

Ecstasy (MDMA) and Metabolites

Waters Corporation



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

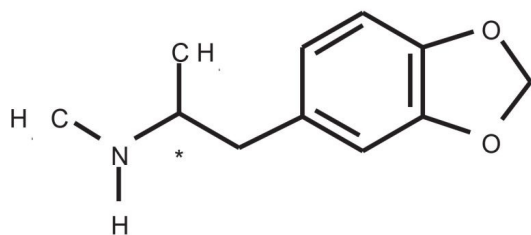
Abstract

This application brief demonstrates analysis of ecstasy (MDMA) and metabolites.

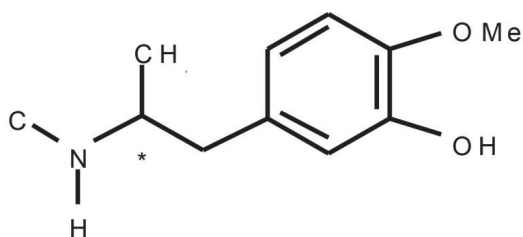
Introduction

The compounds used in this study are –

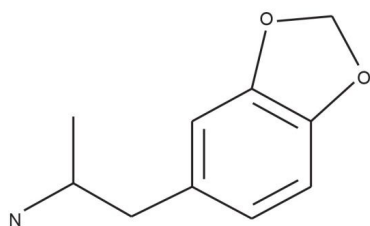
1. 4-Hydroxy-3-methoxymetmamphetamine (HMMA)
2. 3,4-Methylenedioxyamphetamine (MDA)
3. MDMA-D5 (ISTD)
4. 3,4-Methylenedioxymethamphetamine (MDMA)



Ecstasy (MDMA)



Ecstasy Metabolite
(HMMA)



3,4-Methylenedioxyamphetamine (MDA)

Experimental

Conditions

Column:

Xterra MS C₁₈ 2.1 x 150 mm, 3.5 μm

Part number:

186000408

Mobile phase A:	20 mM NH_4HCO_3 , pH 9.0
Mobile phase B:	MeOH
Flow rate:	0.2 mL/min
Isocratic mobile phase composition:	70% A; 30% B
Injection volume:	15 μL
Temperature:	30 °C
Detection:	MS ESI ⁺
Instrument:	Alliance 2695, Micromass ZQ

MS Conditions

Micromass ZQ ESI⁺

Capillary (KV):	3.0
Cone (V):	30
Extractor:	3.0
RF Lens:	0.5
Source temp.:	150
Desolvation temp.:	350
Cone gas flow (L/Hr):	50

