

# Shimadzu Specialty Consumables Solution



# Shimadzu Consumables

## Dedicated to delivering One-Stop Solutions for you

Shimadzu(Shanghai) Global Laboratory Consumables Co.,Ltd (Abbreviated as SGLC) is a wholly-owned subsidiary of the Shimadzu Group. Our core business covers genuine spare parts for analytical instruments, chromatography columns and other analytical consumables, certified reference materials and reagents, biological reagents/laboratory consumables for life sciences, and peripheral devices.

SGLC looks forward to joining hands with you. With sincerity at heart, we strive to advance science and technology, safeguard the long-term future of our planet, and contribute to the realization of humanity's finest aspirations.



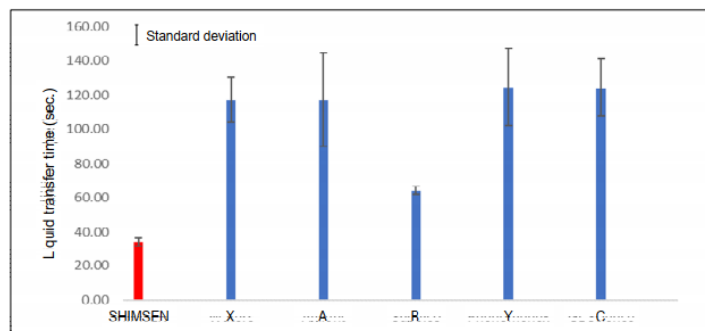
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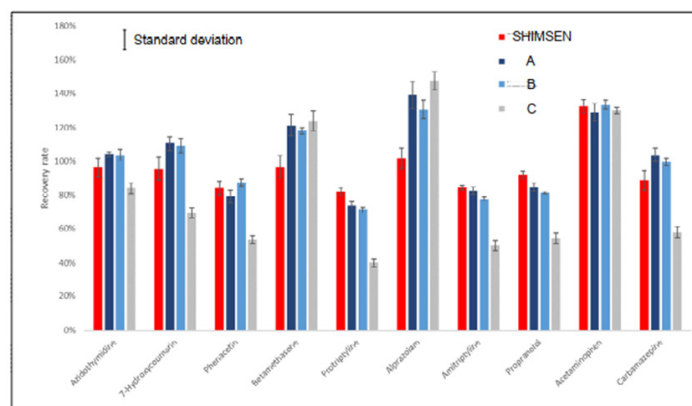
# SHIMSEN Styra SPE Column

## Faster Flow Unlocks Greater Recovery

- Using spherical polymer fillers with uniform particle size.
- Large-particle fillers enables smooth sample flow through.
- Large-particle fillers ensure rapid sample passage.



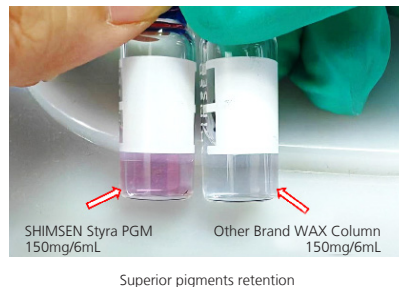
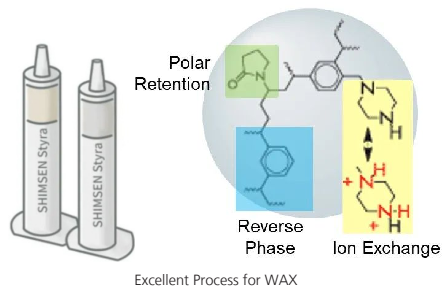
Liquid transfer time for each SPE product



Compound recovery rate after SPE treatment by each product

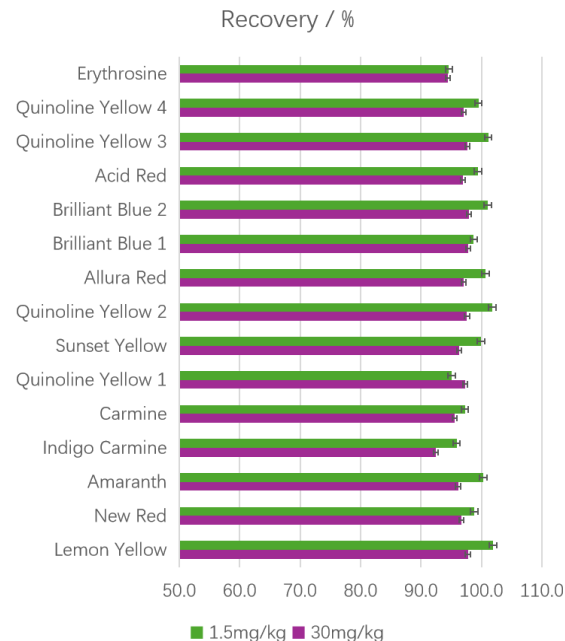
# SHIMSEN Styra PGM for food pigments

Rapid column passage, High recovery guaranteed



## Product Advantages:

- High piperazine bonding ensures compatibility with diverse matrices such as tea, preserved fruits, soy sauce-marinated foods, and traditional Chinese medicine.
- The large particle size design allows for rapid column flow with droplet-like elution, guaranteeing comprehensive recovery rates.





# SHIMASEN QuEChERS III

## Pure fillers ensure high recovery

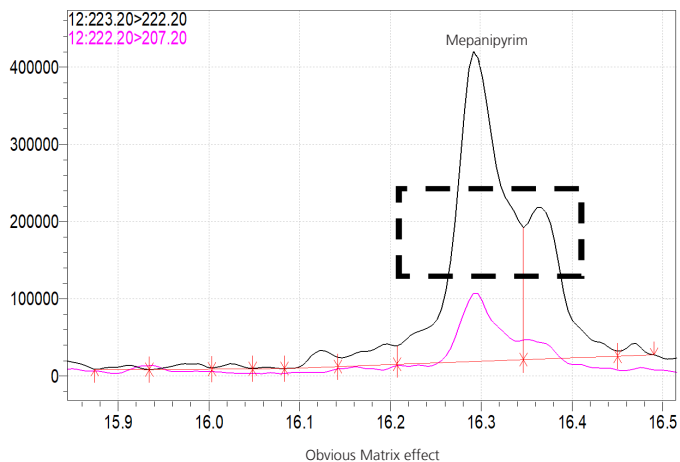
- PSA Silica C18 GCB with enhanced key parameters ensure high recovery, low matrix effects, excellent stability
- Pre-cut for easy opening and pouring of the fillers.
- Centrifuge tubes are leak-proof, with low extractables and low adsorption.
- Accurately matches multiple standards, including EN, AOAC, and GB.



