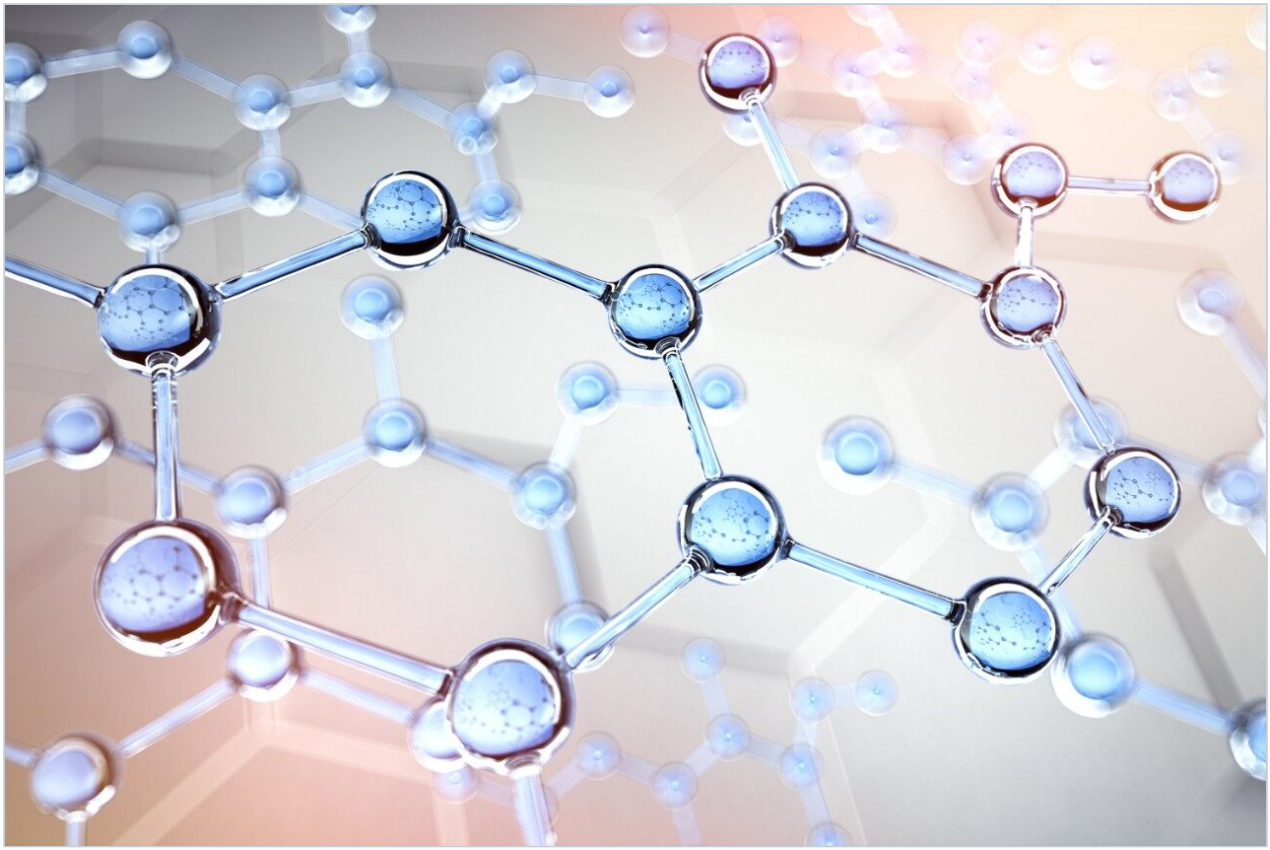
Waters™

Note d'application

Hydrophobic Bases: Group of Antihistamines

Waters Corporation



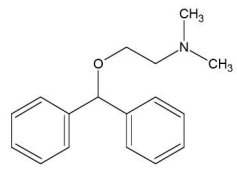
This is an Application Brief and does not contain a detailed Experimental section.

Abstract

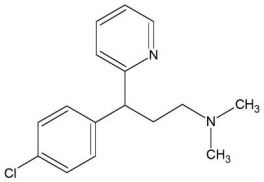
This application brief highlights the analysis of hydrophobic bases.

Introduction

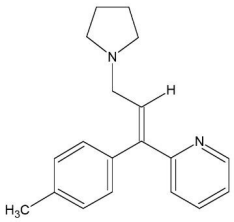
Compounds used in this application brief are shown below.



