Waters™

CNS Depressants

Waters Corporation

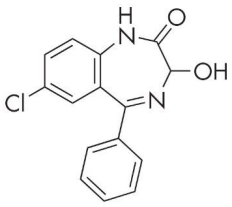
This is an Application Brief and does not contain a detailed Experimental section.

Abstract

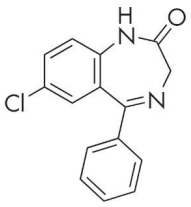
This application brief highlights the analysis of CNS depressants.

Introduction

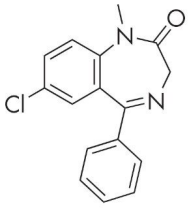
Compounds studied in this application brief are shown below.



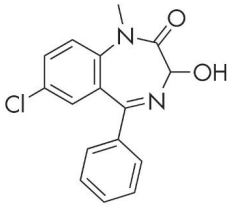
Oxazepam



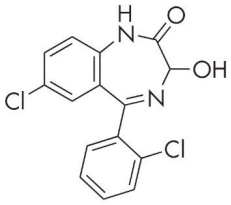
Desmethyldiazepam



Diazepam



Temazepam



Lorazepam

Experimental

Compounds

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:	2% CH_3COOH in water
Flow rate:	1 mL/min

Injection volume:	10 µL
Isocratic Mobile Phase Conditions:	55% A, 35% B, 10% C
Sample concentration:	10 µg/mL in water
Temperature:	30 °C
Detection:	UV @ 254 nm
Instrument:	Alliance 2695 with 2996 PDA

Compounds	USP tailing
1. Oxazepam	1.08
2. Lorazepam	1.06
3. Desmethyldiazepam	1.05
4. Temazepam	1.07
5. Diazepam (Valium)	1.04

Compounds

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:	2% Acetic acid in water
Flow rate:	1 mL/min

Injection volume:	10 µL
Isocratic Mobile Phase Conditions:	55% A, 35% B, 10% C
Sample concentration:	10 µg/mL in water
Temperature:	30 °C
Detection:	UV @ 254 nm
Instrument:	Alliance 2695 with 2996 PDA

Compounds	USP tailing
1. Oxazepam	1.02
2. Lorazepam	0.95
3. Desmethyldiazepam	1.00
4. Temazepam	1.00
5. Diazepam (Valium)	0.99

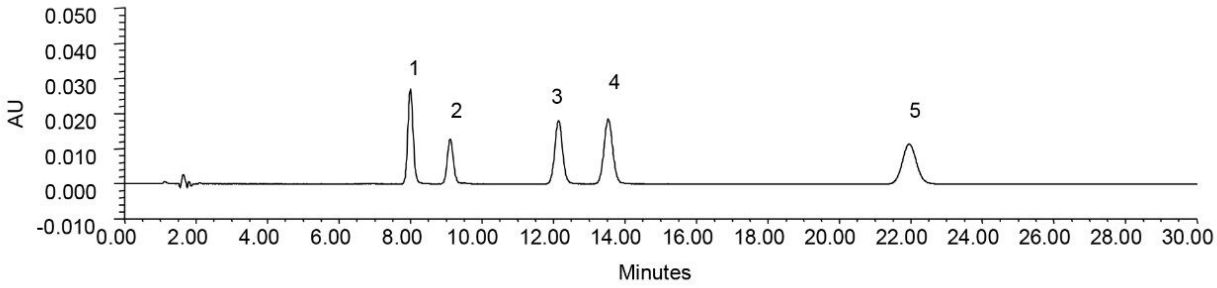
Compounds

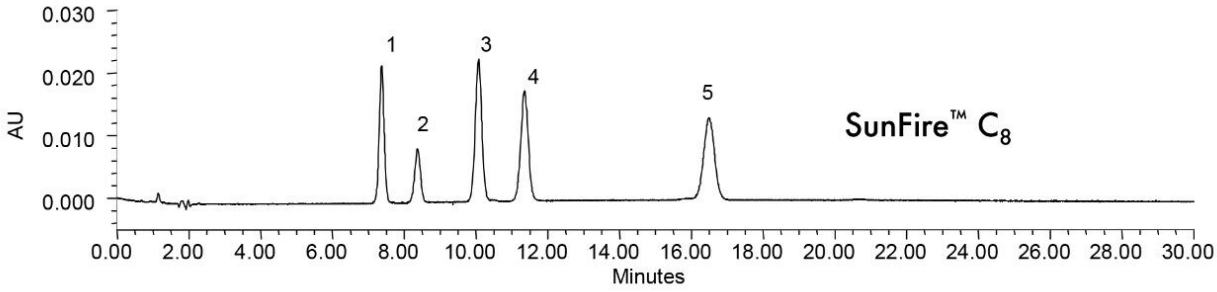
Column:	SunFire C_8 4.6 x 100 mm, 5.0 µm (p/n: 186002731)
Mobile phase A:	Water
Mobile phase B:	Acetonitrile
Mobile phase C:	2% Acetic acid in water
Flow rate:	1 mL/min

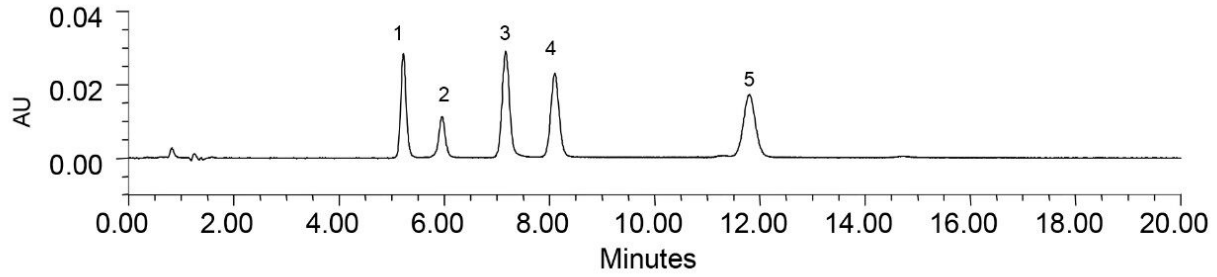
Injection volume:	10 µL
Isocratic Mobile Phase Conditions:	55% A, 35% B, 10% C
Sample concentration:	10 µg/mL in water
Temperature:	30 °C
Detection:	UV @ 254 nm
Instrument:	Alliance 2695 with 2996 PDA

Compounds	USP tailing
1. Oxazepam	1.09
2. Lorazepam	0.96
3. Desmethyldiazepam	1.02
4. Temazepam	1.06
5. Diazepam (Valium)	1.06

Results and Discussion







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

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