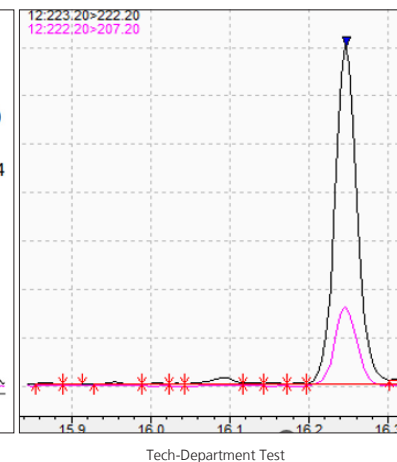
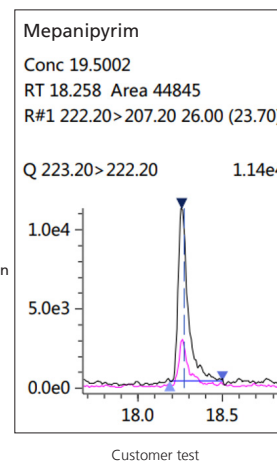
SHIMASEN QuEChERS Extraction Salt



SHIMASEN QuEChERS Dispersive Tube



After purification

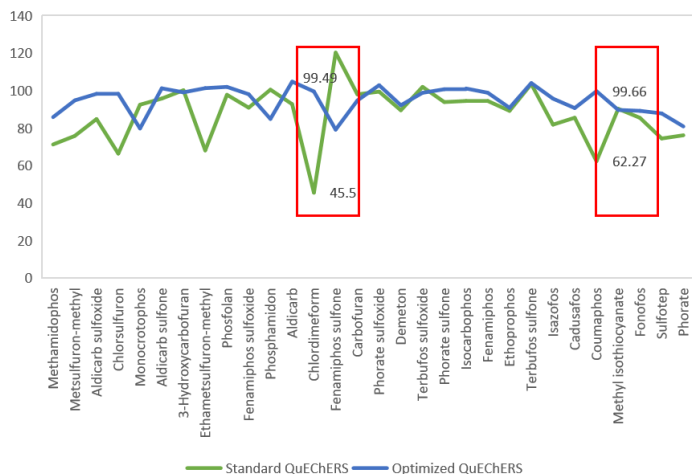


# SHIMSEN QuEChERS For Traditional Chinese Medicine Pesticide Residue Kit

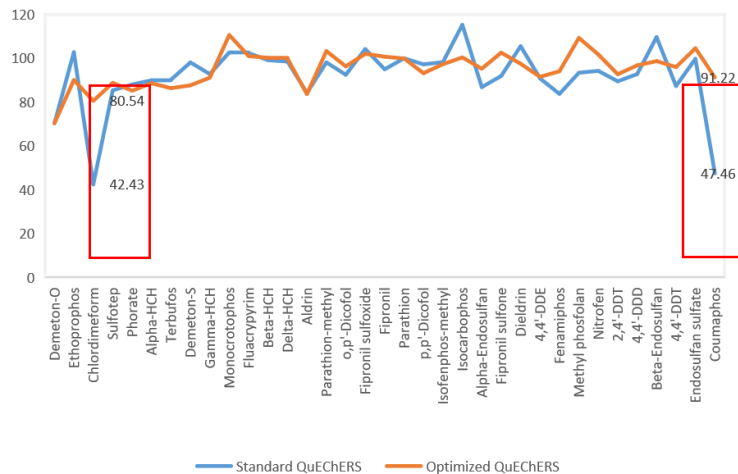
## Optimized QuEChERS to perfectly solve difficult compounds

### Product Advantages:

- Pure fillers with high bonding capacity, stronger impurity removal.
- Pre-cut for easy opening and pouring of the fillers.
- For carbofuran, dichlorvos, and hexachlorobenzene, the pesticide residue optimization kit improves recovery rates.



LC-MS/MS recovery comparison of Carbofuran and Dichlorvos



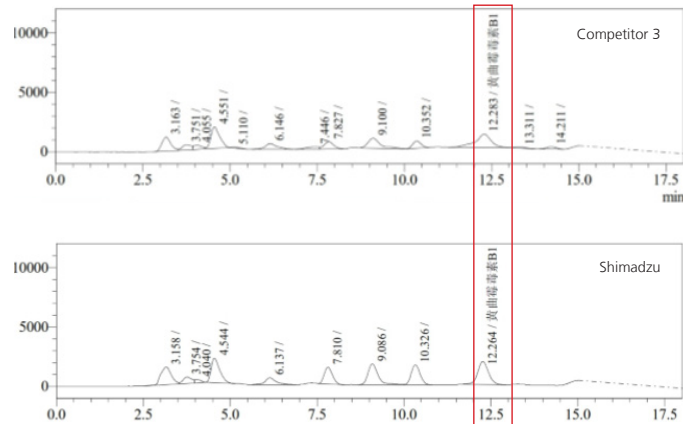
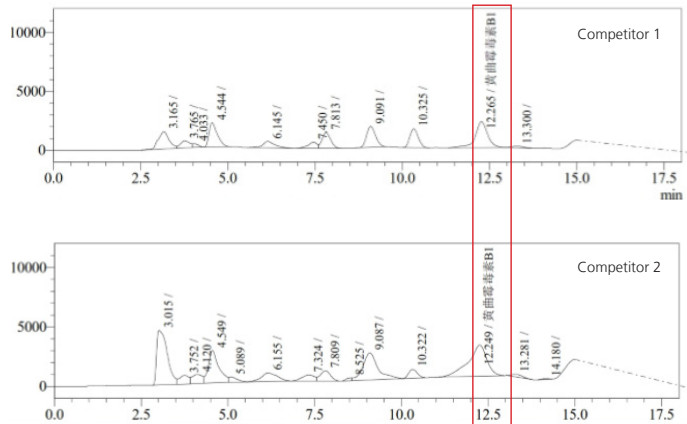
LC-MS/MS recovery comparison of Carbofuran and Dichlorvos

# SHIMSEN Immunoaffinity Column

## Targeted Enrichment, Efficient Purification

### Product Advantages:

- For matrices with high interference like Yuanzhi, our product has high recovery rates and great stability.
- For easily clogging matrices like wheat flour, it ensures quick passage and high recovery rates.



