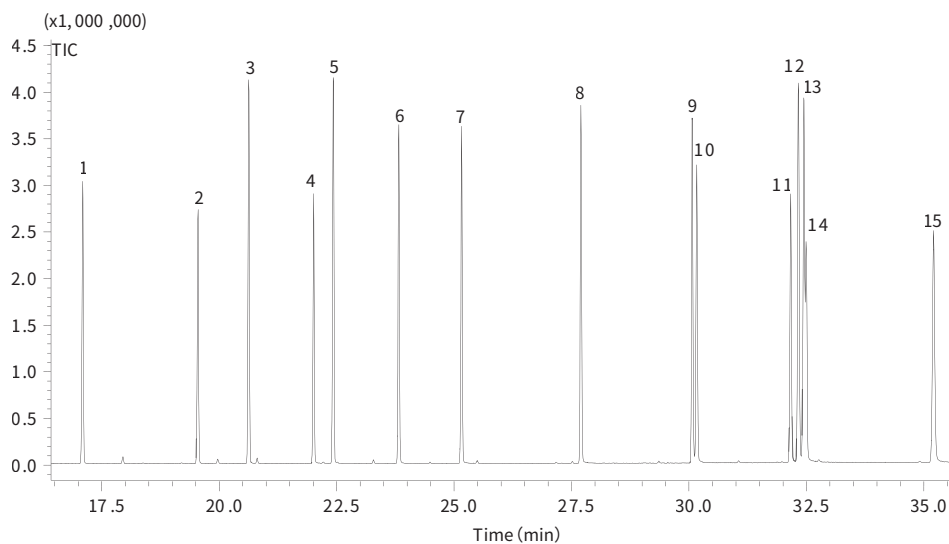
自来水中的多农残分析



System : GC-MS
 Column : InertCap 5MS/NP
 0.25 mm I.D. × 30 m df = 0.25 μm
 Col. Temp. : 50 °C (3 min hold) - 10 °C/min - 200 °C - 3 °C/min
 -230 °C (5 min hold) - 5 °C/min - 280 °C (2 min hold)
 Carrier Gas : He 40 cm/sec
 Injection : Splitless 2 min
 250 °C
 Detection : MS SIM
 Interface Temp. 280 °C
 Sample Size : 1 μg/mL in Dichloromethane
 2.0 μL
 Date Source : GC InertSearch No.GA220

1 Dichlorvos	22 MEP Oxon	44 Captan	64 MPP Sulfone
2 Dichlobenil	23 Bromobutide	45 Isofenphos	65 Mepronil
3 Etridiazole	24 Malaoxon	46 Dimepiperate	66 Chlornitrofen
4 Chloroneb	25 Terbutcarb	47 Phenthoate	67 Edifenphos
5 Isoprocarb	26 Simetryn	48 Procymidone	68 Benzoepin Sulfate
6 Molinate	27 Tolclofos-methyl	49 Butamifos Oxon	69 Propiconazole-1
7 Fenobucarb	28 Alachlor	50 Methidathion	70 Propiconazole-2
8 Trifluralin	29 Metalaxyl	I.S.2,9-Bromoanthracene	71 EPN Oxon
9 Benfluralin	30 MPP Oxon	51 α-Endosulfan	72 Thenylchlor
10 Pencycuron	31 Dithiopyr	52 Napropamide	73 Pyributicarb
11 Dimethoate	32 Fenitrothion	53 Butamifos	74 Iprodione
12 Simazine	33 Esprocarb	54 Flutolanil	I.S.3 Chrysene-d12
13 Atrazine	34 Malathion	55 Isoxathion Oxon	75 Pyridaphenthion
14 Diazinon Oxon	35 Thiobencarb	56 Isoprothiolane	76 EPN
15 Pyroquilon	36 Chlorpyrifos Oxon	57 Pretilachlor	77 Piperophos
16 Propyzamide	37 Fenthion	58 MPP Oxon Sulfoxide	78 Bifenox
I.S.1 Anthracene-d10	38 Chlorpyrifos	59 MPP Oxon Sulfone	79 Anilofos
17 Diazinon	39 Isofenphos Oxon	60 Buprofezin	80 Pyriproxyfen
18 Ethylthiomethon	40 Fthalide	61 Isoxathion	81 Mefenacet
19 Chlorothalonil	41 Dimethametryn	62 β-Endosulfan	82 Cafenstrole
20 Iprobenfos	42 Pendimethalin	63 MPP Sulfoxide	83 Ethofenprox
21 Tolclofos-methyl Oxon	43 Methylidymron		

大气中邻苯二甲酸酯类

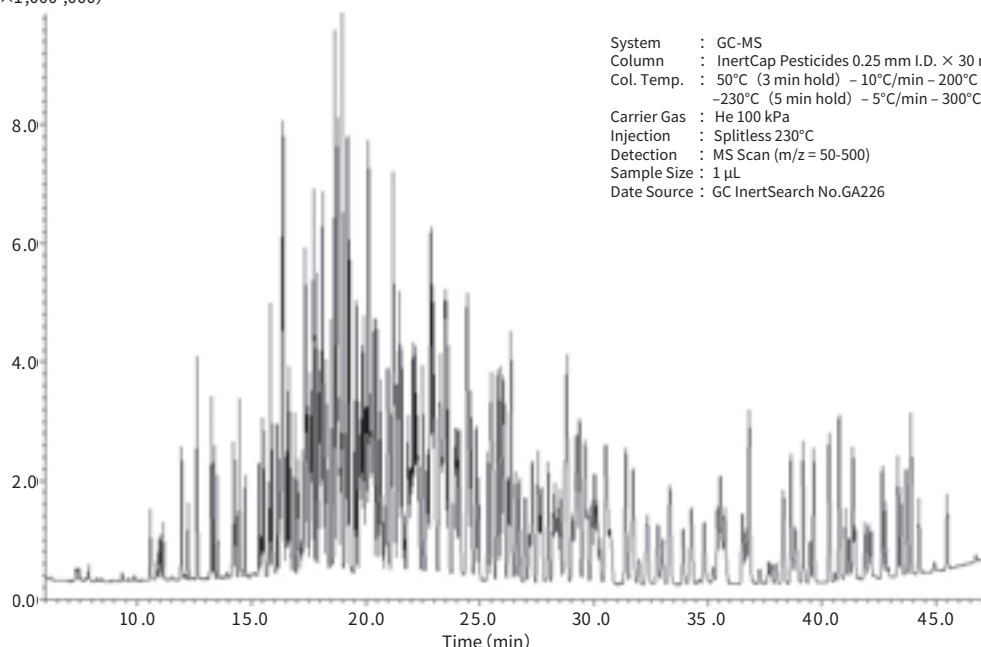


System : GC-MS
Column : InertCap 5MS/NP
0.25 mm I.D. × 30 m df = 0.25 μm
Col. Temp. : 60°C (3 min hold) - 7°C/min - 260°C (19 min hold)
Carrier Gas : He 36.5 cm/sec
Injection : Splitless 1 min
250°C
Detection : MS Scan (m/z = 35 - 500)
Interface Temp. 280°C
Sample Size : 10 μg/mL in Acetone
1 μL
Date Source : GC InertSearch No.GA176

- | | | |
|--------------------------|--------------------------|------------------------------|
| 1 Dimethyl phthalate | 6 Di-isobutyl phthalate | 11 Dicyclohexyl phthalate |
| 2 Diethyl phthalate | 7 Di-n-butyl phthalate | 12 Di-n-heptyl phthalate |
| 3 Di-isopropyl phthalate | 8 pentyl phthalate | 13 Di-2-ethylhexyl phthalate |
| 4 Diallyl phthalate | 9 Di-n-hexyl phthalate | 14 Diphenyl phthalate |
| 5 Di-n-propyl phthalate | 10 Butylbenzyl phthalate | 15 Di-n-octyl phthalate |

324种农残分析

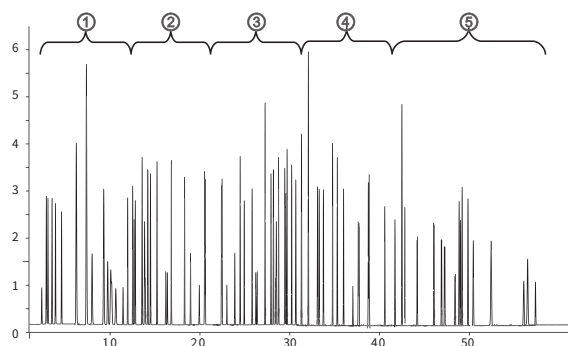
(×1,000,000)



System : GC-MS
 Column : InertCap Pesticides 0.25 mm I.D. × 30 m df = 0.2 μm
 Col. Temp. : 50°C (3 min hold) – 10°C/min – 200°C – 3°C/min
 –230°C (5 min hold) – 5°C/min – 300°C(3 min hold)
 Carrier Gas : He 100 kPa
 Injection : Splitless 230°C
 Detection : MS Scan (m/z = 50-500)
 Sample Size : 1 μL
 Date Source : GC InertSearch No.GA226

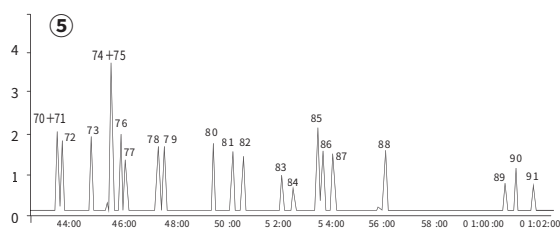
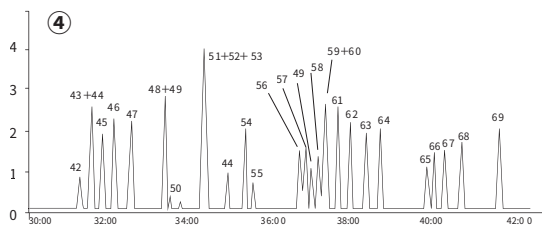
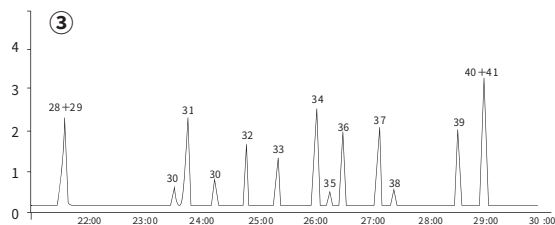
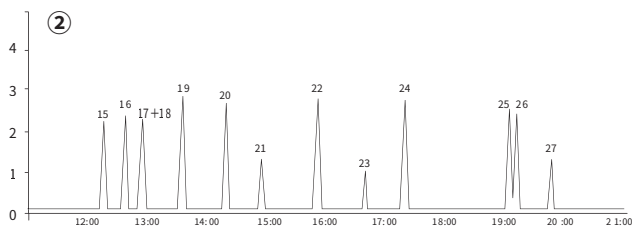
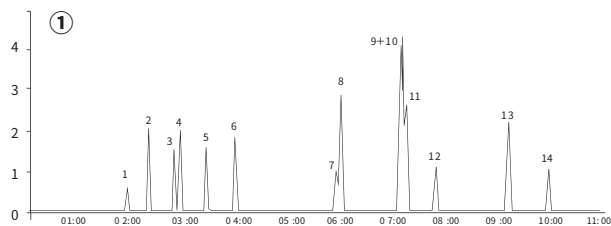
化合物名	保持时间	化合物名	保持时间	化合物名	保持时间	化合物名	保持时间	化合物名	保持时间	化合物名	保持时间
DCIP	7:20	Cyanophos	17:37	Quinoclamine(ACN)	19:55	Butachlor	22:14	Edifenphos	26:01	Furametpyr metabolite	31:42
Clofentezine	9:20	Fonofos	17:39	Metorachlor	19:55	alpha-Endosulfan	22:17	Cyanofenphos	26:02	Amitraz	31:59
Dichlorvos	10:34	Propyzamide	17:43	Chlorpyrifos	20:00	Fenothiocarb	22:20	Quinoxifen	26:05	Cyhalothrin-2	32:17
Nereistoxin oxalate	10:57	Pyroquilon	17:43	Thiobencarb	20:02	Ditalimfos	22:29	Propiconazole1	26:05	Fenarimol	32:20
Alidochlor	11:09	Diazinon	17:45	Chlorothal-dimethyl	20:07	Butamifos	22:30	Trifloxystrobin	26:15	Pyrazophos	32:50
Dichlobenil	11:57	Phosphamidon E	17:47	Fenthion	20:08	Napropamide	22:40	Propiconazole2	26:20	Azinphos-ethyl	33:03
EPTC	12:14	Pyrimethanil	17:51	Diethofencarb	20:08	Fenamiphos	22:44	Pyriminobac methyl E	26:22	Dialifos	33:21
Biphenyl	12:37	Chlorthalonil	17:52	Fenpropimolf	20:11	Chlorfenson	22:49	Lenacil	26:22	Acrinathrin	33:22
Butylate	13:14	Disulfoton	17:57	Parathion	20:14	Hexaconazole	22:49	Chloridazon	26:32	Pyraclorfen	33:57
Mevinphos	13:15	Prohydrojasmon	17:59	Cyanazin	20:16	Flutranil	22:52	Pyraflufen-ethyl	26:34	Fenoxaprop-ethyl	34:17
Chlormefos	13:22	Isazophos	18:01	Triadimefon	20:19	Prothiofos	22:52	Tenylchlor	26:44	Spirodiclofen	34:19
Etridiazole	13:31	Tefluthrin	18:04	Tetraconazole	20:21	Metaminostrobin-E	22:56	Tebuconazole	26:59	Bitertanol-1	34:52
Thiocyclam	14:10	Etrifos	18:07	Isoconazole	20:22	Prethilachlor	22:56	Propargite-1	27:10	Permethrin-1	35:15
Methacrifos	14:13	Triallat	18:07	Fthalide	20:29	Isoprothiolan	23:00	Propargite-2	27:14	Bitertanol-2	35:17
Crimidine	14:19	delta-BHC	18:07	Nitrothal isopropyl	20:29	Fludioxonil	23:01	Captafol	27:17	Fluquinazone	35:27
OPP	14:29	Terbacil	18:08	Carbetamide	20:31	Profenofos	23:03	Diflufenican	27:19	Pyridaben	35:34
Molinate	14:44	Phenothiol	18:10	Bromopfos methyl	20:36	Uniconazole-P	23:14	Piperonyl butoxide	27:32	Oxapocanazole	35:40
Tecnazene	15:20	Tebuphenfos	18:15	Diphenamid	20:40	Oxadiazon	23:16	Nitralin	27:37	Permethrin-2	35:46
Omethoate	15:25	Iprobenfos	18:18	Fosthiazate 1	20:41	Tribufos	23:18	Bioresmethrin	27:42	Etobenzanid	36:32
Etobenzanid metaboli	15:30	Oxabetrinil	18:20	Fosthiazate 2	20:46	Thiifuzamide	23:21	Pyributicarb	27:59	Cafenstrole	36:41
Xylylcarb	15:30	MCPB	18:29	Thiamethoxam	20:52	Myclobutanil	23:24	Chlormethoxynil	28:12	Butafenacil	36:49
Propachlor	15:34	MCPB ethyl	18:29	Pendimethalin	20:56	Buprofezin	23:27	Pyridafenthion	28:17	Fenbuconazole	36:51
Demeton-S-methyl	15:46	Phosphamidon Z	18:38	Chlorfenvinphos-E	20:58	Flusilazole	23:28	Bromuconazole-1	28:21	Cyfluthrin-1	37:17
Diphenylamine	15:50	Dichlofenthion	18:39	Cyprodinil	21:00	Oxyluorfen	23:30	Iprodione	28:25	Cyfluthrin-2	37:41
Ethoprophos	15:55	Dimethenamid	18:39	Penconazole	21:08	Microbutrazole	23:31	Phosmet	28:31	Cyfluthrin-3	37:48
Ethalfuralin	16:08	Benfuresate	18:39	Fipronil	21:12	Bupirimate	23:31	Tetramethrin-1	28:33	Cyfluthrin-4	37:59
Naled	16:09	Terbucarb	18:44	Dimethametryn	21:12	Azaconazole	23:37	EPN	28:41	Cypermethrin-1	38:16
Chlorpropham	16:14	Bromobutide	18:46	Isofenphos	21:13	Kresoxim methyl	23:37	Bromopropylate	28:44	Halfepprox	38:19
Phenmedipham	16:17	Acetochlor	18:46	Tolyfluandil	21:13	Chlorfenapyr	23:51	Bifenthrin	28:48	Cypermethrin-2	38:39
Dichlofluandil metabolite	16:17	Chlorpyrifos methyl	18:47	Pyriflox-1	21:15	Cyflufenamid	23:55	Piperophos	28:49	Cyhalofop-ethyl	38:39
Trifluralin	16:20	Propanil	18:47	Chlorfenvinphos-Z	21:17	Cyproconazole1	23:55	Tetramethrin-2	29:03	Cypermethrin-3	38:45
Diclotophos	16:20	Oxapocanazole formyl	18:50	Mecarbam	21:23	Isoxathion	23:59	Fenoxycarb	29:09	Flucythrinate-1	38:51
Salithion	16:21	Metribuzin	18:51	Ethyclozate	21:24	Cyproconazole2	23:59	Bifenazate	29:12	Flucythrinate-2	38:51
Flusilazole metaboli	16:21	Simconazole	18:58	Allethrin-1	21:25	Nitrofen	24:05	Etoazole	29:15	Cypermethrin-4	38:56
Benfluralin	16:23	Alachlor	18:58	Phenthoate	21:27	Fenoxanil	24:06	Fenpropathrin	29:21	Ethofenprox	39:12
2,6-Dichlorobenzamide	16:23	Tolclofos methyl	18:58	Allethrin-2	21:27	beta-Endosulfan	24:26	Indanofan	29:22	Silafluofen	39:39
Sulfotep	16:24	Parathion methyl	18:58	Quinalphos	21:29	Chlorpropylate	24:27	Bromuconazole-2	29:33	Pyrimidifen	40:20
Cadusafos	16:32	Simethryn	19:07	Diclocymet-1	21:29	Chlorbenzilate	24:27	Anilofos	29:34	Flumioxazin	40:46
Phorate	16:37	Metalaxyl	19:10	Captan	21:29	Pyriminobac methyl Z	24:31	Tebuflufenpyrad	29:37	Esfenvalerate	40:46
alpha-BHC	16:41	Fenchlorphos	19:12	Dimepiperate	21:34	Fensulfthion	24:36	Bifenox	29:42	Fluvalinate-1	41:12
Thiometon	16:53	Vinclozolin	19:13	Procymidon	21:35	Onidazone	24:36	Clomeprop	29:54	Fluvalinate-2	41:21
Dimethoate	16:53	Amethryn	19:13	Triadimenol-1	21:36	Oxadixyl	24:48	Furametpyr	30:01	Fenvalerate-2	41:21
Dichloran	17:01	Cinnethylin	19:13	Folpet	21:42	Ethion	24:50	Etoazole metabolite	30:01	Fluvalinate-2	41:27
Desmedipham	17:09	Prometryn	19:17	Methoprene	21:49	Chlorthiophos	24:57	Tetradifon	30:08	Difenoconazole-1	41:53
Simazine	17:16	Dithiopyr	19:18	Ferimzone E, Z	21:51	Fluacrypyrim	25:21	Iprodione metabolite	30:16	Difenoconazole-2	42:02
Quintozene	17:20	Pirimiphos methyl	19:32	Triadimenol-2	21:52	Sulprofos	25:30	Leptophos	30:29	Pyrazoxifen	42:10
Atrazin	17:21	Fenitrothion	19:36	Methidathion	21:55	Meprolin	25:31	Phosalone	30:31	Indoxacarb MP	42:39
Swap	17:21	Terbutryn	19:36	Chinomethionate	21:59	Triazophos	25:35	Phenothrin	30:36	Deltamethrin	42:47
beta-BHC	17:23	Dimethylvinphos-E	19:42	Diclocymet-2	22:02	Benalaxyl	25:45	Pentoxazone	30:41	Azoxystrobin	43:20
Dimethipin	17:24	Dimethylvinphos-Z	19:42	Propaphos	22:04	Azamethiphos	25:45	Azinphos Methyl	30:46	Dimethomorph-1	43:28
gamma-BHC	17:27	Dichlofluandil	19:44	Pyriflox-2	22:04	CNP	25:47	Pyriproxyfen	31:23	Famoxadone	43:42
Dioxathion	17:28	Esprocarb	19:47	Tetrachlorvinphos	22:08	Carbofenthiol	25:54	Mefenacet	31:23	Tollfenpyrad	43:54
Tolyfluandil metabolite	17:32	Malathion	19:51	Trichlormid	22:10	Formothion	25:54	Cyhalothrin-1	31:36	Dimethomorph-2	44:15
Terbufos	17:34	Bromacil	19:51	Paclobutrazole	22:10	Cafentrazole-ethyl	25:55	Cyhalofop-butyl	31:42	Fluthiacet-methyl	45:29

