

## Features of Diamonsil® HPLC Columns

- General-purpose, highly inert reversed-phase columns
- Simultaneous separation of acids, bases, and neutral compounds with excellent peak shape
- Outstanding selectivity for efficient method development
- Uses high-purity silica with impurities less than 10 ppm
- Superior batch-to-batch reproducibility

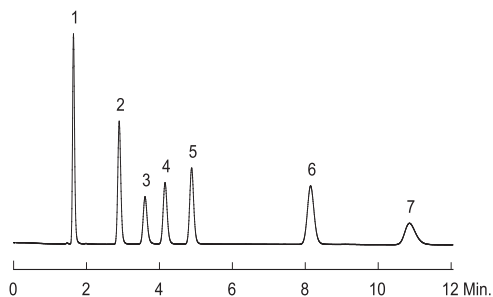


## Diamonsil® Material Characteristics

Bonded phase	Particle size (µm)	Pore size (Å)	Surface area (m <sup>2</sup> /g)	Purity (%)	Impurities (mg/kg)	Carbon loading (%)	pH range	Endcapping
C18	5	100	440	> 99.999	<10	17	2 - 7.5	Yes
C8	5	100	440	> 99.999	<10	10	2 - 7.5	Yes

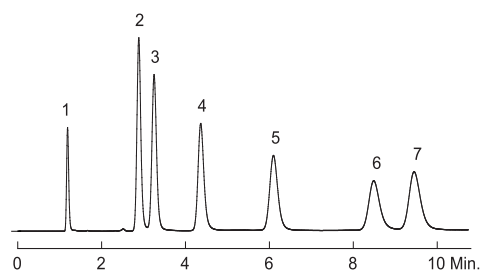
### Separation of Hydrophobic, Polar and Basic Mixture

Column: Diamonsil® 5 µm C18, 150 x 4.6 mm  
 Cat. No.: 99901  
 Mobile Phase: MeOH:20 mM KH<sub>2</sub>PO<sub>4</sub> + K<sub>2</sub>HPO<sub>4</sub> (pH 7) = 80:20  
 Flow Rate: 1.0 mL/min  
 Temperature: Ambient  
 Detection: UV 254 nm  
 Sample: 1. Uracil  
 2. Butyl paraben  
 3. Propranolol  
 4. Dipropyl phthalate  
 5. Naphthalene  
 6. Acenaphthene  
 7. Amitriptyline



### Strong Basic Compounds at High pH

Column: Diamonsil® 5 µm C18, 150 x 4.6 mm  
 Cat. No.: 99901  
 Mobile Phase: MeOH:5 mM NH<sub>4</sub>HCO<sub>3</sub> (pH 10) = 70:30  
 Flow Rate: 1.0 mL/min  
 Detection: UV 220 nm  
 Sample: 1. Impurity  
 2. Pindolol  
 3. Acebutolol  
 4. Metoprolol  
 5. Bisoprolol  
 6. Propranolol  
 7. Alprenolol



## Diamonsil® Ordering Information

### 5 µm Analytical Columns

Phases	150 x 4.6	200 x 4.6	250 x 4.6
Diamonsil® C18	99901	99902	99903
Diamonsil® C8	99801	-	99803

# Diamonsil®

## Features of Diamonsil® (2) HPLC Columns

- High efficiency and outstanding lifetime
- Excellent separation characteristics over wide pH range (1.5 - 9)
- Rapid separations with excellent resolution
- Faster method development
- Superior batch-to-batch reproducibility



The quality of packing material is the basis for all good chromatographic separation. Dikma silica is extremely pure (99.999%) and free of metals. Meticulous care is given to the quality control of surface smoothness, particle shape uniformity, pore structure, and pore consistency to ensure uniformity of particle structure and enhanced mechanical strength. Low percentages of fines from damaged silica particles strengthen the column bed, leading to low backpressure and enhanced column performance and lifetime.

Dikma incorporates a proprietary bonding technique to make Diamonsil® (2) packing much more efficient and stable across a broad pH range (1.5 - 9).

Dikma's proprietary endcapping technique covers unreacted silanols on the silica surface to eliminate unpredictable secondary interactions. Basic analytes tend to produce asymmetric tailed peaks on non endcapping columns, thereby leading to low column performance. Diamonsil® (2) columns are available in 3, 5, and 10 micron particle sizes. The bonded phases include C18 and C8. Column lengths range from 30 mm to 250 mm, and column dimensions range from 2 mm to 4.6 mm.

### Diamonsil® (2) Material Characteristics

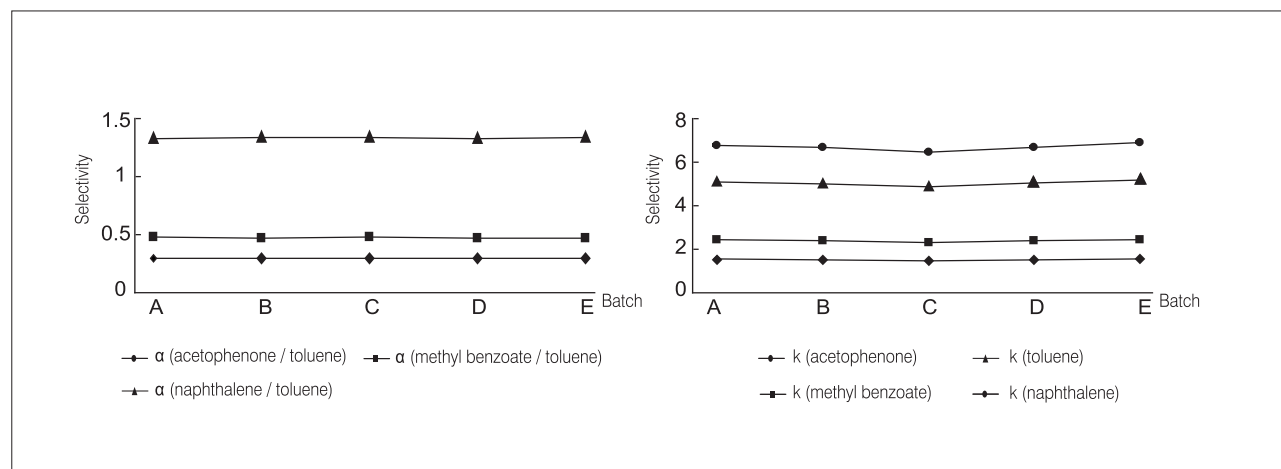
Bonded phase	Particle size (µm)	Pore size (Å)	Surface area (m <sup>2</sup> /g)	Purity (%)	Impurities (mg/kg)	Carbon loading (%)	pH range	Endcapping
C18(2)	3, 5, 10	100	440	> 99.999	<10	27	1.5 - 9	Yes
C8(2)	3, 5, 10	100	440	> 99.999	<10	17	1.5 - 9	Yes

## Superior Batch-to-Batch Reproducibility

Batch-to-batch reproducibility is essential for all analytical laboratories. Diamonsil® (2) columns are engineered with high purity raw silica, rigorously controlled manufacturing processes, and column packing procedures to ensure long-term reproducibility, letting you increase your laboratory's productivity and allowing for easier method transfer between labs around the world.