## Shim-pack Scepter Claris series column

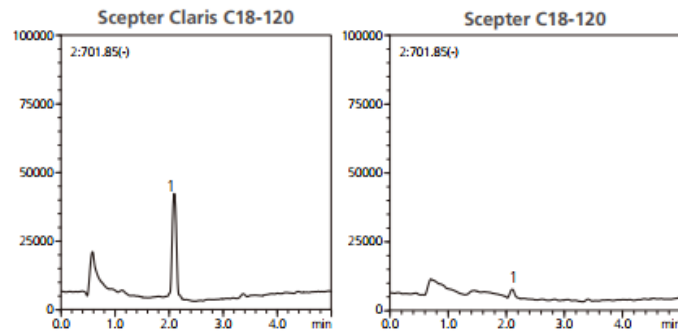
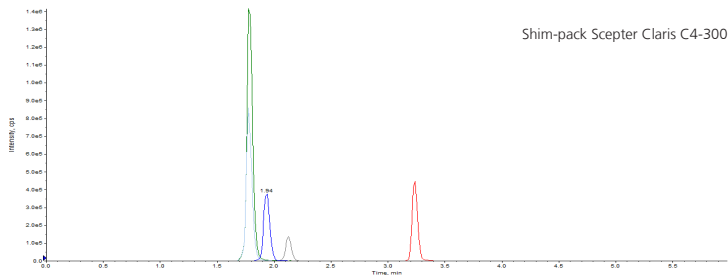
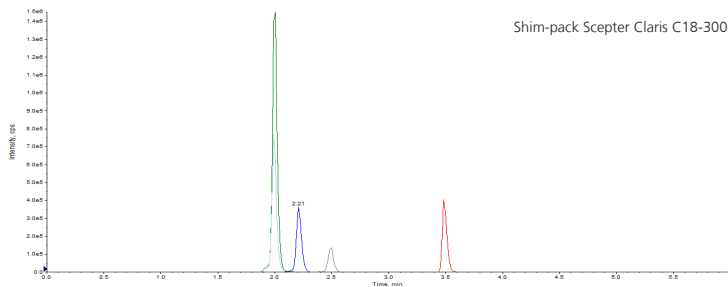
- Bioinert coating is applied to the column body and stainless steel frit.
- Ideal for analysis of metal-coordinating and hydrophobically adsorbing compounds such as nucleic acids, proteins, and lipids.
- Outstanding pH and lifetime stability due to Scepter organic silica hybrid packing.

Bioinert coating

Stainless steel

Column holder

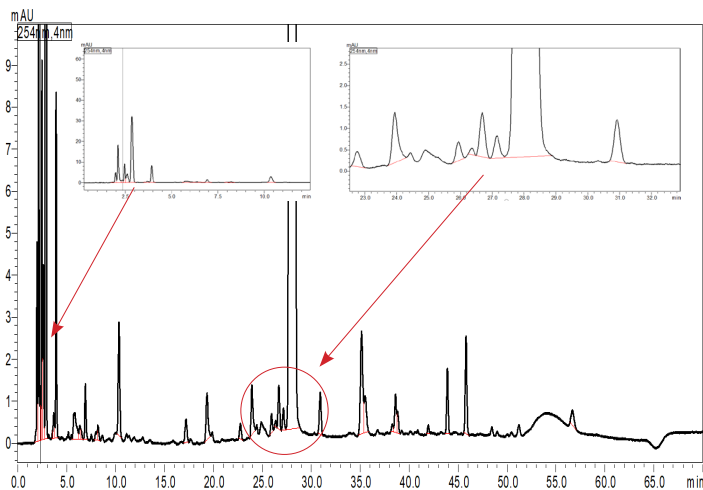
Analysis of oligonucleotides



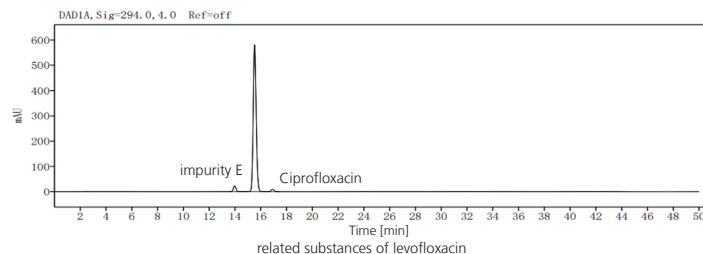
Claris columns improve the analysis sensitivity of nucleic acid samples

# ShimNex RX C18

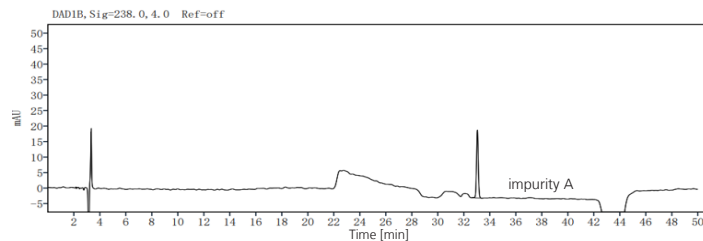
- Special bonding technology makes the columns resistant to a wide range of pH.
- Excellent packing control technology is adopted to achieve a more uniform particle size and high column efficiency.
- The packing parameters are designed with more moderate specific surface area and high carbon loading capacity, which are widely used in the separation and analysis of different types of compounds.
- Adoption of multiple capping technology, which makes the column more inert.