香气成分



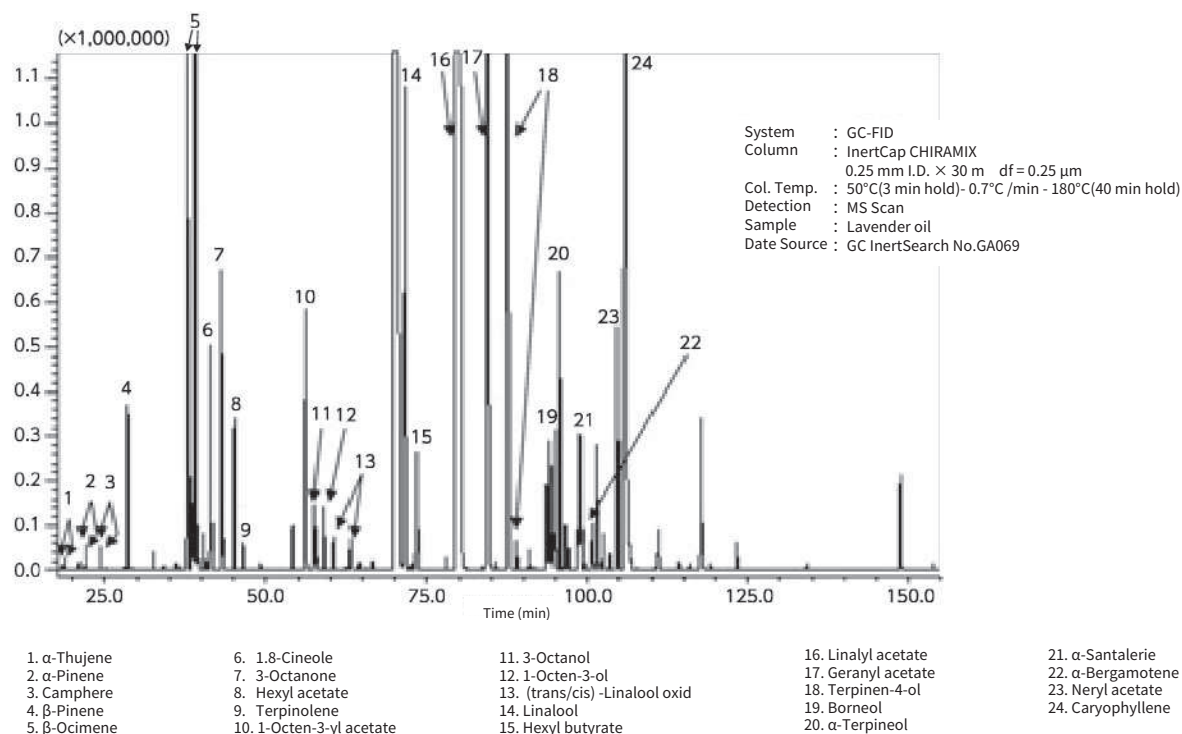
System : GC-MS
 Column : InertCap Pure-WAX
 0.25 mm I.D. × 30 m df = 0.25 μm
 Col. Temp. : 40°C (5 min hold) - 3°C/min - 240°C
 Carrier Gas : He 50 kPa
 Injection : Split 200 : 1
 240°C
 Detection : MS
 Sample Size : 0.4 μL
 Date Source : GC InertSearch No.GA088

放大后的色谱图

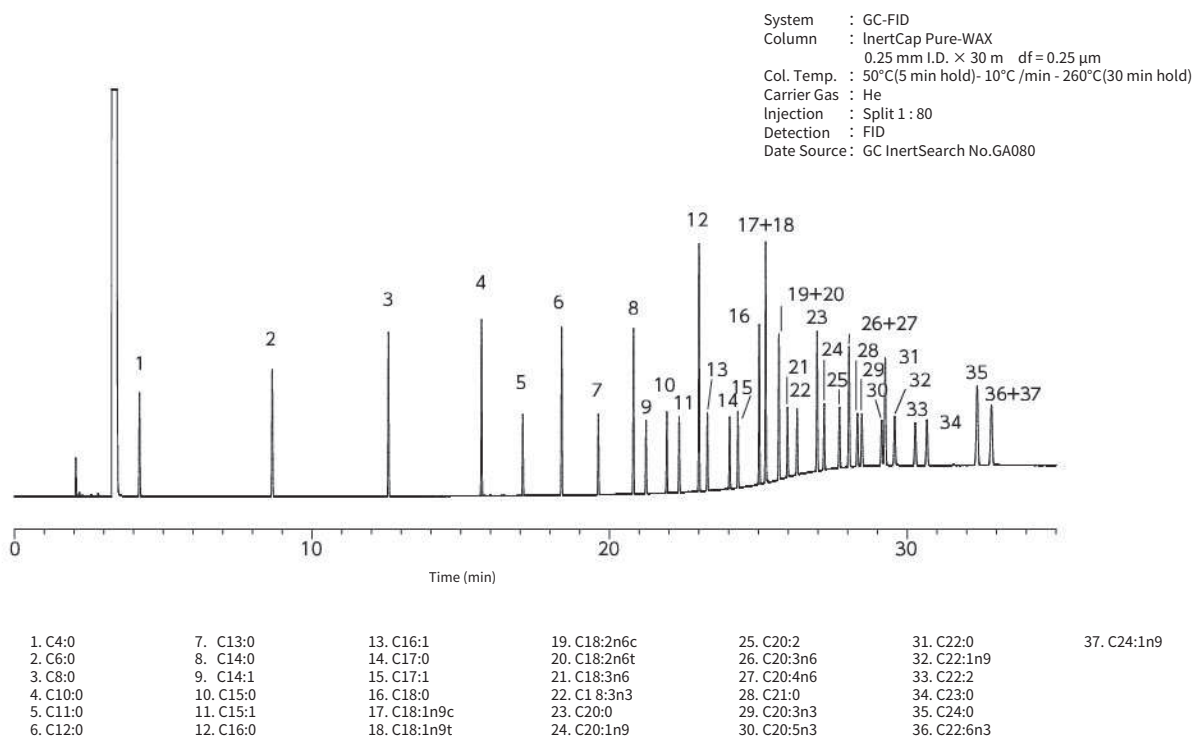


- | | | | | |
|-----------------------|------------------------------------|-------------------------|--|-------------------------------|
| 1 Acetaldehyde | 20 Ethyl hexanoate | 39 Linalool | 58 l-Perillaldehyde | 77 Cinnamaldehyde |
| 2 Isobutyraldehyde | 21 Amyl alcohol | 40 Linalyl acetate | 59 n-Decanol | 78 Methyl N-methylantranilate |
| 3 Butyraldehyde | 22 Isoamyl butyrate | 41 l-Menthyl acetate | 60 Citronellol | 79 Methyl cinnamate |
| 4 Ethyl acetate | 23 1-Octanal | 42 Butyric acid | 61 thyl phenylacetate | 80 Ethyl cinnamate |
| 5 2-Propanol | 24 Isoamyl isovalerate | 43 Citronellyl formate | 62 Benzyl propionate | 81 Cinnamyl acetate |
| 6 Ethyl propionate | 25 Ethyl heptanoate | 44 Geranyl formate | 63 3-Cyclohexanepropionic acid allyl ester | 82 Eugenol |
| 7 1-Propanol | 26 Cyclohexyl acetate | 45 Acetophenone | 64 Phenethyl acetate | 83 Piperonal |
| 8 Ethyl butyrate | 27 Allyl isothiocyanate | 46 dl-Menthol | 65 Hexanoic acid | 84 Methyl anthranilate |
| 9 Isoamyl formate | 28 2-Ethyl-3-methylpyrazine | 47 Ethyl decanoate | 66 α-Ionone | 85 γ-Undecalactone |
| 10 Ethyl isovalerate | 29 2,3,5-Trimethylpyrazine | 48 Citronellyl acetate | 67 Geraniol | 86 α-Amylcinnamaldehyde |
| 11 Butyl acetate | 30 2-Ethyl-3,5(6)-dimethylpyrazine | 49 Geranyl acetate | 68 Benzyl alcohol | 87 Cinnamyl alcohol |
| 12 Isobutanol | 31 Ethyl octanoate | 50 cis-Citral | 69 Isobutyl phenylacetate | 88 Isoeugenol |
| 13 Isoamyl acetate | 32 2,3,5,6-Tetramethylpyrazine | 51 α-Terpineol | 70 Hydroxycitronellal | 89 Ethyl vanillin |
| 14 1-Butanol | 33 Citronellal | 52 Terpinyl acetate | 71 Maltol | 90 Methyl β-naphthyl ketone |
| 15 Isoamyl propionate | 34 Cyclohexyl butyrate | 53 d-Borneol | 72 5-Methylquinoxaline | 91 Vanillin |
| 16 1,8-Cineol | 35 Decanal | 54 Benzyl acetate | 73 Hydroxycitronellal dimethyl acetal | |
| 17 2-Methyl butanol | 36 Benzaldehyde | 55 trans-Citral | 74 Isoamyl phenylacetate | |
| 18 Isoamyl alcohol | 37 Allyl hexanoate | 56 p-Methylacetophenone | 75 Anisaldehyde | |
| 19 Butyl butyrate | 38 Propionic acid | 57 Methyl salicylate | 76 γ-Nonalactone | |