## Reproducibility Test

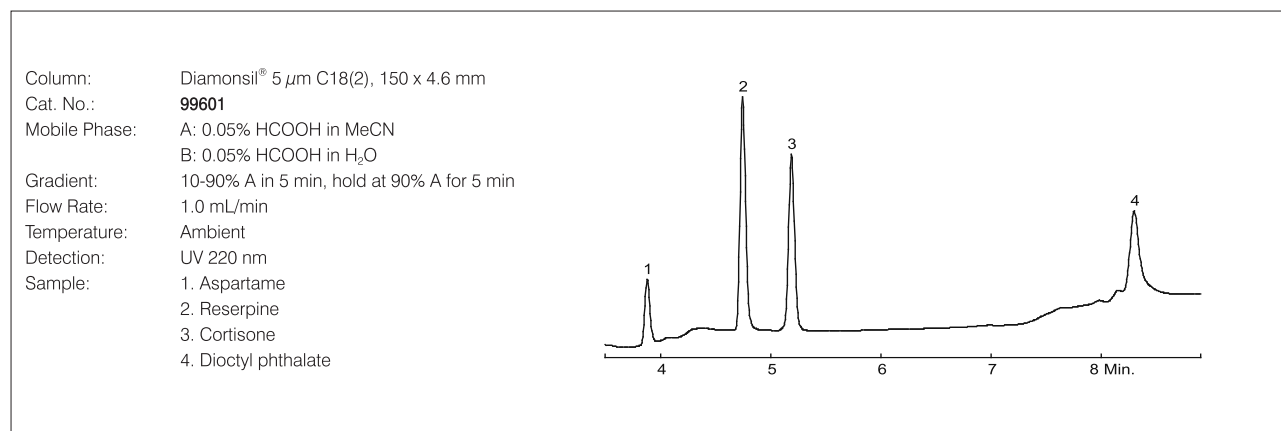
Five randomly selected batches demonstrated excellent reproducibility in the example shown:



## Efficient Method Development

The Dolan test\*\* was developed by Dr. John W. Dolan to accelerate the process of establishing a new RPLC/MS method. LC/MS performance test mix (LPTM) is composed of aspartame, cortisone, reserpine, and dioctyl phthalate to evaluate RPLC with a sample representative of molecules encountered in drug discovery. The compounds vary in polarity ( $\log P = -2$  to 8) and molecular weight (MW 294 to 608). LPTM contains a very hydrophilic compound (aspartame) and a very hydrophobic compound (dioctyl phthalate). It also contains two compounds (cortisone, reserpine) with very similar polarities to monitor the selectivity of the RPLC column. High quality separation of these components demonstrates the broad applicability of Diamonsil® C18(2) to a range of compounds with drug-like properties.

\*\*Tang, L.; Fitch, W.L.; Alexander, M.S.; Dolan J.W. *Anal. Chem.*, 2000, 72, 5211-5218. LC/MS Performance Test Mix



# Diamonsil®

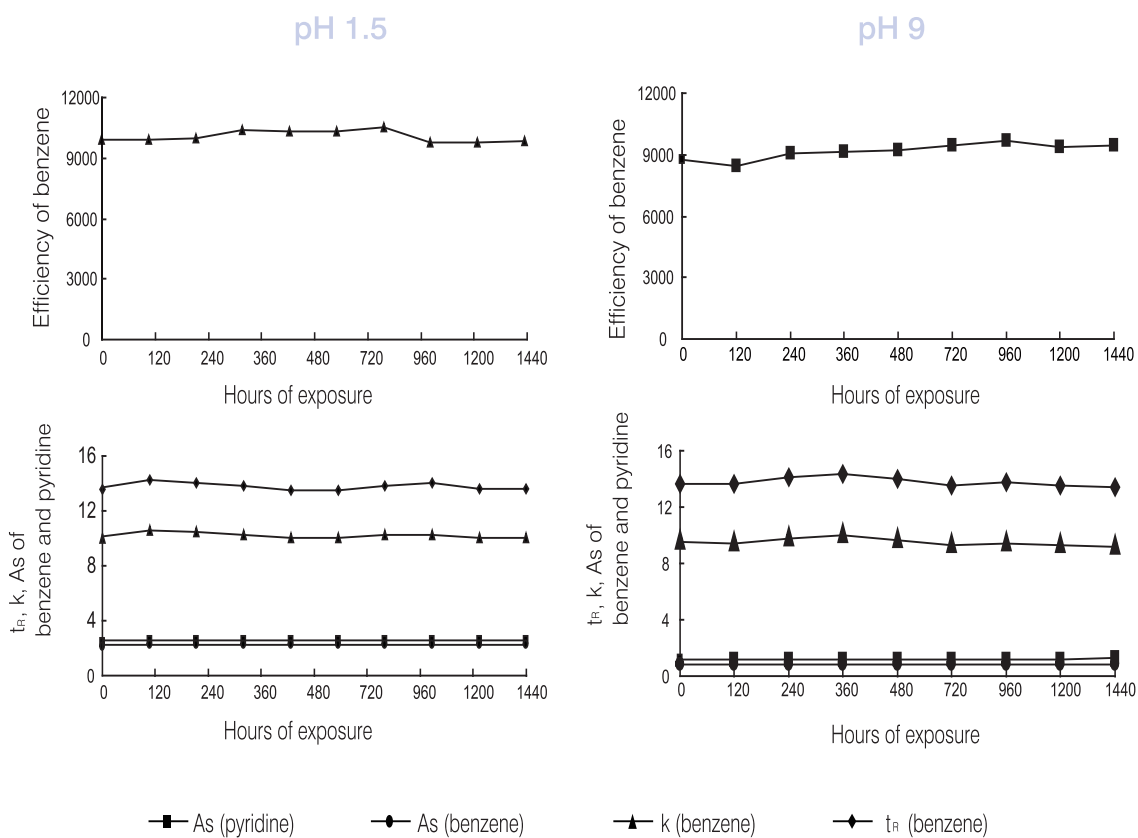
## Stable from pH 1.5 to 9

Generally, silica-based column packings are unstable under extreme pH mobile phases and can exhibit hydrolysis of the bonded phase at low pH (<2.0) and dissolution of silica at high pH (>7.5), resulting in significantly shortened column lifetime.