Isolation analysis of ceftene hydrochloride



related substances of levofloxacin



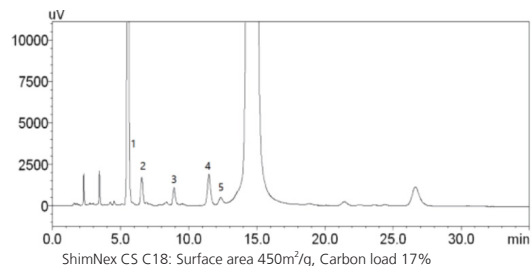
levofloxacin impurity A

# ShimNex CS C18

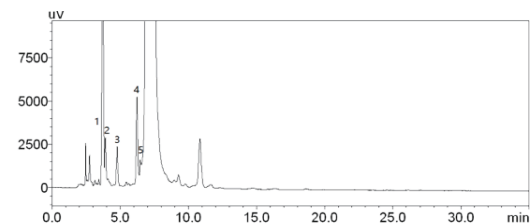
- Because of the multiple end-capping, the adsorption of ionized compounds was lower.
- Optimized surface area design with higher carbon load results in stronger retention, which is better for separation. So, the ShimNex CS C18 column is an ideal choice for method development especially for the complex component analysis.
- To ensure good batch reproducibility of the column. The synthesis of silica, the chemical processing of silica surface and the filling are all tested and controlled by strict quality standards.



Analysis of moxifloxacin

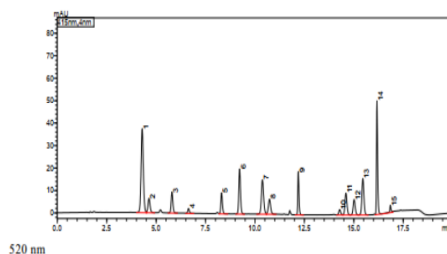


ShimNex CS C18: Surface area 450m<sup>2</sup>/g, Carbon load 17%

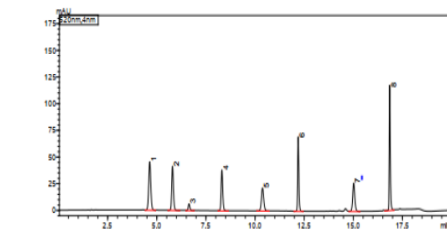


Brand C C18: Surface area 220m<sup>2</sup>/g, Carbon load 10%

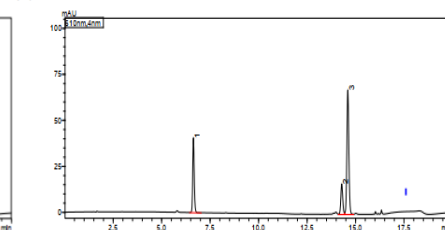
415 nm Rapid Analysis of Synthetic Colorants (GB 5009.35-2023)



520 nm



610 nm



## Sample:

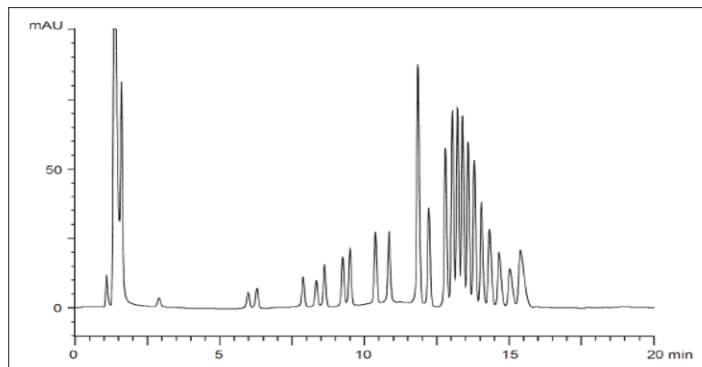
- |                       |                        |
|-----------------------|------------------------|
| 1. Tartrazine         | 10. Bright blue 1      |
| 2. New red            | 11. Bright blue 2      |
| 3. Amaranth red       | 12. Acid red           |
| 4. Indigo             | 13. Quinoline yellow 3 |
| 5. Carmine            | 14. Quinoline yellow 4 |
| 6. Quinoline yellow 1 | 15. Red moss red       |
| 7. Sunset yellow      |                        |
| 8. Quinoline yellow 2 |                        |
| 9. Tempration red     |                        |

## Shim-pack Bio IEX Q-NP

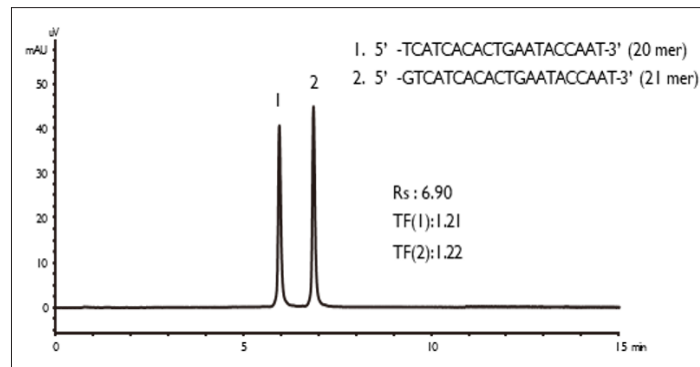
The porous particles offer excellent binding capacity with exceptionally high efficiency and the non-porous particles offer high efficiency and exceptional resolution.



DNA fragments were isolated using Shim-pack BIO IEX Q-NP



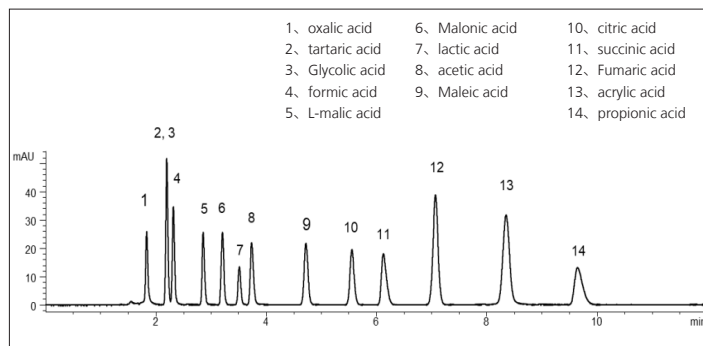
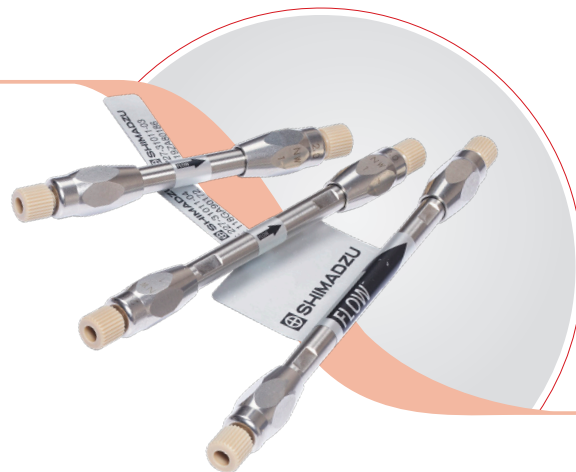
Analysis of oligonucleotides using Shim-pack BIO IEX Q-NP