Micromass ZQ ESI⁺

Desolvation gas flow (L/Hr): 500

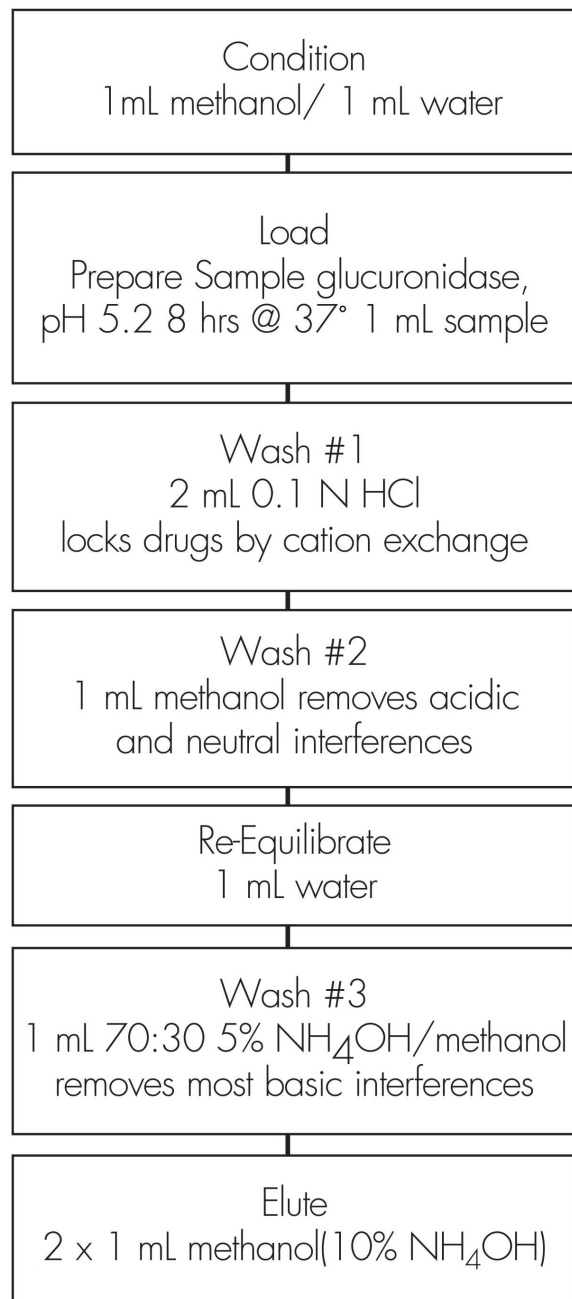
LM resolution: 15

HM resolution: 15

Ion energy: 0.1

Multiplier (V): 650

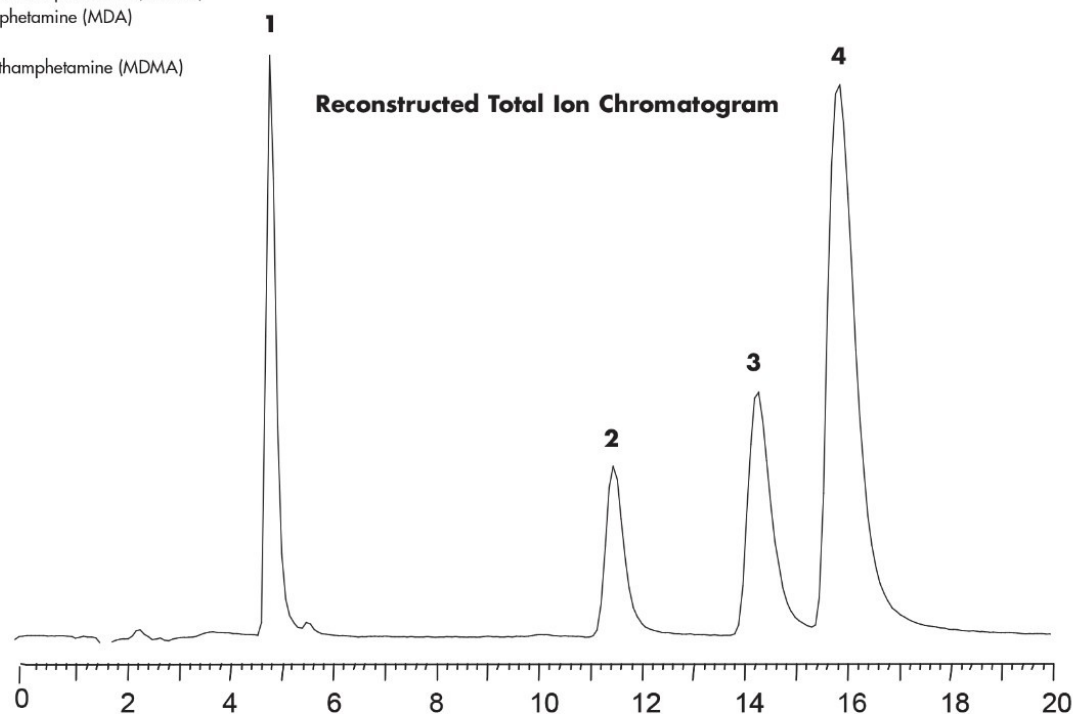
Oasis® MCX Extraction Method
Oasis MCX® 1cc/30mg
186000252



Results and Discussion

Compounds:

1. 4-Hydroxy-3-methoxymetamphetamine (HMMA)
2. 3,4-Methylenedioxyamphetamine (MDA)
3. MDMA-D5 (ISTD)
4. 3,4-Methylenedioxymethamphetamine (MDMA)



Featured Products

- [Alliance HPLC System <https://www.waters.com/534293>](https://www.waters.com/534293)

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