

Amphetamines in Human Urine

Waters Corporation

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

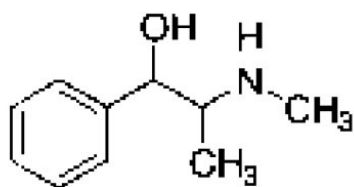
Abstract

This application brief details on the analysis of amphetamines in human urine using Symmetry Columns.

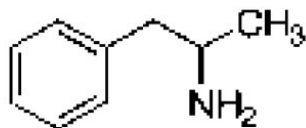
Introduction

The compounds analyzed in this study are:

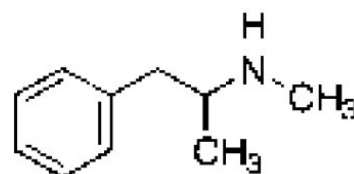
1. Ephedrine
2. Amphetamine
3. Methamphetamine



1. Ephedrine (I.S.)



2. Amphetamine



3. Methamphetamine

Experimental

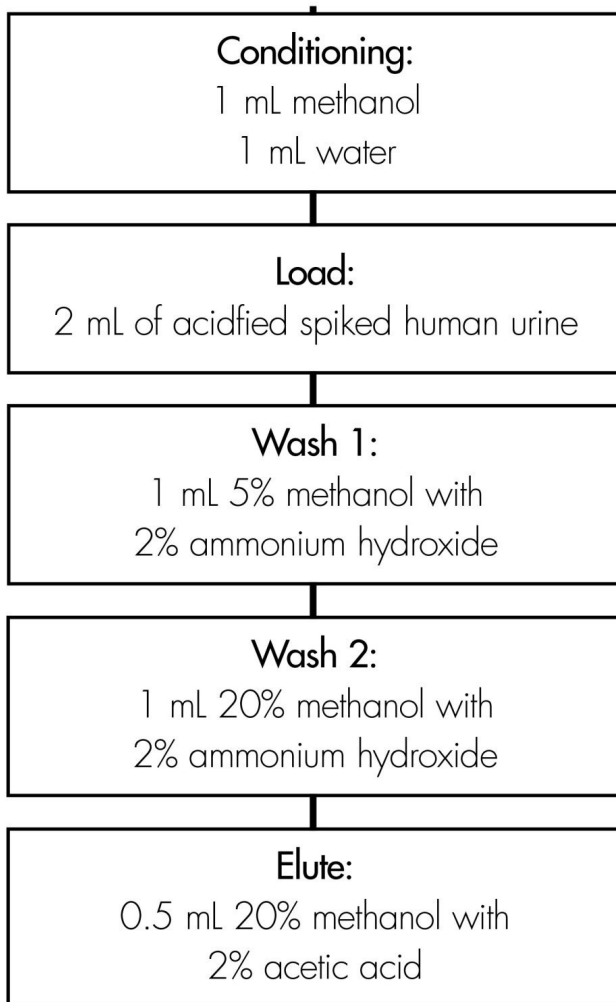
HPLC Method

Column:	Symmetry Shield RP ₁₈ , 3.9 x 150 mm, 5 μm
Guard column:	Symmetry Guard Column, 3.9 x 20 mm, 5 μm
Part numbers:	Column - 186000108, Guard - 186000107
Mobile phase:	0.1% TFA in Water/Acetonitrile 90:10
Flow rate:	1.0 mL/min
Injection volume:	50 μL
Temperature:	30° C
Detection:	UV @ 214 nm (0.14 AUFS)