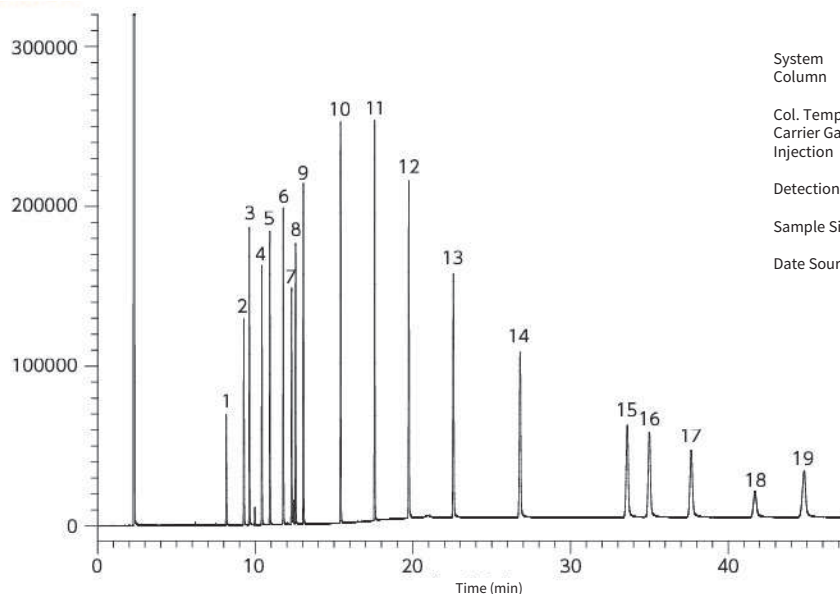
薰衣草（旋光异构）



脂肪酸甲酯



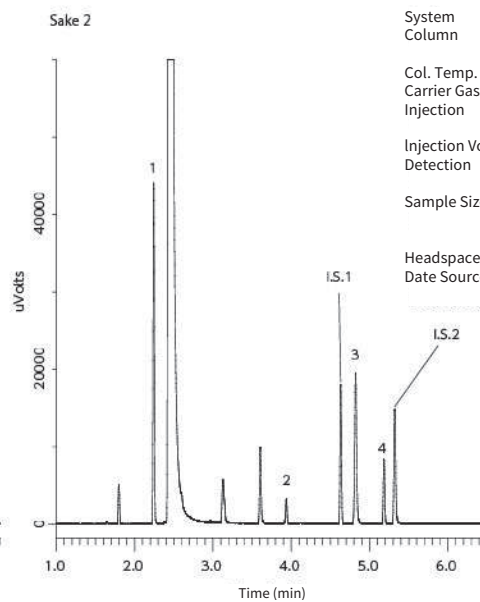
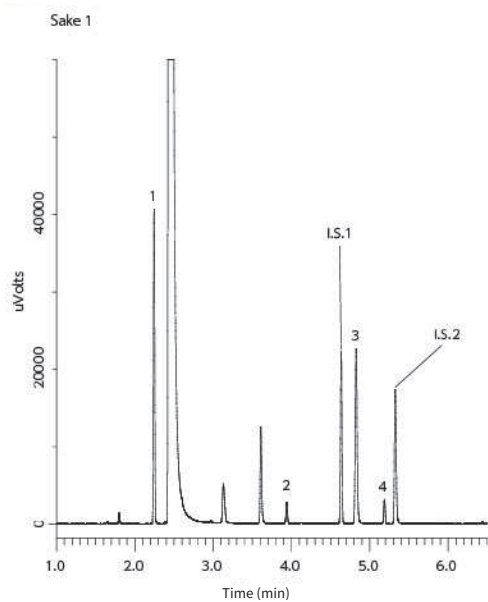
游离脂肪酸



System : GC-FID
 Column : InertCap FFAP
 0.25 mm I.D. × 30 m df = 0.25 μm
 Col. Temp. : 60°C- 10°C/min - 240°C(30 min hold)
 Carrier Gas : He 100 kPa
 Injection : Split flow 50 mL/min
 240°C
 Detection : FID Range 10¹⁰
 240°C
 Sample Size : 1 mg/mL In Acetone
 1.0 μL
 Date Source : GC InertSearch No.GA141

- | | | | |
|--------------------|--------------------|--------------------|--------------------|
| 1. Acetic acid | 7. Crotonic acid | 13. Myristic acid | 19. Arachidic acid |
| 2. Propionic acid | 8. Isocaproic acid | 14. Palmitic acid | |
| 3. Isobutyric acid | 9. Capronic acid | 15. Stearic acid | |
| 4. Butyric acid | 10. Caprylic acid | 16. Oleic acid | |
| 5. Isovaleric acid | 11. Capric acid | 17. Linoleic acid | |
| 6. Valeric acid | 12. Lauric acid | 18. Linolenic acid | |

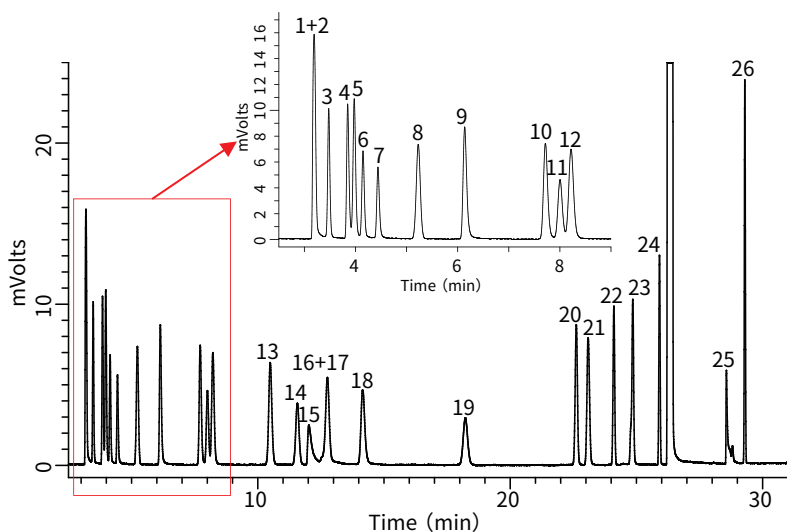
酒类



System : HS-GC-FID
 Column : InertCap Pure-WAX
 0.32 mm I.D. × 30 m df = 0.25 μm
 Col. Temp. : 40°C- 10°C/min - 240°C
 Carrier Gas : He 2 mL/min
 Injection : Split 1:50
 250°C
 Injection Vol. : Headspace Gas 1 ml
 Detection : FID Auto Range
 250°C
 Sample Size : Sake 0.9 mL + I.S. 0.1 mL
 Sample heating Temp. 50 °C
 Sample heating time 30 min
 Headspace Vial : 22 mL
 Date Source : GC InertSearch No.GA272

- | | |
|--------------------------------|-----------------------|
| 1. Ethyl acetate | 3. 3-Methyl-1-butanol |
| 2. Isopentyl acetate | (Isoamyl alcohol) |
| (Isoamyl acetate) | 4. Ethyl hexanoate |
| I.S.1. Methyl hexanoate 10 ppm | (Ethyl caproate) |
| (Methyl caproate) | |
| I.S.2. 1-Pentanol 100 ppm | |
| (n-Amyl alcohol) | |

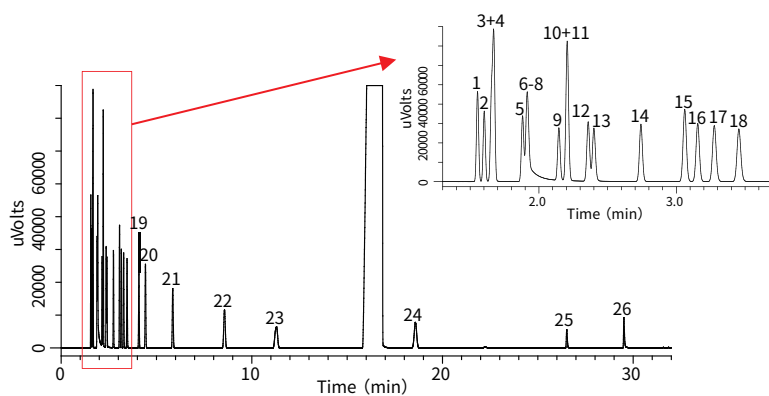
制剂中第三类溶剂残留检测



System : GC-FID
 Column : InertCap 624MS
 0.32 mm I.D. x 30 m df = 1.80 μ m
 Col.Temp. : 40°C (20 min hold) - 10°C/min -
 240 °C (20 min hold)
 Carrier Gas : He 2.20 mL/min
 Injection : Split 20:1
 140°C
 Detection : FID Auto Range
 250°C
 Sample Size : 0.1 μ L
 2000 μ g/mL in N,N-Dimethylformamide
 Date Source : GC InertSearch No.GA318

- | | | | | |
|-----------------|------------------------|-----------------------|---------------------------|-----------------------|
| 1 Ethanol | 7 Methyl acetate | 13 Isobutanol | 18 1-Butanol | 23 Amyl alcohol |
| 2 Pentane | 8 Methyl t-butyl ether | (2-Methyl-1-Propanol) | 19 Propyl acetate | (1-Pentanol) |
| 3 Diethyl ether | 9 1-Propanol | 14 Isopropyl acetate | 20 Methyl isobutyl ketone | 24 Butyl acetate |
| 4 Acetone | 10 Methyl ethyl ketone | 15 Triethylamine | 21 Isoamyl alcohol | 25 Dimethyl sulfoxide |
| 5 2-Propanol | 11 Ethyl acetate | 16 Acetic acid | (3-Methyl 1-butanol) | 26 Anisole |
| 6 Ethyl formate | 12 2-Butanol | 17 Heptane | 22 Isobutyl acetate | |

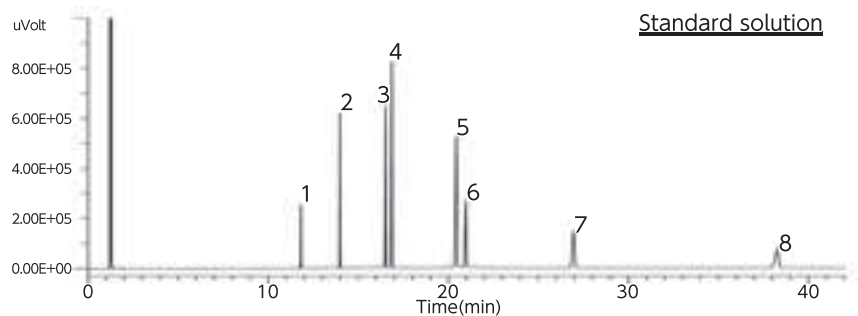
制剂中第三类溶剂残留检测



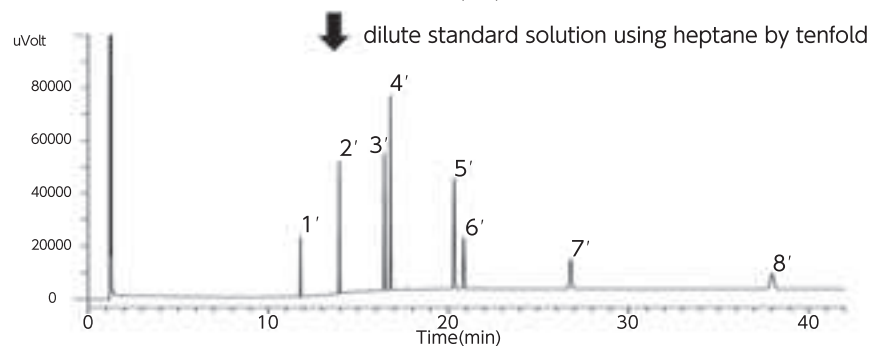
System : GC-FID
 Column : InertCap Pure-WAX
 0.32 mm I.D. x 30 m df = 0.25 μ m
 Col.Temp. : 50°C (20 min hold) - 6°C/min -
 165°C (20 min hold)
 Carrier Gas : He 2.20 mL/min
 Injection : Split 20:1
 140°C
 Detection : FID Auto Range
 250°C
 Sample Size : 0.1 μ L
 2000 μ g/mL in N,N-Dimethylformamide
 Date Source : GC InertSearch No.GA319

- | | | | | |
|------------------------|------------------------|---------------------------|----------------------|-----------------------|
| 1 Pentane | 7 Ethyl formate | 13 Ethanol | 19 Butyl acetate | 23 Amyl alcohol |
| 2 Dimethyl ether | 8 Triethylamine | 14 Propyl acetate | 20 Isobutanol | (1-Pentanol) |
| 3 Methyl t-butyl ether | 9 Ethyl acetate | 15 Methyl isobutyl ketone | 21 1-Butanol | 24 Anisole |
| 4 Heptane | 10 Methyl ethyl ketone | 16 Isobutyl acetate | 22 Isoamyl alcohol | 25 Acetic acid |
| 5 Acetone | 11 Isopropyl acetate | 17 2-Butanol | (3-Methyl-1-butanol) | 26 Dimethyl sulfoxide |
| 6 Methyl acetate | 12 2-Propanol | 18 1-Propanol | | |

吐温80



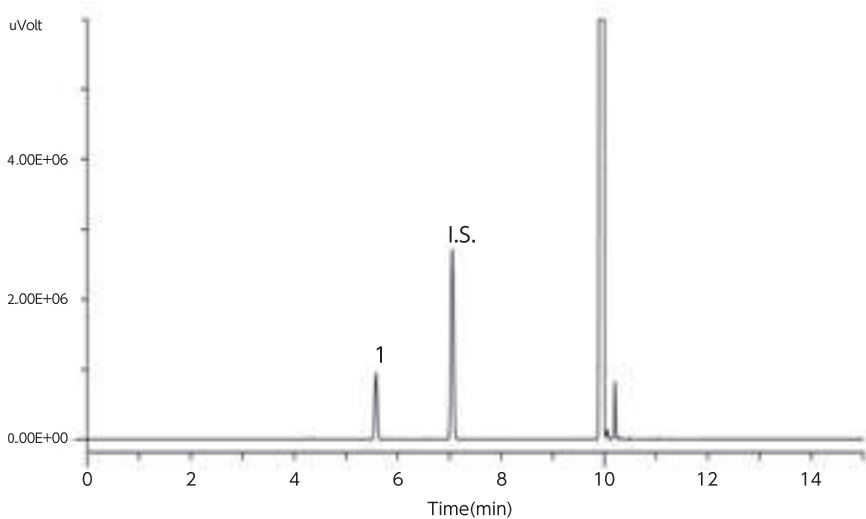
System : GC-FID
 Column : InertCap Pure-WAX
 0.32 mm I.D. x 30 m df = 0.5 μ m
 Col.Temp. : 80 °C - 10 °C/min - 220 °C (40 min hold)
 Carrier Gas : He 110 kPa
 Injection : Split 20:1
 250 °C
 Detection : FID Range 10¹⁰
 Sample Size : 1 μ L
 Date Source : GC InertSearch No.GA270



1. Myristic acid methyl ester
 2. Palmitic acid methyl ester
 3. Stearic acid methyl ester
 4. Oleic acid methyl ester
 5. Arachidic acid methyl ester
 6. Eicosenoic acid methyl ester
 7. Behenic acid methyl ester
 8. Lignoceric acid methyl ester

Resolution (3,4) : 4.21 (≥ 1.8)
 Theoretical plates (3) : 690,723 ($\geq 30,000$)
 Signal-to-noise ratio (1) : 229 (≥ 5)