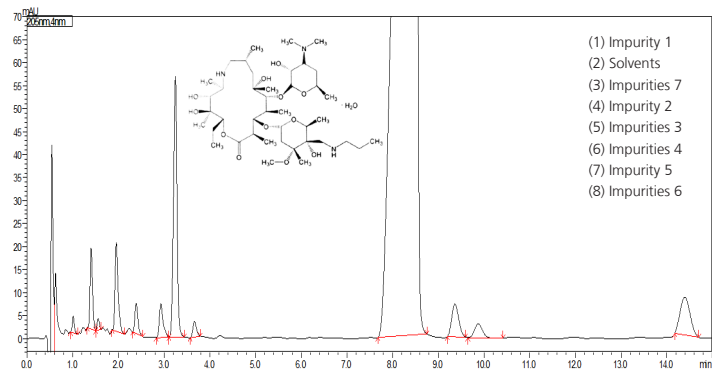


## Shim-pack Scepter series column

- Excellent stability and performance could be achieved under a wide range of LC conditions with Shim-pack Scepter LC columns.
- With different chemistry characteristics, Shim-pack Scepter columns are effective for method development / scouting.
- It's easy to make the method transfer between different column dimensions.



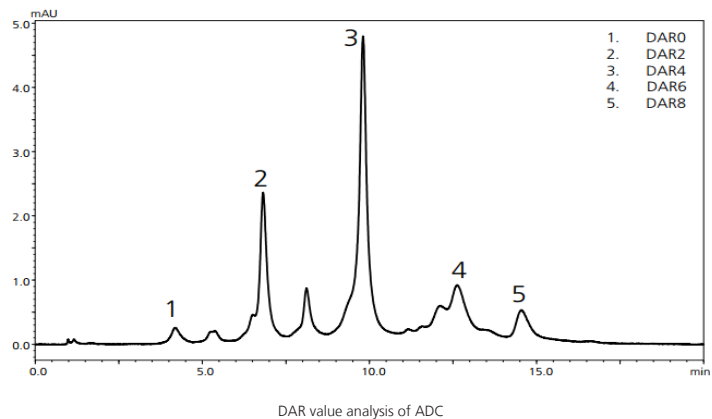
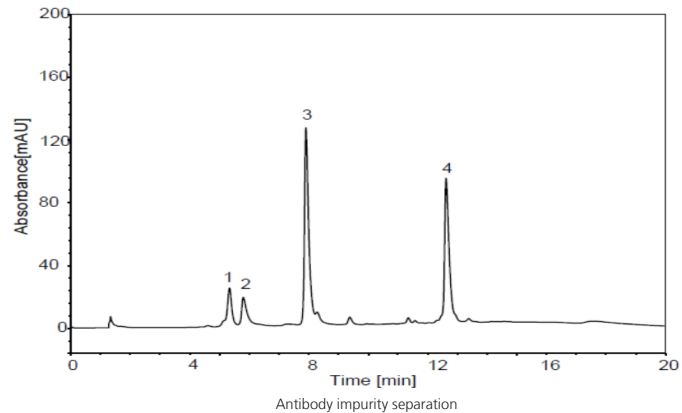
Separation and analysis of organic acids



Isolation analysis of roxithromycin

## Shim-pack Bio HIC

The porous particles offer excellent binding capacity with exceptionally high efficiency and the non-porous particles offer high efficiency and exceptional resolution.

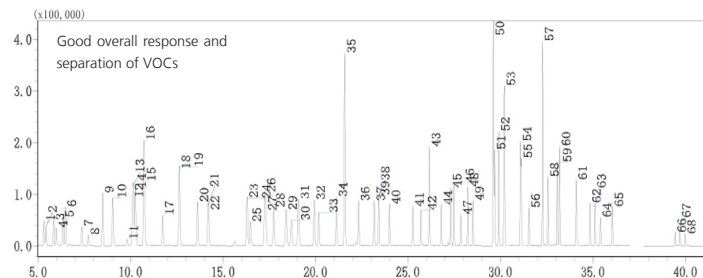


# SH-I-624Si MS

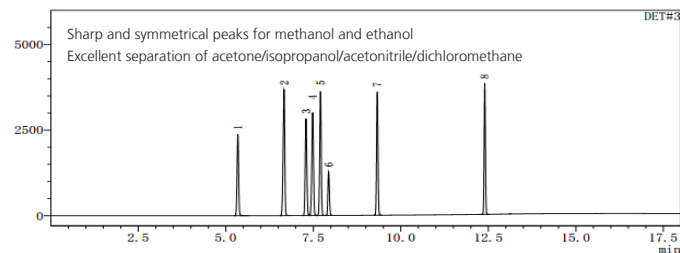
## Product Features:

- Upgraded bonding process delivers lower loss on GCMS.
- Enhanced temperature tolerance, withstanding up to 300/320° C.
- Superior inertness for enhanced separation of complex components.
- Perfectly suited for analyzing solvent residues, VOCs, and similar projects.

