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アプリケーションノート

# Gradient Separation of Nutrients on ACQUITY UPLC BEH HILIC

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

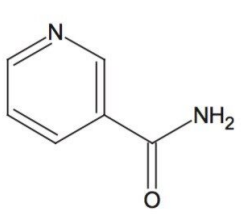
## Abstract

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

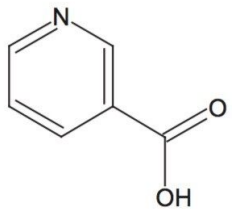
## Introduction

The compounds used in this study are:

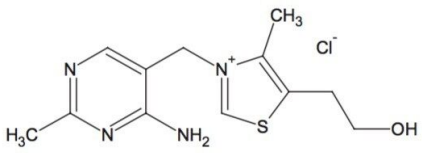
1. Nicotinamide
2. Nicotinic acid
3. Thiamine




Nicotinamide




Nicotinic acid




Thiamine

## Experimental

### Test Conditions

| | |
|---|---|
| Column: | ACQUITY UPLC BEH HILIC, 2.1 x 50 mm, 1.7 µm |
| Part Number: | 186003460 |

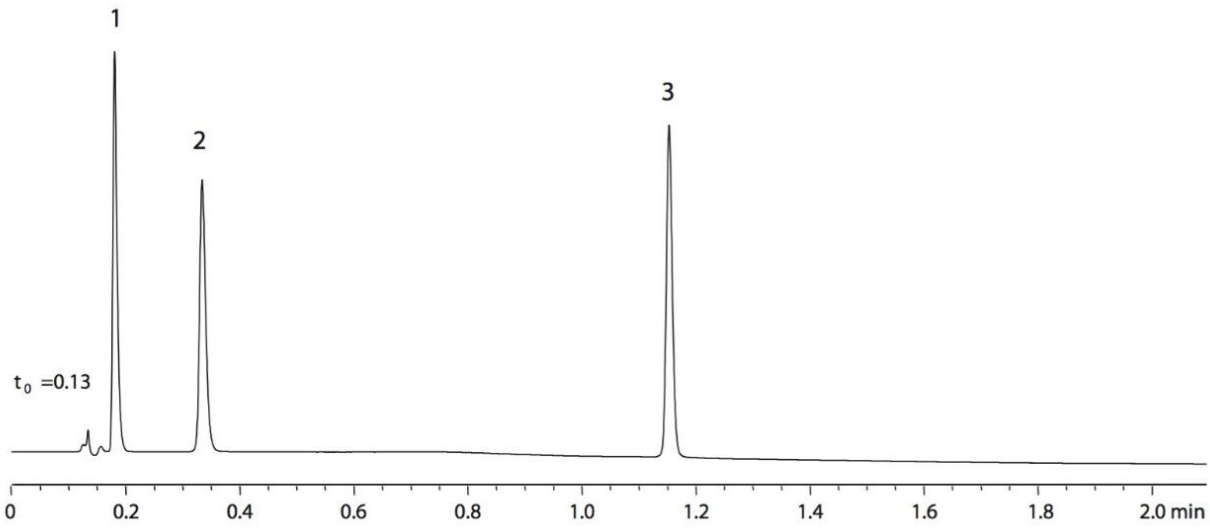
| | |
|---|---|
| Mobile Phase A: | 10 mM $NH_4COOH$ in $H_2O$, 0.125% HCOOH in 50:50 ACN:$H_2O$ |
| Mobile Phase B: | 10 mM $NH_4COOH$ in $H_2O$, 0.125% HCOOH in 90:10 ACN:$H_2O$ |
| Flow Rate: | 1.235 mL/min |
| Injection Volume: | 5 µL |
| Sample Concentration: | 25 µg/mL each |
| Sample Diluent: | 75:25 ACN:MeOH with 0.2% HCOOH |
| Column Temperature: | 30 °C |
| Sample Temperature: | 15 °C |
| Detection: | UV @ 268 nm |
| Sampling Rate: | 40 points/sec |
| Time Constant: | 0.1 |
| Weak Needle Wash: | ACN/$H_2O$ 95/5 |
| Instrument: | Waters ACQUITY UPLC with ACQUITY PDA |

## Gradient

| Time(min) | Profile |
|---|---|
| | %A |
| 0.00 | 0.1 |
| 0.51 | 0.1 |

| Time(min) | Profile |
| --- | --- |
| 2.11 | 99.9 |
| 2.19 | 0.1 |
| 2.91 | 0.1 |

## Results and Discussion

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

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