

Gradient Separation of Nutrients on Atlantis HILIC Silica

Waters Corporation



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

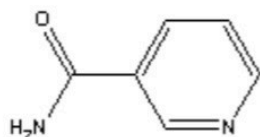
Abstract

This application brief demonstrates the gradient separation of nutrients on Atlantis HILIC Silica Columns.

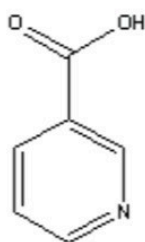
Introduction

The compounds used in this study are:

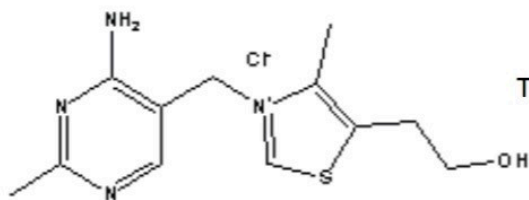
1. Nicotinamide
2. Nicotinic acid
3. Thiamine



Nicotinamide



Nicotinic acid



Thiamine

Experimental

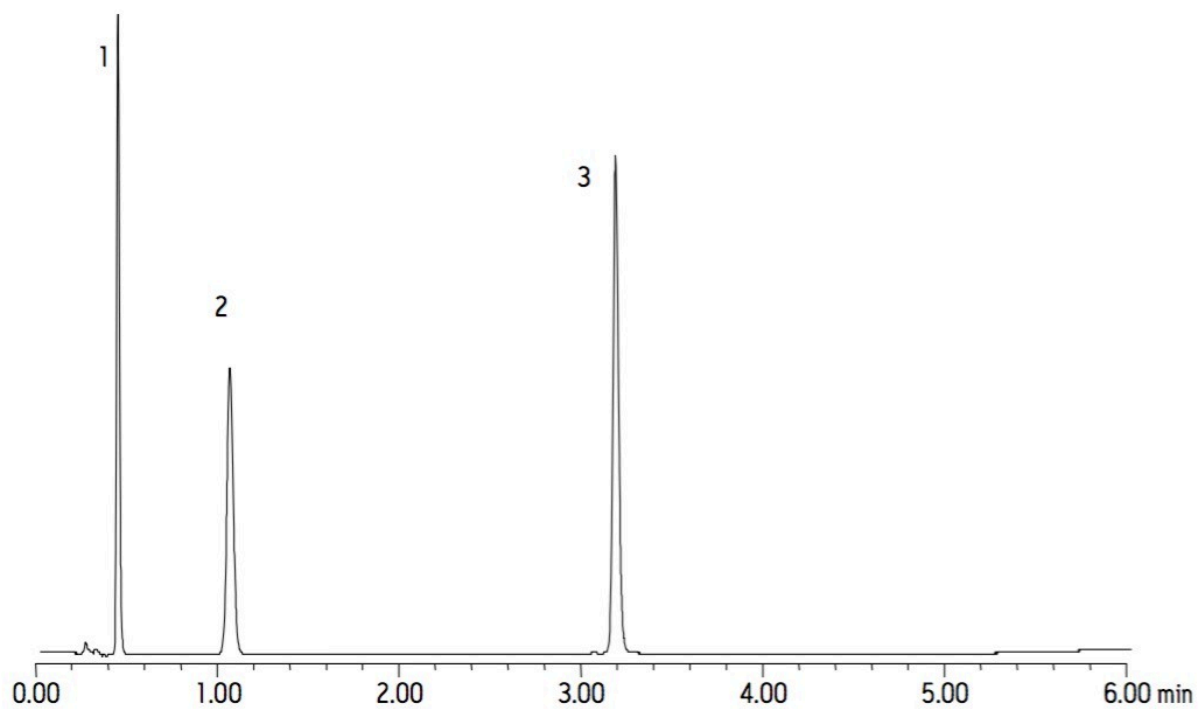
Method Conditions

Column:	Atlantis HILIC Silica, 2.1 x 50 mm, 3 μ m
Part Number:	186002011
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:	0.6 mL/min
Injection Volume:	5 μL
Sample Concentration:	25 $\mu\text{g/mL}$ each
Sample Diluent:	75:25 ACN:MeOH with 0.2% HCOOH
Column Temperature:	30 $^{\circ}\text{C}$
Detection:	UV @ 268 nm
Sampling Rate:	40 points/sec
Filter Time Constant:	0.1
Instrument:	Waters ACQUITY UPLC with ACQUITY PDA

Gradient:

Time(min)	Profile
	%A
0.00	0.1
1.05	0.1
4.35	99.9
4.50	0.1
6.00	0.1

Results and Discussion



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- [ACQUITY UPLC PDA Detector <https://www.waters.com/514225>](https://www.waters.com/514225)

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