羟丙基纤维素

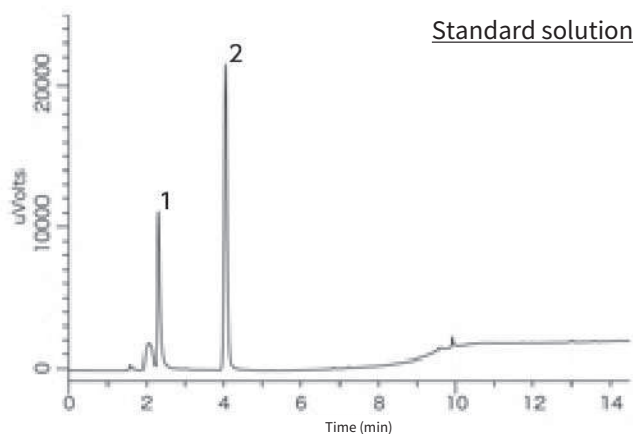


System : GC-FID
 Column : InertCap 1
 0.53 mm I.D. x 30 m df = 3.0 μ m
 Col.Temp. : 40 °C (3 min hold) - 10 °C/min - 100 °C -
 50 °C/min - 250 °C (3 min hold)
 Carrier Gas : He 7.82 mL/min Constant Flow
 Injection : Split 50:1
 180 °C
 Detection : FID Auto Range
 280 °C
 Sample Size : 2 μ L
 Date Source : GC InertSearch No.GA275

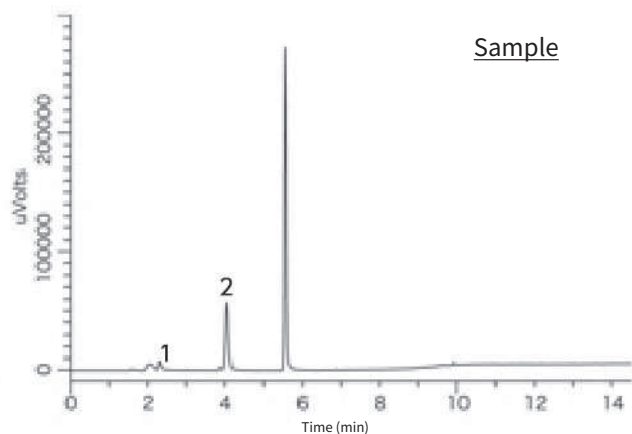
1. Isopropyl iodide
 I.S. Methylcyclohexane

Resolution (1, I.S.) : 4.21 (≥ 1.8)
 Relative retention time (1 to I.S.) : 690,723 ($\geq 30,000$)
 RSD of the response factor
 calculation (F) (%) n=6 : 229 (≥ 5)

三氯蔗糖

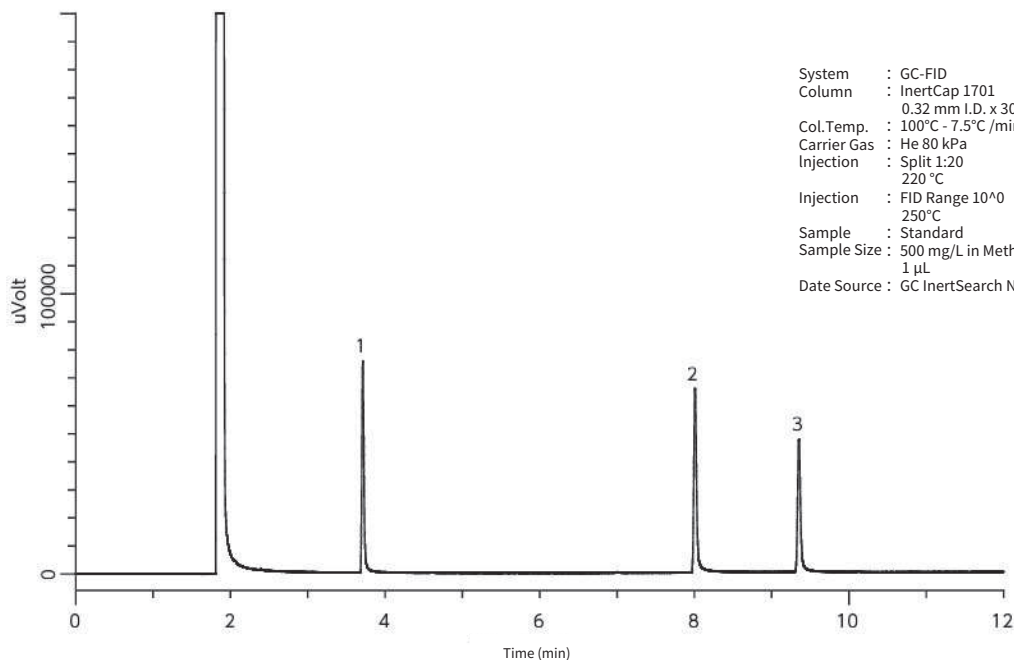


System : GC-FID
 Column : InertCap 624MS
 0.53 mm I.D. x 60 m df = 3.00 μ m
 Col.Temp. : 40°C(1 min hold) - 5°C/min - 60°C -
 40°C/min - 240°C(5 min hold)
 Carrier Gas : He 15 mL/min
 Injection : Splitless 2 min
 180°C
 Detection : FID Auto Range
 Sample Size : 0.4 ml
 Date Source : GC Technical Note No.GT115



1. Methanol
 2. t-Butyl alcohol

甘油，浓甘油

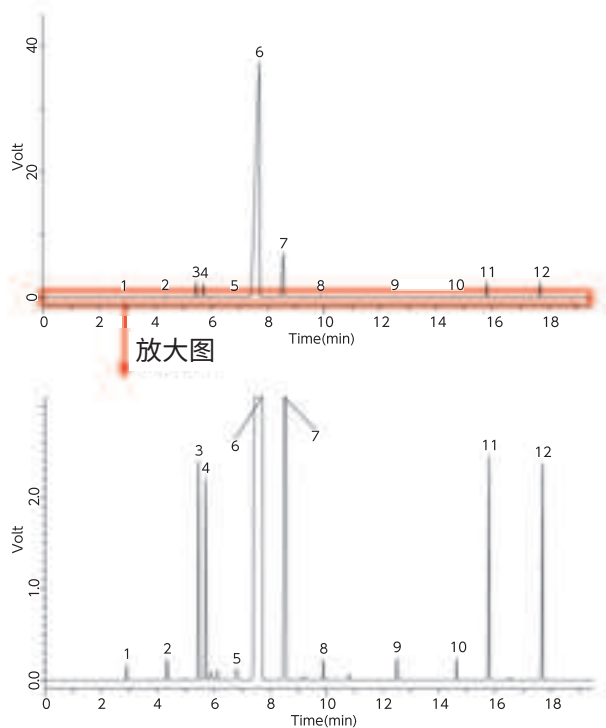


1. Ethyleneglycol
 2. Diethyleneglycol
 3. Glycerin

Resolution (1,2) : 78.8(≥ 40)
 Resolution (2,3) : 21.1(10)

System : GC-FID
 Column : InertCap 1701
 0.32 mm I.D. x 30 m df = 1.0 μ m
 Col.Temp. : 100°C - 7.5°C/min - 220°C
 Carrier Gas : He 80 kPa
 Injection : Split 1:20
 220 °C
 Injection : FID Range 10⁹
 250°C
 Sample : Standard
 Sample Size : 500 mg/L in Methanol
 1 μ L
 Date Source : GC InertSearch No.GA263

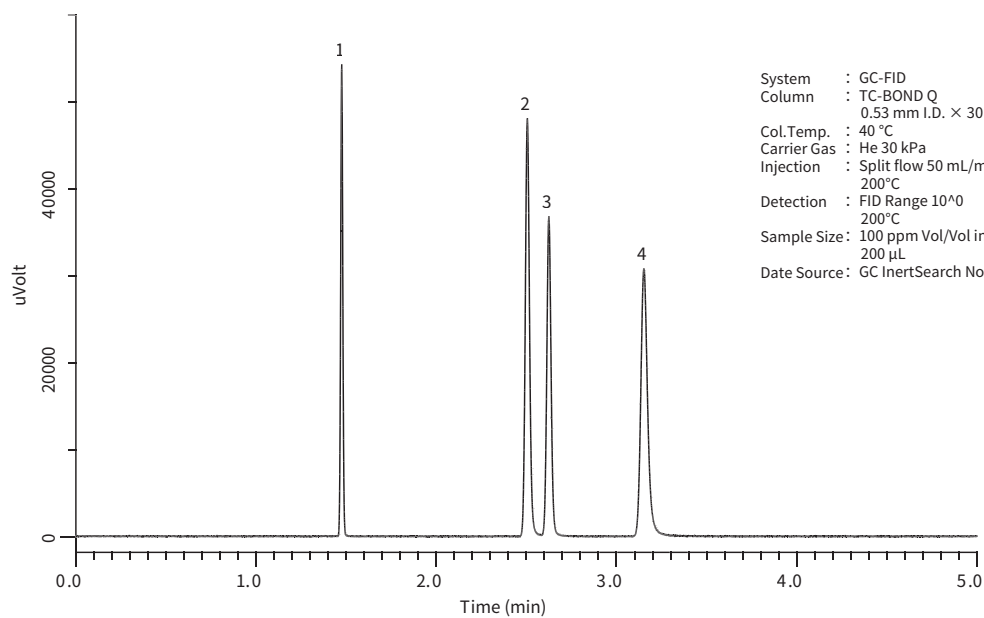
有机氢化物



System : GC-FID
 Column : InertCap 1
 0.32 mm I.D. x 30 m df = 1.0 μ m
 Col.Temp. : 40°C(2 min hold)- 5°C/min - 75°C-10°C/min - 180°C
 Carrier Gas : He 1.7 mL/min
 Injection : Split flow 34 mL/min
 Detection : FID Auto Range
 250°C
 Sample Size : 0.5 μ L
 Date Source : GC Technical Note No.GT090

- | | |
|----------------------|-------------|
| 1. n-Pentane | 0.1 % (w/v) |
| 2. n-Hexane | 0.1 % (w/v) |
| 3. Benzene | 1.0 % (w/v) |
| 4. Cyclohexane | 1.0 % (w/v) |
| 5. n-Heptane | 0.1 % (w/v) |
| 6. Methylcyclohexane | Solvent |
| 7. Toluene | 5.0 % (w/v) |
| 8. n-Octane | 0.1 % (w/v) |
| 9. n-Nonane | 0.1 % (w/v) |
| 10. n-Decane | 0.1 % (w/v) |
| 11. trans-Decalin | 1.0 % (w/v) |
| 12. Naphthalene | 1.0 % (w/v) |

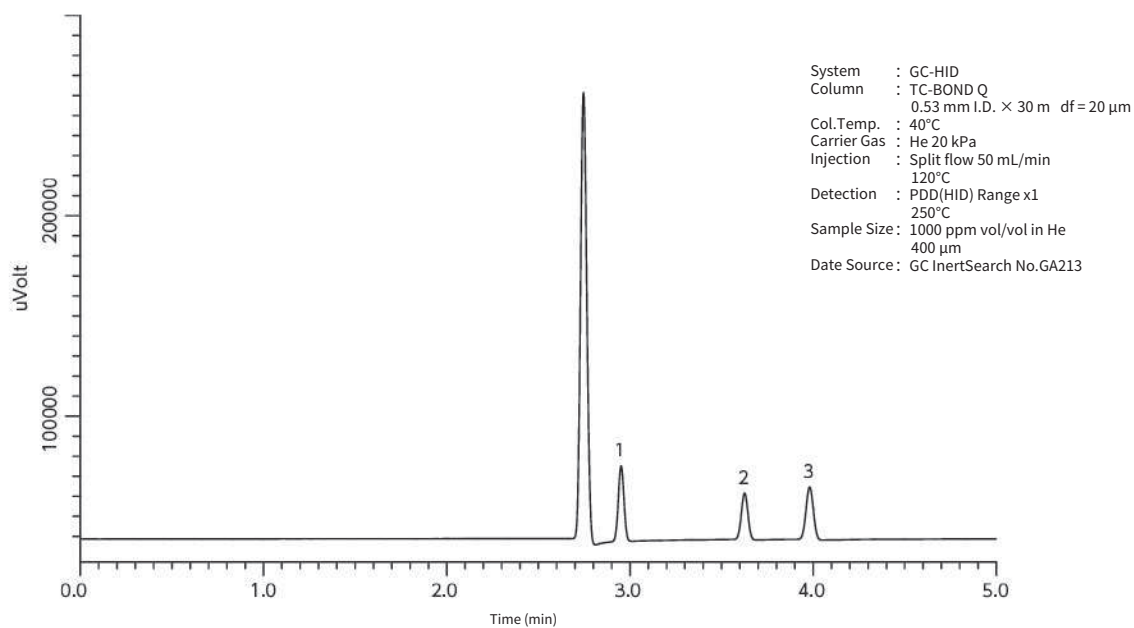
低级碳化水素 (C1、C2)



System : GC-FID
 Column : TC-BOND Q
 0.53 mm I.D. x 30 m df = 20 μ m
 Col.Temp. : 40 °C
 Carrier Gas : He 30 kPa
 Injection : Split flow 50 mL/min
 Detection : FID Range 10⁴
 200°C
 Sample Size : 100 ppm Vol/Vol in He
 200 μ L
 Date Source : GC InertSearch No.GA211

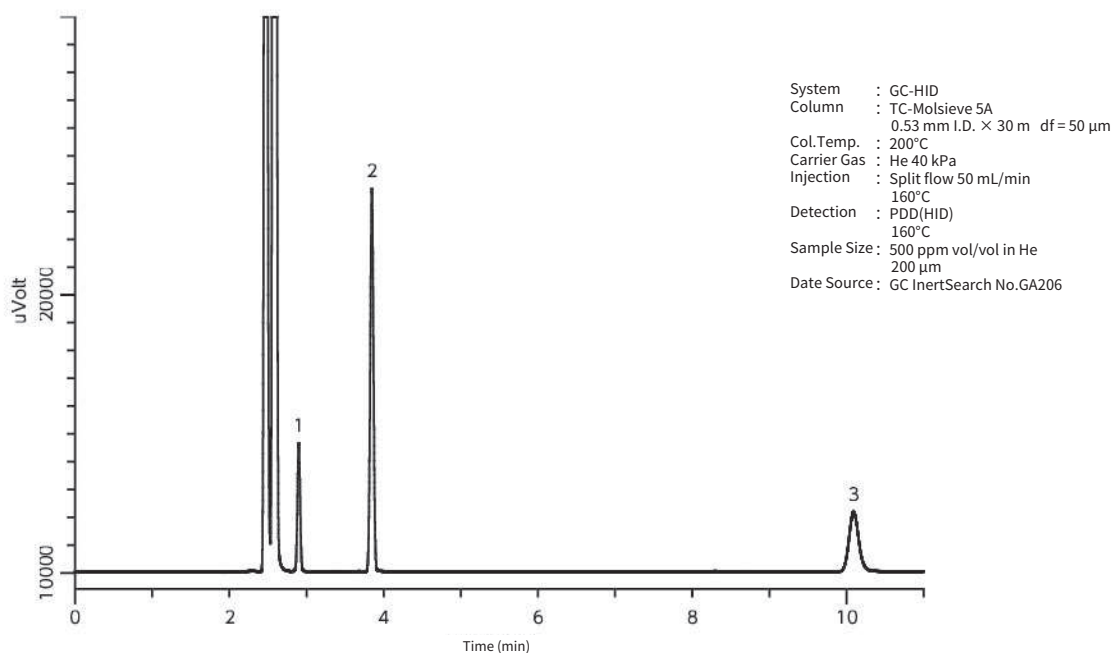
1. Methane
2. Ethylene
3. Acetylene
4. Ethane