Dikma incorporates proprietary bonding and endcapping techniques, making Diamonsil® (2) packing much more stable across a pH range (1.5 - 9). In both low pH 1.5 and high pH 9 tests, Diamonsil® (2) columns undergo elution over 1,440 hours and show very little loss of retention time, capacity factor, and symmetry, exhibiting their unsurpassed endurance and stability.

## pH Stability Test

Column: Diamonsil® 5  $\mu$ m C18(2), 150 x 4.6 mm  
 Cat. No.: 99601  
 Mobile Phase: MeCN:20 mM phosphate buffer (pH 7) = 40:60  
 Flow Rate: 1.0 mL/min  
 Temperature: Ambient  
 Detection: UV 254 nm  
 Sample: 1. Uracil  
 2. Pyridine  
 3. Phenol  
 4. Benzene



### Flush solution (pH 1.5)

Mobile Phase: 1% TFA in MeCN:1% TFA in H<sub>2</sub>O = 50:50  
 Flow Rate: 1.0 mL/min  
 Temperature: Ambient

### Flush solution (pH 9)

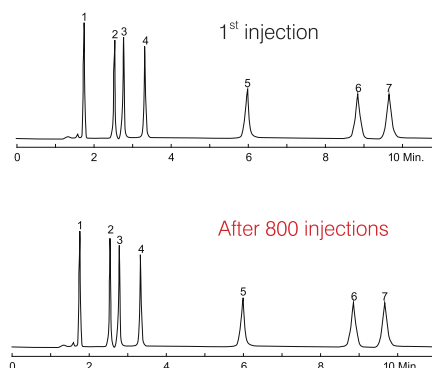
Mobile Phase: MeCN:20 mM phosphate buffer = 50:50  
 Flow Rate: 1.0 mL/min  
 Temperature: Ambient

## Long Lifetime

Columns that last longer not only save your money, but also save your time in establishing and verifying methods for a new column. With strict quality control of uniformity of particle structure and mechanical stability of the packed bed, Diamonsil® (2) columns deliver guaranteed, consistent performance across a long lifetime.

## Lifetime Test

Column: Diamonsil® 5  $\mu$ m C18(2), 150 x 4.6 mm  
 Cat. No.: 99601  
 Mobile Phase: 0.1% TFA in MeCN:0.1% TFA in H<sub>2</sub>O = 30:70  
 Flow Rate: 1.0 mL/min  
 Temperature: Ambient  
 Detection: UV 220 nm  
 Sample:  
 1. Nadolol  
 2. Pindolol  
 3. Acebutolol  
 4. Metoprolol  
 5. Labetolol  
 6. Propranolol  
 7. Alprenolol



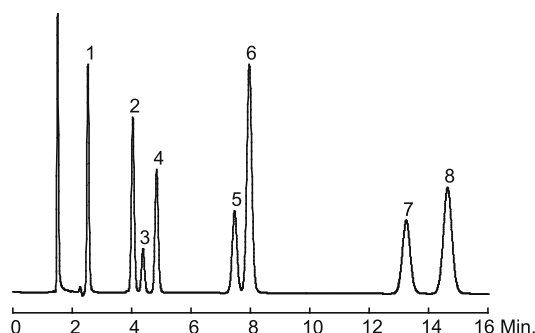
*Diamonsil® (2) columns last over 800 injections with minimal loss in efficiency, symmetry, and retention time.*

## Outstanding Selectivity and Resolution

When separating a complex mixture containing acid, basic, polar, and non-polar compounds, various columns show different selectivity and retention. Generally, with higher carbon loading and phase density, the RPLC column has better selectivity and resolution. Due to high phase density, Diamonsil® (2) columns show ultimate performance for analyzing complex mixtures.

## Caffeine Metabolites

Column: Diamonsil® 5  $\mu$ m C18(2), 150 x 4.6 mm  
 Cat. No.: 99601  
 Mobile Phase: MeOH:0.1% HCOOH in H<sub>2</sub>O = 10:90  
 Flow Rate: 1.0 mL/min  
 Temperature: Ambient  
 Detection: UV 254 nm  
 Sample:  
 1. Xanthine  
 2. 7-Methylxanthine  
 3. 1-Methyluric acid  
 4. 3-Methylxanthine  
 5. 1,3-Dimethyluric acid  
 6. Theobromine  
 7. 1,7-Dimethylxanthine  
 8. Theophylline

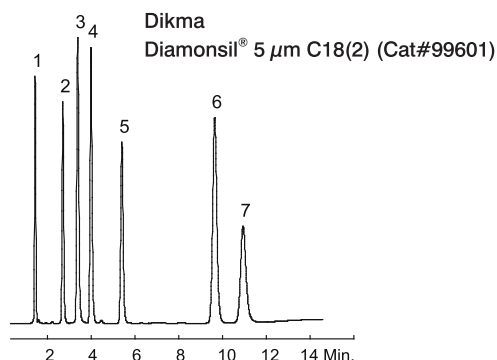


## Separation of Hydrophobic, Polar, and Basic Mixture\*

The Neue Test is a classic method for testing column selectivity. Uracil is used to determine the dead time of the column. Butyl paraben and dipropyl phthalate are polar neutral compounds; Naphthalene and acenaphthene are non-polar neutral compounds reflecting column hydrophobicity; Propranolol and amitriptyline are polar basic compounds. Partially endcapped reversed-phase columns will exhibit strong tailing during the separation of this mixture.

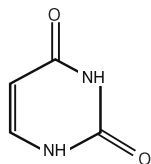
Column: Listed on chromatograms  
 Dimension: 150 × 4,6 mm  
 Mobile Phase: MeOH:20 mM phosphate buffer (pH 7) = 80:20  
 Flow Rate: 1.0 mL/min  
 Temperature: Ambient  
 Detection: UV 254 nm  
 Sample:

