



nanghavi.

CHROMATOGRAPHY COLUMNS



- HIGH REPRODUCIBILITY
- VERY HIGH PLATE NUMBERS
- VERY LOW BACK PRESSURE
- VERY GOOD RESOLUTION FOR BASIC COMPOUNDS
- EXCEPTIONAL VALUE

5 µm COLUMNS

Our columns listed at USP

Brand	Phase	Base Material	Particle Shape	Particle Size	Pore Size	Surface Area	Carbon Load	End-capped	USP L-Code
Kanak HPLC	C18	Silica	Spherical	2, 3, 5 µm	120 Å	300 m ² /g	20 %	Yes	L1
Kanak HPLC	C8	Silica	Spherical	2, 3, 5 µm	120 Å	300 m ² /g	12 %	Yes	L7
Kanak HPLC	C4	Silica	Spherical	2, 3, 5 µm	120 Å	300 m ² /g	8 %	Yes	L26
Kanak HPLC	Silica	Silica	Spherical	2, 3, 5 µm	120 Å	300 m ² /g	-	No	L3

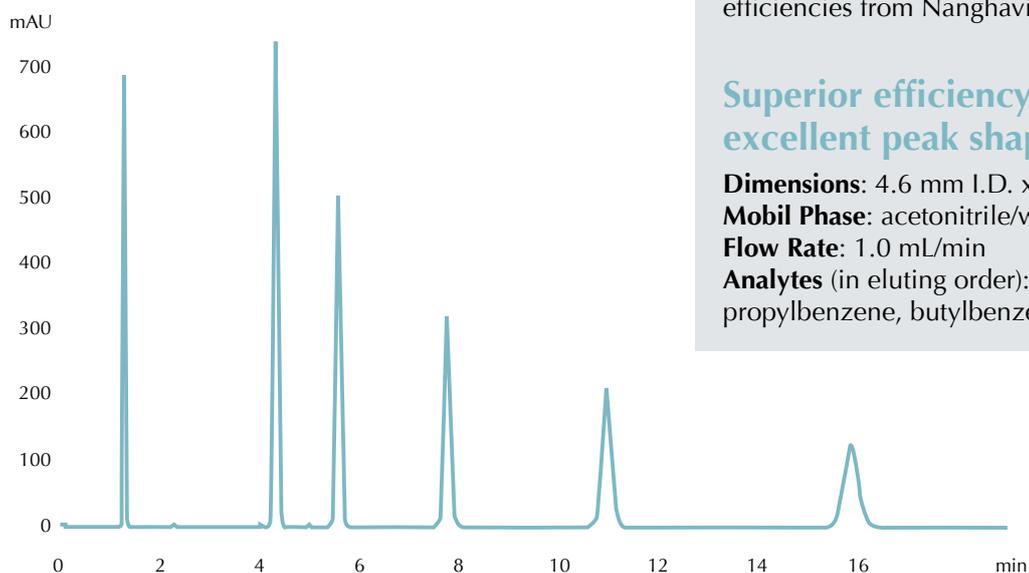
- Densely bonded C18 ligand on high quality porous silica
- Particles with a narrow size distribution range and a pore size of 120 Å
- Excellent peak shape and efficiency with both neutral compounds and bases
- Chromatographic resin stable between pH 2-10 (C18) and pH 2-8 (C4 and C8)
- Outstanding reproducibility between columns and batches
- Other functions available C4, C8, Si

KEY FEATURES

- Ligand coverage 3.6 µmol/m²
 - d₉₀/d₁₀ < 1.5
- N0.5 (toluene) typically 115 000 plates/m
- USP tailing (toluene) < 1.1
- Reduced plate height (h) ≤ 2.0



Performance



Kanak 5 µm C18 columns

Chromatographical evaluation under neutral conditions reveals excellent peak shapes and efficiencies from Nanghavi Kanak HPLC-columns.