无机气体



1. Methane
2. Carbon dioxide (CO₂)
3. Nitrous oxide (N₂O)

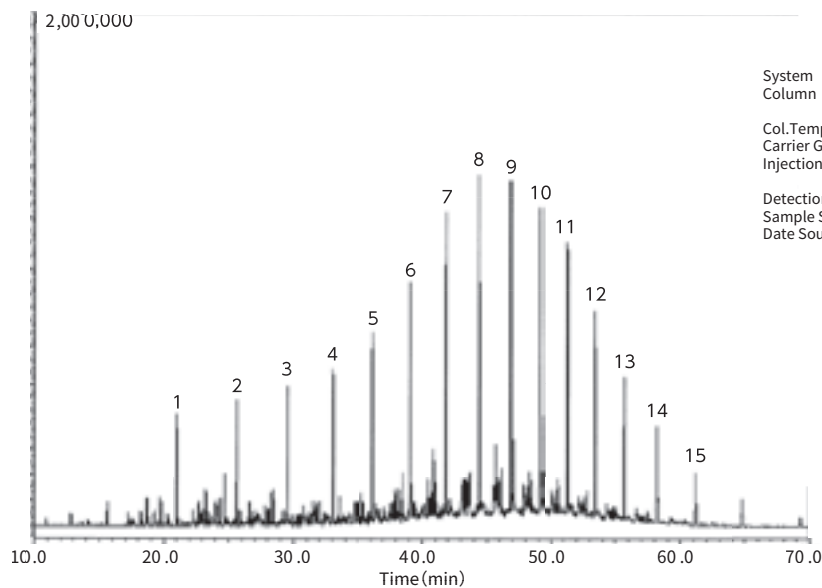
无机气体



1. Carbon monoxide(CO)
2. Xenon(Xe)
3. Nitrous oxide(N₂O)

石油·石油化学产品

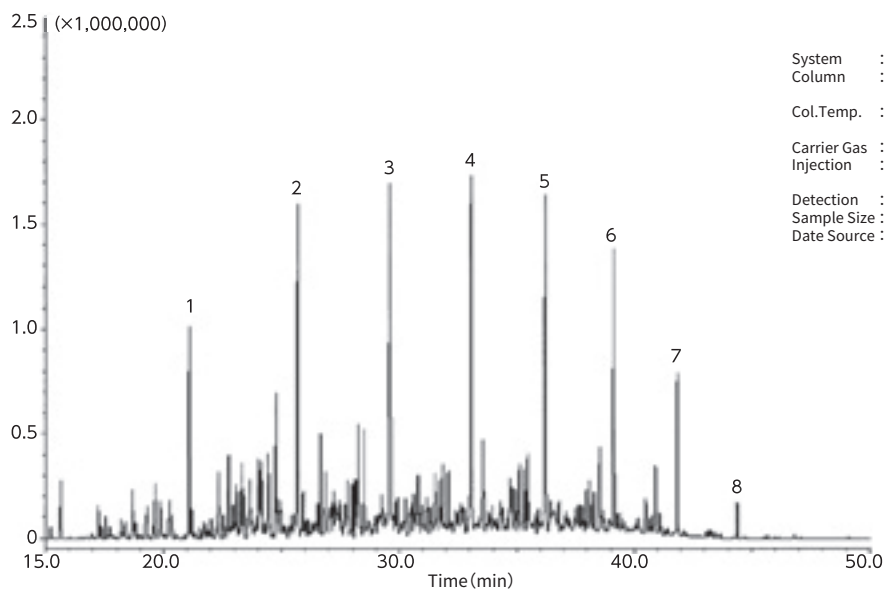
轻油



System : GC-MS
 Column : InertCap 1
 0.5 mm I.D. × 60 m df = 0.25 μm
 Col.Temp. : 40°C(10 min hold)– 5°C/min – 250°C(8 min hold)
 Carrier Gas : He 120 kPa
 Injection : Split 1:100
 250°C
 Detection : MS Scan
 Sample Size : 1 μL
 Date Source : GC InertSearch No.GA056

- | | | |
|--------------|----------------|-----------------|
| 1. Nonane | 6. Tetradecane | 11. Nonadecane |
| 2. Decane | 7. Pentadecane | 12. Eicosane |
| 3. Undecane | 8. Hexadecane | 13. Heneicosane |
| 4. Dodecane | 9. Heptadecane | 14. Docosane |
| 5. Tridecane | 10. Octadecane | 15. Tricosane |

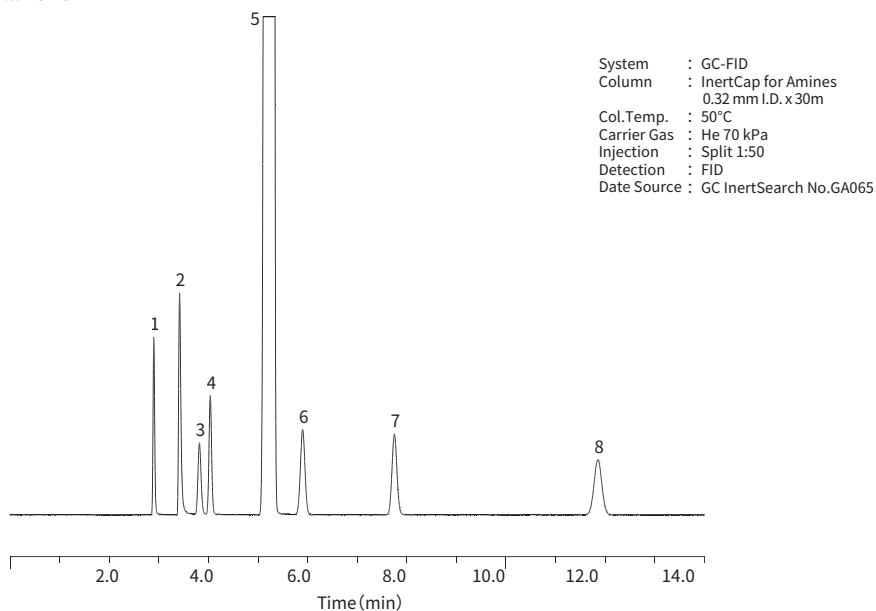
灯油



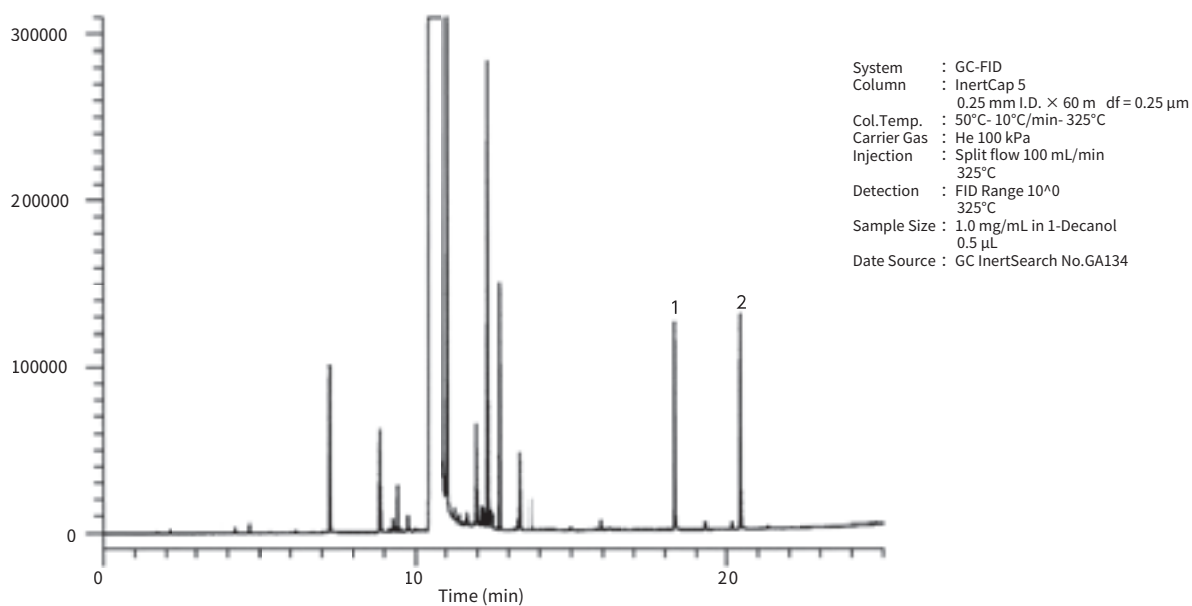
System : GC-MS
 Column : InertCap 1
 0.5 mm I.D. × 60 m df = 0.25 μm
 Col.Temp. : 40°C(10 min hold)– 5°C/min
 – 250°C(8 min hold)
 Carrier Gas : He 120 kPa
 Injection : Split 1:100
 250°C
 Detection : MS Scan
 Sample Size : 1 μL
 Date Source : GC InertSearch No.GA057

- | | |
|--------------|----------------|
| 1. Nonane | 6. Tetradecane |
| 2. Decane | 7. Pentadecane |
| 3. Undecane | 8. Hexadecane |
| 4. Dodecane | |
| 5. Tridecane | |

