

## Gradient Chemical Stability Study of ACQUITY UPLC BEH HILIC

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Waters Corporation



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

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### Abstract

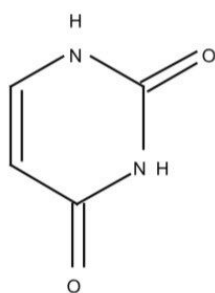
This application brief demonstrates the gradient chemical stability study on ACQUITY UPLC BEH HILIC.

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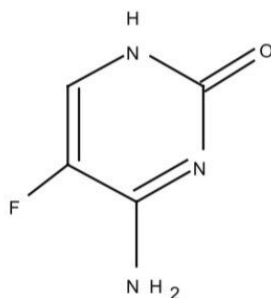
## Introduction

The compounds used in this study are:

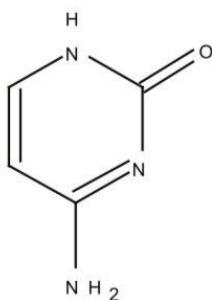
1. Uracil
2. 5-Fluorocytosine
3. Cytosine



**Uracil**  
m.w. 112.09



**5-Fluorocytosine**  
m.w. 129.09



**Cytosine**  
m.w 111.1

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## Experimental

### Test Conditions

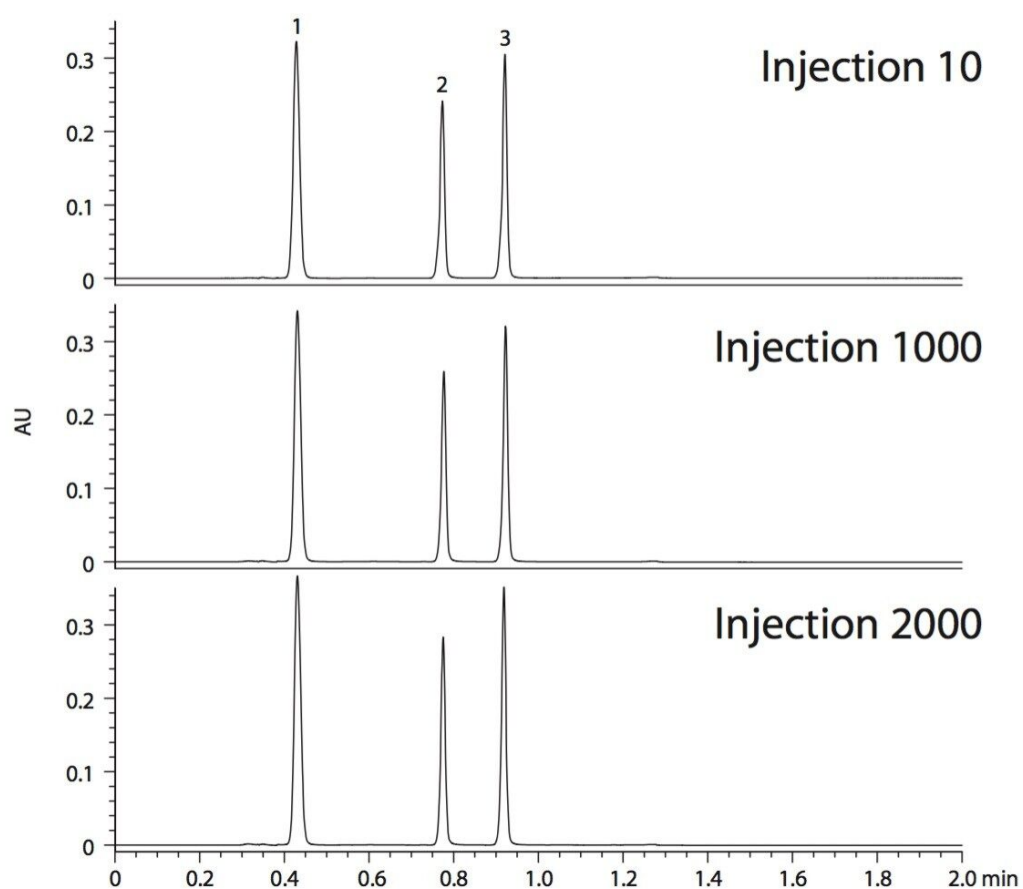
|                   |                                                                                  |
|-------------------|----------------------------------------------------------------------------------|
| Columns:          | ACQUITY UPLC BEH HILIC, 2.1 x 50 mm, 1.7 µm                                      |
| Part Number:      | 186003460                                                                        |
| Mobile Phase A:   | 95:5 acetonitrile:water with 10 mM NH <sub>4</sub> +CH <sub>3</sub> COO- pH 5.5  |
| Mobile Phase B:   | 50:50 acetonitrile:water with 10 mM NH <sub>4</sub> +CH <sub>3</sub> COO- pH 5.5 |
| Flow Rate:        | 0.5 mL/min                                                                       |
| Injection Volume: | 2.0 µL (full loop)                                                               |
| Weak Needle Wash: | 95:5 acetonitrile:water                                                          |
| Sample Diluent:   | 75:25 acetonitrile:methanol                                                      |
| Temperature:      | 30 °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 |
|------------|---------|-------|
|            | %A      | %B    |
| 0.0        | 99      | 1     |
| 2.0        | 1       | 99    |
| 2.1        | 99      | 1     |
| 2.5        | 99      | 1     |

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## Results and Discussion



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## Featured Products

[ACQUITY UPLC System <https://www.waters.com/514207>](https://www.waters.com/514207)

[ACQUITY UPLC Tunable UV Detector <https://www.waters.com/514228>](https://www.waters.com/514228)

WA60133, August 2009