Superior efficiency and excellent peak shape

Dimensions: 4.6 mm I.D. x 150 mm

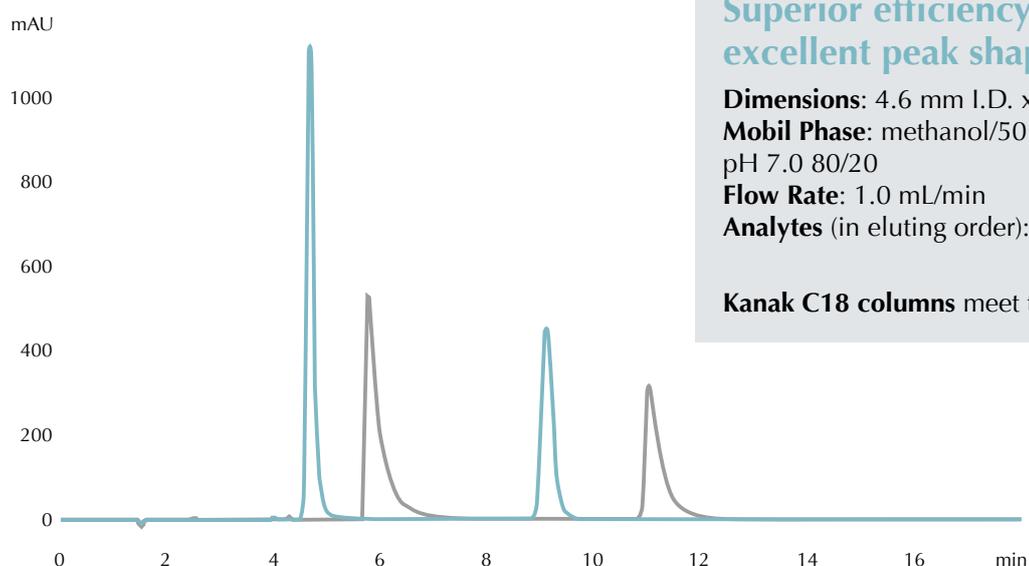
Mobil Phase: acetonitrile/water 70/30

Flow Rate: 1.0 mL/min

Analytes (in eluting order): uracil, toluene, ethylbenzene, propylbenzene, butylbenzene, pentylbenzene

By virtue of its homogeneous silica surface and the high ligand densities, analytes display unrivalled peak shapes and the absence of non-linear adsorption isotherms.

Efficiency with bases



Comparison with basic analytes

Columns from Nanghavi (blue) shows higher efficiencies and very low tailing compared to Kromasil (grey).

Superior efficiency and excellent peak shape

Dimensions: 4.6 mm I.D. x 150 mm

Mobil Phase: methanol/50 mM K-phosphate buffer pH 7.0 80/20

Flow Rate: 1.0 mL/min

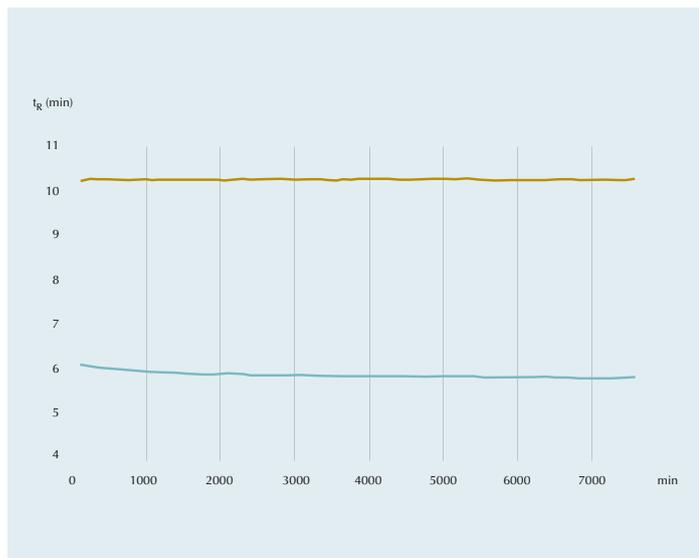
Analytes (in eluting order): nortriptyline, amitriptyline

Kanak C18 columns meet the specifications of USP L1

Utilizing Nanghavi Kanak columns with your HPLC instrument will offer the most reliable and reproducible results. Do not compromise in science.