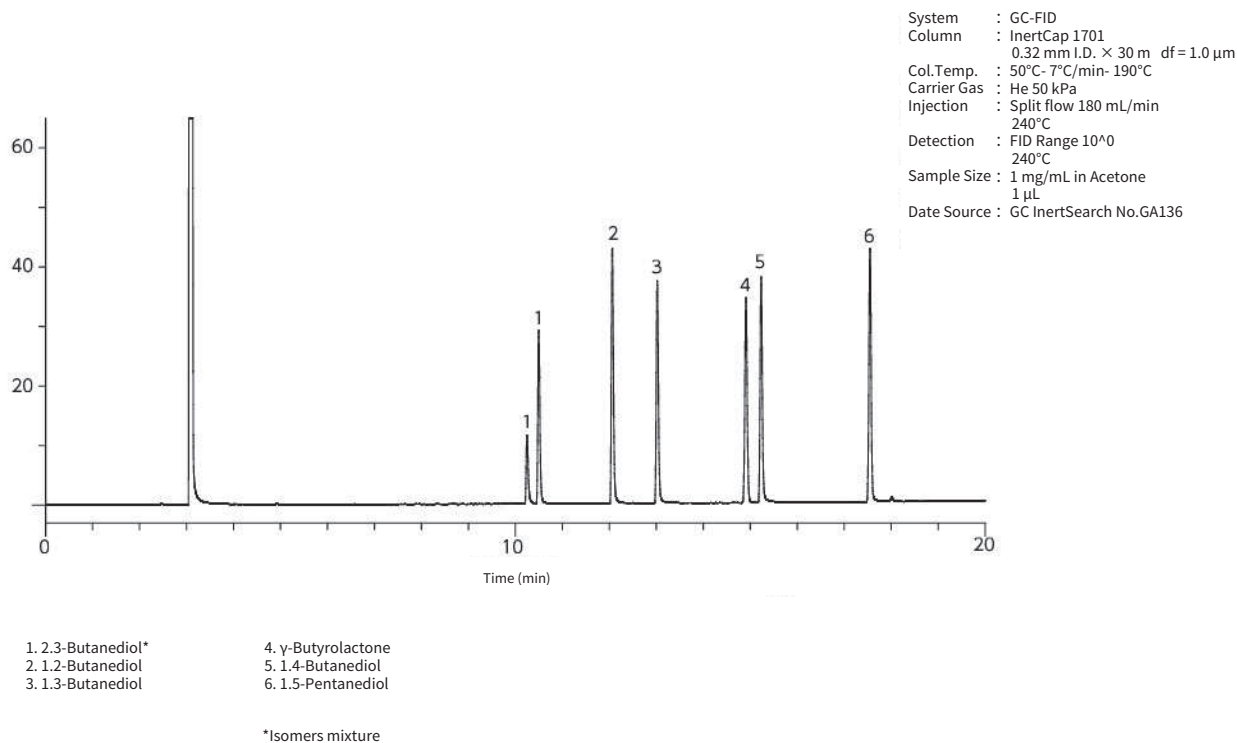
挥发性有机化合物和胺类



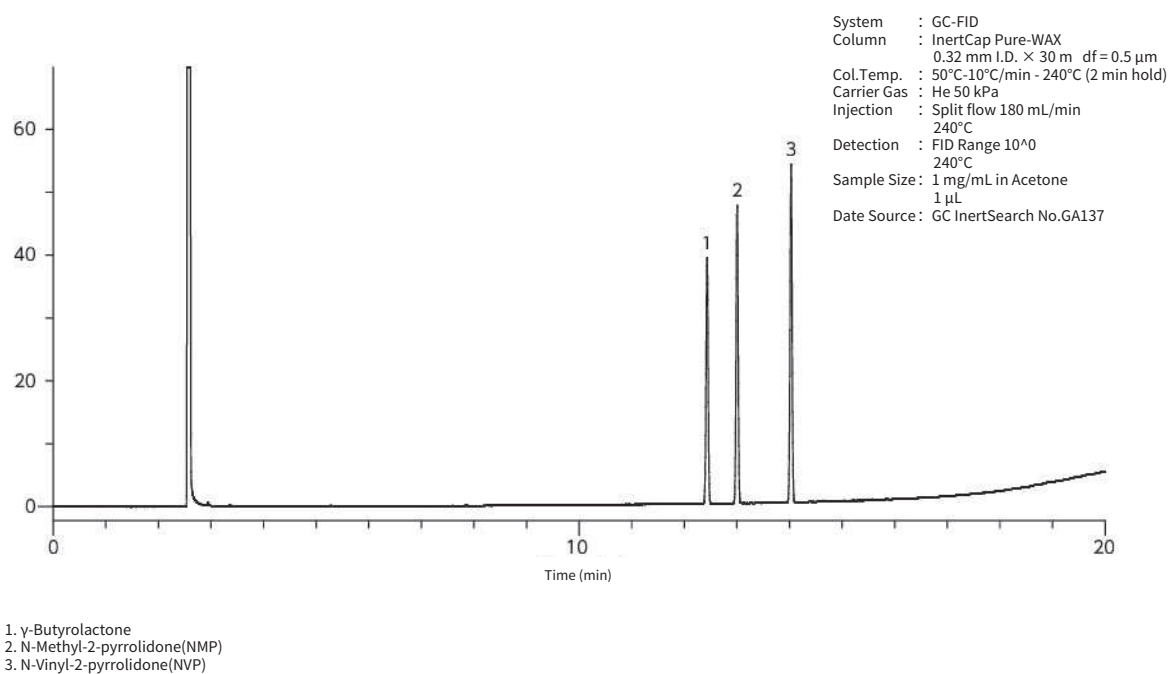
高级酒精



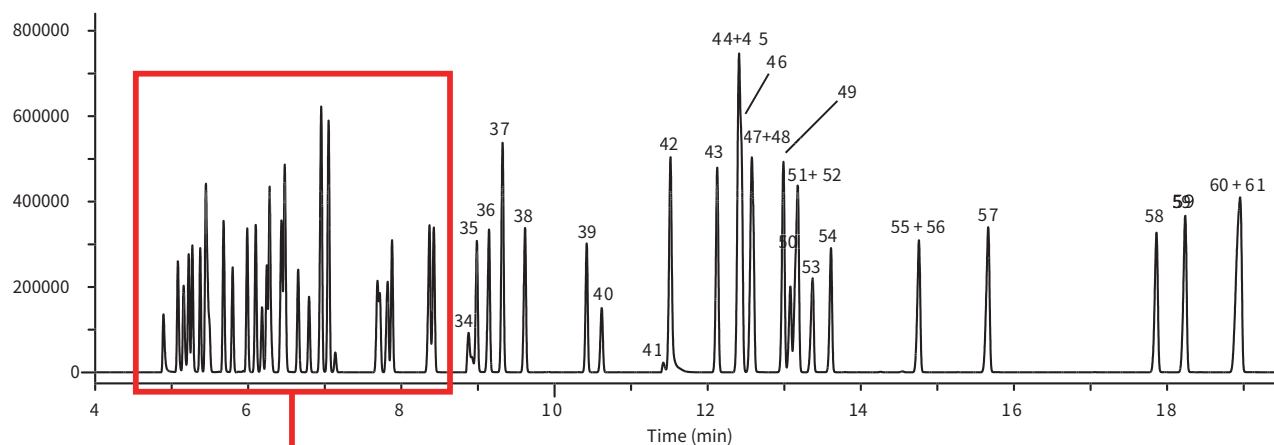
γ-丁酰胺和地醇类



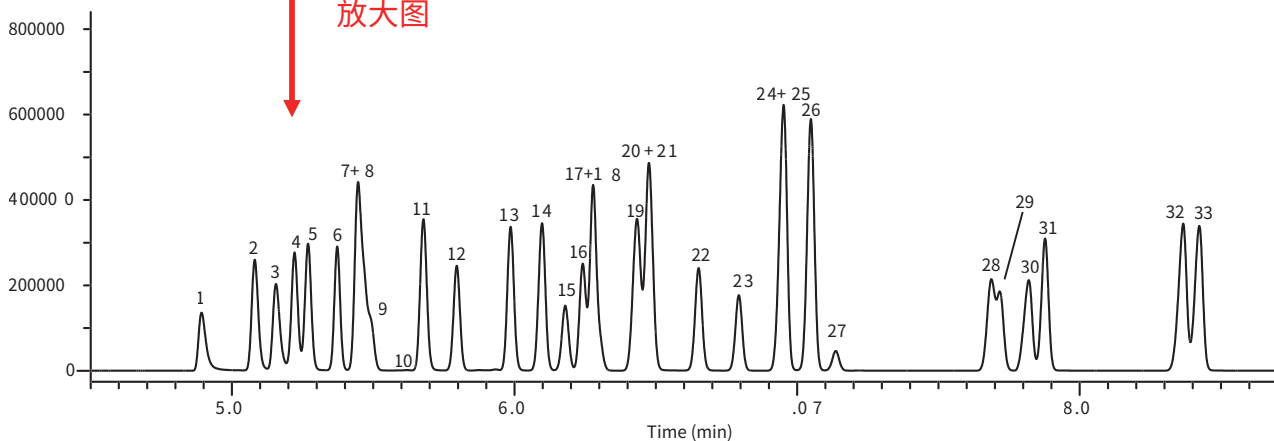
γ-丁酰胺和吡咯酮类



61种有机溶剂



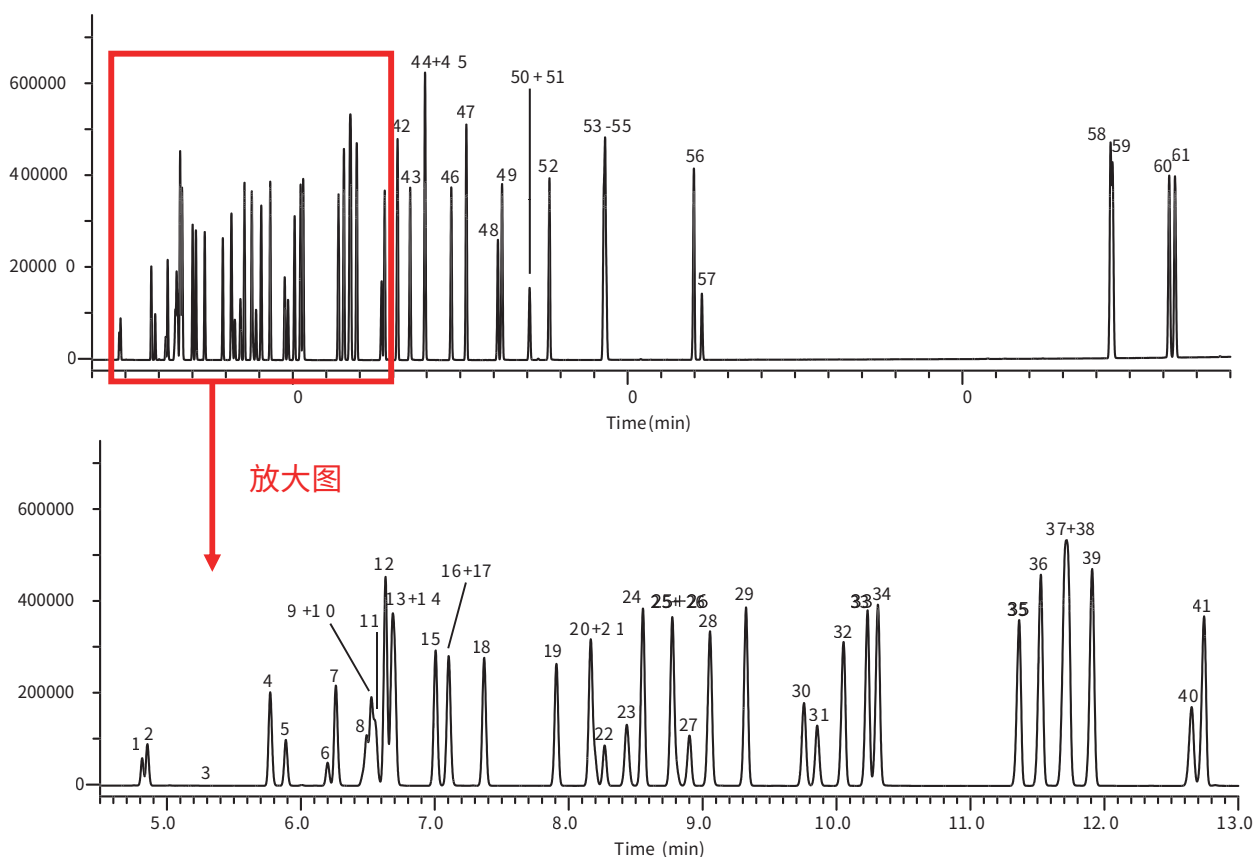
放大图



System : GC-FID
 Column : InertCap 1,
 0.25 mm I.D. × 60 m df = 0.25 μm
 Col.Temp. : 40°C-5°C/min- 220°C
 Carrier Gas : He 160 kPa
 Injection : Split flow 150 mL/min
 240°C
 Detection : FID Range 10⁻⁹
 240°C
 Sample Size : Mixed evenly
 0.2 μL
 Date Source : GC Technical Note No.GT053

出峰顺序	名称	保留指数	保留时间(分)	出峰顺序	名称	保留指数	保留时间(分)
1	Methanol	357	4.893	32	3-Methyl-1-butanol (Isoamyl alcohol)	715	8.343
2	Ethanol	426	5.077	33	4-Methyl-2-pentanone (MIBK)	717	8.408
3	Acetonitrile	445	5.154	34	N,N-Dimethylformamide	735	8.861
4	Acetone	460	5.218	35	Isobutyl acetate	739	8.975
5	2-Propanol (Isopropyl alcohol)	471	5.264	36	1-Pentanol(Amyl alcohol)	745	9.118
6	Diethyl ether	497	5.369	37	Toluene	752	9.313
7	tert-Butanol	506	5.438	38	2-Hexanone(MBK)	763	9.601
8	Methyl acetate	509	5.463	39	n-Butyl acetate	795	10.407
9	Dichloromethane	512	5.488	40	Tetrachloroethylene	802	10.608
10	Carbon disulfide	527	5.623	41	N,N-Dimethylacetamide	826	11.407
11	1-Propanol	532	5.67	42	Chlorobenzene	829	11.503
12	trans-1,2-Dichloroethylene	546	5.79	43	Ethylbenzene	848	12.113
13	2-Butanone(MEK)	567	5.978	44	Isopentyl acetate (Isoamyl acetate)	857	12.386
14	2-Butanol	579	6.085	45	m-Xylene	857	12.387
15	cis-1,2-Dichloroethylene	589	6.172	46	p-Xylene	858	12.423
16	Ethyl acetate	595	6.229	47	Cyclohexanone	861	12.542
17	n-Hexane	600	6.271	48	Cyclohexanol	862	12.561
18	Chloroform	601	6.289	49	Styrene	875	12.97
19	2-Methyl-1-propanol (Isobutyl alcohol)	608	6.412	50	2-Ethoxyethyl acetate (Cellosolve acetate)	877	13.056
20	2-Methoxyethanol (Methyl cellosolve)	610	6.446	51	1,1,2,2-Tetrachloroethane	879	13.103
21	Tetrahydrofuran	611	6.465	52	o-Xylene	880	13.146
22	1,2-Dichloroethane	622	6.638	53	2-Butoxyethanol (Butyl cellosolve)	886	13.330
23	1,1,1-Trichloroethane	630	6.783	54	n-Pentyl acetate	894	13.592
24	1-Butanol	639	6.923	55	4-Methylcyclohexanol	926	14.695
25	Isopropyl acetate	639	6.936	56	4-Methylcyclohexanone	927	14.745
26	Benzene	645	7.034	57	Phenol	952	15.638
27	Carbon tetrachloride	651	7.133	58	1,2-Dichlorobenzene	1016	17.847
28	1,4-Dioxane	683	7.676	59	o-Cresol	1026	18.193
29	Trichloroethylene	685	7.711	60	p-Cresol	1046	18.895
30	2-Ethoxyethanol (Cellosolve)	691	7.801	61	m-Cresol	1047	18.932
31	n-Propyl acetate	695	7.868				

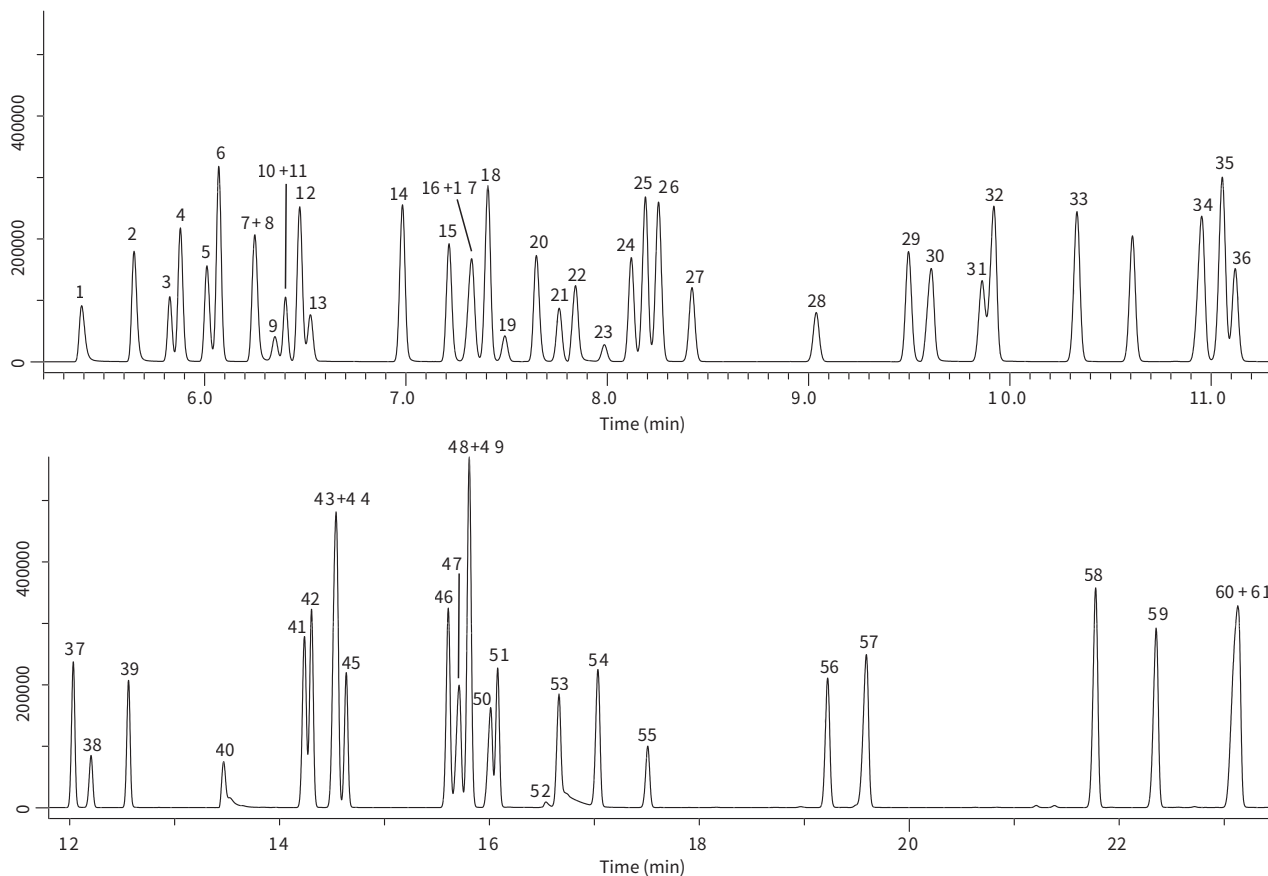
61种有机溶剂



System : GC-FID
 Column : InertCap Pure-WAX
 0.25 mm I.D. × 60 m df = 0.25 μm
 Col.Temp. : 0°C - 5°C/min - 220°C
 Carrier Gas : He 160 kPa
 Injection : Split flow 150 mL/min
 240°C
 Detection : FID Range 10¹⁰
 40°C
 Sample Size : Mixed evenly
 0.2 μL
 Date Source : GC Technical Note No.GT052