## Typical applications:



Determination of 65 VOCs by GCMS  
SH-I-624Si MS, 60 m x 0.25 mm x 1.4 µm



Peak	Compound	Retention time	Area	Height	Tailing Factor	Resolution
1	Methanol	5.344	7461222	2354548	1.00	--
2	Ethanol	6.664	12359699	3665947	0.89	15.20
3	Acetone	7.290	9237879	2808002	1.05	7.08
4	IPA	7.483	10251337	3002920	0.94	2.17
5	Acetonitrile	7.706	10918529	3586866	0.96	2.61
6	DCM	7.936	3823879	1271137	1.11	2.88
7	Ethylacetate	9.326	10278522	3584892	1.06	17.86
8	DMF	12.397	9767715	3806450	1.05	42.77
Total			74098782	24080763		

GC Analysis of 8 Common Residual Solvents  
SH-I-624Si MS, 30 m x 0.53 mm x 3.0 µm

# SH-Volatil Amin

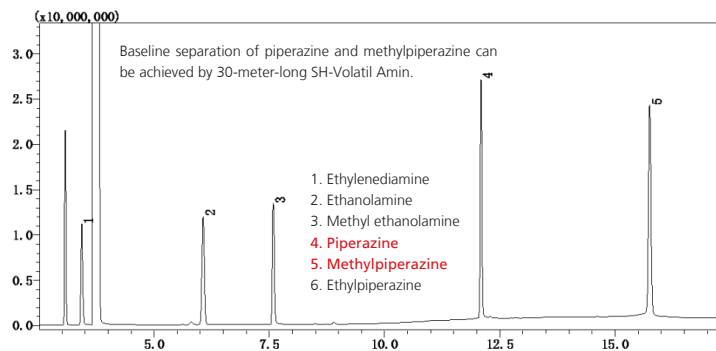
## Product Features:

- Surface alkali treatment ensures high inertness and low adsorption for amine analysis.
- High film thickness (5µm) design further enhances peak shape.
- Ideal for volatile amines and complex amine composition analysis.

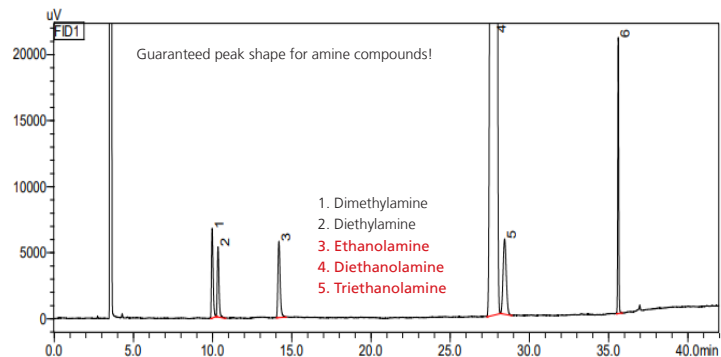


GC Columns

## Typical applications:



GC Analysis of piperazine and its Impurities  
SH-Volatil Amin, 30 m x 0.32 mm x 5.0 µm



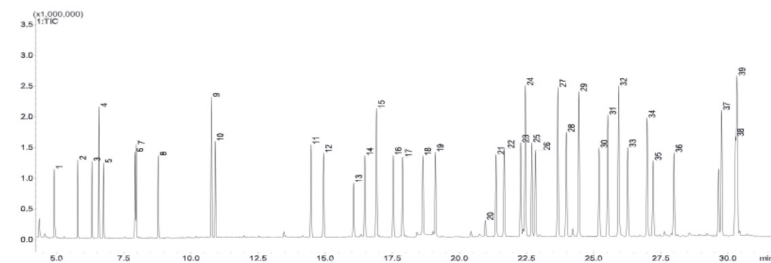
Determination of Ethanolamine and Four Other Compounds by GCMS  
SH-Volatil Amin, 60 m x 0.32 mm x 5.0 µm

# SH-I-35SiI MS

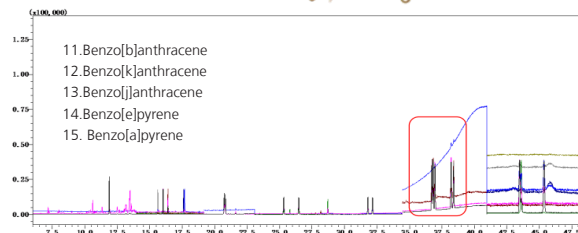
## Product Features:

- Enhanced bonding process delivers lower loss on GCMS.
- Mid-polarity offers broader polarity options compared to 5MS type columns.
- Ideal for detecting PAHs/organochlorine pesticides/aromatic amines.

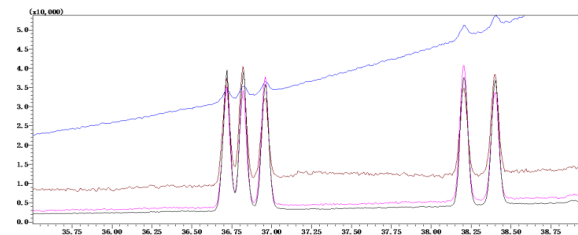
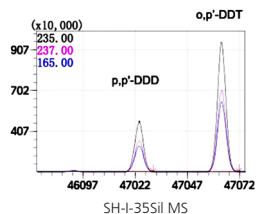
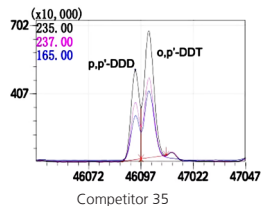
## Typical applications:



Determination of Organic Chlorinated Pesticides and Chlorobenzenes in Water by GCMS  
SH-I-35SiI MS, 30 m x 0.25 mm x 0.25 µm