Long term pH Stability

— Nortriptyline — Ethylbenzene



Test conditions

Mobile phase A: 0.1 % TFA, pH 1.9

Mobile phase B: Acetonitrile

Flow rate: 1 ml/min

Temperature: 45°C

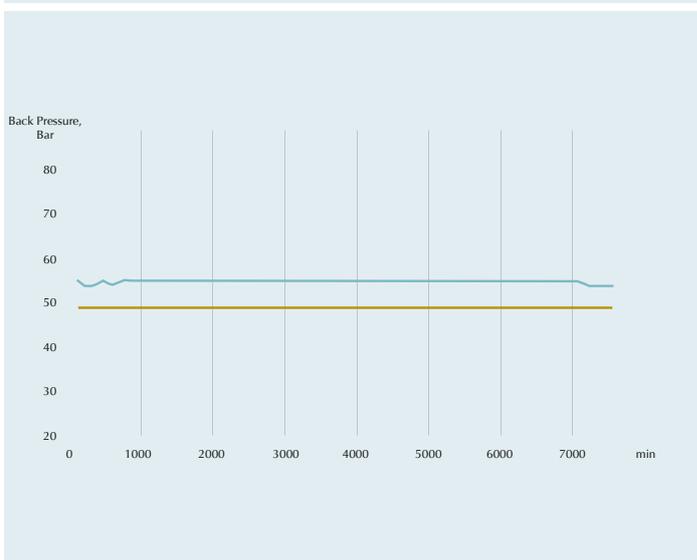
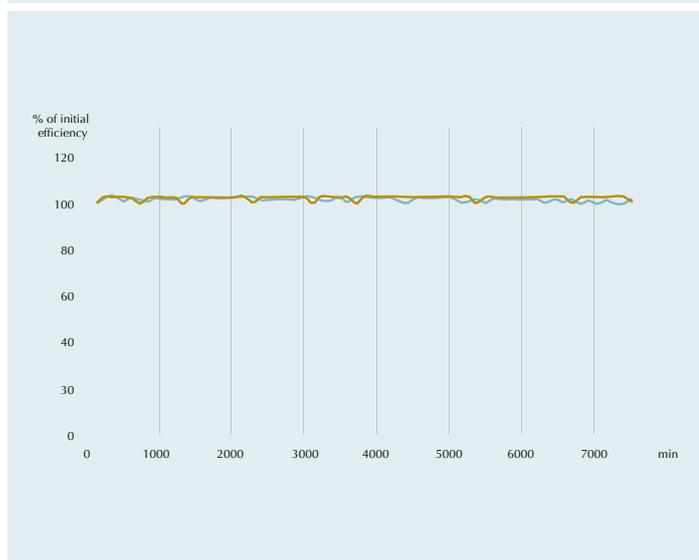
Gradient cycle:

time (min)	% B
0	10
5	90
7	90
8	10
10	10

Test nortriptyline: A/B (35/65)

Test ethylbenzene: A/B (50/50)

Test cycle: 6 × gradient + tests = 120 min/cycle



Acetylsalicylic acid

Separation of Acetylsalicylic acid and related substances

1. 4-Hydroxy Benzoic Acid
2. Acetylsalicylic Acid
3. Salicylic Acid

Phase: Kanak 100 Å, 5µm, C18

Column: 150 x 4.6mm

Eluent: water/ Acetonitrile/ Phosphoric Acid (600:400:2; v:v:v)