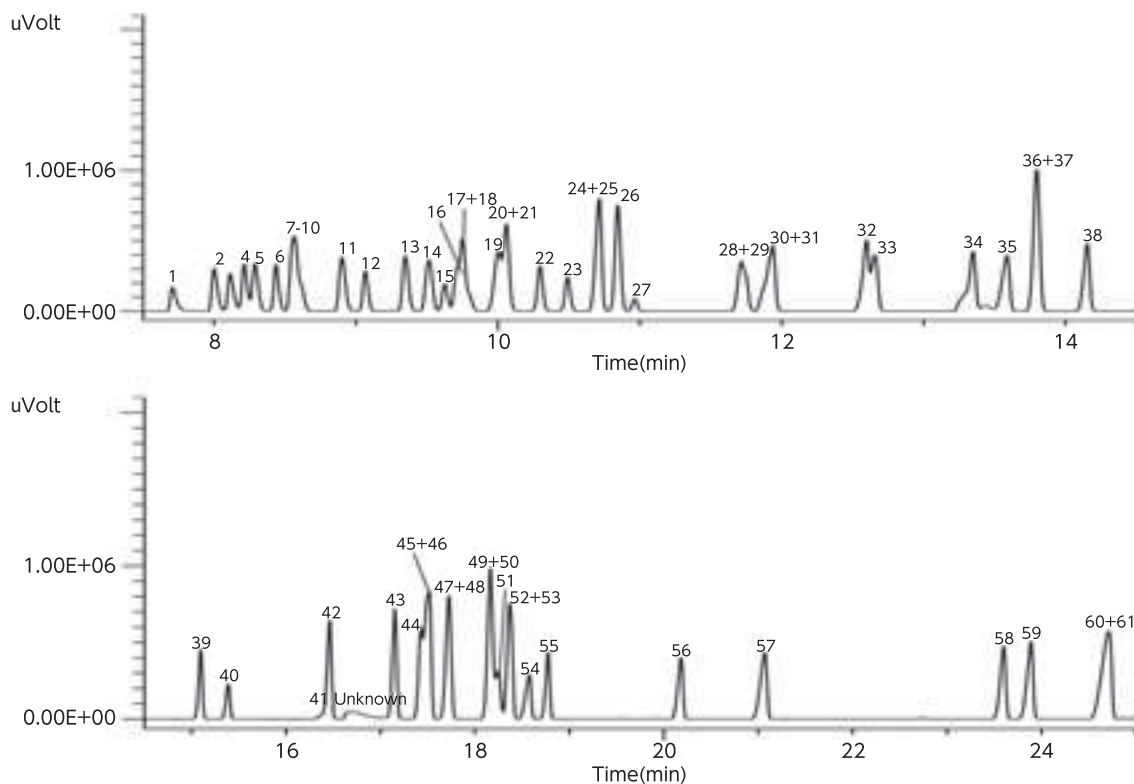
出峰顺序	名称	保留指数	保留时间(分)	出峰顺序	名称	保留指数	保留时间(分)
1	n-Hexane	603	4.838	34	2-Methyl-1-propanol (Isobutyl alcohol)	1073	10.330
2	Diethyl ether	616	4.874	35	Isopentyl acetate (Isoamyl acetate)	1115	11.400
3	Carbon disulfide	727	5.276	36	Ethylbenzene	1121	11.568
4	Acetone	808	5.785	37	1-Butanol	1126	11.723
5	Methyl acetate	820	5.91	38	p-Xylene	1128	11.773
6	trans-1,2-Dichloroethylene	849	6.225	39	m-Xylene	1135	11.952
7	Tetrahydrofuran	855	6.29	40	2-Methoxyethanol (Methyl cellosolve)	1160	12.670
8	Carbon tetrachloride	874	6.493	41	n-Pentyl acetate	1164	12.775
9	1,1,1-Trichloroethane	876	6.52	42	o-Xylene	1178	13.168
10	Ethyl acetate	879	6.55	43	3-Methyl-1-butanol (Isoamyl alcohol)	1191	13.532
11	Methanol	882	6.583	44	2-Ethoxyethanol (Cellosolve)	1207	13.977
12	tert-Butanol	888	6.648	45	Chlorobenzene	1207	13.993
13	Isopropyl acetate	893	6.705	46	1-Pentanol(Amyl alcohol)	1233	14.762
14	2-Butanone(MEK)	895	6.721	47	Styrene	1249	15.229
15	2-Propanol (Isopropyl alcohol)	914	7.021	48	2-Ethoxyethyl acetate (Cellosolve acetate)	1281	16.157
16	Ethanol	920	7.121	49	Cyclohexanone	1286	16.290
17	Dichloromethane	921	7.143	50	Methylcyclohexanol	1311	17.045
18	Benzene	936	7.401	51	N,N-Dimethylformamide	1333	17.088
19	n-Propyl acetate	967	7.943	52	Methylcyclohexanone	1333	17.698
20	Isobutyl acetate	982	8.201	53	Cyclohexanol	1387	19.323
21	cis-1,2-Dichloroethylene	983	8.224	54	2-Butoxyethanol (Butylcellosolve)	1388	19.346
22	Trichloroethylene	987	8.303	55	N,N-Dimethylacetamide	1389	19.380
23	Acetonitrile	996	8.455	56	1,2-Dichlorobenzene	1483	22.010
24	4-Methyl-2-pentanone (MIBK)	1003	8.588	57	1,1,2,2-Tetrachloroethane	1492	22.247
25	2-Butanol	1011	8.791	58	o-Cresol	1977	34.454
26	Chloroform	1013	8.833	59	Phenol	1980	34.518
27	Tetrachloroethylene	1016	8.928	60	p-Cresol	2057	36.214
28	1-Propanol	1022	9.069	61	m-Cresol	2065	36.388
29	Toluene	1034	9.366				
30	1,4-Dioxane	1051	9.79				
31	1,2-Dichloroethane	1055	9.889				
32	n-Butyl acetate	1064	10.091				
33	2-Hexanone(MBK)	1071	10.268				

61种有机溶剂



System : GC-FID	出峰顺序	名称	保留指数	保留时间(分)	出峰顺序	名称	保留指数	保留时间(分)
Column : InertCap 25	1	Methanol	418	5.362	32	3-Methyl-1-butanol (Isoamyl alcohol)	781	9.894
0.25 mm I.D. × 60 m df=0.25 μm	2	Ethanol	498	5.623	33	4-Methyl-2-pentanone (MIBK)	798	10.302
Col.Temp. : 40°C - 5°C/min - 220°C	3	Ethyl ether	523	5.802	34	1-Pentanol(Amyl alcohol)	818	10.926
Carrier Gas : He 160 kPa	4	2-Propanol (Isopropyl alcohol)	530	5.853	35	Toluene	820	11.017
Injection : Split flow 150 mL/min	5	Acetone	548	5.985	36	Isobutyl acetate	822	11.083
240°C	6	tert-Butanol	556	6.045	37	2-Hexanone(MBK)	851	12.005
Detection : FID Range 10 ¹⁰	7	Acetonitrile	580	6.219	38	Tetrachloroethylene	855	12.160
40°C	8	Methyl acetate	581	6.227	39	n-Butyl acetate	867	12.525
Sample Size : Mixed evenly	9	Carbon disulfide	590	6.298	40	N,N-Dimethylformamide	895	13.448
0.2 μL	10	Dichloromethane	594	6.323	41	Chlorobenzene	916	14.194
Date Source : GC Technical Note No.GT074	11	n-Hexane	600	6.377	42	Ethylbenzene	918	14.265
	12	1-Propanol	605	6.448	43	p-Xylene	924	14.476
	13	trans-1,2-Dichloroethylene	609	6.502	44	m-Xylene	925	14.500
	14	2-Butanol	639	6.955	45	Isopentyl acetate (Isoamyl acetate)	927	14.588
	15	Methyl ethyl ketone	654	7.186	46	o-Xylene	955	15.567
	16	cis-1,2-Dichloroethylene	661	7.281	47	Cyclohexanol	958	15.663
	17	Ethyl acetate	662	7.300	48	1-Methylcyclohexanol	960	15.747
	18	2-Methyl-1-propanol (Isobutyl alcohol)	667	7.376	49	Styrene	960	15.767
	19	Chloroform	672	7.452	50	2-Butoxyethanol (Butyl cellosolve)	966	15.963
	20	Tetrahydrofuran	683	7.617	51	n-Pentyl acetate	968	16.021
	21	1,1,1-Trichloroethane	691	7.732	52	N,N-Dimethylacetamide	981	16.487
	22	2-Methoxyethanol (Methyl cellosolve)	697	7.824	53	2-Ethoxyethyl acetate (Cellosolve acetate)	984	16.617
	23	Carbon tetrachloride	703	7.950	54	Cyclohexanone	995	16.991
	24	Isopropyl acetate	709	8.088	55	1,1,2,2-Tetrachloroethane	1007	17.441
	25	1-Butanol	712	8.163	56	4-Methylcyclohexanone	1051	19.187
	26	Benzene	714	8.222	57	Phenol	1059	19.527
	27	1,2-Dichloroethane	721	8.387	58	1,2-Dichlorobenzene	1118	21.683
	28	Trichloroethylene	746	9.003	59	o-Cresol	1141	22.385
	29	n-Propyl acetate	764	9.464	60	p-Cresol	1164	23.078
	30	2-Ethoxyethanol (Cellosolve)	769	9.588	61	m-Cresol	1165	23.113
	31	1,4-Dioxane	779	9.823				

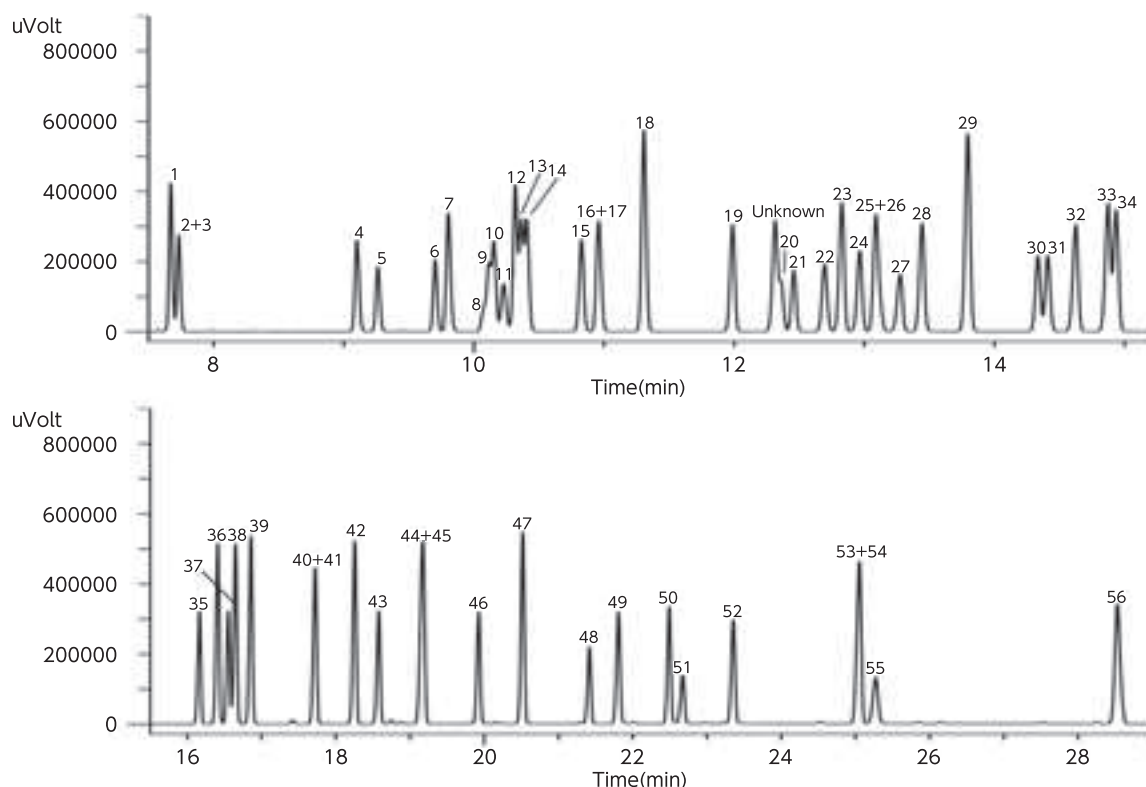
61种有机溶剂保留指数 (N2作为载气)



System : GC-FID
Column : InertCap 1
0.25 mm I.D. × 60 m df=0.25 μm
Col.Temp. : 40°C - 5°C/min - 220°C
Carrier Gas : N₂ 90 kPa
Injection : Split 50 : 1
240°C
Detection : FID Range 10¹⁰
240°C
Sample Size : 0.2 μL
Date Source : GC Technical Note No.GT078

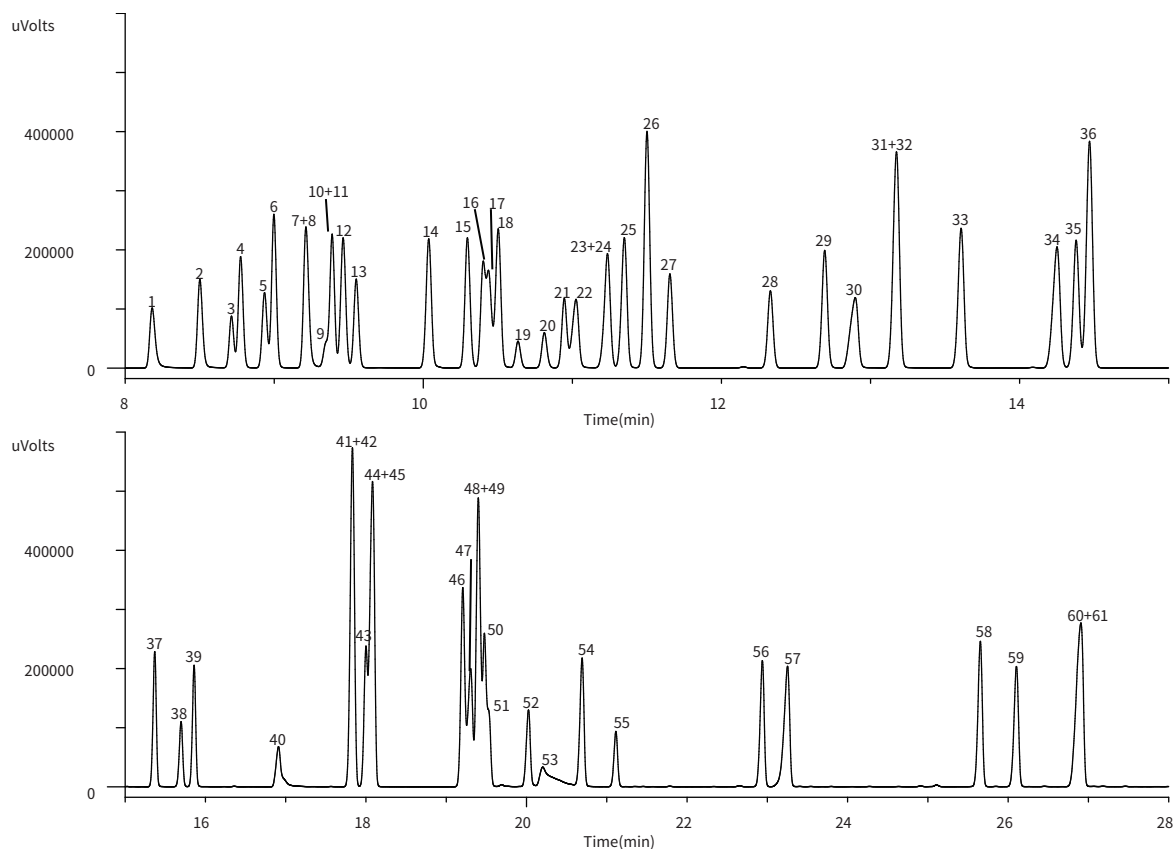
出峰顺序	名称	保留指数	保留时间(分)	出峰顺序	名称	保留指数	保留时间(分)
1	Methanol	397	7.674	32	3-Methyl-1-butanol (Isoamyl alcohol)	717	12.567
2	Ethanol	405	7.965	33	4-Methyl-2-pentanone (MIBK)	719	12.634
3	Acetonitrile	428	8.084	34	N,N-Dimethylformamide	739	13.268
4	Acetone	448	8.183	35	1-Pentanol(Amyl alcohol)	747	13.546
5	2-Propanol (Isopropyl alcohol)	462	8.257	36	Isobutyl acetate	754	13.761
6	Ethyl ether	492	8.409	37	Toluene	755	13.782
7	Carbon disulfide	509	8.568	38	2-Hexanone(MBK)	766	14.134
8	tert-Butanol	506	8.528	39	n-Butyl acetate	795	15.071
9	Methyl acetate	508	8.554	40	Tetrachloroethylene	803	15.359
10	Dichloromethane	511	8.596	41	N,N-Dimethylacetamide	829	16.308
11	1-Propanol	533	8.878	42	Chlorobenzene	832	16.441
12	trans-1,2-Dichloroethylene	546	9.045	43	Ethylbenzene	851	17.128
13	Methyl ethyl ketone	568	9.327	44	Isopentyl acetate	858	17.381
14	2-Butanol	580	9.491	45	Isoamyl acetate	859	17.448
15	cis-1,2-Dichloroethylene	589	9.602	46	m-Xylene	860	17.488
16	Ethyl acetate	596	9.697	47	p-Xylene	866	17.682
17	n-Hexane	600	9.746	48	Cyclohexanone	866	17.682
18	Chloroform	602	9.786	49	Cyclohexanol	866	17.682
19	2-Methyl-1-propanol (Methyl cellosolve)	610	9.975	50	2-Ethoxyethyl acetate (Cellosolve acetate)	877	18.12
20	Tetrahydrofuran (Methyl cellosolve)	613	10.037	51	Styrene	878	18.125
22	1,2-Dichloroethane	614	10.060	52	1-Methylcyclohexanol	879	18.177
23	1,1,1-Trichloroethane	623	10.281	53	1,1,2,2-Tetrachloroethane	881	18.269
24	Isopropyl acetate	632	10.478	54	o-Xylene	883	18.332
25	1-Butanol	641	10.683	55	2-Butoxyethanol (Butyl cellosolve)	888	18.528
26	Benzene	642	10.705	56	n-Pentyl acetate	894	18.742
27	Carbon tetrachloride	654	10.975	57	4-Methylcyclohexanone	931	20.171
28	1,4-Dioxane	653	10.948	58	Phenol	953	21.037
29	Trichloroethylene	685	11.684	59	1,2-Dichlorobenzene	1018	23.582
30	2-Ethoxyethanol (Cellosolve)	687	11.723	60	o-Cresol	1025	23.868
31	n-Propyl acetate	693	11.877	61	p-Cresol	1048	24.752
		695	11.915		m-Cresol	1049	24.791

