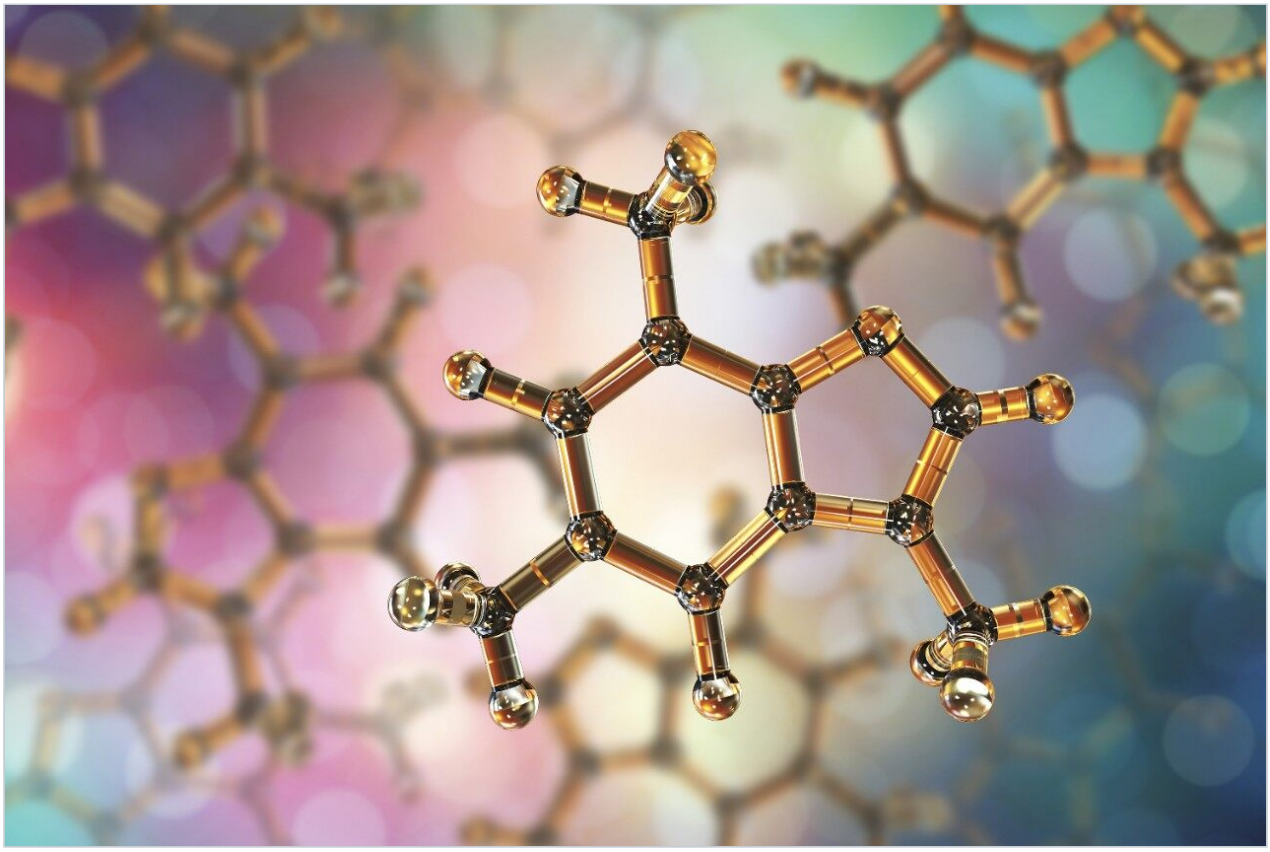
Waters™

Caffeine Metabolites- pH 10.0

Waters Corporation



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

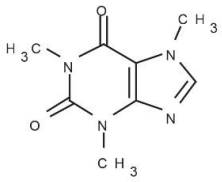
Abstract

This application brief highlights the analysis of caffeine metabolites using XTerra Phenyl Columns.

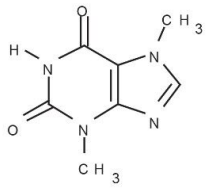
Introduction

The compounds analyzed in this study are:

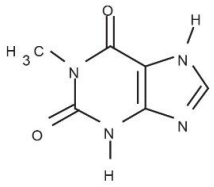
1. 1-Methylxanthine
2. 1, 7-Dimethyluric acid
3. 1, 3-Dimethyluric acid
4. Impurity of 1, 7-Dimethylxathine
5. 1, 7-Dimethylxathine
6. Theobromine
7. Caffeine



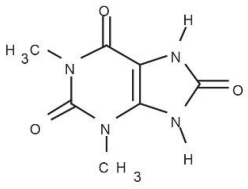
Caffeine



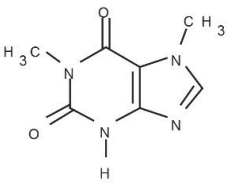
Theobromine



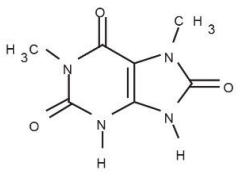
1-Methylxanthine



1, 3-Dimethyluric acid



1, 7-Dimethylxathine



1, 7-Dimethyluric acid

Experimental

Conditions

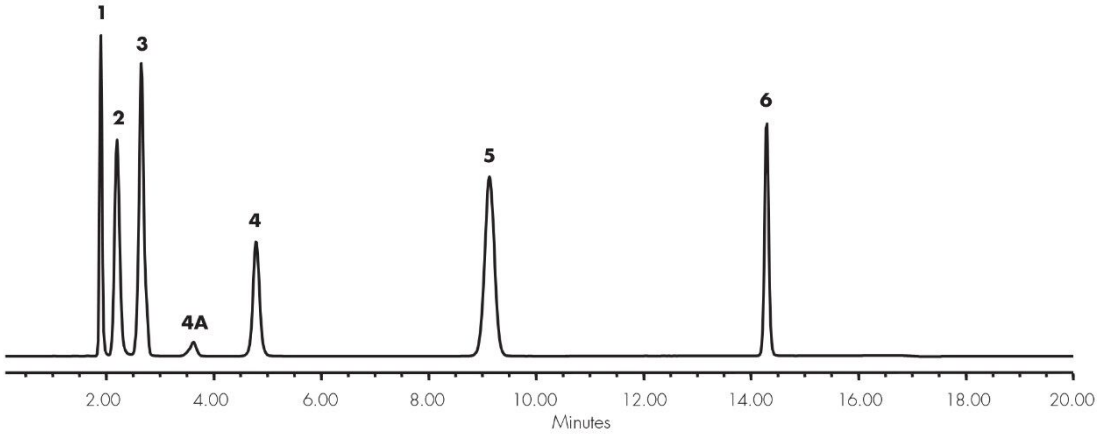
Column:	XTerra Phenyl, 4.6 x 150 mm, 5 µm
Part number:	186001146
Mobile phase A:	H_2O

Mobile phase B:	ACN
Mobile phase C:	100 mM NH_4HCO_3, pH 10.0
Flow rate:	1.0 mL/min
Injection volume:	10 µL
Temperature:	30 °C
Detection:	UV @ 280 nm
Instrument:	Alliance 2695, 2996 PDA

Gradient Table

Time (min)	Profile		
	%A	%B	%C
0.0	90	0	10
8.0	88	2	10
15.0	70	20	10

Results and Discussion



Featured Products

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

2998 Photodiode Array (PDA) Detector <https://www.waters.com/1001362>

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