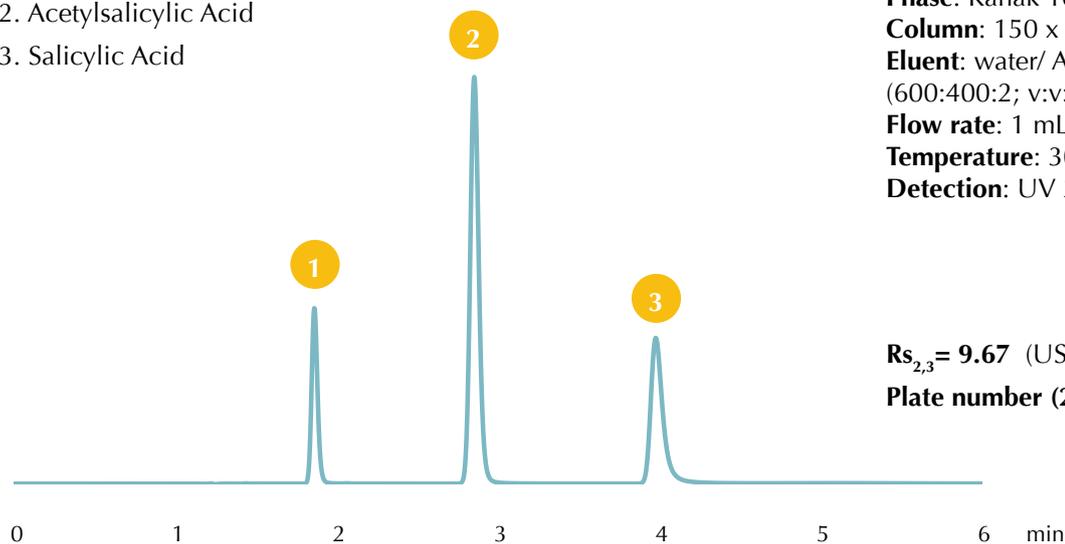
Flow rate: 1 mL/min

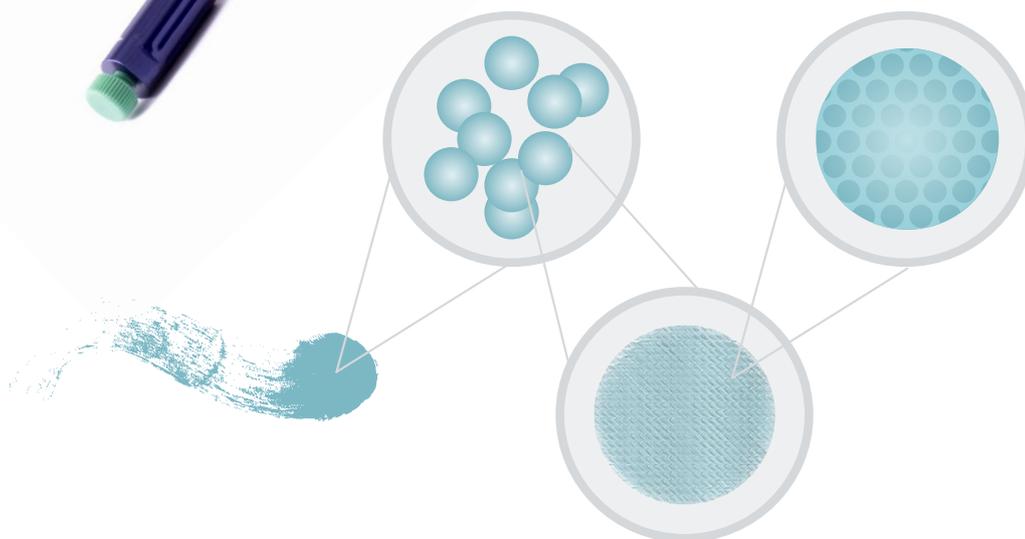
Temperature: 30°C

Detection: UV 237 nm

Rs_{2,3} = 9.67 (USP Resolution limit >6)

Plate number (2) = 101640





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