

Note d'application

# Gradient Separation of Nutrients on 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

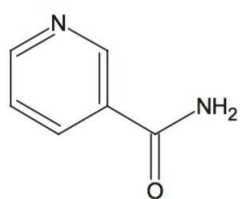
This application brief demonstrates the gradient separation of nutrients on ACQUITY UPLC BEH HILIC Columns.

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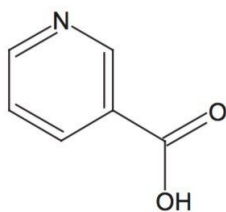
## Introduction

The compounds used in this study are:

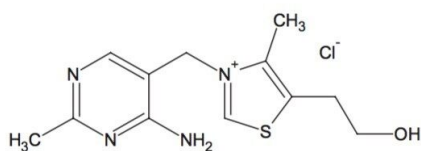
1. Nicotinamide
2. Nicotinic acid
3. Thiamine



Nicotinamide



Nicotinic acid



Thiamine

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## Experimental

### Test Conditions

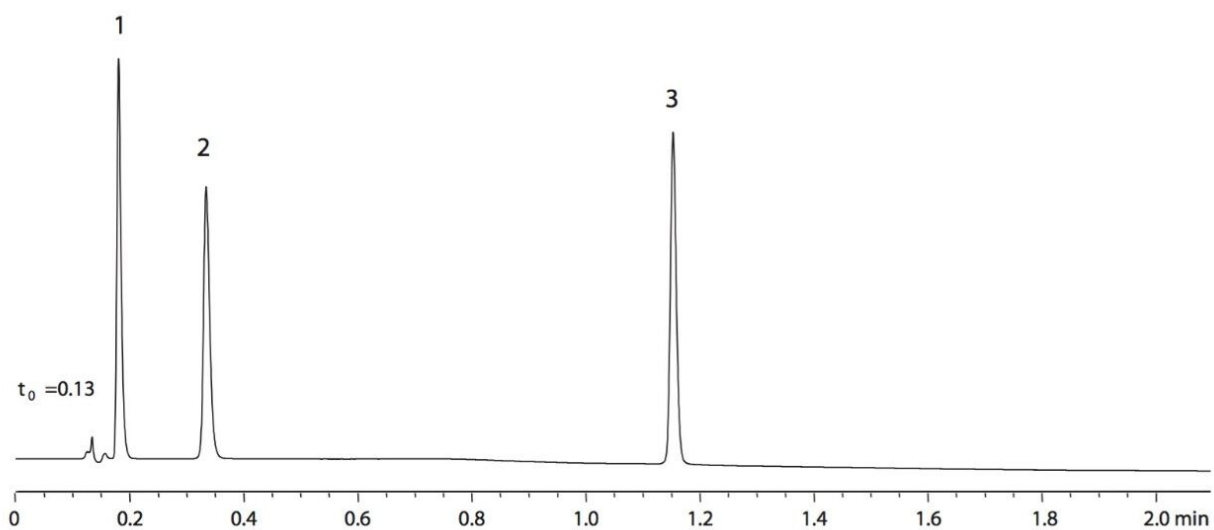
|                       |                                                                                                                   |
|-----------------------|-------------------------------------------------------------------------------------------------------------------|
| Column:               | ACQUITY UPLC BEH HILIC, 2.1 x 50 mm, 1.7 $\mu$ m                                                                  |
| Part Number:          | 186003460                                                                                                         |
| Mobile Phase A:       | 10 mM $\text{NH}_4\text{COOH}$ in $\text{H}_2\text{O}$ , 0.125% $\text{HCOOH}$ in 50:50 ACN: $\text{H}_2\text{O}$ |
| Mobile Phase B:       | 10 mM $\text{NH}_4\text{COOH}$ in $\text{H}_2\text{O}$ , 0.125% $\text{HCOOH}$ in 90:10 ACN: $\text{H}_2\text{O}$ |
| Flow Rate:            | 1.235 mL/min                                                                                                      |
| Injection Volume:     | 5 $\mu$ L                                                                                                         |
| Sample Concentration: | 25 $\mu$ g/mL each                                                                                                |
| Sample Diluent:       | 75:25 ACN:MeOH with 0.2% $\text{HCOOH}$                                                                           |
| Column Temperature:   | 30 $^{\circ}\text{C}$                                                                                             |
| Sample Temperature:   | 15 $^{\circ}\text{C}$                                                                                             |
| Detection:            | UV @ 268 nm                                                                                                       |
| Sampling Rate:        | 40 points/sec                                                                                                     |
| Time Constant:        | 0.1                                                                                                               |
| Weak Needle Wash:     | ACN/ $\text{H}_2\text{O}$ 95/5                                                                                    |
| Instrument:           | Waters ACQUITY UPLC with ACQUITY PDA                                                                              |

## Gradient

| Time(min) | Profile |
|-----------|---------|
|           | %A      |
| 0.00      | 0.1     |
| 0.51      | 0.1     |
| 2.11      | 99.9    |
| 2.19      | 0.1     |
| 2.91      | 0.1     |

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## Results and Discussion



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## Featured Products

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

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

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