1. Uracil
2. Butyl paraben
3. Propranolol
4. Dipropyl phthalate
5. Naphthalene
6. Acenaphthene
7. Amitriptyline

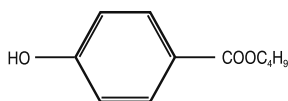


### Structures of hydrophobic, polar, and basic compounds investigated

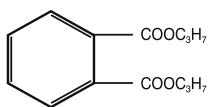
Uracil



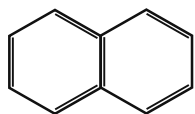
Butyl paraben



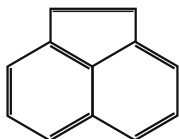
Dipropyl phthalate



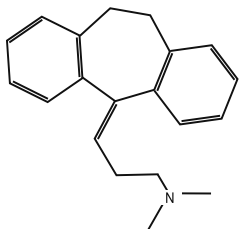
Naphthalene



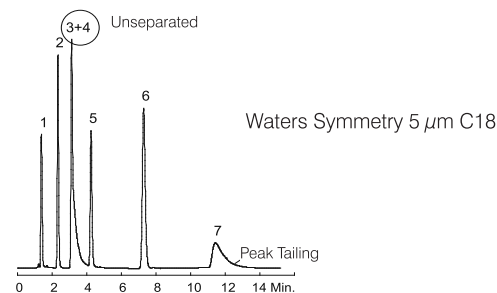
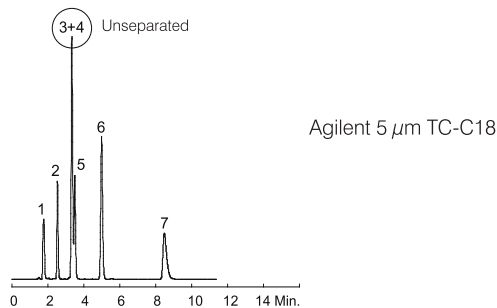
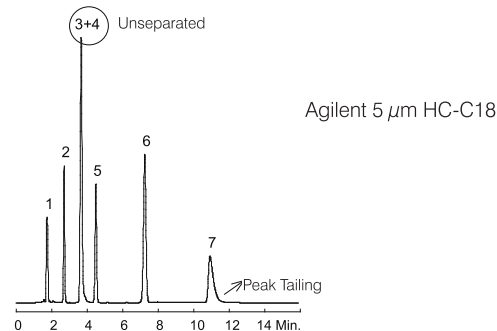
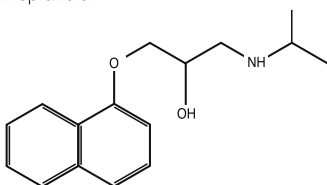
Acenaphthene



Amitriptyline



Propranolol



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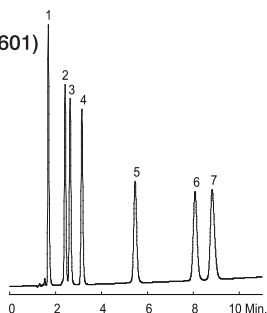
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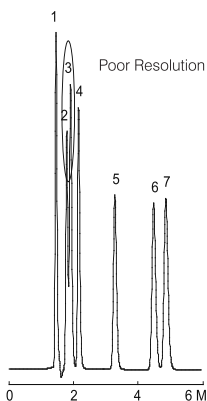
**β-Blockers at Low pH\***

Column: Listed on chromatograms  
 Dimension: 150 × 4.6 mm  
 Mobile Phase: 0.1% TFA in MeCN:0.1% TFA in H<sub>2</sub>O = 30:70  
 Flow Rate: 1.0 mL/min  
 Temperature: Ambient  
 Detection: UV 220 nm  
 Sample:  
 1. Nadolol  
 2. Pindolol  
 3. Acebutolol  
 4. Metoprolol  
 5. Labetolol  
 6. Propranolol  
 7. Alprenolol

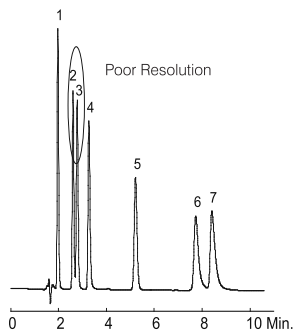
Dikma  
 Diamonsil® 5 μm C18(2) (Cat#99601)



Waters Symmetry 5 μm C18



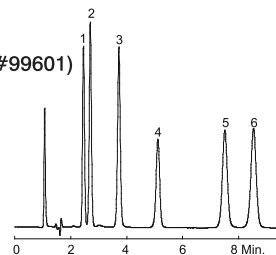
Agilent 5 μm HC-C18



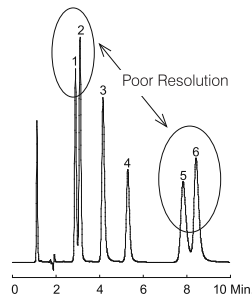
**β-Blockers at High pH\***

Column: Listed on chromatograms  
 Dimension: 150 × 4.6 mm  
 Mobile Phase: MeOH:5 mM NH<sub>4</sub>HCO<sub>3</sub> (pH 10) = 70:30  
 Flow Rate: 1.0 mL/min  
 Temperature: Ambient  
 Detection: UV 220 nm  
 Sample:  
 1. Pindolol  
 2. Acebutolol  
 3. Metoprolol  
 4. Bisoprolol  
 5. Propranolol  
 6. Alprenolol

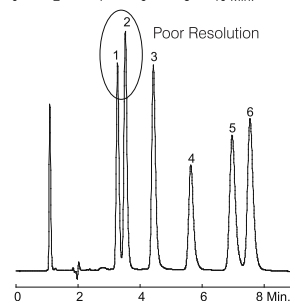
Dikma  
 Diamonsil® 5 μm C18(2) (Cat#99601)



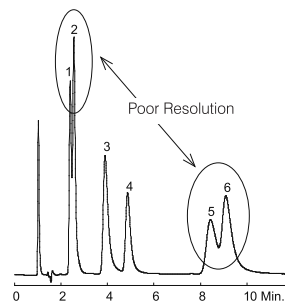
Agilent 5 μm TC-C18



Phenomenex Luna 5 μm C18



Waters Symmetry 5 μm C18

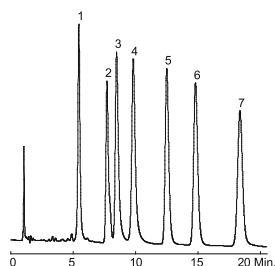


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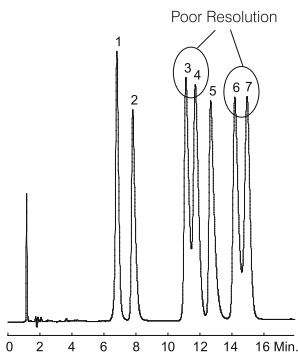
## TCAs at High pH\*

Column: Listed on chromatograms  
 Dimension: 150 × 4.6 mm  
 Mobile Phase: MeOH:5 mM NH<sub>4</sub>HCO<sub>3</sub> (pH 10) = 80:20  
 Flow Rate: 1.0 mL/min  
 Temperature: Ambient  
 Detection: UV 254 nm  
 Sample: 1. Nordoxepin  
 2. Doxepin  
 3. Desipramine  
 4. Nortriptyline  
 5. Imipramine  
 6. Amitriptyline  
 7. Trimipramine