Diphenhydramine



Chlorpheniramine



Triprolidine

Experimental

Conditions

Column:	SunFire C_{18} 4.6 x 150 mm, 5.0 µm (p/n: 186002559)
Mobile phase A:	Water
Mobile phase B:	Acetonitrile
Mobile phase C:	1% HCOOH in water
Flow rate:	1 mL/min

Injection volume:	10 µL
Sample concentration:	10 µg/mL in water; Diphenhydramine: 50 µg/mL
Temperature:	30 °C
Detection:	UV @ 254 nm
Instrument:	Alliance 2695 with 2996 PDA

Compounds	USP tailing
1. Chlorpheniramine	1.15
2. Triprolidine	1.16
3. Diphenhydramine	1.75

Conditions

Column:	SunFire C_8 4.6 x 150 mm, 5.0 µm (p/n: 186002737)
Mobile phase A:	Water
Mobile phase B:	Acetonitrile
Mobile phase C:	1% HCOOH in water
Flow rate:	1 mL/min
Injection volume:	10 µL

Sample concentration:	10 µg/mL in water; Diphenhydramine: 50 µg/mL
Temperature:	30 °C
Detection:	UV @ 254 nm
Instrument:	Alliance 2695 with 2996 PDA

Compounds	USP Tailing
Chlorpheniramine	1.01
Triprolidine	1.1
Diphenhydramine	2.17

Conditions

Column:	SunFire C_8 4.6 x 100 mm, 5.0 µm (p/n: 186002731)
Mobile phase A:	Water
Mobile phase B:	Acetonitrile
Mobile phase C:	1% HCOOH in water
Flow rate:	1 mL/min
Injection volume:	10 µL
Sample concentration:	10 µg/mL in water;

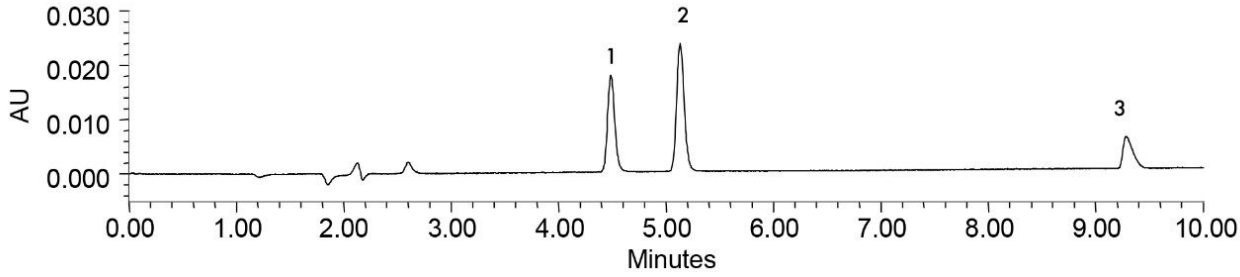
	Diphenhydramine: 50 µg/mL
Temperature:	30 °C
Detection:	UV @ 254 nm
Instrument:	Alliance 2695 with 2996 PDA

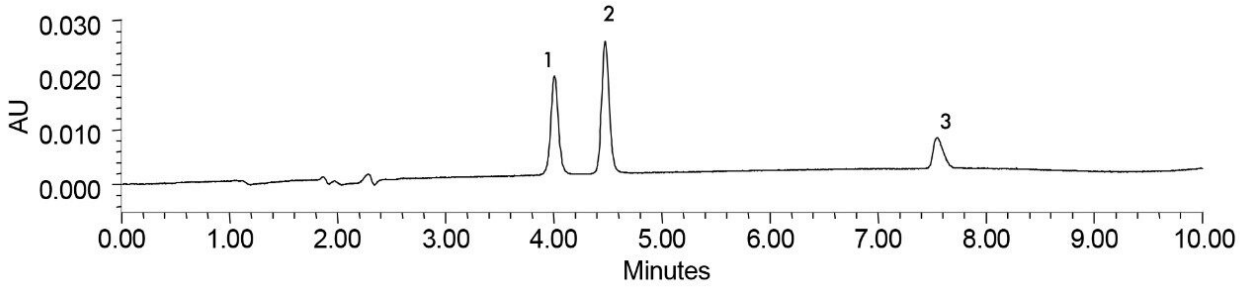
Compounds	USP tailing
1. Chlorpheniramine	1.21
2. Triprolidine	1.05
3. Diphenhydramine	1.31

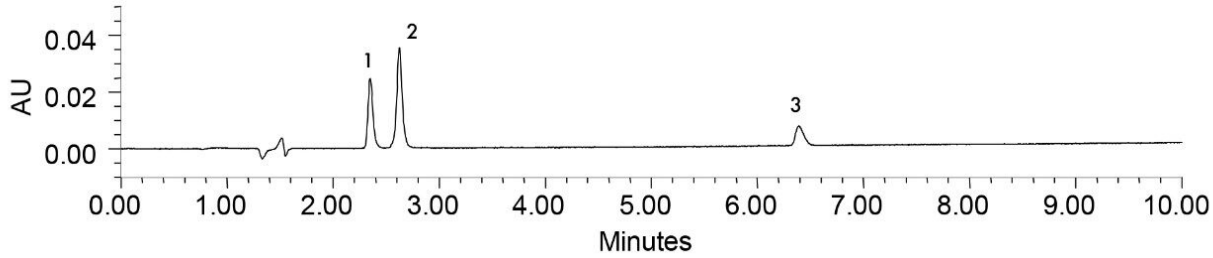
Gradient

Time (min)	Profile		
	%A	%B	%C
0.0	75	15	10
10.0	60	30	10
12.0	75	15	10
20.0	75	15	10

Results and Discussion







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Alliance HPLC <https://www.waters.com/514248>

WA41892, May 2005