## Comparison of testing results



Determination of 18 PAHs by GCMS  
SH-I-35SiI MS, 30 m x 0.25 mm x 0.25 µm

# SH-2560

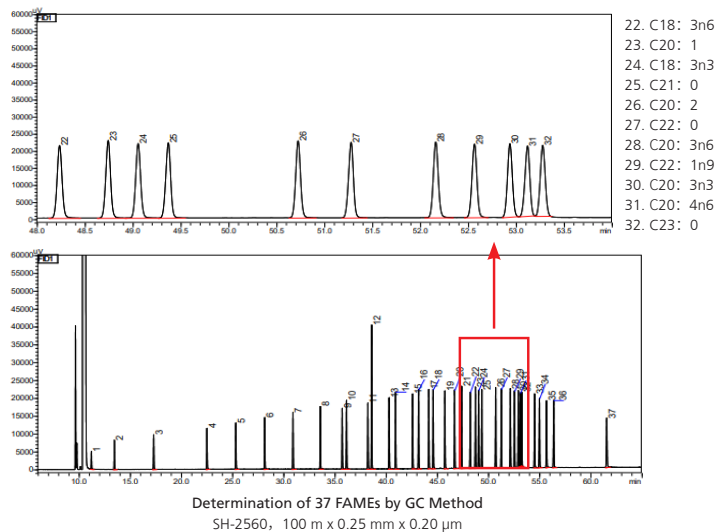
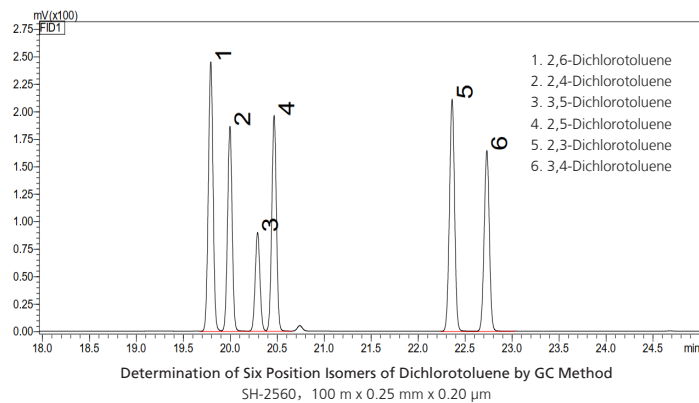
## Product Features:

- 100% cyanopropyl stationary phase with high isomer selectivity.
- Ideal for analyzing 37 types of FAMES.
- Optimized conditions halve FAMES analysis time.



GC Columns

## Typical applications:



# SH-βDEXsm

## Product Features:

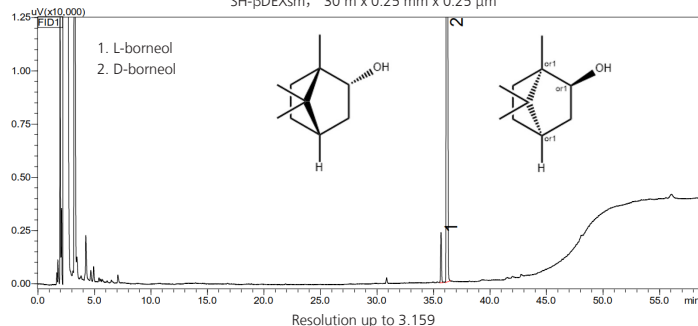
- high versatility: Addition of 2,3-Di-O-methyl-6-O-tert-butyl dimethylsilyl β-cyclodextrin to 1701.
- Effectively addresses the challenge of chiral separation for high-polarity, small-molecule and low-boiling-point compounds, which are difficult to handle in HPLC.
- Comprehensive solutions backed by a robust method development team.



## Typical applications:

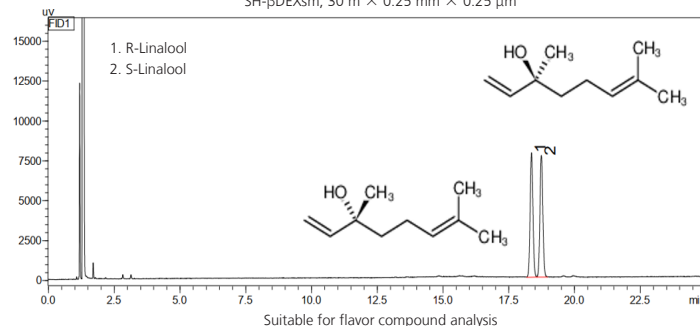
### Determination of Dextrorotatory Borneol Content in Natural Borneol by GC Method

SH-βDEXsm, 30 m x 0.25 mm x 0.25 μm



### GC Analysis of the Chiral Enantiomers of Linalool

SH-βDEXsm, 30 m x 0.25 mm x 0.25 μm





# SS- series PLOT columns

## Product Features:

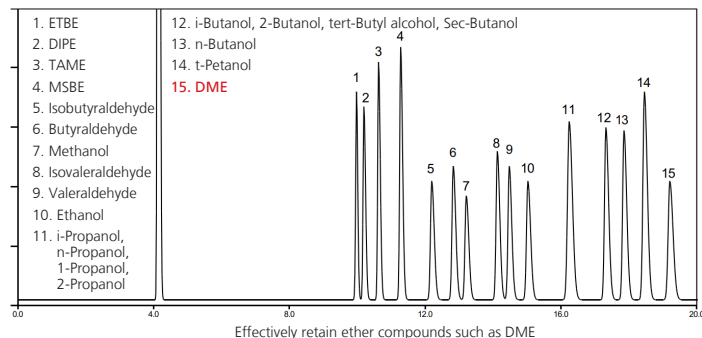
- Covers commonly used petrochemical PLOT columns including  $\text{Al}_2\text{O}_3$ , PLOT Q, and 5A molecular sieves, lower bleeding and reduced sensitivity to water effects on Alumina.
- Specialized PLOT-Carbon enables simultaneous analysis of CO and  $\text{CO}_2$ .
- Specialized PLOT-Silica is suitable for analyzing ozone-depleting substances (ODS) such as chlorofluorocarbons (CFCs).
- Dedicated PLOT columns address specific analytical challenges.



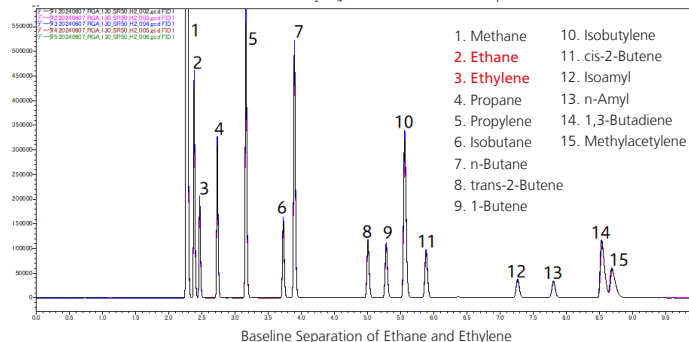
Dedicated PLOT column	Specialized application
SS-Oxygenates	Trace oxygen compounds in gasoline
SS-PLOT-Amine	Analysis of Ammonia and Amine Compounds
SS-PLOT-Sulfur	Sulfide Analysis

## Typical applications:

Analysis of trace oxygen compounds in gasoline  
SS-Oxygenates, 10 m x 0.53 mm x 10 $\mu$ m



Analysis of refinery gas  
SS-Alumina- $\text{Na}_2\text{SO}_4$ , 50 m x 0.53 mm x 10 $\mu$ m



## SHIMSEN Arc Vial

- Carefully selected raw materials with extremely low adsorption.
- Universal version compatible with various brands of instruments, reducing siloxane dissolution



## SHIMSEN Filter-Vial

- Integrates syringes, vials and needle filters into one
- Improve efficiency, easy to operate and has extremely low adsorption.



