

Gradient Chemical Stability Study on XBridge HILIC

Waters Corporation



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

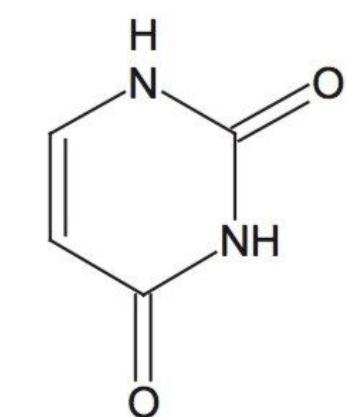
Abstract

This application brief demonstrates the gradient chemical stability study on XBridge HILIC column.

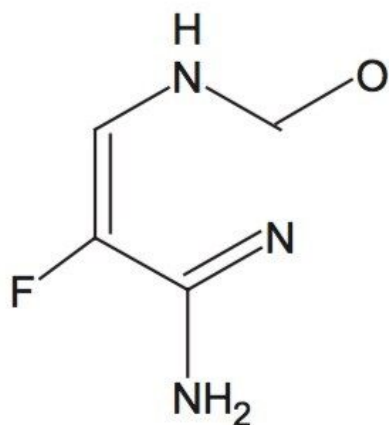
Introduction

The compounds used in this study are-

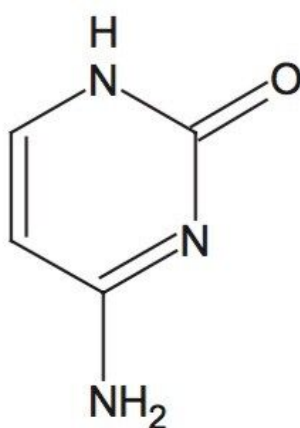
1. Uracil
2. 5-Fluorocytosine
3. Cytosine



Uracil
m.w. 112.09



5-Fluorocytosine
m.w. 129.09



Cytosine
m.w. 111.1

Figure 1. Structures of the compounds used in this study.

Experimental

Test Conditions

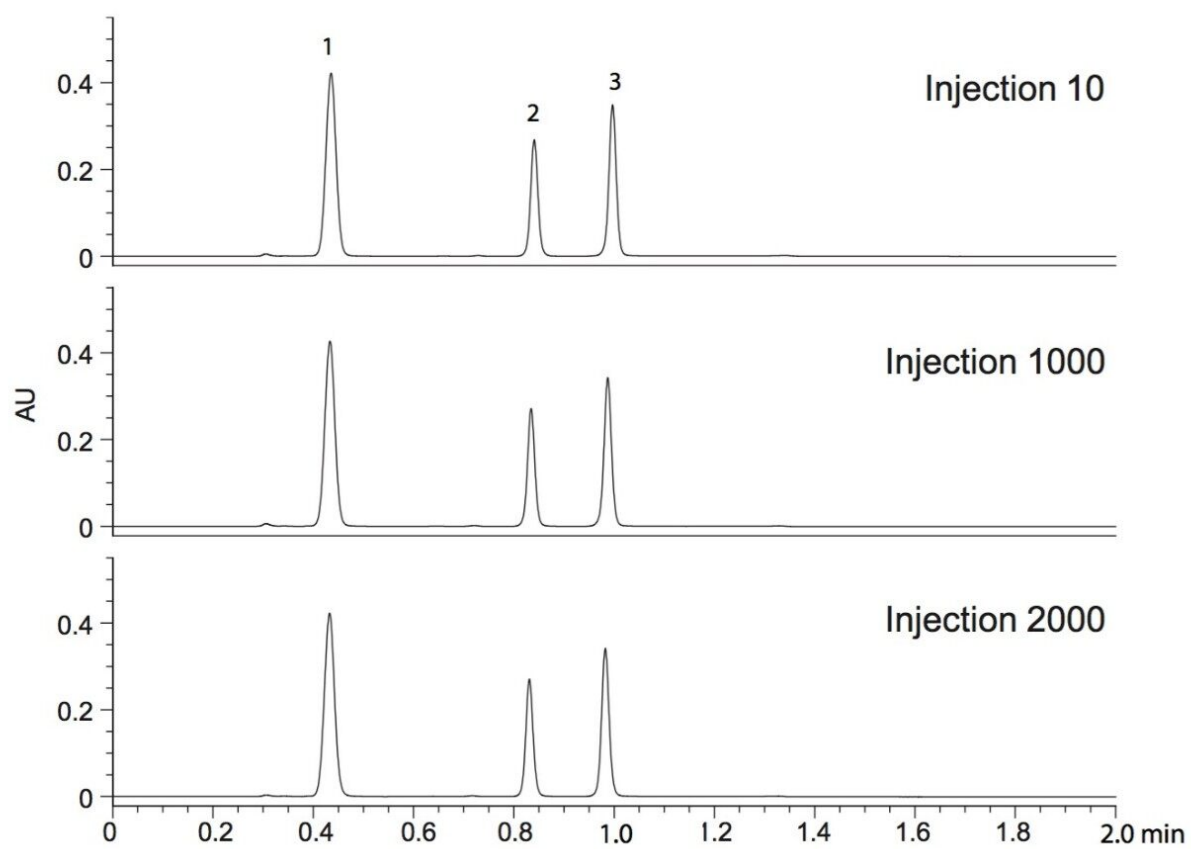
Column:	XBridge HILIC, 2.1 x 50 mm, 3.5 μ m
Part Number:	186004432
Mobile Phase A:	95:5 acetonitrile:water with 10 mM $\text{NH}_4 + \text{CH}_3\text{COO}^-$ pH 5.5
Mobile Phase B:	50:50 acetonitrile:water with 10 mM $\text{NH}_4 + \text{CH}_3\text{COO}^-$ pH 5.5
Flow Rate:	0.5 mL/min
Injection Volume:	2.0 μ L (full loop)
Weak Needle Wash:	95:5 acetonitrile:water
Sample Diluent:	75:25 acetonitrile:methanol
Temperature:	30 $^{\circ}\text{C}$
Detection:	UV @ 254 nm
Sampling Rate:	40 pts/sec
Time Constant:	0.05
Instrument:	Waters ACQUITY UPLC with TUV detector

Gradient:

Time(min) Profile	Curve
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	%A	%B	
0	99	1	6
2.0	1	99	6
2.1	99	1	6
2.5	99	1	6

Results and Discussion



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ACQUITY UPLC System <<https://www.waters.com/514207>>

ACQUITY UPLC PDA Detector <<https://www.waters.com/514225>>

WA64080, August 2009

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