

Application Note

Drugs of Abuse, pH 10.0 – 2.1 x 20 mm Intelligent Speed Separation

Waters Corporation



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

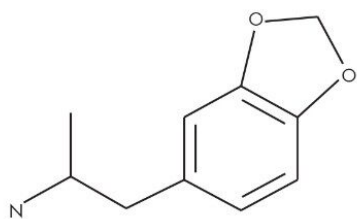
Abstract

This application brief demonstrates analysis of drugs of abuse.

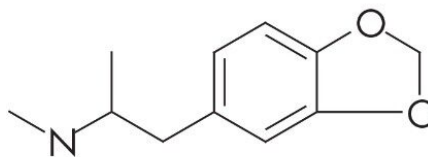
Introduction

The compounds used in this study are –

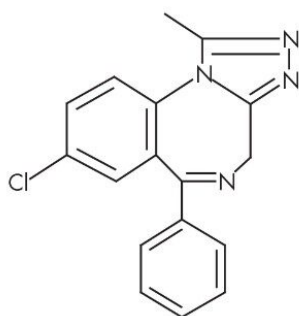
Compounds	
1. 3,4-Methylenedioxyamphetamine (MDA)	40 µg/mL
2. 3,4-Methylenedioxymethamphetamine (MDMA)	40 µg/mL
3. Alprazolam	20 µg/mL
4. Flunitrazepam	20 µg/mL
5. Desmethyldiazepam	20 µg/mL
6. Diazepam	20 µg/mL



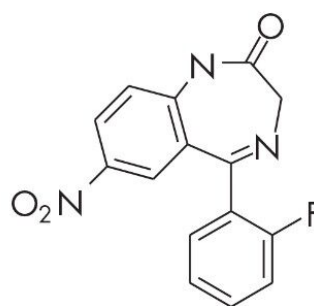
3,4-Methylenedioxyamphetamine



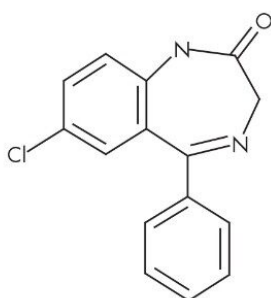
3,4-Methylenedioxymethamphetamine



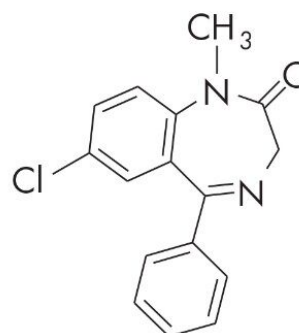
Alprazolam



Flunitrazepam



Desmethyldiazepam



Diazepam

Experimental

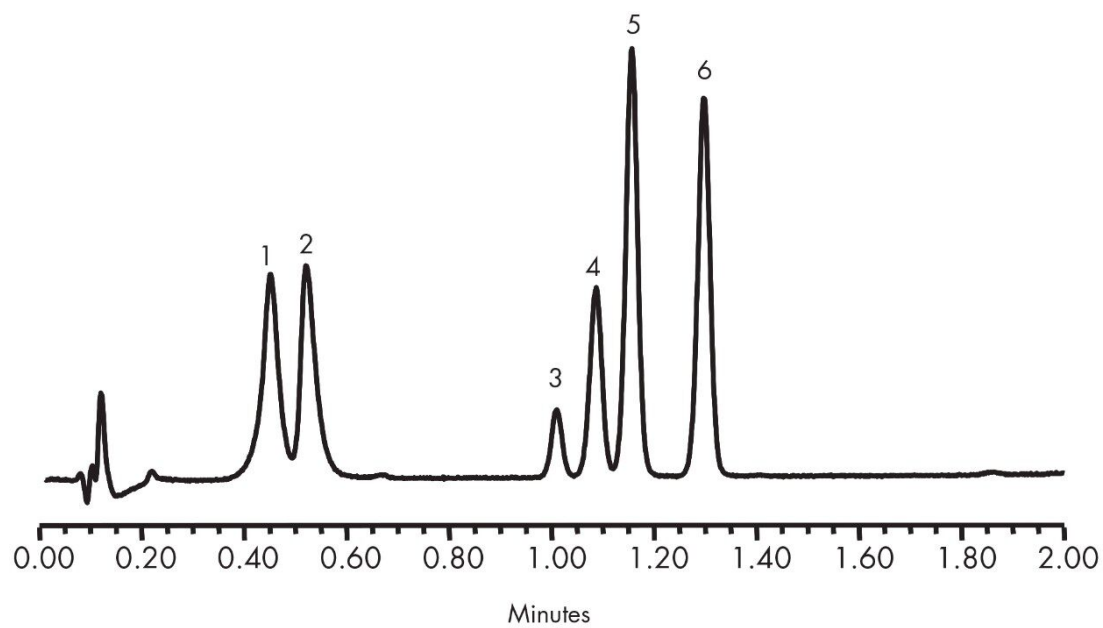
Conditions

Column:	Xterra RP ₁₈ , 2.1 x 20 mm /S, 3.5 µm, (p/n: 186001925)
Mobile phase A:	Water
Mobile phase B:	Acetonitrile
Mobile phase C:	100 mM NH ₄ HCO ₃ , pH 10
Flow rate:	0.8 mL/min
Injection volume:	5 µL
Sample concentration:	MDA and MDMA 40 µg/mL, all others 20 µg/mL
Temperature:	50 °C
Detection:	UV @ 235 nm
Instrument:	Alliance 2795 with 996 PDA

Gradient

Time (min)	Profile		
	%A	%B	%C
0.0	80	10	10
2.0	5	95	10

Results and Discussion



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