

Nota applicativa

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

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Waters Corporation



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

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### Abstract

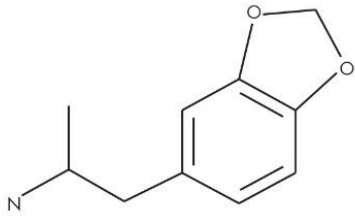
This application brief demonstrates analysis of drugs of abuse.

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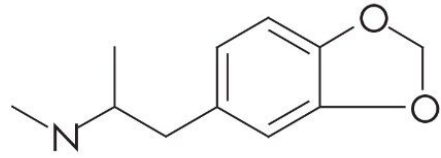
## Introduction

The compounds used in this study are –

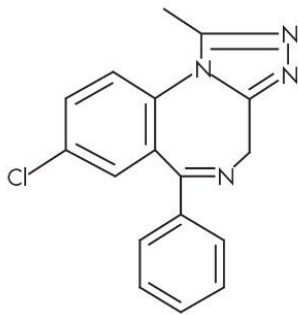
| Compounds                                   |          |
|---|----------|
| 1. 3,4-Methylenedioxyamphetamine (MDA)      | 40 µg/mL |
| 2. 3,4-Methylenedioxymethamphetamine (MDMA) | 40 µg/mL |
| 3. Alprazolam                               | 20 µg/mL |
| 4. Flunitrazepam                            |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



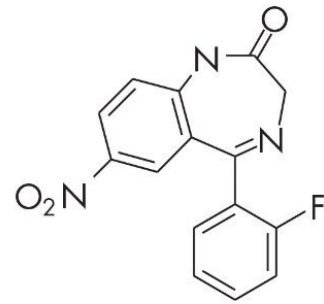
3,4-Methylenedioxyamphetamine



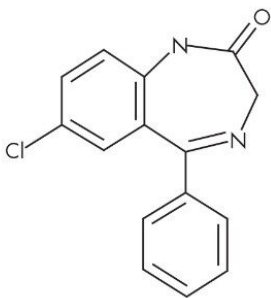
3,4-Methylenedioxymethamphetamine



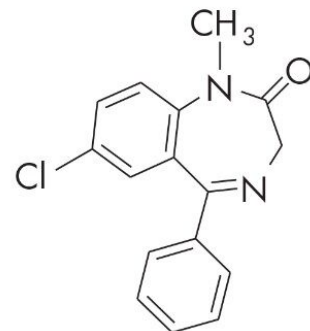
Alprazolam



Flunitrazepam



Desmethyldiazepam



Diazepam

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Experimental

Conditions

Column: Xterra RP<sub>18</sub>, 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<sub>4</sub>HCO<sub>3</sub>, 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

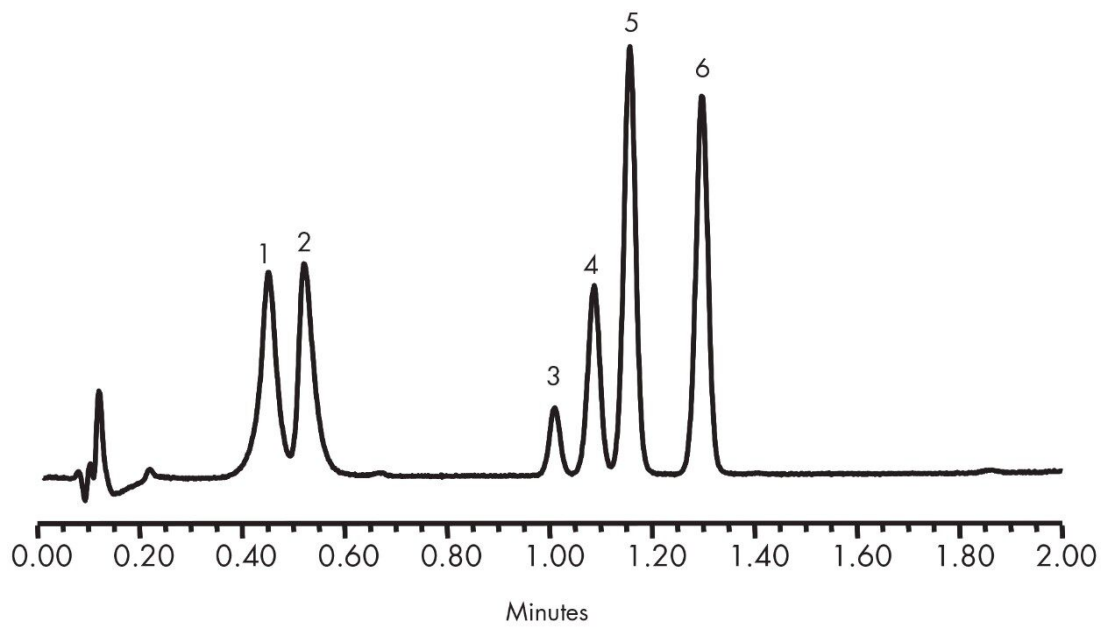
Instrument: Alliance 2795 with 996 PDA

## Gradient

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

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## Results and Discussion



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Alliance HPLC System <<https://www.waters.com/534293>>

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