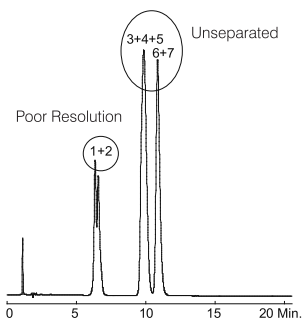
Dikma  
 Diamonsil® 5 μm C18(2) (Cat#99601)



Agilent 5 μm HC-C18



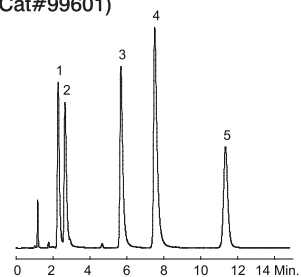
Agilent 5 μm TC-C18



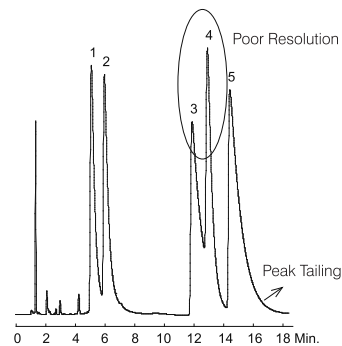
## TCAs at Neutral pH\*

Column: Listed on chromatograms  
 Dimension: 150 × 4.6 mm  
 Mobile Phase: MeCN:20 mM phosphate buffer (pH 7) = 2:1  
 Flow Rate: 1.0 mL/min  
 Temperature: Ambient  
 Detection: UV 254 nm  
 Sample: 1. Desipramine  
 2. Nortriptyline  
 3. Imipramine  
 4. Amitriptyline  
 5. Trimipramine

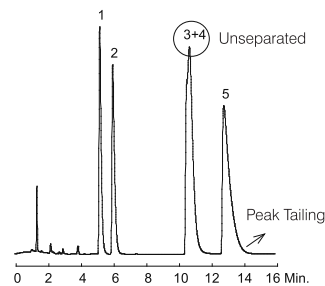
Dikma  
 Diamonsil® 5 μm C18(2) (Cat#99601)



Agilent 5 μm HC-C18



Agilent 5 μm TC-C18



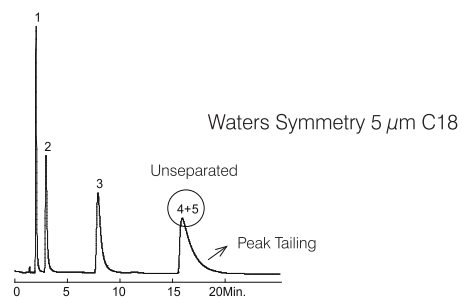
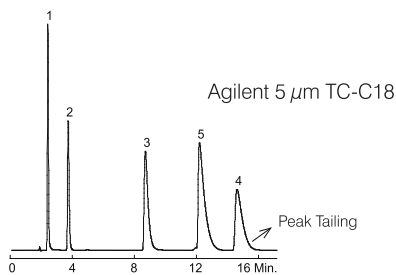
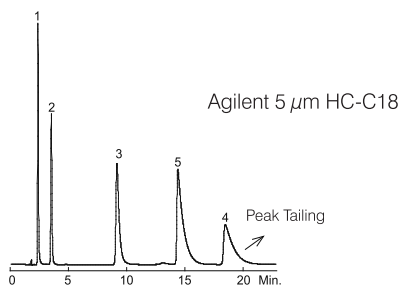
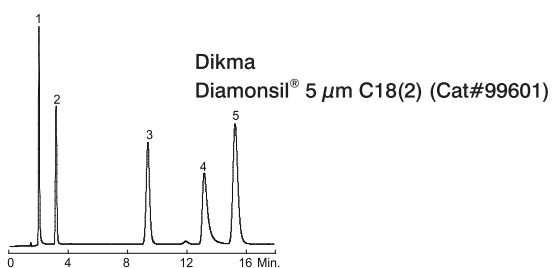
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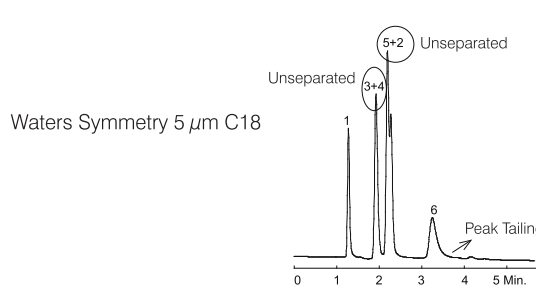
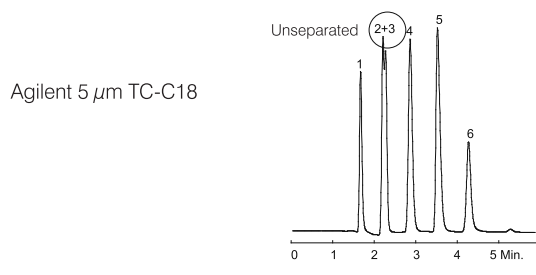
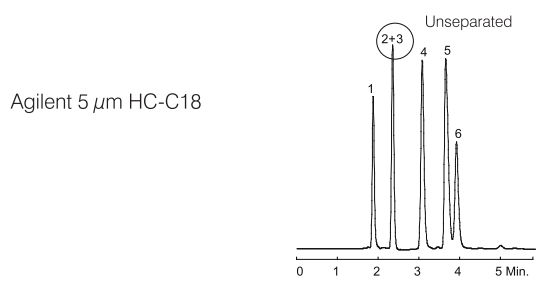
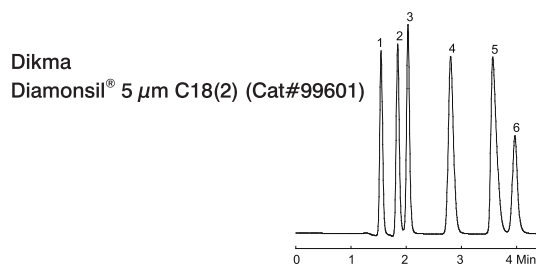
### McCalley Test - Separation of Strong Basic Compounds at Neutral pH Conditions \*

Column: Listed on chromatograms  
 Dimension: 150 × 4.6 mm  
 Mobile Phase: MeOH:20 mM phosphate buffer (pH 7) = 65:35  
 Flow Rate: 1.0 mL/min  
 Temperature: Ambient  
 Detection: UV 254 nm  
 Sample: 1. Pyridine  
 2. Codeine  
 3. Quinine  
 4. Nortriptyline  
 5. Diphenhydramine