## SHIMSEN Disc Double-layer Filter

- Handling complex substrate filtration effectively.
- High throughput and fast speed



## SHIMSEN Disc Sterile Filter

- Effectively remove bacteria, with a high sterilization rate.
- High flow rate and high throughput.



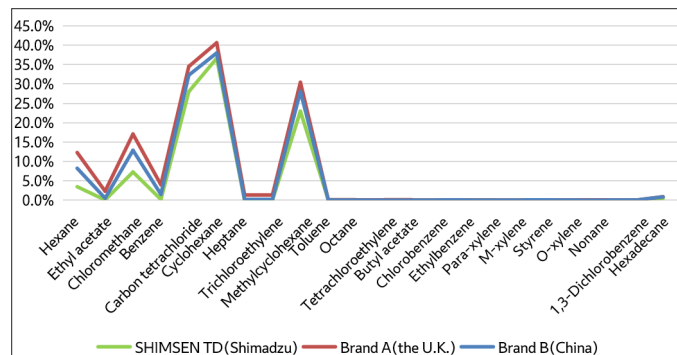
# SHIMSEN TD Tubes

## Product Features:

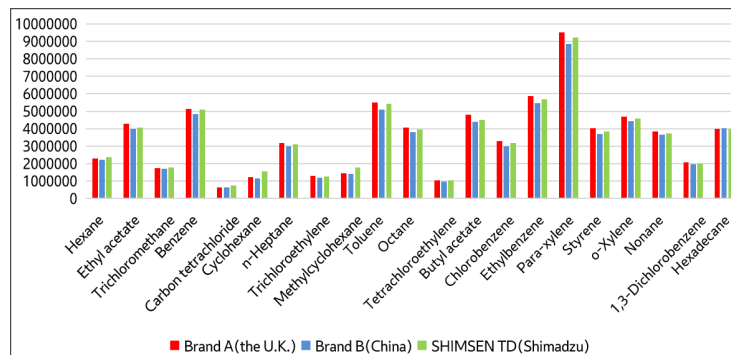
- Lower breakthrough, higher compound response.
- Improved resistance control, more stable results.
- Enhanced inertness processing, lower sample adsorption.
- Abundant selection, more competitive price



## Typical applications:



GB/T 18883-2022 Tenax TA breakthrough comparison

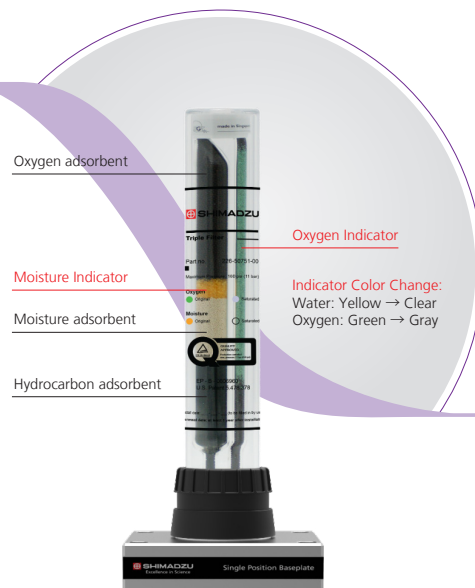
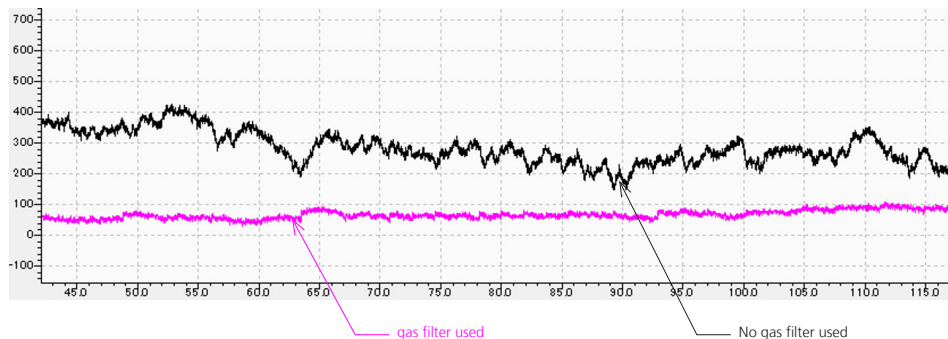


GB/T 18883-2022 Tenax TA compound response comparison

# Triple (Oxygen/Moisture/Hydrocarbon) Gas Filter

## Product Features:

- Eliminates oxygen to protect high-polarity columns and ECD & MS detectors
- Removes moisture to ensure high column efficiency
- Eliminates hydrocarbon ghost peaks for stable baseline
- Convenient indicator for assessing adsorption failure
- Compatible with carrier gas lines across all GC instrument brands
- Effectively ensures optimal performance of instruments and columns



Triple gas filter removes oxygen, moisture, and hydrocarbons

## SHIMSEN GC Consumables

### Product Features:

- Support daily maintenance of injection port consumables across GC instruments.
- Covers GC injection port components: syringes, septa, O-rings, liners, and ferrules.
- Meets routine GC project injection port requirements with high cost-effectiveness.



## SHIMSEN Lamp

### Product Features:

- Perfectly matched with Shimadzu instruments.
- Long-term and stable performance.
- Cost-effective





# VISIT OUR WEBSITE FOR MORE PRODUCT INFORMATION

[global.shimadzu-sglc.com](http://global.shimadzu-sglc.com)



## SHIMADZU

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Consumables Co., Ltd.**

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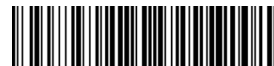
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SGLC-POS-018