Oasis® HLB Extraction Method

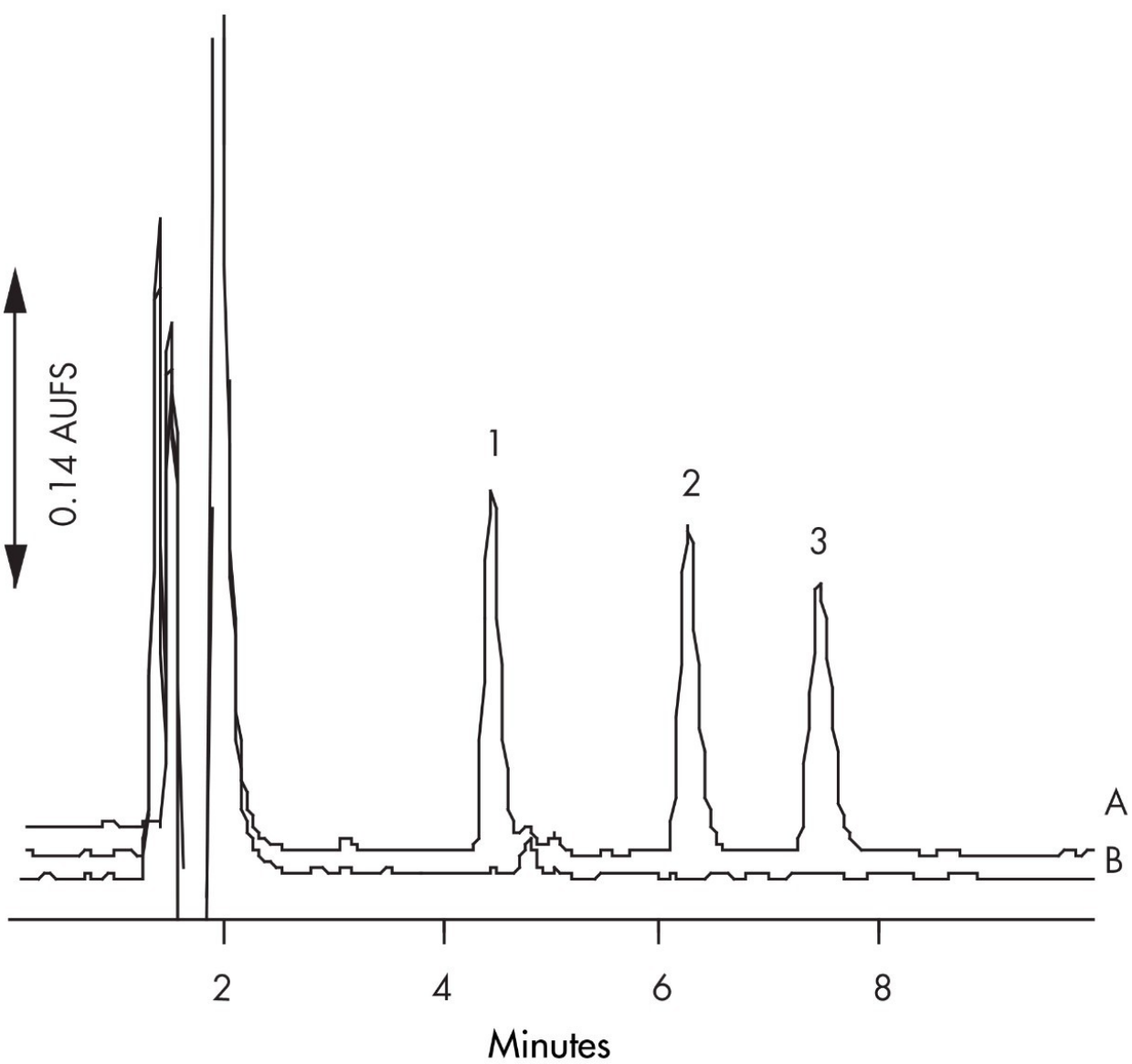
Oasis® HLB Extraction Plate, 30 mg/96-well

Part Number WAT058951



Results and Discussion

Spike Levels	%Recovery 0.7 µg/mL	%RSD 3.5 µg/mL
Amphetamine (n=8)	99.3 (4.9)	104.7 (1.8)
Methamphetamine (n=8)	105.5 (5.8)	100.9 (4.4)
Amphetamine Interday (n=16)		102.8 (2.7)
Amphetamine Interperson (n=16)	98.8 (6.2)	101.8 (3.3)
Methamphetamine Interday (n=16)		98.5 (5.4)
Methamphetamine Interperson (n=16)	96.4 (11.5)	99.4 (6.3)
Ephedrine (I.S.) (n=8)		89.5 (1.4)



Chromatogram of A) Spiked Urine, B) Blank Urine.

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