### Water-Soluble Vitamins \*

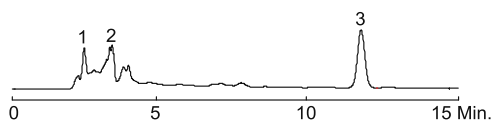
Column: Listed on chromatograms  
 Dimension: 150 × 4.6 mm  
 Mobile Phase: MeOH:10 mM HCOONH<sub>4</sub> (pH 3) = 5:95  
 Flow Rate: 1.0 mL/min  
 Temperature: Ambient  
 Detection: UV 254 nm  
 Sample: 1. Pyridoxamine  
 2. Orotic acid  
 3. L -Ascorbic acid  
 4. Pyridoxal  
 5. Pyridoxol  
 6. Nicotinamide



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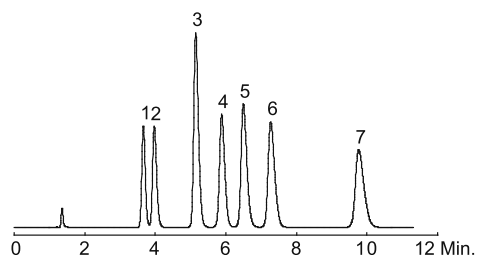
## Polygonum Multiflorum

Column: Diamonsil® 5 µm C18(2), 150 x 4.6 mm  
 Cat. No.: 99601  
 Mobile Phase: MeCN:H<sub>2</sub>O=70:30  
 Flow Rate: 1.0 mL/min  
 Temperature: Ambient  
 Detection: UV 220 nm  
 Sample: 1. Impurity a  
 2. Impurity b  
 3. 2,3,5,4'-tetrahydroxy stilbene-2-O -β -glucosidase



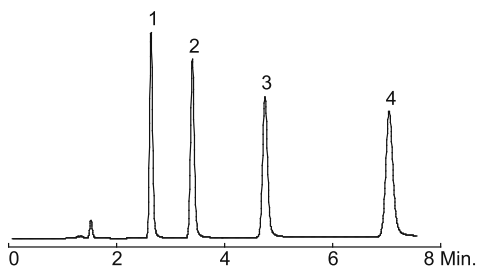
## TCAs

Column: Diamonsil® 5 µm C18(2), 150 x 4.6 mm  
 Cat. No.: 99601  
 Mobile Phase: 0.1% TFA in MeCN:0.1% TFA in H<sub>2</sub>O = 40:60  
 Flow Rate: 1.0 mL/min  
 Temperature: Ambient  
 Detection: UV 254 nm  
 Sample: 1. Nordoxepin  
 2. Doxepin  
 3. Desipramine  
 4. Nortriptyline  
 5. Amitriptyline  
 6. Trimipramine  
 7. Clomipramine



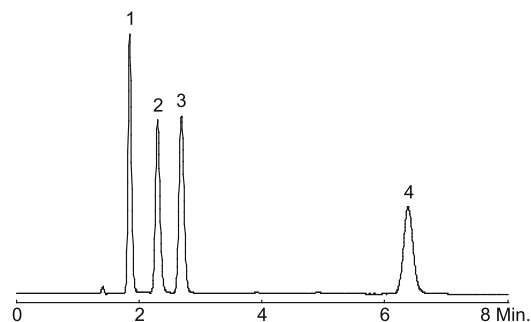
## Parabens

Column: Diamonsil® 5 µm C18(2), 150 x 4.6 mm  
 Cat. No.: 99601  
 Mobile Phase: MeCN:20 mM K<sub>2</sub>HPO<sub>4</sub> (pH 7) = 50:50  
 Flow Rate: 1.0 mL/min  
 Temperature: Ambient  
 Detection: UV 254 nm  
 Sample: 1. Methyl paraben  
 2. Ethyl paraben  
 3. Propyl paraben  
 4. Butyl paraben



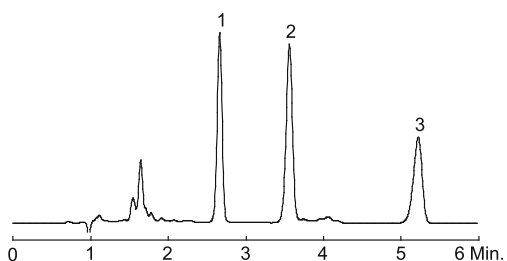
## Alkaloids

Column: Diamonsil® 5 µm C18(2), 150 x 4.6 mm  
 Cat. No.: 99601  
 Mobile Phase: MeOH:20 mM KH<sub>2</sub>PO<sub>4</sub> (pH 2.3) = 42:58  
 Flow Rate: 1.0 mL/min  
 Temperature: Ambient  
 Detection: UV 254 nm  
 Sample: 1. Theobromine  
 2. Quinine  
 3. Hydrastine  
 4. Berberine



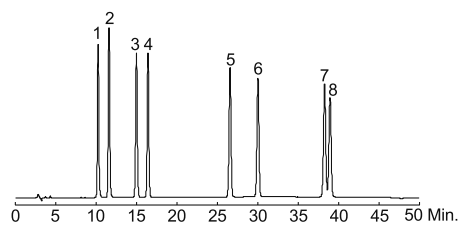
## Unsaturated Fatty Acids

Column: Diamonsil® 5 µm C18(2), 150 x 4.6 mm  
 Cat. No.: 99601  
 Mobile Phase: 0.1% TFA in MeCN:0.1% TFA in H<sub>2</sub>O = 95:5  
 Flow Rate: 1.5 mL/min  
 Temperature: Ambient  
 Detection: UV 214 nm  
 Sample: 1. Linolenic acid  
 2. Linoleic acid  
 3. Oleic acid



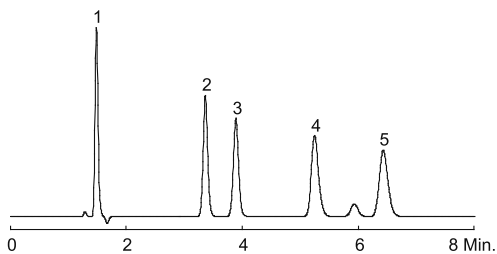
## Sulfa Drugs

Column: Diamonsil® 5 µm C18(2), 250 x 4.6 mm  
 Cat. No.: 99603  
 Mobile Phase: A: MeCN  
 B: 2% CH<sub>3</sub>COOH  
 Gradient: 12-25% A in 30 min; hold at 25% A for 10 min;  
 25-12% A in 1 min; hold at 12% A for 9 min  
 Flow Rate: 1.0 mL/min  
 Temperature: 35 °C  
 Detection: UV 270 nm  
 Sample: 1. Sulfapyridine 5. Sulfamethoxazole  
 2. Sulfamerazine 6. Sulfisoxazole  
 3. Sulfamethazine 7. Sulfaquinoxaline  
 4. Sulfamethoxypridazine 8. Sulfadimethoxine