61种有机溶剂保留指数 (N2作为载气)



System : GC-FID
 Column : InertCap Pure-WAX
 0.25 mm I.D. x 60 m df = 0.25 μ m
 Col. Temp. : 40 °C - 5 °C /min - 220 °C
 Carrier Gas : N₂ 90 kPa
 Injection : Split 50:1
 240 °C
 Detection : FID Range 10⁻⁹
 240 °C
 SampleSize : 0.2 μ L
 DateSource : GC Technical Note No.GT079

出峰顺序	名称	保留指数	保留时间(分)	出峰顺序	名称	保留指数	保留时间(分)
1	n-Hexane	598	7.690	34	2-Methyl-1-propanol (Isobutyl alcohol)	1065	14.953
2	Ethyl ether	611	7.745	35	Isopentyl acetate (Isoamyl acetate)	1098	16.211
3	Carbon disulfide	613	7.750	36	Ethylbenzene	1109	16.384
4	Acetone	808	9.113	37	1-Butanol	1114	16.572
5	Methyl acetate	819	9.276	38	p-Xylene	1117	16.617
6	trans-1,2-Dichloroethylene	848	9.718	39	m-Xylene	1123	16.821
7	Tetrahydrofuran	855	9.819	40	n-Pentyl acetate	1149	17.793
8	Carbon tetrachloride	873	10.091	41	2-Methoxyethanol (Methyl cellosolve)	1152	17.728
9	1,1,1-Trichloroethane	876	10.131	42	o-Xylene	1168	18.218
10	Ethyl acetate	878	10.170	43	3-Methyl-1-butanol (Isoamyl alcohol)	1180	18.600
11	Methanol	882	10.223	44	Chlorobenzene	1195	19.226
12	tert-Butanol	888	10.324	45	2-Ethoxyethanol (Cellosolve)	1198	19.162
13	Isopropyl acetate	892	10.376	46	1-Pentanol(Amyl alcohol)	1222	19.953
14	Methyl ethyl ketone	895	10.421	47	Styrene	1239	20.489
15	2-Propanol (Isopropyl alcohol)	915	10.833	48	2-Ethoxyethyl acetate (Cellosolve acetate)	1264	21.472
16	Dichloromethane	920	10.964	49	Cyclohexanone	1276	21.871
17	Ethanol	921	10.966	50	1-Methylcyclohexanol	1297	22.554
18	Benzene	936	11.324	51	N,N-Dimethylformamide	1305	22.690
19	n-Propyl acetate	966	12.007	52	4-Methylcyclohexanone	1322	23.434
20	cis-1,2-Dichloroethylene	982	12.372	53	Cyclohexanol	1369	25.094
21	Trichloroethylene	987	12.473	54	2-Butoxyethanol (Butyl cellosolve)	1369	25.117
22	Acetonitrile	997	12.703	55	N,N-Dimethylacetamide	1375	25.303
23	4-Methyl-2-pentanone (MIBK)	1002	12.848	56	1,2-Dichlorobenzene	1434	28.613
24	Isobutyl acetate	1006	12.983	57	1,1,2,2-Tetrachloroethane	—	—
25	2-Butanol	1010	13.101	58	Phenol	—	—
26	Chloroform	1011	13.130	59	o-Cresol	—	—
27	Tetrachloroethylene	1014	13.304	60	p-Cresol	—	—
28	1-Propanol	1020	13.455	61	m-Cresol	—	—
29	Toluene	1031	13.819				
30	1,4-Dioxane	1047	14.349				
31	1,2-Dichloroethane	1049	14.423				
32	n-Butyl acetate	1054	14.695				
33	2-Hexanone(MBK)	1062	14.946				

61种有机溶剂保留指数 (N₂作为载气)

System : GC-FID	出峰顺序	名称	保留指数	保留时间(分)	出峰顺序	名称	保留指数	保留时间(分)
Column : InertCap 25	1	Methanol	424	8.185	32	1,4-Dioxane	781	13.158
0.25 mmI.D. × 60m df = 0.25 μm	2	Ethanol	497	8.498	33	4-Methyl-2-pentanone (MIBK)	798	13.598
Col.Temp. : 40°C - 5°C/min - 220°C	3	Ethyl ether	522	8.827	34	1-Pentanol (Amyl alcohol)	817	14.227
Carrier Gas : N ₂ 90 kPa	4	2-Propanol (Isopropyl alcohol)	529	8.708	35	Isobutyl acetate	821	14.362
Injection : Split 50 : 1	5	Acetone	548	8.930	36	Toluene	824	14.460
240°C	6	tert-Butanol	555	8.993	37	2-Hexanone (MBK)	851	15.353
Detection : FID Auto Range	7	Methyl acetate	580	9.205	38	Tetrachloroethylene	861	15.685
240°C	8	Acetonitrile	580	9.213	39	n-Butyl acetate	865	15.847
Sample Size : 0.2 μL	9	Dichloromethane	595	9.342	40	N,N-Dimethylformamide	897	16.892
Date Source : GC Technical Note No.GT126	10	Carbon disulfide	598	9.368	41	Chlorobenzene	922	17.802
	11	n-Hexane	600	9.383	42	Ethylbenzene	922	17.822
	12	1-Propanol	605	9.458	43	Isopentyl acetate (Isoamyl acetate)	927	17.977
	13	trans-1,2-Dichloroethylene	610	9.552	44	p-Xylene	928	18.032
	14	2-Butanol	639	10.030	45	m-Xylene	929	18.060
	15	Methyl ethyl ketone	654	10.285	46	o-Xylene	960	19.188
	16	Ethyl acetate	661	10.390	47	Cyclohexanol	961	19.255
	17	cis-1,2-Dichloroethylene	664	10.437	48	1-Methylcyclohexanol	964	19.338
	18	2-Methyl-1-propanol (Isobutyl alcohol)	667	10.497	49	Styrene	965	19.382
	19	Chloroform	675	10.628	50	n-Pentyl acetate	967	19.442
	20	Tetrahydrofuran	686	10.800	51	2-Butoxyethanol (Butyl cellosolve)	967	19.473
	21	1,1,1-Trichloroethane	694	10.937	52	2-Ethoxyethyl acetate (Cellosolve acetate)	982	19.990
	22	2-Methoxyethanol (Methyl cellosolve)	698	11.010	53	N,N-Dimethylacetamide	982	20.015
	23	Carbon tetrachloride	706	11.202	54	Cyclohexanone	1000	20.663
	24	Isopropyl acetate	707	11.225	55	1,1,2,2-Tetrachloroethane	1011	21.077
	25	1-Butanol	711	11.330	56	4-Methylcyclohexanone	1062	22.915
	26	Benzene	717	11.488	57	Phenol	1069	23.173
	27	1,2-Dichloroethane	723	11.643	58	1,2-Dichlorobenzene	1119	25.637
	28	Trichloroethylene	749	12.318	59	o-Cresol	1126	26.082
	29	n-Propyl acetate	763	12.683	60	p-Cresol	1136	26.818
	30	2-Ethoxyethanol (Cellosolve)	770	12.872	61	m-Cresol	1137	26.868
	31	3-Methyl-1-butanol (Isoamyl alcohol)	781	13.148				

61种有机溶剂保留指数 (N2作为载气)

System : GC-FID
 Column : InertCap 1, InertCap 5, InertCap 25, InertCap 1301, InertCap 1701, InertCap 17, InertCap WAX, InertCap Pure-WAX
 0.25 mm I.D. × 60m df = 0.25 µm
 Col.Temp. : 40°C - 5°C/min - 220°C
 Carrier Gas : He 160 kPa
 Injection : Split flow 150 mL/min (仅InertCap 5 为192 mL/min) 240°C
 Detection : FID Range 10⁻⁹ 240°C
 Sample Size : Mixed evenly
 0.2 µL

名称	InertCap 1 GC Technical Note No.53	InertCap 5 GC Technical Note No.63	InertCap 25 GC Technical Note No.74	InertCap 1301 GC Technical Note No.75	InertCap 1701 GC Technical Note No.71	InertCap 17 GC Technical Note No.64	InertCap WAX GC Technical Note No.65	InertCap Pure-WAX GC Technical Note No.52
Acetone	460	487	548	525	581	617	820	808
Acetonitrile	445	484	580	540	620	658	1016	996
Benzene	645	659	714	679	714	768	949	936
1-Butanol	639	656	712	712	769	764	1142	1126
2-Butanol	579	600	639	639	699	693	1025	1011
tert-Butanol	506	517	556	560	614	607	903	888
2-Butanone (MEK)	567	596	654	629	685	720	908	895
2-Butoxyethanol (Butyl cellosolve)	886	906	966	949	1009	1030	1394	1388
n-Butyl acetate	795	756	867	838	879	919	1078	1064
Carbon disulfide	527	598	590	542	562	633	735	727
Carbon tetrachloride	651	660	703	668	691	740	885	874
Chlorobenzene	829	848	916	871	917	987	1219	1207
Chloroform	601	615	672	646	695	725	1027	1013
m-Cresol	1047	1072	1165	1186	1303	1277	2121	2065
o-Cresol	1026	1052	1141	1156	1265	1252	2029	1977
p-Cresol	1046	1071	1164	1184	1301	1276	2112	2057
Cyclohexanol	862	885	958	934	1002	1033	1395	1387
Cyclohexanone	861	897	995	945	1021	1089	1301	1286
1,2-Dichlorobenzene	1016	1042	1118	1072	1128	1216	1503	1483
1,2-Dichloroethane	622	644	721	678	729	785	1077	1055
cis-1,2-Dichloroethylene	589	607	661	630	672	717	1000	983
trans-1,2-Dichloroethylene	546	557	609	576	607	644	861	849
Dichloromethane	512	526	594	555	604	635	935	921
Diethyl ether	497	504	523	511	523	550	616	616
N,N-Dimethylacetamide	826	872	981	944	1039	1100	1406	1389
N,N-Dimethylformamide	735	782	895	853	952	1012	1333	1313
1,4-Dioxane	683	708	779	732	783	855	1072	1051
Ethanol	426	440	498	500	548	541	935	920
2-Ethoxyethanol (Cellosolve)	691	711	769	752	815	835	1219	1207
2-Ethoxyethyl acetate (Cellosolve acetate)	877	905	984	939	997	1063	1289	1281
Ethyl acetate	595	612	662	633	674	719	893	879
Ethylbenzene	848	864	918	882	917	977	1135	1121
n-Hexane	600	599	600	600	599	600	599	603
2-Hexanone (MBK)	763	787	851	827	881	912	1089	1071
Isobutyl acetate	739	813	822	799	836	870	1018	982
Isopentyl acetate (Isoamyl acetate)	857	875	927	902	941	978	1126	1115
Isopropyl acetate	639	657	709	684	720	753	903	893
Methanol	357	380	418	421	481	466	902	882
2-Methoxyethanol (Methyl cellosolve)	610	629	697	676	740	762	1179	1160
Methyl acetate	509	522	581	547	595	634	831	820
3-Methyl-1-butanol (Isoamyl alcohol)	715	730	781	783	841	832	1201	1191
1-Methylcyclohexanol	926	897	960	939	997	1025	1321	1311
4-Methylcyclohexanone	927	960	1051	1010	1079	1143	1349	1333
4-Methyl-2-pentanone (MIBK)	717	736	798	775	826	849	1014	1003
2-Methyl-1-propanol (Isobutyl alcohol)	608	622	667	672	730	719	1093	1073
1-Pentanol (Amyl alcohol)	745	763	818	815	874	871	1243	1233
n-pentyl acetate	894	912	968	939	980	1022	1173	1164
Phenol	952	976	1059	1098	1214	1167	2036	1980
1-Propanol	532	549	605	606	660	655	1039	1022
2-Propanol (Isopropyl alcohol)	471	491	530	532	593	585	927	914
n-propyl acetate	695	712	764	736	777	820	979	967
Styrene	875	894	960	918	963	1034	1263	1249
1,1,2,2-Tetrachloroethane	879	913	1007	966	1038	1092	1502	1492
Tetrachloroethylene	802	813	855	819	842	906	1029	1016
Tetrahydrofuran	611	627	683	645	687	742	866	855
Toluene	752	767	820	786	820	877	1050	1034
1,1,1-Trichloroethane	630	643	691	658	689	730	888	876
Trichloroethylene	685	701	746	715	743	799	1001	987
m-Xylene	857	871	925	890	925	983	1149	1135
o-Xylene	880	897	955	917	955	1019	1190	1178
p-Xylene	858	872	924	891	924	981	1143	1128



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