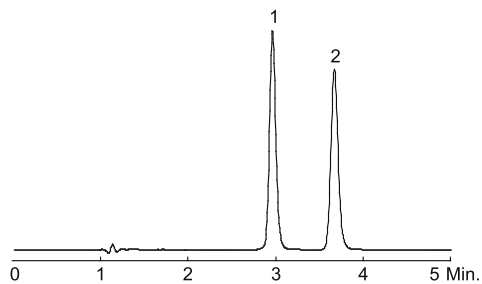
## Cold Medicine

Column: Diamonsil® 5 µm C18(2), 150 x 4.6 mm  
 Cat. No.: 99601  
 Mobile Phase: 0.1% TFA in MeCN:0.1% TFA in H<sub>2</sub>O = 35:65  
 Flow Rate: 1.0 mL/min  
 Temperature: Ambient  
 Detection: UV 220 nm  
 Sample: 1. Doxylamine  
 2. Acetanilide  
 3. Aspirin  
 4. Dextromethorphan  
 5. Diphenhydramine



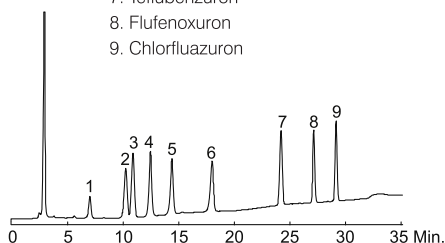
## Natural Products

Column: Diamonsil® 5 µm C18(2), 150 x 4.6 mm  
 Cat. No.: 99601  
 Mobile Phase: MeCN:H<sub>2</sub>O = 70:30  
 Flow Rate: 1.0 mL/min  
 Temperature: Ambient  
 Detection: UV 220 nm  
 Sample: 1. Capsaicin  
 2. Dihydrocapsaicin



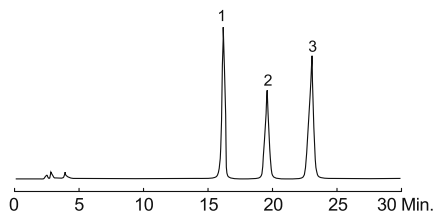
### Benzoylurea and Bishydrazide

Column: Diamonsil® 5 µm C18(2), 250 x 4.6 mm  
 Cat. No.: 99603  
 Mobile Phase: A: MeOH  
 B: H<sub>2</sub>O  
 Gradient: hold at 75% A for 5 min; 75-80% A in 10 min; 80-95% A in 15 min  
 Flow Rate: 1.0 mL/min  
 Temperature: 30 °C  
 Detection: UV 248 nm  
 Sample: 1. Methoxyfenozide  
 2. Tebufenozide  
 3. Diflubenzuron  
 4. Chlorbenzuron  
 5. Triflumuron  
 6. Hexaflumuron  
 7. Teflubenzuron  
 8. Flufenoxuron  
 9. Chlorfluazuron



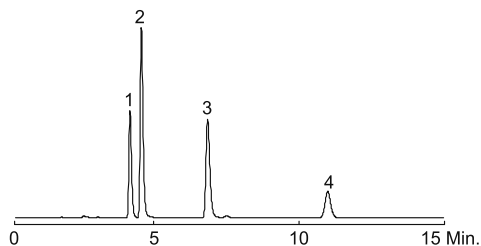
### Vitamin E

Column: Diamonsil® 5 µm C18(2), 250 x 4.6 mm  
 Cat. No.: 99603  
 Mobile Phase: MeOH:H<sub>2</sub>O = 98:2  
 Flow Rate: 1.0 mL/min  
 Temperature: 30 °C  
 Detection: FI, Ex: 290 nm, Em: 340 nm  
 Sample: 1. δ -Vitamin E  
 2. (β + γ)-Vitamin E  
 3. α -Vitamin E



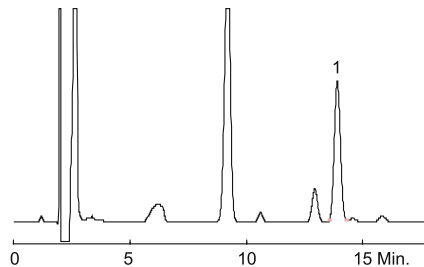
### Phridine Compounds

Column: Diamonsil® 5 µm C18(2), 200 x 4.6 mm  
 Cat. No.: 99602  
 Mobile Phase: 5 mM Octanesulfonate (adjust to pH 2.5 with HClO<sub>4</sub>):MeOH = 65:35  
 Flow Rate: 1.0 mL/min  
 Temperature: 35 °C  
 Detection: UV 261 nm  
 Sample: 1. Pyridine-2-Carboxamide  
 2. 2-Cyanopyridine  
 3. Pyridine  
 4. 2-Methylpyridine



### Melamine

Column: Diamonsil® 5 µm C18(2), 250 x 4.6 mm  
 Cat. No.: 99603  
 Mobile Phase: MeCN:buffer = 8:92  
 Buffer: mixed 2.02 g sodium heptane sulfonate and 2.10 g citric acid with H<sub>2</sub>O, setting volume to 1000 mL  
 Flow Rate: 1.0 mL/min  
 Temperature: 30 °C  
 Detection: UV 240 nm  
 Sample: 1. Melamine



## Diamonsil (2) Ordering Information

3  $\mu\text{m}$  Microbore Columns (2.1 mm)

Guard Cartridges, 2/pk

Phases	30 x 2.1	50 x 2.1	100 x 2.1	150 x 2.1	200 x 2.1	250 x 2.1	10 x 2.1
Diamonsil® C18(2)	99631	99611	99612	99613	—	99615	6311
Diamonsil® C8(2)	99681	99661	99662	99663	—	99665	6312

3  $\mu\text{m}$  Analytical Columns (3.0 mm)

Phases	30 x 3.0	50 x 3.0	100 x 3.0	150 x 3.0	200 x 3.0	250 x 3.0	10 x 2.1
Diamonsil® C18(2)	99632	99621	99622	99623	—	99625	6311
Diamonsil® C8(2)	99682	99671	99672	99673	—	99675	6312

3  $\mu\text{m}$  Analytical Columns (4.6 mm)

Phases	30 x 4.6	50 x 4.6	100 x 4.6	150 x 4.6	200 x 4.6	250 x 4.6	10 x 4.0
Diamonsil® C18(2)	99633	99616	99617	99618	99619	99620	6331
Diamonsil® C8(2)	99683	99666	99667	99668	99669	99670	6332

5  $\mu\text{m}$  Analytical Columns (3.0 mm)

Phases	30 x 3.0	50 x 3.0	100 x 3.0	150 x 3.0	200 x 3.0	250 x 3.0	10 x 2.1
Diamonsil® C18(2)	99635	99626	99627	99628	—	99630	6313
Diamonsil® C8(2)	99685	99676	99677	99678	—	99680	6314

5  $\mu\text{m}$  Analytical Columns (4.6 mm)

Phases	30 x 4.6	50 x 4.6	100 x 4.6	150 x 4.6	200 x 4.6	250 x 4.6	10 x 4.0
Diamonsil® C18(2)	99636	99609	99610	99601	99602	99603	6333
Diamonsil® C8(2)	99686	99659	99660	99650	99652	99651	6334

5  $\mu\text{m}$  and 10  $\mu\text{m}$  Semi-preparative Columns

Guard Cartridges, 2/pk

Phases	Particle Size ( $\mu\text{m}$ )	250 x 4.6 Cat.No.	250 x 10.0 Cat.No.	150 x 21.2 Cat.No.	250 x 21.2 Cat.No.	10 x 10.0 Cat.No.	10 x 21.2 Cat.No.
Diamonsil® C18(2)	5	99603	99644	99770	99645	6335	6336
Diamonsil® C8(2)	5	99651	99694	99771	99695	6339	6340
Diamonsil® C18(2)	10	99641	99642	99774	99643	6337	6338
Diamonsil® C8(2)	10	99691	99692	99775	99693	6341	6342

10 mm Guard Holder: Cat#6221, 21.2 mm Guard Holder: Cat#6222

# Diamonsil®

## Diamonsil® AAA Columns

Diamonsil® AAA columns show outstanding selectivity and high resolution. Eighteen kinds of natural amino acids, an internal standard, and ammonia can be detected simultaneously using PITC and DNFB reagents.

The analysis method is stable and highly reproducible, and can therefore be used for quantitative as well as qualitative analysis.

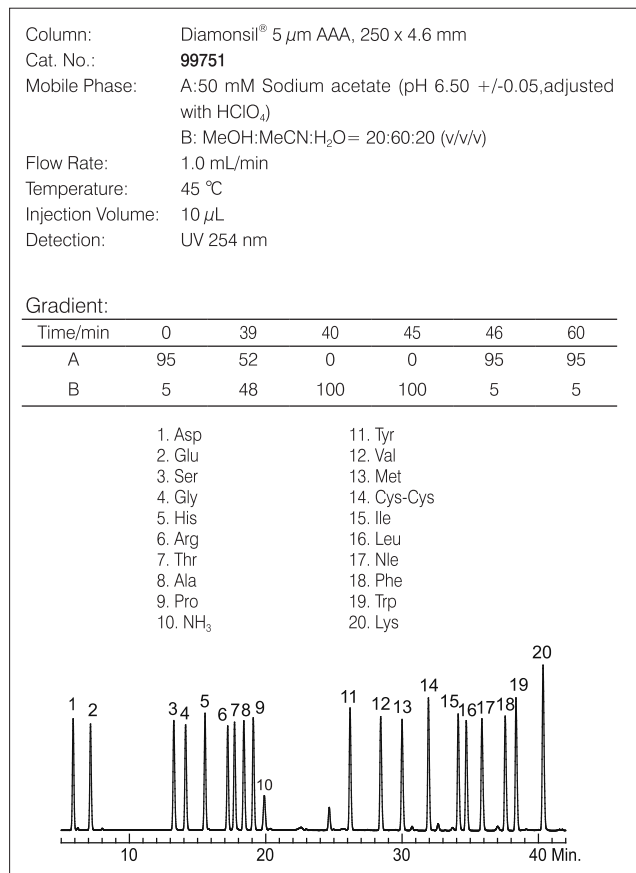
A variety of interfering factors such as reagents, byproducts, solvents, etc., can be removed by rapid extraction.

Every AAA column passes the test of separation of eighteen natural amino acids.

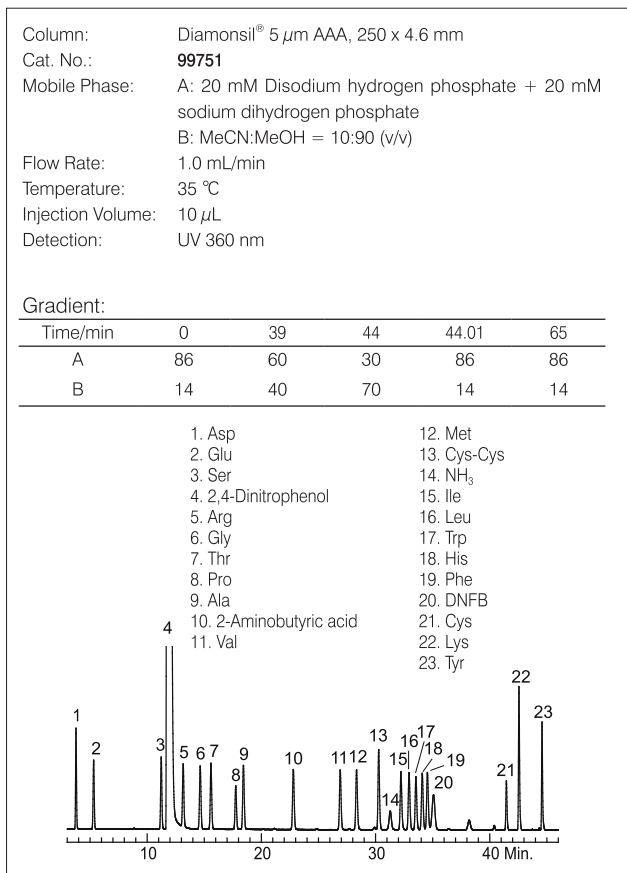
In proteomics and food quality tests, amino acid analysis (AAA) is often used as a tool to determine the exact composition of the amino acid (AA) sample, so the improvement of amino acid analysis (AAA) is highly emphasized.

Diamonsil® AAA column is a new product made by Dikma Technologies Inc. which can perform amino acid analysis using two different amino acid derivative methods upon changing the chromatograph condition.

### Eighteen Natural Amino Acids, Norleucine, and NH<sub>3</sub>-PITC Derivatives



### Eighteen Natural Amino Acids, 2,4-Dinitrophenol, DNFB, Cysteine, 2-Aminobutyric Acid, and NH<sub>3</sub>-DNFB Derivatives



### Diamonsil® AAA Ordering Information

#### 5 µm Analytical Columns

Phase	250 x 4.6
Diamonsil® AAA	99751